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ADVANCED MAGNETIC PROPULSION SYSTEMS
(UFOs, Magnocraft, Free Energy Devices)

by

Dr Jan Pajak

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SCIENTIFIC MONOGRAPH [1e]

Author: Jan PAJAK, Doctor of Technical Sciences, Master of Engineering and Engineer (Technical University of Wroclaw, Poland).

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Contacts with the author of this monograph:
    - All correspondence should be addressed to:
        Dr Jan Pajak
        P.O. Box 33250
        Petone 5046
        New Zealand.
    - E-mails: pajakjan@yahoo.co.nz, jpajak@poczta.wp.pl, janpajak@gmail.com.

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<u>Chapter A</u>:

INTRODUCTION

"Today's theories shape tomorrow's reality" and "tomorrow's standard of living will depend on the success of today's theories". These old truths, having proved themselves so many times in our history, should make us responsible for the creation, development, distribution and implementation of new scientific theories. Being aware of this responsibility, the author submits in this monograph his three theories concerning: (1) a completely new principle of propelling space vehicles (i.e. the Magnocraft), (2) the operation of a new device able to produce a magnetic field of theoretically unlimited strength and capable of storing non-restricted amounts of energy (i.e. the Oscillatory Chamber), and (3) the principles of telekinetic motion, including the operation of technological devices that supply telekinetic motion for the purposes of spaceships' propulsion and free energy production (i.e. the Concept of Dipolar Gravity). If any of these theories were to be implemented practically, not only would our world be reconstructed in all energy-related areas, but every aspect of our lives would also be changed drastically - beginning in the political arena (promotion of a world leader), through social and economic transformation (opening unlimited cosmic resources for colonization and exploitation), and concluding with our style of living (replacing our stationary homes with movable spacecraft).

All the ideas and inventions presented in this monograph have been formulated by one person only, i.e. the author. Although some of their elementary components have been commonly known for a long time, no-one has synthesized them before in the form of the theories presented in this publication.

No theory is able to implement itself. It is people who turn ideas into reality. Therefore the monograph that follows will only present goals and potentials, but their actual achievement will depend on the good will and the determination of all of us. It can not be denied that the introduction of a breakthrough is an extremely difficult task, for it not only requires titanic effort to make important discoveries, but it also takes great men to follow through with the implementation of them.

<u>Note</u>: the views/theories expressed in this monograph are solely those of the author and are not representative of the institution in which the author is currently employed.

A1. <u>The organization of the monograph</u>

The unconventional organization of this monograph requires an explanation. It is structured as a set of individual chapters, each of them marked consecutively by a letter of the alphabet: A, B, C, D, ..., etc. Every item that concerns a particular chapter, i.e. pages, diagrams, tables, equations; is labeled with the letter assigned to this chapter, which is then followed by the consecutive number of this item in the chapter.

A2. <u>Reference to resource publications</u>

For scientific exactitude, each time the deductions contained in this monograph are supported by some data originating from other publications, the author has provided the reference to the resource material. Such a reference is given in square brackets that contains the number of a particular publication followed by the chapter or subsection number in which this publication is detailed. For example a reference indicated as "[3J]

page 78" means: for the indicated detail look at page 78 in the third publication listed at the end of chapter "J".

Notice that this monograph refers to two kinds of resource publications, i.e. single use and multiple use. Reference to single use publications appears only once in the entire monograph. For this reason the details of these publications are given "on the spot" when the reference to them appears. The label of these single use publications consists also of the number of subsection in which they are listed, e.g. [3J2] means: the third publication listed within the subsection J2. Multiple use publications are listed at the end of the chapter which contains the most references to this publication.

A3. This monograph formally proves that UFOs do exist

One of the achievements of this monograph is that it presents formal proof that UFOs do exist. This proof is put forward by the author in order to show that the Magnocraft's concept is correct and valid. The basic assumption made here was that: if we can prove that some extraterrestrial civilization already uses the Magnocraft, then this also would mean that the entire theory behind the Magnocraft is correct and that this vehicle definitely can be built. Putting this in other words, proving that "UFOs are already operational Magnocraft" has the same value as the actual presentation of a working model of the Magnocraft.

After proposing the above assumption the author proceeded with formulating formal proof that "UFOs are already operational Magnocraft". The scientific methodology applied to this is that of "matching the attributes". To briefly explain this methodology, it compares subsequent attributes that describe (belong to) two objects, then depending on how these attributes match each other it reasons about the objects themselves. In the case of the discussed proof, two following sets of attributes were used in comparisons:

(1) those which describe the Magnocraft - they were derived theoretically from the "Theory of the Magnocraft", and

(2) those which describe UFOs - they were gathered empirically from the sighting of UFOs.

Because both these sets of attributes match each other perfectly, the objects that they describe must represent vehicles that operate in an identical manner.

Technically, each of the compared vehicles, i.e. UFOs and the Magnocraft, were described by 12 classes of non-related attributes. A list of these is provided in subsection G12. Within each class a large number of individual attributes were compared. For example within the class of "ability to couple into flying arrangements" (see subsections G3 and J2.2) as many as 8 individual arrangements of these vehicles were subjected to comparisons (i.e.: #1 - spherical flying complexes (compare Figures G7 and J11, J26, J30), #2 - cigar-shaped complexes (compare Figs G8 and J12), #3 - fir-tree complexes (Figures G10 and J13), #4 - detached configurations (Figures G13 and J14, K4, L1), #5 - semi-attached configurations (Figures G11, G12 and L2, J15), #6 - carrier platforms (Figures G14 and J16), #7 - flying systems (compare Figure G16 and Figures J10 - shape D/2, M12), and finally #8 - flying clusters (see Figures G17 and M13)). The effect of describing both vehicles by 12 classes of attributes is that all possible differences between the Magnocraft and UFOs can be identified with extreme precision. The enormous potential of differentiating between objects whose 12 attributes can be varied, illustrates the following hypothetical example of building a series of distinctively different flying vehicles. This series is assumed to comprise only the vehicles which differ from those previously completed by not less than one (out of 12) attribute. The calculations show that such a series should contain something between $2^{12}=4096$ and as many as $12!=4.79 \cdot 10^8$ different vehicles (depending on how many variations each of these 12 attributes takes). Practically this means that if we built one such vehicle a year starting immediately after our civilization began, we would still not be able to complete the entire series (for comparison our

civilization has built flying vehicles for no longer than two centuries and during this time only three new kinds of such devices have been completed, i.e. balloons, aeroplanes and space rockets). The above example illustrates that the purely coincidental match of all 12 classes of Magnocraft's and UFOs' attributes is impossible. Thus, from the mathematical probability point of view, the confirmation that such a total match in fact occurs, suffices as formal proof that "UFOs are already operational Magnocraft".

It should be stressed that the proof based on "matching the attributes" in definition allows unlimited numbers of comparisons (i.e. every fact gathered from a UFO sighting can be compared to a corresponding fact derived theoretically from the Magnocraft). Therefore, this kind of proof still remains valid even if the individual attributes of UFOs that it utilizes for some reason could not be validated. This characteristic of the proof presented here neutralizes the basic strategy of sceptics being used so-far to abolish previous attempts of proving the existence of UFOs. We know that all these previous attempts were based on single facts (e.g. single sighting, single event, single material evidence, etc.). Therefore after the sceptics put this single fact in doubt, the entire proof was invalidated. For the proof presented here this strategy of sceptics would simply not work. In order to put it in doubt they would need to prove conclusively that all the evidence of UFO manifestations is non-existent (philosophically, proving this is impossible). For this reason the deductions presented in this monograph are "sceptics proof".

The formal proof that UFOs do exist is presented in chapter J, especially in its subsection J2 with conclusions in subsection J3. Those people whose vital interest in UFOs prompt them to look at this proof first, are welcome to start the reading of this monograph there. But the first part of chapter B (including subsection B4.1) should be read beforehand to learn basics about the Magnocraft, and then the introduction to chapter J (i.e. pages J-1 to J-3) should also be looked at. While proceeding with subsection J2, frequent excursions to the appropriate descriptions from chapter G should be made in order to learn the details of the Magnocraft's attributes that are referred to in the course of deductions.

A4. How to read this monograph

Scientific theories, unlike popular books, must be presented in a certain order. Firstly a kind of foundation must be formed and then the rest of the deductions are built up like a pyramid. This monograph has also been written in such a way. But this construction means that the most difficult and weighty material is presented first. So some non-technically minded readers may balk at the very beginning of chapter F, giving up before reviewing the next chapters which consist of much more comprehensible material. Therefore the author recommends reading this monograph in a different order from that in which the logic of deduction forced it to be written. This suggested order is as follows:

#1. A brief familiarization with the flying vehicle called the Magnocraft. For this:

- The introductory part of chapter G presents the rationale for building the Magnocraft.

- Subsection B4.1 explains its general design and operation.

- Subsection G13 reviews the most spectacular capabilities of this vehicle.

#2. Reviewing the summary on the device called the Oscillatory Chamber, which provides the Magnocraft with its propelling powers (i.e. the Oscillatory Chamber is an "engine" for the Magnocraft).

- Subsection F1 explains why there is a necessity to replace the electromagnets by Oscillatory Chambers.

- Subsection F9 illustrates what kind of device we are talking about.

- Subsection F3 provides an idea of the future appearance of the Oscillatory Chamber.

- The introductory part of chapter L lists the most commonly known evidence confirming the validity of the chamber's principles.

#3. Learning why the Magnocraft sooner or later must be built.
For this:

- The introductory part and first three subsections of chapter B reveal that the development of new propulsion systems is governed by a certain law, called the Periodic Principle, which requires the Magnocraft to be the next type of vehicle completed on Earth.

- The introductory part of chapter C reveals that there is no other alternative for us than to build the Magnocraft.

#4. Realizing that a source of ready technical information on the Magnocraft can be available.

- The introductory part of chapter M shows that there is an overwhelming material evidence available which documents that some other civilization continually uses on Earth spaceships (called UFOs) identical to the Magnocraft. This evidence suffices for the construction of a formal proof that "UFOs are already operational Magnocraft" (presented in chapter J).

- The introductory part of chapter J informs the reader that the formal proof presented in chapter J (that "UFOs are already operational Magnocraft") enables a more rapid completion of the Magnocraft through implementing in it the technical ideas observed on UFOs.

After completing the above sections, the reader is in a better position to begin the systematic reading of the entire monograph. Now the deduction that follows should be easier to understand.

A5. <u>The history of this monograph</u>

In 1972 the author conducted a series of lectures for students of the Technical University of Wroclaw (Poland) which included selected aspects of propulsion systems. For the purpose of these lectures he prepared a systematization of the propulsions hitherto completed on Earth, which, after being presented in the form of a Table similar to the one provided in chapter B (see Table B1), revealed a surprising regularity in the inventions of the Earth's propulsion systems. This regularity, later called the "Periodic Principle" in the development of propulsion systems, was first published in 1976 - see the article [1A]. The present form of the Periodic Principle is described in chapter B. One of the consequences of discovering this regularity was realizing that the commonly known electric motor is only the first of four different propulsion systems which will utilize a magnetic field. The next of them (i.e. the Magnocraft) will be an extension and improvement of the principles of operation applied in the electric motor, but utilized within a flying vehicle. This next magnetic propulsion, according to the Periodic Principle, should be completed before the year 2036.

The discovery of the Periodic Principle initiated a series of research investigations and inventions which in 1980 produced the first paper (see article [2A]) containing a complete description of the Magnocraft's design and principles of operation.

Simultaneously with the research on the Magnocraft, the author also conducted an intensive search for the principle of magnetic field production that would allow for an unlimited increase of produced outputs. The aim here was extremely difficult to achieve, and during the last two centuries numerous other scientists had already failed to find such a principle. However, the author had the good fortune to succeed and in 1984 the principles of a new device called the Oscillatory Chamber were published in the monograph [1F] entitled, "Theory of the Magnocraft".

Between 1980 and 1986 various papers describing the Magnocraft and the Oscillatory Chamber were published. The most important of these were the two first monographs listed at the end of chapter F - see [1F] and [2F]. In 1986 the author decided to combine the most important topics, covered in the publications named above, and started to prepare the first formulation of the monograph (initially under a different title - see [3F])

which, after numerous transformations and improvements, reached the final version represented by this publication.

It should be stressed here that the ideas presented in this monograph release strong reactions in many people. The author experienced such reactions while conducting his research. In general, they can be classified into two extremes. One group of people shows disapproval and hostility towards the ideas. Some of these individuals have tried to prevent the dissemination of his work by exerting various pressures on the author, including administrative repression, professional discrimination, and psychological pressure. On the other hand, another group of people has shown ever-increasing support and encouragement to the author and his research. Interesting results are shown from an analysis of the background of the people who represent both these opposite sides. The condemning stand is usually taken by officials who represent the establishment (e.g. academics who occupy administrative positions at universities, politicians, professionals). It appears that some people feel threatened by ideas from this monograph. The supportive group includes people who have opened themselves to new ideas. Examples of these include scientists involved personally in conducting some kind of pioneering research, people who have seen UFOs, practitioners of alternative medicine and alternative lifestyles. Thanks to these supportive people, continuation of the author's research to the stage presented in this monograph was possible, in spite of the condemnation of others.

It is worth mentioning here that the author's native language is Polish and that he learned English after he arrived in New Zealand eight years ago. This means that all publications by the author still require checking of his English. Therefore, out of all the supportive people, a special contribution was provided by those who verified the correctness of English used in the author's subsequent monographs. Ms Prudence Buttery of Christchurch, New Zealand, undertook the task of improving the English in this edition of the monograph. The author wishes to take this opportunity to thank her for this important contribution.

A6. The aims of this monograph

It is understandable that the limited size of this publication does not allow every possible solution to be presented and every possible question to be answered. This would be like trying to describe fully the supersonic aeroplane in one volume and then expecting a reader, who had no previous knowledge of it, to become fully familiar with every detail. We must also remember that the Magnocraft is a much more advanced vehicle than an aeroplane. So it should not be expected that after reading this monograph everyone will be able to build his/her own Magnocraft. There is, however, a number of other goals that the author is trying to achieve in this publication. These goals are:

1. The presentation of the philosophical basis for the ideas presented in this monograph,

2. The presentation of the phenomena, laws and principles involved in the magnetic propulsion of flying vehicles,

3. An explanation of the operation of magnetic propulsion,

4. Proof of the validity of the ideas presented, from a logical, physical and technical point of view.

5. A discussion of the design and specifications of vehicles applying magnetic propulsion.

6. The creation of a platform for the discussion and verification of the theories presented here.

7. The formulation of a scientific basis which will facilitate further applied research.

The author hopes that the future will confirm the merit of these goals.

A7. Sponsorship for the building of the Oscillatory Chamber is sought

The path to the completion of all the devices described in this monograph will be cleared the moment the Oscillatory Chamber is built. Therefore at present the building of the Oscillatory Chamber is a primary goal, on which the efforts of all of us should be concentrated.

After wide discussion on the Oscillatory Chamber, initiated in January 1984 and involving scientists and engineers from a number of countries, not a single significant error was detected in the formation of the principles of this device. It is obvious, that if such an error existed, it would inevitably have been found by now, as it would require these principles to run against some known tenets of physics. Therefore this failure to reveal any error entitles us to conclude that the principal foundations of the Oscillatory Chamber should be recognized as correct. Now the time is ripe to begin the physical completion of this device. The factor that still prevents the Oscillatory Chamber from being built is technology. The mastering of this technology is at present the main goal of the author of this monograph. To achieve this goal a sponsor needs to be found who will finance and promote the experimental research on the Oscillatory Chamber. This monograph is dedicated to gaining the attention of any person, institution or organization that is in a position to become such a sponsor.

The history of technical development supplies us with a number of examples in which a theoretically correct idea didn't have the appropriate technology at the moment of its conception (e.g. atomic energy, supersonic aeroplanes, the landing of men on the Moon). However, the power of the human mind, the belief in logic and the might of a collective effort by many people has always made it possible to overcome all obstacles to reach the goal. We must hope that the building of the Oscillatory Chamber will follow a similar course.

The involvement in the completion of the Oscillatory Chamber appears to be difficult and expensive, but in fact it is rather a matter of eagerness and conditions than money. Almost every middle-sized university possesses at its disposal all the necessary equipment and instruments for the completion of this device. Its material requirements are almost none (see subsection F3). The building of it seems to depend more on the finesse of the experiments and the profundity of the deductions than on the sophistication of accessible laboratory equipment or availability of materials. Now it is probably just a matter of time before such devices become operational. The author is prepared to complete the Oscillatory Chamber by himself, with only minor financial assistance and slight intellectual stimulation on the part of other scientists. However, the consequences of his emigration from Poland have put him at a disadvantage, and he may need a number of years to restore without help the appropriate conditions for research.

The probability that the Oscillatory Chamber will be completed within five years by the author, supported by some advice from a small team of scientists representing expertise in the areas involved, i.e. electrical fields, sparks, hydrodynamics, electromagnetism, material engineering, etc., can be estimated at the level of about 70% - if the appropriate conditions of research are assured (i.e. access to a high voltage laboratory, an adequate scientific library, technical back-up of research in necessary areas, e.g. producing the experimental devices, setting up instruments, helping with experiments, etc.). Furthermore, a consideration of the very important goals that this device will give to the country or organization sponsoring this research, at the rather insignificant costs that it seems to require, makes this project worth trying, even with a much lower probability of success.

On the other hand, it is also worth considering the consequences of not taking the opportunity to sponsor the completion of the Oscillatory Chamber. The military capabilities of this device presented in subsection F9 (see page F-30) and revealed in subsection G13, stress the political aspect of building it. Who will build the chamber first is just as important as whether it will be completed at all. Those who are in a position to assign funds for

experimental research on the Oscillatory Chamber should perhaps bear this in mind. If it is decided to support this research, and the completion of the chamber proves impossible at present, only the funds invested will have been placed in jeopardy. But if investment in this device is refused, and someone else, by completing the Oscillatory Chamber, proves that the author was right in his predictions, then a lot more than money could be at stake.

A8. Constructive criticism as a motive force for the further development of the Theory of the Magnocraft

The Magnocraft and Oscillatory Chamber are comparable to a car and its engine: they will never attain a state of absolute perfection and therefore they will always have some aspect which needs to be changed or improved. But the introduction of any improvement will require the prior detection of possible weak spots in these inventions. For centuries constructive criticism has proved itself a valuable means of detecting weak spots in any idea or product. Therefore the author welcomes an independent and broad-minded exchange of views. Any criticism or other comments will be deeply appreciated, and should be sent to the address provided on the copyright page.

A9. Milestone Journal articles by the author

Since the research on the Magnocraft was initiated in 1972 the author has published a number of Journal articles which constitute important milestones in the formulation of the theories presented in this monograph. Although the chapters that follow contain updated presentations of the topics discussed in all these articles, for historic exactitude the most significant of these are listed below.

[1A] "Teoria rozwoju napędów" (The theory of propulsion development), Astronautyka {Poland}, no 5/1976, pages 16 to 21. This article, written in the Polish language, presented for the first time the Periodic Principle which in this monograph is discussed in chapter B. It was extremely important for the Magnocraft as it initiated the entire research and indicated the correct direction of the research.

[2A] "Budowa i działanie statków kosmicznych z napędem magnetycznym" (Spaceships with magnetic propulsion design and principles of operation), Przegląd Techniczny Innowacje, no 16/1980, pages 21 to 23. This article, written in Polish, contained the first presentation of the Magnocraft's design and principles of operation. Its content summarized the present chapter G.

[3A] "Konstrukcja prosto z nieba" (A confirmation for a spaceship's idea comes from space), Przegląd Techniczny Innowacje, no 12/1981, pages 43 to 45. This article, presented in Polish, contained the first presentation of formal proof that "UFOs are already operational Magnocraft". An extended and improved presentation of this proof is contained in chapter J.

[4A]. "Czy UFO są Magnokraftami?" (How UFOs compare with Magnocraft). Horyzonty Techniki {Poland}, no 5/1984, pages 15 to 24. This article, written in Polish, contained the deduction of equations that mathematically describe the Magnocraft's (and UFO's) external shape. Similar deductions are provided in subsection G4, whereas the final equations are listed in Figure G23.

[5A]. "Gravitation Als Dipolare Felder" (The Concept of Dipolar Gravity), Raum & Zeit {West Germany}, no 34, June/July 1988, pages 57 to 69. This article, written in the German language, contains a summary of the Concept of Dipolar Gravity which in this monograph is presented in chapter D.

[6A]. "Operational free-energy devices propelled by accelerated magnetic fields", Tuning In (PO Box 255, Ivanhoe, Vic. 3079, Australia), Vol. 1 no. 6, May 1990, pp. 26-35; and Vol. 1 no. 7, July 1990, pp. 20-35.

This article contains the first description of free energy devices presented in subsection B6.

Notice that independently from the above Journal articles the author published a number of monographs whose subsequent editions are listed at the end of chapter F (see subsection F10).

<u>PART 1</u>.

THE PHILOSOPHICAL FOUNDATIONS

If we wish to reveal a single factor that represents the source of success or failure for individual people, entire nations or even civilizations, we would choose philosophy. For some people philosophy is the vehicle which arouses their intellectual explorations. For other people it is a barrier that limits their minds, impedes progress and robs them of the joy of life.

Philosophy is one of the oldest human disciplines. But it is also one of the most chaotic and unsuccessful disciplines, as is expressed by John Devey in his book "Philosophy of Education" (Littlefield, Adams & Co., Peterson, New Jersey, 1961, p. 3):

"There is not in our contemporary situation an authoritatively accepted body of doctrine called 'philosophy' for which duly accredited spokesmen can pretend to speak. There are philosophies and philosophers, and they differ philosophically".

For various reasons philosophy has not developed yet many attributes so characteristic for successful disciplines (e.g. engineering, physics, chemistry). For example philosophy has no clear definition, philosophical principles are non-verifiable by experimental means, philosophical laws do not seem to be clearly formulated and widely accepted. The best evidence for how unsuccessful the present philosophy is can be provided by everyday life. Each one of us applies a different personal philosophy in everyday situations without looking at the findings of experts concerning these situations. We may realize what this actually means when considering what would happen if every surgeon would have his/her own idea about the structure of the human body, or if every electrician would differ in his/her view on the laws that govern the flow of electrical currents. There are many similarities between the present state of philosophy and the state of physical sciences in some primitive, non-technological civilizations. And just as disorder in physics prevented some civilizations from technological development, probably also the chaos in our philosophy will prevent us from achieving further intellectual advancement.

The present state of our philosophy is reflected in the attitude of people towards new ideas, unexplained facts (e.g. UFOs), non-conventional thinking, individual differences, etc. Since the first publications on the Magnocraft brought various feedback from readers, it became obvious that for many individuals the main barrier in the accepting the idea of this vehicle is their personal philosophy. The majority of people who reject or doubt the Magnocraft, in fact have no rational motivation to do so. They are not able to indicate any error or fallacy in the vehicle's principles. Also they can not provide any objective reason for their refusal of the acceptance of this idea.

In order to overcome the philosophical barrier that prevents some people from accepting the idea of the Magnocraft, in four chapters B, C, D, and E that follow the author has presented some results of his selective research concerning philosophical foundations of the Magnocraft. Reading these three chapters should realize the background of the Magnocraft's invention and assure a better understanding of the new concept of interstellar travel that this vehicle introduces. The knowledge of the philosophical foundations behind the Magnocraft may also help to neutralize some non-realized sources of subconscious resistance against accepting the idea of this vehicle.

Chapter B.

THE PERIODIC PRINCIPLE IN THE DEVELOPMENT OF PROPULSION SYSTEMS

The name "Periodic Principle" is given to the general regularity (or symmetry) which governs the inventions of subsequent devices that belong to the same category, or which can be found in subsequent discoveries relating to the same type of phenomena. This regularity has the effect that every new device built follows the same universal pattern which is repetitive, predictable and valid for all possible devices of a given category. Knowing the pattern that this Principle reveals, it is possible to predict the order of completion of future devices (or discoveries), their principles, operation, and also the approximate year when they will become implemented.

The Periodic Principle represents the operation of a more general law, called the "Principle of the Symmetry of Nature" (see description contained in subsection D1), after it is related specifically to inventions and discoveries. The example of the first historically famous application of the Periodic Principle was the formulation of the "Mendeléev Table" (also called the "periodic table of the elements").

The discovery of the Periodic Principle was the consequence of a series of lectures about "selected aspects of propulsion systems" given by the author in 1972 for students of the Technical University of Wroclaw, Poland. During the preparation of these lectures he noticed that the operation of propelling devices built so far on Earth form a symmetrical pattern, shown in Table B1. He called this pattern the Periodic Principle, and he illustrated its operation with a specially constructed table called the "Periodic Table". For the first time the description and implications of this table were presented in an article "Teoria rozwoju napędów" ("The theory of propulsion development"), published in the Polish Journal Astronautyka, number 5/1976, pp. 16-21. Later he discovered that the Periodic Tables can also be constructed for all other possible devices, not only propelling ones. The Periodic Tables represent a different implementation of the same general law that allowed the formulation of the "Mendeléev Table", with only this difference - that they are designed specifically for technological devices instead of elements. Similarly, as is the case with the Mendeléev Table, the analysis of Periodic Tables allows for the prediction of the future evolution of a particular type of device. This enables us not only to determine what implementations (models) of this type of device are still to be discovered, but also to define how these implementations will operate and what their properties and specifications will be.

One of the consequences of discovering the Periodic Principle is the awareness that the electric motor, built by Jacobie around the year 1836, must have a follow-up in the form of a magnetic propulsor. This propulsor should become operational before the year 2036. It will be utilized in the vehicle called the Magnocraft, and its operation will employ the same interactions between magnetic fields which are the basis of the principles of the electric motor.

The discovery of the Periodic Principle will introduce revolutionary consequences for our future progress. This is because it completely eliminates the random factor in the process of invention, i.e. the personality of an inventor. From now on, a formal methodology (or even a computer program) can be developed which, by utilizing the Periodic Principle, will be able to determine with high accuracy not only the principles of operation of future propelling devices, but also their design and specifications. Therefore, the Periodic Principle closes the previous period of invention, and opens a completely different period of systematic synthesizing of subsequent new devices that fulfils the "general plan" defined by the laws of the universe.

The operation of the Periodic Principle was initially worked out from the example of the development of propelling devices. However, evidence already gathered confirms that a version of this Principle also operates in every other field of our technical development (e.g. see Table B2). Therefore, after appropriate modification, the Periodic Principle may allow

for the introduction of a strict methodology into every area which until now was developed through inventions or discoveries.

B1. Everything in our environment, including the formulation of inventions, is governed by appropriate laws

We are ready to accept the fact that everything around us is governed by natural laws. No one is surprised that scientists create new technologies and design new machines making use of these laws. Some of us complain about economists who overlook some economic laws, thereby making our life more difficult. We criticize weather forecasting, while at the same time realizing that it is done when not all the atmospheric and climate laws are known or understood. But we are surprised by the statement that scientific discoveries and the creation of new ideas are also governed by particular laws.

The discovery of the Periodic Principle reveals that the process of inventing is not a spontaneous activity that happens at random. It rather seems to be a controlled and predictable consequence of the intellectual state that our civilization reaches at a particular level in its development. It seems that inventions and ideas are always ready and waiting in the "counter-world" (explained in subsection D2) and some more sensitive individuals have the ability to view and extract them continually. But in order to recognize their meaning and to crystallize their final shape, it is necessary for the civilization in which inventors live to achieve an appropriate level of awareness.

There are two separate components of the Periodic Principle. Their conjunction culminates in the creation of a new propelling device. These are:
1. The conceptual crystallization of an idea,
2. The physical completion of a device.
Both of these components are governed by different types of laws. The conceptual crystallization is ruled with an iron hand by the set of laws related to physics and mathematics. They determine the operation of subsequent devices, the order of their appearance, and also the approximate time when our civilization will be mature enough to complete them. Moreover, they ensure that in each generation there are a few individuals who can sense a future device and crystallize in their minds its concept.

But as we may realize from the content of this monograph, possessing the final concept of a new device does not automatically guarantee its future construction. This is because the physical completion of a new propulsion is governed by different, sociological laws. The author does not worked out yet their content completely, but he has noticed that they impose a set of very restrictive social, moral, educational and philosophical requirements on the nation which is first allowed to complete a new propulsion system. Subsequent chapters from this part of the monograph try to identify some of these requirements (especially chapter E). It appears that the laws of the universe prevent unsound nations from overtaking others in the race for the most powerful propelling device.

B2. The basics of propulsion

The name "propulsion" is given to a device which is able to produce the motion whose parameters, form, and timing have been previously defined. Therefore the characteristic attribute of all propulsion systems is that every aspect of the motion produced by them is controllable or is maintained on a constant and predictable level. Examples of propulsion are: the electric motor, the wheel of a car, and helicopter blades.

There are two main types of propulsion that are currently in use. The first of these is called here a "motor", whereas the second is called a "propulsor". The motor is a type of propulsion which produces a relative movement of one of its parts in relation to another of its parts. An example of a motor is an internal combustion engine in which the movement of

a piston occurs in relation to its cylinder, or an electric motor which causes the turning of its rotor relative to its housing.

When a motor is joined with elements from another machine, it causes a movement of the combined parts, but it is still a relative movement. For example, a motor in a car forces a rotation of the wheels relative to the body, a motor in a ventilator causes a rotation of the airscrew relative to the base, and a motor in a washing machine causes the rotation of the drum relative to the housing. Motors by themselves never create motion of objects relative to their surroundings, although they can supply the mechanical energy necessary for this movement. For example, the movement of a car relative to the ground is caused by the wheels, not by the motor, and we still have this if the motor is replaced with pedals.

We will call the second device which produces motion of complete objects relative to their surrounding a "propulsor". Propulsors are completely different from motors because they produce an absolute movement, such as the floating of a boat, the flying of an aeroplane, or the thrust of a rocket. Examples of propulsors are the wheels of a car, caterpillar wheels of a tank, a boat propeller, a hovercraft's outlets, helicopter blades, etc.

It should be noted here that propulsors are always able to operate in the natural environment for which they are created. If, for the operation of a particular propelling device, any man-made rail, bar, duct, channel or transmission pipe is necessary, this device represents the linear motor only (not a propulsor) in which one stationary part is lengthened to the required distance. For example railways represent linear motors, not propulsors. This can be realized when we look at Blenkinsop's engine (see Figure E1) which for propulsion utilized a cog wheel that slotted into teeth on a track.

In every propulsion system three different elements must be present. These are: (1) a working medium, (2) an energy transferor and (3) a working space.

The working medium is an agent applied in a particular propulsion, whose function is to absorb one kind of energy and then to return this energy in the form of a force interaction creating the motion. Examples of working mediums are: the force of mechanical elasticity (in a bow), running water (in a water wheel), or a magnetic field (in an electric motor).

The energy transferor is a space or a device within the propulsion system where the working medium is produced and where it absorbs the energy that is later released for the creation of a type of motion. Examples of energy transferors are: the boiler in a steam engine, or coils of electromagnets within an electric motor.

The working space is a space or a device in a propulsion system, where the actual creation of motion occurs. In this space the energy contained within the working medium is transformed into the work of providing the motion for a propelled object. Examples of working spaces are: the space between the cylinder and the piston in a steam engine, the outlet in a space rocket, or a gap between the rotor and the stator in an electric motor.

B2.1. The working medium

From the analysis of the propulsion systems completed so far, it becomes evident that only three types of circulating agents can provide usable working mediums. These are: (1) a circulation of forces, (2) a circulation of matter (masses), and (3) a circulation of magnetic field force lines. Thus, all the known working mediums can be classified into one of three general types (see the first column in Table B1), depending on which of the above agents the particular medium represents. Because during the development of our civilization the consecutive types of working medium were discovered and utilized in sequence, we may talk about three eras in our history when a particular general type of medium was dominant. And so in ancient and medieval times the era of media based on the circulation of forces prevailed (e.g. wheel and axle, flywheel, spring). Since the invention of the steam engine (1769) until now, the era of media based on the circulation of matter has been prevalent (e.g. those used in a windmill, watermill, airscrew, boat propeller, jet propulsion). At present we are approaching the third era, where the circulation of magnetic field force lines will be employed. Up to now we have completed only the first and the most

primitive device, the electric motor, which utilizes the circulation of magnetic field force lines. But soon a number of more advanced propulsion systems of this kind will become operational.

For every type of working medium three different generations of propulsion systems are completed (see Table B1). In each subsequent generation further attributes of the working medium are utilized as energy carriers. The first generation always uses force interactions only (e.g. pushing, pulling, pressure, suction, repulsion, attraction) created by the working medium. The second generation, in addition to these force interactions, also employs inertia-related actions. The third generation of propulsion systems utilizing a particular general type of working medium makes use of force interactions, inertia-related actions, and in addition the impact of internal energy (e.g. elasticity, heat).

B2.2. The primary requirement for building a controllable propulsion system

One of the primary principles of physics, called the "Conservation of Momentum Principle", states that when a system of masses is subjected only to internal forces which the masses of the system exert on one another, the total vector momentum of the system is constant. The consequence of applying this Principle to propulsion systems is that the working medium must always be forced to circulate along closed circuits which also pass through the environment (in propulsors) or through the part (in motors) in relation to which the motion should be created. The above condition represents the primary "requirement to circulate a working medium through the environment to achieve the controllability of a propulsion system". This requirement is met in all commercially useful propulsion systems completed by man to-date, even if sometimes it takes an indirect form (e.g. in space rockets, where the propellant is taken first from the environment and placed in the rockets' tanks, and then during flight it is rejected {circulated} back into the environment).

Sometimes the designer of a propelling device ignores the requirement to circulate a working medium through the environment. In effect the motion produced is uncontrollable and therefore can not be utilized to provide useful work. The device producing such uncontrolled motion will be called here a semi-propulsion system (i.e. semi-motor or semi-propulsor). Semi-propulsion can easily be transformed into propulsion, if the appropriate circulation of a working medium is organized. An example of the semi-propulsor so modified is a parachute which, after circulating its working medium (air), takes the form of a hang-glider. The other semi-propulsor still waiting modification is a balloon. If a controllable jet outlet is placed on a side surface of a balloon propelled by hot air, then this very old flying device can also move horizontally in the desired direction and with the speed required. Such a minor modification may transform hot-air balloons into the most simple, inexpensive, pleasant, and at the same time effective means of transportation. The transformation of semi-propulsion into propulsion does not usually require any major change in construction, principles, and the working medium used. Therefore in the light of the Periodic Principle, we will assume that a particular propulsion is completed, independently of whether its final or semi-final form has been obtained.

B3. The content of the Periodic Principle

The content of the Periodic Principle can be expressed in a short and a long version. The short version of the Periodic Principle states that:
"Each motor must have a corresponding propulsor".
The long version states that:
"All known forms of propulsion are invented in pairs. Each such pair consists of a motor and a corresponding propulsor. Both, the motor and the propulsor, utilize exactly the same working medium and operate in a very similar manner. For each level of utilization of a particular working medium two subsequent motor-propulsor pairs are built. These two

pairs form a single generation of a particular propulsion system. Each such generation completes a subsequent cycle of development of this propulsion system."

The appearance on Earth of a new generation of the propulsion systems is preceded by the invention of a motor, then a propulsor is built (by a different inventor) no later than 200 years after the completion of the motor's technology. Both - the motor and the propulsor - utilize the same working medium, are based on the same physical phenomena, and demonstrate a close analogy in construction and principles of operation. To realize how striking the similarities between both propelling devices of each pair are, let us consider, as an example, the internal combustion engine (which is a motor of the second pair in the third generation of mass circulating propulsion systems - see Table B1) and the space rocket (which is a propulsor from the same pair). If one removes a piston from the cylinder of an internal combustion engine, he/she obtains an outlet from the space rocket jet. The fuel supply, the process of combustion, and the phenomena involved in the creation of motion remain unchanged for both the above propelling devices. The other examples of similarly corresponding pairs are: the windmill and the sailing boat, aneroid (formerly used to operate clocks) and balloon, pneumatic motor and hovercraft, etc. - compare two consecutive columns from Table B1.

The action of the Periodic Principle for the propulsion systems is illustrated by the Periodic Table B1. Each row from this Table presents four subsequent propelling devices constituting one complete cycle of propulsion development. Because all four propelling devices invented during the same cycle of development form a separate generation of propulsion systems, each row in Table B1 also represents a different generation of these devices. Within each generation, two subsequent pairs of a motor and a corresponding propulsor are distinguished. Each of these pairs occupies a separate column in which two additional sub-columns are distinguished for each single propelling device. At the bottom part of each column and sub-column the descriptions of the devices presented therein are provided. On the left side of each row the characteristic attributes of the generation of propulsion systems presented in this row are specified. These attributes describe: (a) the general type of working medium applied by this generation (i.e. the mediums based on a circulation of (1) force, (2) matter (mass), or (3) magnetic field force lines), (b) the subsequent number of this generation within the type of working medium under consideration (i.e. 1, 2, or 3), and (c) the energy carriers exploited by this generation of propulsion systems (e.g. (1) pressure, (2) inertia and pressure, or (3) internal energy, inertia, and pressure). Note that Table B1 also shows the general direction in which the subsequent working media develop, as well as the direction of the development of individual propelling devices built for any one of these media.

We have learned that particular principles of operation can be applied to a number of different technical versions of the same propelling device. For example the internal combustion engine can be built as: a Diesel engine or a petrol engine, a two-stroke or four-stroke engine, a piston engine or a turbo-engine. If we analyze each of these versions we will find that all of them employ exactly the same properties of the working medium and utilize exactly the same set of phenomena. The only differences appear in the technical implementation of the device that releases these phenomena. Therefore from the point of view of the Periodic Principle all such versions represent the same propulsion which, however, is built in different technical implementations. No matter how many of these different implementations of a particular propulsion are completed, they still belong to the same stage of our development and are not able to lift our civilization to a higher level. In order to progress and advance we must complete different propulsion systems, not different technical versions of the same propulsion (e.g. the Magnocraft instead of magnetic railways which represent only a linear version of the electric motor). Notice that Table B1 always lists the first or the most representative technical version of every different propulsion system, no matter how many versions of this propulsion were completed. For example, the sail in Table B1 shown as the first propulsor employing the pressure of the circulating stream of mass (air), is the only one of many possible propulsion systems operating on this principle.

The other propulsors utilizing the same principle are: an aeroplane wing, a parachute, and a hang-glider.

Table B1 illustrates also the difference between the first and second pairs in each cycle (generation) of propulsion systems. The essence of this difference is that the first pair uses a special device (energy transferor) to produce a working medium (e.g. a steam generator in a steam engine, or a combustion chamber in a jet propulsor) physically separated from the working space where the motion is created, whereas the second pair of propulsion produces a working medium inside the working space (e.g. combustion gases in a cylinder of the internal combustion engine, or the outlet of a space rocket).

The analysis of Table B1 reveals that each next generation of propulsion systems repeats the technology already utilized in the lower generation built for the same type of working medium, but this technology achieves a higher level of efficiency and employs more advanced energy carriers. In this way, the development of propulsion systems takes the shape of an ascending helix (spiral), where each coil symmetrically repeats the general pattern of a pervious invention, but on a higher level of efficiency. This helix carries on from one propulsion to another a number of key attributes. Therefore the characteristics of propulsions systems discovered so far define very strictly the details of the propelling devices to be completed in the future. The key information about future propulsion systems, which the Periodic Principle reveals, is: (1) the working medium utilized in a subsequent propulsion, (2) the employed attributes of this working medium (e.g. energy carrier {force, inertia, or internal energy} and the kinds of phenomena involved), (3) the principles of operation of a new device, (4) the general design and the similarities to the other propulsion systems already completed, (5) the approximate date when our civilization will attain the level required for the completion of this device.

Knowing all the above, the synthesizing of the final shape of a new propulsion system is just a matter of ordinary design routine and development procedures.

B4. <u>The first generation of the magnetic propulsion systems</u>

Having knowledge of the Periodic Principle, we can state that if there exists a "single" motor of the first kind, a propulsor that will form a pair with this motor must also be completed in the near future. Moreover, two further propulsion devices, which complete a full generation of this motor, will soon be developed.

We are all aware of such a "single" motor: it is the common electric motor invented by Jacobie around 1836. In this motor the motion is created because of repulsive and attractive interactions between magnetic fields. The name "electric" (instead of "magnetic") for this motor is derived from the flow of an electric current through the motor's coils which produces magnetic fields. Because Jacobie built the first such motor around 1836, the Periodic Principle predicts that no later than the year 2036 humanity will create the Magnocraft, i.e. a spacecraft that will utilize the same magnetic interactions for flying in space. Moreover, as the first cycle of the magnetic field application is just beginning, a motor of the second kind, which can be called the "pulsatory motor", may be built about the year 2040. Around 2140 the pulsatory motor may be followed by the creation of a most powerful vehicle to operate on the principle of physical dislocation of objects in space, which is called here the "star-shaped space ship" from its similarity to an eight-pointed star – see Figure B3.

The first generation of propulsion systems utilizing magnetic interactions (i.e. electric motor, Magnocraft, pulsatory motor, and star-shaped space ship) will close the present era of human development during which our means of transportation has operated on the principle of the physical dislocation of objects in space. Beyond this era there are only propulsion systems operating on other principles, i.e. teleportation and time travel. It seems to be a repetitive pattern that every first generation should bring about the close of some longer period in our development. Also the first generation of mass circulating propulsion

systems (i.e. windmill, sail, aneroid and balloon) closed the period when sources of energy provided in a ready form by untamed nature were utilized for the purpose of propulsion.

The Periodic Principle also explains the operation of these future propulsion devices, and as a result, their construction. This is because all necessary information is contained in the symmetry and analogies reflected by the Periodic Table B1. For example, the operation of the Magnocraft is an analogy for the operation of a multi-phased asynchronous electric motor from one side, and the sail, hovercraft and jet propulsor from the other. Thus, when the operation and the construction is known, we may initiate research more promptly in the right direction and expedite the completion of the propulsion systems indicated. Consequently, the utilization of the clues provided by the Periodic Principle may cause the acceleration of our progress.

B4.1. The Magnocraft

The Magnocraft is a much more advanced space vehicle than the present space shuttles. Thus a complete description of its construction and operation requires lengthy elaboration and is contained in chapter G. However, for consistency of presentation, some of its characteristics are summarized below.

B4.1.1. The general design and components of the Magnocraft

The general design of the Magnocraft is presented in Figure B1. The shape of this vehicle resembles an inverted saucer. Its propulsion system is composed of the devices called "Oscillatory Chambers", which take the shape of transparent cubical boxes contained inside spherical casings. Each chamber is simply a super powerful source of a pulsating magnetic field. For the purposes of better controllability, the Magnocraft uses special arrangements of Oscillatory Chambers, called "twin-chamber capsules" (described in subsection F6.1). The output of such capsules is capable of lifting a spaceship attached to it, because of the repulsive interaction with the magnetic field of the Earth, Sun or galaxy. A single twin-chamber capsule used for propelling the Magnocraft, together with its spherical casing and control devices, is called a "propulsor".

The Magnocraft consists of two kinds of propulsors: main (M) and side (U). The single main propulsor (M) is suspended in the centre of the vehicle. The magnetic poles of this propulsor are oriented so as to repel the environmental magnetic field (which could be the field of the Earth, a planet, the Sun or a galaxy). By this means, (M) produces a lifting force (R) which supports the craft. The magnetic axis of (M) is usually kept tangential to the force lines of the environmental magnetic field existing in the craft's area of operation. Therefore the most effective orientation of the Magnocraft during flight is while its base is perpendicular to the local direction of the Earth's magnetic field. Sometimes, however, this orientation must be slightly altered to enable it to manoeuvre and land.

The Magnocraft also consists of numerous side propulsors (U). Their magnetic poles are oriented so as to attract the environmental field. Therefore side propulsors produce attraction forces (A) which stabilize the craft and fix its orientation in space. To increase the vehicle's stability, the side propulsors are located below the main propulsor, together forming a kind of bell configuration which in physics is known for its greatest stability. All the side propulsors are located at regular intervals in the horizontal flange surrounding the spacecraft and covered with material penetrable by a magnetic field.

The number "n" of side propulsors in the Magnocraft characterizes a particular type of this spacecraft. This number "n" depends on the design factor marked as "K" and called "Krotność", and is expressed by the equation:

$$n=4\cdot(K-1) \qquad (B1)$$

The word "Krotność" in the Polish language means: ratio of the vehicle's diameter "D" to its height "H" (base to top), i.e.:

K=D/H(B2)

This is because the value of "K" shows how many times the Magnocraft's height is aliquot in the outer diameter of this vehicle. The "K" factor may take any integer value in a range from K=3 to K=10. Because of the value that this factor has, the consecutive types of the Magnocraft are called K3 (i.e. having the K factor equal to K=3 - and resulting from this the number of side propulsors n=8), K4 (i.e. K=4 and n=12), ..., to K10 (i.e. K=10 and n=36). The "K" factor is extremely important for the design of the Magnocraft. It determines all the design parameters of this vehicle, including its shape and dimensions. These parameters are described by the set of equations which express the relationship between this "K" factor and some important dimensions of the Magnocraft, such as: D - outer diameter of the vehicle (i.e. the maximal diameter of its flange), d - nominal diameter of the circle on which the centers of the side propulsors are located (note that this "d" diameter also describes the mean dimension of the ring of scorched marks left on the ground by a landed Magnocraft), H - height, D_M - outer diameter of the spherical casing of the main propulsor, and L - width of the flange containing side propulsors. The most important of these equations are as follows: D=0.5486·2K, d=D/ 2, H=D/K, DM=H(2- 2), L=0.5(D-d)=0.25·K·DM. The deductions of the above equations are contained in subsection G4 of this monograph. Because the "K" factor can easily be determined from the Magnocraft's outline or photographs, it provides an extremely important identification parameter which enables anyone to quickly establish many details about a vehicle being observed.

The crew cabin (1) is located between the main (M) and side (U) propulsors, and is in the shape of a parallel-piped ring. This cabin looks similar to the side walls of an inverted saucer and is covered by a material which is impenetrable by the magnetic flux. Along the interior (slanted) wall of the crew cabin lie the telescopic legs (2) of the craft, which are extended at the moment of landing.

B4.1.2. Flight control

Manoeuvring the Magnocraft is achieved as a result of a combination of the three following actions:

1. The change in the relation between the output from the propulsors which produce attracting (A) and repelling (R) forces; this causes the ascent, hovering and descent of the craft.

2. The slant at an angle (I) of the magnetic axes of the vehicle's propulsors from their parallel orientation towards the local course of the force lines of the environmental magnetic field. This produces the meridian component of the thrust force, causing the horizontal flight of the Magnocraft from south to north or north to south. Above the equator, where the field's force lines are parallel to the ground, such a component is produced when the magnetic axes of the vehicle's propulsors are slanted from a horizontal orientation - see Figure B2.

3. The production of a magnetic whirl spinning around the Magnocraft and the control of the direction and power of the whirl. This whirl (in a principle similar to the rotation of a cylinder in the "Magnus Effect" already known in hydromechanics), produces a horizontal thrust force perpendicular to the force lines of the Earth's magnetic field. If this magnetic whirl rotates in such a way that the landing Magnocraft causes a counter-clockwise flattening of plants in the Southern hemisphere (or clockwise in the Northern hemisphere), the longitudinal component of the thrust force created will propel the craft in a direction from west-to-east. The whirl rotating in an opposite direction will propel the craft from east-to-west. The magnetic whirl is produced by the 90 degree phase shifts in the pulsation of a magnetic field produced by the subsequent side propulsors.

The propulsion of the Magnocraft, which combines together the three magnetic actions listed above, causes the flight of this vehicle to have a magnetic character that drastically differs from aerodynamic (smooth) flights of aeroplanes and the inertial thrusts of rockets. Apart from silent flights and enormous speeds (around 70,000 km/h in the atmosphere and near the speed of light in free space), the following attributes characterize

the magnetic movements of the Magnocraft: (a) always having the same orientation of the vehicle, independently of the direction in which it flies (i.e. its base is always kept almost perpendicular to the local course of the Earth's magnetic field force lines), (b) flying mainly along straight lines that in many cases correspond to the force lines of the Earth's magnetic field, or to the Earth's magnetic meridians (flights in east-west or west-east directions require the switching on of the magnetic whirl, which frequently is undesirable), (c) motionless hovering terminated by a rapid acceleration along one of the above straight lines, (d) sharp turns at 90 degrees (without benefit of a radius), (e) zigzag or jerky motion, (f) rotation around the vehicle's central axis while hovering motionless.

From the above explanation it is evident that all flight control activities can be achieved without the relative mechanical movement of any part of the Magnocraft, but only by slanting the whole spacecraft and controlling the outputs from its propulsors. Therefore, miniature, computer-operated versions of this vehicle will be built which do not contain even a single moving part. This craft will be the only example of a precisely controlled vehicle which does not consist of any moving part. In the big, man-operated versions, for the convenience of the crew, it will be better to replace the slanting of the Magnocraft by tilting the axes of its propulsors (especially when it lands). In such versions, the propulsors will consist of the rotable twin-chamber capsules placed inside the spherical casings, as was described previously. Sometimes, especially in the smaller types K3 and K4 of the man-operated Magnocraft, to save space a compromise solution is possible. In this solution the side propulsors are fixed and consist only of the twin-chamber capsules directly joined to the structure of the craft, whereas the main propulsor is rotable (i.e. its twin-chamber capsule is built inside of a spherical casing and may revolve in relation to this casing).

B4.1.3. The specifications of the Magnocraft

The unlimited prospects that the building of the Magnocraft will create for humanity can be realized from the following review of the properties of this vehicle.

The spinning magnetic field of the Magnocraft will cause a cumulative ionization of air, and the creation of a glowing plasma whirl surrounding this spacecraft. The centrifugal forces acting on each particle of air in this whirl will reject the air out of the surface of the vehicle, forming a kind of local vacuum bubble which will cause the craft to fly without friction. This will allow the Magnocraft to reach a speed of about 70,000 km per hour in the atmosphere, plus flights close to the speed of light in free space. The vacuum bubble surrounding the craft will also protect it from heat action during flights in melted media and blazing gases. The silent character of magnetic interactions in connection with the elimination of frontal pressure by the plasma whirl will make the Magnocraft noiseless in flight. The plasma whirl will also form a kind of circular saw of enormous power, which will enable the vehicle to penetrate through solid matter (e.g. rock, buildings, bunkers) creating glossy tunnels. The centrifugal action of the plasma whirl, supported by the forces of magnetic interactions between the craft's propulsors, forming a kind of magnetic framework, will provide the Magnocraft with the ability to withstand any high environmental pressure. This invisible framework will enable the vehicle to penetrate safely any depth, flying not only to the bottom of oceanic trenches, but also to the center of the Earth, and perhaps even to the nuclei of stars. The spinning magnetic field will induce electric currents in the conductive materials in the vicinity, changing them into explosives. This will form around the Magnocraft a kind of inductive shield, providing it with the ability to oppose any weapon that our present military techniques may use against it.

When, on a command from the crew, the spinning magnetic field is changed into a steady, constant one, all the above properties will disappear. However, in this case different kinds of properties will be revealed. For example, according to the theory of general relativity, energy is equivalent to mass. Therefore an enormous condensation of energy in a small space surrounding the spacecraft will release the same effects as the local increase

of density of mass, i.e. it will alter the optical properties of this space, forming a kind of magnetic lens. This in turn will make the Magnocraft invisible to radar and to the naked eye.

The forces of magnetic interactions propelling the Magnocraft will also enable a number of such vehicles to be coupled together into modular arrangements. In this way, not only spherical and cigar-shaped complexes, but also entire flying cities can be formed for the duration of long distance trips.

During any kind of flight, the operation of this vehicle will be pollution-free.

B4.2. The second motor-propulsor pair in the first generation of magnetic propulsion systems

The Magnocraft provides a partner (propulsor) for the electric motor. Both together form the first pair of the magnetic propulsion systems. But the Periodic Principle states that when this pair is completed, our civilization may begin the development of the second pair of propulsion devices belonging to the same first generation of magnetic propulsion systems. This second pair, if ever completed, would consist of a pulsatory motor and a star-shaped space ship (shown in Figure B3).

The author worked out the operation of these two magnetic propulsion systems and published it in his earlier monographs. Therefore those readers who are interested in learning more about the pulsatory motor and the star-shaped space ship may contact him for details. But because the operation of these devices differs considerably from the operation of the Magnocraft, and also because their discussion does not support the main topic of this monograph, he decided to eliminate their descriptions from this publication.

The additional reason why the author decided to omit the description of the pulsatory motor and the star-shaped space ship is that these two magnetic propulsion systems may not be built on Earth at all. Table B1 reveals that some mass-circulating propulsion systems of the second generation were built before the entire cycle of development of the first generation was completed. So the appearance of these higher-level propulsion systems could canceled a demand for the second motor-propulsor pair from the first generation. If the same pattern is repeated also for magnetic propulsion systems then the first commercial motors of the second generation can even be operational before the Magnocraft. Practically, this means that the development of a pulsatory motor and star-shaped space ship may coincide in time with the development of much more advanced devices belonging to the first pair in the second generation of magnetic propulsion systems, i.e. with a telekinetic motor and a Teleportation Vehicle - see Table B1 and descriptions from subsection B6. These propulsion systems of the second generation, whose operation is based on the technologically induced telekinesis, are more advanced in every aspect than those based solely on magnetic interactions. Therefore they may completely eliminate the need for a pulsatory motor and a star-shaped space ship, as they will provide earlier a better way of achieving similar effects. It may therefore happen that our civilization will never attempt the development of devices belonging to the second motor-propulsor pair in the first generation of magnetic propulsion systems - although, theoretically, building these devices is possible.

B5. Three successive generations of magnetic propulsion systems

Subsection B2.1 has shown that for each general type of working medium as many as three successive generations of propulsion systems will eventually be completed. The electric motor, Magnocraft, pulsatory motor, and star-shaped space ship, all represent only the first and the most primitive generation of the propulsion systems based on the circulation of magnetic field force lines - refer to Table B1. The only magnetic field attribute employed by this generation as an energy carrier is the force of magnetic repulsion or attraction. But the Periodic Principle shows that after completion of this first generation, the

second and third generations of the magnetic propulsion systems must appear. Each one of these generations will allow the completion of as many as four separate propelling devices belonging to two motor-propulsor pairs as illustrated in Table B1. The operation of all these advanced devices will utilize not only magnetic attraction and repulsion forces, but also such sophisticated magnetic phenomena as technologically induced telekinetic motion (which is triggered by the magnetic equivalent of mechanical inertia - see explanation in subsection D6) and the alteration of time (time is a magnetic equivalent [or a mirror reflection] of internal energy of material systems - see subsection D3). To put the above into terminology used in this monograph: the second and third generations of magnetic propulsion systems will be capable of operating in, respectively, telekinetic (teleportative) and time travel conventions. The subsections that follow explain the major attributes of all these advanced magnetic propulsion systems.

B5.1. How the "omnibus trend" should culminate in three conventions of the Magnocraft's operation

In plain English the word "convention" means "unambiguously defined behaviour". In this monograph the same term will be used to describe the strictly defined behaviour of an advanced flying vehicle. Thus, by the "convention of operation of a vehicle" will be understood a name assigned to the basic principle employed in a particular spacecraft to cause its own motion. This name is usually derived from the most advanced energy carrier that is utilized in the working medium of this vehicle (see the third column in Table B1). In the case of the Magnocraft, depending on which generation this vehicle belongs, three conventions of its operation can be distinguished, i.e. magnetic, teleportative, and time travel.

To explain more precisely the interpretation of "convention of a vehicle's operation", a hypothetical flying aircraft called an "omnibus" will be discussed. The omnibus has the shape of an open-ended barrel or tube. It incorporates in one vehicle the capabilities of as many as three different generations of propulsors operating on the principle of circulation of mass (matter), i.e. a glider, a hovercraft and a jet propulsor. When the omnibus flies at high altitudes and extinguishes its fuel combustion, it glides through the air, thus functioning as the first generation of propulsors belonging to the mass circulating propulsion systems. In Table B1 these propulsors are represented by a sail (see also the descriptions from subsection B3). When the omnibus directs the stream of its exhaust gases downward, it operates like a hovercraft, flying horizontally just above the ground. During such an operation it represents the second generation of the mass circulating propulsors. The omnibus may also operate as a jet propulsor, thrusting its way up into the air. In such an operation it represents the third generation of the propulsors based on the circulation of mass.

The above explanations show that in order to describe how an omnibus operates in a particular instant of time, the use of the term "convention" is necessary. Thus, we may state that the omnibus operates either in a glider convention, in a hovercraft convention, or in a jet convention. In each one of these, the single omnibus behaves the same as aircraft belonging to an entirely different generation of mass circulating propulsion systems. By naming the convention in which it operates we are able to clarify all possible ambiguity concerning its behaviour and properties.

The experience accumulated so far indicates that all three successive generations of the mass circulating propulsors complement one another. Thus, the contemporary propulsors of the third generation, such as jet or rocket, not only are unable to replace or substitute the propulsors of the first or second generation, such as a glider or hovercraft, but also they introduce a growing need for simultaneous application of these simple propulsors. An example of such a need can be the first space shuttle "Columbia" which had to operate both as a rocket and as a glider. On the other hand, our increasing knowledge of the propulsion systems provides technological capabilities for building omnibuses.

Therefore it gradually becomes evident that as our development progresses, our ability to build omnibuses increases. An example of this "omnibus trend" can be contemporary military aircraft, which already are required to display the capabilities of jet aeroplanes, as well as the ability to take-off vertically (i.e. for operation as a hovercraft) and also for gliding.

To summarize the above, in highly developed civilizations the "omnibus trend" should become so dominant that the development of higher generations of flying vehicles will be achieved through adding further conventions to the existing vehicles of lower generations utilizing the same working medium.

As is shown in the Periodic Principle, there exists a striking symmetry in the development of propelling devices that utilize three general types of working media. Therefore the regularities observed during the development of mass circulating aircraft must also be in operation for the flying vehicles based on the circulation of magnetic fields. To put this another way, the omnibus trend described above impacts to the same extent on the development of contemporary aircraft as the development of future Magnocraft.

The omnibus trend will have a direct impact on our civilization when the second and third generations of magnetic spacecraft eventuate. These two advanced vehicles will not be built as entirely new and different spacecraft, but rather as improved versions of the ordinary Magnocraft. Their shape, internal design and one of the conventions of their operation (i.e. magnetic convention) will be identical to those of the Magnocraft,. The only difference these advanced vehicles will display in comparison to the Magnocraft, is that independently of the magnetic convention they will also be capable of using, when required, the teleportative (vehicles of the second generation) or teleportative and time travel (vehicles of the third generation) conventions. To emphasize that both these advanced magnetic vehicles evolved from the ordinary Magnocraft, they will also be called here the Magnocraft of the second generation (i.e. able to operate in the magnetic and teleportative conventions) and the Magnocraft of the third generation (i.e. able to operate in the magnetic, teleportative, and time travel conventions). In contrast to this, the ordinary Magnocraft, which can only operate in the magnetic convention, will be called here the Magnocraft of the first generation, or simply the "Magnocraft". It should be stressed that each of these vehicles can operate only in one convention at a time. For example, when the Magnocraft of the second generation flies in the magnetic convention its teleportative capabilities must be switched off, but when it turns on its teleportative operation it must simultaneously extinguish its forces of magnetic attraction and repulsion.

B6. <u>Second generation of magnetic propulsion systems operating in the telekinetic (teleportative) convention</u>

Telekinetic motion can be produced not only by the human brain, but also by a technical device. In order to distinguish between telekinetic motion originating from the brain and that originating from a device, in this monograph two different terms are used to describe it. When the motion originates from the human brain, it is called "psychokinesis", whereas when it is technologically induced by a device it is called "telekinesis". But for both above origins, the principles of this phenomenon remain the same and they have been explained in subsection D6. There are two kinds of motion that technological version of telekinesis can produce, i.e. a relative and an absolute (see subsection B2). All technical devices that utilize technological telekinesis to produce a relative motion are called here "telekinetic power-stations", but all such devices producing an absolute motion are called "teleportative propulsors". The name teleportative propulsors originates from the term "teleportation", which in this monograph means a version of technologically induced telekinesis that causes an absolute motion of entire objects in space (thus "teleportation" is a technological telekinesis but used solely for transportation purposes). A flying vehicle which utilizes teleportative propulsors is called here the "Teleportation Vehicle".

B6.1. Phenomenon utilized in the second generation of magnetic propulsion systems

As is also mentioned in subsection D1, in 1924 the great French physicist, Louis DeBroglie, published his important discovery which is sometimes called the "Principle of the Symmetry of Nature". According to this principle, in our universe everything is strikingly symmetrical in many ways. DeBroglie's principle provided philosophical and scientific foundations for a number of important discoveries and devices, including the Periodic Principle described in this chapter. For example: the periodic table of the elements (or Mendeléev Table), the existence of a mirror duplicate for each elementary particle, and the similarities between atoms and solar systems - all these document the symmetry existing in the structure of matter; the similarities between equations that describe different physical phenomena (e.g. flow of fluids and heat transfer) express symmetry in the laws of nature; whereas the technological correspondence between e.g. pumps and hydraulic motors reflects the symmetry in the operation of technical devices.

One of the vital implications of the DeBroglie's symmetry, which has a direct bearing on the content of this monograph, is the postulate that "every phenomenon must have a corresponding counter-phenomenon". So far a large number of phenomena and corresponding counter-phenomena have been discovered which confirm the correctness of this postulate. For example, the existence of electrical luminescence utilized in electric bulbs to transform electricity into light has a counter-phenomenon in the form of the photoelectric effect that transforms light into electricity. The so-called left-hand rule, also called the motor effect, which describes phenomena used for the transformation of electricity into motion, has its counter-rule in the form of Fleming's right-hand rule, also called the generator effect, which works in reverse, i.e. transforms motion into electricity. The Seebeck Effect, which produces a flow of electrons through a junction of two dissimilar conductors being heated, has its counter-phenomenon in the form of the Peltier Effect, which causes the heating and cooling of materials in a similar junction when a current is flowed through it.

However, contemporary physicists claim that there is an exception to this principle. This exception is friction. Friction is considered to be the irreversible phenomenon which has no counter-phenomenon. But in 1985 the author of this monograph discovered the phenomenon which represents a reversal of friction. In the same way as friction spontaneously converts mechanical motion into heat, this phenomenon spontaneously converts heat into motion. Because in its natural form this phenomenon is manifested during telekinetic motion (i.e. during "psychokinesis" induced by the human brain), it is named the "Telekinetic Effect". Not long after the Telekinetic Effect was discovered, the author also found technological ways of releasing it (through an acceleration or deceleration of magnetic field force lines).

The author's discovery of the Telekinetic Effect, and subsequent discovery of the technological ways of activating this effect, opened the way for building telekinetic power-stations and Teleportation Vehicles.

B6.1.1. Action of the Telekinetic Effect explained by the Concept of Dipolar Gravity

The principles of telekinetic motion and the action of the Telekinetic Effect are described by a separate theory called the "Concept of Dipolar Gravity". The detailed description of this Concept is contained in chapter D of this monograph and also in a publication by the author, entitled "Gravitation als Dipolare Felder" (Raum & Zeit {West Germany}, No. 34, Juni/Juli 1988, pages 57-69). But for consistency of presentation, those details of Dipolar Gravity which are significant for the understanding of deductions from this chapter will be summarized here.

The Concept of Dipolar Gravity describes the nature of a gravitational field in an opposite (alternative) way from that described by present science. The present interpretation of gravity assumes that the gravitational field displays all characteristics of a

monopolar field. In this way the attributes of gravity are treated as resembling those of electrical fields, pressure fields, etc. Because of this assumption, the present understanding of gravity can be called the "concept of monopolar gravity". However, the author's analysis proved that the nature of a gravitational field is totally different from that described by the concept of monopolar gravity. Gravity was found to correspond to all dipolar fields, such as magnetic fields, or fields formed by circulating streams of fluids. The implications of this are accommodated by the Concept of Dipolar Gravity.

Numerous areas of present knowledge (e.g. astronomy, chemistry, geography) remain unaffected by the introduction of the Concept of Dipolar Gravity. The differences between the old and the new concepts concentrate mainly around the mutual relationship between matter and antimatter/counter-matter (to distinguish by name the opposite of matter in both concepts, it is called here "antimatter" in the concept of monopolar gravity, and "counter-matter" in the Concept of Dipolar Gravity). In the old concept of monopolar gravity, matter and antimatter existed in the same set of dimensions (or world), similar to the way positive and negative electric charges co-exist in the same space. This concept also claims that matter and antimatter should repel each other, thus allowing for the building of antigravity vehicles (see chapter C). But because this repulsion must lead to the separation of matter from antimatter, and to their dislocation into opposite ends of the universe, this old concept makes it impossible to experimentally prove the existence of antimatter and antigravity. In the new Concept of Dipolar Gravity, matter and counter-matter co-exist like both poles of a magnet: surrounded by spaces with opposite properties, and mutually linked by the gravitational field force lines. But because of the concentric nature of a gravitational field, in our set of dimensions only one gravitational pole prevails (i.e. gravity). The other, opposite pole of gravity (which here is called "counter-gravity", to distinguish it from the old idea of antigravity) disappears from our world and emerges in a parallel set of dimensions which is separate from ours (i.e. in a parallel counter-world, also called the world of software or the world of reverse images). The matter existing in our world and the counter-matter existing in this parallel counter-world are mutually linked by forces of gravitational interactions (gravitational dipoles) - in the same way as the poles of a magnet are linked with the force lines of a magnetic field.

These deductions show that the primary consequence of Dipolar Gravity is the joining of the corresponding particles of matter and counter-matter into twin pairs. In turn, the existence of these twin pairs provides the mechanism that explains telekinetic motion. Let us now discuss the principles involved in the creation of such a motion.

One of the consequences of the joining of each particle of matter with a twin particle of counter-matter is that all material objects existing in our set of dimensions (world) must have their counter-material duplicate existing in a parallel set of dimensions (counter-world). The mutual relationship between each material object and its counter-material duplicate is an analogy of an image and its mirror reflection (or computer hardware and software). Similarly like an image and its mirror reflection, both parts of an object are exact copies of their opposite duplicate, and also exactly imitate each other's movements. Moreover, both - the material object and its counter-material duplicate - can also be independently taken hold of and dislocated in space. But because of the gravitational links between them, independent of which part is grasped and dislocated first, the second part must imitate exactly its motion. For this reason, depending on which part of an object is grasped first and so first dislocated in space, the Concept of Dipolar Gravity distinguishes between two different types of motion, i.e. the "<u>physical motion</u>" and the "<u>telekinetic motion</u>". The physical motion occurs when the material part of an object is moved first, whereas the counter-material duplicate is pulled behind it by the forces of the gravitational links. But the telekinetic motion occurs when the counter-material duplicate is moved first, whereas the material part of this object is pulled behind the duplicate by the force of their mutual gravitational links. To illustrate this with an example, the Concept of Dipolar Gravity shows that telekinetic motion is like forcing an object to move by shifting its reflection in a mirror, so that this re-located reflection causes the object to move also. Of course in order for this example to work in reality, light would need to behave like gravity forces.

The above explanation for telekinetic motion also defines the origin of the Telekinetic Effect and the mechanism which causes it. Thus, the definition of this Effect is as follows. "The Telekinetic Effect is a phenomenon of altering the position of the material part of an object, achieved through the acting on the counter-material duplicate of this object." This definition explains that the Telekinetic Effect is the source of telekinetic motion in a similar way as the physical force is a source of physical motion. But there is a whole range of differences between the physical force and the Telekinetic Effect. The most important of these differences is that <u>the Telekinetic Effect does NOT exert (return) a reaction force</u> to its cause. (For a physical force, every action must produce an equivalent reaction force to be returned to [exerted upon] the object causing this action.) Practically this means that the increase in work completed by the Telekinetic Effect does not involve any change in the amount of energy required for the release of this Effect. Moreover, the support of such telekinetic devices does not require any force, no matter what weights they lift. Thus a device that releases this Effect can also be suspended in space, and the lack of reaction forces allows it to remain unaffected independently of the scale of actions that it causes. For example, a portable telekinetic crane lifting any object (e.g. a building or a huge rock) can be held in a child's hand without any effort.

One of the most important achievements of the Concept of Dipolar Gravity is that, while indicating the existence of the Telekinetic Effect, it also postulates two different methods of triggering (releasing) it. These are: (1) the biological method, acting through the employment of a natural capability of the human brain, and (2) the technological method, acting through the acceleration or deceleration of magnetic fields. Because of the subject covered in this chapter, the technological method of releasing the Telekinetic Effect will mainly be examined here. But a number of sightings gathered for this method apply also to human telekinesis (psychokinesis).

At this point it is worth stressing that the old concept of monopolar gravity was unable to provide any explanation for the nature of telekinetic motion, in spite of the enormous body of evidence that documents the existence of this motion. Moreover, this old concept does not allow for any reasoning concerning the attributes of this motion or the technological ways of releasing it.

An important part of the Concept of Dipolar Gravity is the interpretation of the Energy Conservation Principle as applied to telekinetic motion. Dipolar Gravity states that the laws prevailing in the counter-world must be the reversal of laws prevailing in the material (our) world. This also means that friction and energy consumption - so characteristic of the material world - are non-existent in the counter-world. Therefore, if the motion of any object is begun in the counter-world through a dislocation of the counter-material duplicate of this object, then the cause of this motion does not need to provide any energy. But the motion of the material copy of this object in our world must obey the Conservation of Energy Principle. Because the cause of the telekinetic motion does not provide the energy required to satisfy this Principle, the material part of the object moved must achieve this by itself. Therefore, during telekinetic motion, the material part of the object moved must spontaneously exchange thermal energy with the environment (i.e. absorb or release heat). The necessity for this exchange is called the "postulate of spontaneous heat exchange between the telekinetically moved objects and the environment". This postulate must have two consequences: (1) it produces a change in the environmental temperature during telekinetic motion, and (2) it produces a faint glow emitted from the matter (space) surrounding the telekinetically moved objects, called the "extraction glow".

While the above explains fully the principles behind the temperature change caused by telekinetic motion, the mechanism of the "extraction glow" requires further explanation. If energy is rapidly withdrawn from an atom, its electrons must fall from their higher orbits into lower ones. This in turn, according to quantum physics, must cause the emission of photons. Therefore, the rapid extraction of heat from the matter that surrounds an object moved telekinetically must be accompanied by the emission of a faint glow from this matter, or the extraction glow. Its emission should register as a faint white light that surrounds the surface of objects moved in a telekinetic manner. The intensity of the extraction glow

depends on the amount of telekinetic work required for the completion of a given motion. Because this work is rather insignificant for the biological sources of telekinetic motion, the intensity of the glow that they produce must also be low. Thus, for the motion which is caused biologically, the extraction glow is usually not noticeable by the naked eye, and only a sensitive photographic film is able to register it. This indicates that the best method for detection of this glow is to photograph objects moved telekinetically. But for the technological sources of telekinetic motion (e.g. highly efficient telekinetic power-stations) which extract large amounts of energy from the environment, the emission of the extraction glow starts to be noticeable with the naked eye. To outside observers, the glow from the sources of technological telekinesis will make their surface appear to be "oiled with light".

To conclude this section, the "postulate of spontaneous heat exchange between the telekinetically moved objects and the environment" makes the Telekinetic Effect act like a reversal of friction. As the friction spontaneously absorbs motion and produces heat, the Telekinetic Effect spontaneously absorbs environmental heat and produces motion.

B6.1.2. Summary of the Telekinetic Effect activated technologically

As was explained above, the Concept of Dipolar Gravity indicates that the Telekinetic Effect can be activated (released) in a technological way through the acceleration or deceleration of magnetic fields. At the present stage of research, the action of the Telekinetic Effect so released is described only partially, mainly covering linear accelerations and centripetal accelerations of rotating discs (sometimes also called d'Alembert accelerations). So far, it is established as follows:

1. The Telekinetic Effect is a fundamental primary phenomenon, whose action is manifested in all cases of acceleration or deceleration of magnetic fields.

2. This Effect releases elementary force P which action is uniformly spread over all matter (including elementary particles, whole atoms, molecules, and entire material objects) contained within the range of the accelerated or decelerated magnetic field, independently of the magnetic or electric properties of the objects formed from this matter.

3. The force P produced by this effect demonstrates all the attributes of the telekinetic force, especially:

- it does not produce the reaction forces which would return back onto the object that released the force P,

- the consumption of energy for the work completed by this force is satisfied through a spontaneous absorption of thermal energy contained in the environment. Thus, the work of the force P is not completed at the expense of energy supplied by the object that released the action of this force (this attribute makes the force P become a reversal of friction).

4. The direction of telekinetic force P, according to the theoretical deductions which utilize the symmetry rules expressed by the Tables B1 and B2, should coincide with the direction of an active acceleration "a" and should point opposite from the vector of inertial force.

For the linear accelerations, the direction of this telekinetic force P in fact coincides with that direction deduced theoretically. For such accelerations the force P acts along "a", thus making the analysis of the Telekinetic Effect quite simple.

However, for the centripetal accelerations, the direction of this force differs in reality from that deduced theoretically. Analysis of the behaviour of electrons in the N-Machine (described in subsection B6.2.2) suggests that this direction is a complex function of a minimum of three vectors: V, a, L. (It is possible that this direction also depends on the local vector of the magnetic field gradient.) The direction of force P determined empirically in this manner is shown in Figure B4. The vectors influencing this direction are as follows:

- "V" represents the vector of the linear speed of a given fragment of matter subjected to the force P,

- "a" is a vector of the active acceleration or deceleration that acts at a given magnetic field. Active acceleration is understood to mean any acceleration. The word "active" is only added to stress that the direction of this acceleration is opposite from the "passive" direction of inertial forces produced by the action of this acceleration. As in centripetal acceleration these passive inertial forces act outwards, the vector of active acceleration is directed inwards. (For linear accelerations, the passive inertia is directed in opposition to the vector of speed. Thus the vector of active acceleration will coincide with the direction of linear speed. For linear deceleration, the vector of active acceleration acts in opposition to the vector of speed.)

- "L" is a vector that describes the local direction of magnetic field force lines. This vector is tangential in each point to the local course of force lines of a magnetic field. Its direction is such that each force line leaves the south magnetic pole and submerges into the north magnetic pole of a particular magnet. (At this point it is worth stressing that because of the author's interest in the magnetic propulsion systems of flying vehicles, his notation of magnetic poles is designed so as to facilitate the analysis of such systems. Therefore in all his publications, the N magnetic pole is the pole that prevails on the north geographic pole of Earth, and also the pole of a magnetic needle tip pointing south.)

The difference between the theoretical and experimental directions of force P for centripetal accelerations, highlighted above, may result from the limiting of findings to date to the description of the behaviour of electrons inside spinning objects. As was determined in various experiments, electrons also spin. Therefore, except for force P, their behaviour can be controlled additionally by gyroscopic momentums of their own rotations as well as the rotations of the objects through which their motion occurs.

5. The maximal value of force P which acts at a given material object of a mass "m" seems to fulfil the following equation: $Pmax = C \cdot B \cdot a \cdot m$; in which "C" is a constant, "B" is the magnetic flux density of the accelerated or decelerated field, "a" is the acceleration or deceleration, and "m" is the mass at which the force P acts. This equation is only temporary and it does not include the relationship between the force P and the angles between the directions of vectors listed above.

The exact working out of the Telekinetic Effect is very difficult and it encounters numerous obstacles. The most important of these obstacles are: (1) the complexity of the effect itself, (2) its close co-existence with a number of electromagnetic and mechanic effects of the first generation from which it is difficult to be separated, and (3) the prejudice that the contemporary scientific establishment shows towards telekinetic phenomena. In spite of these obstacles, research is progressing continually. To date, the history of its investigations seems to indicate that the Telekinetic Effect is one of the greatest challenges imposed on our science by the forces of nature. On the other hand, the type of benefits that this Effect promises makes its mastering also one of the most important bequests that scientists of this century can present to future generations.

Research on the technological version of the Telekinetic Effect has only just started. So far there is almost nothing known about the action of this effect caused by pulsating magnetic fields. Thus as this research progresses, the information provided in this subsection will be updated and made more general.

B6.2. Telekinetic power-stations (or "free energy devices")

In a number of countries, pioneer research on magnetic devices called "free energy devices" is being advanced. Because the operation of these devices employs mainly the Telekinetic Effect, they will be called "Telekinetic power-stations" in this monograph. The general purpose of these devices is to extract energy contained in the environment, and to convert this energy into a useful form. Thus the operation of these new devices is drastically different from that of present sources of power. As is already known, present power supply devices utilize the difference (gradient) between two energy levels. Through causing a flow of energy from a higher to a lower level, they re-direct a part of this flow, and

subsequently force it to convert into a useful form (e.g. into electricity). But the operation of telekinetic power-stations does not require differences in energy levels. They simply absorb thermal energy which is always present in the environment, and then just transform this energy into a consumable form (i.e. into electricity). Therefore the use of these new devices does not depend on the availability of any external energy supply, such as fuel, wind, water flow, muscle power, electricity, etc.

The discovery that the Telekinetic Effect represents a reversal of friction, and subsequent discovery of the technological ways of activating this effect, provide the theoretical foundation for the building of telekinetic power-stations. According to this newly gained knowledge about such devices, the extraction of energy from the environment requires only: (1) the building of devices that technologically release the Telekinetic Effect, (2) the absorbing of thermal energy from the environment and than its transformation into a useful motion, and (3) the channeling of the motion which is produced so that it is finally converted into electricity.

According to common opinion, the operation of such free energy devices should not be possible because they would appear to run against the Conservation of Energy Principle. Fortunately their inventors have disagreed with standard beliefs and continued their research. After the first prototypes of these devices were built, common opinion again proved to be wrong - like so often before. It turned out that the completion of free energy devices is possible, and their operation doesn't contradict the Conservation of Energy Principle. The detail overlooked by those who disagreed was that these devices do not "create" energy - they only extract it spontaneously from the environment. Therefore, they produce electricity during their operation, but at the same time they also decrease the environmental temperature.

To illustrate the current state of these free energy devices, it is worth mentioning that a generator, called "N-Machine", already exists (described in the later part of this subsection) whose overall efficiency reached 104.5%. Of course the prototype of this generator, which has been investigated thoroughly, is still rather crude, and its numerous technical details will be subjected to further modifications. The 104.5% efficiency means that after re-directing back to this generator the amount of energy necessary to sustain its motion, 4.5% of its output still remains. This 4.5% constitutes "free energy" that the generator supplies to its user. The other device, presently produced in Switzerland on a small scale, called the INFLUENZMASCHINE, is even offered for sale. According to its producer, this device produces about 3 kW of electric power (at 700 to 900 Volts) without any external energy supply.

This subsection reviews the results of the most significant theoretical research and experimental findings concerning telekinetic power-stations.

B6.2.1. Periodic Table postulating the future completion of telekinetic power-stations

To illustrate the application of the Periodic Principle for predicting the future evolution of energy producing devices, the author constructed a corresponding Periodic Table which is shown as Table B2. This Table includes only those power producing devices whose operation utilizes various forms of motion. The motion in these devices is a kind of "catalyst agent" which absorbs the external energy, transfers it through various stages of conversion, to finally pass to an output medium. Thus, Table B2 does not include all devices that produce electricity by various static principles, e.g. through the implementation of chemical, photo, or radioactive phenomena. For each type of these static devices it is necessary to construct separate Periodic Tables.

The Periodic Table B2 contains the names of all important power producing devices. These are listed at the cross points of the rows and columns. The placement of a particular device in a given row indicates the attributes of motion utilized in its operation, and so also the generation (or the level of advancement) to which this device belongs. The placement of a device in a given column indicates the general category of devices to which it belongs,

thus it also shows the technological implementation of its principles of operation. The empty boxes in Table B2 show the gaps which still exist in our inventions of power producing devices. The location of these empty spaces (i.e. their row and column) informs about principles of operation of those devices not yet invented.

The horizontal broken line inserted into this Table shows the level of technology in power producing devices achieved to date. This line separates the devices which our civilization has completed, or is able to complete, from all those devices whose operation still needs to be learnt through the discovery and investigation of new phenomena. The devices named below this line already exist, whereas those named above it will be completed in the future. It is worth noticing that there are empty boxes below the broken line. Such spaces indicate that the appropriate phenomena which are required for the completion of these devices are already known, but the lack of demand for the application of such devices deemed their invention to be unnecessary.

In the left section of the Periodic Table, inside the thick lines, details of the energy producing phenomena that are utilized by devices from a particular row (generation) are defined. This column is further sub-divided into three sub-columns which describe: (1) the energy carrier utilized by the devices listed in the rows on the right, (2) the generation number to which these devices belong (the higher this number, the more advanced the device), and (3) the attributes of motion, which are utilized for the operation of devices listed in the rows. Because with the elapse of time all three items described above move into higher levels, this column also represents the time axis of the Periodic Table.

Examination of the time axis from the Periodic Table shows that the power producing devices also utilize three energy (motion) carriers, i.e. (1) mechanical motion, (2) flow of gases (fluids), and (3) motion of magnetic fields. For each of these energy carriers three subsequent generations of the power producing devices are built. Each of these generations utilizes the different set of attributes of a motion. The first generation utilizes only a steady motion or a flow. The second generation utilizes a motion of the energy carrier as well as its acceleration or deceleration. Whereas the third generation utilizes a motion, an acceleration, and an internal energy reserve (e.g. compression, heat).

In the row within thick lines at the bottom of the Periodic Table, the categories of the devices listed in each column are named. These describe the technological implementation of the principles of operation utilized by devices from each column, including the main output of their work. Because of this operation, five separate categories of power producing devices can be distinguished. In this monograph they are called: (1) motors, (2) generators, (3) aggregates, (4) electrostatic machines, and (5) cells or batteries. As it is important to distinguish between each category for the understanding of this monograph, an explanatory definition of each of them is given below.

1. Motors are devices that produce a relative motion of one group of their parts towards another group of their parts. They consume some kind of energy, provided to them usually in the form of fuel or electricity, to produce mechanical energy (motion). This mechanical energy is transferred outside of the motors and supplied for use. Motion produced by motors can also be converted into electricity if these devices are linked with an electricity generator. An example of a motor is a combustion engine used in modern cars, which, after being coupled with electricity generators, can also supply electrical current.

2. Generators (electricity generators) are devices that produce continuous motion (flow) of electrical charges along their conductive circuits. The flow of these charges forms electric currents that are conducted outside of the generators and supplied to users as electric energy. Generators consume mechanical energy (usually supplied by some type of motor) and produce electricity. An example of the generator is a car dynamo.

3. Aggregates are devices which combine together the operation of motors and the operation of generators. Aggregates usually consume fuel and produce electricity. The most crude form of aggregates is obtained through coupling together a motor that represents a given generation of devices with an electricity generator that belongs to a different generation of these devices. An example of such an aggregate is a portable power-station, which combines a combustion engine (i.e. the 3rd generation of gas circulating devices)

with a magnetic generator (i.e. the 1st generation of magnetic field circulating devices). The more sophisticated aggregates combine a motor and generator belonging to the same generation. Thus they are able to produce both, the motion and electricity inside a single device. An example of such a sophisticated aggregate is the so-called MHD generator.

4. Electrostatic machines are devices which cause the motion of electric charges across an insulator or a semi-conductive material that separates two conductive elements (electrodes). In turn, this motion of charges causes the loading of both electrodes with static electricity. Connection of a conductive circuit that joins both electrodes leads to a flow of current, which is then utilized. An example of an electrostatic machine is a Van de Graaff device.

5. Cells and batteries are devices which operate in a manner similar to electrostatic machines. But the semi-conductive material placed between their two electrodes does not contain any moving parts, although such movable parts can be placed on the outer side of electrodes. A cell is one of these devices, whereas batteries contain a series (more than one) of single cells. An example of cells or batteries can be a piezoelectric cell or a thermoelectric battery.

In order to facilitate references to all categories of devices that belong to the same generation, they will be called by the common name of "power-stations" in this monograph. Thus any reference to magnetic power-stations (of the first generation) will include all the power producing devices whose operation utilizes the steady (continuous) motion of magnetic fields, whereas any reference to telekinetic power-stations will means all the devices whose operation utilizes the Telekinetic Effect.

Analysis of the Periodic Table B2 leads to some interesting conclusions which reinforce the conclusions derived from Table B1. Firstly, Table B2 shows that the building of power-stations that utilize various attributes of the motion of magnetic fields has only just started, and soon the second generation of these devices will become operational. This new generation will become reality when mass production of the first commercially useful telekinetic power-stations begins. Secondly, Table B2 repeats the finding of the Concept of Dipolar Gravity and postulates that the operation of all telekinetic power-stations will be based on the acceleration and deceleration of magnetic fields.

B6.2.2. <u>Review of the main types of telekinetic power-stations built so far</u>

A number of prototypes of telekinetic power-stations have already been completed by dedicated inventors who arrived at their construction empirically. But so far there has been no theory which would explain the operation of these extraordinary devices. This has made their improvement and manufacture difficult, and it has also impeded formal recognition of these devices by the scientific establishment. Only after the formulation of the Concept of Dipolar Gravity and the introduction of the Telekinetic Effect was such a theory created. Its existence allows for the rational explanation of the principles of telekinetic power-stations, and formulates a theoretical foundation that allows for a systematic improvement of these devices.

At the present level of development, each one of the existing telekinetic power-stations still has an imperfection that holds back commercial mass production. As we learn from the history of technology, the process of gradual elimination of such imperfections takes many years - see Figure B5. For example, from the time of the first experiments of Benjamin Franklin in 1745, until the completion of the first effective generator by Michael Faraday in 1831, almost 90 years elapsed. But the delay in the date of commercial utilization of the first device that effectively extracts environmental energy does not mean that the building of these devices is unfeasible. The telekinetic power-stations already built have proven that the idea of these devices is feasible, and that their successful utilization in everyday life is only a matter of time.

Prototypes of telekinetic power-stations which are already completed will now be presented. Their discussion commences with a <u>motor</u> called the "Permanent magnet

motor". This motor was invented by Howard Johnson (P.O. Box 199, Blacksburg, Virginia 24060, USA). Historically, it is considered to be the first operational telekinetic motor ever completed on Earth. Its design and operation are published in an article by Jorma Hyypia, "Amazing Magnet-Powered Motor" (Science & Mechanics, Spring 1980, pages 45-48 i 114-117). This motor is also subject to USA patent no 4,151,431. According to reports, its efficiency slightly exceeds 100%. Thus, once started, it sustains its operation until intentionally held back or until its mechanical parts wear out. But the excess of its output power is still too small to be useful. Therefore, its significance lies in proving that the construction of telekinetic devices capable of self-sustaining their own motion is feasible, although the energy produced by this motor hasn't found any practical application.

The general design of the Johnson motor is shown in part (a) of Figure B6. The original design of this motor contains only two relatively moving parts - marked as (1) and (3) in Figure B6. (The introduction of the third part, marked as (2), is proposed by the author to explain ways of increasing the efficiency of such motors.) The stator (3) contains a set of small magnets located in equal distances from one another. Above the stator (3) magnets of the Telekinetic Effect activator (1) move in the direction "V". The shape of magnets (1) is vital, i.e. they must be half-moon or banana shaped. The proportion of dimensions of both groups of magnets, i.e. (1) and (3), is also vital. The operation of the Johnson motor, explained by three subsequent stages of the release of the Telekinetic Effect, is also illustrated in Figure B6. Parts (a), (b), and (c) of this Figure show three successive positions that the activator (1) takes in relation to the stator (3). The thick closed line passing through magnets (1) and (3) represents the path of the magnetic circuits (force lines) that join both of these parts. The operation of this motor begins with stage (a) in which magnetic circuits are in an equilibrium position. But the inertial motion of the activator (1) in the direction "V" causes these circuits to jump into the position shown in part (b) of this Figure. During such a jump, the magnetic circuits are accelerated. This acceleration releases the telekinetic force "P". A small fraction of this force acts also at both ends of the magnet (1), providing them with an impulse that sustains the motion "V". The special shape of the magnet (1) causes it to intercept a part of the telekinetic force released by the motion of this magnet. The jump and acceleration of the magnetic circuits extend until stage (c). The further motion of the activator (1) in the direction "V" causes the final return to the equilibrium position already described in part (a). Then the whole cycle of the operation is repeated.

After an analysis of the Johnson motor it becomes obvious that the greatest value of the telekinetic force P' is released just above the magnets of the stator (3) where the acceleration of magnetic circuits is the largest. This indicates that the efficient telekinetic motors should contain not less than three relatively moving parts, i.e. a stator (3), a Telekinetic Effect activator (1) and a rotor (2). In such a three-part motor the mutual interactions between the stator and the field activator are only to release the Telekinetic Effect. But the force P' of this Effect is intercepted by the rotor, which then feeds a part of the impulse just received back onto the activator - to sustain its motion.

The above shows why the main drawback of the Johnson motor is its low efficiency. This results from the use of only two relatively moving parts instead of three. The activator (1), that normally should release only the Telekinetic Effect, in this motor also tries to intercept its force. Of course, because of its inconvenient location, it intercepts only a small fraction of the force that it releases. Moreover, a part of the force intercepted during the acceleration of magnetic circuits is then eliminated by an opposite force intercepted during the deceleration of the same circuits. This drawback can easily be eliminated through the introduction of a segmented rotor (2), placed between the activator (1) and the stator (3) - as is marked by a broken line in Figure B6. The rotor (2) would spin with a speed at least two times greater than that of the activator (1), and would be joined to it with mechanical gears. During the operation its blades would always appear in the place of the strongest telekinetic force P', and disappear from the area of the opposite action of the Telekinetic Effect. The use of a rotor for the interception of the telekinetic force would also simplify the design of this motor. This is because the activator (1) would not then require magnets of a special shape. It is worth mentioning here that the spinning of the rotor (2) could also be

used for the generation of electric power in a manner similar to that used in the N-Machine. Thus the appropriate design of this rotor could transform the telekinetic motor into a telekinetic aggregate.

While discussing the Johnson motor, it is worth noting that its inventor was unaware of the existence of the Telekinetic Effect, therefore he explains the operation of this device in a different manner. According to his explanation, the continuous motion of this motor is the result of an imbalance between the magnetic attraction and repulsion taking place in opposite directions. Of course this explanation does not say why his motor requires the initial starting impulse of the motion (for its operation caused by such an imbalance should be able to start on its own). Also such an explanation eliminates the justification for a third moving part, thereby giving no theoretical clues as to how to improve the efficiency of this device.

The operation of the next category of telekinetic devices will be explained with the example of a <u>generator</u> called the "N-Machine". A photograph of this generator is shown in Figure B7. The N-Machine is the best known and the most frequently investigated telekinetic device. The results of its operation, and also all of its technical details, are available to interested people. Actually, the N-Machine is so far the only telekinetic device known to the author whose vital technical details are not kept confidential. The inventor of the N-Machine is Bruce DePalma, an investigator of free energy devices, presently recognized as the leader in the scientific approach to the extraction of energy from the environment. The current developmental research on the N-Machine is conducted by the DePalma Energy Corporation (1187 Coast Village Road #1-163, Santa Barbara, CA 93108, USA) in co-operation with the Indian Nuclear Power Board, Karwar, India. Detailed descriptions of this generator are contained in reports prepared and disseminated by the DePalma Corporation. Video tapes that demonstrate its operation can also be purchased on request, and it can be examined in the laboratory of the DePalma Corporation. The prototype of the N-Machine, which has been investigated in detail, is about 1 meter in length and 0.4 metres in diameter. Its weight is around 400 kilograms. Its output reaches 2480 Watts (i.e. 800 A x 3.1 V) of a direct current (DC), for the input rotations of about 2600 rev/min.

A diagram of the N-Machine is shown in Figure B8. The most important part of this generator is a solid, bronze rotor (2) assembled on a rotary shaft (1), and consisting of permanent magnet segments (3). In the current prototype, a NdFeB permanent magnet is used which has the shape of a ring 212 mm long and 330 mm in diameter. It produces a field of about 6750 gauss. The electrical energy produced in the rotor (2) is collected by brushes (4) and (5), which transfer it to an output collector (9). At the end of the shaft (1) a belt transmission (6) is located. The rotor (2) is supplied with the required rotational speed "n" via this transmission (6) and the shaft (1). The speed "n" is produced by the propelling motor (7). The electric current is passed to the motor (7) from an input collector (8).

The operation of the N-Machine is based on an old empirical discovery by Michael Faraday in 1831. He discovered that the spin of a conductive magnetic disc creates a difference of electric potentials between the peripheral and the centre of this disc. But the origin of this difference was satisfactorily explained only after the Telekinetic Effect was discovered. Therefore, the operation of the N-Machine will be presented in the light of the action of this Effect.

In the DePalma generator, a motor (7) produces the rotary motion "n", and supplies this through a belt transmission (6) and a shaft (1) to the rotor (2). The fast spinning of the bronze rotor (2) produces the centripetal acceleration that acts at the force lines of a magnetic field yielded by the magnet (3). This acceleration releases the Telekinetic Effect whose force P begins to act upon the free electrons contained in the bronze rotor (2). Subsequently, this P force causes the dislocation of these electrons and the formation of a difference of electric potentials between the brushes (4) and (5). This difference amounts to about 1.216 V for each n=1000 rev/min. The brushes (4) and (5) are connected to the output collector (9) which passes on the current produced for use. After the short-circuiting

of the outer connections, the present prototype of this generator produces power of about Wo=800Ax3.1V.

DePalma's discovery determined that there is a critical density of the magnetic field which saturates the bronze rotor. Below this critical density, the increase of a magnetic flux supplied to the rotor increases proportionally the electrical output of the generator. But above this critical density, the increase of the field does not cause an increase in the output. It seems that such a saturation results from the number of free electrons which exist in a given volume of bronze, and which can be shifted by the Telekinetic Effect. This critical density can be easily achieved through the application of permanent magnets.

At the present level of development of the N-Machine, some technical obstacles still exist which hold back its commercial use. These obstacles are caused mainly by problems with the effective utilization of the generator's output for a self-supply of its own energy consumption, i.e. the consumption of energy by the electric motor that provides the rotations necessary for its operation. The successful solving of these problems requires further experiments and research. The most difficult aspect of these problems is that the Telekinetic Effect is able to create only about 1.216 V for each n=1000 rev/min of the rotor. Thus the entire power of the N-Machine is contained in its Amperes, not in its Volts. On the other hand, designs of highly efficient electric motors require an input voltage of about 24 V. Therefore a commercially viable N-Machine needs to be able to produce this high voltage.

Soon after the completion of one of the first prototypes of the N-Machine, a group of experts several times measured precisely the overall efficiency of the DePalma generator. This first crude prototype, in the most unfavorable conditions, had an efficiency amounting to 104.5% of the total energy input to the electric motor that supplies rotational speed "n" to the generator - see "Report on the Initial Testing Phase of N-1 Electrical Power Generator" (DePalma Energy Corporation Report #1, 6 January 1988), page 6. The results obtained by DePalma encouraged other investigators to repeat his findings. All three investigators who made their results available (Trombly, Tewari, Kincheloe) confirmed the achievement of a similar level of the generator's overall efficiency. Just recently, after the completion of a more sophisticated DC prototype, DePalma reported in a private letter to the author about a significant increase in this efficiency.

One of the reasons for a low commercial viability of current telekinetic devices is that they must co-operate with the devices of the first generation, while they themselves belong to the second generation. For example, the Johnson motor requires a generator of the first generation to convert its mechanical output into electricity, whereas the DePalma generator requires a motor of the first generation to feed it with the motion. This draws us to the obvious conclusion that the overall efficiency of telekinetic power-stations can be increased in a simple way through the coupling together of two devices of the second generation. Thus, the more than 100% efficiency of the telekinetic generator would add to a similar efficiency of the telekinetic motor, significantly increasing the excess of overall efficiency. Even better results would be achieved when the operation of both of these devices could be combined inside a single device. In this way a telekinetic aggregate would be achieved in which two separate Telekinetic Effects would produce simultaneously: (1) the motion required for the operation of this device, and (2) the electricity representing its output. In such an aggregate the energy loss from friction would be reduced to half of the losses from the separate motor-generator devices. Therefore its efficiency would also increase about two times.

An example of an aggregate already in existence is a telekinetic electrostatic machine called the INFLUENZMASCHINE. Its photograph is shown in Figure B9. The invention of the INFLUENZMASCHINE is attributed to a Swiss clock-maker named Paul Baumann. In 1978 he constructed the first such machine, called TESTATICA, which presently is owned by the METHERNITHA community (CH-3517 Linden near Bern, Switzerland). The newest (improved) models of this machine are called the THESTA-DISTATICA. The developmental work on the adoption of this free energy device for the purpose of commercial manufacturing is conducted by the other group called VENE (P.O. Box 1451, CH-3601 Thun, Switzerland). The name VENE originates from the

abbreviation of the words: Vereinigung zur Erforschung natürlicher Energiequellen. First prototypes of the INFLUENZMASCHINE completed by this group are already offered for sale (an aggregate producing about 3 kW costs around 10,000 SFr). Machines built by VENE differ from those by METHERNITHA, as they produce AC current. Therefore the output parameters of the VENE machines can be adapted to any requirements of the user through the application of transformers. The VENE group also works on the development of a telekinetic battery (which operation is described near the end of this section) in which the electro-magnetic pulsations are achieved through the application of crystals.

The INFLUENZMASCHINE was initially built as a single-disc DC telekinetic device, quite similar in design and operation to the Wimshurst electrostatic machine. However, as a result of subsequent improvements, a second disc was added later. The use of two discs allows for a cumulative replenishment of electrostatic charges, and also for employing the mutual interactions between both discs to sustain their relative rotations. Therefore the two-discs INFLUENZMASCHINE, according to the definition from section B6.2.1, represents a telekinetic aggregate. The propelling mechanism of this aggregate operates like an electrostatic motor of the first generation, but its propelled mechanism operates like a telekinetic electrostatic machine of the second generation. Only two-disc aggregates are now produced.

A short description of the INFLUENZMASCHINE is published in the West-German magazine Raum & Zeit, no. 34, Juni/Juli 1988, page 94. Its newest operational prototype (THESTA-DISTATICA) weighs about 20 kg. Discs of this prototype rotate with the speeds of n=80 and 40 rev/min. According to the developers' specifications, it produces DC current of about 700 to 900 V and fluctuating power of up to 3 kW. The electric field between discs leads also to the strong ionization of air and to the production of ozone as a by-product of its operation. After the initial starting by hand, discs of this device self-sustain their rotations. Thus, the entire output from the INFLUENZMASCHINE represents an excess of free energy that already can be utilized for some consumption purposes. Therefore this machine is the first telekinetic aggregate in the world which is sufficiently effective for instant commercial utilization. As such, this aggregate represents enormous profit-yielding potential. So, for understandable reasons, the developers of the INFLUENZMASCHINE keep its major technical details secret. The descriptions provided below do not originate from the developers of this machine, but they were reconstructed (or rather: re-invented) by the author on the basis of sparse information and photographs available.

Vital parts of the INFLUENZMASCHINE are described below (compare Figures B9 and B10). The most important parts of this machine are two parallel discs (d') and (d"), made of a good electric insulator (e.g. glass), both 55 cm in diameter, mounted coaxially close to each other on a common shaft, and rotating quickly in opposite directions (n') and (n"). To the external surfaces of these discs, 48 tin-foil electrodes with square perforations are attached (laminated). These electrodes are made of a magnetically neutral metal (e.g. silver, gold), and are arranged concentrically towards the center of each disc. Each single leaf of these electrodes is 19 cm long, and looks like a small ladder. In the front of the first disc (d') a small magnetic disc (d) is placed. The diameter of this disc is 12 cm. It holds a single magnet (m), utilized for the activating of the Telekinetic Effect. The force lines from this magnet pass through the disc (d') around its electrodes. Two powerful Leyden jars (L-) and (L+), whose outer coatings are connected with each other, have their inner coatings connected to the collecting combs (C-) and (C+) and the induction heads (H-) and (H+). The combs collect the electrostatic charges from discs and supply these to the Leyden jars. A user draws the output of this machine from two wires connected to the inner coatings of jars (L-) and (L+). The opposite sides of both discs are connected together by two fixed bridging wires (i) that end with small brushes of gilt threads.

The operation of the INFLUENZMASCHINE is illustrated in Figure B10. Because this operation is quite complex, in the case of someone having difficulties with understanding it the author recommends additional reading about the operation of the Wimshurst's electrostatic (influence) machine, whose models are utilized for discharges production in laboratories of almost every high school. The INFLUENZMASCHINE combines as many as

five different operational principles in one device. These are: (1) the electrostatic induction of charges on electrodes of the front disc, (2) the electrostatic induction of charges on electrodes of the back disc, (3) the self-sustaining of the continuous rotation of discs, (4) the replenishment of electrostatic charges, and (5) the telekinetic compensation of losses by friction. Each one of these principles is explained separately below.

1. The electrostatic induction of charges on electrodes of the front disc (d') - see part (a) of Figure B10. Let us assume that the inner coatings of two Leyden jars marked as (L-) and (L+) are initially charged with negative (-) and positive (+) electricity. Thus, these charges also appear on the square induction heads (H-) and (H+) connected to these coatings. The heads are suspended close to each other above electrodes number (1') and (5'), but do not touch them. The presence of static electricity in heads (H-) and (H+) causes their repulsive and attractive interactions with the natural electric charges existing in the metal of electrodes (1') and (5'). As a result, opposite electrostatic charges of these electrodes will be separated into the opposite ends of the electrodes. Therefore, when the inner ends of the electrodes (1') and (5') are connected together with the fixed bridging wire (i'), the flow of charges must occur. This flow causes only positive (+) charges to remain on the electrode (1'), whereas only negative (-) charges remain on the electrode (5'). Because the disc (d') is in a state of continuous rotation in the direction of (n'), after the electrodes (1') and (5') are so charged, the next subsequent pairs of electrodes are charged in exactly the same manner. Thus, the head (H-), supported by the bridging wire (i'), charges positively (+) each electrode running under it, whereas the head (H+) in a similar way charges negatively (-) each electrode running under it. When the rotation of the disc (d') turns the first electrodes which are charged into a position underneath the combs (C-) and (C+), the electric charges of these electrodes will be collected and stored in the Leyden jars (L-) and (L+).

2. The electrostatic induction of charges on electrodes of the back disc (d") - see part (b) of Figure B10. In exactly the same way, as with the front disc (d'), the back disc (d") is also charged. In order to increase the communicativeness of Figure B10, the back disc (d") is shown here as having a larger diameter, although in the actual machine diameters of both discs (d') and (d") are exactly the same.

3. The electrostatic sustaining of the rotation of both discs - see part (c) of Figure B10. The discs (d') and (d"), whose electrodes are charged electrostatically, represent together an electrostatic motor of the first generation. This motor transforms the electrostatic energy accumulated in its Leyden jars into relative rotations of both discs. Therefore, after the jars of this motor are loaded with electrostatic energy, it will continue the rotations until the entire energy is dissipated through friction.

The operation of the INFLUENZMASCHINE as an electrostatic motor of the first generation is illustrated in Figure B10 (c). In this motor, the relative rotations of both discs are produced by the mutual attraction of electrodes having unlike charges (e.g. the electrode (4') of the front disc attracts the electrode (5") of the back disc, and vice versa), reinforced by the mutual repulsion of electrodes having like electrostatic charges (e.g. the electrode (5') of the front disc repels the electrode (4") of the back disc, and vice versa). In the vicinity of electrodes numbers (1) and (5) the forces of this attraction and repulsion are oriented in such a manner that they propel the continuous rotations (n') and (n") of both discs. In the part (c) of Figure B10, the forces which are significant for sustaining the rotations of both discs are shown as small vectors running between electrodes. Analysis of this Figure reveals that the more induction headings (H) a given machine has on both discs, the higher is its propelling capability. Therefore, the real INFLUENZMASCHINE will use more than 2 such headings per disc. It is also worth mentioning here that similar forces of electrostatic repulsion or attraction are in fact produced between each pair of electrodes. But the majority of these forces are insignificant for the operation of the motor described here. This is because they act in the directions which either neutralize each other's propelling action, or try to deform the discs (instead of supporting their rotations). The vectors of these non-significant forces are not indicated in Figure B10 (c).

4. The replenishment of electrostatic charges. If one analyses the mutual interaction between electrodes of both discs, than it becomes obvious that the motion of charges of one disc must produce an electrostatic induction of charges in another disc. Thus, a cumulative mechanism of electrostatic replenishment of charges is achieved. Because such a replenishment lies at the foundation of the operation of all of Wimshurst's electrostatic machines, its description will not be repeated here.

5. The telekinetic compensation of losses for friction - see part (d) of Figure B10. The principles described in items 1 to 4 above will cause that, after the initial hand-turning of the machine to load its Leyden jars with an electrostatic energy, the INFLUENZMASCHINE would continue its rotation until the energy accumulated in its jars is dissipated in friction. Thus, in order to rotate its discs forever, the operation of the machine must also include some mechanism that restores the charges that are lost by friction. This mechanism is provided by a small rotating disc (d) with a magnet (m) attached to it. The magnetic field produced by this magnet penetrates the disc (d') and releases the Telekinetic Effect in it. This Effect forces a flow of electrons from the material of disc (d') to the electrodes of this disc. The principles of this flow are similar to those utilized in the N-Machine. Of course the small charges released by the Telekinetic Effect are then replenished in a cumulative manner by the electrostatic induction (see item 4 above). If the amount of energy produced in this manner is larger than the amount of energy lost by friction, the INFLUENZMASCHINE, once started by hand, will rotate infinitively, loading its Leyden jars with a continuous stream of electrostatic energy.

An interesting finding concerning the exchange of heat with the environment by the INFLUENZMASCHINE was reported by the chairman of VENE. It was noted that after inserting this aggregate in a thermally insulated box, it gradually lost its power and finally ceased working (stopped). This important finding led to two findings, both of which confirm that the gradual cooling of the environment was responsible for stopping the INFLUENZMASCHINE. The first states that the efficiency of heat absorption from the environment for this aggregate must depend on the external temperature (the lower the environmental temperature, the less effective is the heat absorption by the Telekinetic Effect). Thus the aggregate should work very well in the tropics but rather poorly in the antarctic. The second finding indicates that the majority of the INFLUENZMASCHINE's power production is obtained through an electrostatic replenishment of charges, not by the action of the Telekinetic Effect. The Telekinetic Effect only tips the balance of energy onto the "over 100%" side, whereas the real production of power in the INFLUENZMASCHINE occurs through the replenishment mechanism. So, when a slightly cooler environment upsets this delicate balance, the aggregate simply refuses to work.

The technical problems of the INFLUENZMASCHINE waiting to be solved are: (1) the production of a high voltage (around 700 to 900 V) accompanied by a small amperage (this problem seems to be a reversal of the problem with the N-Machine); (2) the significant instability of the output voltage, reaching around 200 V (or 25%), which leads to the fluctuation of the power supplied; and (3) the lack of a control mechanism that would adjust the parameters of output to the user requirements. Thus, in practice, the design of the INFLUENZMASCHINE still requires fine-tuning before its effectiveness, reliability, and stability reach the level of the present power producing aggregates of the first generation. If the profit-yielding potentials of the INFLUENZMASCHINE do not make co-operation on its development impossible, then the solving of these problems could be achieved by the co-operation of a number of inventors. In this way, the combined effort of many minds in a relatively short time could put this aggregate into service.

All of the power-stations described above use only a small portion of the Telekinetic Effect which they release. Moreover, they produce this effect mainly through inefficient centripetal accelerations caused by the spinning of objects. Therefore, after more knowledge about the Telekinetic Effect is obtained, a significant increase in the efficiency of these power-stations will be possible. The utilization of two other, at present not well known, methods of acceleration of magnetic fields can greatly contribute to this increase. These are: (1) a dynamic crushing of magnetic fields originating from a few different sources, and

(2) the impulses (pulsations) of magnetic fields. Both of these methods should release the highly effective Telekinetic Effect. In the case of the pulsating fields, the utilization of this Effect will also not require the presence of any moving parts. Thus such fields should significantly increase the efficiency of telekinetic work, as they would eliminate mechanical friction.

The utilization of pulsating magnetic fields for the release of the Telekinetic Effect will lead to the production of telekinetic <u>batteries</u>. Such batteries will not contain any moving parts. Their operation will depend on the replacement of mechanical motion by electromagnetic motion (i.e. the Telekinetic Effect in them will be released through the oscillations of magnetic fields that originate from electrical oscillations). Therefore their construction will more resemble a cross between a transformer, an oscillatory circuit, and a rectifier, than the mechanism of a contemporary motor or generator.

A number of inventors are presently working on various models of a telekinetic battery, but each of them prefers to keep secret the details of the device being developed. So far, the only person who has had discussion with the author about his battery is a Filipino inventor named Jose C. Zoleta, presently living in the USA (202-02 Alameda Avenue, Flushing, New York 11362, USA). He calls his battery the "golden circuit configuration".

B6.2.3. <u>Future directions in utilization of the Telekinetic Effect</u>

Throughout the last few decades the hopes of humanity for the resolving of its energy problems have relied on the spectacular idol of destruction called nuclear energy. To earn the benignity of this idol, for decades it was fed with human sacrifices. But while its appetite for sacrifices has grown, its promises remain unfulfilled. Only recently has our attention returned to the magnetic field. The quiet labour of this dedicated ally has helped humanity for thousands of years. But its simplicity has detracted our attention. Therefore now, when unlimited capabilities of the magnetic field slowly become realized, we should all give our support towards its investigation and peaceful utilization.

The Telekinetic Effect has not yet been recognized or investigated by scientists. Thus all the developments to date involving telekinetic free energy devices are based on empirical findings and the intuition of individual inventors, rather than on solid research and in-depth knowledge of the principles. For this reason, free energy devices which are already built are still of low efficiency and their output just suffices to cover the friction of their relatively moving parts. To improve the efficiency of these devices, it is necessary to design and complete a programme of extensive laboratory research on the Telekinetic Effect. Such a programme should precede the technological implementation of this Effect. The author is more than happy to provide initial guidance to all those investigators who wish to contribute to this research.

While encouraging research on the Telekinetic Effect, it is also worth while to summarize the future benefits that the technological mastery of this Effect will give us. In day-to-day living, this technology will lead to individual (i.e. as opposed to centralized - which is used at present) electricity production, separate for each household. For example, telekinetic power-stations of the size of freezers will not only maintain the required low temperature in a set room (cooling room) of each house, but also will produce sufficient electric power to fully satisfy the energy needs of the household. And all this almost without cost. Moreover, such individual power-stations will eliminate the present need for the building and maintenance of centralized power houses, dams, powerlines, and other costly devices that have accompanying dangers, consume resources and materials, and pollute the natural environment.

Telekinetic power-stations can also be utilized in energy supply for propelling and production devices. Telekinetic motors built into future transportation devices will eliminate the present burning of fuel, whereas production machinery supplied with individual generators of electricity will give their users independence from the central energy supply.

The utilization of the Telekinetic Effect will not be limited to energy production. Enormous prospects are also opened up by the possibility of the directing of telekinetic force through the passing of magnetic field impulses along a beam of strong light (e.g. in a laser beam). Such beams of light perform the function of "magneto-ducts". The Telekinetic Effect directed in this way will make possible the future transportation (i.e. "beaming up") of people and loads between distances. During such transportation there will be no forces released that interact with the device which produces the Telekinetic Effect. This in turn enables a device of the size of a pocket torch to be held by a child to lift huge machines, buildings or rocks. As distance does not make any significant difference for this form of transportation, the telekinetic beam sent from satellite stations will allow us to transport into orbit any object or person present on Earth.

Progress in the technological utilization of the Telekinetic Effect will also have non-technological advantages. The most vital of these is the paving of the way for the recognition and learning of the biological telekinetic effect. From the history of medicine it is known that complete knowledge about a function of any part of the human body is possible only after a technological device that duplicates this function is constructed. A classical example is the functioning of the heart as a pump in the blood circulatory system. It is known that as late as 1628 William Harvey discovered that the heart functions as a pump. His discovery was only possible because of the earlier construction of efficient piston pumps caused by the development of medieval mining. In turn, his discovery started the development of present cardiology. From the level of present knowledge about telekinesis, it can be realized that our learning about this function of the human brain will take a similar course. Present work on telekinetic devices is paving the way for future knowledge about human psychokinesis. This in turn brings us closer to the time when the unlimited power of psychokinesis is adopted for medical use.

However, the most advanced utilization of the Telekinetic Effect will occur when the propulsors of the Magnocraft of the first generation will also be adopted for the production of telekinetic thrusts. The Magnocraft of the second generation obtained in this way will be capable of telekinetic manoeuvres, recognizable from a white extraction glow that will surround the flying vehicle. Because of the extraordinary properties of such telekinetic flights, this Magnocraft can also be called a "Teleportation Vehicle". Its details are presented in the subsection that follows.

B6.3. Teleportation Vehicle as the Magnocraft of the second generation

In this monograph the term "teleportation" is defined as an absolute version of telekinetic motion utilized for the purposes of transportation. An advanced spacecraft which employs teleportation in its flights is called here the Teleportation Vehicle. The principles of technological telekinesis were explained in the previous subsection (B6.1.2). Thus, the operation of the Teleportation Vehicle can now be deducted from this explanation. The first component of the Periodic Principle, discussed in subsection B1, indicates that a number of individuals must have already sensed some characteristics of this spacecraft of the future, using these ideas in various films, books, and predictions. Therefore the subsection that follows only extends and scientifically justifies the data already gathered by such individuals.

We should expect the Teleportation Vehicle to be built around the year 2200, when the Magnocraft's magnetic propulsors will be supplied with the additional capability of producing the Telekinetic Effect. According to the omnibus trend discussed in subsection B5.1, this vehicle will be developed as an advanced modification of the Magnocraft, capable of operating in either the magnetic or teleportative convention. This explains the other name for the Teleportation Vehicle, which is the Magnocraft of the second generation.

In the Teleportation Vehicles, as in the telekinetic motors, two separate magnetic fields - passive and active - will be utilized to create the Telekinetic Effect. The passive field will originate from Earth, the Sun or a Galaxy, thus occurring in the environment through

which the vehicle flies. For the Teleportation Vehicles this passive environmental field will be the equivalent of magnetic fields produced within the stator of a telekinetic motor. The passive environmental field will then be dynamically crashed into another, active group of magnetic fields produced within the vehicle's propulsors. In the Teleportation Vehicle this group of active fields is the equivalent of magnetic fields produced within the field activator of a telekinetic motor. The crashing of these passive and active fields will accelerate them, thus releasing the Telekinetic Effect. The vehicle's motion produced by this Effect will provide the required means of propulsion. The above description shows that the Teleportation Vehicle operates almost identically to the telekinetic motor. Therefore, once the principles of technological telekinesis are mastered, the development of subsequent magnetic propulsion systems of the second generation becomes only a matter of perfecting a sufficiently powerful Oscillatory Chamber.

The same number of technical versions can be built of the Teleportation Vehicle as the Magnocraft. Therefore, except for the Magnocraft-shaped flying vessel (refer to chapter G), this vehicle can also be produced as a Teleportative Four-Propulsor Spacecraft (refer to chapter I), and Teleportative Personal Propulsion (refer to chapter H). In each of these technical versions the Teleportation Vehicle will keep all its major characteristics, which are summarized at the end of this subsection.

At this point it should be mentioned that the effect of operation of the teleportative propulsors will not affect people's health as will the use of magnetic propulsors. For this reason the future users of Teleportative Personal Propulsion will not need to wear the protective garments that are necessary features of magnetic personal propulsion (see Figure H2 to H4). On the other hand, in the age of teleportative propulsion systems, the process of miniaturization will be more advanced when compared with that of magnetic personal propulsion. Both the above factors together, i.e. no detrimental health effects and advanced miniaturization, will make it possible for the elements of Teleportative Personal Propulsion to be inserted surgically into the bodies of people, instead of being carried as additional equipment. Such a surgical insertion will ensure that they will not forget to take this propulsion with them wherever they go, making it always available whenever needed. As the capabilities of Teleportative Personal Propulsion are extraordinary (refer to the last paragraph in this subsection), having it ready for use in any situation could save numerous lives and prevent countless tragedies. For example, the majority of accidents would be avoided if victims could have teleportative propulsors built into their bodies. In addition to this purpose, the Teleportative Personal Propulsion will provide its users with numerous everyday advantages. To give some idea as to what could be achieved with such a built-in body propulsion system, it is sufficient to view the television series "The Magic of David Copperfield" (CB, Director: Stan Harris). All the extraordinary achievements that the magician, David Copperfield demonstrates, such as walking through walls, passing through iron gates, surviving the impact of deadly objects, flying in the air (through the Great Canyon), etc., can be part of the everyday activities of ordinary people in the future.

Although the properties of the Teleportation Vehicle do not correspond to those of any other device already known on Earth, the characteristics of this future spacecraft can be deduced from the Concept of Dipolar Gravity. The author has completed this process of deduction, and the conclusions derived are summarized below. As the limited space in this monograph allows only for the more important ideas to be elaborated in detail, readers are welcome to contact the author about any specific inquiry they may have regarding matters which are discussed.

The key to understanding the extraordinary properties of Teleportation Vehicles is to understand the unique state of matter subjected to telekinetic motion, called here a "telekinetic state". The telekinetic state of a material object (e.g. a vehicle or a person) is a reversal of the physical state of that object, and appears only for the duration of its telekinetic motion. Thus, every telekinetically moved object remains in the physical state before and after this motion occurs, and is transformed into the telekinetic state for the exact duration of the telekinetic motion. After applying the above to Teleportation Vehicles, the telekinetic state will appear while these vehicles operate in the teleportative convention,

and will cease to exist when these vehicles operate their propulsors in the magnetic convention.

Each material object (e.g. vehicle, person, rotor in the telekinetic motor), undergoes the following three transformations when changed into the telekinetic state:

(1) Decomposition from a material (hardware) form into a non-material (software) one. The non-material (software) form of an object can be explained as a kind of energy pattern which is entirely stripped of physical attributes such as mass, density, inertia, optical properties, and so on.

(2) The shift to a new location determined by a telekinetic motion that the object is subjected to. During this shifting the object exists only in its non-material (software) form as an energy pattern.

(3) Recomposition back into the original, material form. After this recomposition is completed, the object begins to exist again in its physical (hardware) form. All its properties return to exactly the same state as they were in before the telekinetic transformations began.

It should be stressed that the transformations occurring within the telekinetic state do not change the level of the object's energy. Thus any work completed in this state must be accompanied by the absorption of thermal energy from the environment.

The three transformations described above are the cause of the extraordinary properties of objects changed into the telekinetic state. Such objects lose most of the attributes and limitations characteristic of the physical state of matter, and simultaneously gain another set of attributes more characteristic of some non-material forms, such as designs, algorithms, information, etc. The new properties of objects turned into the telekinetic state are as follow:

(a) The ability to penetrate through other material objects without disturbing or damaging in any way the structure or consistency of either object.

(b) The ability to be penetrated by other material objects without causing any damage to either of these objects.

(c) The loss of basic physical properties, such as inertia, density, weight, external friction, etc.

(d) The non-absorption and non-reflection of light, thus becoming totally transparent.

(e) The exchanging of thermal energy with the environment. The amount of exchanged energy is an exact equivalent of the energy consumption (or yield) necessary for the sustaining of the telekinetic motion (see subsection D11).

(f) The emission of a white extraction glow. The intensity of this emission is proportional to the consumption of thermal energy caused by the work done telekinetically. The area of the emission exactly reflects the object's outlines.

It should be stressed that all the above properties will be displayed by every Teleportation Vehicle operating in the teleportative convention.

Three basic transformations constituting the telekinetic state (i.e. decomposition, shift, recomposition) are completed during extremely short pulses. Each such pulse probably requires only three separate execution commands issued by the software model of a telekinetically moved object. From the interpretation of time in the Concept of Dipolar Gravity (refer to subsection D3) we know that a single execution command takes an elementary unit of time which probably is shorter than a nanosecond. Therefore a single pulse of the telekinetic state will extend only for an extremely short period of time, too small to be registered even by our instruments.

The complex manoeuvres of the Teleportation Vehicle can not always be achieved in one single pulse of the telekinetic state. For this reason the teleportative propulsors will maintain the cyclical repetition of such individual pulses, in this way extending the telekinetic state for any required length of time. There are two ways of repeating the single pulses of the telekinetic state, i.e. progressive and oscillative. The progressive manner depends on subjecting the propelled object into a series of telekinetic shifts having controlled ranges. This manner will be used when a Teleportation Vehicle is required to fly with a predefined speed along a specific trajectory. The oscillative manner depends on the

repetitive shifting (oscillating) of the propelled object between two extremely close destinations. This manner will be used when a Teleportation Vehicle is required to hover, suspended motionless above the one place. The long periods of the telekinetic state, achieved due to the cyclical repetition of single pulses, will be called here the "sustained telekinetic state".

The characteristic feature of the sustained telekinetic state is that a material object (e.g. a vehicle) subjected to it appears alternately in two opposite states, i.e. telekinetic and physical. The telekinetic state takes place while the single pulses are executed, whereas the physical state exists for the length of time elapsing between consecutive pulses. Depending on the frequency with which the elementary pulses are repeated, the ratio of the duration of the telekinetic state to the duration of the physical state may differ. Because in both these states the optical properties of the object are opposite (i.e. in the telekinetic state the object is completely transparent and thus invisible, whereas in the physical state it is clearly visible) the visual appearance of an object subjected to the sustained telekinetic state is continually changeable from complete visibility, through all grades of partial transparency, into full invisibility. Therefore, the basic property of all the Teleportation Vehicles is the ability to become partially transparent, completely invisible, and able to gradually fade away while remaining motionless.

This ability to gradually fade away gains a special significance when applied to teleportative personal propulsion. We can easily imagine the shock and confusion experienced by someone, knowing nothing about the telekinetic state, being confronted by an advanced alien using telekinetic personal propulsion. Such an alien would be capable of floating in mid-air, penetrating a wall or ceiling, and its body would appear to be transparent giving an impression of a mist. Deadly objects (bullets, knives, swords, axes, etc.) directed at the alien would penetrate through its body without causing damage. This situation is not so hypothetical as some sceptics would claim. Throughout the centuries a large number of people have reported close encounters with mysterious beings whose appearance matches exactly the above description. Although names assigned to these beings have varied throughout the ages - from angels and devils though to succubies and fairies, finishing with contemporary UFOnauts - the basic attributes associated with them always correspond to those of teleportative personal propulsion.

From the mechanism of the telekinetic state stem two other important properties of teleportative propulsors, i.e. the range of a single shift and the speed of the resultant motion. The range of a single shift is the distance that an object (e.g. a vehicle or a person) is moved telekinetically during an individual pulse of the telekinetic state. This range will depend on the amount of magnetic power involved for the creation of a telekinetic effect, and also on the size of the shifted object. The more powerful a particular teleportative propulsor, the greater the range of its single shift. The same powerful propulsors will shift smaller objects to a greater range.

As has already been explained, the duration of a single pulse of the telekinetic state is immeasurely short. Therefore for a single telekinetic shift the present concept of speed looses its validity. This is because the single shift, independently of this range, will be completed instantaneously. If it is technically possible to build teleportative propulsors powerful enough to have a range extending to an interstellar distance, such propulsors would be capable of instantly shifting a Teleportation Vehicle from one star to another. Of course the speed of such a single interstellar shift cannot be described, as it would be close to an infinitive value. It should be stressed here that this applies to a single shift of the telekinetic motion only.

The present concept of speed, developed for physical motion, can also be applied to the slow flights of the Teleportation Vehicles completed in the sustained telekinetic state. Although in such flights all single telekinetic shifts will be completed instantaneously, between these shifts short time delays (gaps) will appear that can be physically described. Through dividing the range of a single shift by the duration of such an inter-shift delay, the speed of the resultant sustained telekinetic motion can be determined. The above explains

why Teleportation Vehicles, independently of the instant shifting, can also fly at any desired speed, or can even hover motionlessly in one place.

Let us now summarize the major characteristics of the propulsion systems operating in the teleportative convention. All the objects transported in the teleportative manner will be capable of instantly shifting to any destination lying within the range of the teleportative propulsors which cause their shift. Moreover, they will be capable also of completing slow flights of a chosen speed, or even to hover motionless in one place. The teleportative propulsors will provide these systems with the ability to penetrate through solid objects such as furniture, walls, buildings, mountains, planets, without causing any damage to themselves or the objects they will pass through. (Note that the ordinary Magnocraft, when flying through solid objects, will always leave in its path tunnels with a glazed surface - see subsection G9.1.1) While in the telekinetic state, the reverse situation can also be applied to all Teleportation Vehicles, i.e. their structures can be penetrated without damage by other solid objects such as knives, bullets, missiles, people, animals and so on. Similarly to the telekinetic motors, none of the Teleportation Vehicles will need any energy supply to sustain their motion, but while traveling they will consume thermal energy from the environment and emit a strong extraction glow. The thin layer of this glow will exactly reflect the outlines of the objects transported in a teleportative manner, whereas the white colour of the light which is emitted will give them a ghostly, unreal appearance. When observed during flight, those surfaces which are covered by a layer of white extraction glow will give the impression of being "oiled with light". Thus a thin, white, ghostly extraction glow will be the means of identifying the operation in the teleportative convention, making it easily distinguishable from the rich, colourful and voluminous lighting effects produced in the magnetic convention.

B7. Third generation of the Magnocraft (Time Vehicles)

The interpretation of time given by the Concept of Dipolar Gravity (see subsection D3) indicates that the counter-material parts of physical objects, which are contained in the counter-world, behave like real-time computer programs. These parts issue sequences of control commands that execute the course of events taking place in our (material) world. In our set of dimensions this flow of the execution sequence is perceived as an elapse of time. Thus, according to the Concept of Dipolar Gravity, time is defined as the "execution control which in the counter-world flows through the counter-material (software) parts of objects". Therefore time does not move, it is the sequence of execution commands that cause our passing through time.

The above definition shows that time demonstrates the ability of the counter-world to execute pre-programmed changes in our world. Thus time has exactly the same interpretation that in our world is attributed to energy. Putting this in different words, time in the counter-world (which sometimes we call also the "world of software") is equivalent to energy in our world. Subsection D3 shows that the sequence of the execution commands that constitute time is issued by the same medium (substance) that forms magnetic fields. This means that time is also a basic attribute of magnetic fields, and that in the magnetic propulsion systems any manipulation of time has exactly the same function as the utilization of internal energy has in the mass circulating propulsion systems. Therefore, showing time as the third energy carrier in the magnetic propulsion systems in Table B1 makes this table symmetrical for all three major types of working media.

The interpretation of time resulting from the Concept of Dipolar Gravity opens new possibilities for magnetic propulsion systems. It shows that technical devices can be completed which are capable of altering the "normal" elapse of time. Although in the material world we are only able to pass through time in one direction and with a speed predefined in advance, in the counter-material world the elapse of time can be accelerated, slowed down, stopped or even reversed in the opposite direction. All such manipulations of time can be achieved through introducing alterations into the sequence of execution

commands in the control signals issued by the software models of the selected objects. The introduction of such alterations will involve very sophisticated magnetic phenomena, which are much more complex than those for mechanical telekinesis. But after technology becomes more advanced, manipulation of time will become as simple as the manipulation of heat or the level of ionization is at present.

The first devices allowing for alterations of the "natural" elapse of time will appear when the Magnocraft of the second generation obtains the additional capability of operating in the time travel convention. In this way the Magnocraft of the third generation, also called the Time Vehicle, will become operational. We should expect the prototypes of Time Vehicles to appear in about 100 years after the first Teleportation Vehicle is completed - see Table B1. This most advanced generation of the Magnocraft will be capable of operating in as many as three conventions, i.e. magnetic, teleportative, or time travel. Of course the vehicles' crews will decide which one of these conventions should be activated in a particular situation. The Time Vehicle will allow its crew to travel not only through space but also through time. Time travel will therefore be possible in all directions, allowing for fast movement into the future, as well as the shifting of time back to the past.

The flight characteristics and phenomena utilized during the operation of the Magnocraft of the third generation will significantly differ from those characteristic of the Magnocraft of the first and the second generations. For example, the Magnocraft of the third generation (Time Vehicles) instead of moving can just disappear from (or appear at) a given place, and can also alter the natural elapse of time for chance witnesses. When observed during flight, they will be surrounded by perfectly round spheres of excited space in which the magnetic equivalent of internal energy is roused at a higher level. The diameter of these spheres will be equal to about two outer diameters of a vehicle hidden inside, i.e. around 9 metres for the smallest Magnocraft type K3. The spheres will emit orange-red or blue-green glows. Because of their appearance, and because the Magnocraft's body that these spheres house inside will be hidden from the eyes of observers, some witnesses of Time Vehicles who have no knowledge of the Magnocraft's theory may interpret them incorrectly as ball lightning.

Numerous technical versions of the Time Vehicle can also be built - the blueprints for three of these are presented in chapters G, H and I. It should be mentioned here that components of the personal version of the Time Vehicle will probably also be inserted surgically into bodies, in the manner which in subsection B6.3 was described for the personal version of the Teleportation Vehicle. In this way, the personal version of the Time Vehicle will become immediately available whenever it is needed, and can not be removed when its user is stripped of his/her clothes.

Time Vehicles provide their users with numerous advantages and capabilities. The versatility of these advantages makes it impossible to fully review or even list them here. But one ability of Time Vehicles deserves our special attention. We will call it the "state of suspended animation". This state can only be observed by someone whose time elapse is accelerated by a Time Vehicle, so that the events he/she experiences take much longer than the length of time that actually elapsed around this person. To better explain this state of suspended animation, the following example is given. Let us imagine that the reader is at this moment in the middle of a busy office, and that he/she is unexpectedly visited by users of a Time Vehicle. In order to remain unnoticed while discussing the matter they have come about, the visitors change the speed of time. They accelerate the lapse of their own and the reader's time, leaving the time of the rest of the office to elapse at its normal speed. Therefore, while for the entire office only a few microseconds passes, the reader experiences events that may occupy several hours. In this way no one else has a chance to notice the visitors' presence, while the reader participates in a long conversation with them. While having this talk, he/she would be surprised to notice that everything in the office appears strangely suspended in motion: the boss, just coming through the door, has one leg lifted in the air, looking grotesque standing on the other; the fast typist is frozen motionless with fingers suspended above the keys; the water that someone pours freezes half-way between the teapot and a cup; the paper ball thrown by a colleague suspends a

few centimeters above the rubbish tin. When the visitors finish their mission and depart, everything rapidly returns to normal. All the events described above continue their course from the point at which they were suspended. The only record that anything at all occurred remains in the reader's memory (if this memory is not intentionally erased by the departing visitors) and in his/her personal watch, which together with the reader's body, should also be accelerated in time.

The state of suspended animation is only the first of numerous advantages offered by Time Vehicles in comparison to conventional or teleportative means of travel. Another very important example is the "one way trip" advantage. This particular capability of Time Vehicles depends on the completion of physical travel in one direction only, i.e. to a chosen destination, whereas the return trip is obtained not by means of actual travel, but by shifting time back to the point when the whole trip began. Technically such "one way trips" are completed by utilization of the definition of time provided by the Concept of Dipolar Gravity and quoted in the first paragraph of this subsection. In order to understand what the definition "time is the flow of execution control through our counter-material (software) duplicates" means, perhaps a comparison of our counter-material duplicates with contemporary real-time computer programs can be useful. This comparison says that the elapse of time is equivalent to the execution of operations in such computer programs. As we know, in a computer program we may return to any point of execution simply by placing a "label" at the beginning of a given sequence of operations, and then by completing an unconditional jump to this label. The same happens with the Time Vehicles. They label a certain point in someone's execution sequence (i.e. a certain point in time), and then they execute the shift of this person's execution control back to that label. The person whose software model is subjected to such a process perceives it simply as the shifting back of time. Therefore, if some advanced creatures who have a Time Vehicle at their disposal wish to take a particular person for a trip, they only need to attach a "label" to his/her execution sequence and then - when the trip is completed - instead of traveling back with this person, they simply shift his/her execution control to that label.

The "one way trip" capability of Time Vehicles allows for an abduction which takes up no period of time. In this abduction a chosen individual is taken on a journey which, regardless of the duration, finishes at exactly the same time as it started. The occurrence of such an abduction would be denied by investigators, as acknowledging it would contradict the most fundamental theories of contemporary science (which assume that it is the time that flows, whereas we stay motionless within this flow). Therefore, it is possible that some people experienced such abductions, but because their memories have been erased at the point of return, neither they nor anyone else are able to have any knowledge of the events that occurred. Even if sometimes the final memory erasure may fail or is incomplete, the incredible reports of abductees are not taken seriously as no-one is prepared to believe their claims of having visited distant planets from other stars, while people close to them had insufficient time to blink their eyes. Especially as the person who tells the story explains with details the trip in one direction, but is unable to explain how he/she returned!

If trees were the most advanced life form on Earth and could develop intelligence, most probably they would speculate about the possibilities of ordinary travel. But without knowing the laws involved in moving from place to place, their speculations would have no limit and would probably be full of paradoxes and unreal ideas. Studying these speculations one perhaps could learn that a tree which moves to the opposite hemisphere must die, because its roots would be pointed into the air while its leaves would be submerged in soil, or that a tree which moves into a different location must simultaneously exist in two realities (i.e. the old and a new one). The same happens with our present ideas on time travel. Because we are not aware of the laws and restrictions that govern this means of travel, we tend to misuse our imagination and impose no limits on our speculations. In this way various science fiction creators introduced such inconsistent ideas as "grandparent paradox" or parallel realities. (The grandparent paradox considers the situation of a time traveler who kills his/her own grandparent. After coming back to his/her own time, this traveler could find himself/herself to be non-existent. The idea of parallel realities claims

that every action taken during time travel initiates another reality whose course of events would differ from realities already in existence.) However, it should be emphasized here that the technical restrictions imposed on time travel eliminate dilemmas such as those listed above. To understand these restrictions it is enough to apply to time travel the "analogy of shifting a program control" (i.e. to consider time travel as equivalent to the shift of execution control within a contemporary computer program). In such an analogy "time is motionless, but we move through it". In turn such motionless time eliminates the chance for parallel realities and for grandparent paradox, similarly as shifting control in a stationary program is unable to change the operations described by this program (although it can change the data-type outcome of its processing). Moreover, such an analogy easily explains the principles involved in slowing and accelerating the elapse of time (i.e. such actions are similar to living with a "normal" speed, except that the execution control passes slower or faster through our counter-material software). This analogy indicates also that in order to instantly shift time backward or forward, an appropriate time "label" is needed (like a control label in contemporary computer programs). Therefore, to put such a "label" in place it is necessary for someone to already live "normally" through the time points in which these labels are placed. This practically means that we are unable to shift time beyond someone's life-span, and that all our shifts can be achieved only between time points which we have already reached in our preceding life and labeled as time travel destination points for future use.

The completion of the Time Vehicle will conclude the development of the numerous Magnocraft-based spaceships. The characteristics of all these spacecraft presented here show that our present knowledge of what we call the "magnetic field" can be likened to the touching in the darkness of the tip of a mountain of gold, and not realizing that within a hand's grasp there is immense wealth waiting to be discovered.

Direction of the development of working mediums (perfecting of devices through time elapse)

Type of working medium	Gen-era-tion	Energy carrier / Device (kind) / Level of perfection	Motors of 1 pair (relative motion)	Propulsors of 1 pair (absolute m.)	Motors of 2 pair (relative motion)	Propulsors of 2 p. (absolute motion)	
3. Circulation of magnetic field lines	3.	3.Time + 2.	?	Time vehicle: 2300	?	?	Future times
	2.	2.Self-mob.+1.	Telekin.motor:2036	Telekin.magno:2200	?	?	↓
	1.	1.Force inter.	Electric mot.:1836	Magnocraft: 2036	Pulsatory motor	Star-shaped ship	.....
2. Circulation of mass	3.	3.Heat + 2.	Steam engine: 1769	Jet propulsion1939	Inter.comb.eng:1867	Space rocket:1942	The present
	2.	2.Inertia + 1.	Pneumatic mot:1860	Hovercraft: 1959	Newcomen engin:1712	Airscrew: 1903	time and
	1.	1.Pressure	Windmill: 1191	Sail: around 1390	Vidi's box: 1860	Balloon: 1863	level
1. Circulation of force	3.	3.Elasticity+2	Bow-inertial drill	Catapult	Spring:around 1500	Ball	↓
	2.	2.Inertia + 1.	Potter's wheel	Battering ram	Flywheel	Centrifugal sling	
	1.	1.Force	Crank	Rafting pole	Drum treadmill	Wheel	
Era	Ge-ne-ra-ti-on	Energy carrier / Device (kind) / Level of perfection	Motors of 1 pair (relative motion) / First motor-propulsor pair: energy transferer separate from working space	Propulsors of 1 pair (absolute m.)	Motors of 2 pair (relative motion) / Second motor-propulsor pair (energy transferer within the working space)	Propulsors of 2 p. (absolute motion)	Prog-ress

Table B1. **The Periodic Table completed for the propulsion systems**. This Table was constructed by listing along its vertical axis the phenomena utilized in the operation of successive generations of propelling devices, and by the listing along the horizontal axis all possible types of propelling devices that utilize these phenomena. The symmetry and repetitiveness in the internal structure of this Table give it enormous potential for prediction, as it allows for the transfer (extrapolation) of vital attributes between various devices. Its empty spaces indicate the devices still waiting to be invented. By analysis of the location of these empty spaces (i.e. their row and column) it is possible to determine the future operation and characteristics of devices yet undiscovered. The invention and development of the Magnocraft was the direct result of the completion of this Table.

A remark regarding Vidi's box: the "Atmospheric Clock" utilizing for propelling purposes a version of the Vidi's box is exhibited in Clapham's Clock Museum, Whangarei, New Zealand. The French makers of this clock claimed it was "as close to perpetual motion as you'll ever get".

Direction
of the development
of working mediums (perfecting
of devices through time elapse)

Era	Type of working medium	Generation	Device (kind) / Energy carrier	Motors (relative motion)	Generators (motion of el.)	Aggregate generators	Electrostatic machines	Cells, batteries accumulators	Time
3.	Propulsion systems with circulation of magnetic fields	3.	1.Dislo,2.Acc. 3.Deformation						Future times
		2.	1.Dislocation 2.Acceleration	Telekinetic motor (2030)	Free energy devices				
		1.	1.Dislocation of mag.field	Electric motor (1836)	Electricity generator:1831				V
2.	Propulsion systems with circulation of mass: energy comes from mass motion	3.	1.Uni.flow 2. Accel,3.Heat	Inter. combus. engine (1867)		MHD generator (1946)		Thermo-electric cell (1922)	^
		2.	1.Unif. flow 2.Acceleration	Pneumatic motor (1860)					Present time
		1.	1.Uniform flow of work.med.	Windmill (1191)					
1.	Propulsion systems with circulation of mechanical force	3.	1.Mot. 2.Accel 3.Deformation	Spring (ar. 1500)				Transducer:1919 piezo-elektr.	V
		2.	1.Uniform mot. 2.Acceleration	Flywheel			Machine by Wimshurst :1878		
		1.	1.Uniform motion	Drum treadmill			Van de Graff Machine (1935)	Electrophorus Volta (1775)	
Era	Type of working medium o	Gene ra ti on	Energy carrier Device (kind)	Motors (rela- tive motion)	Generators (motion of el.)	Aggregate generators	Electrostatic machines	Cells,batteries accumulators	Prog- res
			Technical solution	Expresses combination of energy carrier on inlet and energy carrier on outlet					

Table B2 Periodic Table showing power producing devices whose operation utilizes various forms of motion. Such Tables are very similar to "Mendeléev's Periodic Table of the Elements", but instead of chemical elements they list technological devices. Rows distinguished along the vertical axis of this Table define the subsequent attributes of the motion utilized in the operation of each successive generation of the power producing devices. This vertical axis also represents the elapse of time. Columns placed along the horizontal axis reveal the types of devices whose operation utilize each subsequent set of these attributes. Empty boxes in the Table indicate the devices still waiting to be invented. By analysis of the location of these boxes/spaces (i.e. their row and column) it is possible to determine the future operation and characteristics of power producing devices yet undiscovered.
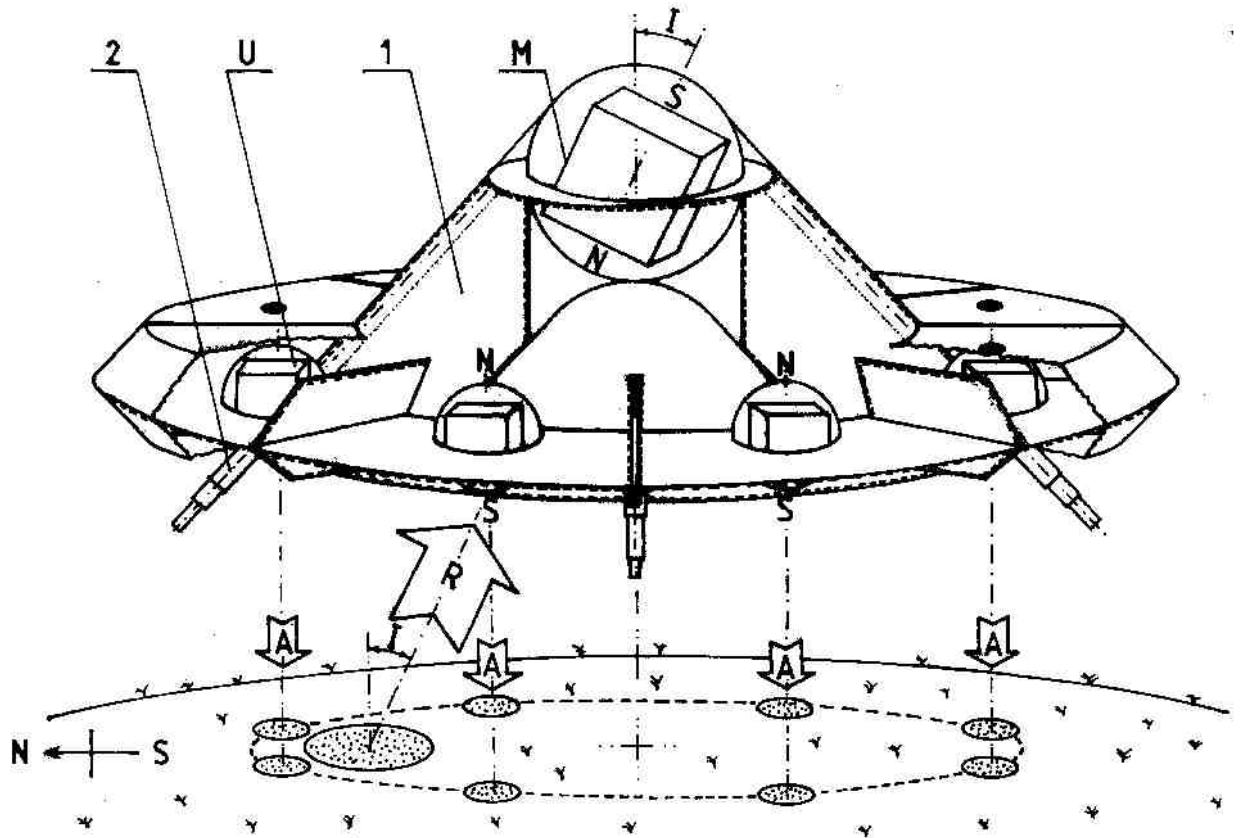
Fig. B1. A side view of the smallest Magnocraft, type K3, illustrating its internal design, main components, and operation. The vehicle has the shape of an inverted saucer. In its centre a main propulsor is suspended, and in a horizontal flange surrounding the base a number of side propulsors is located. Between them the ring-shaped crew cabin (1) is placed. The main propulsor (M) produces a repulsion force "R" through interaction with the environmental magnetic field (which can be the field of the Earth, Sun or Galaxy). The eight side propulsors (U) attract the environmental magnetic field, thus producing stabilizing forces "A". Flights and manoeuvres of the Magnocraft are achieved through a combination of the three following actions: (1) changing of the relation between forces "R" and "A" - this causes the ascent, hovering, or descent of the vehicle; (2) changing of the inclination angle "I" of the central propulsor magnetic axis - this causes the horizontal flights in a south/north or north/south direction; (3) spinning of the magnetic field around the vehicle's shell, thus activating the magnetic equivalent of the "Magnus Effect" that thrusts the Magnocraft in an east/west or west/east direction. The switching on/off of any of these modes of operation causes the magnetic, jerky flights of this vehicle, characterized by the following straight lines and rapid changes of direction without a radius. In this diagram, the front shell of a horizontal flange is removed to better illustrate the location of side propulsors (compare this vehicle with the vehicle in Figure G4). The edges of the walls, made of a material impermeable by a magnetic field, are indicated by a broken line. The edges of the walls which are made of a material permeable by a magnetic field are shown with a wavy line. During normal flights the Magnocraft is always oriented with its base perpendicular to the local course of the environmental magnetic field. But this vehicle is shown as if approaching to land on flat ground, i.e. its base is parallel to the ground whereas the telescopic legs (2) are extended. During landing, the powerful magnetic field yield from the propulsors of this vehicle scorches a ring of vegetation, as marked in this diagram, like the rays of a microwave oven. For the K3 type of Magnocraft, this ring has a nominal diameter d=D/2=3.1 metres.
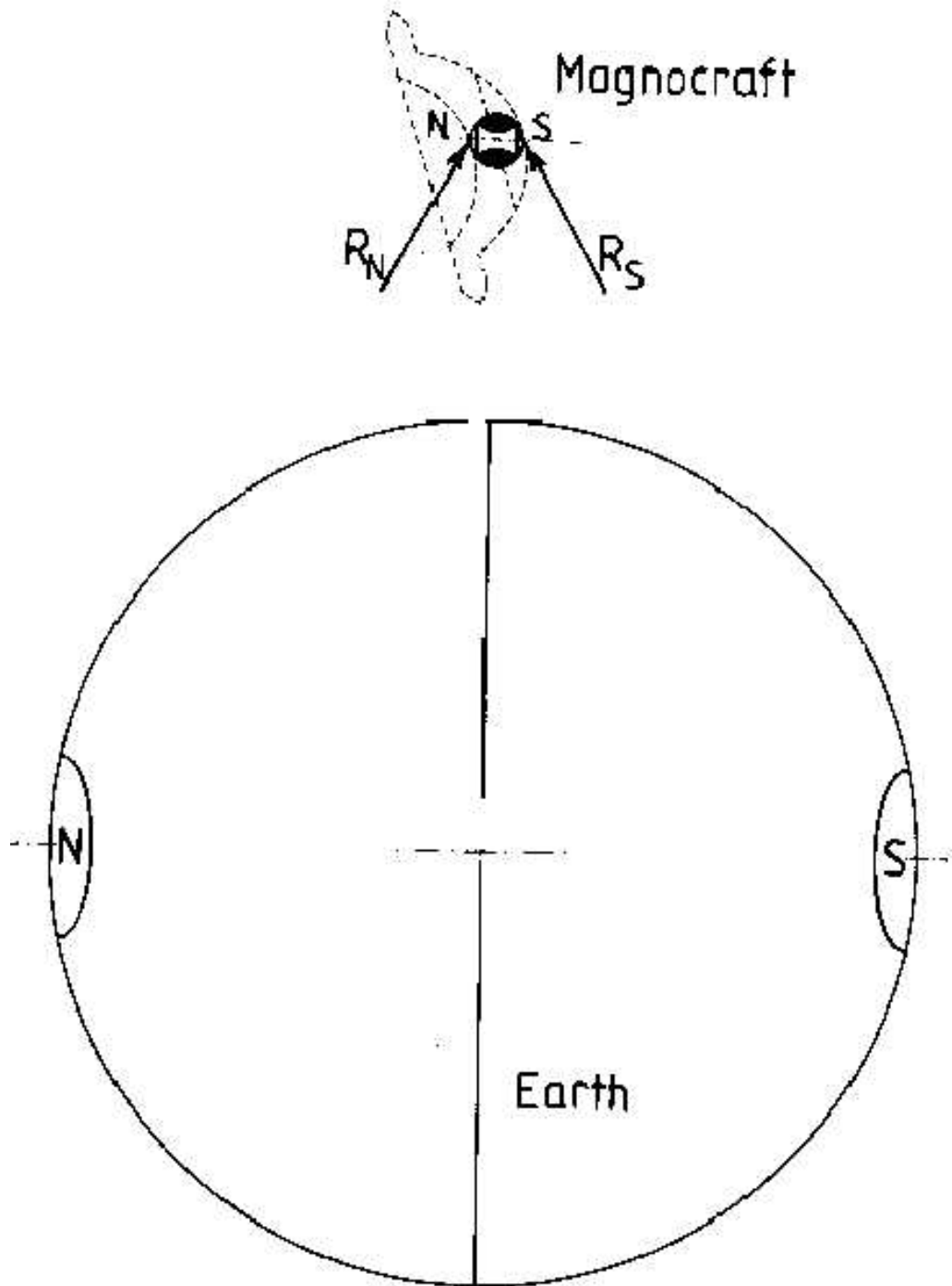
Fig. B2. The Magnocraft's orientation during flight. This orientation optimizes the vehicle's interactions with the force lines of the environmental magnetic field. Therefore a solo flying vehicle favors turning its base perpendicularly to the local course of the environmental magnetic field (i.e. the field of the Earth, Sun or Galaxy). While flying above the Earth's equator, the main propulsor of the Magnocraft has its magnetic axis positioned tangentially to the Earth's magnetic field, and the magnetic poles of this propulsor are directed towards the like poles of Earth (i.e. N of the propulsor to the N of Earth, and S to S). Thus, this main propulsor forms significant repulsive forces "RN" and "RS" which lift the spacecraft. The extremely large effective length of the magnetic bubble produced by the vehicle's propulsors is appreciable even when compared with the diameter of Earth (see subsection G1.2). Therefore, in spite of the small physical size of the Magnocraft, its magnetic dimensions can be illustrated by the proportions from the above diagram.
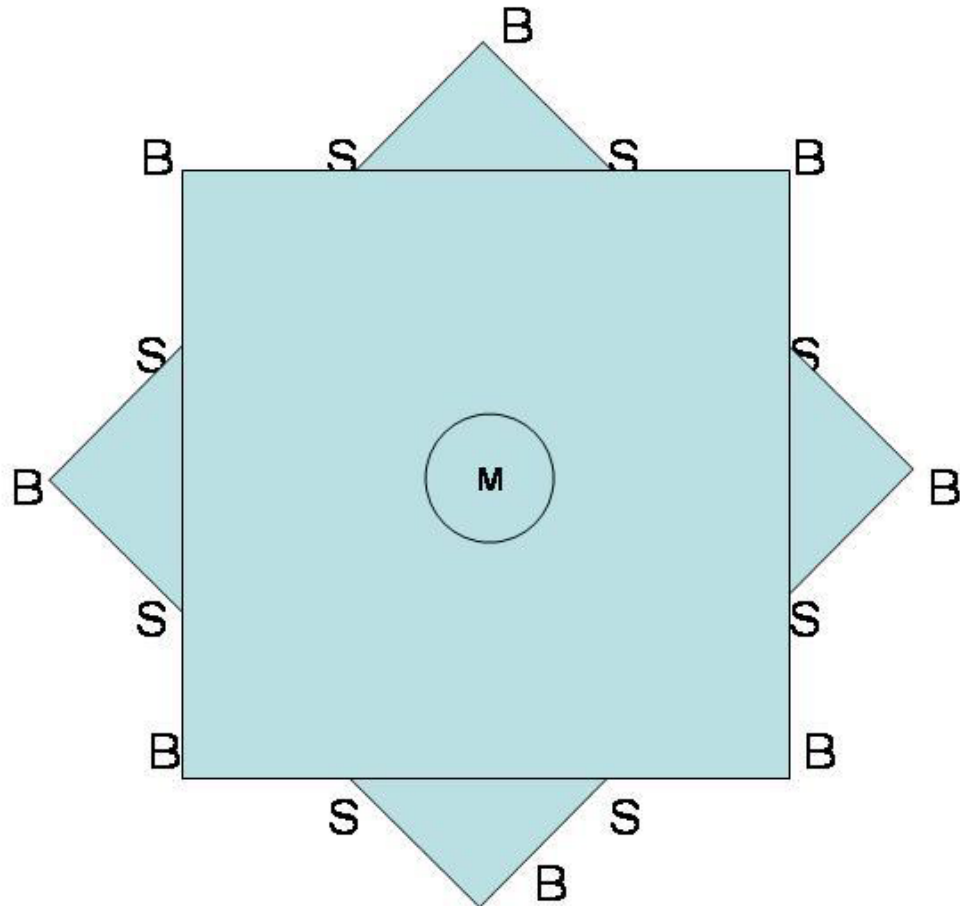
Fig. B3. A general idea illustrating the location of propulsors in a star-shaped space ship. The appearance of this vehicle resembles the eight-pointed star (i.e. similar to one shown above and composed of two squares). Three different classes of propulsors are utilized for the propulsion of this space ship. In its centre a single main propulsor (M) is mounted. Between the arms there are eight side propulsors (S) oriented in opposition to (M). The mutual co-operation between the (M) and (S) propulsors produces a whirling magnetic circuit similar to the one formed by the Magnocraft. On the peak of each arm there is an additional balancing propulsor (B) whose polarity copies that of the main (M) propulsor. The balancing propulsors (B) cause each side propulsor (S) to be surrounded by three different propulsors of opposite orientation (i.e. by two (B) propulsors and one (M) propulsor). Therefore each side propulsor can create its own whirling magnetic circuit, which will interact with the whirling circuit produced by the main propulsor in co-operation with the side ones only. In addition, the appropriate synchronization of field pulsations in the balancing (B) and side (S) propulsors can force the outputs from balancing propulsors to circulate also. The existence of these three classes of propulsors allows the vehicle's magnetic field to form a variety of dynamic states. This in turn is a source of numerous operational advantages, some of which can be extremely useful if the vehicle is used as a space battleship. As an example, it will have the ability to penetrate solid objects in the path of the craft without a decrease in its speed, and the ability to manoeuvre with internal balancing of the reaction torque. Thus the star-shaped space ship can be built for space exploration purposes and deployed during a short period following the completion of the Magnocraft. But the development of Teleportation Vehicles will make this space ship obsolete.
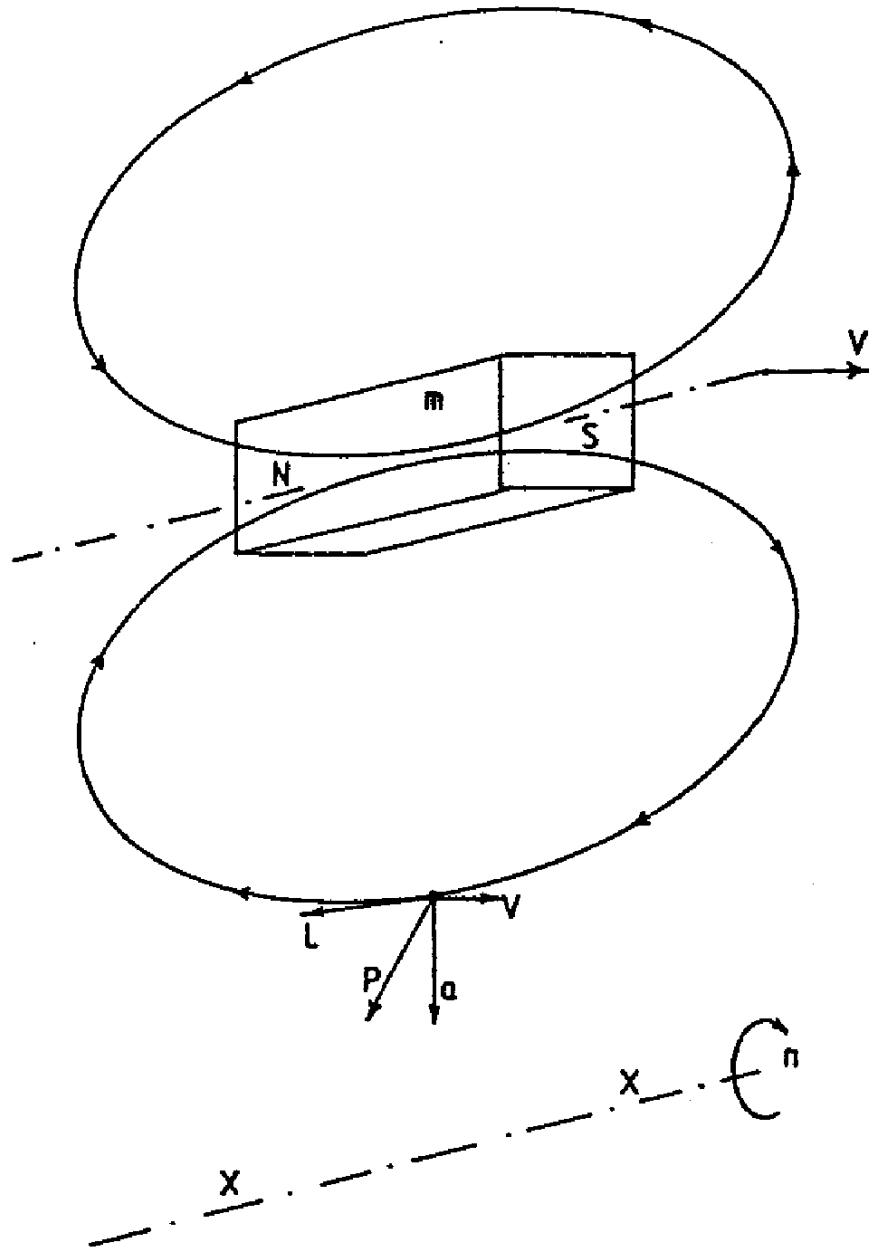
Fig. B4. A diagram that shows the direction of an elementary telekinetic force (P) created by the spinning of a magnet "m" around the axis "x-x". For the situation shown on this diagram, this direction seems to be the vectorial sum of a centripetal acceleration (a), linear speed (V), and the local direction (L) of magnetic field force lines. However, the direction of this force (P) reverses into a direction that is exactly opposite after the reversal of the direction "n" of the magnet's revolutions. Moreover, this direction also reverses after the polarity of a magnet "m" was reversed (i.e. after directing its pole "N" to the side where its pole "S" is now directed). The above shows that the direction of force (P) depends in a complex manner on the direction of vectors (V), (a) and (L), and does not represent only a vectorial sum of these. (During an analysis of this diagram, it should be noted that because of the author's specialization in propulsion systems of flying vehicles, all his publications define the "N" magnetic poles as the pole that prevails at the north geographic pole of Earth, or at the end of a magnetic needle pointed south.)

(a)　　　　　　　　　　　(b)
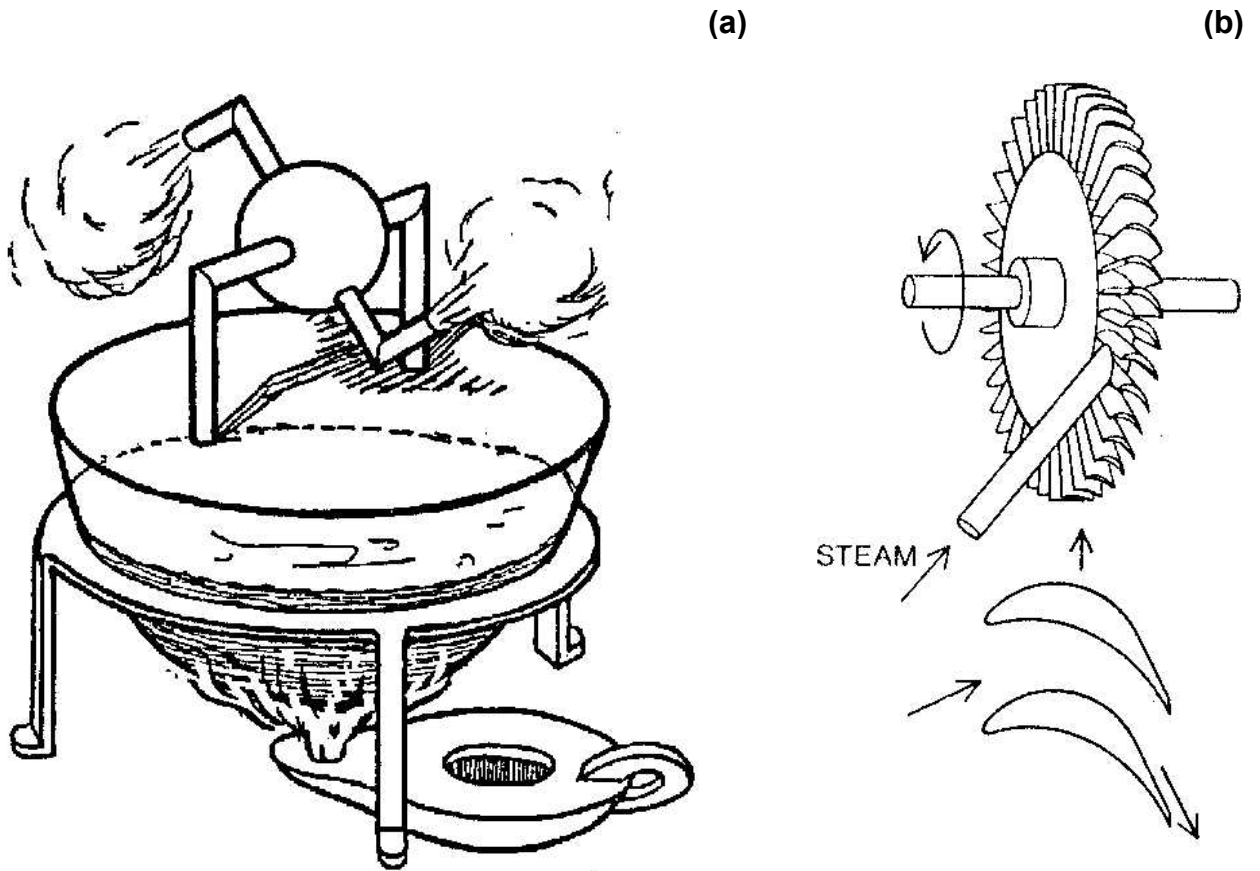
Fig. B5. The evolution of a technical idea, from its conceptual formulation to a viable technological implementation. Around 130 B.C. Hero of Alexandria invented the aeolipile, shown in part (a). It was as late as 1884 when an English inventor, Charles Algernon Parsons, built the first steam turbine in which the principles of the aeolipile are implemented efficiently enough to produce useful mechanical power - see part (b). The efficiency of current telekinetic devices is equivalent to that of the aeolipile. So before these devices become commercially useful, their efficiency needs to be transformed into the equivalent of that of steam turbines.

(a - left) The operation of the aeolipile. It utilizes only jets of expanding steam that escape from two hollow arms, thus not utilizing the energy of pressure, impact, and temperature of the steam. Because of the inefficient conversion of energy carried in the escaping steam, this device produces mechanical energy that scarcely covers its own friction. Therefore, the rotation of the aeolipile (similar to the motion of current telekinetic devices) demonstrates only the correctness of its principles, but cannot supply any useful power.

(b - right) Principles underlying the operation of steam turbines, demonstrated with only one of several rotors. The blades of these rotors deflect the jet of steam, intercepting its inertial impact. In addition, as the steam passes between the blades, it expands and accelerates, propelling them with reaction forces similar to those formed in a rocket outlet. After the steam leaves a particular rotor, it is intercepted by the fixed blades of a stator and redirected to strike the next rotor. Thus, such a cascade conversion of the steam's energy in turbines is efficient enough to produce an excess of mechanical power that can be utilized.
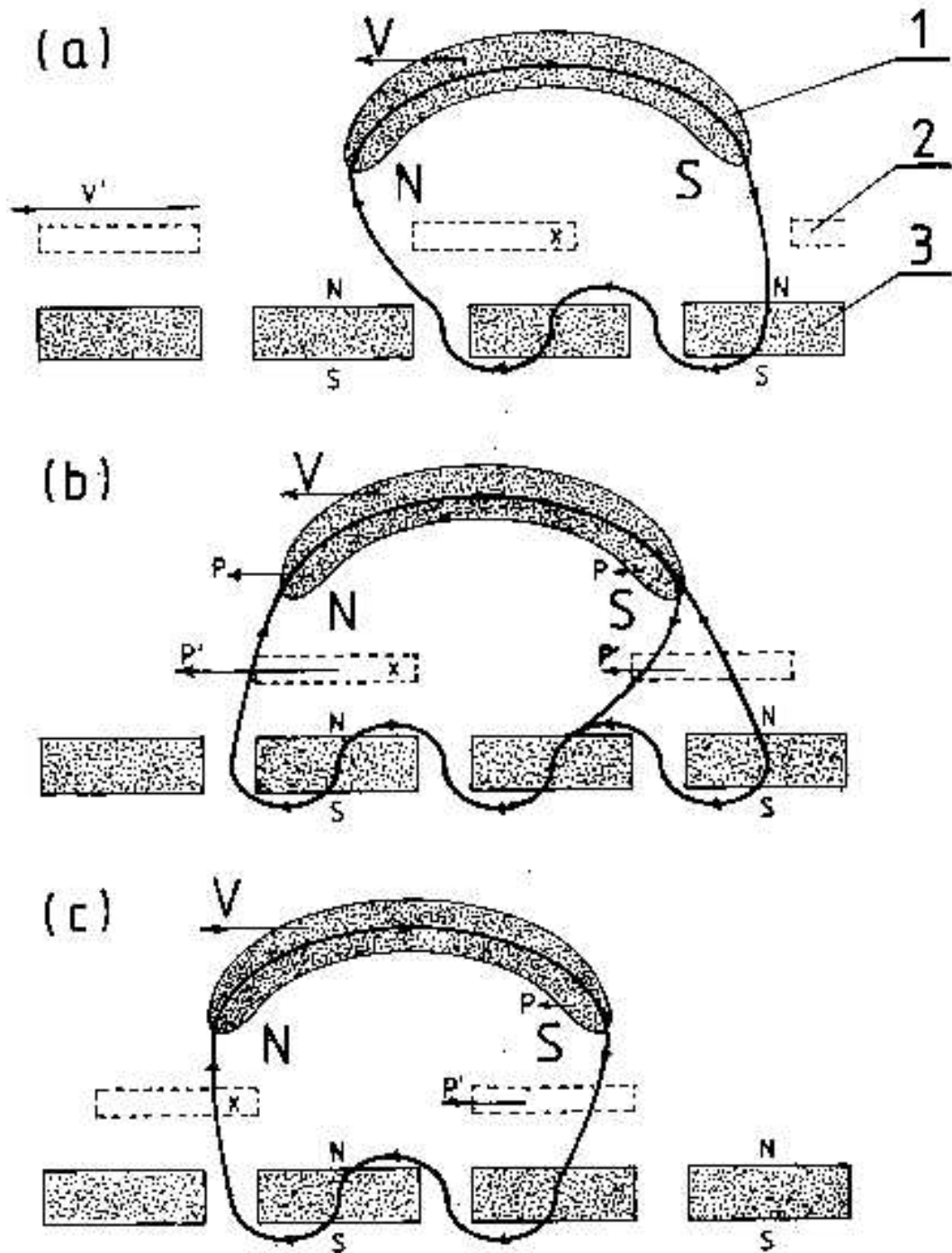
Fig. B6. Three subsequent stages (marked a, b and c) of the operation of the Johnson telekinetic motor. A description of these stages is provided in the content of this monograph. The design and operation of the Johnson motor are originally published in article [4] and also are subject to USA patent no 4,151,431. In the original version, this motor contains only two parts, i.e. the stator (3) and banana-shaped magnets of the Telekinetic Effect activator (1). Its efficiency slightly exceeds 100%, thus hardly sufficing to cover the friction of its relatively moving parts. Therefore, an additional part has been added to this diagram, i.e. the rotor (2) that does not exist in the original device. The purpose of this rotor is to absorb more efficiently forces P' of the Telekinetic Effect. The rotor (2) can also be used for the generation of an electric current (similarly to the rotor from the N-Machine) thus transforming the Johnson motor into a telekinetic aggregate.
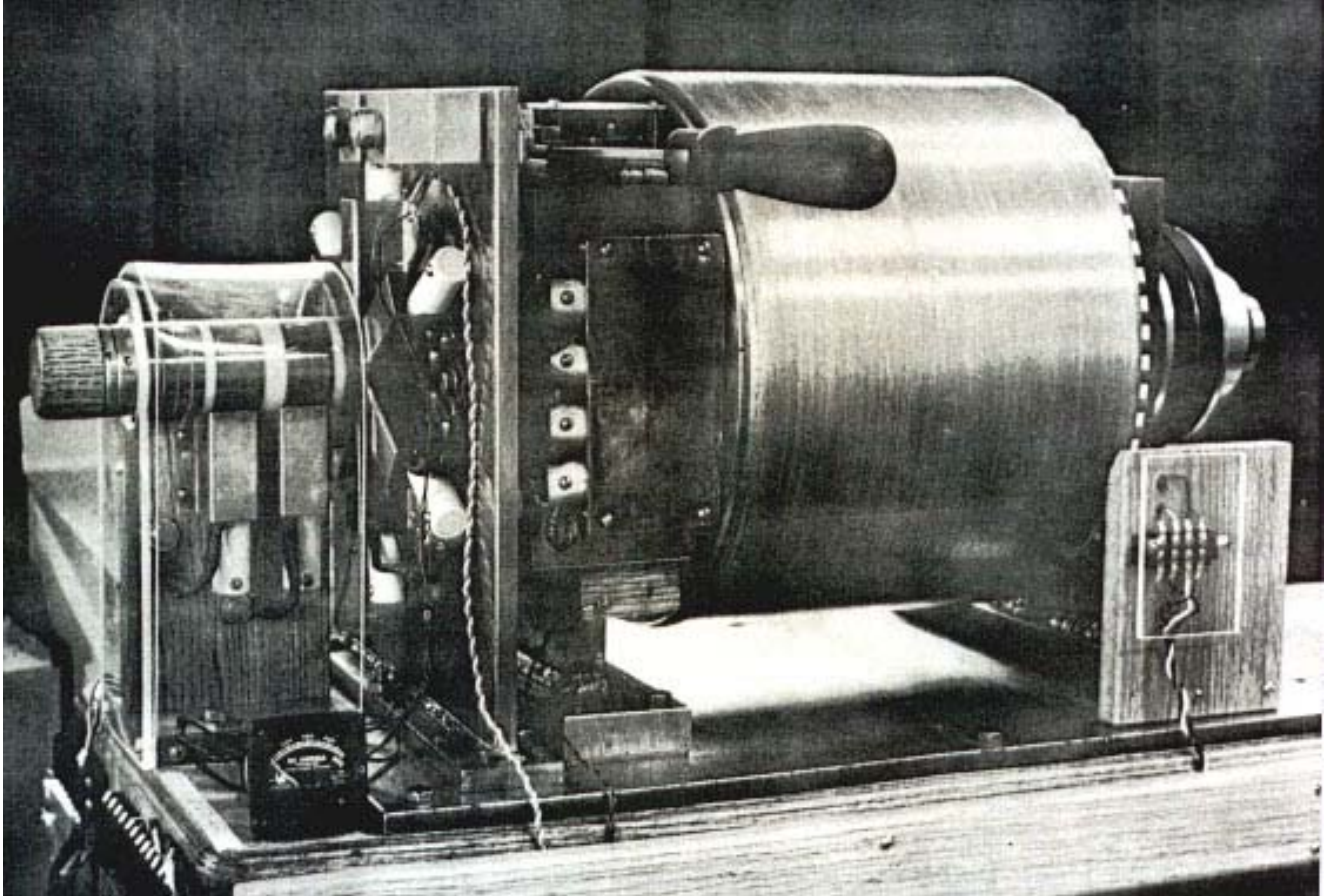
Fig. B7. A photograph of the operational prototype of a telekinetic generator called the "N-Machine". This generator was invented by Bruce DePalma, and is being developed by the DePalma Energy Corporation (1187 Coast Village Road #1-163, Santa Barbara, CA 93108, USA) in co-operation with the Indian Nuclear Power Board, Karwar, India. The overall efficiency of the prototype of this generator, which is already operational, is 104.5%.
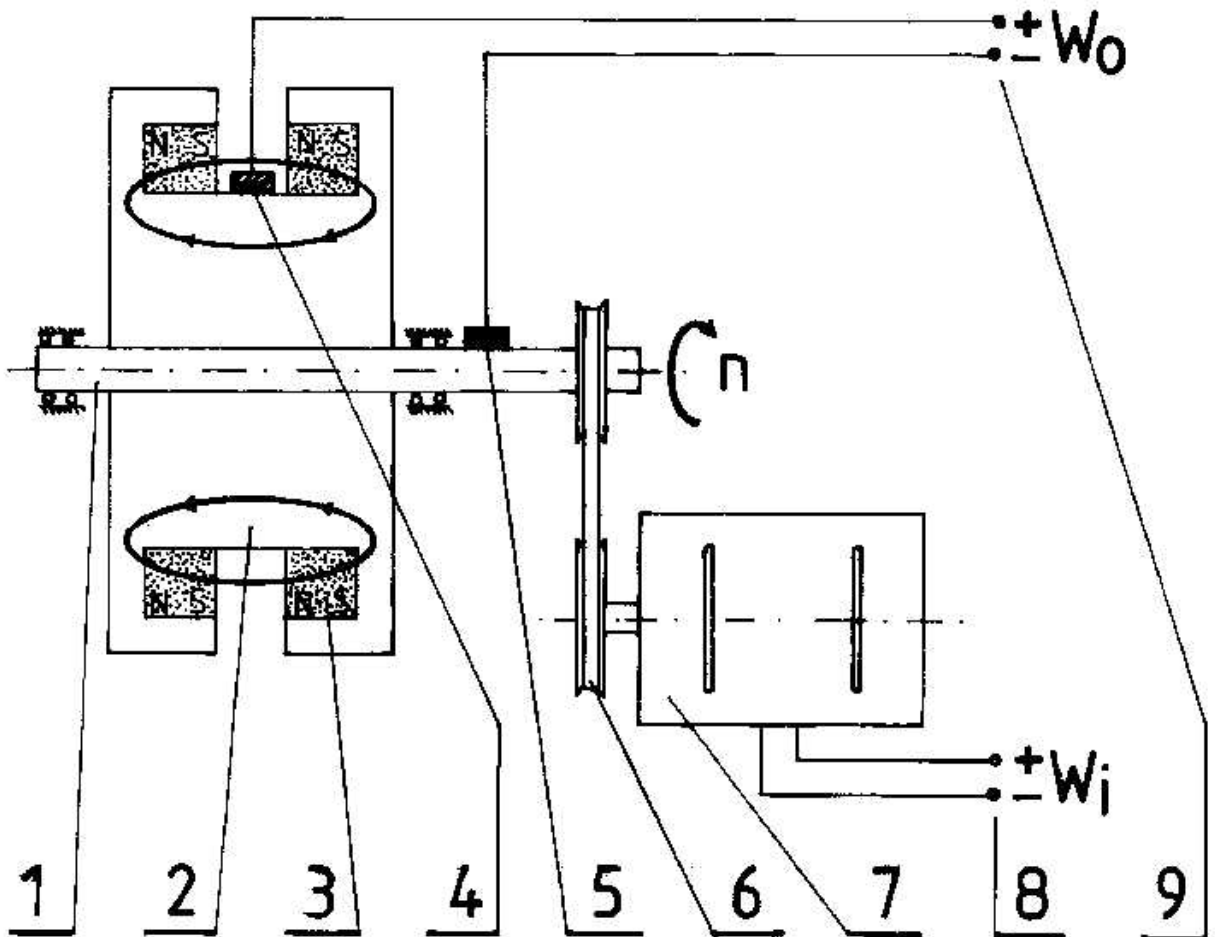
Fig. B8. A diagram that illustrates the design and operation of the N-Machine. This DC generator consists of a shaft (1) made of conductive metal, on which a disc-shaped bronze rotor (2) is assembled. Inside the rotor permanent magnets (3) were placed which yield a field of about 6750 gauss. Brushes (4) and (5) collect the electric current which is produced and supply it to the output collector (9). The propelling electric motor (7) is supplied with electricity through the input collector (8). This motor gives about n=2600 rev/min, which are transmitted through a belt transmission (6) and the conductive shaft (1) into the bronze rotor (2). The centripetal acceleration, caused by the spinning of this rotor, releases the Telekinetic Effect. The forces of this Effect act on free electrons present in the rotor (2), forcing them to flow towards the centre of rotation. The brush (5) touching the conductive shaft (1), and brush (4) touching the periphery of the rotor, collect the flow of current thus formed, and supply it for use.
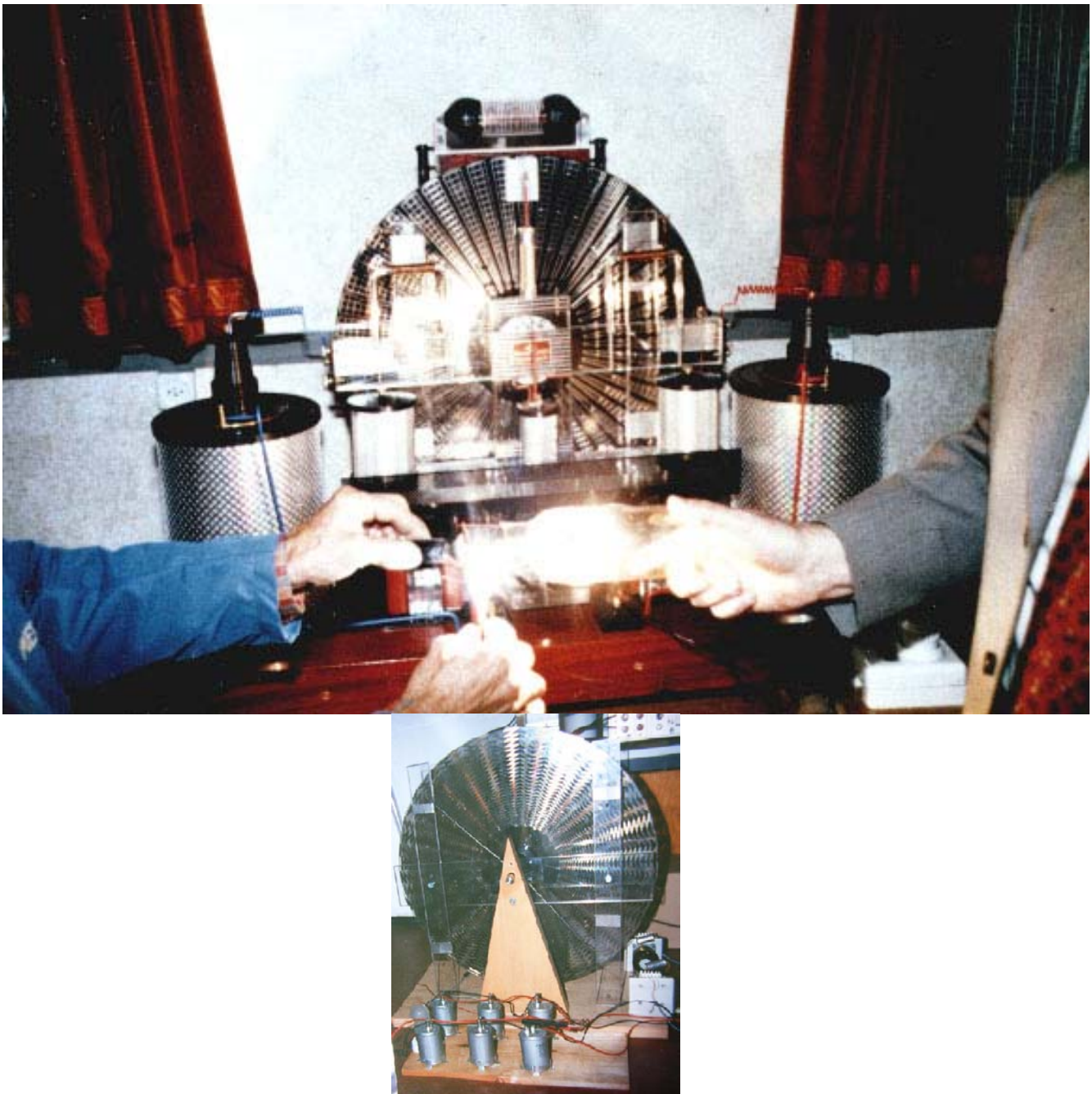
Fig. B9. Photographs of the telekinetic aggregate called the INFLUENZMASCHINE whose operation is based on the principles of Wimshurst's electrostatic machine. Pictures and video recordings presenting this machine in operation are available from the International Research of Natural Resources (P.O. Box 765, CH-1211 Geneve 1, Switzerland), or from two groups working on its development (i.e. METHERNITHA and VENE). Its description is contained in an article published in the West-German magazine Raum & Zeit, no 34, Juni/Juli 1988, page 94. The weight of the latest operational prototype of this machine is around 20 kg. Its discs rotate with speeds of about 80 and 40 rev/min. Developers report that it produces up to 3 kW of electric power with a fluctuating voltage of about 700 to 900 V. A by-product of its operation is the ionization of the surrounding air and the production of ozone. Except for quick starting by hand, the continuous operation of this machine is self-sustained by its spontaneous absorption of heat from the environment, and thus it does not require any external supply of fuel or energy. The INFLUENZMASCHINE is the world's first free energy device, which at the present stage of its development is ready for some commercial applications and is even offered for sale.

     (upper) A direct current aggregate of the METHERNITHA group.
     (lower) Assembly line for alternating current aggregates of the VENE group.
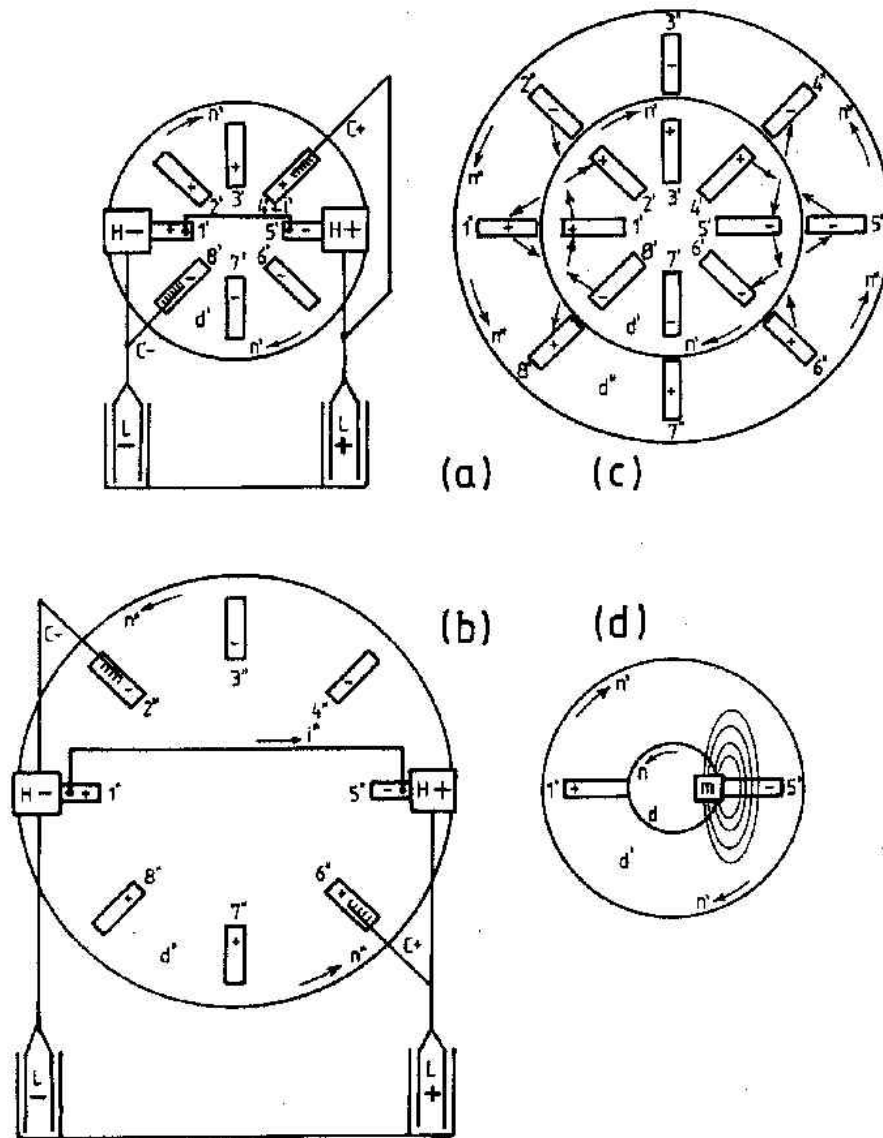
Fig. B10. The operation of the INFLUENZMASCHINE with two discs, which produces a DC current, reconstructed (or rather re-invented) by the author. Explanations of this operation are provided in the content of this monograph. Symbols: C+, C- = collecting combs connected to the inner coating of Leyden jars; d = a small disc containing a magnet (m) that is used for the release of the Telekinetic Effect; d'= front disc made of a good electric insulator (e.g. glass); d" = back disc identical to the front (d') one (in order to increase the clarity of this illustration this back disc is shown as having a larger diameter); H-, H+ = square induction heads that electrostatically influence the machine's electrodes; i', i" = motionless bridging conductors; L+, L- = two Leyden jars which collect electrostatic charges from the electrodes of both discs (users are plugged to the wires that are connected to the inner coatings of these jars); n, n', n" = direction of the rotation of each disc; 1, 2, ..., 8 = numbers of the subsequent electrodes (this drawing shows 8 electrodes only, but each disc of the INFLUENZMASCHINE houses 48 separate electrodes); +, - = positive and negative electrostatic charges; ', " = indexes that assign particular symbols to the front (d') or back (d") discs.

     (a) Principles of the inducing electrostatic charges in the front disc.

     (b) Principles of the inducing electrostatic charges in the back disc.

     (c) The operation of an electrostatic motor that sustains the continuous rotations of the INFLUENZMASCHINE's discs.

     (d) Telekinetic generation of charges that restores their loss from friction.

EVEN IF ANTIGRAVITY EXISTED,
MAGNETIC PROPULSION WOULD STILL REMAIN
THE ONLY FEASIBLE ALTERNATIVE
FOR SPACECRAFT TRAVELING INTERSTELLAR DISTANCES

If we take a realistic look at the possibility of interstellar travel, we will conclude that no propulsion systems applying the jet effect can be used for this purpose. This is because they dissipate their own mass when creating movement. So no matter how huge the propellant resources are that they have accumulated at the moment of starting, such a time must always come when their jet medium will be completely exhausted. The above is not a big problem when flying to the Moon. It can also be resolved for interplanetary travel along a carefully chosen and precisely checked trajectory. But it makes impossible any realistic approach to an interstellar return voyage. We must remember that in such a voyage there are a number of hazards involved, e.g.:
- unknown duration, which may even vary by a number of decades,
- unexpected traps (e.g. black holes, meteorites) waiting along its trajectory and at its destination,
- unpredictable forces, unknown phenomena, hostile civilizations,
- impossibility of any rescue when the crew is forced to rapidly spend the reserves of the propellant.
None of these hazards can be risked when the resources of the propellant are strictly limited.

When we logically exclude the possibility of using mass-dissipating propulsions, the only force (phenomenon) able to carry people to the stars is the repulsive interaction of two fields. The propulsion systems utilizing an interaction between fields will not dissipate their masses during a trip, and also their energy resources will be self-rechargeable. Hypothetically we can consider the possibility of building two such propulsion systems: (1) based on a magnetic field, and (2) based on a purely hypothetical field called "antigravity". Practically, however, after a detailed examination of both of these systems, we will see that only the realization of magnetic propulsion is feasible.

The name "antigravity" is assigned to a speculative field which is supposed to produce repulsive gravitational interactions in our set of dimensions. The possibility of the existence of such field is postulated by the concept of monopolar gravity to which contemporary science adheres (see subsection D1). But the Concept of Dipolar Gravity, newly introduced by the author in chapter D, definitely states that in our set of dimensions only a gravitational field prevails, whereas the field which represents a reversal of gravity (called here "counter-gravitational" field) is strictly limited to another, parallel set of dimensions (i.e. parallel world). The Concept of Dipolar Gravity compares the co-existence between the gravitational and counter-gravitational field to the co-existence of opposite poles in a magnet (i.e. they can not mix together). Therefore, the counter-gravitational field introduced by the Concept of Dipolar Gravity has in fact an entirely different interpretation from that of antigravity. Counter-gravity: (1) prevails in a set of dimensions separate from ours, and (2) its action is unable to affect objects contained in our set of dimensions. Because both concepts, i.e. the old concept of monopolar gravity and the new one of Dipolar Gravity, mutually exclude each other, only one of them can be correct. The deductions, evidence, and experimental proofs presented in chapter D reveal that the entire concept of monopolar gravity (so also the idea of antigravity derived from it) is false from the outset, and that the gravitational interactions

correspond to a completely different model defined by the Concept of Dipolar Gravity. This in turn produces conclusive confirmation that antigravity definitely does not exist. The non-existence of antigravity means also that antigravitational spacecraft can not be built.

The conclusive confirmation of the non-existence of antigravity, combined with the logical elimination of mass-dissipating propulsions, leave us with only one option for interstellar travel. This option is magnetic propulsion. The above conclusion introduces some consequences of enormous significance to our future. Let us review the most important implications that result from this:

1. If our planet was in the past, is at present, and will be in the future, the target for spaceships of a technical civilization originating from another star, the only propulsion that they could utilize for travel is that of magnetic propulsion (see chapters from part 3 of this monograph).

2. If men and women will ever travel to any star, they must use the Magnocraft.

3. Sooner or later our civilization must commit itself to the building of the Magnocraft.

In spite of the proof of the non-existence of antigravity presented in this monograph, when reading futuristic publications or popular books of "science fiction" one may obtain the strong impression that the most ideal propulsion man could create is an antigravitational spacecraft. Many visions of the future of our civilization abound with enthusiastic descriptions of what great prospects would be open to us if man masters a method of producing an antigravitational field. The fascination of this idea is so overwhelming that it has almost eliminated any rational approach to the consideration of a magnetic field as the potential medium for future propulsion. For this reason, at our present level of development such speculations about antigravity perform a very harmful function, as they dissipate our sparse intellectual resources and divert attention from that direction of research which may provide instant benefits.

The common attribute of the majority of descriptions concerning the use of antigravity is the speculation only of the positive aspects of this field, completely omitting even the smallest mention of its negative effect. As such, presentations of antigravity to date are unobjective, disseminating a false, one-sided picture and inclining towards unrealistic expectations. There is no excuse for approving such a situation, as the destructive consequences of the possible use of antigravity are evident at first glance. All the phenomena of our universe obey the same set of general laws, therefore application of these laws gives us a precise picture of what would happen if the building of an antigravitational spacecraft were possible. Confronting this objective picture with the image fostered in publications to-date shows that, even if antigravity existed, magnetic propulsion would still remain the only feasible alternative for spacecraft traveling interstellar distances.

The objective of this chapter is to disclose how unrealistic all speculations concerning antigravity are. For this, the author temporarily assumed that antigravity could be produced (although he knows for certain that antigravity does not exist at all). This assumption allowed him to: (1) define the expected properties of this field, (2) describe the most important dangers that the formation of an antigravitational field would introduce, and (3) explain reasons why the use of this speculative field for propelling purposes would be impossible, even if its production would be realistic.

C1. <u>The antigravitational spacecraft would be impossible to manoeuvre and difficult to stabilize</u>

The production of forces within every field can be achieved either through interaction with the force lines of this field or through implementing the buoyancy resulting from gradients of this field. In the case of magnetic fields, their force lines and directions of gradients form a

kind of intersecting multi-dimensional net, allowing for easy manoeuvring of the spacecraft. Therefore the Magnocraft utilizing this field can be compared to the situation of a monkey traveling in tropical bush. Depending on which course this monkey wishes to take, it will choose for support the branches extending in this direction. However, in the case of the gravitational field, the force lines and gradients follow the same direction. Therefore this will make it impossible to manoeuvre any vehicle which uses them. The spacecraft utilizing antigravitational repulsion could be compared to a spider which can only move along a single thread from which it is suspended.

The use of the antigravitational field for propulsion would also create some problems with the stabilizing of the spacecraft. The illustration for this is provided by the previous example of a spider hanging by a single thread. If it starts to spin or swing there will be no means of stopping its motion. It would also seem to be technically difficult to prevent such a spacecraft from overturning. This would resemble the effort of clutching one's own hair for the purpose of pulling oneself into an upright position. None of the believers in antigravity has presented a satisfactory concept for manoeuvring and stabilizing such a spacecraft, whereas it would be very interesting to see the solutions proposed for these vital problems.

It can be asserted (see subsection G4) that the principles of operation of a particular propulsion determine the shape of the spacecraft utilizing them. In the case of antigravity, the spacecraft seems to require the form of a pear or a balloon. But various theories for this propulsion are very far from taking this shape into consideration, and surprisingly favor solutions which are not compatible with the properties of the field which they apply (i.e. a saucer shape).

Those of the antigravity adherents who realize the impossibility of controlling such a spacecraft usually suggest the necessity for combining the antigravity with another kind of propulsion. Antigravity would act along the force lines of the gravitational field, whereas this other propulsion would operate in the remaining directions. With this speculation a vital point is again missed out. This is that the manoeuvring of a spacecraft involves the same values of the thrust forces as does its lifting. Practically, in free space almost every flight for a purpose (not to be mistaken with inertial flight) can be qualified as manoeuvring. Therefore this "other" propulsion would need the same power as the antigravitational one. So, for what reason would it be justified to provide a spacecraft with two independent propulsion systems of the same power, increasing its weight and taking up space, when it is sufficient to have only one which performs admirably all the required functions? This propulsion, however, will not be the antigravitational one, but the "other" propulsion which enables manoeuvring (all the requirements of which are satisfied by the propulsion that utilizes magnetic interactions).

Providing one vehicle with two independent propulsion systems is also technically very difficult, if not impossible. Each different propulsion imposes its own requirements on the shape of the craft, its construction, functioning, energy resources, etc. Frequently these requirements are contradictive to one another. For example, the Magnocraft cannot be additionally provided with a rocket outlet because the centre of this spacecraft is already occupied by the main magnetic propulsor. So it is completely unrealistic to expect that antigravitational propulsion will allow for an easy joining with any other propelling system.

If someone would suggest to the adherents of antigravity that aeroplanes should be provided with all the facilities of boats, because then sometimes they would be able to drift down rivers, this would be taken as a joke. However, their own vision of the antigravitational spacecraft with additional propulsion for manoeuvring is the exact equivalent of such "drifting aeroplanes".

C2. The manoeuvrable antigravitational spacecraft would simply be an advanced version of contemporary rockets

In chapter B it was stated that the full controllability over a particular kind of propulsion requires that its working medium is circulated in a closed loop, part of which passes through the environment (see subsection B2.2). If the medium does not circulate through an environment, the device applying it creates a so-called "semipropulsion" which provides uncontrollable motion (e.g. balloon, parachute, electroscope). The antigravitational field, having a concentric nature, will not allow for the formation of the closed circuits by itself, as happens with the force lines of the magnetic field. Therefore in order to gain manoeuvrability over the antigravitational spacecraft, it would be necessary to cause the circulation of the medium which produces the field, to make up for the lack of circulation of the field itself. This is easier to understand from the example that follows.

Other known fields that have a concentric nature similar to gravity include all electrostatic fields plus the Earth's atmosphere. Therefore any motion produced by interactions with these fields should be comparable to the operation of an antigravitational spacecraft. But when such a motion is obtained, its parameters turn out to be completely uncontrollable - compare the movement of leaves in an electroscope, or the behaviour of a parachute. In order to achieve control over the motion produced by these fields, it is necessary to introduce a circulation of the medium which constitutes them (i.e. the motion of electric charges in electrostatic fields, or the motion of air particles in the Earth's atmosphere). The path of this circulation must enclose not only the moving parts of a given propulsion, but also stationary objects representing the environment. (For example, if this condition is fulfilled for the propulsions mentioned above, the electroscope will turn into an electrostatic motor {e.g. see the INFLUENZMASCHINE described in subsection B6.2.2} whereas the parachute will transform into a hang-glider.) However, after such circulation of particles is introduced, the operation of a given propulsion system ceases to utilize the field itself, and begins to utilize the substance that carries this field.

Similar circulation would need to be employed in the case of the antigravitational field. But to make it possible it will be necessary to produce this field by a type of substance, not by a device - as the believers in antigravity assume. Moreover, this substance is then required to be circulated to the environment in a way similar to the circulation of the output from a rocket or from jet propulsion. However, if the above requirements are met, the antigravitational vehicle would lose its planned characteristics and would turn into a slightly altered version of our present rocket. As we know, the main advantage of using the fields' interactions for propelling a spacecraft is considered to be the complete elimination of mass dissipating during the voyage, so that the distance of the flight will not be limited by the reserves of propellant. The requirement for the circulating through the environment of a substance that produces the antigravitational field would completely ruin this advantage. Therefore the use of antigravitational spacecraft able to manoeuvre in such a manner would not be better than the use of contemporary rockets.

C3. With self-rechargeable propulsion, gravity does not affect energy consumption

Our experience with building electric machines has shown us that propulsion based on interactions of magnetic fields possesses the unique property of converting energy in both directions, i.e. electricity into motion as well as motion into electricity. For example, the motors of some electric trains or trams consume electricity during acceleration or in a trip to the top of a hill, and then produce electricity (by working as generators) and return it back to the overhead powerline at the moment of deceleration or on the way down the hill. Propulsion displaying such a property is called "self-rechargeable propulsion" in this monograph. The

vehicle that applies it will expend energy only on friction and external work. If the spacecraft utilizing this propulsion will fly in free space where no friction or external absorption of energy occurs, then after returning from a round trip its energy resources will be exactly the same as they were at the beginning of the expedition.

It will be asserted in chapter G that the Magnocraft's propulsion is self-rechargeable. So this spacecraft will not expend any energy during return trips in the gravitational fields. Therefore gravity is a completely neutral force for the Magnocraft, and has no effect on its energy consumption. This means that after building the first Oscillatory Chamber there will be no need to fight with gravity.

It is worth mentioning at this point that, theoretically, antigravitational propulsion systems should also be self-rechargeable - if they do not dissipate their mass. Practically, however, they would need to dispose of their energy in order to land (see subsection C5), and also - if their antigravitational interactions were to be produced by a substance (not by a device), the need to circulate this substance through the environment (see subsection C2) would eliminate the chance for a self-rechargeable operation.

C4. The field of the antigravitational spacecraft would absorb huge amounts of energy

In accordance with the Energy Conservation Principle, every change in the energetic state of a particular object will require a supply of energy at least equal to the difference of the energies represented by this object before and after the change. (Note that a low efficiency of some processes of change may cause an additional loss of energy which will increase this consumption.) Applying the above Principle to the gravity phenomenon, the field/energy relationship for gravity fields can be defined. This relationship states that: decreasing to a particular value the gravitational field surrounding a considered object will require the expenditure of at least the same amount of energy as the amount required to lift this object to a height where the gravity field drops to the same value.

The knowledge of this field/energy relationship allows for the determining of the smallest amount of energy needed by the antigravitational spacecraft to fly. In order to calculate this amount we need to find out how much energy would be consumed with the lifting of a particular spaceship to the height where the Earth's gravitational pull acting on it would decrease to zero, and then multiply this energy by the value of the vehicle's acceleration. In the book by Dr E. Wolff, "Spacecraft Technology" (Spartan Books, 1962) tables of gravitational acceleration for heights up to 700 km are published. These tables inform us that at a height of h=700 km the gravitational acceleration, from its value of g_o=9.8067 m/s2 existing at sea level, drops down to the value of g_{700}=7.957 m/s2. Applying the well known equation on potential energy: $E = m \cdot g \cdot h$ we may find the amount of energy required for decreasing the gravity by the increment $dg = g_o - g_{700}$. This energy related to one kilogram of mass is equal to E_{700}=1.727 KWh. Therefore for the complete elimination of the gravitational attraction of this one kilogram of mass, we must spend not less than $E = (g/(g_o - g_{700})) \cdot E_{700}$=9.156 KWh of energy. If we assume that the antigravitational spacecraft should weight about 20 tonnes and that it should produce a negative field equal to $-5g_o$, the energy accumulated in this field will amount to over 1 GWh. This means that the energy stored in the spacecraft's field will be at least the equivalent of half an hour of energy consumption by a country such as New Zealand.

Of course the above value of 1 GWh represents only that energy required to provide the stationary spacecraft with its initial antigravitational field equal to $-5g_o$. When the craft begins its acceleration, and also during its flights involving friction, a further energy supply would be necessary which for high speeds could overcome this initial value many times.

It is amazing how difficult it is to make people aware of the consequences of the Energy Conservation Principle. They need to have a puncture and to pump a car tyre manually to

realize that a change in a pressure field requires expenditure of energy. The first electricity bill after purchasing a "super-refrigerator" will make someone realize for the first time that a change in the temperature field involves the consumption of energy. When one reads in newspapers that a whole city was plunged into darkness because in a research institute a new electromagnet was tested, it becomes evident to him/her that a change in a magnetic field also requires the provision of energy. But all this is still insufficient to convince antigravity adherents that producing such a field also requires a corresponding energy supply. Therefore many of them still believe that antigravity would be something like a "miraculous paint" which is sufficient to spread on a spacecraft's surface to enable it to take off all by itself. Surely such opinions remind us of the medieval alchemists' attempts at producing the "philosopher's stone" to change sand into gold.

C5. <u>For the purpose of landing, the energy of the antigravitational field must be disposed of</u>

The huge amounts of energy concentrated in the field of an antigravitational spacecraft would cause a big problem during landing. As long as this vehicle is surrounded by such a field it would behave like an ideally elastic ball, which there is no way of stopping because it would bounce back off everything. Therefore to stop its infinite ricochets it would be necessary to remove its antigravitational field. But to achieve this, all its energy must be withdrawn. Energy is not a bag of rubbish which may be thrown overboard when it is no longer necessary. It must be converted into something (assuming that antigravity would allow for any conversion). And here is the problem. If the energy is converted into heat, it would cause the evaporation of the spacecraft. If it is converted into electricity, the spacecraft would be destroyed by the attraction and electromotive forces of the opposite charges (there is no way to produce only identical electric charges - e.g. only the negative or only the positive ones). The radiating of all this energy would take too long because radiation has a low efficiency, whereas its storing would require sufficiently capacious accumulators (the Oscillatory Chamber described in chapter F of this monograph would provide the required capacitance, however, when this device is built, magnetic propulsion will become a reality and there will be no further need for antigravity).

Let us assume that the crew of an antigravitational spacecraft somehow would manage to get rid of unwanted energy and have successfully landed. Then at the moment of taking off there would arise the problem of its recovery. On Earth this energy can be provided by our electricity stations, but where can such huge amounts be found on an inhospitable planet?

C6. <u>The strong field would repel everything from the antigravitational spacecraft</u>

The concentration of a huge amount of energy in the field of the antigravitational spacecraft would introduce a number of drastic consequences for the environment. Because the force of repulsion caused by this field would be inversely dependent on the square of distance from the craft (compare Newton's Law of Universal Gravitation), all objects in the vicinity would be affected by actions whose power we can not even imagine. Therefore every appearance of the field of such a spacecraft would cause:

(a) The rejection and removal of all objects from its vicinity.

(b) The repulsion of air and the formation of a huge vacuum bubble around its surface.

(c) The impossibility of crew or visitors entering the deck, because every approach to the spacecraft would require overcoming a huge repulsion force, able to "flatten" a stubborn cosmonaut.

(d) The destruction (smashing) of all living organisms in the vicinity.
Because all substances are susceptible to gravitational forces, there is also a strong possibility that the antigravity field would transfer its attributes into surrounding materials, in a way similar to magnets passing their field to surrounding ferromagnetic objects (i.e. making them behave as they are also magnetized). This would cause "anti-gravitization" of all objects in the vicinity of an antigravitational vehicle. The usual state of mutual attraction between all the particles in these objects would be replaced by the reciprocal repulsion of these particles. The final effect would be that all objects would crack and quickly disintegrate, clods and mounds would dissipate, and everything nearby would become totally destroyed.

C7. The forces of reaction caused by the repulsion of other objects would also hurl the antigravitational craft through space

There is known a phenomenon of gravitational anomalies formed by great mountain masses. For example, as a result of the action of the Himalayan range, there are places where a car can roll itself onto the slope of a hill. The alteration of the gravitational field caused by topographic variations is called a "Bouguer correction". A similar effect, but much more powerful and acting repulsively, would be formed by the antigravitational spacecraft. Each object entering the field of this vehicle would be repelled from it by the force that grows exponentially as the mutual distance between the vehicle and the object would decrease. The Principle of Action and Reaction (see Newton's Third Law of Motion) states that every such repulsion of an outside object must result in the formation of an equal force of reactions acting on the spacecraft. In turn these reaction forces would cause:
(a) The alteration of the flight direction of the antigravitational spacecraft caused by every object entering its field range. Because of the huge distances to be traveled in space and also because of difficulties with the manoeuvring of this vehicle (see subsection C1), even the smallest meteorite would cause a significant deviation in the craft's course and, as a result, the craft would miss its planned destination.
(b) Rapid changes in the trajectory of the spacecraft after passing in the vicinity of heavy objects moving at high speeds. The D'Alembert's inertial forces created in the vehicle's structure during such changes of trajectory would kill the crew and destroy the antigravitational vehicle.
One of the most serious problems resulting from the repulsion of the antigravitational spacecraft from every other object would be the impossibility of reaching the surface of heavier planets after leaving from lighter heavenly bodies. For example, having started from Earth the spacecraft would not be able to reach Jupiter or Saturn, whereas after starting from the Moon it would not be able to reach Earth. The reason for this is that the velocity gained by the vehicle during its interaction with the field of a lighter planet would not be sufficient to break through the sphere of the stronger repulsion from a heavier planet. Therefore it is possible that such a spacecraft once launched would never achieve its destination, and would also be unable to return.
The last two subsections clearly illustrate that antigravity would not be, as some people expect, a submissive servant performing our wishes, but rather a blind, uncontrollable element able to turn against its own creators.

C8. Antigravity would introduce a number of dangers

For some unknown reason, almost all speculation on antigravity considers only the positive aspects of this hypothetical field. But in fact it would be an incredibly dangerous and destructive force. Let us review the most important threats that would be involved:

(a) The bubble of the antigravitational field would introduce a kind of "shadow" ranging from the spacecraft into space. If such a shadow began in the Earth's atmosphere, the particles of air "caught" by it could not be attracted by the gravitational field of our planet. Therefore even a short flight of the antigravitational spacecraft close to our planet would cause the instant escape of the whole of the Earth's atmosphere, similar to the way making a hole in a balloon releases the air contained in it.

(b) The side-effect of gravity is friction. The essence of friction depends on the conversion of kinetic energy into heat. It should be expected that for a negative gravity (i.e. for antigravity) this phenomenon should be reversed. The presence of thermal energy would then cause the self-activated motion of all objects. This would continue as long as the temperature of these objects would drop to absolute zero. It seems that the crew of the antigravitational spacecraft would not enjoy this phenomenon.

(c) Some forces maintaining the stability of nuclei have a gravitational character. After changing gravity into antigravity these forces would disappear. As a result, the fast disintegration of atoms and the release of vast nuclear energy would occur. Therefore switching on the antigravitational field could turn the spaceship into a nuclear bomb and ignite it. This could destroy everything in the vicinity, including the devices for producing such a field.

It is also worth mentioning that the proper functioning of the human body is conditioned by a gravity field. Therefore the necessary period for adaptation to antigravity would take a very long time - if it were not entirely impossible. The crew of the antigravitational spacecraft would not be able to enter or leave its deck as fast as our present cosmonauts and aeroplane pilots do (a rapid exit from such a craft would be just as dangerous as returning too quickly from a deep ocean dive).

C9. Even without knowing about the Concept of Dipolar Gravity, there are no known premises suggesting any possibility of achieving the antigravitational field

There are some phenomena which, when turned into negative values, run against the natural order of things. An example of this is temperature which can not be decreased below absolute zero as it would cause a disintegration of the present form of matter. Another example is physical motion with the speed of light (the reaching of this speed by a material object would infinitely increase the mass of this object). Even if someone does not know about the Concept of Dipolar Gravity, on the basis of our present knowledge he/she should conclude that gravity also belongs to this type of non-reversible phenomena.

It should also be stressed that in spite of enormous progress in all the sciences, we actually have not achieved any advancement in our knowledge of control over gravity. This phenomenon seems to be the most mysterious and difficult to understand. Present science has not yet completed the philosophical stage of answering the question "What is gravity?". Hundreds of years may pass before any successful experiments in the altering of ordinary gravitational fields could begin.

C10. Summary

We are living in an overloaded gunpowder magazine where madmen are playing with matches. At any moment an explosion could blast this planet. We would sleep more peacefully if we had in our garage a Magnocraft prepared for an interstellar trip and, within the range of

its flight, a cozy planet of dinosaurs waiting ready for colonization. However, instead of completing this spacecraft we are arguing, dividing ourselves, and dissipating our sparse intellectual resources. Part of the blame for this situation can be attributed to the unrealistic fantasies concerning antigravity, i.e. purely speculative phenomenon which would not provide the benefits expected from it, would be very dangerous for life and the environment, and also which in our set of dimensions does not exist at all.

       The aim of this chapter was to replace these speculations with an objective look at the subject. Now is the wrong time to argue about the feasibility of magnetic propulsion and to waste our intellectual resources in purely academic discussions on antigravity. Antigravity has proved to be an illusion and our only alternative now is the Magnocraft. The present situation urges us to roll up our sleeves and to all join together to complete the Magnocraft as quickly as possible - for our own good and for the good of all people. After we have finished this task and have prevented our civilization from self-destruction, we will win time for development of less urgent ideas, and gaining from them further benefits for mankind. But this should be our next goal. Our present aim is to survive the atomic threat, and probably the only way of permanently escaping this danger is to build the Magnocraft.

THE CONCEPT OF DIPOLAR GRAVITY

For centuries, generations of scholars and philosophers have tried to consolidate into one consistent body of knowledge all the diverse areas of human intellectual development such as science, religion, folk wisdom, rituals, beliefs, superstitions, etc. After centuries of failure, it seems that finally we are succeeding in this effort and that a common concept has been found which unites all directions of our intellectual progress. This consolidatory concept is called "the Concept of Dipolar Gravity".

Although it may take many years to be recognized and acknowledged, the present understanding of the gravitational field tolerates an enormous error. The deductions which reveal, document and neutralize this error, are formulated into a new theory of gravitational field called here the Concept of Dipolar Gravity. In general, the error depends on classifying gravity to an entirely wrong group of fields, i.e. monopolar instead of dipolar. If we correct the above error and classify gravity into the group of dipolar fields, then the entire view of the Universe will need to be verified. For example, the so-called paranormal phenomena will gain a gravitational explanation and thus parapsychology would need to be re-classified as a part of physics. Dipolar gravity will also indicate the existence of a second world (parallel to ours) which for centuries has been acknowledged by religion but which is still denied by contemporary science. The substance prevailing in this other world displays the capabilities of a "natural computer", i.e. it is able to think in its natural constitution. The existence of the other world filled with "thinking substance" introduces numerous implications, some of which will be revealed in this chapter.

The Concept of Dipolar Gravity was presented for the first time in 1985 in the monograph by the author [2F(d)] published in New Zealand. Since then it has been published in Poland [1F(c)], and West Germany [5A]. The chapter that follows presents the third, extended and updated formulation of this Concept.

The Concept of Dipolar Gravity is an entirely new physical and philosophical model constructed to explain the structure and operation of the Universe ruled by Dipolar Gravity. In this new concept our Universe consists of two separate worlds, the first of which is called here the converse world, the world of matter, or the world of hardware; whereas the second one is called the counter-world (terms: the world of reverse images, the world of intellect, or the world of software, can also be used to describe it). The world of hardware is the one which we experience every day with our five physiological senses. The counter-world is closed to our senses, but it can be investigated by our intellect and accessed by the mysterious ability called Extra-Sensory Perception or ESP.

The Concept of Dipolar Gravity does not represent one more purely speculative model having no practical application, but it provides us with instant, various and strictly measurable benefits. For example it explains the principles of telekinesis and allows the building of technological devices which can utilize this phenomenon for the purposes of transportation and acquisition of free energy. It also reveals the natural source (i.e. the thinking counter-matter) of the absolutely correct and complete information on every material object that ever existed, exists or will exist in the entire Universe, and it shows various techniques (ESP, hypnosis, meditations, psychic healing, dreams) that allow us to access this information and to gain from it the various benefits applicable in every field of human activity.

As the research into dipolar gravity reveals, our civilization has exploited this natural source of information for centuries, collecting from the counter-matter data on underground resources of water and minerals (dowsing), about the health of people and animals (healing), etc. But everything we have achieved in this field up to now is only an introduction. The Concept of Dipolar Gravity paves the way to mastering further techniques

which will provide far more significant benefits in the near future. For example, designers can gain from counter-matter all the unknown technical details of their projects. Constructors may find the best parameters for their work, the best materials and the most useful technologies for their models. Inventors may validate and improve their ideas. All these possibilities could be extremely useful when applied to completely new technical concepts such as the Oscillatory Chamber and the Magnocraft. This is the reason why the author is devoting a lot of effort to investigate these new directions of creative work and to develop some reliable methodologies of utilizing them technically.

The Concept of Dipolar Gravity also provides a number of non-material benefits concerning our intellectual development. It supplies explanations for the vast body of phenomena previously treated as unexplained (e.g. telekinesis and its human version sometimes called psychokinesis, clairvoyance, telepathy, near-death experience, spontaneous human combustion, fire-walking, etc.). It repairs the inadequacies in the description of our Universe disseminated by contemporary physics. It creates a valuable link for the separate areas of intellectual activity. It inspires intellectual investigations in completely new directions. It also forms a rationale for the philosophical principle that every goal which it is possible to imagine is also possible to achieve (compare subsections E1 with D7).

There are numerous speculative concepts (e.g. complex numbers and n-dimensional spaces in mathematics, the concept of energy in sciences) in common use which so-far have no existing equivalents in physical world but which have proved themselves to be extremely useful and practical. The various benefits and convenient explanations introduced by the Concept of Dipolar Gravity, may qualify it also as similarly useful and practical. Therefore, in order not to waste the potentials of this Concept by waiting unnecessarily for its official recognition by institutional science, some people may instantaneously accept it on the basis of its practicality, and thus put it immediately into good use.

The Concept of Dipolar Gravity is formulated in such a manner that every aspect can be verified experimentally. This Concept reveals a number of postulates and principles which allow us to work out and to complete objective experiments that confirm its validity. An example of such experimental confirmation, which can be completed by almost every reader, is outlined in subsection D11. Therefore whoever is willing to get "hard" proof that this Concept is correct, he/she may obtain this proof easily.

For those people who are prepared to rely on the validation routines completed by someone else, this chapter alone supplies a vast amount of evidence and completed experiments which confirm the correctness of the Concept of Dipolar Gravity. Further similar evidence is probably part of almost every reader's experience. So let us combine our efforts in the best use of the evidence and proof already available, to achieve a speedy implementation of this very humanistic, positive and extremely useful idea.

D1. Why the Concept of Dipolar Gravity was formulated

In 1924 the great French physicist, Louis DeBroglie, published his important discovery which is sometimes called the "Principle of the Symmetry of Nature". His Principle laid a theoretical foundation for the development of new directions in physics. According to this Principle in our Universe everything is strikingly symmetrical in many ways. If any particle is known, its antiparticle must also exist (e.g. electron and positron, proton and anti-proton, etc.) Also every phenomenon has its own anti-phenomenon. If we find an exception to this symmetry, it is obvious that its anti-partner still remains undiscovered. The gravitational field is such an exception. Therefore the intensive search for its anti-partner is fully justified.

On the above premises the only concept of gravitational field which is still in common use was formulated. Because this concept assumes the analogy of gravity to all monopolar fields, so in this monograph it will be called the "concept of monopolar gravity". One of the

products of the concept of monopolar gravity is the speculation on the possibility of producing repulsive gravitational interactions which are popularly called "antigravity".

Since beginning his research on magnetic propulsion, the author of this monograph has paid special attention to the work done on antigravity. Analyzing carefully the expected properties and abilities of the antigravitational field, he came to the conclusion that antigravity is contradictive to the natural order of things. Some deductions in this matter are contained in chapter C. To reveal the logical error committed by the creators of the concept of monopolar gravity, which leads to the present misinterpretation of our Universe, the author reviewed the entire deduction that formulated this concept. The error was found at the very beginning. It depends on assuming "a priori" (i.e. without any verification) that the gravitational field belongs to the group of monopolar fields. However, we know that in nature two entirely different groups of fields co-exists, i.e. monopolar and dipolar. Therefore in order to discover the truth about gravitational interactions, not one but two different concepts of the gravitational field must be considered. In both these concepts the following two possible natures of gravity must be verified:

1 . Monopolar,
2 . Dipolar.

Let us have a close look at these two concepts, analyzing which one of them fulfils more extensively the requirements of the Principle of Symmetry of Nature.

The "concept of monopolar gravity" is the only concept considered at all by contemporary science. The gravitational field in this concept is equivalent to all monopolar fields existing in nature, for example, electric field, pressure, etc. Just as positive and negative electric charges exist, our science also acknowledges the existence of "matter" - producing an attractive gravitational field (i.e. "gravity"), and "antimatter" - which is to produce a repulsive gravitational field (i.e. "antigravity"). Because the concept of monopolar gravity assumes that matter and antimatter must strongly repel each other, these substances should segregate and both shift to opposite sides of the Universe creating "world" and "antiworld". Thus, the adherents of the concept of monopolar gravity are continually scanning through the galaxies in search of the "antiworld" where antimatter would be concentrated.

Investigations to-date have not only failed to reveal any evidence confirming the correctness of the concept of monopolar gravity, but have even encountered evidence which strongly negates it.

Any in-depth analysis of the concept of monopolar gravity must lead to the inevitable conclusion that this concept, instead of corresponding to, is entirely contradictory to the Principle of the Symmetry of Nature. Therefore, to construct a more realistic model of reality, the author designed an alternative concept of gravity which is called here the "Concept of Dipolar Gravity". The Concept of Dipolar Gravity has never been formulated or considered by our science. The author of this monograph is the first person to propose, work out, and publish it. In the author's Concept, gravity displays similarities to all dipolar fields, e.g. magnetic, hydraulic (i.e. flows of mediums), etc. Just as in a magnetic field two separate poles (N and S) exist, similarly two opposite poles also appear in the gravitational field. But because of the concentric nature of gravity, the second, opposite pole of the gravitational field is directed "inwards" and prevails within a separate world, existing parallel to the world recognizable to our senses. Thus, the Concept of Dipolar Gravity indicates the necessity of a parallel existence in the same space of two separate worlds, the first one of which (world of matter) is recognizable to our sense organs; whereas the second one (world of intellect) is closed to our senses but open to Extra-Sensory Perception (ESP). Such a constitution of our Universe introduces a number of practical consequences, which are explained in the subsections that follow. But unlike antigravity, the existence of the "other pole of gravity" (called "counter-gravity" in this monograph) does not alter or influence in any way the behaviour of our world as we know it. Therefore it is very difficult to detect it with our present instruments. On the other hand the existence of the other pole of gravity opens for scientific investigation an incredibly wide range of psychic phenomena and presently unexplained facts. Thus the Concept of Dipolar Gravity rapidly extends our

horizons into hitherto unrecognized fields, without the necessity of re-defining our present laws.

After the Concept of Dipolar Gravity was formulated, the author began his search for evidence which would confirm the correctness of this new model of reality. As a result of his research he revealed a wealth of evidence which supports his claims. On the other hand NO fact has hitherto been found which is contradictive to the Concept of Dipolar Gravity. Below are summarized the most important facts which strongly negate monopolar gravity and simultaneously confirm the correctness of its dipolar character:

#1. The kind of force interactions existing between the carriers of the gravitational field (i.e. particles of matter). As we know, these particles attract each other, forming the well known gravitational pull that prevails between all possible clusters of matter.

['] in all MONOPOLAR fields carriers of the like poles repel one another. The interactions occurring between like electrical charges (e.g. positive charges repelling all other positive charges) as well as those occurring between particles of gases forming pressure fields (e.g. tendency to decompress) are the best examples of such a repulsion. Therefore, if gravity would have a monopolar character, the particles of matter should repel one another, not attract. This lack of repulsion denies the monopolar character of gravity.

["] around poles of all DIPOLAR fields, the field carriers form a dynamic pressure (described by Bernoulli's Equation) which compress them together. This pressure manifests itself as forces that pull the field's carriers together. For example, there is a well known phenomenon of pulling a ping-pong ball into a fountain's water stream and then holding this ball suspended within the stream. The forces that pull this ball are the same ones that we are talking about (i.e. Bernoulli's dynamic pressures prevailing at outlets from poles). The forces of gravity seem to be an exact equivalent to this dynamic pressure appearing in dipolar fields. This confirms that gravity behaves as a dipolar rather than a monopolar field.

#2. The complete lack of evidence for the existence of two opposite monopoles of gravity combined with the simultaneous wealth of evidence confirming the existence of a gravitational dipole.

As we know, in all monopolar fields two opposite types of field carriers (e.g. positives and negatives) are separated by a space subjected to the action of these monopoles. But in dipolar fields the situation is reversed, i.e. two different spaces in which opposite field conditions prevail are separated from each other by the field carriers (dipoles) being subjected to the action of these spaces.

['] if gravity has a MONOPOLAR character, the second (opposite to matter) monopoles of gravity should be found. But so far our highly sophisticated nuclear experiments have revealed only particles and antiparticles which differ electrically but which are identical in gravitational understanding. Thus, all known particles and antiparticles represent only two main electrical components of the same matter and do not constitute opposite monopoles of gravity.

["] in DIPOLAR gravity, the Universe would be composed of two separate spaces, or worlds, in which two opposite types of gravitational interactions would prevail (e.g. attraction in our world and repulsion in this other one). Therefore, the same laws and phenomena, but observed within each one of these two worlds, would also display drastic differences, depending on which side of the gravitational dipole they are manifested. As a matter of fact, we already know from physics examples of such dual behaviours. These are registered under the name "wave-particle duality of nature". One of the manifestations of this duality is the contemporary co-existence of the corpuscular and wave theories of light. As it is quoted in some books "Physicists have been jokingly accused of believing in light waves on Mondays, Wednesdays, and Fridays and in photons on Tuesdays, Thursdays, and Saturdays" (see: O.H. Blackwood and others: "General Physics", 4th edition, John Wiley & Sons, Inc., 1973 page 665). One of the simplest and at the same time the most satisfactory explanation of this duality can be derived from the Concept of Dipolar Gravity. According to it, the consequences of the corpuscular and wave theories of light originate from the simultaneous distribution of light signals within the two different worlds. Depending in which of these two worlds light signals are observed by a given instrument, the corpuscular or

wave aspect of light is manifested. This again confirms that the action of the gravitational dipole is already registered in physics.

#3. All attempts to detect the existence of two opposite monopolar worlds (i.e. our world and "antiworld") have failed, whereas there are already registered worlds from both sides of the gravitational dipole.

['] in MONOPOLAR gravity the opposite world (called antiworld) is claimed to be repelled from our world, so it should be shifted into a remote corner of the Universe. Therefore this world could be detected only in an astronomical manner. But almost two centuries of astronomical search has not revealed even a trace of the antiworld or antimatter from which it would be constituted. As it is stated in the book, "Worlds - Antiworlds",by Professor Hannes Alfven of the Royal Institute of Technology, Stockholm, Sweden - a widely recognized expert in antimatter, "There is no definite evidence for the existence of antimatter in the cosmos". This again denies the monopolar character of gravity.

["] if gravity has a DIPOLAR character, the world from the other side of the gravitational dipole must occupy the parallel space to our world. In fact a technique which reveals a parallel co-existence of the same object in two separate worlds is already known. This technique is called "Kirlian photography". In this photography some damaged objects still reveal parts which in the physical world are separated from them (e.g. photographs of damaged leaves may show the outlines of the missing parts). The above again confirms the behaviour of the Universe as governed by Dipolar Gravity.

* * *

The above examples do not exhaust all the evidence which confirms the dipolar character of gravity, and which simultaneously denies the presently adhered to monopolar understanding of this field. Further examples of this evidence may be found in various other disciplines, such as religion, parapsychology, medicine, ornithology, etc. Because both concepts of gravity contradict each other, and only one of them can be correct, the existing evidence shows that our present understanding of the gravitational field is entirely wrong and leads to a misinterpretation of reality. Therefore it should be withdrawn from use as soon as possible. It is in the common interest of all of us to repair the error that has been committed, and to replace the present, misleading view of our Universe by the more correct one - based on the Concept of Dipolar Gravity.

D2. The operation of our Universe ruled by dipolar gravity

The previous subsection has revealed that in one aspect our present understanding of gravity is definitely wrong. This aspect is the polarity of the gravitational field. As has already been indicated, present science recognizes gravity as possessing a monopolar nature, similar to the one manifested by electrical charges. This chapter, however, shows that the gravitational field has a dipolar nature, thus displaying similarities to the magnetic field (i.e. gravity, similar to a magnetic field, also forms two opposite poles). The establishment of this dipolar character of gravity allows us to make some deductions revealing what our Universe is like and how it operates under the conditions of dipolar gravity.

All deductions concerning dipolar gravity must be started from the acceptance that this field possesses two opposite poles. The first pole prevails in our world and produces all gravitational interactions known at present. However, because of the concentric nature of gravity, the second pole of gravitational field must be directed "inwards" and extend into another world, invisible to ours. Therefore the immediate consequence of dipolar gravity is the parallel existence in the same space of two opposite worlds. We are fully conscious of the first of these worlds (i.e. the world of matter) because every day we experience it with our five senses. But the second world (the counter-world) must extend into another set of dimensions, symmetrical to ours, but undetectable by our biological senses.

Because of the tight connection through gravity, this second, counter-world of our Universe must be an exact reflection of our converse world - in the same way as every mirror reflection is an exact picture of a real, material object. On the other hand, because of the opposite nature of the other pole of gravitational field prevailing in the counter-world, the laws which operate in it would be the exact reverse of the laws in our world. For example the medium that makes up this second world, which would be the equivalent of our matter, must have no mass, must have no friction during its displacement, and must display "self-mobility" (i.e. a property being the opposite to the "inertia" of our matter). Therefore it would be the exact implementation of the historically well-known but at present ignored concept of "ether". In this monograph this medium/substance is called "counter-matter" in order to indicate that it is a substance which represents an exact opposite to matter from our world, but also to indicate that it is a completely different substance then "antimatter" postulated by the old concept of monopolar gravity.

To understand completely the principles of the co-existence of both worlds, some examples are presented below which explain this. The first example illustrates their operation, the second one our difficulty with an insight into the counter-world, whereas the third one illustrates our perception of these worlds.

1 . Since ancient times people have been building machines whose operation is always an imitation of the mechanisms of the Universe. Not long ago, man completed the device which is the exact model of the operation of both worlds discussed here. This device is called the "computer". In every computer we may find hardware (i.e. equipment and energy converters) detectable to our biological senses, and software (i.e. programs) undetectable to our senses or technical instruments but perceptible to our intellect. The hardware is the equivalent of the converse world, whereas the software is the equivalent of the counter-world. If we gave a contemporary computer for research by the scientists from last century who had no idea of the duality of its structure, their senses and instruments would describe very precisely the characteristics of its hardware. However, there would be no way that they could detect the existence of software, so some of the actions of the computer would induce astonishment and fright. When observing this device none of these scientists could imagine the vast range of possibilities and prospects that the same hardware may offer after one has introduced appropriate changes into the software. Also none of them would know that the counter-world is no less capacious nor less complicated than the world of hardware, and that the preparation of a particular program must obey a wide set of laws and rules completely different from those which govern the production of technical devices. In our present understanding of the Universe we are perhaps like these scientists from the above example, seeing only its "hardware" and not even realizing that at the other end of gravity there is another counter-world.

2 . To illustrate the present difficulty with an insight into the counter-world, let us imagine a group of last century scientists who received a modern magnetic tape for investigation. They could describe perfectly the physical properties of this tape but they would be unable to detect that there is any sound recorded on it. Until playing devices were invented, these scientists would be unable to access the world of sounds that the same tape contains. Our civilization is like these scientists, where present knowledge of matter represents the physical properties of the tape, whereas the counter-world represents the yet undiscovered music on this tape. Unless we develop devices which access the information stored in the counter-world, we will be convinced that the whole reality is limited to the matter around us.

3 . To illustrate our perception of both worlds, let us consider the analogy of a huge ocean of "counter-matter" in which there is floating a number of objects. Let us suppose that one half of each object is above the surface of this ocean, whereas the other half stays submerged. The substance filling our hypothetical ocean (i.e. the counter-matter) is in a permanent state of "boiling", forming numerous drifts which writhe in many directions and toss about all floating objects. People, similarly to every other object, would also drift in this ocean, as if exactly half of their bodies were submerged. But all senses would remain in the part above the counter-matter, therefore they would have the illusion that the whole

Universe is limited to only what they can see. Without having a view under the surface, the people in our analogy would have no idea that the surface is not the end of the Universe but only the border of their visibility and that, closed to their senses, there may exist another whole world.

The only link between our world and the counter-world is through forces of gravity. The requirement of balancing these forces causes each particle of matter existing in our world, to be attached to a similarly sized particle of counter-matter. In this way, every material object existing in the world of hardware, must receive its identical copy (a mirror reflection) existing in the counter-world. This reflection is made of counter-matter. The gravity forces tightly joining together the material objects from our world and their counter-material copies prevailing in the counter-world introduce a very unique co-operation between both worlds. This co-operation can be defined as follows:

"The actual configuration of the counter-world determines the course of events in our world, whereas the changes in our world modify the actual configuration of the counter-world".

The above definition of co-operation between both worlds will be referred to as the "hardware/software mechanism of phenomena". According to this definition the mutual interaction between our world and the counter-world is an exact equivalent to a real-time co-operation occurring between a numerically controlled machine (i.e. hardware) and a computer program (i.e. software). This is because in any man-made system the only solutions that can be utilized are those which are already applied to the operation of the Universe. If we consider a numerically controlled machine (hardware), its operation represents the behaviour of matter from our world. On the other hand, the computer program that controls this machine represents the capabilities of counter-matter from the counter-world. The program, in order to control the machine, must contain the numerical reflections (i.e. software models) of all parts of that machine. This means that the program must describe for each moving part its actual state, previous position, future goals, possibilities and limitations. When the entire system consisting of the program and the machine is run, then the control signals originating from the program cause particular actions by the machine. But each change (action) of the machine must be observed by the program which is altered according to the effects of this action. Thus, the altered program executes different actions, etc. The continuation of the above interactions between the program and the machine leads to the sequence of events in the hardware. These events are the exact reflection of the routine described in the software. In the same way as this machine and program interact with each other, our world is interacting with the counter-world.

The hardware/software mechanism of phenomena described above is a key to our understanding of the Concept of Dipolar Gravity and to our understanding of the explanations derived from this Concept. There are numerous consequences of this mechanism, the presentation of which will be continued. One of the primary consequences is that the counter-world must accommodate all attributes of what we call "real-time control programs". Thus, the mirror (counter-material) reflections of every material object must behave like software models for numerically controlled machines. So, these reflections must also contain all data about history, present state, and future goals of the objects they describe, forming in that way a kind of "register" easily accessible through ESP, dreams or hypnosis - see subsection D2.2. The data contained in the counter-material reflections must somehow be intercepted, stored and processed. This means that the counter-world must additionally display all the capabilities of a natural computer, including not only the capabilities to intercept, store, and release data, but also the ability to process them (i.e. to think).

The principle of our world interacting with the counter-world based on the hardware-software model, makes two different means of introducing changes into our world possible, i.e. "physical" and "telekinetic". The physical means is well known to us and depends on a forced interaction with the objects of our world, involving the particular amount of work to be done and causing appropriate energy to be spent. In the previous

description of a machine controlled by a computer program, this "physical" means would be an equivalent of the hand-introduced displacement of some parts of the hardware. The "telekinetic" manner of introducing changes into our world depends on altering the configuration within the counter-world. This in turn causes self-activated changes occurring within our world. To explain it more simply, in the telekinetic motion we move the mirror (counter-material) reflections of objects, instead of moving these objects. But because these mirror reflections are attached to original objects through gravity forces, moving these reflections causes the objects to also move along exactly the same paths.

The properties of the telekinetic manner of moving material objects described above reveal that we have already accumulated much evidence indicating a practical utilization of this ability. The majority of miraculous events and ghost stories in fact reduce themselves to the sightings of objects moved in such a manner. The cases of telekinesis, psychokinesis and levitation also fall into this category. Moreover, the idea of teleportation seems to be the vision of future spacecraft utilizing the same principle. Some sightings also reveal the major side effect that accompanies telekinetic work, i.e. the absorption or release of large amounts of thermal energy (see the The Postulate of Interchanging Thermal Energy). For example, there are reports about advanced Yoga practitioners who decrease the temperature of their bodies, or about people who cremate themselves (Spontaneous Human Combustion) by "inner fire" ignited as an effect of extreme psychic tension.

The displacement of objects caused by the "telekinetic" manner do not require any energy to be supplied by the person or device who executes such a displacement. This is because in the counter-world friction and inertia do not exist. But the material objects following their counter-material reflections within our world must consume energy, as the Principle of Energy Conservation must always be fulfilled here. Therefore, this energy consumed in the material world must be withdrawn from the environment of the objects moved in this manner. The only form of energy available for such a purpose is thermal energy. Thus, the telekinetic manner of introducing changes into our world must cause thermal energy to be withdrawn from the environment - when the telekinetic motion goes against external forces, or to be supplied to this environment - when the telekinetic motion acts along with external forces. In this chapter the above conclusion is called the "Postulate of Interchanging Thermal Energy". This postulate applies to all paranormal phenomena that affect the Principle of Energy Conservation, e.g. telekinesis, some Yoga exercises, etc. (Note that such a cooling capability of telekinetic motion causes telekinesis to be a kind of friction in reverse, i.e. it consumes heat and produces motion.)

The Postulate of Interchanging Thermal Energy by material objects moved in a telekinetic manner makes the existence of the counter-world extremely easy to be proven in an experimental way. It is because this postulate indicates that the objects moved telekinetically must produce a subtle kind of glow, which will be called the "extraction glow". The existence of this glow results from the statements of quantum physics, which indicate that the atoms whose electrons fall from higher orbits into lower as the result of a rapid cooling, must emit photons. These photons should be registrable as a kind of glow. Therefore, any telekinetic absorption of thermal energy should be accompanied by a glow emitted from the affected area. In order to prove experimentally that the Concept of Dipolar Gravity is correct and that the counter-world exists, it is sufficient to register this "extraction glow" - see subsection D11.

There is a wealth of evidence already available which confirms that our Universe operates according to the Concept of Dipolar Gravity. Let us now review the most important facts confirming this.

#1D2. For centuries the existence of a "second world", separated from ours, is claimed by religions. Although contemporary science adhering to the concept of monopolar gravity had no justification to support this claim (therefore the majority of scientists deny the existence of another world), the Concept of Dipolar Gravity leads to the conclusions surprisingly coherent with the claims of religions.

#2D2. Most paranormal phenomena affect the level of thermal energy contained in the environment, thus fulfilling the Postulate of Interchanging Thermal Energy. For example,

it is widely known that shifting objects by so-called "Poltergeists" decreases the room's temperature almost to freezing level. Yoga practitioners may also decrease their body temperature. Moreover, during extreme psychic tension enormous heat can be released which leads to "Spontaneous Human Combustion".

#3D2. There are numerous photographs already published which clearly capture the emission of an extraction glow by objects moved telekinetically. Some examples of such photographs, reproduced from widely accessible books, are shown in Figures D5 to D7. In cases of extremely intensive paranormal phenomena, the extraction glow is so strong that it can be seen by the naked eye. An example of such a case is described on page 32 of the book [1D], "Psychic Healers". Here is the relevant quotation describing the effects of a telekinetic healing (see the description of this healing contained in subsection D9):

"I have been in many 'psychic' places and seen many 'psychic' things, but I was not prepared to see a current of light run down Cassidy's arm and into my friend's body. I was not prepared to see his body light up like a white neon tube and stay that way while I rubbed my eyes, glanced around the room to see if other things were glowing".

#4D2. There are a number of sightings accumulated that describe in detail the so-called "beaming" of people onto decks of UFOs. One of the effects of this beaming is that people subjected to it experience a significant loss of thermal energy, manifested through feeling cold, shaking, tingling of bodies, etc. Therefore, the phenomena employed by UFOnauts to cause this beaming fulfils the Postulate of Interchanging Thermal Energy described earlier. On the other hand, all the other effects accompanying this beaming; e.g. the strong emission of "extraction glow", psychic experiences, passing through solid objects, etc.; exactly correspond to the use of an advanced propulsion system based on a technological version of telekinesis. The above facts are consistent with the Concept of Dipolar Gravity and confirm that devices exploiting this Concept are already in use by some other civilizations.

D2.1. Counter-matter: the thinking substance from the counter-world

The main characteristics of all dipoles is that they bind together, and simultaneously separate, two symmetrical sets of dimensions (spaces) in which opposite field conditions prevail. Therefore between the set of our dimensions, and the set of dimensions where the opposite gravitational pole prevails, an inaccessible boundary must appear. This boundary forms a border separating both worlds that constitute our Universe. Because everything is subjected to the forces of gravity, the border between our world and the counter-world can not be penetrated by any physical equipment nor any material object.

In all dipolar fields the environmental conditions that prevail at both poles are always opposite. The above is expressed by the "rule of opposite properties at both ends of a dipole" that governs the behaviour of all dipolar fields. This particular rule, when applied to the gravitational field, shapes the structure and operation of our Universe in a unique, symmetrical manner. Its two most important consequences are as follows:

1. The existence of the gravitational dipole must cause exactly opposite polar CONDITIONS to prevail in both worlds of our Universe. These opposite conditions in turn mean that all laws and properties prevailing in our world must be inversely duplicated in the counter-world. For example, in our world inertia is one of the main properties of matter, therefore in the counter-world self-mobility (i.e. inertia in reverse) must be an equivalent of inertia to be exerted on the substance prevailing there.

2. The existence of a gravitational dipole must also mean that every physical FORM (i.e. substance or object) is inversely duplicated in both worlds (like an object and its mirror reflection). This in turn means that our world and the counter-world must be both symmetrically filled up with two different substances having opposite properties, and that every material object existing in our world must have its counter-material duplicate in the counter-world.

When both the above consequences of the gravitational dipole are carefully analyzed, they allow deductions to be made concerning the mutual relationship between our world and the counter-world. The author has already made some deductions and the conclusions he has arrived at are described below. The presentation of these conclusions will be started by describing the substances prevailing in both worlds and the relationship between their properties.

The substance prevailing in our world is already well known by contemporary science. We refer to it under the name of "matter" and its fundamental properties include mass, inertia, friction, etc. The substance prevailing in the counter-world must have all the properties opposite to those of matter, i.e. it must be weightless, self-mobile (i.e. opposite to inertial), free from friction, etc. It is known from history, that the existence of such a weightless substance has already been postulated by classic physicists, one of them being James Clerk Maxwell (1831-1879) - creator of the famous equations of electromagnetism. They called this substance "ether". In this monograph the author uses the name "counter-matter" for this substance. This name highlights that the substance originates from the counter-world and that its properties are opposite to that of matter.

Amongst all the unusual properties of counter-matter, one requires special justification, as it introduces numerous implications to our understanding of reality. This unique property of counter-matter is its natural ability to think (i.e. to work as a kind of natural computer). The following logical deduction is to justify the author's conclusion that counter-matter thinks. As it has already been stressed, the "rule of opposite properties at both ends of a dipole" applies to all dipolar fields. On the other hand, the main property of matter is that in its natural constitution it is unable to think, and it is only after being rearranged in special structures (such as brains or computer microchips) it gains the capability of conducting thinking processes. Thus, after applying the "rule of opposite properties at both ends of a dipole" to this main property of matter, the conclusion is derived that counter-matter in its natural constitution must display an ability to think, and only after being rearranged in some special structures (e.g. in the boundaries between two thinking entities that maintain the separateness of each of them) it will be unable to think.

Counter-matter, similar to our matter, is not a single type of substance, but probably a collection of various substances characterized by different properties. For example, there may exist a solid, liquid and volatile counter-matter.

We know that in 1887 the famous Michelson-Morley experiment was completed. It claimed to prove the non-existence of counter-matter at that time called "ether". But we also know that the conditions of this experiment were so designed that it was only capable of detecting counter-matter if this substance existed in our world. According to the Concept of Dipolar Gravity, counter-matter prevails in a separate world into which any device installed in our world has no access, thus dipolar gravity automatically cancels the validity of the Michelson-Morley experiment. Counter-matter existing in another world may not be detected from our one.

Counter-matter turns out to be a necessary component of our Universe. As human knowledge advances, various intellectuals keep re-introducing the concept of this extraordinary medium. Although in all these re-introductions counter-matter receives different names, the general concept of this medium always remains similar. Let us list a few examples of terminology currently being used to express various presentations of the same concept of counter-matter:

1. Inventors working on Free Energy Devices describe this concept with the term "tachion energy".

2. Various schools of spiritualism, natural health, and personal development, implement practically some of the capabilities of counter-matter. Of course, in each of these implementations counter-matter is referred to by a different name. Below are listed examples of the more popular of these names:

- Reiki, i.e. the name attached to counter-matter in a Japanese school of natural health and personal development.

- Orgone energy, i.e. a name which describes counter-matter in the book [1D2] by T.J. Constable, "The Cosmic Pulse of Life" (Neville Spearman Ltd., Suffolk, Great Britain, 1976, ISBN 85435-194-9).

3. Our science, after initially denying the existence of counter-matter, has gradually returned to this old idea after changing its name. Here are examples of scientific terms which represent this idea:

- Vacuum. Contemporary quantum field theory claims that vacuum is so featureless and has such a high symmetry that a velocity can not be assigned to it. Moreover, this theory states that particles are excited states of the vacuum state. The above means practically that the quantum field theory has assigned to the vacuum all properties which classic physicists previously attributed to counter-matter (ether).

- Energy Body. Medicine has gradually adopted from acupuncture the concept of an "energy body", which is only a different name for the old occultistic idea of an "counter-material body".

Counter-matter is also referred to in numerous ancient sources. The most well known ancient names assigned to this medium are: "The Ancient of Days" described by christian and Jewish traditions, and the "Vril Power" (see [2C], pages 84 to 99 and 170 to 174) described by eastern tradition. The analysis that follows reveals the total correspondence between the old interpretation of Vril Power and the characteristics of counter-matter from the Concept of Dipolar Gravity. Similar analysis, but completed for the idea of the Ancient of Days, is provided in subsection L3.

#1D2.1. On page 179 of the book [2D] the author defined the Vril Power in a following manner: "VRIL is actually an ancient Indian name for the tremendous resources of energy which are made available as a result of mastering the Counter-material Body (or Time Organization)". Other parts of the same book explain the term VRIL even more exactly. Let us quote a few more sentences:

p. 92: "... the gradual discovery of the latent powers stored in the <u>all-permeating fluid</u> which they denominate VRIL." p. 170: "There is no word in any language I know which is an exact synonym for VRIL. I should call it electricity, except that it comprehends in its manifold branches other forces of nature, to which, in our scientific nomenclature, differing names are assigned, such as magnetism, galvanism, etc."

p. 171. "It can be used for expanding the consciousness of the mind, and allowing the transference of thoughts from one person to another by means of trance or vision. It was through the agency of VRIL, while I had been placed in the state of trance, that I had been made acquainted with the rudiments of the VRIL-YA's language."

p. 172: "Further uses of the force include the motive power for robots, the propulsion of land vehicles and flying contrivances, and for supplying light. ... VRIL is seen as an enormous reservoir of universal power, some parts of which can be concentrated in the human body."

Even a brief comparison of the above quotations to the descriptions from further parts of this chapter makes obvious the total correspondence between the term VRIL and the term Counter-matter.

D2.2. <u>Software models (registers) of material objects</u>

The example of interaction between computer software and hardware is the key to our understanding of the co-existence of our world with the counter-world. It can be logically deduced that the counter-world must be an equivalent of contemporary numerical models for simulating real-time computer processes. Therefore all laws and principles concerning these models are elements of more general laws and principles ruling the counter-world and must also be obeyed within the counter-world. As we know, the simulation of any real-time process is not possible without building into its software model all information about the past (history), present and future of this process. This means that because of the strict analogy to such models, the counter-world must also consist of some records of the entire history, present state, and also the future of every object from our world. Practically,

for every person, every organism and every object existing within the world of hardware there must be a kind of "register" which contains all events from the past, present, and future. Therefore, if we could somehow gain "insight" into these registers, we would have access to all the required information about everything, including also the events that will happen in the distant future.

At this point we should extend the explanation of the "register" (software model) provided briefly in subsection D2. The register is a mirror reflection of a material object, made of counter-matter and contained in the counter-world. This reflection displays all the attributes of the material object which it reflects. It memorizes all the data on this object including the entire history of events that this object was subjected to. It also describes the present state and the direction of future development for every component of the reflected object. Registers exist only for material objects - can not be created for ideas or abstracts, but inside these registers any idea or abstract can be recorded or developed.

It can be deduced that the registers must store the information in a holographic manner. Such manner is confirmed by some evidence collected to-date (e.g. by the lack of time delay in ESP inquiries concerning very distant objects, by the characteristics of the life review occurring in the first stage of dying, etc.).

Amongst the various properties of the counter-material registers, one deserves our special attention. This is the non-destructible aspect. Differing from physical objects, software models (i.e. "registers") from the world of intellect can not be destroyed by any action taken in the material world. Therefore objects which physically cease to exist still posses their registers somewhere in the counter-world. Various religions describe such registers of dead people (or animals) as "ghosts", "spirits" or "souls".

The non-destructibility of counter-material registers finishes when a destructible agent is formed within the counter-world. The content of subsection D5 reveals, that such a situation occurs when the destruction is caused by an extremely powerful electromagnetic disturbance, similar to the one formed during nuclear explosions. For this reason the Concept of Dipolar Gravity warns us about the use of nuclear weapons: "those who die in a nuclear explosion cease to exist in the spiritual plane as well". This is because nuclear destruction terminates not only physical life, but also the chain of subsequent reincarnations. As such, a possible nuclear war would be a loss to the entire universe, not only to the planet where it occurred.

There is a wealth of evidence available at present which confirms the correctness of the conclusion that every material object has its mirror (counter-material) reflection in the counter-world. Listed below are some examples of this evidence:

#1D2.2. The conclusion derived from Dipolar Gravity that every material object has its counter-material mirror reflection (register) in the counter-world only provides a new, scientifically based justification to the very old finding that for ages was presented to us by various sources. In religion this reflection is called "soul", Psychics call it "etheric body", acupuncture refers to it as "energy body", etc. The mutual correspondence between the concept of a "register" derived theoretically from the Concept of Dipolar Gravity and the concept of the "etheric body" so successfully utilized in Psychic Healing, is best expressed in the book [1C] by David St. Clair, "Psychic Healers" (Bantam Books, New York, 1979, ISBN 0-553-02056-0). On page 244 of this book the famous american Psychic Healer, Reverend William Brown, explains the principles involved in his healing. Here is an excerpt from his explanations:

"The etheric body is an exact copy of the flesh and blood body with every muscle,
bone, organ, and nerve reproduced but in a finer density. The principle is that this body, being more basic than the physical, can be adjusted more rapidly and bloodlessly. Each condition corrected in the etheric body is reflected back into the physical body, thus adjusting the physical back to health".

It is amazing how closely this Psychic explanation corresponds to the "hardware/software mechanism of phenomena".

#2D2.2. In 1906, Dr. Duncan McDougall of Massachusetts General Hospital conducted some precise measurements of people just before and after their death. These

measurements revealed that the human body at the moment of death loses as much as 7 to 28 [grams] in weight. The above loss of weight can be attributed to the separation from bodies of their software models (registers) which are made of some volatile component of counter-matter. As these models are attached to the bodies by gravitational forces, their separation must cause changes in gravitational interactions which would be detectable as in the change of weight.

#3D2.2. Software models from the counter-world are actually registrable on a photographic film. The technique which allows the registration of these counter-material images is called Kirlian photography.

D2.3. Possible gains from the mastery of the counter-world

The gravitational link existing between both worlds introduces enormous potential for exercising an intelligent control over our world. If we build a machine that will be able to change the configuration within the counter-world, then this would cause an instant change within the material world. For example instead of physically traveling from place to place, we could alter our position in the counter-world and this would cause our instant disappearance from one place and re-appearance in another one. In this way "teleportation" may replace our present dislocation of matter. It is not the only possibility that the alteration of the counter-world may open. Some of other could be:
- materialization instead of production,
- dematerialization instead of disposal,
- body-transformation instead of healing.

The machine for introducing some alteration into the counter-world would be the supreme achievement in the utilization of the possibilities that this duality of the Universe may offer. However, not less useful would be the device which could just allow "insight" into and "reading" of the registers contained within the counter-world. Through such an insight we could, for example, obtain complete information about:
- the history of each person, organism or object,
- the future fate of people and objects,
- the appearance and course of illnesses before symptoms are noticeable,
- the thoughts,intentions,secrets and personal details of any particular person,
- the location of lost people and objects,
- the content of non-transparent objects, e.g. letters within envelopes, natural resources, underground water sources, etc.

It seems that for thousands of years mankind exploited the counter-world through magic, exorcism, rituals, etc. However, to-date people's use of the laws of that world has been "blind" and without understanding of their operation. Realizing that such a world exists will help us in the systematic compilation of its laws and in developing a complete knowledge of its operation. From this, there will be only a short step to the development of our natural abilities to exploit this world, in a way similar to the development of muscles by body builders. The existence of this world makes possible the mastery (without devices) of such hitherto incredible abilities as: telepathy, shifting objects by the power of the mind, healing, seeing the content of non-transparent objects and learning the personal secrets and thoughts of others.

Similarly to our world, the counter-world must also be objective and repetitive. It must be governed by a set of natural laws, whose meaning can be detected, identified, learned and utilized by our intellect. Therefore the recognition and acceptance of this world will open completely new dimensions, for the good of all people.

D3. The interpretation of time in the Concept of Dipolar Gravity

As it was explained in subsection D2, the counter-world (also called the world of intellect) contains real-time software models (registers) of our reality. These models execute the course of events that take place in our world. Thus the key to understanding the operation of the counter-world is its analogy to a real-time computer program.

Let us refer to the operation of a real-time computer program. Such a program is made up from a number of elementary processing commands that are combined together in one continuous sequence. The completion of these commands is achieved in steps, each one of them being executed in isolation from the others. During this process the control unit of a computer gives the execution power to these commands in the order of their positioning, one after the other. Thus in each computer program there exists one such elementary command which is actually in the process of execution. All commands located before this particular one are already completed, whereas all the commands located after this one will be completed in the future. Therefore a flow of the execution control throughout such a computer program performs the same function as the flow of time in real events. The above shows that in the computer programs operating in real-time, the flow of execution control is equivalent to our idea of time.

The analogy existing between the counter-world and the real-time computer program allows us to deduce the principles of completion of real events occurring in our world. These events will be executed by the counter-world in a manner similar to the way the processing commands are executed in contemporary computer programs. Thus the software models contained in the counter-world are also combined from the sequences of elementary steps. These steps are executed in succession, one by one. Therefore, there is always a step which is actually in the process of execution, as well as the other steps, part of which were already executed in the past and part waiting to be executed in the future. Such a flow of the execution sequence occurring in the counter-world, is observed in our world as a lapse of time. The above provides the interpretation of time in the Concept of Dipolar Gravity. This interpretation states that:

"time is a flow of the execution control throughout the software models contained in the counter-world."

The above interpretation introduces numerous changes to our understanding of time. Firstly, it causes us to realize that our contemporary view of time as a uniformly flowing river is wrong. In fact, <u>time is motionless, only our execution control moves through it</u>. Also this interpretation indicates that the speed of elapsing time can vary from object to object and from situation to situation (i.e. time does not elapse the same for everyone and in every situation). Moreover, this interpretation shows that in the counter-world time can be instantaneously shifted backwards (i.e. the execution control can be shifted back to any previous step) or further forward, and the speed of elapsing time can be increased or decreased. Thus, in the Concept of Dipolar Gravity, time travel and the building of "Time Vehicles" is theoretically possible - see subsection B7.

Items of evidence have already been accumulated which confirm the correctness of the above interpretation of time. Below is listed some examples of evidence from this area:

#1D3. Time elapsing is perceived differently for various objects and situations. For example, insects pass through time at a much faster speed than people, whereas the celestial bodies (e.g. planets, stars) have a much slower passage through time than humans do. Also in our lives we frequently observe the different speeds of elapsing time. As it was lightheartedly expressed by Albert Einstein, "one minute spent on a hot stove feels like an hour, whereas an hour spent with a loved partner feels like a minute". Most clearly the slowing of time is registered by participants of car accidents. Probably everyone has also noticed personally that the passage of time seems to increase in speed as we age (i.e. a day for children is longer than for older people).

#2D3. In the so-called near-death experiences (NDE), a person falling from a roof during his/her very short flight re-lives again in detail almost his/her entire life. The number of images and experiences passing through the mind of such a person would be impossible to review if time elapsed with "normal speed".

#3D3. There is objective evidence accumulated which confirms the capability of some advanced civilizations for slowing down or accelerating the elapse of time. This evidence originates from sightings of the so-called "Time Vehicles" in operation. Examples of this evidence (eg the so-called "state of suspended animation", claims of extraterrestrials, accelerating of abductee watches) are presented in subsection K3.

D4. <u>The interpretation of electromagnetic phenomena in the Concept of Dipolar Gravity</u>

The Concept of Dipolar Gravity reveals that the counter-world is filled up with a kind of medium, which we call here "counter-matter". Counter-matter is a reversal of matter from our world. Independent of the intellectual properties, it also displays a number of physical properties. As the classic physicists deduced, counter-matter must possess no mass, must produce no friction and display no inertia. Counter-matter can be put into a state of tension and be caused to move. The actual state and behaviour of this medium, however, may not be observed directly from our world, as our devices and sense organs have no access to the world in which counter-matter is contained. But counter-matter interacts with the opposite ends of gravity dipoles that prevail in its world and thus its state and behaviour impacts the behaviour of matter contained in our world. Because of this, counter-matter can be observed indirectly by registration of its interactions with matter from our world.

If we analyze all possible interactions that may occur between our matter and counter-matter, these may be two kinds, i.e. (1) those caused by the compression of the counter-matter and (2) those caused by its motion. The areas where counter-matter is compressed or decompressed must display all the attributes of what is presently known under the name of positive and negative electric fields. Thus the electric fields in the Concept of Dipolar Gravity represent the potential states of counter-matter. The motion of counter-matter will display all the attributes of magnetic fields. Therefore magnetic fields are the carriers of kinetic states of this substance. Both the above interpretations reveal that the electromagnetic phenomena in the Concept of Dipolar Gravity are understood as various states and behaviours of counter-matter.

D4.1. <u>A magnetic field is a circulating stream of the counter-matter</u>

It is unfortunate, to say the least, that science in the last decades of the 20th century is still not able to answer the question: "what is a magnetic field?". The highest authorities in magnetism, when confronted with this question, simply "put their heads into the sand" and evade the issue by providing a definition which describes the effects, not the causes, of a magnetic field. It seems that the medieval monks' explanation of magnetism as a "sort of holy phantom which emerges from one end of a bar magnet and disappears into the other end" is still repeated by modern scientists, merely replacing the occultist expressions with the same meaningless mixture of super-modern, abstract terminology.

The formation of the Concept of Dipolar Gravity finally provides the answer to the question "what is a magnetic field?", as well as explaining the principles of the formation of this field. Below is given a more detailed explanation of this phenomena.

It was experimentally determined that all electrically charged particles, such as electrons, protons, positrons, etc., are spinning like tops. One of the presentations of recent discoveries in this matter is contained in an article by Alan D. Krisch, "Collisions between Spinning Protons", published in "SCIENTIFIC AMERICAN", August 1987, pp. 32-40. Because each of the spinning particles is contra-balanced in the counter-world by a corresponding cluster of counter-matter, the rotation of this particle must also cause a circulation of counter-matter surrounding this cluster. This circulation of counter-matter could be compared to the formation of a miniature whirlwind by a child's toy - a "spinning top" - after setting it in rotation. As a result, micro-whirls of counter-matter must accompany

every electrically charged particle. In normal circumstances the axes of rotation for these billions of micro-swirls take chaotic orientations, therefore their actions mutually cancel one another's effects. For this reason in stationary charges the swirlings of counter-matter can be detected only on a micro-scale. The situation changes drastically when the particles are forced to flow. During movement they orient their axes of rotation in the direction of the flow of currents. Having parallel axes of spinning, the particles now accumulate their effects on counter-matter. Such an accumulation can be compared to the effect of hundreds of "spinning tops" swirling simultaneously in one room so that their miniature whirlwinds, reinforcing one another, cause the air in the room to rotate. The result is that the flow of electric charges orders their axes of rotation and thus form the large-scale circulations of counter-matter known to us by the name of "magnetic field".

To summarize the above in the form of definition we can say that a "magnetic field is a circulating stream of counter-matter". This means that the force lines of a magnetic field are in fact the drift lines of circulating counter-matter.

Counter-matter is a substance permeating that other world inaccessible from our set dimensions - see subsection D2.1. Therefore the circulation of counter-matter would be undetectable for our instruments, but would interact with other similar circulating streams of this substance. So it would behave exactly like a magnetic field.

When the electric current flows along a straight wire, counter-matter swirls around this wire forming a vortex magnetic field (i.e. a field having indistinguishable N and S poles). But when electric charges take on a circular flow, as observed in coils of electromagnets or within the atoms at electrons' orbits, then the dipolar magnetic field (i.e. field having clear N and S poles) is formed.

The model of the formation of a magnetic field presented above allows for a simple explanation of all the known phenomena connected with magnetism. For example, magnetization (or production of permanent magnets) is the process of putting into order the axes of the particles' rotation, by means of the action of the external stream of circulating counter-matter. (So it is a process that is the reverse of the formation of a field by the flow of charges). When analyzing any other magnetism-related phenomena we must inevitably reach the conclusion that the model presented above is the correct one and that it should be commonly accepted as soon as possible.

It is much easier to comprehend the properties of a magnetic field when the circulation of the counter-matter is imagined as the circulation of air. In such an analogy, one coil of an electromagnetic can be visualized as a propeller of an aircraft forcing the surrounding air to circulate. The analogy for a bar magnet would be a kind of "pipe" formed from billions of little propellers. To obtain the simulation of the interaction between two magnets, it is sufficient to consider the relative interaction between two streams of air circulated in that way. Of course, when applying the above analogy we should remember that counter-matter, unlike our air, possesses no mass, no viscosity, and does not create friction. Therefore all the attributes of a circulating stream of air which result from the above properties of this medium will not appear in magnetic fields.

There is a mass of evidence originating from areas other than magnetism, which additionally confirms the correctness of the counter-matter-based explanation for magnetism. Let us review some examples of this evidence.

#1D4. Nuclear physics provides numerous photographs of elementary particles, which show that the carriers of electric charges usually follow a spiral trajectory. Because the energy input for these particles may occur only at the initial point of their motion, such a spiral trajectory must be caused by some kind of disproportions in environmental resistance (e.g. a "spinning top" usually follows a spiral trajectory). To make it clearer: if particles would move in a vacuum, as present science claims, the trajectories of particles should be circular, elliptical, or parabolic (but not spiral).

#2D4. It has been noticed that the lights of the aurora borealis, visible close to the north (N) magnetic pole, look as if they fall from the sky to the Earth, whereas the lights of the aurora australis, appearing near the south (S) pole, seem to come from the Earth and ascend into the sky. The logical explanation for this surprising contradiction in the direction

of movement of the lights of both auroras is that this is caused by the motion of counter-matter, which in its circulation leaves the Earth at the south pole and sinks into the Earth at the north magnetic pole. (Notice that in this monograph, and in other works by the author, the north magnetic pole (N) is defined as the one prevailing at the north geographic pole of the Earth.)

#3D4. The application of the Principle of the Symmetry of Nature to the development of propulsion systems (see Table B1) reveals that three different generations of propelling devices will be completed, utilizing various properties of what we call a magnetic field. Some of these propulsion systems (e.g. Teleportation Vehicles) can only operate if the magnetic field is a circulating stream of counter-matter. Sightings have already been accumulated which confirm that a Teleportation Vehicle in fact can be built - see subsection K2.

D5. Why, according to the Concept of Dipolar Gravity, paranormal phenomena must display electromagnetic character

One of the attributes of natural evolution is that in living creatures it develops a wide range of sense organs and abilities that prove useful for survival. These sense organs and abilities make the best use of every property of nature that is available, independently of the owner's awareness of its existence. Therefore, if the Universe operates according to the Concept of Dipolar Gravity, it should be expected that people have already developed senses (chakras) allowing them to gain insight into the counter-world, and also have developed some organs (e.g. pineal gland) for altering the configuration of this world. And in fact human beings are capable of inducing some phenomena, known under the name of "paranormal", which fit into the definition of interacting with the counter-world.

From the Dipolar Gravity point of view, all paranormal phenomena caused by people can be classified into two categories, i.e. (1) reading the information contained in the counter-world, and (2) alteration of configurations in the counter-world. In the first category of reading the information from the counter-world can be included such phenomena as clairvoyance, telepathy, dowsing, distant illnesses diagnosing (e.g. the ability demonstrated by Edgar Cayce (1877 - 1945), the founder of famous Edgar Cayce Foundation from Phoenix, Arizona, USA - see book [1D] pp. 297-317), etc. In the second category of alterations introduced into the counter-world can be included such phenomena as: psychokinesis, bending of objects (e.g. spoons) by the power of mind (Uri Geller), bending of V-shaped divining rods by dowsers, psychic healing, levitation, etc.

The Concept of Dipolar Gravity defines paranormal phenomena as effects of various interactions with counter-matter contained in the counter-world. On the other hand, the conclusion from the previous subsection is that the name "electromagnetic phenomena" is assigned to physical manifestations of the various behaviours of counter-matter. Merging together these two findings leads to the general conclusion stating that:

"paranormal phenomena and electromagnetic phenomena are related to one another as both are manifestations of the interactions occurring between matter and counter-matter". The above conclusion can also be expressed in the following way:

"paranormal phenomena originate from various behaviours of counter-matter; physical manifestations of these behaviours are registrable under the name of electromagnetic phenomena".

There is a wealth of evidence already accumulated which confirms the above general conclusion. Let us review some examples of this evidence.

#1D5. Professor Janusz Slawinski of Krakow, Poland, has completed a series of experiments aimed at the registration and measurement of a beam of electromagnetic radiation popularly called a "Death Flash". This beam is emitted by all living organisms at the moment of their death. Some findings concerning "Death Flash" were presented in OMNI magazine, Vol.8, No.3, December 1985, page 115. It should be explained here that in the Concept of Dipolar Gravity the "Death Flash" represents a dislocation of counter-

matter caused by a separation of counter-material reflections (registers or software models) of dying organisms from their physical bodies. Religions describe such dislocations of counter-matter as a separation of souls from bodies. Because any motion of counter-matter manifests itself as the electromagnetic field, therefore, the above separation must also be registrable in the form of an electromagnetic beam (see also evidence #2D2.2 from the end of subsection D2.2).

#2D5. Research conducted on dowsers reveals that areas where their rods indicate some findings are also characterized by slightly different intensities of the magnetic field. Some descriptions of the results gathered in this matter are published in the paper by Tom Williamson, "A sense of direction for dowsers?", NEW SCIENTIST, 109 March 1987, pages 40 to 43. In the above paper the experiment is also described, in which a magnet is placed on the forehead of subjects and it drastically disturbed their ESP abilities.

#3D5. Acupuncture points are detectable in an electromagnetic manner. On the other hand the Concept of Dipolar Gravity explains these points as areas where the counter-material models of our bodies exchange signals with their surroundings. Because such an exchange would take the form of flows of counter-matter, the paths of these flows must be indicated by relevant electromagnetic properties.

D6. Telekinesis - a power source for free energy devices and a principle of operation for Teleportation Vehicles

It is certain that every available property of the Universe, which is utilized by living organisms can also be utilized technically. We have already built numerous devices that copy recognized functions of the human body (e.g. microphones, speakers, video cameras, computers, artificial hearts). Further devices are in the process of construction. As the Concept of Dipolar Gravity explains the principles of telekinesis, we should also expect that soon even more advanced devices will be completed whose operation will utilize a technological version of this phenomenon. Let us now briefly analyze the general concept of such devices, whose specific descriptions are contained in chapter B (see subsections B6.2.2 and B6.3).

The terminology used in this monograph is so selected that it indicates the origin of a given telekinetic motion. The term "psychokinesis" is given to the motion caused by the human brain. But the type of telekinesis caused in a technological manner, i.e. by a technical device not by a living organism, is called here "telekinesis". In spite of these two terms used to distinguish between human psychokinesis and technological telekinesis, the principles of this phenomenon in both cases remain exactly the same. From the Symmetry of Nature it can be deduced that telekinesis results from the utilization of the property of counter-matter called self-mobility, which is the magnetic equivalent of mechanical inertia. The explanation of the magnetic field as a circulation of counter-matter suggests that this self-mobility should manifest itself during the acceleration or deceleration of magnetic fields. Such acceleration or deceleration should either be obtained when the flow of counter-matter is rapidly interrupted (human psychokinesis) or when magnetic field force lines are physically accelerated or decelerated (technological telekinesis). Present research seems to suggest that humans produce such interrupted flows of counter-matter by that part of their brain called the "pineal gland". If this were the case then the key to learning about the nature of human psychokinesis would lie in the investigations with instruments of the magnetic connection between the pineal gland and common forms of human psychokinesis (e.g. bending of a V-shaped divining rod - see subsection D11).

The explanation for the principles of telekinesis derived from the Concept of Dipolar Gravity states that this phenomenon is a result of dislocating the mirror reflections (software models) of selected objects within the counter-world. Because of the gravity connection existing between the objects and their mirror reflections, such a dislocation must also cause physical objects to be moved in our world. To move the software models within another world no external energy supply is required. But the physical motion of objects within our

world will consume energy according to the Conservation of Energy Principle. Therefore, as the Postulate of Interchanging Thermal Energy states, objects moved telekinetically will absorb thermal energy contained in the environment. This makes telekinetic motion a reversal of friction. Similarly, as friction spontaneously converts mechanical motion into heat, telekinesis spontaneously converts heat into motion.

The simplest device which could utilize a technological version of telekinesis would be a "telekinetic motor". We could describe such a motor as a device which causes the motion of some of its parts by shifting in the counter-world the mirror reflections of these parts. Because the technological telekinesis can be released through acceleration or deceleration of magnetic fields, telekinetic motors must employ some sources of magnetic field. It was explained that shifting the counter-material reflections of the motors' parts will not cause any consumption of energy. Therefore the telekinetic motors are able to operate without any external energy supply. But according to the "Postulate of Interchanging Thermal Energy" described in subsection D2, the energy that drives telekinetic motors will be withdrawn from the environment, thus cooling it down. So, telekinetic motors will combine the function of "perpetual motion" with the function of a freezer - they will produce motion through decreasing the environmental temperature. The telekinetic motors, while operative, will also emit an "extraction glow", described earlier in subsection D2.

To illustrate how the design and operation of future telekinetic motors could be deduced directly from the Concept of Dipolar Gravity, it is necessary to analyze the technical ways of releasing telekinetic motion. An understanding of these ways requires our knowledge of the analogy (or rather reversal) existing between magnetic self-mobility and mechanical inertia - refer to the second generation of the mass circulating propulsion systems listed in Table B1. Guided by this analogy we can deduce that telekinetic motors will probably consist of three relatively moving parts, i.e. a stator, a field activator, and a rotor. The stator and field activator must house numerous sources of a strong magnetic field. These sources will be in a continuous relative motion, causing their magnetic fields to interact dynamically with one another. Such an interaction will accelerate and decelerate the circuits of the magnetic field, thus triggering a technologically induced telekinetic motion. The motion so released will be directed onto a third moving part, a rotor, making this part rotate also. The motion of the rotor will then be transmitted outside of the telekinetic motor and supplied to the devices propelled by it. A fraction of this motion will be returned back to the field activator, causing relative movement towards the stator, and in this way forcing the incorporated sources of the magnetic field to accelerate and decelerate their force lines.

The above deduction shows that the telekinetic motor in many ways resembles an advanced electric motor. After increasing its external work-load above a certain "critical value" (which depends on its design and on the efficiency of the sources of the magnetic field utilized in it), the telekinetic motor should even operate as an ordinary electric motor. The major differences existing between these two propelling devices can be limited to the following:

(1) In a telekinetic motor the propelling effect is produced not by the flow of a single stream of a working medium, but by a confrontation of two streams of a working medium.

(2) This motor uses two separate groups of magnets dynamically interacting with each other in order to accelerate or decelerate their fields. (In contemporary asynchronous motors only one such source of a rotating field is used.)

(3) An effective telekinetic motor will use not less than three relatively moving parts, i.e. a stator, a field activator, and a rotor (instead of two such parts appearing in contemporary electric motors).

(4) In order to release and utilize the highly advanced telekinetic motion, the telekinetic motor must meet rigorous technological requirements which do not apply to the simple operation of an ordinary electric motor.

It should be stressed here that, after applying the above descriptions to the circulation of air, the differences existing between a modern windmill (representing a pneumatic motor of the first generation - see Table B1) and an air turbine (representing a pneumatic motor of the second generation) could be described in exactly the same way.

Let us now summarize the characteristics of the telekinetic motor. It will employ interaction of two groups of magnetic fields to release the technological telekinesis. It will contain not less than three relative moving parts, two of which must house numerous sources of a strong magnetic field (e.g. permanent magnets, electromagnets or Oscillatory Chambers). Its operation, design, and technical requirements will be much more rigorous than those of contemporary electric motors. The power of the mechanical motion produced will be limited by the power of the magnets utilized in its construction. It does not need fuel or electrical energy in order to operate. Thus, it will make mankind's oldest dream come true: to have a device which works continuously without requiring any energy supply. While operational it will cool down the environment and emit the so-called extraction glow. The intensity of such cooling and emission will depend on the thermal energy exchange with the environment, which must match its yield of mechanical energy.

If telekinetic motors are combined with electricity generators, their operation provides a foundation for the development of "free energy devices", which in this monograph are called "telekinetic power-stations" - see the description in subsection B6.2.

The Cyclic Principle in the development of propulsion systems (see subsection D3 and Table B1) states that when the first commercially viable telekinetic motor is built, the completion of a second generation of propulsion systems utilizing the circulation of magnetic field force lines will commence. The next type of device developed in this generation will be the telekinetic propulsor used for transportation purposes. The transportation achieved in a telekinetic manner is called "teleportation". Therefore, the vehicles utilizing the telekinetic propulsor can be called "Teleportation Vehicles" - see the descriptions from subsection D6.3. Teleportation Vehicles will shift entire objects in space through altering the position of the counter-material reflections of these objects. Their operation also will not require any external energy supply, but during flight they will decrease the environmental temperature and emit an extraction glow. Therefore mastering the technological version of telekinesis will open a new era of teleportation in our transportation systems, bringing to an end the present period of traveling and moving by means of a physical dislocation of objects in space.

The principle of telekinesis, revealed by the Concept of Dipolar Gravity, indicates that objects moved in such a manner should theoretically be able to penetrate solid matter (e.g. walls, rocks, furniture, etc.) without any damage to their own consistency nor the consistency of the matter penetrated. In this way civilizations possessing Teleportation Vehicles will be able to demonstrate actions which are considered impossible with our present knowledge of physics. For example Teleportation Vehicles will fly through buildings or mountains and not leave even the slightest trace on them, whereas teleportative personal propulsion will allow us to visit someone's home by entering through the walls. Note that in this respect teleportation propulsion will differ from the first generation of magnetic propulsion (i.e. the Magnocraft) which will burn out glossy tunnels while moving through solid matter.

The above brief summary of the applications of technologically induced telekinesis shows how important it is for our civilization to advance research on telekinetic power-stations. The intensification of this research, through accumulating and extending our knowledge on a technological version of telekinesis, will soon culminate in the teleportative propulsors (Oscillatory Chambers) which will make possible interstellar trips to almost unlimited destinations.

There is already some evidence accumulated which confirms the feasibility of the devices described above. Let us look at some of this evidence.

#1D6. The first working models of telekinetic power-stations are already completed. These are known under the name of "free energy devices". Subsection B6.2.2 of this monograph describes some of them.

#2D6. There are numerous reports from UFO sightings that the vehicles of these advanced civilization are able to fly through solid matter or be penetrated by solid objects. Some of these reports can be found in the book by N. Blundell & R. Boar, "The World's Greatest Mysteries" (New English Library, London 1980, ISBN 0-7064-1770-4) - see pages

132 (people are able to walk through UFOnauts and UFO vehicles) and 142 (a flying disc disappears into rocks). The report mentioned in #4C10.2 also provides evidence for such penetration of solid objects.

#3D6. In the TV program "The Magic of David Copperfield VIII", (CB, Director: Stan Harris) a scene shows David Copperfield walking through The Great Wall of China. Although this walk is claimed to be only a magician's clever trick, in fact this trick displays all the attributes of advanced propulsion systems based on teleportation (including emission of the "extraction glow").

D7. The model of the brain as an input-output device

According to the Concept of Dipolar Gravity every material object simultaneously exists in two worlds. The part of this object prevailing in our world (body) performs material functions, whereas the part prevailing in the counter-world (register) performs intellectual and time-dependent functions. The natural consequence of this situation is that in the process of evolution some more advanced life forms (e.g. humans, animals) must surely have developed organs that link together the parts from both worlds. The brain is an organ that most probably provides such a link.

It is registered in numerous cases that the memory remains even when portions of brain are surgically removed (see "Intersections of Holography, Psi, Acupuncture, And Related Issues" by D. J. Benor, American Journal of Acupuncture, Vol. 11, No. 2, April-June 1983, pp. 105-118). This contradicts the understanding to-date of the brain as a collection of "pigeon holes" into which data is packed and stored. Therefore, the long-term memory must now be explained in another way. Contemporary medicine prepared another explanation of memorizing based on the so-called "holographic model of our brain". This model assumes that the remembered information is distributed amongst all cells of the brain like a holographic picture, so that every cell contains complete information about everything. Thus, whatever part of the brain is removed, in other parts the same information is still preserved.

But this holographic explanation still does not match the existing facts. There is an increasing number of facts indicating that the memory of events can be preserved or passed on even while the brain that registered them is completely dead. These kind of facts originate from the so-called "psychic" experiences. An example of such experiences can be learning about a murder directly from the victim, or learning about past life ("reincarnation") when the subject of this life is already dead.

While any model of the brain based on the present single-world understanding of our Universe is unable to provide satisfactory explanation for the above facts, the model derived from the Concept of Dipolar Gravity leads to the explanation that matches all existing evidence. This is because in a dual-world Universe, the substance (counter-matter) filling up the counter-world displays the attributes of a natural computer, i.e. it intercepts, stores, processes and outputs the information. Thus, the existence of such a thinking and memorizing substance, allows us to store information in our registers contained in the counter-world, not in our physical bodies. The model of the brain which postulates this capability is called here "the model of the brain as an input-output device".

In the "model of our brain as an input-output device" it is assumed that we do not have in our heads any long-term storage (memory), but rather an input-output device which exchanges information with registers contained in the counter-world. Using "computer" terminology, our brain is not a computer itself, but only the equivalent of an intelligent terminal. This terminal is able to perform some limited processing by itself, as it possesses its own short term memory, however, in all important cases it refers to the information contained within the counter-world. The process of exchanging this information with the other world is known by the name of long-term memory system.

The model of the brain described above provides an excellent explanation for all facts and phenomena observed to-date. For example, such phenomenon as hypnosis is

defined as switching our brain entirely onto the perception of signals from the counter-world. Telepathy is exchanging the messages between different brains via the counter-world. Dreams are adventures of our registers in the counter-world. Multiple personalities can be explained as switching our brain to co-operate with more than one register of memories. Reincarnation is simply attaching the brain of a new person to the counter-material memory (register) of a person who is already dead.

One of the implications of the model of the brain as an input-output device is that it postulates the existence of a "universal language", i.e. a language in which the counter-matter thinks, and thus which is used by the entire Universe. It is called here DMLT (Data Manipulation Language of Thought). This language would be a natural equivalent to binary "machine code" in which our computers think. It would differ from the human spoken languages, and would be the language in which all living creatures conduct their thought processes. The existence of such an universal language not only enables brains to communicate with their counter-material reflections, but also enables communication between one creature and another (e.g. humans with animals, plants, UFOnauts, etc.). It is extremely interesting that the existence of such an universal language was already suggested indirectly in the late 1950s by Noam Chomsky in his research concerning generative grammar.

At this point the author would like to stress that the existence of such a universal language of thoughts (DMLT) introduces numerous philosophical implications. Probably the most important of them is that this language must consist only of the "words" which correspond to the ideas and possibilities already recognized and applied in the Universe. Practically, this means that we are not able to think or to imagine anything that exceeds the capabilities of the Universe, as it simply would not have the appropriate "word" to be expressed in our minds. Putting it in another way "every goal which is possible to image in also possible to achieve". The problem with comprehending the above principle lies in frequently mixing up the goals with the ways of achieving them. For example the previously discussed idea of an antigravitational field in the concept of monopolar gravity, in fact represents only our demand addressed to the Universe requiring its particular way of operation. Therefore antigravity thus defined represented the way of achieving the goal, not the goal itself. If antigravity is limited to a pure goal only, i.e. to the formation of a force that repels one mass from others, then a number of possibilities for its achieving can be revealed, two of which (i.e. the Magnocraft and the Teleportation Vehicle) are explained in this monograph.

An especially important consequence of the discussed model of the brain is that it provides a perfect explanation for all forms of ESP. In this explanation ESP is a complex of methods for perceiving additional information (i.e. the information not stored by our own brain) from the counter-world. In order to gain this information, the brain of an ESP practitioner accesses the counter-material model (register) of the object subjected to ESP inquiry and reads from this register all the information required.

There is a wealth of evidence which confirms the correctness of the model of our brain as an input-output device. Let us briefly review some of this evidence.

#1D7. Communication between people and UFOnauts. There are numerous cases reported when members of UFO crews communicated with people using some telepathic devices. These devices caused a direct and soundless transmission of thoughts between the brains of humans and the brains of UFOnauts. Such a direct exchange of thoughts is only possible when the universal language mentioned earlier exists. The existence of this language in turn confirms the operation of our brains as input-output devices.

#2D7. Communication between people and plants. The universal language allows us to communicate with every possible inhabitant of the Universe - even including pot plants. It has been confirmed that pot plants grow better when someone talks to them with love and care. Moreover, there were experiments completed, which utilized equipment similar to a lie detector. These experiments proved that plants react with panic to our thought intentions to harm or destroy them.

#3D7. Communication between people and animals. It is well known that many people are able to "say" something to an animal, or insect, and that the message conveyed gets through somehow to the addressee, whose further actions prove the complete understanding of what was said. Any rational explanation for such communication must involve the operation of all brains (also those of animals and insects) as input-output devices.

The most well known person utilizing such communication was late Mrs Barbara Woodhouse, whose frequent appearance on British TV gained her world-wide fame (especially her "sit!" command).

In central Europe (especially in Poland, Germany and Czechoslovakia) there is a vivid tradition of peripathetic rat-catchers. Those extraordinary people earned a living by ordering rats, mice and even insects to follow them beyond the boundaries of the village that paid for this form of debugging. These pests were then drowned or burnt. The last of these rat-catchers was supposed to be still operative in an area of present Poland at the beginning of this century. One of the romantic records of these people survived in the form of the German legend of the Pied Piper of Hamelin.

#4D7. Animal instincts. It is well known that animals display abilities to resolve problems which definitely extend beyond the capabilities of their (or even human) brains. According to the model of brain discussed here, all brains (also those of animals and insects) must have the ability to access and read registers from the counter-world, thus the so-called instinct is only an animal equivalent to human ESP abilities. Animals can gain knowledge of correct behaviour in a particular situation by searching through the appropriate registers in the counter-world. There is a mass of evidence supporting this. Only some of this will be reviewed below.

a) Knowledge of correct behaviour in a critical situation. We can observe how a sick animal somehow recognizes the best food and treatment for a particular disease. During periods of drought, elephants, like our dowsers, find the location of shallow underground water sources, saving themselves and other animals. Dogs know the best way to save their masters in a moment of emergency.

b) Reading warnings of bad events. It is almost legendary that dogs can predict an imminent natural disaster and howl loudly as an alarm. In Japan they raise a special kind of aquarium goldfish which can detect an earthquake a few hours in advance. There is the well known claim of sailors that rats foresee a coming disaster and abandon in advance the ship that is going to sink. Favourite pets know about the death of their masters. Birds do not sing at the site of some former concentration camps. Some farm animals seem to know when they are designated to be killed.

c) Pets foreseeing their master's return. It has been observed that favorite pets know several minutes in advance that their master is going to return home and know also at which entrance they should wait to welcome him/her. Similar knowledge is displayed by little children who know a few hours in advance that their favourite relative is coming and he/she has something good for them.

d) The migration and navigation instincts of animals. The only satisfactory explanation for the migration and navigation instincts of some birds and fish seems to lie in ESP. Sea birds have no orientation points and they still return to their nests without error. There are known cases of dogs and cats returning home having been taken hundreds of kilometers away in windowless boxes. Some dogs are famous because of finding the way to their owners after those owners changed city or even country.

e) Synchronization of the movements of birds and fish. We may observe flocks of birds and shoals of fish as they maneuver simultaneously. No known physiological senses explain such perfect synchronization. A similar effect can also be experienced by two bicycle riders or car drivers who unexpectedly face each other on a collision course. They will repeat exactly the same maneuvers until they crash.

#5D7. Review of ones own life during the so-called Near Death Experiences (NDE). It is widely documented that the dying person relives again the most important events from his/her own entire life. Mr Mike Irving of 120 Terrace St., Invercargill, New Zealand - one of

the numerous people known to the author who has experienced this - describes it thus: "It was not just reviewing a three-dimensional movie of my life. It was as complex as in reality. I was there and I felt, thought and saw everything again. The only difference was that I observed myself as an outside witness and that I could not change anything in this review".

The review discussed here contains one element, confirmed by many participants, which excludes the possibility of the brain origination of these pictures, i.e. their nature is holographic. If the pictures were only a display of the biological memory content, they should present the events exactly in the same form as the eyes of the dying person saw them while they happened. But this is not the case. The review consists also of pictures of the person, presenting him/her as if he/she were filmed by an outside cameraman. Moreover, during the review details also are visible, which could not be noticed in a real experience, because they were inappropriately located towards the subject (sometimes scenes are presented which are happening behind some physical obstacles and by no means could be seen by the person involved). This characteristic indicates that the discussed review can not originate from the brain itself, but is read by the brain from the bank of information stored within the counter-world.

More information about the above phenomena can be found in the book by R.A. Moody, "Life After Life", Stackpole Books, 1976, ISBN 0-8117-0946-9, pp. 61 to 69.

#6D7. Double or multiple personalities. In the paper "Multiple Mix-ups", published in OMNI, Vol. 8, No. 2, November 1985, p. 94, some examples of people who experience complete changes of personalities are discussed. It seems that the same body can be occupied in turn by two or more completely different persons. The differences in these personalities can be so significant and their switching so complete that they affect not only the psychological, but also the biological state of a person. For example the different personalities (of the same physical person) may require different optics of glasses, or be allergic to different foods and medicines. The existence of this phenomena provides a further evidence in support of the model of our brain as an input-output device. This is because any rational explanation of multiple personalities must account for the switching of someone's brain to the register of a different person - synchronized with the simultaneous taking control over the entire body by this register (i.e. by the software model of a different person).

#7D7. Reincarnation. The details of previous lives can be recalled. Some children during normal activities, and also various adults during hypnotic regression or dreams, are able to recall details from previous lives. These details are very vivid, and prove themselves correct when verified by historical research or in a field confrontation. In addition other evidence, such as the rapid appearance of non-learned abilities or birth marks corresponding to injuries from a previous life, also confirm the concrete origin of these experiences. The main puzzle in all these recalls is where the remembered information is stored, as the previous physical bodies (brains also) are dead. The Concept of Dipolar Gravity provides the answer: in the registers from the counter-world. So the recalls of previous lives are simply accessions made to these registers. Numerous cases of recalling past life are documented in the book [1D7] by Joe Fisher, "The Case for Reincarnation", Granada Publishing Ltd., London 1984, ISBN 0-246-12650-7.

#8D7. Problem-solving in sleep. There is a well-known method of acquiring solution to our problems during a night's sleep. If we clearly specify just before falling asleep what our problem is and what kind of solution we are looking for, when waking up in the morning we will find out that we know the answer. As the knowledge that is acquired during the night must be input from somewhere, the above phenomenon additionally supports the model of our brain as an input-output device.

#9D7. Superstitions. It is well known that for some people superstitions are a reliable source of information on events that are going to happen. As every person sets his/her own warning signals, thus, making superstitions work must involve some kind of communication occurring between the brain of a superstitious person and the counter-world. The principle of this communication is identical to the one applied in involuntary forms of ESP, only that obtaining a reply does not involve pendulums or divining rods. Therefore, the claim of

numerous people that superstitions operate for them is the next confirmation of the correctness of the model discussed here.

The explanation for the operation of superstition derived from the Concept of Dipolar Gravity also reveals why it works for some people, and does not work for others. The reason for this is that one must have a clearly defined interpretation for the signals received. Devoted believers in superstitions adhere to one set of unambiguous signals which they always interpret in the same way. Therefore they work for them perfectly. The scoffers do not have their own signals, and only temporarily adopt someone else's while they are in the right mood or want to prove something. Naturally in such circumstances the superstition may not work for them.

#10D7. People with an undersized brain. Contemporary medicine registers numerous people, who display full intellectual capabilities, but simultaneously have an undersized brain. A number of such cases are documented in the book [1D7] by Dr. Benito F. Reyes, "Scientific evidence of the existence of the soul" (Theosophical Pub. House, Wheaton, Ill. 1970, ISBN 835601927). In some cases the size of the brain of these people does not exceed the kernel of a walnut. The existence of such people provides further evidence that the intellectual capacity of a person is not dependable on the size of the brain. This in turn proves that intelligence must originate from another source than the brain (i.e. from the counter-material model of a person) and that the brain is only an input-output device (terminal) which links people with their source of intelligence.

D8. ESP - a key to instant benefits from the counter-world

The name Extra-Sensory Perception (or ESP) is assigned to the various methods of acquiring information without employing the physiological senses. Examples of ESP are dowsing (i.e. detection of underground water or minerals), psychic illnesses diagnosing, predicting the future, telepathy, etc. As hitherto no explanation was known for the source of this information, there has been a generally bad feeling about ESP, and the majority of scientists qualify it as "scientific heresy".

The model of the brain as an input-output device discussed in subsection D7 provides an excellent explanation for ESP. In accordance with it, ESP is the result of acquiring access to the information contained in the "registers" from the counter-world. The mechanism of operation of ESP is described by the analogy of the counter-world to a huge computer program. Within this program are contained the registers mentioned earlier, which can be compared to the contemporary Data Bases. The human brain is a kind of input device which sets the appropriate "accession programs" (in a Data Manipulation Language of Thought or DMLT) that carry out a search through these Data Bases. The entire body is an output device which intercepts the received answers. Also the information acquired has the exact form of results obtained from a computer program. It can not be a concept or an explanation, but it is a YES/NO answer, a number (quantitative answer), a shape, a sound, or a direction.

The explanation of ESP principles derived from the model of our brain as a input-output device gives better understanding for numerous unexplained facts about this way of gathering information. For example it explains why ESP inquiry may refer to material objects - not to abstracts. (This is because only material objects possess their own counter-material models in the counter-world). It is also known that in order to inquire about another person, ESP practitioners must possess some material object belonging to that person. Again, according to the Concept of Dipolar Gravity, in order to access the software model whose address is unknown, we firstly must find the link (address) to this model through reading data from the model of the other object connected to the one searched for.

There are two types of ESP which we will call "cognitive" and "involuntary". They differ from each other because the first of them employs, whereas the second excludes the brain in the perceiving of answers. In cognitive ESP all replies to inquiries are forwarded straight to the brain where they are processed and synthesized into the final forms. To

achieve this, the mind of the inquirer must be in a special state, very difficult to introduce in normal circumstances. This state appears mainly during hypnosis, dreams, exaltation, etc. But some naturally inclined people, called "psychics", are able to obtain it whenever it is required. Probably in the future some training techniques will be developed, which will allow everyone to master this ability. Until then this type of ESP seems to be closed to mere mortals. Examples of it are: clairvoyance, precognition, telepathy.

In the second, involuntary type of ESP the answer signals are forwarded directly to the muscles of the inquirer, where they appear in the form of a muscular movement or a change in the electro-magnetic properties of the body (e.g. its electrical resistance). Because these effects are not consciously perceived, they are called involuntary. Examples of ESP utilizing them are: dowsing, and working with a divining pendulum. Involuntary ESP can easily be developed by everyone and the appropriate training techniques is described in subsection D8.2. Moreover, it provides much higher effectiveness than the cognitive one and can be utilized in practically every application, including such technical areas as repairing cars, designing new devices, verifying new ideas, etc. For this reason the examples discussed in the rest of this chapter refer mainly to involuntary ESP. But all the deductions and theoretical models (especially PDB) presented here, can be applied to both types of ESP.

The possibilities of ESP seem to be unlimited. It is likely to provide everyone with a direct and free access to the most powerful Data Base in the whole Universe. Perfectly correct information on every form of matter, i.e. on every object, organism, or person, that ever existed or will exist in the entire Universe, can be at everyone's finger tips. It is difficult to image how dynamic the acceleration of our progress may be, once we have gained a proper and complete mastery of ESP. For example the completion of new inventions such as the Oscillatory Chamber or the Magnocraft would then require only the time necessary for their technical realization and testing. All our present experiments and developmental procedures would not be necessary at all after the proper application of ESP.

It should be stressed, that in accordance with the Concept of Dipolar Gravity each person projects part of his/her body into the counter-world. Therefore theoretically each of us meets all the requirements necessary to successfully develop and use involuntary ESP technique. But to do this, some clearly recognizable signals, communicated involuntarily by our body must be developed and maintained. Without such signals the required information, after reaching us, can not be interpreted and understood. Therefore to make ESP work, continual practice is necessary, to maintain the same clear answer signals (e.g. in the pendulum-assisted ESP: the clockwise circulating of a pendulum for the answer YES, a swinging movement for the answer NO, and a counter-clockwise circulating for the answer ERROR IN THE FORMULATION OF AN INQUIRY). Since continual training is required, perfection in ESP can be achieved only by extremely strongly motivated hobbyist or people living from it professionally (e.g. dowsers). Only they can afford the time and energy for everyday practice to improve their techniques.

Out of all techniques of involuntary ESP, the greatest potentials for application in science and technology carries instrumental ESPs. Instrumental ESPs are all those techniques in which bodies of ESP practitioners are connected to some kind of instrument (pointer) which displays or interprets involuntary signals perceived by these bodies. Present techniques of instrumental ESP utilize for pointers very primitive equipment (e.g. divining pendulums, divining rods) which have not improved for many centuries. But conclusions from the Concept of Dipolar Gravity, especially those concerning the electromagnetic manifestation of paranormal phenomena (see subsection D5), open the way for utilizing more sophisticated and reliable electronic equipment. Those conclusions indicate that using devices similar to "lie detectors" would increase significantly the reliability of ESP answers.

Presently most popular technique of instrumental ESP involves the application of divining pendulum. This technique seems to be easiest to master, does not require any sophisticated equipment, is universal, and gives quite reliable and repetitive answers. Its disadvantages include: (2) the difficulty of use in open or unstable areas, where the action of wind or waves disturbs the movement of a pendulum (therefore for confirmation in a

natural environment, findings of a pendulum are usually supplemented with the use of a divining rod), and (2) the requirement of continual practice to maintain the reliability of signals. Let us now review the evidence accumulated by the author so far, which proves the effectiveness of the pendulum-assisted ESP.

#1D8. Water divining on a map. This is one of the most popular applications of the pendulum-assisted ESP technique. In this application the main part of the search is conducted within the diviner's office. A client is asked to draw or to present the map of a searched area. Then, using a pendulum, this map is oriented towards geographic north, so that the north on the map points northward also in the diviner's office. The next step is finding and marking on this may the course of main streams of water in the searched area. For each of them the efficiency of the flow, the quality (clarity) of water and the underground depth of a stream is determined. After the client decides which stream he/she would like to exploit, the diviner visits the area and points out its exact location (this time using a divining rod). Further details about this application can be learned from numerous books dedicated to water divining, or from Mr. Brian J. Watson, 145 Tarbert St., Alexandra, New Zealand, who is one of the diviners utilizing it practically.

In the above application of the pendulum-assisted ESP, the drawing of a map is frequently replaced by using an already printed one. But this printed map must be located only on one side of a piece of paper (i.e. the other side should be blank). This is because the information on a map represents an abstraction, whereas the piece of paper on which it is drawn constitutes the material object. So the register belong to this piece of paper whereas the map is stored only as information written into this register. When a paper is printed on both sides its register contains two sets of information which can be easily confused by a diviner searching through it.

It is extremely stimulating to analyze the methods of acquiring quantitative information (i.e. efficiency of the water flow, iron content of the water, underground depth of the stream, etc.) used by various dowsers. Each dowser uses a method which differs from that used by other dowsers, but at the same time each one of them meets the requirements of Perfect Data Base (PDB) described in subsection D8.1. Reviewing these methods reminds one of looking at programs by various authors prepared in such a way that each program applies a different procedure, but all of them access the same Data Base and answer the same questions. An analysis of these methods reveals how accurate and how useful the PDB analogy in describing the ESP phenomena is.

#2D8. Minerals divining. Techniques of instrumental ESP, in a way similar to water divining, can also be used for finding other substances, minerals or objects. The principal requirement in such a case is that the diviner holds in his hand, or looks at a sample of the substance or the identifying attribute of the object that he is searching for. To meet this requirement, diviners frequently use pendulums made of the substance they are searching for. Some of them use a transparent pendulum formed as a kind of bottle into which they put the searched for mineral.

#3D8. Designing new technical devices. In 1985 the author of this monograph met Mr Alan Plank, a professional dowser - see Figure D1. Mr Plank spends much of his spare time quite successfully mining gold, for which he utilizes the pendulum technique to locate deposits of gold. For the purpose of this mining, Mr Plank needed a very efficient pump, able to withdraw not only water but also stones, sand and pieces of gold. Everything that industry offers in this matter is not efficient enough, and also the technical solutions used in the commercial pumps are inadequate for the purposes of gold mining. Therefore Mr Plank decided to build a suitable pump by himself. Because he is not an engineer, he asked his pendulum for professional help in designing his pump. On a piece of paper he drew the lines indicated by the pendulum. The pendulum also indicated the dimensions and materials. The final construction is extremely simple. It contains no moving parts, and is run by compressed air supplied from a cylinder or a portable compressor. An hydraulic engineer consulted about the design pronounced that it would not work. But the pump worked perfectly after being built, with the efficiency of about 30 thousand gallons per hour. Mr Plank claims that his design is about 30% more efficient that the Venturi pump, to which its

principle of operations is similar. The most unusual aspect in the entire case is that the first prototype of the pump began to work perfectly, immediately after being built. Everyone who deals with the implementation of mechanical designs knows that for each new device it is absolutely necessary to complete a whole series of prototypes, in which every subsequent one is only a slight improvement in relation to the previous, and more faulty ones.

Readers who are interested in learning further technical details about Mr Plank's pump or his dowsing techniques may contact him at the following address: P.O. Box 7051, Invercargill, New Zealand.

#4D8. Machine diagnostics. Some dowsers use a pendulum-assisted ESP technique to locate the cause of malfunctioning in a particular machine. If they do not know the construction of a checked device, they use a drawing of it (printed on one side of paper only!) presenting every internal detail. If they know the structure of a diagnosed machine they work directly on it. To find the cause of malfunctioning they concentrate on it, element by element, asking the pendulum about its state, until they locate the problem. It is claimed that a diagnosis of cars conducted by the pendulum method can be just as precise as one performed by sophisticated electronic equipment. Examples of practitioners who utilize the above application are: Mr Alan Plank of New Zealand and Mr Wojciech Godziszewski, ul. Szczecinska 32/7a, 72-003 Dobra, Poland.

#5D8. Illnesses diagnosing. The pendulum technique is also frequently used for the location and recognition of illnesses and for curing them. The location of an illness is conducted in an identical manner to the location of malfunctioning in a machine. For the cure, each practitioner uses his own method. An example of practitioner who pursues the medical application of the pendulum technique is: Mr Wojciech Godziszewski of Poland.

* * *

The above examples present only a few of the numerous applications made possible by the mastering of a pendulum-assisted ESP technique. Unfortunately, to utilize the enormous potentials of ESP as a scientific tool, a lot of work still needs to be done. Our use of these abilities to-date has been based more on the empiric discoveries of individual hobbyists and on the enthusiasm of some devoted practitioners than on solid research or proven methodologies. To transform these spontaneous experiments into a reliable tool of scientific investigation, new tools and methodologies need to be developed and the subjective factor needs to be removed. All of these can be achieved only in an atmosphere of complete recognition and approval of the duality of our Universe (i.e. of the independent co-existence of its hardware and software components). But the effort of promoting new attitudes and intensifying the development of ESP techniques is worth pursuing, as there is conclusive evidence that the mastering of ESP may save a lot of unnecessary experiments, errors and expense in the completion of the Oscillatory Chamber and the Magnocraft (compare the invention of Mr Plank's pump). The author has already started some research in this direction and would be extremely delighted to hear from readers who wish to co-operate or to contribute in the application of ESP as a scientific tool.

D8.1. Perfect Data base (PDB) as a theoretical model of ESP

Generations of ESP practitioners have accumulated various data concerning the potentials and limitations of this method of acquiring useful information. But hitherto there was no theoretical model available that would provide a tool for the clear prediction of what is possible through ESP and how it should be achieved. The author now introduces such a model which is to be called a "Perfect Data Base (PDB)". The PDB is a purely hypothetical computer containing in its storage the detailed and complete data (registers) for every material object that ever existed or will exist in the entire Universe. The PDB has no data available on principles, concepts, and other non-material abstractions; therefore it does not understand inquiries referring to them, unless these inquiries are referred to the objects that represent these abstractions. The PDB conducts all processing instantaneously, independently of how distant in space or time is the object whose register is being

searched, for the purpose of the completion of this processing. The PDB understands and executes inquiries formulated in a human language, and it inputs the processing commands straight from the brain of an inquirer, when they are still in the form of thoughts. The PDB is able to perform any type of operation that other computers can do, and the results of its processing are always absolutely correct.

The introduction of the Perfect Data Base allows us to predict easily the operation, possibilities and limitations of every form of ESP. Each problem that could be resolved by PDB may also be resolved by ESP, and the formulation of a problem for ESP must also be identical to that required for PDB. This means practically, that perfection in ESP requires a mastery of the same rules and principles that programmers utilizing Data Base must know. Therefore for professionalists in ESP and for investigators of that phenomena appropriate courses in computer programming would be extremely valuable.

The concept of PDB is a key to understanding, developing and mastering ESP. To realize how helpful it can be, below are listed some of the vital attributes of ESP explained in the PDB example. Those readers who have already had some experiences with ESP, when reviewing the descriptions that follow, will appreciate the benefits provided by the concept of PDB. For other readers these descriptions will perhaps reveal that ESP is only one more of our natural abilities, which instead of being ignored or derided should rather be investigated and utilized.

1 . We are born completely equipped as terminals for PDB. Our brain is the input device, which transmits our wishes, intentions and inquiries, formulated in the Data Manipulation Language of Thought (DMLT). Our entire body is the equivalent of PDB output devices that intercept and display the information received back. In some forms of ESP, additional equipment is used (e.g. pendulum, divining rod, etc.) which performs the function of a pointer that helps to exhibit and interpret the answer signals intercepted by the body. For this equipment no special "magical" requirements are imposed. It only needs to suit the type of involuntary signals developed individually by the body of a particular user. A potato suspended on a string or a branch from the nearest tree, in the hands of experienced user will provide the same correct answers as the most sophisticated divining pendulum or rod.

2 . There exists a kind of universal language (called here DMLT - see subsection D7) that is used by the whole Universe. This language is utilized by the counter-matter for expressing all information recorded within the software registers. Our entire thinking process is conducted in DMLT, and all other living creatures also use this language. DMLT is a language in which we formulate our ESP inquiry. DMLT does not correspond to any human language and when we talk, our expressions are automatically translated from DMLT into the spoken language. Sometimes we recognize that we know something in DMLT but we have forgotten the appropriate word in the spoken language. Also many people who have changed their country and language very clearly experience that their thinking occurs in some kind of universal language, which is different from those which they use for speaking. An illustration for DMLT from the PDB model would be a machine code (machine language) in which contemporary computers "think". This machine code differs from the programming languages in which the same computers communicate with their environment (programmers).

3 . Every ESP inquiry must be formulated in the same unambiguous and resolvable way as do the inquiries to computer Data Bases. It must refer only to recognizable material objects whose registers need to be searched to resolve the problem, and also it must clearly describe the kind of processing that should be done. Correct ESP inquiry may not involve any processing of abstractions, concepts or ideas, as these do not have registers (data) in the counter-world. For example the question: "What is the temperature of this room expressed in Celsius degrees?" contains an abstraction (Celsius degrees) and therefore the PDB would not be able to understand it nor to answer correctly. But the same inquiry formulated in another way such as "What would be the temperature reading on the thermometer in my office if it were hanging on the wall of this room?" will receive the correct answer expressed in accordance with our first intention (provided that the indicated thermometer from our office is scaled in Celsius degrees). As it is impossible to eliminate

completely mistakes and "bugs" in the formulation of our inquiries, every ESP user should develop a clear signal meaning "NO REGISTER AVAILABLE". The lack of such a signal puts ESP inquiry in the situation of a wrongly programmed computer (PDB), which for invalid inquiries must still provide some answers (in accordance with the programming rule "Garbage in - garbage out"). ESP seems to operate perfectly - if the answers are wrong the reason most probably lies in a faulty application of it.

4 . All types of data processing that are possible in our computers are also possible in ESP. To achieve a particular type of processing it is only necessary to provide a thought-definition of what actually should be done. The above also means that the types of inquiries unanswerable to our computers (e.g. formulation of new ideas) are unachievable through ESP as well.

5 . Every object referred to in an ESP inquiry must be unambiguously identified and easily recognizable among the billions of similar objects existing in the entire Universe. Such a strict identification of THE considered object enables us to search in the right register. There are only two ways of identifying the objects: (1) the inquirer must know them personally and imagine their appearance or see them at the moment of inquiring, or (2) the inquirer must think of, or look, at another object that has a material connection with the subject of inquiry and therefore the searching of the latter register will provide the link to the searched-for object. The second object, which enable us to trace the register of the main object of inquiry, is called an ID key. In the case of an inquiry about an unknown or absent person, the ID key can be his/her photograph, hair, blood sample, or a personal belonging. Again it should be stressed here, that the ID key can not be an abstraction (e.g. a name or a spoken description) as abstractions do not have their own registers that can be searched in order to find out the link to the register of a person being sought.

D8.2. How to develop a simplest pendulum-assisted ESP technique

Readers who reached this point of the chapter are sufficiently prepared to initiate their own experiments with the pendulum-assisted ESP. The most difficult part of such experiment is to find out how to start them (once we started we can find further guidance in appropriate books). To assist in this, described below is an initial set of exercises.

To develop a pendulum-aided ESP technique, one must start with preparing, or purchasing, a divining pendulum. Any bullet-shaped object suspended on a thread, which was not used before for this purpose will excellently perform this function. If there is nothing better available, a heavy needle or a ring will do. Professional dowsers are very strict in not allowing other people to use their pendulums. The Concept of Dipolar Gravity seems to justify this behaviour, because it indicates that information about the interpretation of the answer signals can be stored in the pendulum's register. So if it is used by someone else who utilizes a different set of signals, his/her interpretations will be recorded on top of ours, causing confusion in all subsequent applications. Therefore to succeed with the completion of these exercises we should make sure that the object we have chosen for the pendulum was not ever before used by someone else for the same purpose. Also if we exchange the pendulum for a new one, we should repeat the development procedure from the very beginning, in order to record into its registers the interpretations for our answer signals.

The first stage of our exercise is to develop the signals "NO" and "YES". We begin with development of the signal NO. For this purpose we utilize a bio-field induced by the blood transfer in our veins. To induce this signal we suspend the pendulum over the veins in our left wrist, holding the thread in our right hand - see Figure D2. The flow of our blood will induce the pendulum to swing along the veins. To check that the line of pendulum's swinging follows the direction of the blood flow, we slowly change the angle of our left hand. The plane of the pendulum's swing should adjust to this new course of the veins. To develop the signal YES we utilize the change of bio-potentials appearing between our left thumb and forefinger. Positioning these fingers into the "U-shape" we form the bio-half-circle which will be followed by the pendulum. When the pendulum is suspended in

the centre of this U it starts to circulate in clockwise direction - see Figure D3. In future we will interpret such a circulating movement as a YES answer.

The readers who have used a pendulum before and have already developed their own (different) NO/YES signals, should continue to interpret these signals in the manner they were originally defined.

After successfully developing NO/YES signals we can begin the second stage of our exercise, aimed at utilizing these signals to answer our questions. To accomplish this we use two reversed saucers, under one of which we <u>ourselves</u> place the sought object. Then we suspend the pendulum above this saucer and, visualizing the object in our minds, we ask whcounter-matter the object is hidden there. The pendulum should answer YES by circulating in a clockwise direction. Now we suspend the pendulum above the other saucer and ask the same question. The pendulum should swing in a straight line displaying a clear NO signal. Such simulated inquiries should be repeated until the formulation of our question will induce an instantaneous signal of the correct answer.

In the third stage of developing our ESP technique we conduct exercises with an object hidden by someone else under <u>one of three</u> sources placed upside down on a table. Now we learn how to concentrate and what kinds of psychic processes lead to the correct answers. The score will initially oscillate around the probability level, as we are still learning the technique. During the exercise we should try to detect, identify and memorize all these processes occurring within us, which lead to the correct answers of the pendulum. Therefore each time we score a hit, an analysis of our inner experiences should be conducted. We should repeat the elements recognized in such an analysis in our next approach. Similarly, when we miss, we should deduce what distracted us and then in the next approach we should try to avoid it. The most destructive tendencies which we must learn to eliminate at this stage are the attempts to guess, using our logic, and the temptation to change the interpretation of the answer signals. Logic will try to tell us where the object is (usually wrongly!), but we must make an effort to ignore any such logical suggestions. Also, when we miss, we will have the temptation to reverse the interpretation of NO/YES signals. We are not allowed to do this and we must keep firmly to the meaning of these signals originally decided upon. If the signals seem to not work and such a temptation becomes strong we should repeat from the very beginning all three stages of our development procedure. We should continue the third stage of our development, described in this paragraph, until we become aware that the correct signals from the pendulum are always accompanied by the unique feeling of "inner satisfaction". When we learn to recognize this feeling, out technique is finally developed.

In the developing procedure it is extremely important to choose correctly the object to be hidden under the saucers. It should be something unique, possibly existing in only one copy, easy to visualize, having an agreeable shape, inducing pleasant memories, and made of a different substance from that of the dishes under which it will be hidden. It would be a mistake to choose a coin, as there is a lot of similar coins in the world, so when visualizing it, our mind could approach the wrong register (for example the register of a coin from our purse, instead of the one hidden under the saucer).

Although the above developmental procedure was designed for a pendulum-assisted ESP, similar set of exercises can be used for any other kind of instrumental ESP. Therefore people having some mastery of electronics, perhaps should try to build own devices similar to "lie detectors" and then initiate with these devices pioneer research on the development of "electronically-assisted ESP".

D9. <u>How the Concept of Dipolar Gravity explains some mysterious phenomena</u>

Numerous people are experiencing extraordinary phenomena, such as psychic healing, spontaneous human combustion, fire walking, near-death experience, ghosts, etc. All these kinds of experiences were unexplainable in the previous one-world Universe. But the Concept of Dipolar Gravity introduces new quality to our Universe making the

explanations of these phenomena quite simple. Below are provided some of these explanations derived from the Concept of Dipolar gravity.

1 . Psychic healing. The Concept of Dipolar Gravity indicates that two types of psychic healing must exist, which are called here: psychokinetic and psychomotive. The psychokinetic healing operates on software models (counter-material registers) of human bodies. It includes such forms as: faith healing, radionic healing, etc. The psychomotive healing operates on physical (material) bodies. This includes such forms as: psychic surgery (opening physical bodies with psychomotive forces, psychic dentistry (growing or filling tooth), etc. For practical details see book [1C].

The principle of all forms of psychokinetic healing corresponds closely to the principle of telekinetic motion - see subsection D6. In this healing the healer's mind affects the software model (counter-material register) of an ill person, thus psychokinetically returning this register to its original configuration. Changes in the counter-material body are in turn reflected to the physical body, which subsequently is restored to the health.

Notice that the effective psychokinetic healing must be accompanied by the emission of an extraction glow from the healed body (see the evidence #5C2). Therefore the photographing of the healed body should lead to the detection of this glow. (This also can be used for the distinguishing between the frauders and real healers).

The principle of psychomotive healing differs from that of psychokinetic. In psychomotive healing the healer's mind sends telepathic signals which cause the healed body to display certain reactions (e.g. open itself, grow teeth, etc.). Thus, in this type of healing the psychic processes occurs in the healers body, whereas in the healed body only physical processes occur (which, however, are telepathically induced). Psychomotive healing is NOT accompanied by the emission of the extraction glow from the healed bodies, but the healers emit the dispersion glow. Therefore photographs of those healers should show a change in the colour of their skin.

2 . Hypnosis. The Concept of Dipolar Gravity defines hypnosis as a state when subject's sense organs are tuned into the reception of signals from the counter-world. For this reason during hypnosis we may access the registers contained in the counter-world, which in conscientious state are inaccessible for our perception.

Notice that according to the Concept of Dipolar Gravity time is motionless, but we move through time (see subsection D3). Therefore during hypnotic regressions (and also during dreams) we can move to any point in time, and "re-live" again the events that took place at this point. Such free maneuvres through time represent the main reason why hypnotic reconstruction of events can be so accurate. This is because in the hypnotic state a subject can return to events from the past and "freeze time" for the duration that is needed for noticing, examining, and describing all the necessary details.

3 . Spontaneous human combustion. The principles of this phenomenon are similar to that of psychokinesis, except that instead of a physical release, a chemical reaction is completed. This chemical reaction, in a way similar to the carrying on a telekinetic motion down hill, releases enormous amounts of thermal energy, which finally burns the subject. The mechanism involved in the release of this energy is explained in subsection D11. Notice that the initiation of this phenomenon is based on a positive (self-perpetuating) loop, i.e. the mind of a person who somehow becomes hot begins to panic that he/she will burn, and this panic psychokinetically escalates chemical reactions that produce more heat, thus creating more panic, etc.

4 . Fire walking. Some people are able to walk through fire and not burn their feet. Various "hardware" explanations for this phenomenon were not confirmed experimentally. The Concept of Dipolar Gravity gives a "software" explanation based on the interpretation of time presented in subsection D3. In this explanation the mind of fire-walkers slows down the speed of time elapse for the hot surface they walk through. Therefore the heat transfer from the ground into feet is also slowed down proportionally to this time elapse. Notice that only extreme psychic tension of the walkers leads to the successful deceleration of time and thus to not-burning their feet.

There is a possibility of experimental confirmation of the above explanation. This is because a number of experiments can be designed which could actually detect the slowing of time elapse in the fire.

5 . Ghosts. Ghosts represent the activities carried out by software models (counter-material registers) of dead people or animals. Principles of ghost activities are exactly the same as principles of dreams. Also all characteristics of the ghost activities correspond to the those of dreams (see item 6). Ghosts operate in the counter-world, but some effects of their activities, similarly like some effects of our dreams (e.g. poltergeists), may telekinetically affect the matter. Therefore ghosts may move some objects and create images made of the extraction glow. These images are possible to observe and to photograph. Ghosts, according to the subsection D5, must also induce some electromagnetic phenomena (see evidence #1C5).

Notice from subsection D2.2 that people who died in the centre of a nuclear explosion do not exist as ghosts, because such an explosion destroys both their physical and counter-material existence. "Those who died from a nuclear bomb, died into nothingness, and never can be re-born again."

6 . Dreams. The Concept of Dipolar Gravity distinguishes between dreams and night visualizations. The night visualizations are only non-coordinated, colour images created inside of our sleeping brains. Thus, they occur in the physical world. Dreams are real activities carried our by our software models within the counter-world. Therefore dreams display all properties of such activities (e.g. logic, consistency, symbolism, etc.) and also display the properties of the counter-world (e.g. colours expressed by information not by appearance, lack of physical attributes {weight, blood}, etc.).

Night visualizations are already explained by various theories of contemporary medicine. The Concept of Dipolar Gravity does not change these explanations.

Dreams do not obey the contemporary medical theories. The Concept of Dipolar Gravity explains them differently than just pictures from our brains. In this concept, <u>dreams are real actions and adventures carried out in the counter-world by software models (counter-material registers) of sleeping people</u>. These adventures are achievable through temporary separations of our software models from physical bodies. Therefore dreams are characterized by a number of unique properties which result from their adventures' character and from placing them in the counter-world. Some of these properties include:

- "Software" attributes of dreams. These attributes include: the expressing of colours as an information, not as an appearance (i.e. in dream every object looks as having a sepia colour, but we actually are aware of different colours that various objects have and we can "read" these colours from the registers of these objects), a different structure of our dreamed bodies (e.g. software models of our physical bodies do not contain physical, red blood), indestructibility of our counter-material bodies (i.e. in dream we never get killed or loose a part of our body, although we may frequently experience someone or something attempting to hurt us; whatever happens in dreams, our counter-material {dreamed} bodies remain unaffected), etc.

- Logic, abstraction, and prophetic nature of dreams. The counter-world is more logical and abstract than our world. It also allows us to insight registers of distant objects, and to see events that these objects will experience at any chosen instant of time, including the distant future.

- Differences in our motion capabilities (the movements in the counter-world obey a different set of principles than those movements from our world; e.g. we can fly and levitate without a movement, or remain in one place inspite of completing rapid mobile actions).

Notice that the defining dreams as "night adventures in the counter-world" provides a perfect means of verifying the correctness of the above explanations. This is because dreams so defined request all people participating in the night adventures of a particular person to also experience the same dream at some stage. Unfortunately there are two factors which make this verification difficult, i.e. (1) forgetting ratio and (2) time shift. It is proven that we remember only a small fraction of our dreams (sometimes less than 1% of what we dream). This practically means that, although all people appearing in a particular

dreamed adventure in fact participated in it, only in extremely rare occasions more then one of those people will remember this adventure. Even more obstacles to the verification of the above explanation introduces time shift. The interpretation of time in dipolar gravity (see subsection D3) reveals that in the counter-world we may travel through time, thus experiencing events that happen at different times, i.e. in the distant future as well as in the past. Therefore participants who meet in a dream that occurs at a particular instant of time, may come to this instant from different starting times. This means practically that the same adventure involving time shift can be dreamed in a different time by each one of its participants.

Inspite of the above difficulties, the author already found a person (Suzanne Poutu of Dunedin, New Zealand) who claimed that she and her friend both experienced exactly the same dream. The author would be delighted to hear from other people who also discovered that their dreams were exactly repeated by someone else.

* * *

The explanations of mysterious phenomena provided in this subsection have one common denominator, i.e. all of them include some attributes which enable their experimental confirmation. In this way the explanations provided here are more than just hypothesis: they pave the way for gradual finding the truth. Notice that experimental confirmation of any of the above explanations will extend the evidence in support of the Concept of Dipolar Gravity as a whole.

D10. How the Concept of Dipolar Gravity merges science with religion

The Concept of Dipolar Gravity reveals that, as well as a number of physical properties, the counter-matter also displays two intellectual properties. These are: (1) the ability to store information and (2) the ability to think. The ability to store information is manifested by recording in the registers made of this substance: (a) the entire history (events) of the objects that are reflected by these registers, (b) the programs which express the passage of these objects through time (fate). (The history of objects can be later accessed through a long-term memory system, whereas the programs of these objects can only be viewed through ESP, dreams, hypnosis, etc.). The second unusual property of the counter-matter, i.e. its ability to think, reveals itself through the intelligent responses obtained from our memory requests or from ESP inquiries. The characteristics of these responses suggest the computer-like thinking conducted by this substance.

Counter-matter which thinks and memorizes is a novelty for us. It introduces numerous implications of enormous significance to every aspect of our lives. Some of these implications, which concern the most sensitive areas of our intellectual activities, are discussed below.

D10.1. The Universe as a whole possesses its own intellect

The counter-world operates like one huge, self-programming computer, which intercepts, stores and processes information, analyses and replies to inquiries, develops or alters programs that control the course of events in the world of matter, etc. - see subsection D7. All these abilities are the main components of every intellect. Therefore the counter-world seems to possess its own intellect, similar to a human one, i.e. characterized by the ability to communicate, memorize, think, and even perhaps possessing a self-awareness. In this monograph the intellect occupying the counter-world will be called the Universal Intellect.

The deductions from previous subsections revealed the characteristics of this Universal Intellect. Let us summarize below the main elements of these characteristics, making sure that only the attributes which directly result from the Concept of Dipolar Gravity are listed.

(1) The carrier of the Universal Intellect is an omnipresent substance (i.e. counter-matter) which independently from its intellectual functions performs numerous physical functions, e.g. forms mirror reflections of every material object existing in the Universe, creates circulations known to us by the name of magnetic fields, enables the telekinetic motion of objects, etc. For this reason, every event or activity involves participation of the Universal Intellect (e.g. even the ordinary eating of bread, in fact, can literally be interpreted as consuming the "body" of this Intellect).

(2) This intellect is invisible and undetectable to our senses, as it occupies another world, separated from ours. But it can be recognized and investigated by human intellects.

(3) Its dimensions and shape correspond to the dimensions and shape of the entire Universe - see Figure D4.

(4) It forms separate software models (registers) for every physical object that has existed, exists or will exist in the entire Universe. The objects which will appear in the distant future seem to have these models already. Evidence also ascertains that such software models are still kept (and can be accessed) after the physical destruction (death) of the object that they describe.

(5) It is superior to human intellects and seems to control them, but at the same time it is also a main component of each of them. This allows the comparison of each person to a tiny droplet of water in a river, i.e. being separate but at the same time being a part of that river.   (6) It maintains a continuous communication with the brains of all living creatures, via input-output capabilities of these brains. Therefore whatever someone's thoughts are, his/her brain conveys these thoughts to the Universal Intellect, which in reply prepares appropriate responses (i.e. memory recalls, intuitive suggestions, ESP answers, responses from moral laws, etc.).

It is astonishing how closely the above characteristics of the Universal Intellect correspond to the idea of God forming the nuclei of every religion. Therefore, on one hand the recognition of the Concept of Dipolar Gravity creates a bridge that merges modern science and religions. On the other hand the same Concept reveals that <u>the entire universe is a supreme being</u> whom we can get to know better through scientific investigations. In this way the Concept of Dipolar Gravity also formulates a scientific foundation for universal religion. Of course we must remember that this Concept was formed fairly recently (i.e. in 1985 - see monograph [2F] "d") and that an entire ocean of further knowledge still waits to be scientifically discovered, and investigated.

The existence of the Universal Intellect has been speculatively deduced and intuitively perceived since the beginning of our civilization. Therefore for many readers the conclusions from this chapter will not introduce any surprise. However, the formulation of the Concept of Dipolar Gravity has opened a completely new possibility in this matter, i.e. it allows us to obtain experimental proof that will objectively confirm the existence of the Universal Intellect. Therefore this Concept contains the potentials of transforming religious subjects hitherto considered to be only the matter of revelation, trust and beliefs, into the subject of objective knowledge, certainty, and scientific investigation. To attain such proof, it is enough to design and successfully complete experiments which will prove that:

1 . The counter-world exists.

2 . This world continuously intercepts and stores all information (i.e. it contains the registers described earlier).

3 . This world is capable of effective thinking which provides the solutions for specified problems.

At this point it should be stressed that the first of the above proofs have already been worked out (see subsection D11). The completion of the rest of them seem to be only a matter of time. As well as the above experimental proof, a number of further facts confirming the existence of the Universal Intellect can be indicated. Let us mention some of these facts.

#1D10.1. ESP messages experienced by numerous people. These kinds of experience supply us with the continuous confirmation of the intellectual abilities of the Universe as a whole. They prove that: (1) the Universal Intellect continuously collects,

stores and offers access to all details on every subject; including our thoughts, feelings, attitudes, sightings and other data which are our private secrets, (2) this intellect analyses our thought-questions, prepares answers to them and communicates these answers to us.

#2D10.1. The Moral Laws (see subsection D10.2). The existence of these laws is pronounced by almost every religion and confirmed by numerous sources (e.g. folk wisdom, UFOnauts, etc.). The operation of moral laws indicate that some supreme intellect continuously analyses our actions and thoughts, judges their moral content, and prepares appropriate responses that match our behaviour. Thus the operation of above laws represent a confirmation for the existence of a supreme intellect.

#3D10.1. Near-Death Experience (NDE). Many people who returned to life after experiencing clinical death, remember and report talking to God or a superior being when they entered the next world. In most of these reports God is not described as a person, but as a shapeless beam of powerful light directed at the person from a seemingly infinite distance. In the majority of NDE communications, this beam of light seems to represent God. But there are also NDE reports which specifically describe God as a thinking substance, blue in colour, which surrounds people who visit the next world. One of the best descriptions of God as a blue substance comes from the 1968 near-death experience of an Indian girl named Durdana. Her report, illustrated in colour, is published in the book by Peter Brookesmith (editor), "Life after Death", Orbis Publishing Ltd., London 1984, ISBN 0-85613-613-1, pages 202 to 205.

#4D10.1. The religious evidence. The multitude of religious evidence would be difficult to fit into the most voluminous book. For this reason the readers who wish to collect this class of evidence are advised to study all miracles, revelations and divine blessings, recorded by almost every religion. Notice that as well as spectacular religious events, there is also intimate religious evidence experienced by almost every person and accentuated in almost every family.

#5D10.1. Religion of extraterrestrials. The best expression of the religion of extraterrestrials was given in the TV programme "UFO Cover UP" transmitted via satellite from Washington D.C. on 15 October 1988 (a VHS copy of this programme is contained in the author's files). The USA government official using cryptonime "Falcon" describes this religion in the following words: "They have a religion, but it's a universal religion. They believe in the Universe as a supreme being". No other words can express more exactly the idea of the Universal Intellect from the Concept of Dipolar Gravity.

D10.2. Moral laws

It has been determined in subsection D7 that our brain operates as an input-output device. Whatever are our thoughts, intentions and actions, these are transmitted to the counter-world and stored in our software models for further use. The communication occurring between our brain and our software model existing in the counter-world is known as long-term memory system, whereas the communication between our brain and other (not ours) software models constituting the Universal Intellect is known by the name of ESP. But it would be very naive to expect that the Universal Intellect limits its reactions only to our memory requests and answers from our ESP inquiries. Rather it should be expected that this Intellect always takes some action independently of what we think and what we do. Of course in such a case there must be a set of consistent rules stating what kind of action should be taken to match the content of our thoughts and activities. So just as from the world of hardware all our physical actions receive clearly defined physical reactions, also from the counter-world all our intellectual efforts receive the appropriate intellectual responses. Thus we may conclude that every intellectual cause initiates an appropriate intellectual effect. Because the existence of the cause-effect connections is specific to the laws of nature, the set of rules that define these reactions of the counter-matter on our intellectual activities will be called "Moral Laws". This name stresses the fact that the kind of response we are receiving, must depend on the moral content of our thoughts.

The above deduction reveals that what we consider to be morals, are in fact the laws of the world of intellect. The operation of these laws can be explained on the basis of the model of our brain as an input-output device (compare subsection D7). The parts of the human brain interacting with the counter-world operate in such a way, that they always put themselves in a certain order or pattern unique to the type of thought vibrations that they are giving out. This pattern allows their owners to receive back only the same type of thought vibrations that were given out. Therefore, if someone causes his/her own brain to emit a good thought vibrations, he/she will open the right pattern to also attract a good return. But those who cause much trouble around them and conduct themselves in a nasty way, are open to receive back negative returns appropriate to their behaviour. So, the counter-world makes our morality react like a boomerang - whatever we send out, it will inevitably return back to us. This applies to everything, including the judgments of this theory. It is because whatever kind of consideration someone gives to the ideas of others, he/she should expect exactly the same response to his/her own concepts.

At this point the content of the first of of Moral Laws can be defined. Because of the manner in which this law works it will be called here the "Boomerang Principle". The content of the Boomerang Principle can be expressed in a short and a long version. A short version states that:

"whatever you do to others, it will also be done to you".

A long version states that:

"whatever (abstract) thought pattern our brain gives out to the intellectual environment, exactly the same pattern will be returned to us by this environment."

The response of the environment to our intellectual activities is characterized by two factors: noise domination and time delay. Noise domination is caused by a quantitative outnumbering of environmental thoughts when compared to solo our intellectual output. The environment, populated by billions of people, provides us with far more returns than the number of thoughts that we are able to produce. So naturally, except for the returns caused by Boomerang Principle, we are bombarded by numerous other signals, randomly good or bad. In this aspect the moral laws are identical to the physical ones, where a particular cause brings back not only the corresponding effect but also a number of other "noise" effects originating from completely different causes. For example when we are walking along a gangway, it will bounce not only because of our weight, but also because of sea waves, wind, the boat's movements, earthquake, etc. In the case of physical laws we have already learned how to distinguish between the answer and the noise. But with regard to the moral laws such distinguishing rules are still waiting to be discovered and mastered.

The time delay in the fulfilment of moral laws appears because the input channel opened in our brain by a particular thought pattern must wait until an appropriate return signal appears in our vicinity, and only then it can intercept this signal. Some people, who as young children behave disrespectfully towards their parents, must wait until mature age for the appropriate return, when their own children pass through the same stage of development. Because not everyone has the ability to associate facts occurring with a significant time delay, the action of the Boomerang Principle is not realized by many people.

Time delay in the fulfilment of the Boomerang Principle forms also foundations of the eastern idea of "karma". This idea states that all those our intellectual activities which had no time to be returned in the present lifetime, will be returned to us in the next life. Notice that the only requirement for the Boomerang Principle to be extended into the Law of Karma is that the concept of reincarnation is introduced.

The Boomerang Principle is a moral equivalent to the physical Action-Reaction Law. There are some indications that other physical laws also have their own moral equivalents.

On our planet, where hermetic borders, languages, religions, and ideologies separate nations, the moral laws affect not only individual people but also entire countries. It seems that something like a national morality is produced within the countries and that according to its content the particular nation receives an appropriate response from the outside world. The formation of this national morality can be compared to the creation of gas movement within a pipe. Each particle of this gas seems to move in its own direction,

but all move together along the pipe. We are used to thinking that military strength is a basis for the security of a nation. But numerous examples from history clearly prove that it is the moral values that decide on glory or destruction. It would be interesting to know if the same moral laws also apply to entire planets, our own as well as others.

The deduction leading to the detection of Moral Laws is justified only after the Concept of Dipolar Gravity has been worked out. Therefore, our present knowledge of moral laws finds itself in the same situation as physics in about 240 B.C. when the famous "Eureka" of Archimedes proclaimed the discovery of the first principle laying the foundations for this science. Further research now needs to be done, and numerous factors need to be distinguished and quantified, to enable us to predict the moral responses for our actions with the same accuracy, with which, after 2000 years of development, physics is able to foresee the responses from the world of matter. So before we become impatient that the moral laws are still concealing their patterns, we perhaps need to remind ourselves that in the time of Archimedes the physical world also seemed similar, and people were sure that the behaviour of nature was ruled not by any laws but by the caprices of powerful gods.

The most relevant evidence confirming the operation of the Boomerang Principle is reviewed below.

#1D10.2. The folk wisdom of almost every nation recognizes the Boomerang Principle and expresses its content in numerous proverbs and sayings. Examples of such proverbs are: the German: "Was du nicht willst, dass man dir tut, das füg' auch keinem andern zu" (i.e. the Golden Rule: "Do unto others as you would have them do unto you"), the French saying: "Honi soit qui mal y pense" (i.e. "Evil be to him who evil thinks"), the Polish: "Jak Kuba Bogu tak B g Kubie" (i.e. "One gets paid in one's own coin") the English proverb: "Curses, like chickens, always come back home to roost", etc. Of course, to provide guidance for all typical life situations every nation uses more than one such proverb. Some idea about the multitude of ways in which various proverbs express the same content as the Boomerang Principle, can be gained from the following review of common sayings (these English sayings are followed in brackets by their Polish equivalents): "As you give so shall you receive" ("Nie czyn drugiemu, co tobie nie milo"), "As you make your bed, so you must lie upon it" ("Jak sobie poscielisz, tak sie wyspisz"), "Do right and fear no man" ("Nie czyn zla i nie obawiaj sie nikogo"), "Good seed makes a good crop" ("Jaka miarka mierzysz, taka ci odplaca"), "Hoist with your own petard" ("Kto pod kim dolki kopie, sam w nie wpada"), "If you play with fire you get burnt" ("Kto igra z ogniem, ten od ognia ginie"), "Love begets love" ("Dobro rodzi dobro"), etc.

#2D10.2. Numerous references to the action of the Boomerang Principle are contained in the Bible. Some of these references so infiltrated the every-day language, that they became popular proverbs. Examples of these are the following biblical verses: "He who lives by the sword dies by the sword" (see Matthew 26:52), "One reaps what one sows" (see Galatians 6:7), etc.

#3D10.2. The content of the Boomerang Principle forms the moral foundations of almost every religion. For example the "Law of Karma" from eastern religions is an equivalent to the Boomerang Principle, but with action extended far beyond one's current lifetime. Also the set of christian commandments, represents an interpretation of the Boomerang Principle when this is applied to most common life situations. The commandments, in fact, are versions of the Boomerang Principle, only formulated in a manner comprehensible to mere mortals.

#4D10.2. The aliens visiting our planet in UFO vehicles, know, respect, obey, and try to convey to us the content of the Boomerang Principle. They explain the operation of this Principle to numerous people abducted onto UFO decks. Below is quoted an extract from a report under hypnosis, given by a citizen of New Zealand abducted on a UFO deck in December 1980 for a medical examination (spoken and written copy of this report are in the author's files):

"WHATEVER YOU DO comes back to you because you, your brain works in a certain way and when it gives out its work, it ... puts your brain in a certain order or pattern which means that it's, it is open to receive the same type of thing that you actually made

your brain give out. So therefore if you make your brain give out good things you'll make your brain be in the right pattern to bring in good things".

Notice that the above quotation indirectly confirms the correctness of the model of the brain as an input-output device (compare also subsection D7).

D10.3. Consistency - the measure of intellectual perfection

The term consistency is defined as "conforming to a single set of universal principles". When analyzing this term it become obvious that it expresses the abstract essence of Moral Laws, reality, etc.

Consistency incorporates all the attributes of intellect. Someone who is consistent must also be: intelligent, worth trust, dependable, communicative, etc.

Consistency can be quantified. It is possible to work out a test which would reveal how consistent a particular person is. Such a test would be a measure of his/her intellectual perfection. The consistency test would be a much better measure of intellectual perfection from contemporary IQ coefficient.

The need for consistency is permanently build into our minds. We seek it everywhere and from everyone, although not always we are aware of this. All forms of our intellectual progress are expressed in the increase of our consistency.

D11. An experimental proof for the existence of the counter-world

The deductions and evidence presented in the previous subsections of this chapter seem to provide sufficient rationale for removing all possible doubts that the counter-world exists. But for scientific exactitude it is also necessary to design and complete an objective experiment which will prove this formally. From a number of properties of the counter-world which could be used for such an experiment only that will be considered, which can be detected by every person, including people having no previous interest in this kind of phenomena.

The most simple, objective, and fully repetitive experiment proving the existence of the counter-world can be based on the Postulate of Interchanging Thermal Energy, already mentioned in subsection D2. It is well known from physics that every work completed in the world of hardware must obey the Conservation of Energy Principle (i.e. the completion of physical work must always involve the consumption of energy). But the Concept of Dipolar Gravity states that affecting the matter through introducing some telekinetic changes into configurations from the counter-world (see the "telekinetic" manner of introducing changes into our world, described in subsection D2) does not consume any energy, in its physical understanding. This means that the energy requirement for such telekinetically caused works must be somehow satisfied through its exchange with the environment. Therefore every telekinetic work must cause the conversion of thermal energy occurring along the paths of the affected objects. Such a conversion in turn must result in two physical effects detectable for our contemporary instruments, i.e. (1) a temperature change, and (2) an "extraction glow" or a "dispersion glow".

The only form of energy which is available everywhere and which therefore will be the subject of telekinetic conversion, is thermal energy. Thermal energy can be extracted or yielded according to the type of telekinetic action that converse it. As a result, the temperature of the affected area will drop or rise. There are 2 types of telekinetic actions. These are called here: (1) telekinetic work, and (2) telekinetic release. Telekinetic work depends on shifting objects against any natural force such as gravity (i.e. an object is lifted), elasticity (i.e. an object is bent), buoyance (i.e. an object sinks), friction, etc.. Therefore telekinetic work consumes energy which must be extracted from the environment. This kind of action causes the temperature of the environment to drop. Telekinetic release depends on moving objects in line with a force (i.e. an object is put down, expands, etc.). Telekinetic

release produces a thermal energy which therefore will raise the temperature. There are also examples of telekinetic actions (usually a cyclic nature which comprises both: work and release) whose total effect will be neutral, so it will not affect the temperature at all. Examples of such neutral works are: the swinging of a suspended object, bending and then straightening a V-shaped divining rod, an idle running of a telekinetic motor (the consumption of heat resulting from the completion of a telekinetic work will be compensated here by the production of heat resulting from the friction), etc.

It should be stressed that if telekinetic phenomena operate according to the Concept of Dipolar Gravity then the conversion of energy described above must occur. On the other hand no different explanation for psychic abilities provides a theoretical base for the heat conversion. Therefore the experimental confirmation that such conversion in fact appears, will also represent the formal proof for the existence of the counter-world. To complete this experiment, a significant telekinetic work should be done within a small, thermally insulated space. Thus the temperature change could be measured and the obeying of the Conservation of Energy Principle could be checked. Let us hope that in spite of technical difficulties such an experiment soon will be completed somewhere.

Because the author knows about two cases of telekinesis that met the conditions from the above experiment, he has already completed some preliminary inquiries. They do not represent a formal proof, but are sufficient to confirm that the idea is correct. The first case involves 13 year old Miss Joanna Gajewska of Sosnowiec, Poland, who, while asleep, used to shift very heavy furniture (e.g. wardrobes). The second case concerns Mrs. Jan Searle, West Coast, South Island, N.Z., in whose presence furniture is also shifted. In both cases eye witnesses confirmed that within the affected room a significant temperature drop, reaching freezing level, was observed.

The conversion of thermal energy by telekinetic action will also cause another pair of effects called here an extraction glow and a dispersion glow. If we rapidly decrease the amount of energy contained within an atom, its electrons must fall from higher orbits to lower ones. This, according to quantum physics, must in turn cause the emission of photons. Such an emission should be observable as a kind of subtle, white glow, called here the extraction glow. Therefore every telekinetic absorption of thermal energy should be accompanied by an extraction glow that should be detectable on a sensitive photographic film. To detect this glow, it suffice to take a photo in the dark of a telekinetically moved object which completes some work (i.e. acts against a force). By using an infra-red camera the intensification of effects could be achieved, but also the interpretation of results become more difficult. If the time of exposure is long enough, the object is able to cross through, and to affect a larger area, making the glow more evident. Note, that extraction glow should be also manifested in cases where the total thermal effect is neutral. This gives a flexibility about the kind of moved objects selected for experiment. For example such frequently moved objects as V-shaped divining rods can also be used for the detection of the extraction glow. Practically this means that both: the equipment (i.e. a camera and film) and the object of experiment are not difficult to find.

The extraction glow is produced only during telekinetic work. A telekinetic release produces another kind of glow, which is called here a dispersion glow. The dispersion glow is colour, whereas the extraction glow is white. Unfortunately cases of telekinetic motion which produce dispersion glow are very difficult to obtain.

Notice that the more energy is converted during a particular telekinetic motion, the more powerful is the emission of the extraction or dispersion glow. Therefore, in order to obtain spectacular photographs of the extraction glow, a powerful telekinetic phenomena should be photographed (e.g. lifting very heavy objects).

The author has also completed some preliminary investigations concerning the registrations of the extraction glow. He has already taken some photographs of this glow. Although the author's photographs are not spectacular enough to convince sceptics, they sufficed to reassure that the discussed proof is easily achievable. Moreover, reviewing numerous books on paranormal phenomena (e.g. dowsing, psychokinesis) he has found

photographs taken by other people, which perfectly illustrate the extraction glow. Some more spectacular of these pictures are shown in Figures D5 to D7.

If readers are interested to find examples of telekinetic work which produces the registrable extraction glow, listed below are the most frequent sources of this work.

#1. V-shaped divining rods (see Figure D5). The operation of V-shaped divining rods may be based on two different principles, i.e. involuntary motion and telekinetic motion. The first principle is similar to that utilized in a pendulum-assisted ESP. It depends on throwing the elastic rod out of balance, as the result of an involuntary movement of the dowser's hands. (This principle is not based on the telekinesis, and therefore it can not be used for the detection of the extraction glow.) The second principle utilizes the psychokinetic power of the dowser's mind which forces the rod to bend downwards (females dowsers bend it upwards) after water is detected. People whose divining is based on this second principle possess a well developed telekinetic ability. Usually they are also able to move other objects such as the needle of a compass, the pointer of an amperometer, etc. With a little appropriate training they should be able to shift some material objects along plain surfaces.

#2. Various media involved in experiments with spiritualism, ghosts, psychokinesis, levitation, etc. - see Figures D6 and D7.

#3. Telekinetic (psychokinetic) healers. This source of telekinetic work is described in subsection D9 (see also evidence #5D2 and Figure D8).

#4. Poltergeists and other supernatural apparitions - see subsections D2 and D9 (also evidence #4D2).

#5. Magicians. Some magicians utilize telekinetic (psychokinetic) motion for non-destructive penetration between various physical objects (e.g. drawing nails through hands, pushing knifes through corpses, etc.) - see evidence #3D6.

#6. Telekinetic motors, called also magnetic generators of free mechanical energy (free energy devices) - see subsection D6. They provide a telekinetic motion without any external energy supply. If such a device is available, it can be used for registering the extraction glow.

#7. UFO vehicles operating in teleportative convention, as well as Teleportative Personal Propulsion of UFOnauts - see subsections B6.3 and K2 (also evidence #4D2).

In December 1985 the author took the opportunity during his vacation trip around the South Island of New Zealand to determine a statistical distribution of people who have mastered some kind of psychokinesis. The instances were unexpectedly high. Statistically one such person was found per about 100,000 citizens living in the areas searched. And the search was rather brief, hasty and completed only as a hobby. Most of the cases were dowsers utilizing a V-shaped divining rod, bent in the telekinetic manner. The psychic forces created by some of them amounted even to an equivalent of about 1 kilogram of mass suspended on the end of their rods. For example Mr. Desmond W. Scarlett, Forrest Downs, Cattle Valley, Fairlie, N.Z.; uses as a divining rod a strong clock spring, which, in the position indicating a "find", is apparently bent down with a force of approximately this range. Different examples of telekinesis were also revealed. For example Mr. Richard Simpson of Torquay Tec., Hamner Springs, N.Z.; by exercising the strength of his mind causes suspended objects to swing. To summarize the author's findings in the form of a message for the reader: "Unless you live on a sparsely populated area, there is minimum one person with telekinetic abilities living not further then 50 kilometres from your home. Thus, to register the extraction glow, you only need to find this person and to photograph the effects of his/her telekinetic actions".

* * *

We seem to be built in that way that we don't accept a theoretical Concept until we prove its correctness to ourselves. Proofs supplied by other people usually do not convince us. It was determined at the beginning of this subsection that the photographic registration of the extraction glow represents a conclusive proof that the counter-world do exist. Therefore, this final part of the Concept of Dipolar Gravity was to show that everyone can obtain such a proof. Since the objectives, subjects, and the ways of achieving this proof are clearly defined, it lies in the hands of readers to accomplish this breakthrough into another

world. As the problem is almost untouched, everyone has an opportunity to also contribute into perhaps an important discovery. So why not try it?

D12. To conclude

As is shown in previous subsections, the recognition of the Concept of Dipolar Gravity will have enormous impact on almost every aspect of our lives. Most disciplines will be affected, including those presently considered to be unrelated to gravity, e.g. religion, medicine (e.g. justification for acupuncture, psychic healing, etc.), parapsychology, philosophy, etc.

The Concept of Dipolar Gravity, in spite of its clarity, rationality, and all evidence in support, seems to be accepted with great difficulty by contemporary scientists. This is quite understandable, as the Concept destroys present views of reality which science has formulated so laboriously. Thus, it is predictable that not all the evidence and explanations presented in this chapter will gain instant recognition, and some of them will be subjected to well organized criticism (present science is so advanced that an appropriately motivated scientist can ridicule even the best idea or the strongest documented evidence). But for those who are prepared to accept new ideas, the Concept of Dipolar Gravity provides a conceptual foundation, supported by a solid body of evidence, to initiate his/her independent investigations. Thus, the key that opens our access to a completely new world finally seems to have been found. Now it is everyone's responsibility, how this key will be put to use.

D13. Reference publications

[1D] David St. Clair, "Psychic Healers" (Bantam Books, NY,1979, ISBN 0-553-02056-0).
[2D] Alec MacLellan, "The Lost World of Agharti, The Mystery of Vril Power" (Souvenir Press, London 1982, ISBN 0-62521-7).

Fig. D1. Mr Alan Plank with the pump he invented and designed by the means of a pendulum-assisted ESP technique. He read all the technical details of this pump directly from the counter-matter by finding and accessing the register that this device possesses in the counter-world. There is a high chance that scientifically reliable techniques of instrumental ESP will soon be developed, which will open the commercial applications for the ESP procedure discovered by Mr Plank. In such reliable ESP techniques, electronic devices similar to "lie detectors" will probably replace divining pendulums. After this new manner of gathering technical information is mastered, our present way of introducing new steps of technical progress will be completely revolutionized. The time-consuming laboratory experiments and expensive research of prototypes will then be replaced by reading out from the counter-matter all the necessary technical details about the best completed version of a device. Thus, introducing new inventions will be less expensive, faster, and more dependable than at present.
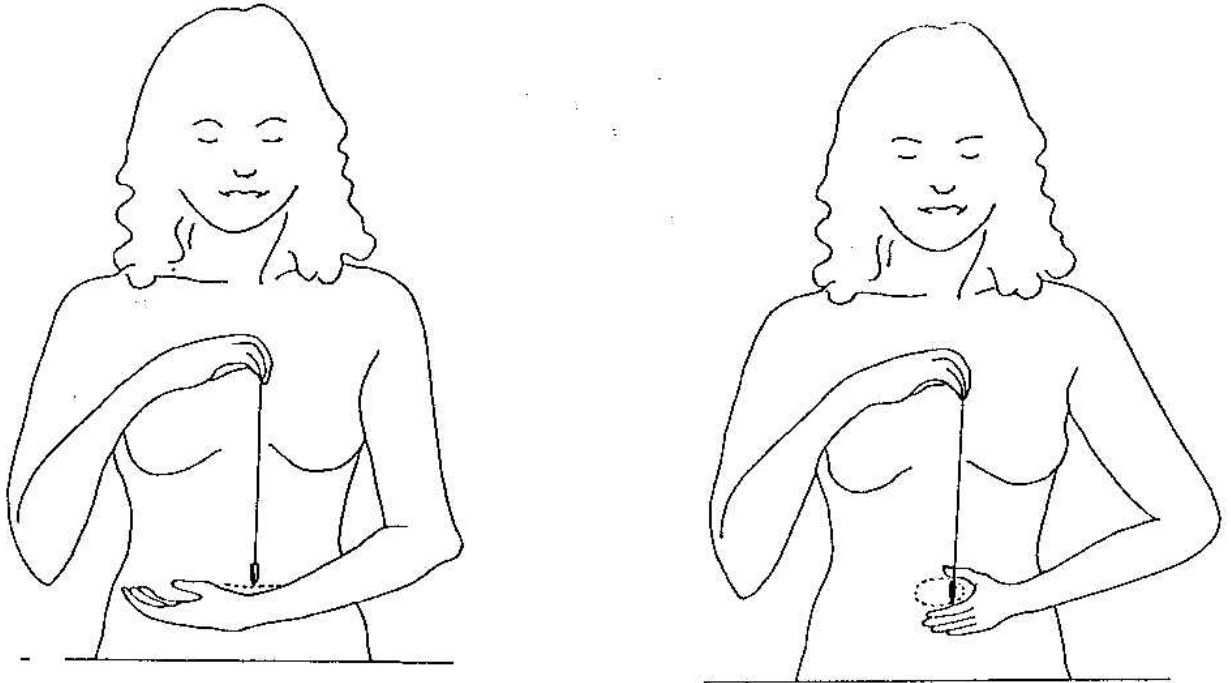
Figs. D2 and D3. A technique for developing YES and NO answer signals in pendulum-assisted ESP.

(D2 - left) A technique for developing the NO answer signal in the pendulum-assisted ESP. A NO answer is interpreted here as the pendulum swinging in a straight line. To induce this signal a bio-field accompanying the flow of blood through our veins is utilized. If we suspend the pendulum above the veins in the wrist of our left hand it soon starts swinging along the direction of the blood flow. If we change the angle of the left hand, the plane of the pendulum's swinging will adjust to this new direction of our veins. Notice that there is a certain length of thread, which induces the soonest and the most vigorous swinging of the pendulum. It seems that, for this length the frequency of the pendulum's oscillation is in resonance with the frequency of our vibration (different for every person). We should try to find this length and then hold the pendulum according to it.

(D3 - right) A technique for developing the YES answer signal in pendulum-assisted ESP. A YES answer is interpreted here as the movement of the pendulum in a clockwise direction. To induce this signal a change in bio-potentials appearing between the thumb and the forefinger of our left hand is utilized. If we form a U-shape with these fingers and then suspend the pendulum in the middle, it should begin to circulate in a clockwise direction. Notice that for some people the same configuration of hands may produce a counter-clockwise circulation of the pendulum. These people should also accept the obtained signal as a YES answer.
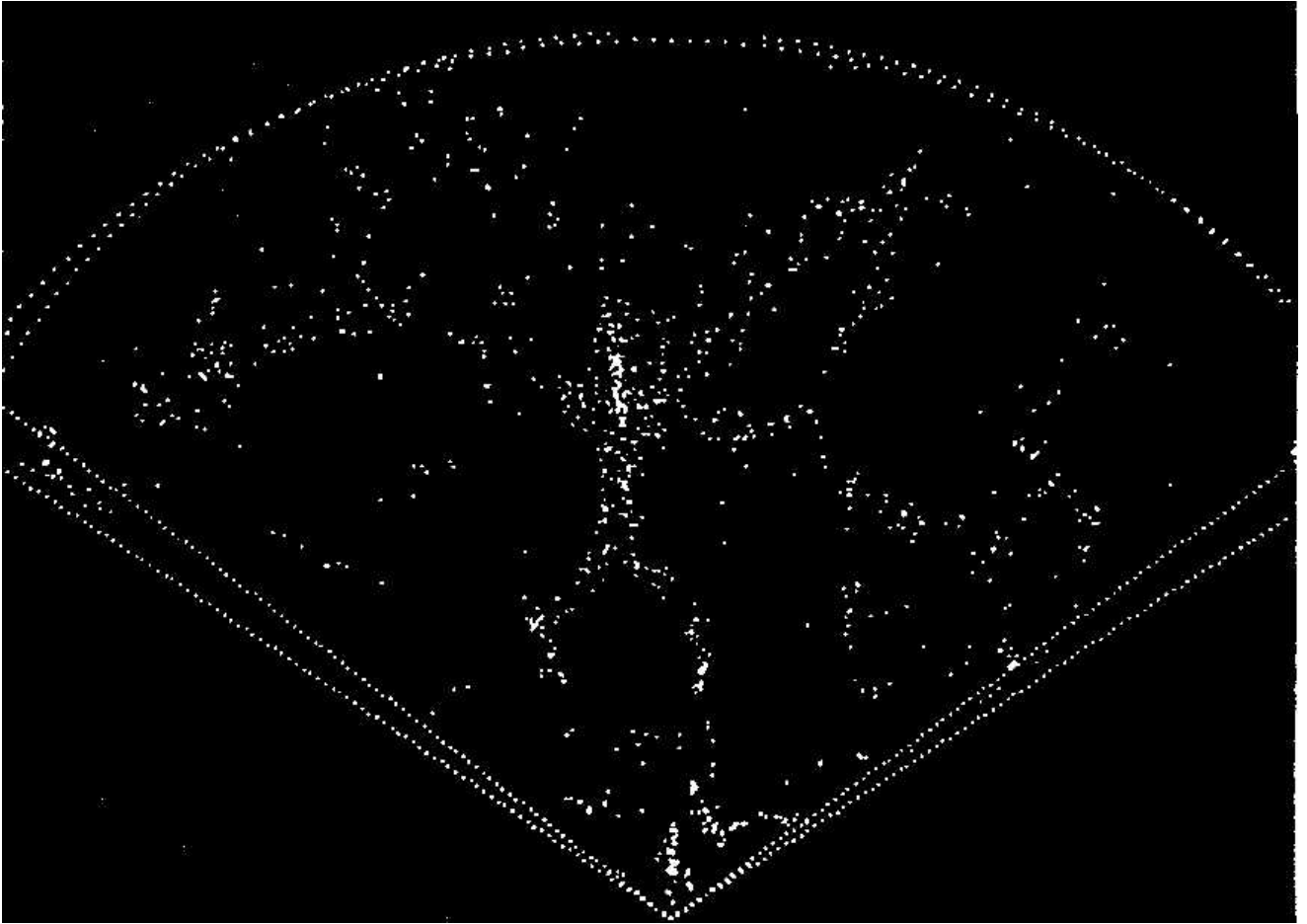
Fig. D4. A three-dimensional map showing a wedge of the Universe. This map was prepared at the Center for Astrophysics, Harvard College Observatory and Smithsonian Astrophysical Observatory, by Margaret J. Geller, John P. Huchra and Valérie de Lapparent. It was published in Scientific American, March 1986 (Vol. 254, Number 3), page 49. The map reveals a cluster of galaxies which takes the apparent shape of a human figure. This human shape may gain special significance with the Concept of Dipolar Gravity stating that our Universe is composed of two parallel worlds (the world of hardware and the counter-world), which exactly copy each other like an object and its mirror reflection. The non-material one of these two worlds (i.e. the world of software) is made of a substance (counter-matter) that is able to think in its natural constitution. This thinking substance forms the Universal Intellect whose shape must reflect the shape of our Universe, and whose capabilities correspond to those of God. This in turn invokes a question as to whether the above human shape is a pure coincidence or astronomic confirmation to the biblical statement that "God created man in his own image".

Fig. D5. The "extraction glow" emitted from the space passed through by a V-shaped divining rod moved in a telekinetic manner. The photographic detection of this glow provides experimental proof of the existence of the world of software. According to the Concept of Dipolar Gravity, telekinesis is the effect of moving material objects by altering the positions of their mirror reflections (counter-material models) contained in the counter-world. The introduction of such an alteration carried out within the counter-world does not require a supply of energy. But moving the objects in our world involves the consumption of energy described by the Conservation of Energy principle. The Postulate of Interchanging Thermal Energy states that this consumption must be compensated for through an extraction (conversion) of thermal energy contained in the environment of the objects moved. Therefore the result of telekinetic motion must be the fall of electrons in the atoms from the affected area down into their lower orbits. Quantum physics states that such a fall must be accompanied by the emission of photons detectable on a sensitive photographic film as a kind of "extraction glow". The extraction glow should appear not only in all forms of psychokinesis caused by the human brain but also in the "mechanical" equivalent of this phenomena occurring within the "free-energy generators" recently made operational in USA (i.e. magnetic motors producing motion without an external energy supply). The most frequent subjects (and therefore also the most easily available for research) utilizing psychokinesis are dowsers whose success in the search for water is indicated through the psychokinetic bending of their divining rods. The above photograph illustrates the extraction glow which appears during such bending. It was originally published in two books by Christopher Bird entitled: "The divining hand" (1st edition, E.P. Dutton, New York 1979, ISBN 0-525-09373-7, page 7) and "Divining" (A Raven Book, London 1979, ISBN 354-043889, page 7).
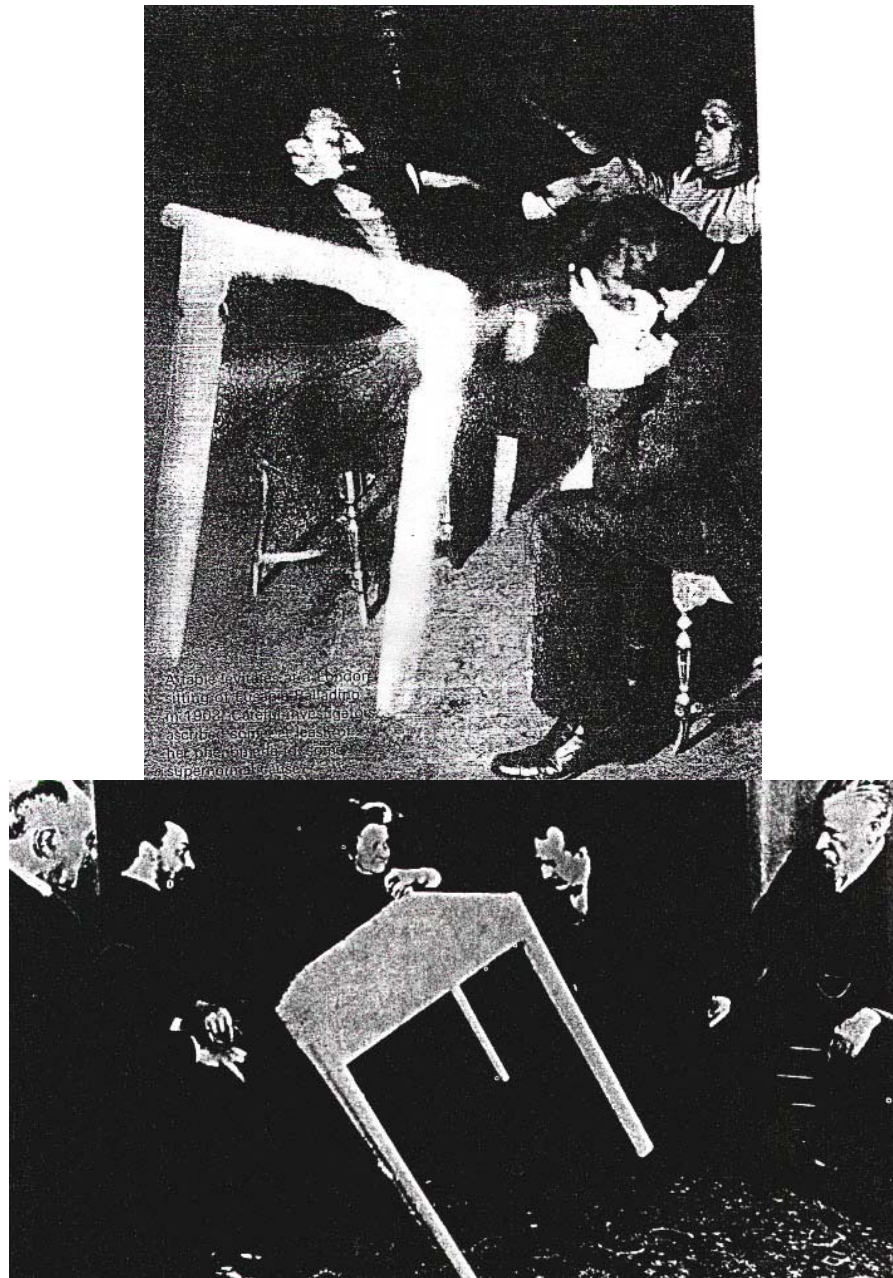
Fig. D6. Photographs of two heavy tables levitated in various séances by a psychokinetic medium named Eusapia Palladino. Along the surface of both tables a strong emission of the "extraction glow" is clearly registered. The telekinetic power of this medium was so extremely high that almost all photographs taken at her séances demonstrate the evident emission of the extraction glow. Therefore the photographs provide a consistent confirmation that the "Postulate of Interchanging Thermal Energy" is in operation. Sceptic scientists investigating Palladino's abilities suspected her of producing some fraudulent effects, for this reason at many séances she was restrained. However, even when she was held tightly, the tables still rose.

(Upper) A photograph published in the Journal "The Unexplained", Vol 4 Issue 41, page 801; and republished in the book edited by Peter Brookesmith, "The Enigma of Time", Orbis Publishing Limited, London 1984, Page 21. It presents a table levitated in London in 1903.

(Lower) A photograph published in the book by Roy Stemman, "Spirits and Spirit Worlds", The Danbury Press, London 1975, ISBN 0-7172-8105-1, page 52.

Fig. D7. The photograph of a table - see photo (b) that was levitated by members of the Society for Research into Rapport and Telekinesis (SORRAT). The entire surface of this table is covered with a thin layer of glowing air, representing the so-called "extraction glow". If it is considered that divining rods are the most popularly available source of the extraction glow, the levitation of heavy furniture would be the second. A number of photographs showing such subtly glowing levitated objects are already published in various books from "The Unexplained" series. The above photographs originate from the Journal "The Unexplained": (a) Vol 6 Issue 61, page 1211, (b) Vol 5, Issue 59, page 1171. They are also re-published in the book edited by Peter Brookesmith, "Against all reason", Orbis Publishing, London 1984, (a) - page 14 and 15, (b) - page 45. Notice that the photograph (a) presents the same table only this time the extraction glow was not registered allowing the natural texture of the surface of the table to be seen.
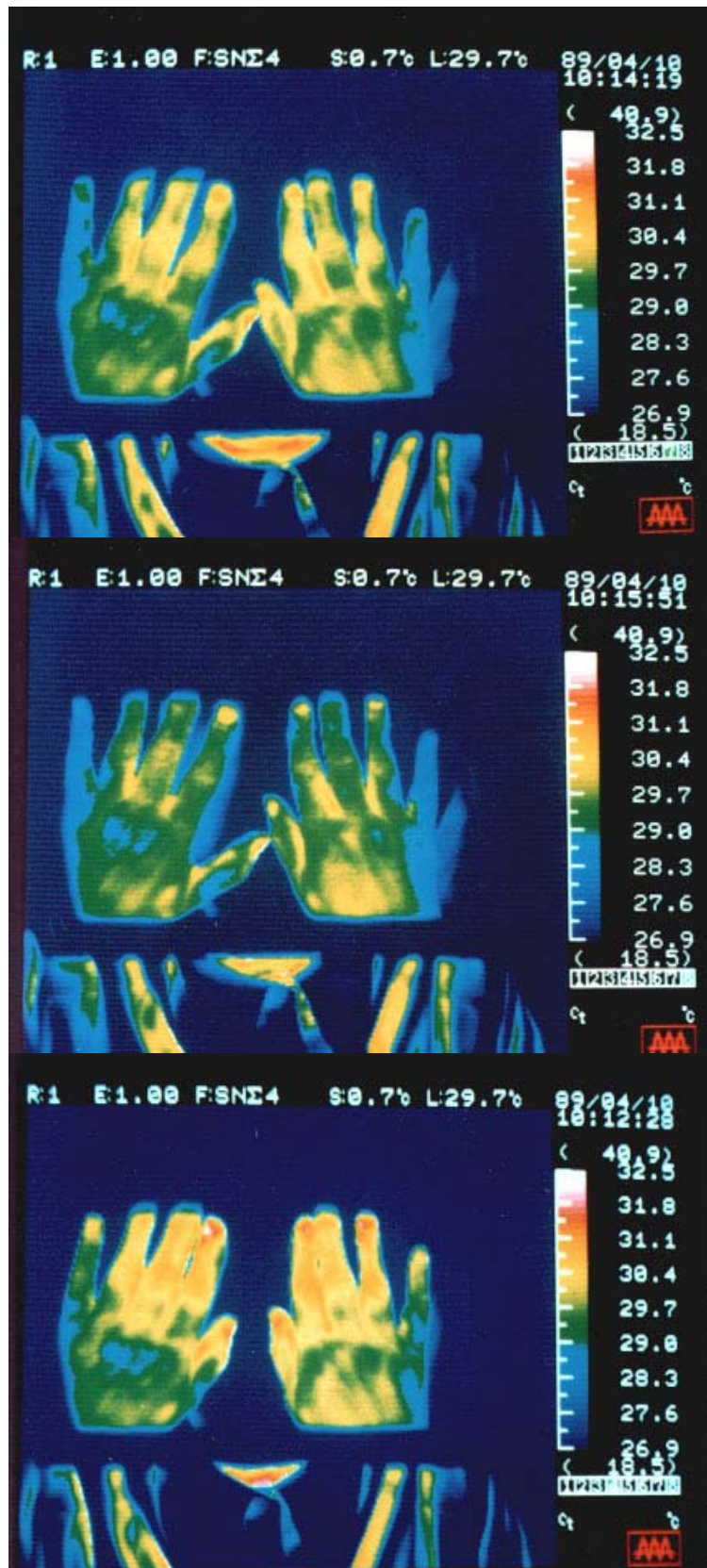
Fig. D8. The temperature change (drop) in the hands of a healer, Mrs. Leuenberger, caused by her non-cyclical telekinetic work. The first experiment that registered this change was completed by Werner Kropp of WEKROMA Laboratory (Via Storta 78, CH-6645 Brione s/M, Switzerland). His method of recording depended on the use of a sensitive thermovision camera during her healing session. Three colour photographs of her hands, marked as (a), (b) and (c), were taken during the span of about 3 minutes, i.e. at 10:12, 10:14, and 10:15. During this time, the camera registered the temperature drop of the healer's hands as about 3 degrees Celsius.

<u>Chapter E</u>:

PHILOSOPHICAL REQUIREMENTS FOR GIVING RECOGNITION TO NEW IDEAS

The chapter that follows concludes the first part of this monograph which is devoted to the philosophical foundations of the Magnocraft. The main objective of this chapter is to define the philosophical climate and intellectual requirements necessary for people to give recognition to new ideas and inventions (see subsection B1). In turn, this climate should stimulate the more rapid acceptance and completion of the Magnocraft. Through the explanation of the philosophical principles behind the attitudes of people, this chapter also tries to provide a key to understanding why so many excellent inventions and ideas are continually wasted, and why history quotes so many famous people being wrong in their priori judgment of inventions that later were implemented. A simple rule provided near the end guides our personal philosophies towards the selection of principles that are worth adopting and implementing in everyday life. (The subsections that follow do not contain any technical descriptions of the Magnocraft or other corresponding devices.)

Perhaps, before any specific deductions are made, it should be stressed how our everyday philosophy impacts the perception of all aspects of our lives. To illustrate this impact let us consider the case of two hungry people with identical baskets of fruit. The first person always picked the best fruit left in the basket. So he/she enjoyed eating the basket full of the best fruit. But the second person always chose the worst fruit left in the basket, so he/she suffered because he/she ate a basket full of the worst fruit. Although the fruit in both baskets was exactly the same, the philosophy behind their consumption made an enormous difference. The person who enjoyed his/her fruit utilized the positive, or as we would say, "totalistic" approach, whereas the suffering person chose a negative, although in the opinion of the majority of people, a fully "logical" approach.

People's philosophies are revealed clearly during their involvement in intense discussions. The development of the Theory of the Magnocraft put the author in the fortunate position of organizing and conducting many public and numerous person-to-person discussions. The participants in most of them were highly educated people, i.e. scientists, industrial experts, interest groups, etc. During these discussions a number of findings concerning the everyday philosophy of well-educated people was collected. (The name "everyday philosophy" or "ruling philosophy" is used here to describe the philosophy which day-by-day defines the conduct of people in real life, not for any of the philosophies formulated on paper that are supposed to describe their conduct.) The author extracted some of the essential (in his opinion) doctrines of this philosophy and listed them below. It is important to bear in mind that these doctrines are not meant to be a representation of anyone's personal philosophy. Rather, they constitute a "model" - i.e. a composition of the common elements found in the philosophies of many individuals. The doctrines are as follows:

1. Only those things are possible which we already know how to achieve.

2. The universe is not permitted to display facts extending beyond our horizons.

3. Everyone else is wrong until he/she proves that he/she is right. (Another version is: "I will believe you when I see it".)

4. Our present knowledge is complete and perfect - any outstanding research is without legitimacy.

5. The main purpose of studying is to collect diplomas that will allow us to find a cozy job free of any responsibility (or: "gaining education releases us from responsibility").

If we analyze the above doctrines, we come to the conclusion that each of them represents an implementation of the well known natural tendency for "taking the line of least resistance". Therefore the everyday philosophy of people who utilize this tendency can be called the "philosophy of taking the line of least resistance" or the "easy way out philosophy". The tendency to select the line of least resistance is a characteristic of

untamed nature. The intellect acts according to the different rule of "selecting what is rational to select". The principles of the philosophy outlined in this chapter and called "totalizm" represent an implementation of this rationalized rule.

The principles of totalizm are formulated by reversing the doctrines of the "easy way out" philosophy. Below are listed the more important of these (compare the list that follows with the previous one). Although these form the basis of totalizm, they do not exhaust all the potentials of this philosophy. Therefore this list is rather intended as an illustration than as a complete description of totalizm.

#1. Everything is possible - we only need to find out how to achieve it.

#2. All facts are equal - each of them deserves the same consideration.

#3. All statements of others are true unless they are proven to be untrue.

#4. Everything can be improved further - and the obligation of every person is to leave things better than he/she found them.

#5. Knowledge is responsibility.

All people who can identify their personal philosophy with the above list of principles should never have any difficulties with accepting new ideas.

The "easy way out" philosophy is oriented towards stagnation. It impedes the promotion of anything that is new, and maintains a lazy, grasping and selfish style of living. It seems that our civilization has now reached the point where any further progress is extremely difficult, if not completely impossible, without replacing the "taking the line of least resistance" philosophy with one more oriented towards progress. In the subsections that follow, an outline of such a replacement is presented. The principles of "totalizm" are progress-oriented and counter-balancing to the doctrines of the "taking the line of least resistance" philosophy.

Let us now review each doctrine of the "easy way out" philosophy and try to find out why it is destructive and how it should be reversed in order to neutralize its negative impact.

E1. Everything is possible: we only need to find out how to achieve it

Although no one is willing to admit this, the majority of educated people act and behave in accordance with the doctrine that "only those things are possible which we already know how to achieve". The above statement was, in the past, and still is at present, the unofficial foundation for the ruling philosophy of science. Scholars of all eras have followed this doctrine, attacking every new invention and every new discovery. This doctrine is responsible for an unknown number of inventions being abandoned half way in their development and for the successful prevention of a more rapid advancement of our civilization.

There are a number of publications available which quote well-known and respectable people whose claim "it's impossible" was later proved to be completely wrong. The content of these claims now sounds ridiculous, but at the time when they were stated they caused a lot of harm and confusion. We must remember that they originated from people having high authority and important positions, whereas their destructive power was usually directed against young and unknown inventors. Let us remind ourselves of some of these statements.

"Nothing made of iron could possibly float" - scoffers in 1787 on the first ship of iron built by John Wilkinson (quoted from the book by J. Penry-Jones, "The Burke Book of Ships and Shipping", Burke Publishing Company Ltd., August 1965, page 10).

"Gentlemen, I would rather believe that those two Yankee professors would lie than believe that stones would fall from heaven" - President Thomas Jefferson on the sighting of a great meteorite in 1807 in Weston, Connecticut (quoted from the book by H.H. Nininger, "Find a falling star", Paul S. Eriksson, New York 1972, ISBN 0-8397-2229-X, page 4).

"A grip of a smooth iron wheel on a smooth iron rail would not suffice to haul a train. A locomotive must horse itself along on mechanical legs or winch along a rack rail with a pinion wheel" - John Blenkinsop and others on William Hedley's theoretical solution of the

adhesion problem proved correct experimentally in 1813 by the locomotive "Puffing Billy" - see Figure E1 (the author's summary of the historic analysis presented in the book by E.L. Cornwell, "History of Railways", Hamlyn-Nel, London 1976, ISBN 0-600-37587-0, page 14).

"Heavier-than-air machines, flying machines, are impossible!" - Lord Kelvin 1895 (one statement from a large list of quotations proved wrong that has been compiled by Robyn Williams in "Australian Science Magazine", Vol. 1, No 1, 1985).

"Very interesting, Whittle my boy, but it will never work" - a Cambridge professor of aeronautical engineering to jet engine developer, Sir Frank Whittle, about 1930 (one of numerous examples of how wrong educated people can be, collected in the paperback by Graham Nown, "The World's Worst Predictions", Arrow 1985). The above quotation explains why the first jet engine was not built in England, but in Germany (1939 - Heinkel "He 178"), and why Sir Whittle was allowed to develop his invention only after German jet aeroplanes proved to be superior to English propeller fighters.

"There is not the slightest indication that nuclear energy will ever be obtainable. It would mean that the atom would have to be shattered at will" - Albert Einstein, 1932 (one quotation from a number of mistaken predictions of some authoritative sources, compiled in the paperback by Christopher Cerf and Victor Navasky, "The Experts Speak", Pantheon 1984).

These claims, along with many others, have proved that almost every idea which at a particular time has been discredited and scoffed at, is completed a few years or decades later. This means that the statement "impossible" is relative, and only applies to a particular level of our development. Therefore the existence of faulty claims in the past is not only an indication of the mistakes of judgment by individuals, but also proof of an error existing in the ruling doctrine of the philosophy of science. The universe seems to be built in such a manner that "everything is possible, only we need to find out the way to achieve it". In all actions and discussions of scholars the above principle should replace the doctrine reported earlier. This new principle should become an essential foundation for the future philosophy of reformed science.

Scholars, acting in accordance with this reformed principle, would not discuss goals, but concentrate their efforts on verifying the ways of achieving them. By this means, the respect and authority of many people would be secure when the inventions or ideas they tried to disqualify became reality. To prevent us from repeating the same errors with regard to the Oscillatory Chamber and the Magnocraft, perhaps we should implement this reformed principle immediately, beginning with the content of this monograph.

E2. All facts are equal - each of them deserves the same consideration

From the blackness of ancient times we have inherited the habit of segregating everything into categories of "better" or "worse". Some religions have claimed to be better than others, some races have tried to dominate others, social classes were introduced. Even our body was recognized as having good and bad parts - in spite of a hypocritical use of all of them. This habit is probably the reason why many scholars also segregate facts into "permissible" and "heretical" categories.

While the development of our civilization and culture has gradually removed most of the above prejudices, scholars still remain the last bastion of conservatism. The reaction of some contemporary scientists to the appearance of any "heretical" fact such as a UFO sighting, psychic phenomena, ghost story, etc., is exactly the same as the reaction of the nineteenth century public to the sight of a naked person - when embarrassment, shock, and sometimes even disgust was manifested.

In no other area of human activity are facts segregated or ignored to such an extent. For example, the spoken statement of a witness is sufficient for our courts to convict someone with a death sentence, but a report by the same witness about a UFO sighting would be dismissed and laughed at by scientists. In science medieval concepts still seem to

be operative, and many scholars are judging people not by the level of their expertise, but by the type of facts that they are associated with or investigate.

It is about time this irresponsible attitude is changed. Our civilization will not be able to progress much further if we continue segregating facts into "permissible" and "heretical" ones. Such segregation is damaging as well as irrational. <u>We can not tell the forces of the universe what kind of manifestations they are allowed to display</u>. No person has the right or sufficient knowledge to dictate this, especially if the only purpose is to avoid the methodical investigation of existing, repetitive, well documented, and explainable facts on UFOs, extraterrestrials, psychic abilities, and other phenomena which do not fit into our contemporary philosophy of science. Facts are equal and all of them deserve to be treated with the same consideration and investigated thoroughly. The only permissible criterion for establishing priorities in research should be the benefit that they may provide for mankind.

In the third part of this monograph some facts are investigated which fall into the category of "scientific heresy". For the author, they are facts which are just as valid as all other scientific evidence. Because they are well documented and reliable, there is no reason why the benefits they promise should not be directed for the good of people. Perhaps, when reading this monograph, we all should look at them in that way.

E3. <u>All statements are true unless they are proven to be untrue</u>

Not many people would like to be judged by a court operating on the principle "guilty until proven innocent". Most of us would consider such a court to be barbaric and more appropriate to medieval times or savage tribes than to modern civilizations. A today citizen expects to have the right of "being innocent until proven guilty". Having such a clear idea of our rights, we seem to forget about the rights of others. How frequently we respond to the claims of others "I will believe it when I see it". Such a reply is only a different wording of the doctrine "all statements of others are untrue unless proved to be true". This in turn is the intellectual application of the old court rule: "guilty unless proven innocent".

The present situation with UFO sightings indicates how a vicious circle is formed by the application of this principle in life. If someone is describing his/her UFO experiences, most people tell him/her "we will believe it when we see it". But when their turn comes and they in fact do see it, the same rule makes them victims because no-one else believes their story. This situation will never stop unless we all change our philosophy and ignore the requirement of others to prove the claims. Of course, changing a philosophy is difficult because it requires orienting ourselves into an unconditional accepting, understanding, and positive attitude towards our surroundings. But after such re-orienting, even if we haven't experienced something personally, our intellect is still able to accept its possibility.

If only a few individuals acted according to the doctrine "all statements of others are untrue unless proven to be true" the fault could lie in their lack of education, difficult character, unpleasant experiences in the past, and many other reasons allowing us to overlook this. But when the entire establishment applies it there is no excuse. It is unfortunate, to say the least, that the above doctrine lies at the foundation of the ruling philosophy of science. No evidence, no fact, no statement, no theory is accepted or even considered by contemporary science until the appropriate proof is presented.

This doctrine causes enormous harm to our development and to the progress of science. Let us review the main areas that suffer because of it.

(a) Randomly appearing evidence is ignored or rejected. The requirement for proof of everything excludes from scientific recognition all evidence that appears randomly with significant time differences, in unexpected places, or which leaves no apparent marks afterwards. Example of such evidence can be modern UFO manifestations and earlier "stones from heaven" (i.e. meteorites). Therefore whatever prospects for the advancement of our civilization the investigation of this evidence may open, they remain inaccessible to us, if the "easy way out" scholars retain their views.

(b) Intellectual laziness is promoted. At present, the principle under discussion allows for each scholar or each scientific institution to reject every new theory, every new invention, and all new evidence, without even examining its content (just as a medieval court could sentence anyone who did not have enough power to defend him/herself). Because, to reject this evidence, it is not necessary to prove that it is invalid or wrong, scholars feel free to do so. In this way a wealth of evidence and excellent ideas are discredited only because saying NO doesn't require any effort and is more convenient for the present philosophy of "taking the line of least resistance".

(c) A camouflage of incompetence is supported. The system of philosophical principles should be set up in such a way that the scientific establishment would not have any other option than to accept a new idea and become involved in its realization, or to prove that this idea is wrong. In both cases the real expertise of particular scientists would be publicly disclosed. But the present philosophical system gives preference to the third solution, which is not to take up any discussion on new ideas at all.

(d) The areas of competence are reversed and people are forced to work outside their natural inclinations. It is widely recognized that a creative mind is a resource which appears rarely and can be easily suppressed. In fact the educational system seems to be the primary destroyer of creativity (refer to the problems Albert Einstein had at his school). This is probably the reason why the majority of creative people are outside the scientific establishment. But how do we manage the utilization of this precious resource? If a person who inherits the gift of creativity produces a new invention and presents it to scientists to gain support, he/she confronts a lack of co-operation accompanied by a repetition of the philosophical doctrine that the invention must first be proved to be correct, and only then will scientists be prepared to discuss it. So the poor inventor, instead of exploiting his/her abilities and proceeding with improvements to the invention, must spend the rest of his/her life trying to prove the correctness of the idea. On the other hand, the scientific establishment has the conditions necessary for completing all sorts of possible proofs. It has highly qualified staff familiar with modern methodologies, it has laboratories, libraries and equipment, it also has the time and money provided by the nation solely for this purpose. For professional scientists there is not the slightest problem with the prompt validation of any new idea or invention - of course, if only they are interested in doing this. Unfortunately the majority of them do not have the inclination to work with someone else's ideas, and also their professional philosophy prevents them from attempting to. So instead of utilizing what they are competent in, they tend to try to become inventors themselves.

(e) The effort of developing new ideas is a burden born solely by individual creators. The scientific establishment is not obliged to develop ideas which it recognizes as untrue. But in the light of its ruling philosophy, every new idea is untrue until it is proven true. Of course those ideas which have already been proved true are also already developed. So the scientific establishment has practically no responsibility for developing any new ideas - it only subjects these ideas to further improvement when they are already developed. This creates the ridiculous situation that science, which is supposed to further our progress, must in fact be dragged along by this progress, whereas the most onerous and responsible job of developing new ideas is carried out by amateur inventors.

The doctrine, "untrue until proven true", was acceptable only in the first stage of the development of modern science. There were at that time no methodologies developed for proving the invalidity of particular ideas; knowledge accumulated and the instruments available were insufficient for this purpose. But in modern times, when science has at its disposal all these profound methodologies, sophisticated equipment, a wealth of accumulated knowledge, and well educated and highly paid staff, such a doctrine is an anachronism. Unfortunately for new ideas, occupants of "ivory towers" have a very comfortable life from this doctrine, so they will not change it voluntarily. But for our civilization as a whole it is a source of enormous losses. Therefore it is in our common interest to replace it with the opposite principle, i.e. "true until proven untrue". The time has now come when societies have the right to demand from their scholars justification for every opinion against an argument. We should begin to execute this right immediately.

From now on, whenever someone states something is "untrue", we should demand that he/she provide the proof for this claim.

E4. Everything can be improved further

There is a well-known phenomenon called "intellectual inertia". It expresses itself in the form of strong resistance by many people to any change or new idea. The doctrine which defines the impact of this inertia on the intellectual sphere can be expressed thus: "present knowledge is complete and perfect - any outstanding research lacks legitimacy". When we look at this doctrine it appears to be quite illogical. But when we analyze the actions of some people we realize that, in spite of loud declarations stating otherwise, they in fact behave and act precisely in accordance with this doctrine.

There is a converse principle which most people know and repeat frequently. It states that "everything can be improved further". The problem with this principle is that almost everyone is aware of it but only a few in fact use of it. Therefore in order to work, this principle needs to be extended to make people become active. It should be expressed as "everything can be improved further - and the obligation of every person is to leave things better that he/she found them".

This principle assumes that there must be some drawbacks or undetected errors left in every product of our intellect. Therefore we should be prepared to correct these drawbacks or errors whenever they are revealed (i.e. not get angry when someone points them out to us). Also, if we assume a priori that there is an undetected error in each of our claims, then we can formulate these claims in such a way that they won't cause damage if an error reveals itself.

The personal philosophy presented in this chapter (totalizm) stresses the necessity for permanent improvement, but simultaneously it restricts the kind of methods that can be used for this purpose. It states that only those methods are suitable which are the implementation of a recognized development principle applied by the universe itself and which also do not run against moral laws (see subsection D10.2). To the best of the author's knowledge, only three of the principles applied by the universe to further its development are recognized at present. These are: (1) the struggle between two equal but opposite powers (e.g. Yin and Yang; positive and negative), (2) the need for symmetry, and (3) reaction to a variety of stimuli. Thus, according to totalizm, only these three principles are acceptable means of improvement.

The above restriction for selecting the improvement method used by totalizm may be understood more easily from an example of competition between two equal but opposite powers (e.g. good and bad, truth and falsehood, health and illness). Any development method based on the same principle, which also does not break any moral laws, is permissible in this philosophy. Thus a democratic government based on the competition between two opposite parties, or a constructive discussion between two scientists, can represent examples of development methods acceptable in totalizm. But methods based on something other than two forces are invalid in the philosophy under discussion, because even if they are temporarily successful, in the long term they cause more damage than progress. For example political regimes based on a single force, as well as those political systems which are based on the simultaneous ruling by many (i.e. more than two) forces of approximately similar power; also the discussion of a controversial subject by a boss and his/her subordinate (non-equal powers) or an unruly discussion amongst a large group of loud-mouthed people, are all invalid methods in totalizm.

The second recognized principle of development applied in the universe is the need to fulfil the requirements of symmetry. It seems that all components of nature may form an almost unlimited number of combinations, but the only successful ones are the combinations that meet the requirements of general symmetry, which are not yet completely known to us. Therefore the evolution of forms from less to more symmetrical occurs. The forms displaying greater symmetry (i.e. displaying symmetry at more levels)

are somehow better than others, so they win the competition for survival, causing the extinction of those which are less symmetrical. Every method based on the need for symmetry is designed in this manner, in that it always applies to a particular situation the rules of general symmetry determined in other areas. An example of such a method is presented in chapter B.

The third important cause of development of the universe, which causes everything to continuously improve its level of adaptation, is the variety of stimuli directed towards a given object (e.g. an animal or a form of matter). A number of methodologies permissible in totalizm are based on this principle. Their operation depends on matching a particular object to evidence originating from reality. The history of our knowledge is in fact also the history of such methodologies. An example of one of them is contained in chapter J.

It should be stressed that sometimes people try to use methods of improvement that do not belong to any of the categories listed above. Some examples are: the hijacking of aeroplanes, terrorism, monopolization, dictatorship. These methods are invalid in totalizm and must not be used for improving anything. There are also methods that are valid for one purpose and invalid for others. For example a "brain storm" as a generation of stimuli is valid, while one person facing an opposing group of people (i.e. where there is a difference in the size of the two forces) to prove a particular point is invalid. But the majority of the known methods already in use are valid in totalizm and therefore can be used freely.

As the above examples show, restrictions of totalizm with the selection of methodologies that can be used for improving something is not so much a limitation for a person wishing to apply them, but rather as a guide to a more successful choice.

E5. Knowledge is responsibility

In almost every area of human activity concerning objects or ideas which already exist, people are just as responsible for their YES stands as for their NO ones. The businessman who takes a wrong NO decision bankrupts his own enterprise. The engineer who refuses to consider someone else's statements builds a faulty machine and loses his/her job or can even land in prison. The doctor who ignores patient's symptoms can be prosecuted for misconduct and struck off the Medical Register. Some false judgments of pilots, astronauts or ship navigators can be measured in the loss of human lives. But when it comes to objects and ideas that are to appear in the future we are willing to pronounce our NO opinions irresponsibly without worrying about repercussions. We never hear that any person is prosecuted when his/her NO claim turned out to be completely wrong, and halted an excellent idea or destroyed a useful invention. On the other hand, such a wrong NO opinion stated publicly may cause more deaths than some wars have. For example, for almost every NO statement quoted in subsection E1, some cases exist of people who died or suffered as a direct or indirect consequence of a given statement.

With the increase of knowledge, people gain a better capability to correctly judge objects and ideas. On the other hand, history shows that judgments concerning the future have the same significance as judgments concerning the present. Both the above put together reveal a principle that "knowledge is responsibility". This principle represents a reversal of the doctrine from the "easy way out" philosophy that "gaining education releases us from responsibility". It stresses that the higher the qualifications someone has accumulated, the greater his/her responsibility must be. Of course, responsibility should be demonstrated independently if a particular knowledge is applied to judgments of the future or present.

The awareness of some people of the rule "knowledge is responsibility", compared with the irresponsibility in the behaviour of others, is very thought-provoking. Let us consider the discovery of Dr Ignatz Philipp Semmelweis (1815-1865) described in the book by G.L. Deloughery, "History and trends of professional nursing" (8th edition, The C.V. Mosby Company, Saint Louis 1977, ISBN 0-8016-1974-2, page 40). Since the time of the quotation that follows, present knowledge about the transmission of diseases has certainly

improved. But what about our responsibility towards discoveries still waiting to be implemented and towards people who have completed them? Have we really changed in this respect?

"One of the most tragic figures of medicine - Semmelweis - was the genius who banished childbirth fever from maternity hospitals. Hungarian by birth, he was assistant at the second Vienna clinic about 1845 when the death rate from puerperal sepsis had reached the appalling figure of 10% of all those delivered. At the same time, it was only about 3% at the first clinic. Medical students were taught at the second clinic, pupil midwives at the first. Semmelweis proved that the high rate of death at the second clinic was caused by the filthy habits of the students. They were dissecting and doing postmortem work at the same time that they took their obstetrical work. Often they walked directly from the postmortem room and proceeded to examine a women in labour without washing their hands. Rubber gloves were not used in those days. Semmelweis showed that this practice was the cause of the appalling mortality; the fever was caused by decomposing organic matter that had gained access to the mother's system through the generative organs that were traumatized during childbirth. He also showed that other sources could cause it - the examining hand could carry the infection from woman to woman and from infections occurring elsewhere in the body of other patients. Most important, he demonstrated that the infection could be prevented by cleaning the hands with a solution of chlorinated lime before examinations. This work was done before Pasteur began his great task."

One would expect that for such a great discovery, Dr Semmelweis would have been lavishly rewarded by his contemporaries. But the kind of "reward" he in fact received is revealed in another book by P.A.R. Flynn, "The Healing Continuum" (Robert J. Brady Co., Bowie, Maryland 1980, ISBN 0-87619-670-9, page 269):

"He was laughed at by his contemporaries, and the deep compassion with which he pleaded his cause made him many enemies. He was ultimately reduced to standing at the door of the lying-in hospital and begging the young women to deliver at home where they would be safe. He died in disrepute, the object of ridicule and scorn. His notes close to the time of his death contain the following lines: 'I can only dispel my sadness at the death of thousands of young mothers by looking into the happy future when no death will be brought in from the outside to any women having a baby. The conviction that such a time must inevitably come, sooner or later, will cheer my dying hour'."

E6. What is totalizm?

"Totalizm" is defined as a rationalized reversal of the philosophy of "taking the line of least resistance". The previous subsections of this chapter have revealed the primary rule for formulating the principles of totalizm. To apply this rule requires us to take two steps. In the first step we identify and define a harmful doctrine from the "easy way out" philosophy. Then in the second step we reverse the meaning of this doctrine. The more destructive the original doctrine, the more powerful and positive is the principle of totalizm resulting from it.

The primary rule of totalizm can also be expressed in the form of a simplified recommendation for everyday use. This recommendation states:

"in all matters involving intellect, always do the opposite from what the philosophy of taking the line of least resistance suggests you should do".

Because in almost every such matter it is quite clear what the "easy way out" would be, therefore it is also easy to determine (using the above recommendation) what we should do according to totalizm. This makes the philosophy discussed easy to utilize and very useful in everyday situations. Moreover, its practical application always seems to prove extremely effective (e.g. during the handling of conflicts, discussions, reviewing new ideas and inventions).

It should be stressed here that the primary rule of totalizm has a "gravitational" justification originating from the Concept of Dipolar Gravity presented in chapter C (see explanations in subsection C2). According to this concept our universe consists of two

different worlds which are occupied separately by intellect (the other world, or the world of software) and by matter (our world, or the world of hardware). Because in each of these worlds an opposite pole of the dipolar gravitational field prevails, so also the laws that govern them must be opposite. Thus all the principles which originate from the laws of intellect and which describe the the behaviour of intellect (e.g. philosophical principles) must be a reversal of the similar principles which originate from the laws of matter and describe the behaviour of matter (e.g. principles of physical sciences).

The existence of two separate worlds, one of which is concerned with the intellect, the other with the matter, divides all the principles prevailing in our universe into four following categories:

1. Principles originating from the laws of matter and referring to matter (e.g. principles of physical sciences such as physics, chemistry, astronomy, etc.).

2. Principles originating from the laws of the intellect and referring to the intellect (e.g. philosophical principles).

3. Principles originating from the laws of matter and referring to the intellect (e.g. principles that govern feelings).

4. Principles originating from laws of the intellect and referring to matter (e.g. moral principles).

Two corresponding principles which belong to different categories may have different (sometimes even contradictive) content. Therefore if one manages to learn a particular principle operating within one of these categories, a version of this principle acting within other category will still remain unknown to him/her.

The gravitational justification for the primary rule of totalizm introduces a number of practical consequences, one of which is worth mentioning here because it directly relates to the acceptance of new ideas. The well-known phenomenon is that the more detailed expertise in physical sciences someone has, the less flexible his/her personal philosophy tends to be (e.g. he/she is less ready to accept new ideas, is more conservative in opinions, etc.). The cause of this phenomenon is that such experts train their minds in utilizing mainly the laws of matter. Therefore when comes to applying the laws of intellect - which are the reversal of the laws of matter, their minds are simply unable to reverse the way they are used to operate.

This part of the monograph was started in chapter B from the author's finding that having the final concept of a new device is not sufficient to build it. The nation which is first allowed to complete this device must also fulfil a set of rigid social, moral, educational and philosophical requirements (see subsection B1). Presentations from subsequent chapters tried to identify and define the most important of these requirements, starting from educational attitudes concerning antigravity (chapter C), moral laws (chapter D), and finishing with the philosophical principles discussed in this chapter. The author hopes that by highlighting all these additional conditions for the completion of new inventions, he will make readers more aware of the importance of their own thinking and philosophy for the completion of the Magnocraft.
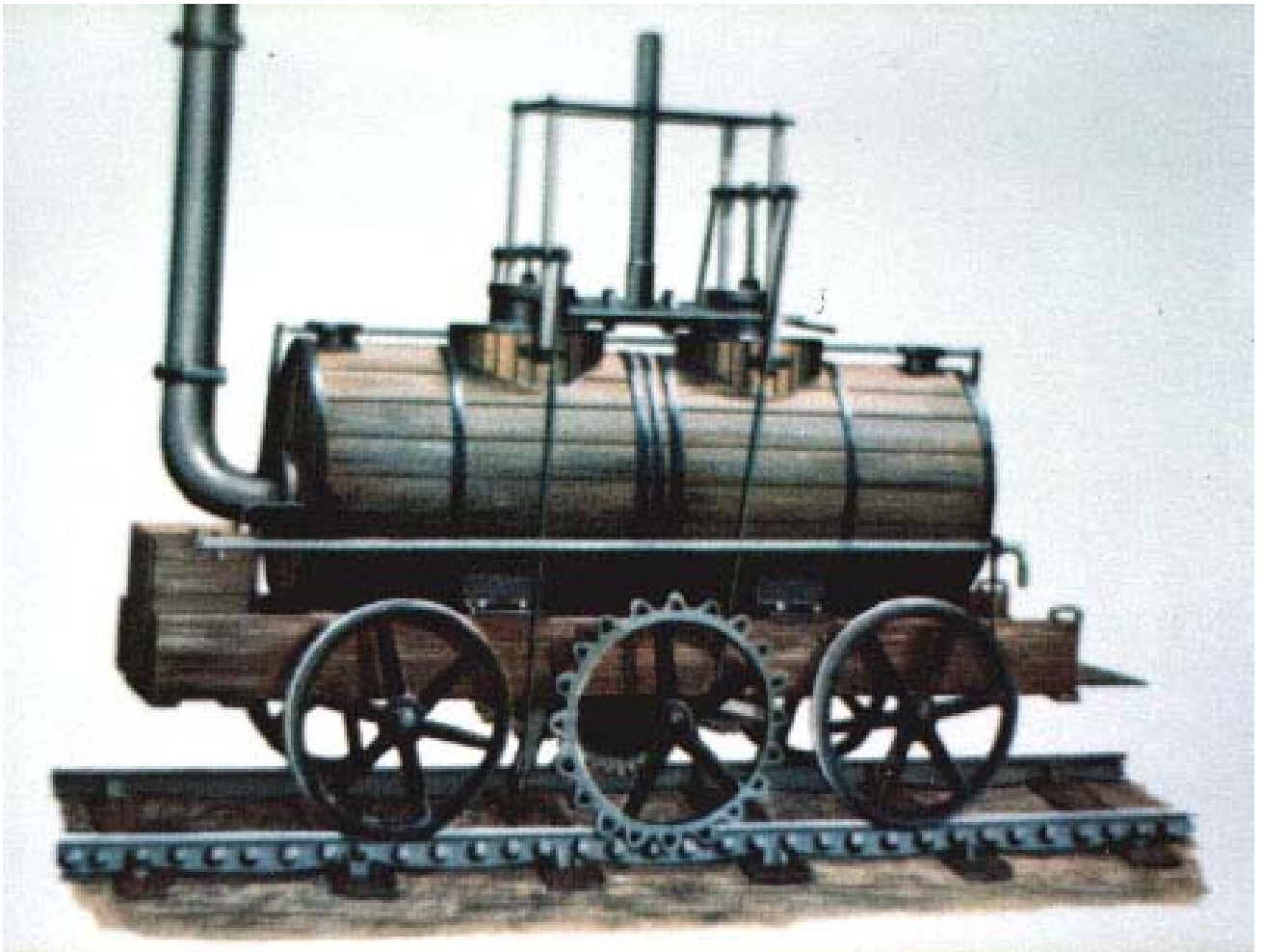
Fig. E1. Blenkinsop's engine built in 1811. As the illustration shows, this locomotive was propelled by a pinion wheel winched along a cast-iron rack rail. The experts of that time were so used to thinking in terms of horse-power that they totally rejected and derided Hedley's idea of propelling a train by a smooth iron wheel. Therefore, if this young creator had not been lucky enough to find the authoritative sponsor who financed his revolutionary invention, locomotives would probably still be using a solution similar to this illustration. Perhaps if this had not happened, our contemporary cars would also be running with legs like horses. Because of William Hedley our civilization won this battle with close-minded people. But no-one knows in how many other areas conservatism has predominated, so that "horse-type" solutions still hold sway.

Part 2:

THEORY OF THE MAGNOCRAFT

The second part of this monograph which follows concentrates on the presentation of theoretical deductions that form the nuclei of what the author calls the "Theory of the Magnocraft". The name for this part originates from the term "Magnocraft", attributed to the basic vehicle invented and developed as the consequence of applying this theory.

The Theory of the Magnocraft describes the system of principles, ideas, deductions and inventions which constitute the conceptual foundations for this completely new approach to the propulsion of interstellar spacecraft. In this approach the propelling forces are created as the effect of magnetic interactions occurring between the field produced by the spacecraft itself and a planetary, solar or galactic magnetic field. The further applications of the Magnocraft's principles of operation allow also for the creation of two other useful propulsion systems, such as Magnetic Personal Propulsion (shifting of individual people without using any vehicle), or the Four-Propulsor Spacecraft (for the transporting of cargo of any possible shape and dimensions).

The important component of the Theory of the Magnocraft is the principle of operation of the unique device allowing for the production of a magnetic field of unlimited strength, called an "Oscillatory Chamber". This device represents an "engine" for the Magnocraft and for two other propulsion systems that are based on the Magnocraft. At present the Oscillatory Chamber represents the only principle known which makes it possible to raise the device's output over the value of the so-called "starting flux", and therefore which may be used for propelling a spacecraft. (The "starting flux" is the magnetic equivalent of the "escape velocity" which restricts conventional space travel. It defines such minimal value of a magnetic flux produced by a given source of a magnetic field that is able to lift this source into space solely as the effect of its repulsive interaction with the Earth's magnetic field.) Of course, it can not be excluded that apart from the Oscillatory Chamber, some other principles of magnetic field production will be invented in the future, which will also provide outputs sufficiently high to lift space vehicles (e.g. the "pulsatory conglomerate" mentioned in chapter B).

The entire Theory of the Magnocraft is subdivided into four parts, each one of which is dedicated to the description of a separate device, and each of which is presented in a different chapter. The Oscillatory Chamber is described in chapter F that follows, the Magnocraft in chapter G, Magnetic Personal Propulsion in chapter H, and the Four-Propulsor Spacecraft in chapter I.

Chapter F:

THE OSCILLATORY CHAMBER

The name "Oscillatory Chamber" is given to a completely new principle of magnetic field production which employs the effects of the oscillation of electric sparks. These sparks circulate around the inner perimeter of a cubical chamber made of an electric insulator and filled with a dielectric gas. The four packets of electrodes, joined to the inner surfaces of four side walls of this chamber, perform alone the function of two oscillatory circuits with a spark gap. Each one of these two circuits is created by two packets of electrodes attached to two opposite walls. The appropriate formation of the oscillatory discharges occurring in both these circuits allows for the production of a dipolar magnetic field. The principles applied for this production not only eliminate from the chamber the drawbacks of today's electromagnets, but also provide the Oscillatory Chamber with a variety of unique operational advantages.

The complete elimination of drawbacks inherent in the electromagnets is ensured by the following attributes of the chamber:

1.The elimination of electromagnetic forces acting on the structure of the chamber.

2. Leaving to the user's choice the time and amount of energy supply (i.e. each portion of energy, whatever its amount and whenever it is delivered, is collected, stored, converted into a magnetic field and released when necessary).

3. The recovery and conversion back into electricity of all the energy dissipated by sparks.

4. The channeling of the destructive consequences of the accumulation of huge electric charges into the direction which reinforces the chamber's proper operation.

5. The independence of the power of control devices from the power involved in field production (i.e. a weak control signal will cause a change in the enormously powerful field produced by the chamber).

The Oscillatory Chamber displays also the following unique advantages unknown in any other appliance built by man to date:

A. The ability to absorb and store theoretically unlimited amounts of energy.

B.Full controllability over all properties and parameters of the field produced, achieved without any change in the level of energy contained in it.

C. Producing the kind of magnetic field which does not attract, nor repel, ferromagnetic objects (i.e. which behaves like a kind of "antigravity field", not a magnetic one).

D. Three dimensional transformation of energy (electricity/ magnetic field/heat) which allow the Oscillatory Chamber to take over the function of almost every other conventional energy-converting device (e.g. electromagnets, transformers, generators, accumulators, cells, combustion engines, heaters, air conditioners, etc.).

As the final result of such a formation of the Oscillatory Chamber, this device, when completed, will be able to raise the value of a produced magnetic flux to a level unlimited by theoretical premises. Practically it also means that this source of field will be the first one able to lift itself as the effect of a repulsive interaction with the Earth's magnetic field.

F1. <u>Why there is a necessity to replace the electromagnet by the Oscillatory Chamber</u>

The recent achievements in the development of propulsion systems prompt one to ask the question: What is this remarkable principle of controlled magnetic field production of which today's technology can be so proud? The answer is (at the beginning of the space

exploration era): exactly the same principle as the one which was used over 170 years ago, i.e. the principle discovered by the Danish professor, Hans Oersted, in 1820, depending on the application of the magnetic effects created by an electric current flowing through the coils of a conductor. The device utilizing this principle, called an electromagnet, is now one of the most archaic appliances still in common use. We can realize how outdated its operation is from the following example: if the progress in propulsion systems were equal to that of magnetic field production devices, our only mechanical vehicle would still be a steam engine.

Electromagnets possess a whole range of drawbacks, which make it impossible to raise their output above a particular - and not very high - level. These disadvantages can in no way be eliminated, because they result from the principle of operation of these devices alone. Below are listed the most significant drawbacks of electromagnets:

(1) Electromagnets create deflecting forces which tense their coils in the radial direction trying to tear coils apart. These forces are produced as the result of mutual interaction between the magnetic field produced by an electromagnet, and the same coils of the conductor which created this field. The field tries to push these coils out from its own range (see the "left-hand rule" often called the "motor effect"). The deflecting forces so formed in coils are of a type identical to the ones utilized in the operation of electric motors. In order to prevent the electromagnet from being torn apart, these electromagnetic containment forces must ultimately be resisted by some form of physical structure. This increases the weight of any really powerful steady-field magnet, whose output must be balanced by the mechanical strength of its structure. When the current's flow in electromagnets exceeds a certain level, the deflecting forces grow to such an extent that they cause the coils to explode. Therefore, too high an increase in the output of electromagnets results in their self-destruction (explosion).

(2) Electromagnets must be continuously supplied with electric current if they are to produce a magnetic field whose all parameters are controllable (i.e. a field whose parameters can be changed in accordance with the application requirements). If such continuous energy supply is cut off, the controllability over the electromagnet's field finishes. This requirement of controllability causes that during the production of powerful magnetic fields, a single electromagnet consumes the output from a whole electricity plant.

(3) Electromagnets cause significant energy losses. The electric current flowing through coils of a conventional electromagnet releases a vast amount of heat (see Joule's law of electric heating). This heat not only decreases the energetic efficiency of the magnetic field production, but also, when the energies involved are high, it leads to a melting of the coils.

The superconductive electromagnet removes the heating from a current flowing through resistance. However, it introduces another loss of energy resulting from the necessity to maintain a very low temperature of the coils. This also causes a permanent consumption of energy which decreases the efficiency of such a magnet. Moreover, it should be noted here that the high density of magnetic fields cancels the effect of superconductivity and thereby restores a resistance to the coils.

(4) Electromagnets are prone to electric wear-out. The geometrical configuration of electromagnets is formed in such a way that the direction of the greatest electric field strength does not coincide with the path of the conductor through the coil. This directs the destructive action of electric energy into the insulation, causing its eventual damage (short-circuit followed by the electric breakdown) which initiates the destruction of the entire device.

(5) Electromagnets can not be controlled by weak signals. The parameters of their magnetic field can be controlled only through the changes in the power of the electrical energy supply. Therefore controlling the electromagnets requires the same powers as those powers involved in the production of a magnetic field.

The only way to eliminate the five disadvantages listed above is to apply a completely different principle of magnetic field production. Such a principle, invented by the author, will be presented in later sections of this chapter. Because this new principle utilizes

the mechanism of oscillatory discharges occurring inside a cubical chamber, it is called an "Oscillatory Chamber".

The principle of the Oscillatory Chamber avoids the limitations which prevent an increase of output in electromagnets. Also, it promises a more effective and convenient preparation and exploitation, long life without the necessity of maintenance, a very high field-to-weight ratio, and a wide range of applications (e.g. energy storage, propulsion devices, sources of magnetic fields, etc.). The explanations that follow (especially the one from subsection F5) will describe the mechanisms for achieving this. Therefore, it appears highly desirable to promote the fast development of this device in the not-too-distant future so that it may replace electromagnets presently in use.

F2. The principle of operation of the Oscillatory Chamber

The electric current flowing through a wire is not the only source of a controlled magnetic field. The other well-known source is the phenomenon manifesting the flow of electric energy in its purest form, i.e. an electric spark. There are many different methods for the creation of electric sparks, but the purpose considered here is best served by the so-called "oscillatory circuit with a spark gap". The unique property of such a circuit is its ability to absorb, total and utilize the energy supplied to it. This energy then appears in the form of a gradually diminishing sequence of oscillatory sparks created by the circuit.

The discovery of the oscillatory circuit with a spark gap was achieved in 1845 by the American physicist, Joseph Henry, who noticed that when a Layden jar was discharged through coils of wire, the discharge and a spark were oscillatory. A few years later Lord Kelvin, the great English physicist and engineer, proved mathematically that the discharge in a circuit so constituted must manifest itself in the oscillatory form.

F2.1. The electrical inertia of an inductor as the motive force for oscillations in a conventional oscillatory circuit with a spark gap

Figure F1 "a" shows a conventional configuration of the oscillatory circuit with a spark gap. The most distinctive characteristic of this configuration is that it is constituted by connecting together into one closed circuit the configuration of three vital elements, i.e. L, C_1 and E, which have the form of separate devices. These elements are: (1) inductor L, containing a long wire wound into many coils, which provides the circuit with the property called an "inductance"; (2) capacitor C_1, whose property, called a "capacitance", allows the circuit to accumulate electric charges; (3) electrodes E, whose two parallel plates ER and EL, separated by a layer of gas, introduce a "spark gap" to the circuit.

When the electric charges "+q" and "-q" are supplied to the plates PF and PB of the capacitor C1, this forces the flow of an electric current "i" through the spark gap E and the inductor L. The current "i" must appear in the form of a spark "S" and must also produce the magnetic flux "F". The mechanisms of consecutive energy transformations occurring within the inductor L and described in many books on electronics, cause the spark "S", since once created between electrodes E, to continue oscillating until the energy involved is dissipated.

The oscillatory circuit with a spark gap represents an electric version of the device which produces one of the most common phenomena of nature, an oscillatory motion. The mechanical analogy of this device, well-known to everyone, is a swing. In all devices of that type, the occurrence of oscillations is caused by the action of the Conservation Energy Principle. This principle compels the initial energy provided to such an oscillating system to be bound in a continuous process of repetitive transformations into two forms: potential and kinetic. The "potential energy" within the oscillatory circuit is represented by the opposite electric charges "+q" and "-q" carried within both plates of a capacitor - see Figure F1 "a". The electric potential difference introduced by the presence of these charges causes the flow of an electric current "i" through the circuit. In a swing, the same potential energy is

introduced by slanting the arm of it away from the vertical position. As a result, a load (e.g. a swinging child) is raised to a particular height, later forcing its own acceleration down into the equilibrium position. The second from of energy, the "kinetic energy", within the oscillatory circuit manifests itself in the from of a magnetic flux "F" produced by the inductor L. In a swing this kinetic energy appears as the speed of a load's motion.

The mutual transformation of the potential form of energy into a kinetic one, and vice versa, requires the involvement of an agent which activates the mechanisms of energy conversion. This agent is introduced by the element possessing the property called "inertia". Inertia is a motive force maintaining the oscillations within any oscillating system. It works as a kind of "pump" which forces the transformations of energy from a potential form, through a kinetic one, back into a reversed potential form. This "pump" always restores the initial amount of potential energy existing at the beginning of the oscillation's cycle, decreased only by its dissipation occurring during the transformations. Therefore the inertial element is the most vital component of every oscillating system. In the oscillatory circuit its function is performed by the inductor L, whose inductance (expressed in henrys) represents electrical inertia. In the swing, mechanical inertia is provided by the mass of a load (expressed in kilograms). This is the reason why the inductance in the electric oscillations is considered to be the equivalent of the mass from the mechanical oscillations.

To increase mechanical inertia it is necessary to join additional mass to that which is already involved in the energy transformations. The increase of electrical inertia requires the extending of the length of an electric current flow, exposed to the action of its own magnetic field. Practically this is obtained by building an inductor containing many coils of the same wire, closely wound, so that each of them is within the range of the magnetic field produced by the other coils.

Let us review the mechanism of oscillations within the oscillatory circuit shown in Figure F1 "a". We assume that initially the plates PB and PF of the capacitor C1 carry the opposite electric charges "-q" and "+q" and that the current "i" within the inductor L is zero. At this instant the whole energy of the circuit is stored in the potential form in the capacitor C1. The opposite charges accumulated on the plates of the capacitor C1 create an electromotive force which activates the current flow "i". To facilitate the interpretation of the sparks' behaviour, in this publication the electric current is defined as a movement of electrons from negative to positive. The current "i" appears on the electrodes E in the form of a spark "S", whereas in the inductor L it produces a magnetic flux "F". As the difference of charges "q" on the plates of the capacitor C1 decreases, the potential energy stored in the electric field also decreases. This energy is transferred to the magnetic field that appears around the inductor because of the current "i" that is building up there. Thus the electric field decreases, the magnetic field builds up and energy is transformed from the potential to the kinetic form. When all the charge on the capacitor C1 disappears, the electric field in the capacitor will be zero, and the potential energy stored there will be transferred entirely to the magnetic field of the inductor L. The electromotive force which before caused the current "i" to flow is now eliminated. But the current in the inductor continues to transport the negative charge from the PB plate of the capacitor C1 to the PF plate, because of the electrical inertia. This preserves the current "i" (therefore also the spark "S") from extinction and maintains its flow at the cost of the kinetic energy contained in the magnetic field. Energy now flows from the inductor L back to the capacitor C1 as the electric field builds up again. Eventually, the energy will have been transferred back completely to the capacitor C1. The situation now reached is like the initial situation, except that the capacitor is charged in the reverse way. The capacitor will start to discharge again, and the whole process will repeat itself, this time in the opposite direction. Once started, such oscillations continue until the resistance of this process dissipates the energy involved.

F2.2. <u>In the modified oscillatory circuit with a spark gap, the inductance of a stream of sparks replaces the electrical inertia of an inductor</u>

It is known that an electric spark alone introduces a high electric inertia. Therefore a spark is able to replace the inductor in providing the inductance to the circuit. The condition of such a replacement is that the spark must possess the appropriate active length and also that its path must follow a course within the range of its own magnetic field. To achieve this condition, it is impossible to repeat the solution used in the inductor, because an electric spark is reluctant to wind itself into the form of consecutive coils. However, the same can be achieved in another way, through replacing a single spark by a whole stream of sparks jumping simultaneously along parallel paths. Each single spark in such a stream will be the equivalent of one coil of wire within an inductor. All sparks together will provide the necessary inductance to the circuit.

Figure F1 "b" shows the author's modified version of the oscillatory circuit with a spark gap, which makes use of the electrical inertia of the stream of parallel jumping sparks. The most distinctive characteristic of this version is that all three vital components of the Henry's circuit, i.e. inductance L, capacitance C1 and spark gap E, are now provided by a single physical device, which simultaneously performs three different functions. The modified device consists of only a couple of conductive plates PF and PB, attached to the inner surfaces of two opposite walls of a cubical chamber made of an electric insulator and filled with a dielectric gas. Each of the plates is divided into a number of small segments each insulated from the other (in the diagram marked by 1, 2, 3, ..., p). Each pair of facing segments marked by the same number, e.g. "p", forms a single component capacitor, which after receiving a sufficient electric charge transforms itself into a couple of electrodes exchanging the electric spark "Sp". The total number of all electric sparks jumping simultaneously in the form of a single compact stream provides the device with the required inductance.

To summarize the modification described above, one can say that the three separate devices, each of which has provided the conventional circuit with one selected property, are now replaced by the single device (i.e. a pair of plates) simultaneously providing all three vital properties, i.e. L, C and E.

If the principle of operation of this modified oscillatory circuit is considered, it becomes obvious that it is identical to Henry's circuit. After all segments of both plates are uniformly charged, the potential energy of the circuit is built up. When the difference of potentials between plates overcomes the breakdown value "U", the discharge is initiated. This discharge will take the form of a stream of parallel sparks S1, S2, S3, ..., Sp, joining facing segments of the plates. The magnetic field produced by these sparks will gradually absorb the energy stored initially within the electric field. When both plates PF and PB reach the equilibrium of potentials, the electrical inertia of sparks will continue the transmission of the charge between them, transforming the kinetic energy contained within the magnetic field back into the potential energy of the electric field. Therefore at the end of the first stage of the oscillation of sparks, the plates will again contain the initial charge, but of the opposite kind. Then the whole process repeats itself but in the reverse direction. If the slight dissipation of energy occurring in this device is somehow compensated for, the process described above will be repeated endlessly.

Such an operation of the modified oscillatory circuit liberates all the electric phenomena from material ties. In effect the electric current does not need to flow through a wire and its value is not the subject of limitation by the properties of the materials used. Also the electric phenomena are exposed to a controlling action that allows them to be channeled into the desired course. These are very important achievements, and as it will be proved later, they are the source of many of the advantages of this device.

The sequence of sparks that oscillate in the device shown in Figure F1 "b", will produce an alternating magnetic field. Because the stream of sparks follows the same path in both directions, this field will also be a vortex, i.e. have all force lines lying on parallel planes. Such a field will not display clear polarity, because its magnetic poles N and S are not fixed. To create a bipolar magnetic field with the steadily positioned magnetic poles N and S, it is necessary to continue one step further in the development of this modified oscillatory circuit.

F2.3. <u>The combination of two modified circuits forms an "Oscillatory Chamber" producing a bipolar magnetic field</u>

The final form of the circuit considered here is shown in Figure F1 "c". This is the form to which the name "Oscillatory Chamber" has been ascribed. The Oscillatory chamber is constituted by combining together two circuits indicated as C1 and C2, both identical to the one presented in Figure F1 "b". Therefore it consists of four segmented plates (i.e. twice as many as in the modified oscillatory circuit in Figure F1 "b"), indicated as PF, PB, PR and PL (i.e. front, back, right and left). Each of these plates contains the same number of segments "p", and faces the other identical plate, together with this other plate forming one of the two co-operating oscillatory circuits. Both of these circuits produce the four streams of sparks marked as SR-L, SF-B, SL-R, and SB-F, which oscillate between opposite plates. These sparks appear in succession, one after the other, having the mutual phase shift between them equal to one quarter of a period of their entire sequence (T).

Before the mechanism of the discharges in this final configuration is analyzed, we should remind ourselves of the action of the electromagnetic containment forces which will try to deflect the sparks away from the range of the bipolar magnetic field. They are the same forces which cause the explosion of coils in powerful electromagnets. In the case of the Oscillatory Chamber, these forces will push the stream of sparks against the plate along which the discharge occurs. For example all sparks within the stream SR-L jumping from the plate PR to the plate PL will be pushed to the surface of the plate PF (at this moment the plate PF increases its own negative charge). For this reason the individual sparks forming consecutive streams SR-L, SF-B, SL-R, and SB-F, instead of crossing the paths of the other sparks, will bend themselves at the edges of the chamber and produce a kind of rotating arc. Notice that the plate along which the sparks are jumping is prevented from being entered by them. This prevention mainly depends on the formation of the plate from a large number of small segments (needles), each insulated from the other, and therefore the resistance against conduction along the plate is not less than the resistance of the discharge through the dielectric gas in the chamber.

Let us assume that the initial charging of the Oscillatory Chamber is provided in such a way that first the stream of sparks marked as SR-L will occur, and then after a period of time equal to t= T - the stream SF-B (compare Figure F1 "c" with Figure F3). Let us also assume that right from this initial time, along the vertical (magnetic) axis "m" of the chamber the magnetic flux "F", produced by this device, prevails. This flux pushes sparks against the side walls. After the initial charging of the C2 capacitor, at the time t=0, the stream of sparks SR-L will appear, which will jump from plate PR to plate PL. These sparks produce the magnetic flux "F" which is totalled to the one already existing in the chamber. The flux bends the paths of all these sparks, pushing them close to the surface of plate PF. At time t= T the potentials of plates PR and PL reach an equilibrium, but the inertia of sparks SR-L still continues transporting charges from PR to PL, at the cost of the kinetic energy accumulated in the magnetic field. At the same instant (t= T) the operation of the second circuit begins and the jump of the SF-B stream of sparks is initiated. Similarly this stream produces a magnetic field which pushes it against the surface of plate PL. So in the timespan t= T to t= T, there are two streams of sparks present, SR-L and SF-B, the first of which transfers energy from the magnetic to the electric field, whereas the second one transfers energy from the electric to the magnetic field. At time t= T the plates PL and PR reach a difference of potentials equal to the initial one (at t=0), but with the opposite location of charges. Therefore the stream of sparks SR-L disappears, whereas the stream SL-R jumping in an opposite direction is now initiated. This stream is pushed to the surface of plate PB. At the same instant (t= T) the plates PF and PB reach the equilibrium of potentials, so that the stream of sparks SF-B passes into its inertial stage. In the timespan t= T to t=3/4T there are two streams of sparks, i.e. SF-B and SL-R, the first of which consumes the magnetic field, whereas the other produces it. At the instant t=3/4T the

sparks SF-B disappear and the sparks SB-F are formed (pushed against plate PR), whereas the sparks SL-R are passing into their inertial stage. At time t=1T the sparks SL-R also disappear and the sparks SR-L are created (pushed against the plate PF), whereas the sparks SB-F pass into their inertial stage. With this the whole cycle of the sparks' rotation is closed, and the situation at time t=1T is identical to the one at the initial moment t=0. The process that follows will be a repetition of the cycle just described.

The above analysis of the sequence and paths of the sparks reveals a very desirable regularity. The streams of sparks turn into a kind of electric arc combined from the four separate segments. This arc rotates around the inner perimeter of the Oscillatory Chamber. Such a process, in accordance with the rules of electro-magnetism, must produce a strong, pulsating, bipolar magnetic field. The obtaining of such a field crowns the long and difficult search for the new method of the magnetic field production presented here.

The principle of operation of the Oscillatory Chamber does not require a strictly cubical shape for this device, and can also be executed in any chamber consisting of four rectangular side walls of identical dimensions. The only condition is that its cross-section in a plane perpendicular to the magnetic axis "m" must be a square. In this publication, however, for simplicity in deduction, only the cubical shape is considered.

We should also consider the characteristics of the magnetic field produced by the Oscillatory Chamber. If we analyze the field produced by only a single stream of sparks, it would be a discrete pulsating field of approximately half-sinusoidal course, which, at the points where the sparks reverse, would drop to zero. Because in the chamber two streams of sparks always appear simultaneously, the resultant field will follow the course described approximately by totalling together the series of positive halves of sinusoids. It will still pulsate, but will contain a constant component and a varying component. The relation between both components, as well as the course of the varying component, will be determined by the amount of energy involved in the pulsations.

F3. The future appearance of the Oscillatory Chamber

It is not difficult to satisfy the requirements of the Oscillatory Chamber for construction materials. This device can be made of practically anything, provided that its housing is a good electric insulator and its electrodes made of good electric conductors. Moreover, all parts should be magnetically neutral. So even ancient material available thousands of years ago, such as wood and gold, can be used. If made out of these, the Oscillatory Chamber would look like an ordinary wooden box or cube. Its appearance would not indicate its hidden power.

At our present level of technological development there are available transparent non-conductors, which are also excellent robust construction materials. If the housing of the chamber were made of them, it would reveal to the observer the contents of this device. Contemporary electronics has also created a high demand for transparent conductors, which can already be found in some watches and calculators. The quality of these conductors will gradually improve and we may soon expect their properties to be comparable to those of metals. Let us assume that the Oscillatory Chamber will be made wholly of such transparent materials. Therefore the casual observer of the chamber in operation will notice it has the form of a very simple transparent cube - see figure F2. Along the inner surfaces of the plain side walls of this cube, bright gold shimmering sparks will flash. Although these sparks will flicker, they will appear to be frozen in the same positions. Their paths will closely follow the inner surface of the plates, because of the electromagnetic containment forces pushing the sparks against the walls of the chamber. The inside of the cube will be filled with a dielectric gas and an extremely concentrated magnetic field. This field, when observed from the direction perpendicular to its force lines, will be impenetrable to light, looking like dense black smoke.

It is very noticeable in any scientific exhibition or "open day" in a laboratory, that when a demonstrator starts up an apparatus producing sparks, for example a Tesla coil, an

Induction coil or a Van de Graaff machine, spectators irresistibly gravitate towards the display. Claps of thunder and lightning flashes have always possessed a kind of mysterious, hypnotic power which acts on everyone and which provides memorable experiences. The power emanating from inside the Oscillatory Chamber will similarly capture the attention and imagination of people witnessing it. Future observers of the operation of this device will have the impression that they are facing an unknown living creature, absorbed in the fulfilment of its own fascinating and mysterious physiological functions, rather than seeing a piece of machinery engaged in its ordinary process of operation. The wealth of energy, trapped, curbed and waiting within the walls of the chamber, will fascinate witnesses, leaving them with a multitude of vivid impressions, indelibly etched on their memories.

Observing this transparent cube, one will find it difficult to imagine that to reach the point of its creation, this device, so simple in structure, required the accumulation of almost 200 years of human knowledge and experience.

F4. <u>The condition under which the sparks will oscillate within the Oscillatory Chamber</u>

Our present knowledge of magnetic and electric phenomena enables us to deduce the equations expressing the values of the resistance, inductance and capacitance of the Oscillatory Chamber. Further combination of these equations will lead to the prediction of the behaviour of this device.

F4.1. <u>Resistance of the Oscillatory Chamber</u>

The general form of the equation for the resistance of any resistor of cross section "A" and length "l" is as follows:

R = Ω*(l/A)

In this equation the " " represents the resistivity of a material from which the resistor is made. In our case it will be the maximal resistivity of the dielectric gas that fills the Oscillatory Chamber, determined for the conditions of the initial moment of electric breakdown.

If in the above general equation, we replace the variables by the specific parameters determined for the Oscillatory Chamber, i.e. l=a and A=a (compare with Figure F1 "b"), this gives:

R = Ω/a   (F1)

The equation received represents the resistance of the Oscillatory Chamber, which is a function of the chamber's side wall dimension "a".

F4.2. <u>Inductance of the Oscillatory Chamber</u>

The determination of the chamber's inductance is an extremely difficult and complex task. It is beyond the author's knowledge of the subject. Also a number of experts consulted in this matter were unable to help. (Perhaps some of the readers know how to resolve this problem - all advice will be warmly welcomed.) Being unable to find the exact solution, the author decided to apply temporarily a simplified one. To justify this simplification it should be stated that the deducted equation for inductance (F2) will be used only once in the entire

monograph, when the meaning of factor "s" (see (F5)) is interpreted. Therefore all the vital equations in this work remain unaffected.

In the simplified deductions of the chamber's inductance an assumption is made that a unitary inductance of a stream of sparks (i.e. the inductance related to the unit of a spark's length) will be equal to the inductance of the equivalent strand of wires. This assumption allows for the application of a well-known equation for the inductance of a solenoid (see "Fundamentals of Physics" by David Halliday et al, John Willey & Sons, 1966):

$$L = \mu * n^2 * l * A$$

When in this equation we substitute: n=p/a, l=a, and A=a*a (where "p" is the number of segments in each of the chamber's plates, whereas "a" is the dimension of the chamber's walls), the simplified equation for the inductance of the Oscillatory Chamber is derived:

$$L = \mu * p^2 * a \tag{F2}$$

It can be theoretically asserted that the unitary electrical inertia of a stream of sparks should be greater than such an inertia in the equivalent strand of wires. The justification for this assertion can be obtained from the analysis of the inertia mechanism. The inertia reveals itself only when the motion involves the reversible phenomena or media which absorb energy in the initial stage of the motion's development, and which release this energy when the motion declines. The greater the number of such phenomena and media involved, and the higher their energy absorption, the larger is the resultant inertia. The stream of sparks jumping through gas in every aspect manifests better potentials for causing an inertia higher than the one of a current flowing through wires. The first reason for this lies in the more efficient energy absorption and releasing by sparks, occurring because:

a) The speed of electrons in a spark can be higher than in a wire,

b) The contiguous sparks can pass closer to each other because they do not require thick insulation layers in between them (as is the case for wires).

The second reason for the higher inertia of sparks in gas results from their involving a variety of reversible phenomena - not appearing at all during flows of currents through wires. These are:

c) The ionization of surrounding gases. This, due to the returning of the absorbed energy, supports the inertia of the process at the moment of the sparks' decline.

d) The causing of the motion of heavy ions, whose mass absorbs and then releases the kinetic energy.

e) The initiation of hydrodynamic phenomena (e.g. dynamic pressure, rotation of the gas) which also will be the cause of the charges' dislocation and energy return at the moment of the sparks' decline.

The above theoretical premises should not be difficult to verify by experiments.

F4.3. Capacitance of the Oscillatory Chamber

When we use the well-known equation for the capacitance of a parallel-plate capacitor, of the form:

$$C = \varepsilon * (A/l)$$

and when we apply the substitutions: A=a , l=a, this yields the final equation for the capacitance of the Oscillatory Chamber:

$$c = \varepsilon * a \tag{F3}$$

F4.4. The "sparks' motivity factor" and its interpretation

Each of the relations (F1), (F2) and (F3) describes only one selected parameter of the Oscillatory Chamber. On the other hand, it would be very useful to obtain a single complex factor which would express simultaneously all electromagnetic and design characteristics of this device. Such a factor is now introduced, and will be called a "sparks' motivity factor". Its defining equation is the following:

$$s = p*(R/2)*\sqrt{(C/L)} \qquad\qquad (F4)$$

Notice, that after expressing this in the notation of computer languages, in which the symbol "*" means multiplication, the symbol "/" means division, the symbol "+" means addition, the symbol "-" means subtraction, while the symbol "sqrt()" means the square roof from the parameter provided in brackets "()", the above equation (F4) takes the following form: s = p*(R/2)*sqrt(C/L).
Notice that, according to the definition, this "s" factor is dimensionless.
Independently from the above defining equation, the "s" factor has also an interpretative description. This is obtained when in (F4) the variables R, L and C are substituted by the values expressed by equations (F1), (F2) and (F3). When this is done, the following interpretative equation for "s" is received:

$$s = (1/(2a))\Omega\sqrt{(\varepsilon/\mu)} \qquad\qquad (F5)$$

Notice, that after expressing this in the notation of computer languages, in which the symbol "*" means multiplication, the symbol "/" means division, the symbol "+" means addition, the symbol "-" means subtraction, while the symbol "sqrt()" means the square roof from the parameter provided in brackets "()", the above equation (F5) takes the following form: s = (1/(2*a))*Ω*sqrt(ε/μ).
Equation (F5) reveals that the "s" factor perfectly represents the current state of all environmental conditions in which the sparks occur, and which determine their course and effectiveness. It describes the type and consistency of the gas used as a dielectric, and the actual conditions under which this gas is stored. It also describes the size of the chamber. Therefore the "s" factor constitutes a perfect parameter which is able to inform exactly about the working situation existing within the chamber at any particular instant in time.
The value of the "s" factor can be controlled at the design stage and at the exploitation stage. At the design stage it is achieved by changing the size "a" of a cubical chamber. At the exploitation stage it requires the change of the pressure of a gas within the chamber or altering its composition. In both cases this influences the constants ε, μ and Ω, describing the properties of this gas.

F4.5. Condition for the oscillatory response

From the electric point of view the Oscillatory Chamber represents a typical RLC circuit. The research on Electric Networks has determined for such circuits the condition under which, once they are charged, they will maintain the oscillatory response. This condition, presented in the book by Hugh H. Skilling, "Electric Network" (John Willey & Sons, 1974), takes the form:

$$R < 4(L/C)$$

If the above relation is transformed and then its variables are substituted by the equation (F4), it takes the final form:

$$p > s \qquad\qquad (F6)$$

The above condition describes the design requirement for the number "p" of segments separated within the plates of the Oscillatory Chamber, in relation to the environmental conditions "s" existing in the area where the sparks appear. If this condition is fulfilled, the sparks produced within the Oscillatory Chamber will acquire an oscillatory character.

To interpret the condition (F6), a possible range of values taken by the factor "s" should be considered (compare with the equation (F5)). Such a consideration allows us to conclude that, in the majority of cases, any number "p" of segments should provide the oscillatory sparks.

F5. How the Oscillatory Chamber eliminates the drawbacks of electromagnets

The operation of the Oscillatory Chamber is formed in such a way that all drawbacks significant for electromagnets are completely avoided in this device. The descriptions that follow present the principle of elimination for each basic disadvantage of electromagnets listed in section F1.

F5.1. Mutual neutralization of the two opposite electromagnetic forces

The unique operation of the Oscillatory Chamber leads to the formation of two reciprocally acting forces: (1) the Coulomb's attraction force, and (2) the electromagnetic deflecting force. The opposite electric charges, which are accumulated on the facing walls of the chamber, attract each other, causing the formation of the Coulomb forces that compress this device inwards. The electromagnetic containment forces, created by the interaction of the magnetic field and the sparks, cause the tension of the Oscillatory Chamber outwards. Therefore it is possible to select the design and operational parameters of this device, so that both kinds of forces mentioned above will mutually neutralize each other. As the final result, the physical structure of the chamber is liberated from the obligation to oppose any of these forces.

Figure F3 presents the mechanism of reciprocal compensation of these two interactions described above. For simplicity, all the courses of phenomena within the chamber are shown as linear, independently of how they occur in reality. But it should be noticed that these phenomena are symmetrical. It means that, for example, if the current in the sparks changes in a particular way, the potentials on the plates must also change in exactly the same way. Therefore the variation in time of the forces analyzed here will display some kind of an inherent regulation mechanism, in which the course (not the quantity) of the first phenomenon always follows the course of the other phenomenon opposite from this first one.

Part "a" of Figure F3 shows the four basic phases forming the full cycle of the chamber's operation. The description of these phases is already provided in subsection F2.3 of this chapter. Significant for each phase is that two streams of sparks co-exist, the first of which (indicated by the continuous line in diagram F3 "a") transmits energy from the electric field into the magnetic field (active sparks). The second stream (in the diagram indicated by a broken line) in this instant consumes the magnetic field to produce the electric field (inertial sparks).

Part "b" of Figure F3 illustrates the relevant changes of electric charges "q" on the R (right), L (left), F (front) and B (back) plates of the chamber, occurring during each phase of the device's operation. These charges create the Coulomb's forces that attract the facing plates inwards. In this part of the diagram it is visible that, when one pair of plates reaches the maximum of its potentials differences - initiating a discharge between them, the other pair is just in its equilibrium of potentials. Then simultaneously with the growth of the discharge current flowing between this first pair of plates, the opposite charges on the other pair of plates also grow. The containment forces that tense the chamber outwards are

growing accordingly with the value of the discharge current. On the other hand the Coulomb's force of the reciprocal attraction of these other facing plates is growing as well, together with the quantity of opposite electric charges accumulated on them.

Part "c" of Figure F3 shows the changes in the electromagnetic containment forces M=i a B, trying to push out the particular sparks from the field's range. Because these forces are proportional to the produce of the sparks' current "i" and the magnetic flux density "B=F/(a·a)", the maximum of the chamber's tension will occur at the instant of time when the discharging plates reach the equilibrium of their potentials. At this same instant of time the other pair of plates, along which the discharge occurs, reaches the maximum of potentials difference (compare with part "b" of this diagram) as well as the maximum force of their reciprocal compression.

In part "d" of Figure F3 is shown the mechanism of mutual compensation of the forces described above. The upper side of this diagram presents the changes in the tension forces "T" which try to pull the Oscillatory Chamber apart. These forces are caused by the interaction of the magnetic field and the current from the sparks (compare with part "c" of this Figure). The lower side of diagram "d" presents the changes in the compression forces "C". This compression is caused by the mutual Coulomb's attraction of the facing plates that accumulate the opposite electric charges "q" (compare with part "b" of Figure F3). Note that whenever a tension force appears (e.g. from the sparks SB-F), always there is also formed a counteracting compression force (e.g. from the Coulomb's attraction of charges qR-L). Both of them act in opposite directions, and follow the same course of changes in time. Therefore both neutralize each other.

It is natural that the compensation of forces, displaying inherence in their course as described above, still requires that values match. Therefore further experimental research will be necessary, to select such design and exploitation parameters of the Oscillatory Chamber that will provide the full equilibrium for the counteracting forces. As a result of this research, a device can be completed in which the production of a magnetic field will not be affected by the action of any kinds of forces.

F5.2. Independence of the magnetic field production from the continuity and efficiency of the energy supply

One of the most basic attributes of the oscillating systems is their capability for the discrete absorption of the energy supplied, which is then bound into a continuous process of oscillations. An example of this is a child on a swing, which, once pushed, then swings a long time without any further work. Practically it means that the energy once supplied to the Oscillatory Chamber will be tied up within it for a period of time until the circumstances occur which will cause its withdrawal. As will be explained in item F5.3 of this chapter, such withdrawal can appear only when the chamber is involved in performing some kind of external work.

The other attribute of the oscillating systems is their ability to change the level of energy accumulated in them by a periodic totalling of further portions of energy to the resources already stored. In the previous example of a swing, to cause the slanting of a child at a particular height, it is not necessary to apply all effort at once. It is sufficient to keep pushing gently over a longer timespan and to maintain periodically this addition of energy. The consequence of this attribute will be that the Oscillatory Chamber will not require the supply of its full reserve of energy at once. The energy supply to this device can be gradual, spread over a very long period of time.

Both of these attributes together give us a practical chance for supplying the unlimited energy required for the production of a magnetic field, without introducing any requirements or limitations concerning the source and the channel which provide this supply.

To help us realize the advantage of the above method of supplying energy to the Oscillatory Chamber over the one used in electromagnets, we should consider the following

example. A child on a swing and an athlete both try to lift a heavy load to a specific height. The child does it almost without effort by accumulating the energy during consecutive oscillations, whereas the athlete needs to use all his/her strength and still may not achieve his/her aim.

F5.3. Elimination of energy loss

Sparks are well-known for their inherent dissipation of energy. There is no doubt that such an intensive circulation of sparks, like the one appearing within the Oscillatory Chamber, must convert an enormous amount of electrical energy into heat. In an ordinary device such a conversion would become a source of significant energy loss. But in the chamber unique conditions appear which make possible the direct conversion of heat into electricity. This conversion allows for the recovery back into the opposite electric charges of all the energy dissipated into the heat produced by the sparks. So within the chamber two opposite processes will occur simultaneously: (1) the energy dissipation in (and around) the sparks, manifesting itself as the conversion of electrical energy into heat, and (2) the energy recovery by the direct conversion of heat into electrical energy. Both these processes will mutually neutralize each other's effects. Therefore no matter how high the energy dissipation by the sparks themselves, the Oscillatory Chamber as a whole will fully eliminate their energy loss. As the result of such an elimination, all energy provided to this device will be preserved within it forever, unless some kind of external work is done which will cause its retrieval.

In the Oscillatory Chamber, the magnetic field (whose force lines are accelerated and decelerated by sparks' motion), electrodes (whose charges fluctuate), and a dielectric gas (highly ionized by the discharges and caused to rotate by the circulating streams of sparks) coexist. This provides all conditions necessary for the direct conversion of heat into electricity. Within the chamber the following methods of such a conversion can be employed: (1) electro-gas-dynamic, (2) magneto-hydro-dynamic (MHD), and (3) telekinetic.

In the electro-gas-dynamic method, heat is converted into electricity by hot rotating gas. This gas transfers the electric charges (produced by the ionization of gas) and deposits them on electrodes. The energy consumed during this transfer is withdrawn from the gas, causing a decrease in its temperature.

In the magneto-hydro-dynamic method, heat is converted into electricity as a result of the action of Faraday's law of electromagnetic induction. As we know, every electric conductor moved through a magnetic field experiences the Lorentz force and an induced electric field causing a current to flow. The work needed for displacing this conductor against the Lorentz force is then converted into electricity and recovered in the form of an electric work. This principle of electromagnetic induction may also be employed when a rotating hot gas is used as the movable conductor. In such a case the conversion process can be called a magneto-hydro-dynamic (MHD) energy conversion. Its direct consequence is the decrease in the gas temperature.

In the telekinetic method heat is converted directly into electricity through the application of telekinetic motion. Chapter D and subsection B6.1.1 of this monograph describe the Concept of Dipolar Gravity which explains the difference between the physical and telekinetic motion. According to this concept, the telekinetic motion is caused not by the action of a force, but by the action of the so-called "Telekinetic Effect". The action of this effect can be released technologically through the acceleration and deceleration of magnetic fields. The Telekinetic Effect represents a reversal of friction, i.e. it spontaneously absorbs environmental heat and produces motion (friction spontaneously converts mechanical motion into heat). There is even a class of devices already built, called free energy devices, which utilize the Telekinetic Effect for converting the environmental heat into the motion of electrons (i.e. electricity). The Oscillatory Chamber provides all the conditions required to employ the Telekinetic Effect for the direct conversion of heat (produced by sparks) into electricity. For this reason, the third and the most promising

method of heat recovery which can be effectively employed in the chamber is the telekinetic method.

One of the stereotyped opinions which prevail among scientists is that the conversion of thermal energy into any other form of energy must always obey the Carnot principle of thermodynamical efficiency. The adherents of this view automatically carry it over to the Oscillatory Chamber without considering the unique conditions occurring within it, whereas any mechanical application of the laws of thermodynamics to the Oscillatory Chamber is a gross over-simplification, overlooking the following factors of extreme importance:

1. The so-called "laws" of thermodynamics are in fact not laws, but statistical predictions of the total cause of numerous chaotic events.

2. The behaviour of gas particles in the presence of a strong magnetic field displays order, not chaos. Therefore the course of the energy conversion within the Oscillatory Chamber can not be described by the laws of thermodynamics.

3. Even without considering the future ways of a direct conversion of heat into electricity, such as the application of telekinetic motion, at our present level of knowledge such perfectly efficient methods are already known. For example, the principle of the magneto-hydro-dynamic energy conversion assures perfect efficiency in thermal energy recovery. Therefore, if such conversion is deprived of the thermodynamic (chaotic) factor, as this will be the case in the Oscillatory Chamber, such a perfect recovery can be obtained.

Because these three factors are vital to the Oscillatory Chamber, and they don't seem to be realized by some readers, let us explain their meaning more precisely.

Refer 1.

The statistical character of the laws of thermodynamics has been acknowledged for quite a long time. James Clerk Maxwell (1831-1879), the author of the famous equations of electromagnetism, presented proof based on the action of the so-called "Maxwell's demon", which demonstrates that the validity of these laws may be abolished in some exceptional situations. Quoted below is what B.M. Stableford writes about the second of these laws in his book "The Mysteries of Modern Science" (London 1977, ISBN 0-7100-8697-0, page 18):

"The law of thermodynamics was shown to be a result of the statistical aggregation of a large number of events rather than an inviolable principle ruling the world with an iron hand. ... we can begin to see that although the law of thermodynamics always works out in practice, it could, in fact, be subverted by an extremely unlikely combination of chance happenings - it is not a law so much as a statistical prediction."

Refer 2.

It is a well-known phenomenon that a strong magnetic field stops the chaotic behaviour of the particles of a gas (fluid) and arranges them into an ordered pattern. This phenomenon is the basis for operation of some computer memories, and it is also applied to so-called "magnetic cooling" - see the book by J.L. Threlkeld, "Thermal Environmental Engineering" (Prentice-Hall, Inc., N.J. 1962, page 152). Therefore a magnetic field itself carries the capability of performing the function of "Maxwell's demon", able to abolish the validity of the laws of thermodynamics. So it is justified to expect that, in the presence of such a field, energy conversion will not obey the Carnot principle.

Refer 3.

The principle of magneto-hydro-dynamic energy conversion contains the potential for perfect energy recovery. This potential is very well expressed in the following quotation taken from the book by J.P. Holman "Thermodynamics" (McGraw-Hill, Inc., 1980, ISBN 0-07-029625-1, page 700):

"From an energy point of view, the movement of force through a displacement (mechanical work) is converted to electrical work (current flow against potential difference) by means of the electromagnetic induction principle. This is a work-work energy conversion and is not limited by the Carnot principle."

The unique conditions occurring within the Oscillatory Chamber eliminate the thermodynamical (chaotic) factor which reduces the efficiency of this process in ordinary circumstances, and allows the energy conversion to achieve perfect efficiency.

The deduction presented above shows that there are quite realistic and well-based premises signaling the possibility of a complete recovery of the energy loss within the Oscillatory Chamber. All that is needed now is that we do not close our minds to such a possibility, but implement it practically in this device.

The elimination of loss of energy is not the only advantage of the direct conversion of heat into electricity which may be achieved within the Oscillatory Chamber. This conversion also introduces an easy method for maintaining the energy supply to the device. To increase the energy resources contained within the Oscillatory Chamber the additional heating of its dielectric gas will alone be sufficient. This heating can be obtained, for example, by the circulation of the dielectric gas through a heat exchanger, or by concentrating a beam of sunlight on it.

Combining the lack of energy loss with the independence of the magnetic field production from the continuity of energy supply (compare with item F5.2 of this chapter), provides the Oscillatory Chamber with the property at present characteristic only for permanent magnets. The magnetic field, once created in this device, will maintain itself through the centuries if the external consumption of energy does not occur.

F5.4. Releasing the structure of the chamber from the destructive action of electric potentials

The distinctive property of the Oscillatory Chamber is that it accumulates on facing plates electric charges of equal values but opposite signs (the same number of negatives as positives). Under such circumstances the force lines of an electric field from facing plates will mutually bind themselves together. This causes the charges to display a tendency to jump along the shortest trajectories joining these electrodes. Therefore in the chamber the tendency for a natural flow of electric charges will coincide with the trajectories required for the operation of this device. As a result, the material of the chamber's casing is freed from the action of the electric charges, whereas all the power of the device's energy is directed towards the production of a magnetic field.

In the channelling of the electric energy flow described above, the Oscillatory Chamber is entirely different from electromagnets. In the chamber this channelling is achieved by employing natural mechanisms of electrostatic attraction. In electromagnets it was forced artificially by the appropriate formation of the insulator's layers, which pushed the current to flow along the coils, whereas the action of the electric field's force lines was trying to push it across the coils and through the insulation. Therefore there is reason to expect that the Oscillatory Chambers will possess a life incomparably longer than that of electromagnets, and that their lifespan will not be limited by an electrical wear-out.

How destructive such an electrical wear-out of insulation is we may learn by analyzing the lifespan of coils working under high voltages. A well-known example is the ignition coil in cars, which usually breaks down after about 7 years of usage, while still displaying no sign of mechanical defect. In low voltage electromagnets this process is slower, and therefore may not be noticed by users. But it will appear eventually.

F5.5. Amplifying control of the period of field pulsation

The Oscillatory Chamber will manifest a very high controllability. The key to the manipulation of its operation is the period of pulsations "T". From the RLC circuits we know that the period of their oscillations is described by the equation:

$$T = (2*\pi)/(\mathrm{sqrt}(1/(L*C) - (R/(2*L))**2) = 2*\pi*\mathrm{sqrt}(L*C/(1 - ((R**2)*C)/(4*L)))$$

Notice, that after expressing this in the notation of computer languages, in which the symbol "*" means multiplication, the symbol "/" means division, the symbol "+" means addition, the symbol "-" means subtraction, the symbol "x**2" means "x" to the power of "2", while the symbol "sqrt()" means the square roof from the parameter provided in brackets "()", the above equation takes the following form:

T = (2*π)/(sqrt(1/(L*C) - (R/(2*L))**2) = 2*π*sqrt(L*C/(1 - ((R**2)*C)/(4*L))).

If the defining equation (F4) on the factor "s" replaces in the above a combination of R, L, and C parameters, whereas equation (F1) and equation (F3) provide the values for R and C, then this period is described as:

T = (π*(p/s)*Ω*ε)/sqrt(1 - (s/p)**2)

Notice, that after expressing this in the notation of computer languages, in which the symbol "*" means multiplication, the symbol "/" means division, the symbol "+" means addition, the symbol "-" means subtraction, division, while the symbol "sqrt()" means the square root from the parameter provided in brackets "()", the equation (F7) takes the following form: T = (π*(p/s)*Ω*ε)/sqrt(1 - (s/p)**2).

The final equation (F7) shows how easily the value of "T" can be controlled in the Oscillatory Chamber. At the exploitation stage it is sufficient to concentrate controlling activities on the change of the "s" factor only. By changing the pressure of the gas filling the Chamber, or by altering its composition, the "s" factor is influenced. The change in "s" factor in turn introduces the changes in period "T" of the field's pulsations.

To illustrate the essence of the above principle of the chamber's output control, we would need to imagine a hypothetical electromagnet in which all design parameters, i.e. the resistivity of wire, the number of coils, and also the geometrical configuration of a conductor, could easily be changed during its operation. Only such an imaginary electromagnet would allow for the output control in a manner used by the Oscillatory Chamber, i.e. through the appropriate manipulation of its design parameters, and without the necessity of controlling the power of a current supplied to it. Of course, in reality such an electromagnet is impossible to build.

The above illustration shows that the chamber uses a very different (and much more convenient) control of oscillations than the one used in real electromagnets. In the Oscillatory Chamber the changes of the dielectric gas constants: Ω, ε and μ - causing the change of "s", are not dependent on the necessity to manipulate the amounts of energy contained in the electric and magnetic fields. Therefore in this device all controlling activities no longer involve wrestling with the power contained inside the chamber. As a result the power of the control devices is independent from the power of the produced field (i.e. weak control devices can effectively alter the parameters of a powerful field). But in electromagnets every change in a magnetic field requires manipulations to be conducted on highly energetic currents. Thus control of electromagnets involves the same powers as field production.

Of course, every method of control introduces its own disadvantages. Such is also the case in the tuning system described above. We may predict here some limitations in the range of control - caused by critical damping, and the influence on the intensity of heat generation - caused by changes in the resistivity of gas. But these disadvantages can be overcome technically, and they are insignificant when compared with the advantage of making the power of a controlling device independent from the power of the controlled energy flows.

F6. <u>Advantages of the Oscillatory Chamber over electromagnets</u>

The elimination of the drawbacks of electromagnets is not the only achievement of the principle of the Oscillatory Chamber. This device introduces in addition a number of

unique advantages which are not provided by any other device built by man to-date. Let us review the most important of them.

F6.1. <u>Formation of the "twin-chamber capsule" able to control the output without altering the energy involved</u>

Further possibilities of controlling the output from the Oscillatory Chamber are created when two such cubical devices are arranged together to form a configuration called the "twin-chamber capsule" - see Figure F4. This capsule consists of one small inner chamber "I" freely suspended (floating) in the centre of the outer chamber "O". To insure the free flotation of the inner chamber without the danger of distending and damaging the outer one, the side dimension "ao" of the outer chamber must be 3 times larger than the dimension "ai" of the inner one, i.e.:

$$a_o = a_i \sqrt{3} \hspace{10cm} \text{(F8)}$$

(the equation (F8) expresses the requirement that the longest diagonal dimension of the inner cube can not exceed the shortest distance between two parallel walls of the outer cube). Both chambers are so arranged that their central axes coincide with the magnetic axis "m" of the entire capsule. But the magnetic polarities of both chambers are reversed, i.e. the poles of the inner chamber are oriented exactly in opposition towards the poles of its host (i.e. "S" of the inner chamber is directed towards "N" of the outer one, and vice versa). This opposite polarity of both chambers causes their outputs to mutually cancel (subtract) each other. The effect of this cancellation is that most of the force lines of the magnetic field produced by one chamber do not leave the capsule, but are circulated back into the other chamber. Therefore the magnetic field yield out to the environment by such a capsule represents only the difference between the outputs produced by its inner and outer chambers.

In the so-formed twin-chamber capsule the appropriate control of the chambers' periods of pulsation "T" allows the energy content in both chambers to be either maintained unchanged, or to be transferred from one chamber to the other. Therefore both chambers can either produce the same output, or a greater output can be produced by any of the component devices (i.e. by the outer "O" as well as by the inner "I" chamber). Technically, the balance or the transfer of energy between both chambers depends only on a phase shift between the periods "To" and "Ti" of their pulsations. (As this was described in subsection F5.5, these periods in turn are controlled, according to the equation F7, solely by changing the "s" factors of the chambers' dielectric gases.) In general, when both chambers pulsate in harmony (i.e. have zero phase shift) they maintain their energy content without any change. But when the phase shift between their pulsations is formed, the magnetic energy begins to shift between both chambers. The bigger this phase shift is, the more energy flows from one chamber to the other. The direction of flow is from the chamber whose pulsations obtain a leading phase shift (i.e. whose period "T" was speeded up towards the period "T" of the other chamber) to the chamber whose pulsations are slower. To illustrate the above with an example, let us imagine two people on separate swings bound together by an elastic (rubber) rope. When they swing with zero phase shift (i.e. when their movements exactly correspond) the energy of their oscillations remains unaffected. But when they form a phase shift in their oscillations, the person whose swing is ahead will pull the other one through the elastic rope. In this way the energy will flow from the faster swinger to the slower one.

When both chambers of a twin-chamber capsule yield exactly the same output, the force lines of a magnetic field produced by the inner chamber "I" are forming a close loop with the magnetic field produced by the outer chamber "O". This loop is locked inside the capsule. Therefore in such a case both chambers may produce an extremely high magnetic field, but this field will be entirely "circulated" inside of the capsule, and no magnetic flux will appear outside of the capsule. The magnetic flux trapped in such a looping and hermetically locked inside a twin-chamber capsule is called the "circulating flux". In illustrations from this

chapter it is labeled (C). The circulating flux performs an important function in the twin-chamber capsules, as it bounds and stores the magnetic field which later may be used as the capsules' energy supply. Therefore the circulating flux in twin-chamber capsules of the future will represent the equivalent to "fuel" from the contemporary propulsion systems.

But when the energy content in both chambers of a capsule is unequal, as illustrated in Figure F4, the magnetic flux produced by this chamber, which has a greater output, is divided into two parts, i.e. (R) the "resultant flux" conducted to the outside of the twin-chamber capsule, and (C) the "circulating flux" involved in internal looping within the chamber having a smaller output. At the same time the magnetic flux produced by the device having a smaller output is entirely involved in the circulating flux and is not conducted outside the capsule. In Figure F4 the greater output is produced by the outer chamber "O", therefore its flux is divided into the (C) and (R) parts. But the entire output of the inner chamber "I" in this Figure is involved in the circulating flux (C).

Because the greater magnetic flux can be produced either by the inner or the outer chamber, the twin-chamber capsules can operate in two modes called: (1) the "INNER flux prevalence", and (2) the "OUTER flux prevalence". In the mode of INNER flux prevalence, the resultant flux is produced by the inner chamber, whereas the outer chamber circulates its entire output inside the capsule. In the mode of OUTER flux prevalence, the resultant flux is produced by the outer chamber, whereas the inner chamber bounds its entire output into the circulating flux. The visual appearance of capsules operating in these two modes is shown in Figure F5. The differences in their appearance result from the fact that a highly dense magnetic field is transparent only to an observer who looks at it along its force lines. For the observer looking from any other direction such a field is non-transparent, and resembles black smoke. Therefore an outside observer looking at the twin-chamber capsule's outlet should see only the interior of that chamber which produces the resultant flux running into his/her direction, whereas the outlines of the remaining chamber which produces a circulating flux would appear to be black.

The twin-chamber capsule puts into the environment only the resultant flux that represents a difference from the outputs of both chambers. The circulating flux is always locked inside this capsule and never reaches the environment. Therefore, this configuration of chambers allows the fast and efficient control over the resultant magnetic flux conducted to the environment. This control is achieved without a change in the total amount of energy contained in the capsule, and only through shifting this energy from the outer to the inner chamber and vice versa. Practically, this means that the output given by the capsule to the environment can be easily changed, while the energy content of the capsule remains all the time at the same level. In order to realize the enormous capabilities of such control, the most important states of the magnetic field put into the environment by the twin-chamber capsule are described below.

(1) The complete extinguishing of the capsule's output. If the inner and the outer chambers contain the same amount of magnetic energy and produce equal magnetic fluxes, their entire production is looped inside of the twin-chamber capsule and no field is conducted to the environment. Of course, in such a case the enormous magnetic energy of the capsule still remains trapped inside of it, and can be redirected outside at any time by a simple alteration in the capsule's controls.

(2) A smooth (or discrete) change of the capsule's magnetic output within the range from its minimal (i.e. zero) to maximal value. Such a change in the resultant output requires only appropriate transfer of the magnetic energy from one chamber into the other. The maximal output from this capsule is achieved when one of its chambers concentrates almost all of the energy, whereas the output from the remaining chamber is almost zero.

(3) The production of a magnetic field that has any required orientation of the magnetic poles. Depending on which of two chambers (inner or outer) reaches a dominating (prevailing) output, the polarity of the resultant flux (R) will reflect the polarity of this dominating chamber.

(4) An almost instant reversal of polarity for the capsule's resultant magnetic output (e.g. the exchange of its north pole into the south pole, and vice versa). This reversal can

be achieved merely by shifting quickly the magnetic energy between two chambers and without any need for a mechanical rotation of the capsule.

The ability to strictly control the variations in time (curvature) of the resultant flux is another advantage of the twin-chamber capsules. An example of such control, concerning the resultant flux whose variations in time follow a beat-type curve, is shown in Figure F6. When the frequencies of pulsations in both chambers are different (e.g. when the inner chamber produces a flux "FI" whose frequency is two times higher than the frequency of the flux "Fo" produced by the outer chamber), the algebraic subtraction of both these fluxes produces a bit-type variation in time of the resultant flux "FR". In this way, through the altering of frequencies of inner and outer fluxes, a wide range of resultant flux variations in time can be obtained. It is equally simple to produce a pulsating resultant flux following one of many possible beat-type curves, as well as a number of alternating fields of different courses. In each of these cases the period of the resultant flux variation can be controlled at the required level. On the other hand, when the frequencies of oscillations in both chambers are the same, then the two counter-oriented magnetic fluxes mutually suppress their pulsating components. If this coincides with the equal amplitudes of fields from both chambers, the resultant flux "FR" is then non-oscillating (constant in time), identical in character to the one provided by the permanent magnets. Because of the direct relationship existing between the frequency "f" and the period "T" of the field pulsation (f=1/T), the entire control over the resultant flux curvature is also achieved through the alterations of the "s" factor, as has already been described in subsection F5.5.

The above explanations demonstrate how easy and versatile the control capabilities of twin-chamber capsules are. Of course this will have a definite bearing on the future applications of these arrangements of chambers. It is easy to predict that almost all advanced magnetic propulsion systems of the future will utilize twin-chamber capsules instead of just single Oscillatory Chambers. Out of all the propulsion systems described in this monograph, such capsules will be used in the propulsors of the Magnocraft (see descriptions in chapter G) and in Personal Magnetic Propulsion (see descriptions in chapter H).

F6.2. Formation of the "spider configuration"

The twin-chamber capsule is not the only configuration into which a number of Oscillatory Chambers can be arranged in order to increase the controllability of their resultant flux (R). The other configuration displaying even wider possibilities is the so-called "spider configuration", shown in Figure F7. In the spider configurations the chambers are arranged so that one of them, called the main chamber (M), is surrounded by the four side chambers indicated by the letters U, V, W, and X. Each of these five chambers possesses the same cross section, but the volume (thus also the length) of the main one is equal to the sum of the volumes of all four side ones. The magnetic poles in the main Oscillatory Chamber (M) are directed in opposition to the orientation of the poles in the side chambers (U, V, W, X).

This new configuration of the Oscillatory Chambers is a simplified model of the Magnocraft's propulsion described in the next chapter of this monograph (the Magnocraft contains a single twin-chamber capsule (propulsor) placed in its centre, and a multiple of four of twin-chamber capsules arranged around its peripherals). Also the operation of the spider configuration closely imitates the operation of the Magnocraft's propulsion. Therefore this configuration in fact constitutes a kind of miniature Magnocraft. As well, the magnetic field produced by it displays all the attributes of the Magnocraft's field, for example its force lines may spin around the magnetic axis of the main chamber. The above reasons decide that the spider configuration found its best application in the propulsion of the so-called "four propulsor Magnocraft", described in chapter I.

The control over the value of a resultant flux (R) produced by the spider configuration is exactly the same as it is in the twin-chamber capsule. Therefore the magnetic field yield

from the spider configuration also displays the same controllability over all its properties and parameters as the field from the twin-chamber capsule. But the spider configuration is additionally able to produce a whirling magnetic field, whose axis of rotation lies in the magnetic axis "m" of the main chamber (M). The production of such a whirling field is explained in subsection G7 of this monograph for the Magnocraft, so therefore this explanation will not be repeated here.

F6.3. The non-attraction of ferromagnetic objects

The strict control over frequency (f=1/T) and amplitude of pulsations (ΔF) in the field produced by the twin-chamber capsule and the spider configuration provides the Oscillatory Chamber with a very unusual property: it does not attract ferromagnetic objects, even if its output reaches the full power required. This property causes the field produced by such configurations of chambers to behave rather like an antigravitational field, not like a magnetic one. Let us analyze how it is possible to achieve this property.

The framed part in Figure F8 shows approximately the curve of variation in time for the typical field produced by the twin-chamber capsule. It takes the course of a beat-type curve, containing the constant component "Fo" and the varying component "ΔF". It is widely known that the source of a constant magnetic field attracts the ferromagnetic object in its vicinity. Therefore it is obvious that the "Fo" component of the chamber's output will also cause such an attraction. However, not many people are familiar enough with magnetodynamics to know that a field varying in time with sufficient frequency induces in conductors the so-called eddy currents. These currents produce their own magnetic fields which are repelled from the original field that induced them. As a result, fields of sufficiently high variation in time will repel metallic ferromagnetics. Therefore the varying component "ΔF" of the chamber's output will cause the repulsion of all ferromagnetic objects in the vicinity. This repelling force grows with the increase of amplitude "ΔF" and also with the increase of frequency "f" of the field variations. If the control of the twin-chamber capsule or spider configuration changes the ratio "ΔF/Fo" of the output, holding constant the frequency "f" of pulsations, then three different kinds of force interaction with ferromagnetic objects can be achieved - see diagram in Figure F8. When the varying component "ΔF" dominates over the constant "Fo" one, then the total interaction with such objects is repulsive. When the constant component "Fo" is the dominating one, then the resultant interaction is an attraction. However, if the balance between both these components is reached, then the attraction and repulsion come into equilibrium and neutralize each other. In such a case ferromagnetic objects are not affected by the action of any magnetic force.

The curve of equilibrium between the attraction and repulsion, shown in Figure F8, will frame the parameters of work of the twin-chamber capsule and spider configuration. It is expected that in the majority of cases the field produced by the advanced magnetic propulsion systems will lie on this curve. Such a field will not influence in any noticeable way the ferromagnetic objects within its range, but will still be able to perform all work imposed on it. When used in flying vehicles, such a field will cause their flight, but will prevent any force interactions between these vehicles and nearby ferromagnetic objects. Because of this property, the outside observers of such vehicles, who will not have knowledge of this equilibrium of their magnetic interactions, will probably be convinced that the propulsion of these vehicles utilizes some kind of "antigravitational" field instead of a magnetic one.

In special circumstances, however, the field produced by a configuration of chambers can be redirected into the chosen kind of interaction. For example, if a militarily oriented magnetic vehicle is chasing a missile or aeroplane, to intercept it, it will change its neutral field into an attracting one. Thus its attraction force will disable and overpower the object pursued. Similarly, when a magnetically propelled flying vehicle intends to abduct a motor car and its occupants, it could simply pick it up from the road by changing its own magnetic interaction from that of equilibrium into an attraction. Of course, there will also be

various situations when a repulsive magnetic interaction will be used. For example, in free space the production of a repelling force should be dominant. Then all dangerous objects, such as meteorites (in most cases containing iron), cosmic dust, missiles or satellites, will be repelled from the path of magnetic vehicles. Also, while flying above a hostile planet whose inhabitants are known to have a habit of shooting and launching missiles at every unrecognizable vehicle, the crew of a magnetically propelled vehicle could switch on a repulsive action of its field. Then all such bullets and missiles would be repelled from the vehicle without having a chance of reaching its shell and damaging it.

F6.4. Three-dimensional transformation of energy

The energy within the Oscillatory Chamber co-exists in three different forms as: (1) an electric field, (2) a magnetic field, and (3) heat (i.e. a hot dielectrical gas filling the inside of the chamber). These three forms are in a state of continuous transformation from one into the other. Such a situation creates a unique opportunity for the chamber to be utilized in many different ways, when one type of energy is supplied to it, while another type is obtained from it. The following kinds of energy can be supplied or obtained: (1) electricity transferred in the form of an alternating electric current, (2) heat accumulated in a hot gas, (3) energy transferred through the pulsations (changes in density) of a magnetic field, and (4) energy transferred in the form of the mechanical motion of the chamber. Depending on which one of these forms of energy is supplied to the chamber, and which one is drawn from it, the Oscillatory Chamber can act as almost any energy producing (or converting) device built to date, e.g. as a transformer, generator, combustion engine, heater, etc. Table F1 combines the most utilitarian applications of the Oscillatory Chamber, exploiting its capacity for three dimensional transformations of energy.

F6.5. Perpetual oscillating - a unique electromagnetic phenomenon allowing the Oscillatory Chamber to absorb unlimited amounts of energy

Let us return to the example of a swing, and consider what happens when we increase the kinetic energy supplied to this device. The amplitude of oscillations increases proportionally to the energy supplied. We may intensify this process to the point when the top horizontal bar will prevent any further increase of amplitude. If we still keep providing energy beyond this point, the swing will be destroyed, as its arm will hit the top horizontal bar and one of these two parts must break. However, if we use a swing of appropriate design (without a top horizontal bar, but having a rotary horizontal axle instead), then a further increase of energy will lead to "perpetual oscillating". Swings for special performance usually permit to achieve this. In such a manner of oscillating the swing follows a circular course. The energy transformations still exist in it, but the whole oscillating phenomenon obeys different kinds of laws. Also the capacitance for potential energy does not now limit the amount of energy absorbed by the swing.

If we now analyze the work of an oscillatory circuit with a spark gap, we notice that it behaves in a way identical to the swing described above. A conventional circuit is the equivalent of the swing with a top horizontal bar. If we start adding magnetic energy to its inductor, then the growing amplitude of oscillations will lead to the breakdown within the capacitor and to the destruction of the circuit. The Oscillatory Chamber, however, is the equivalent of the swing allowing for perpetual oscillating. If we add further magnetic energy to the energy contained in a stream of sparks (jumping let us say from plate PR to PL) then this stream will not terminate at the moment when the opposite plates reach the breakdown difference of potentials "U". This is because the inertia of the stream will still keep "pumping" electrons from plate PR to PL, until all the magnetic energy transforms itself into the electric field. However in this instant both plates also start a discharge in the opposite direction, i.e. from PL to PR. Therefore there will be a period of time when two sparks

jumping in opposite directions will appear simultaneously between the same pair of segments. The first of them - inertial - will jump from plate PR to PL, whereas the other one - active - will jump from plate PL to PR. This will be the electromagnetic equivalent of perpetual oscillating. The Oscillatory Chamber is the only circuit which allows for the appearance of such a phenomenon.

In general we can make the definition that "the perpetual type of oscillations are attributed only to those oscillating systems whose ability to absorb the kinetic form of energy significantly overcomes their capacitance for potential energy". Such an ability is purely an attribute of design. It is conditioned by the selected parameters and the appropriate structuring of the system. In the case of the Oscillatory Chamber it will be determined by the number of sparks which the particular device is capable of creating. This number in turn depends on the number of segments "p" separated within the plates. Let us determine the minimal value of "p" required for the perpetual type of oscillations.

The condition required for causing perpetual oscillating is that the kinetic energy contained in the magnetic field must be greater than the potential one contained in the electric field. This can be written as:

$$(^1/_2)L*(U^2/R^2) > (^1/_2)C*U^2$$

If we transform the above relation and substitute the received combination of variables by the one extracted from the equation (F4), we will obtain:

$$p > 2 s \qquad\qquad (F9)$$

Condition (F9) expresses the number of segments "p" separated within the plates of the Oscillatory Chamber, sufficient to cause perpetual oscillating.

If we build and use the chamber in such a way that this condition is always met, then the capacitance of the Oscillatory Chamber will not be able to introduce any limitations on the amount of energy absorbed by this device. This property, combined with independence from the continuity and efficiency of the energy supply, will allow the Oscillatory Chamber to increase the amount of energy contained in it to a theoretically unlimited level.

F6.6. Function as an enormously capacious accumulator of energy

The perpetual oscillating described above introduces the ability of the chamber to absorb theoretically unlimited amounts of energy. This property, combined with the capability of the twin-chamber capsule and the spider configuration to extinguish completely the produced field (i.e. to turn its entire magnetic energy into the circulating flux - see subsection F6.1), enables Oscillatory Chambers to be enormously capacious accumulators of energy. The appropriate calculations completed for the Magnocraft can be useful for illustrating what level of capacitance this device provides. The author has determined the amount of energy contained in the field of the Magnocraft type K3 (compare subsection G1.4). The result, obtained on the assumption that this vehicle produces only the starting flux, was 1.5 TWh (Tera-Watt-hours) - i.e. the present equivalent of two months energy consumption for a whole country such as New Zealand. Because in the K3 type of Magnocraft the total volume of all its Oscillatory Chambers is about 1m3, this enormous energy will be stored in a device approximately one cubic meter in size.

The magnetic field is already recognized as a perfect means of collecting and storing a large amount of electrical energy. By using cryogenically cooled conductors, even contemporary inductors can store huge amounts of energy for a relatively long period of time. There is a number of research projects investigating this possibility (e.g. Australia National University in Canberra, The University of Texas at Austin, USA). One of the commercial applications seriously considered was to build a heavy cryogenic electromagnet near Paris, which would accumulate electric power in no-load hours and release it to the city at peak-consumption hours.

The ability of the Oscillatory Chamber to store energy completely resolves the problem of energy supply during its operation. For the majority of applications it will be sufficient to charge it fully at the moment of production, and then simply use the device until this energy is fully withdrawn. The amounts of energy able to be stored in such devices allow them to be operative for hundreds of years without the need for recharging.

F6.7. Simplicity of production

The Oscillatory Chamber will probably represent one of the most sophisticated devices that human technology will ever complete. However, its sophistication will concern the amount of knowledge involved in its proper design and the amount of research required to appropriately shape its operation. Since its technology is once worked out, this device will not be difficult to produce. From the manufacturing point of view it will consist mainly of six plain walls, which will need to be precisely dimensioned, finished and assembled. The chamber has no moving parts, no complicated shapes and no intricate circuits. Practically, if the knowledge of its production was there, we should have been able to produce this device not only now, but thousands of years ago with the tools, materials, and technology of our ancestors.

F7. Advancements in the practical completion of the Oscillatory Chamber

The author invented the Oscillatory Chamber around 3rd January 1984. Soon afterwards, its description was distributed to a number of publications written in three languages and available in four different countries, i.e. New Zealand, Poland, USA, and West Germany (see publications number [1F] (c), [2F] (b), and [2F] (c) in the list provided at the end of this chapter). The wide availability of the chamber's description prompted a significant interest in this device. A number of individual amateurs in the scientific field and small companies initiated the developmental work with the aim of completing a working model of the Oscillatory Chamber. Of course, as is usually the case with new developments, a list of interested parties has not included even one single representative of the institutions that are supposed to be most concerned about the progress in magnetic field producing devices, i.e. any magnet laboratory or science laboratory (in spite of strong encouragement and literature provided by the author to a number of these institutions). The majority of the amateurs interested in the chamber were from West Germany, Poland, Switzerland and Austria.

As can be predicted from the description of the Oscillatory Chamber, the building of the operational model of this device is a difficult task. Therefore, one after another, they gave up. The only person who finally overcame various difficulties in the achieving his goal was Mr Ryszard Zudzin of Bydgoszcz, Poland. In May 1987 he built the first working model of the Oscillatory Chamber, which produced a spark that rotated around the peripherals of a square. A photograph of his chamber is shown in Figure F9.

The problem which discouraged the majority of initial developers of the chamber is illustrated in Figure F10 (a). Following the descriptions available to them, in the first models they tried to use plate-shaped electrodes, as shown in Figure F1 (b). But when such electrodes are used, instead of jumping along the trajectory in Figure F10 (c) marked by S', sparks prefer to follow the line of least resistance and to jump along the trajectory S". Various people tried to resolve this problem in a number of ways, starting from placing the electrodes inside "honey-comb" cells, and finishing with covering their surface with an insulating layer. It was Mr Zudzin who finally found the solution. Through following clues contained in chapter L of this monograph, he studied ancient descriptions of the Ark of the Covenant. The conclusion he derived from these studies was that the Ark did not contain any plate-shaped electrodes. Only tips of gold nails driven through its wooden walls protruded inside. He decided to experiment with needle-shaped electrodes in his chamber.

And it turned out that it worked. Such needles repel sparks passing by, therefore these sparks are unable to take short cuts. In this way, the model of the Oscillatory Chamber which used the needle-shaped electrodes instead of plates - as shown in Figure F10 (b), was the first one which successfully produced sparks that rotate around peripherals of a square. This model also represents experimental proof that the principles of the Oscillatory Chamber are correct and that they can be implemented technologically in a working device.

F7.1. Experimental devices

The experience gained by Mr Zudzin during the completion of his device paves the way for the more advanced research on the development of the Oscillatory Chamber. For example, his research determined components of a laboratory station that should be set up to conduct experiments on the chamber. Such a station must include a minimum of four devices, i.e. (1) a chamber itself, (2) an electromagnet used to deflect path of sparks, (3) a measuring equipment, and (4) a power supply. The most important details on each of these are summarized below.

(1) A chamber. Mr Zudzin's experience shows that the optimal shape and size for the experimental chamber is a cube with a side dimension of around 100 mm. Six walls of the chamber should be made of quartz plates, or - if quartz is unavailable - of a quartz glass. Gas used in the models of the Oscillatory Chamber built so far is just ordinary air under ambient pressure (the type of gas used will be important only at the more advanced, fine-tuning stage of the Chamber's development - see stage number 6 in next subsection). Electrodes in the Oscillatory Chamber need to be "needle-shaped", not plate-shaped, as was explained above. The latest experiments will try to apply needles which have tiny glass spheres inserted at their tips (the results of these experiments are not available yet). All electrodes placed along the same vertical column can be connected together electrically outside of the chamber. But subsequent columns of electrodes can not be connected horizontally by an external wire, because the current will pass through this wire (instead of jumping through the Chamber in the form of sparks). This means that each column of electrodes needs to be separately supplied with electric current (i.e. a system of switches needs to be used for the current supply). Of course, there is a simple solution to avoid the building of an expensive system of such switches that would supply current separately to each vertical column of electrodes. This is to supply with the current only one vertical column of electrodes for each wall of the chamber.

(2) An electromagnet used to deflect sparks. During experiments the chamber must be placed between N and S poles of a strong electromagnet. The magnetic field produced by this electromagnet runs along the chamber's (m) axis and pushes all sparks toward the surface of the side walls. This push causes them to rotate in a clockwise (or counter-clockwise) direction. Without this initial magnetic field extended along the axis "m", the sparks would not rotate orderly around the chamber's peripherals, but rather jump chaotically in all possible directions. As the effectiveness of the chamber's operation will increase, this deflective function of the external magnetic field will gradually be taken over by a field produced by the chamber itself.

(3) Measuring equipment. The sparks jumping through the Oscillatory Chamber are an extremely fast phenomenon which is almost impossible to be observed with the naked eye. For this reason the experimental station must include some measuring equipment, for example an oscilloscope, a built-in camera, magnetometers, thermometers, etc.

(4) A power supply. The power source that Mr Zudzin used in his chamber is a high voltage impulse generator, similar to that used in electronic car ignition systems. It produces DC impulses, whose variation in time approximately follows a square curve. A diagram of his generator can be supplied on request. The voltage of his impulses was about 300 kV. The current was fed in fast pulses whose frequency tries to match the resonance frequency of the chamber.

It should be stressed at this point that the power supply to the chamber constitutes the most difficult and expensive part of the experimental station's set up. So far only Mr Zudzin has found enough dedication and persistence to continue his experimental work past this significant obstacle. Before building the successful DC impulses generator described above, Mr Zudzin built four different AC power systems, including a Tesla Coil, and various high voltage AC generators. But each of these AC systems proved to be unsuitable. For example, sparks produced by Tesla Coil seem to jump in uncontrollable directions and resist being put into any order. On the other hand, sparks from high voltage AC generators seem to keep open their ionic channels long after they diminish, so that the voltage can not build up on the electrodes.

F7.2. Stages, goals, and ways of their achieving in the experimental building of the Oscillatory Chamber

Because no research on this device has been done before, the major difficulty with the completion of the Oscillatory Chamber is that almost all of its details need to be discovered and worked out. The consequence of this is that the development of the chamber must be gradual, and according to a thoroughly designed master plan. It can be envisaged that the completion of a fully developed prototype of the Oscillatory Chamber must involve not less than nine separate stages, each one of which has a different goal and its own way of achieving this goal. These nine stages of the master plan are as follows:

1. The confirmation of the chamber's principles. The goal of this stage is to obtain the sparks that rotate around the perimeter of a cube, and in this way to prove that the principles of the Oscillatory Chamber can be implemented practically. Zudzin's prototype shown in Figure F9 has already achieved this goal.

2. The production of self-sustained oscillations. In the first stage it was determined how to produce a stream of sparks that continually rotates around the chamber's perimeter. But the jumping of these sparks were forced by the frequency of the external power supply, not by the chamber's own oscillations. Therefore, the goal for this second stage is to establish the method of increasing the amount of energy that is fed into the chamber and stored in it. Such a small reserve of energy in the chamber will cause it to self-sustain the jumping of its sparks for some time after the external power supply is terminated. The way of achieving this goal is by developing a technique for the experimental determination of the frequency of the chamber's own oscillations, and by subsequent synchronizing (with a slight phase shift - see subsection F6.1) the frequency of the external power supply to the frequency of the chamber's own oscillations. If this is achieved, the chamber must absorb and store a small amount of energy that will sustain the oscillations of its sparks after the external power supply is cut off. To simplify the task, it is possible to complete this stage with a chamber that has only a single oscillatory circuit.

3. A self-regulation of the sparks' phase shift. In both previous stages, to produce two streams of sparks jumping between two sets of opposite walls as many as two separate power supply devices needed to be used. But the properly designed chamber must work with the power supply to only one of its two oscillatory circuits (the second circuit should intake its energy from this first one). Therefore the goal of this stage is to alter the chamber's configuration (shape) in such a way that it will self-regulate and self-maintain two streams of sparks. These streams will be made to jump between both sets of opposite walls (i.e. both oscillatory circuits constituting the chamber) and their mutual phase shift will be self-maintained equal to 90 degrees. The way of achieving this goal is through introducing to the chamber's structure some additional features or elements, for example: insulated plates connected to each column of electrodes, which would overlap with the electrodes of the next walls, thus forming a capacitance between them (see Figure L6); cavities inside electrodes, similar to those forming stationary waves in microwave ovens; coils, similar to starter coils in electric motors; etc.

4. Making the chamber to absorb and store the amount of energy that suffices for the production of a useful magnetic field. There are two goals of this stage. The first is to significantly increase the time-span of the chamber sparks' rotation (i.e. to achieve streams of sparks which are self-oscillating for a long period of time). The second is to increase the strength of a magnetic field produced by the chamber, so that this field becomes sufficient to self-maintain the orderly rotation of the chamber's sparks (i.e. no external magnetic field will be needed any more to cause the sparks' rotation). Achieving both these goals requires:

- to determine exactly the value of such phase shift between the frequency of the external power supply and the chamber's own (resonance) frequency, that this shift would make the chamber absorb energy from an external power supply and to store it; and

- to apply practically the findings about this phase shift. To develop such a practical application of the results, three corresponding devices must be built. These are: (1) a chamber whose energy reserves are rechargeable, (2) a power supply device which is to co-operate with this chamber, and (3) an effective control device which will co-ordinate the recharging of the chamber by this power-supply device.

5. Controlling the chamber's period of pulsations. The goal of this stage is to learn how to control the chamber's period of pulsation through appropriate selection of pressure and composition of the dielectric gas contained in the chamber. To achieve this goal, a controlling device must be built, which, when added to the chamber's main structure, will allow for an effective control of its pulsations.

6. Releasing the phenomena that recover the heat dissipated by sparks (thus terminating the chamber's energy loses occurring during its operation). The goal of this stage is to alter the phenomena within the operational chamber in such a way that they will cause a conversion of energy contained in hot dielectric gas into the chamber's electric charge. To achieve this goal a complete understanding of the complex phenomena occurring in the chamber must be achieved, and then the alteration of this phenomena into a desired direction must be made.

7. Neutralization of electromagnetic forces that act on the chamber's structure. The goal of this stage is to find such mutual relationships between the design parameters of the chamber (i.e. its shape and dimensions) and the parameters of its work that the structure of the chamber will be released from the action of forces produced during its operation. The way of achieving this goal is to change parameters of the chamber's design and operation, and subsequently to monitor the influence these parameters have on the forces acting on the chamber's structure. Then the optimal parameters must be chosen, which will neutralize completely the action of these forces.

8. Building a twin-chamber capsule. The goal of this stage is to combine effectively two Oscillatory Chambers, so that they co-operate as a twin-chamber capsule. Achieving this goal involves various alterations to the control of both chambers, and also to the phenomena occurring within them, so that the final capsule can work effectively and remain fully controllable.

9. Unlimited increase of the chamber's energy reserves. The goal of this stage is to experimentally detect and eliminate all possible obstacles that could limit the amount of energy stored within twin-chamber capsules. The level which should be achieved at this stage is to store about 1.5 TWh (i.e. an equivalent of about 2 months of total energy consumption by a middle-sized country such as New Zealand) in a capsule of around 1 cubic meter. The achievement of this goal must involve various safety precautions, because Oscillatory Chambers which are heavily loaded with energy also represent powerful bombs whose accidental explosion would cause enormous destruction (see subsection M3).

It is worth stressing here that after the completion of stage 4, the prototypes of the chamber become commercially useful and can successfully compete with electromagnets in various applications. Therefore, beginning with the 5th stage, the chamber becomes capable of earning money, thus it will pay for the further development itself. Also starting from stage 5, this device will quickly spread around the world and gradually take over numerous functions that presently are performed by various other devices (see subsection F9).

F7.3. The author's policy of the public ownership of the Oscillatory Chamber principles

The practical completion of the Oscillatory Chamber requires advancement in two different areas which can be called (1) principles and (2) technology. In order to eliminate possible confusion as to what the difference between these two areas is, they will be explained here. Principles include the entire body of knowledge which explains how and why the chamber operates. Technology describes this specific knowledge that is required to actually build a working device (e.g. materials, manufacturing know-how, parameters of work, control devices, etc.). To illustrate the above with an example, subsections F1 to F6 of this chapter describe the chamber's principles, whereas subsection F7 is more concerned with the chamber's technology.

From the moment of invention of the Oscillatory Chamber, the author adopted the policy that the principles of this device should be jointly owned by all the people living on Earth. In accordance with this policy, the inventor: (1) opposes patenting or imposing other restrictions concerning the ownership of the principles, (2) discloses and publishes the complete information about the chamber's principles, and (3) provides all the encouragement, advice, and expert assistance to every person, institution, or government who is interested in the development of this device. The reasoning behind this policy is as follows:

(a) The chamber is a totally new idea which has no equivalent in any device that has been built so far (see subsection F9).

(b) The completion of the chamber will constitute the most important milestone in the development of our civilization. It will advance this civilization from a planetary level into an interstellar level.

(c) In the long term, access to the chamber will be important for the survival, well being, and further progress of our civilization.

(d) The use of the chamber is the main requirement for rapid progress in many areas of science and technology in future, as well as the motivating force behind revolutionary changes needed in our energy management and productivity.

(e) In future, the Oscillatory Chamber will become a main component of almost every other technological product (see subsection F9), including products that at present do not store any energy, such as household appliances, buildings, and even furniture. Thus the co-ownership and participation in its development guarantees everyone a personal contribution to the changing of practically every aspect of life of future generations.

Contrary to the chamber's principles which should be owned by everyone, its technology should be owned exclusively by a country, institution, or individual who invested in this device. It is logical that the economic benefits resulting from the mastering of this technology should be reaped by those who undertake its developmental research. Of course it is not difficult to foresee that these benefits will be enormous. In order to protect the interests of the investors who will sponsor the technological research on the Oscillatory Chamber, the author has decided that beyond the 4th stage of the chamber's development, only the principles (but not the technological data) concerning this device will be published. Therefore all non-sponsoring institutions, who later have to catch up on this technology, will not only loose their markets because of starting too late, but also they will need to repeat the same costly research that the original developmental team has completed.

The author realizes that the final development of the Oscillatory Chamber will require a team effort and the intellectual contribution from many minds. This in turn means that the last stages of the chamber's development would need to take the form of a quite large technological project. The project of course will require a number of research staff who must be well trained in solving the chamber's problems, and who should prove their capabilities in advance. It is well known that investigators who are completely new in a given field always require a significant period of studies (sometime even a few years) to

become familiar with the subject. During this time they remain intellectually non-productive. Thus in the case of beginning a project to build the Oscillatory Chamber, those people who already have done some experiments with the chamber will be invited first to take a part in the developmental team. Therefore, every person who at present is working on the chamber should keep in touch with the author, and should exchange systematically the information on their most recent achievements. Such contact and exchange of information also has some additional advantages, the most important of which are as follow:

1. The duplication of errors is avoided. Developmental research on the Oscillatory Chamber which is not coordinated by the author, will more likely lead to the duplication of the same errors by those individual investigators who do not know about each other's achievements.

2. A number of various aspects of the Oscillatory Chamber is investigated simultaneously. This in turn speeds up significantly the process of finding and implementing the correct technical solutions.

3. The contribution of fresh ideas is increased proportionally to the number of investigators simultaneously working on the Oscillatory Chamber. Subsequent investigators verify their ideas and contribute towards the common goal. As a result, the time-span in which this urgently needed invention is built (and used for the benefit of our civilization) is decreased.

It should be mentioned here that such team work decreases also the secrecy about the advancement of the chamber's completion and thus gives everyone an equal opportunity to develop this device. This should prevent the history of the nuclear bomb from being repeated again. The military capabilities of the Oscillatory Chamber are so enormous (see subsections F9 and G13) that a totalitarian country or organization which secretly develops this device before anyone else could use it to conquer the world and to take complete control over our planet.

F8. The energy conservation and energy production potentials of the Oscillatory Chamber

When the Oscillatory Chamber is finally built, all its applications will be energy-related. This means that the chamber will affect every field of human activity which involves the production, distribution, transmission, conversion, and consumption of energy. Because of the unique properties of this device, the Oscillatory Chamber will be the catalyst of perfect energy management. Two factors will be significant for its implementation, i.e. totality and revolutionary impact. Totality will be manifested through the application of the chambers in every device, structure, or installation built by man. There will be no technological objects produced in future which will be devoid of some form of the Oscillatory Chamber. The revolutionary impact of the chamber will manifest itself through the type and extent of the changes that this device will introduce into our lives. After the full implementation of the chamber, Earth will be a completely different planet from what it is at present.

The enormous transformations which the introduction of Oscillatory Chambers will cause on Earth can not happen instantaneously. It may take more than 40 years to complete the energy-related revolution initiated by putting these devices into use. Therefore, after the first Oscillatory Chamber is built, two different periods will be distinguishable in the utilization of this device, i.e. (1) the change-over period, and (2) the stable period. The change-over period will occur when the number of Oscillatory Chambers in use will gradually increase, but also traditional energy devices will be used in parallel with chambers. The stable period will occur when all the traditional energy devices will be eliminated and replaced by the chambers. It should be stressed that during the first period of the change-over, energy management on Earth will be described by different factors from those characterizing the second period of stable implementation of the chambers. To highlight these differences, the main attributes of both periods will be reviewed below.

F8.1. <u>Characteristics of the first period (change-over) of the chamber's implementation</u>

The first, change-over, period of the chamber's utilization will take the character of a cumulative "energy revolution" extending from the time of the first introduction of this device until about 40 years afterwards. The characteristic attribute of this period will be that the Oscillatory Chamber will gain an increasing number of applications and gradually supersede (replace) all conventional energy devices. During the first half of this unstable period, energy demands will grow rapidly because the market will require more and more Oscillatory Chambers, all filled with energy. Therefore on top of the existing energy consumption will be added the accumulation of energy in the numerous, newly-built Oscillatory Chambers. The energy accumulated in them over this short period of time will later be consumed gradually, during entire decades or even centuries of the stable period of the chamber's utilization. In the second half of the change-over period, the energy demand will begin to decline, till it reaches the level characteristic for the stable period. The energy-related situation of our civilization during this change-over period can be described by the following factors:
- The number of chambers used by each person will gradually increase.
- Energy production must cover all the actual consumption and also its accumulation for future use in the numerous chambers. This will cause a rapid increase in energy prices.
- The high energy prices will encourage the development and implementation of numerous new methods of energy production, based mainly on exploiting the unique properties of the Oscillatory Chamber. During the change-over period numerous free energy devices will be perfected, as well, various other "clean" energy sources will find a common use.
The significant attribute of the change-over period will be an increase (not a decrease) in energy demand, causing the intensification of energy production, and intensification of the use of all energy resources. Because of the short duration of this period, it will have no significant impact on our total economy or overall standard of living. Also it will decline long before the Earth's energy resources are used up completely. But it may have significant bearing on the future of some individuals, companies, or even countries - mainly because it will make quick fortunes for the owners of energy resources and owners of energy production facilities.

F8.2. <u>Characteristics of energy management during the second, stable period of the Oscillatory Chamber's utilization</u>

About 40 years after the first Oscillatory Chamber is built, the use of this device will enter the second, stable period. In this period the energy-related situation of our civilization can be described by the following factors.
- The number of chambers used by every person will reach such a level that the introduction of new ones will require the disposal of some of the old devices.
- The energy production of our civilization will only need to cover the current energy consumption.
- All basic applications of the chamber will be well recognized and implemented practically.
There will be two main differences between the way energy will be managed in the period discussed and its management in present times. These are: (1) utilizing only "clean" methods of energy production, and (2) perfecting the efficiency of energy use.
The high energy prices appearing in the first, change-over period of the chamber's utilization (see subsection F8.2) will promote the development of numerous methods of "clean" (i.e. non-polluting of the environment) energy production. In these methods two

unique properties of the Oscillatory Chamber will be employed. The first of them is the ability to intercept, total, and accumulate randomly appearing, small portions of energy. This will allow for a wide use of the energy sources at present recognized as too slow, too unpredictable, or too ineffective to be implemented commercially (e.g. sea waves and tides, day/night temperature changes, inertia of the ground, etc.). The second property of the chamber to be applied will be the production of a very powerful magnetic field. This field will open for the utilization as energy sources a number of phenomena which our present level of technology does not allow to be used for such a purpose, e.g. the magnetohydrodynamic effect of running water and wind, pulsating electromagnetic signals originating from natural sources such as crystals or free space, or a technological form of telekinesis used in the so-called free energy devices. Especially the possibility of the commercial utilization of free energy devices (which in this monograph are called telekinetic motors, generators, or powerstations - see description in subsections B6.2.2 and D6) may completely eliminate from further exploitation all our present fuel-based sources of energy. The increased efficiency of such "clean" methods of energy production resulting from the chamber's capabilities, in combination with an unlimited number of installations utilizing these methods, will make it possible for the entire energy demand of our civilization to be supplied from these non-polluting sources.

The second main difference between the present management of energy and this one in the stable period of the chamber's utilization will be the drastic drop in energy consumption by our civilization. It is difficult to determine without detailed research how great this drop will be. But the analysis of its numerous causes allows one to estimate that the total energy demand at that period will be well below a quarter of the present consumption of energy and fuels. Such an enormous drop will be due to a number of reasons which are listed below:

1. The efficiency of all methods of energy production remaining in use at that time will be raised to perfection. These methods will allow to transform into energy and to store in the form of a magnetic field the entire work supplied to Oscillatory Chambers. Thus the present energy losses occurring during energy production will be eliminated.

2. Energy losses during distribution will be eliminated. The Oscillatory Chambers will be used as kind of "tins for energy". They will be loaded, or recharged, in the energy producing plants (or devices), from which these chambers will be delivered straight to their users. Therefore energy will be distributed in a different, free of losses manner - i.e. after being "packed" into the chambers (not like today, when it is transmitted through dissipating powerlines or inefficient transmission installations).

3. Energy losses during conversion will be eliminated. To achieve control over the performed work, the energy consumed is at present subjected to various transformations, usually involving significant dissipation (e.g. the gearbox needed to transform a car's mechanical energy). The utilization of the Oscillatory Chambers will remove such transformations, as the direct output from these chambers will be the work which users want to be done (e.g. future models of cars will have chambers installed directly in their wheels). Therefore, all controlling activities required for the adjustment of work just being performed will be conducted inside the chambers, causing no energy loss at all.

4. The efficiency of energy consumption will be perfected. At present only a small fraction of energy released by our engines is converted into useful work. Most of our fuel is now wasted and pollutes the environment. Using the Oscillatory Chambers will ensure the conversion into useful work of almost the entire energy supply contained in them.

5. The energy flow will be reversible. At "braking" stages of machines' operation, the magnetic field will allow energy to flow back into the chamber. The principle of this flow will be identical to that of some electric motors which, when provided with motion, turn themselves into generators and produce electricity (instead of consuming it). This principle will allow for the elimination of energy losses during the idle running of machines; for inertia; during accelerating and decelerating of masses, etc. In this way a large proportion of energy that gets wasted at present will be recoverable after the introduction of Oscillatory Chambers.

6. Energy will not be disposable. Once accumulated within a chamber it will be used entirely. The energy from the old chambers designated for disposal will be transferred into new ones and then consumed. The destruction of chambers still containing energy will not only be uneconomical, but also extremely dangerous (see subsection M3).

7. Energy consumption in civil engineering work will be eliminated. The introduction of magnetic propulsion will completely remove all work connected with building and maintaining roads, railways, bridges, ports, streets, etc. All transport and travel will be done by means of soaring in space, so these civil constructions will not be required any more.

8. Energy consumption in the transport of raw materials, ore and minerals will be eliminated. A significant decrease in the weight and complexity of all machines, caused by the application of the Oscillatory Chambers, will allow us to build resource-processing factories as a system of flying modules. These modules will approach the location of the resources in order to process them. In this way more than half of our present industries could be organized as "flying factories", e.g. all food-processing industry, mining and processing of minerals, a large part of energy production, farming, harvesting, forestry, etc. The homes of people employed in these factories will also be built in the form of flying vehicles.

9. Much of the present means of transport for people will be eliminated. At the moment people need to move frequently, travelling from home to the work place, to shopping centres, schools, holiday resorts, etc. When magnetic propulsion becomes a reality, homes and flats will be provided with propulsors and built in the form of flying vehicles. They will be able to land one on top of the other, forming types of modular skyscrapers (see the configurations formed by the Magnocraft - subsection G5). So there will be no need for present forms of travel, because these homes will "park" near the place where their owners need to spend time.

F9. Future applications of the Oscillatory Chamber

To-date there does not exist any other technical invention which has altered the state of our technical environment to the same extent as the completion of the Oscillatory Chamber will do. The impact this device will have on the materialistic aspects of human life can be compared only to the effect of the introduction of computers in the intellectual sphere. One can predict that by the year 2084 (i.e. in one hundred years after the chamber's discovery) almost every active device used by people will consist of some form of the Oscillatory Chamber. Many structures which at present are passive, such as furniture, buildings, monuments, etc., will be transformed by the Oscillatory Chamber into active ones, i.e. moving, altering orientation and adjusting their location to the changing requirements of their users. Let us briefly review the main applications of the Oscillatory Chamber, trying to forecast what impact they will have on particular fields of human activity.

The unique advantages of the Oscillatory Chambers will result in this device completely taking over the present functions of electromagnets. Research laboratories, capable of using magnetic fields of strengths unattainable today, will be able to wrest a number of secrets from nature, introducing a significant step forward in our science and technology. Industry, utilizing technologies that are based on the application of super-strong magnetic fields, will provide us with a number of products of as yet unattainable quality. For example, we could produce indestructible rubber and clothes, objects made completely of monocrystals, concrete stronger than steel, etc. Also a new type of material, suiting the magnetic requirements of the Oscillatory Chamber, will supersede those in use at present.

The Oscillatory Chamber will eliminate not only the electromagnets used as separate devices, but also all those which make up parts of other devices, e.g. from electric motors, electricity generators, etc. Advantages of the chamber, such as: high power-to-dimensions ratio, ability to introduce long gaps between the time of energy supply and the time of energy consumption, controllability; will result in the wide application of this

device for building light vehicles, pumps and generators working far from an energy supply and civilization centers, ship and aeroplane engines, medical instruments, etc.

The twin-chamber capsule providing a constant magnetic field will replace some present-day permanent magnets. Therefore future models of our speakers, bearings, clutches, grapples, rails, etc., will all employ Oscillatory Chambers.

The numerous applications of the chamber in the future are connected with the ability to store huge amounts of energy. To have an idea of what kind of potentials are involved here, it is enough to realize that the energy needs for today's factories, towns, big ships or aeroplanes can be satisfied by a chamber of pin-head size. All present batteries, accumulators and electricity transmission lines (power lines) will be replaced by light, much more efficient, and rechargeable Oscillatory Chambers. Built as twin-chamber capsules, they will not yield any magnetic field when used for energy storage.

A wide application of the chamber can also be predicted in all cases where the transformation of energy is required - compare with Table F1. Such devices as telekinetic generators of free energy (described in subsections B6.2.2 and D6) and generators of clean energy (exploiting solar radiation, wind, ocean waves, tides), engines, air conditioners, etc.; can become very efficient when employing the principles of the Oscillatory Chamber. The transformation of energy will also replace today's transformation of motion. Future mechanisms will be much simpler and lighter, because they will be released from all the devices which presently provide and transform motion. The motion will be created in the location where the work is to be done and in the exact form that is required. For example if a future hobbyist were to build a copy of our present car, he would produce the motion right inside the wheels, therefore the whole engine, gears, and transmission would be eliminated.

The Oscillatory Chambers will also introduce a completely new fashion, which at present has no appropriate technical back-up. It will be the fashion to suspend objects in space. It should be expected that future furniture, household devices, machines, and even buildings or elements of architecture will hang in space, supported by the invisible force lines of a magnetic field. One of the consequences of this fashion will be the complete disappearance of the wheel, as all present rolling movements will be replaced by soaring in space.

Enormous potential is involved in the military applications of the chamber. A system of these devices producing whirling magnetic fields will be able to form barriers and mine fields which in seconds may explosively vaporize every object made of a good electric conductor, entering into their range. Missiles containing systems of chambers may cause instant evaporation of huge constructions made of steel, such as bridges, factories, ships, aeroplanes, rockets, satellites, etc. The rapid release of the energy stored within a chamber (e.g. through its detonation - see [5F]) will cause an explosion comparable in effects to the use of a nuclear bomb. The only difference will be that the chamber will not pollute the environment by any radioactivity. Military vehicles, whose chambers will form repulsive or attractive interactions with ferromagnetic objects in their vicinity (see Figure F8), will be able to repel, or to attract and intercept, vehicles or missiles on the opposite side.

The most promising prospects, however, are connected with use of the Oscillatory Chamber for the purpose for which its principle was originally invented - i.e. for the magnetic propulsion of flying vehicles. The next chapters of this monograph are devoted to the description of such applications of the chamber.

F10. Monographs describing the Magnocraft, the Oscillatory Chamber and other corresponding devices

Since the Magnocraft and the Oscillatory Chamber were invented, the author has prepared and disseminated a number of monographs devoted to the presentation of these devices. The most important of these are listed below in the order of their completion.

[1F] "Theory of the Magnocraft". Monograph by the author. It contained the first comprehensive presentation of the Magnocraft, including a brief account (one chapter) dedicated to the Oscillatory Chamber representing the "engine" for this vehicle. One chapter was also dedicated to the description of Magnetic Personal Propulsion. The monograph [1F] was published in the following editions:

(a) First New Zealand edition, January 1984, ISBN 0-9597698-0-3;

(b) First USA edition - co-published in USA by: Energy Unlimited, PO Box 35637 Sta. D, Albuquerque, NM 78176, June 1985.

(c) First Polish edition (written in Polish language) entitled, "Teoria Magnokraftu", March 1986, ISBN 0-9597698-5-4.

(d) Second New Zealand edition - extended, Invercargill, August 1984, ISBN 0-9597698-1-1.

[2F] "The Oscillatory Chamber - a breakthrough in the principles of magnetic field production". Monograph by the author. It was intended to provide the first complete disclosure of the Oscillatory Chamber, prepared as a proposal to be discussed and evaluated by other scientists. One chapter was dedicated to the Magnocraft. The monograph [2F] was published in the following editions:

(a) First New Zealand Edition, December 1984, ISBN 0-9597698-2-X.

(b) First USA edition, published in the "Energy Unlimited" magazine, Issue 19/1985, pages 15 to 43. This special edition of the magazine (published by "Energy Unlimited", PO Box 35637, Station D, Albuquerque, NM 87176, USA) reprinted the whole monograph on the Oscillatory Chamber.

(c) First West German edition (written in German language) entitled, "Die 'Schwingkammer' Energie & Antrieb fur das Weltraumzeitalter", published by: Raum & Zeit Verlag, Dammtor 6, D-3007 Gehrden, West Germany; June 1985, ISBN 3-89005-006-9.

(d) Second New Zealand edition, augmented, Invercargill, October 1985, ISBN 0-9597698-4-6. This edition contained the first presentation of the Concept of Dipolar Gravity.

[3F] "The Magnocraft: a saucer-shaped space vehicle propelled by a pulsating magnetic field". Monograph, Invercargill, New Zealand, September 1986, ISBN 0-9597698-3-8. This monograph represented a newly updated and extended version of the monograph [1F]. It was composed of three parts: (1) the philosophical foundations, including the Concept of Dipolar Gravity, (2) Theory of the Magnocraft, and (3) the validation of theories and devices proposed in parts 1 & 2 (proving that "UFOs are already operational Magnocraft").

[4F] "The Magnocraft - Earth's version of a UFO". Dunedin - New Zealand, 1989, ISBN 0-9597698-6-2, a private edition by the author (500 pages). It contains an augmented and updated version of the descriptions from monograph [3F].

[5F] "Tapanui Cataclysm - an explanation for the mysterious explosion in Otago, New Zealand, 1178 A.D.". Dunedin, New Zealand, 1989, ISBN 0-9597698-7-0, a private edition by the author (52 pages). It presents the author's findings about a crater formed when Magnocraft-like vehicles exploded near Tapanui (see subsection M3).

[6F] "The magnetic extraction of energy from the environment". Dunedin, New Zealand, 1990, ISBN 0-9597946-1-1, a private edition by the author. It describes free energy devices that utilize the "Telekinetic Effect" released through acceleration or deceleration of magnetic fields (see subsection B6.2).

F11. Symbols, notation, and units used in this chapter

_____

symbols - explanation   [units]
_____

a - side dimension of a cube   [metre]
A - area   [square metre]
c - compression force   [Newton]
C - capacitance   [Farad]
E - name of an electrode   [-]
f - frequency of pulsations   [1/second]
F - magnetic flux   [Weber]
Fo- constant component of a magnetic flux   [Weber]
i - electric current   [Ampere]
l - spacing or length   [meter]
L - inductance   [Henry]
m - magnetic axis   [-]
M - magnetic force acting on a current   [Newton]
n - number of turns of a coil per unit of length   [-]
p - number of segments in an electrode   [-]
P - plate (electrode)   [-]
q - electric charge   [Coulomb]
R - resistance   [Ohm]
s - sparks' motivity factor   [-]
S - general name for a spark   [-]
t - time   [second]
T - period of pulsation   [second]
T - tension force   [Newton]
U - breakdown difference of potential in the chamber   [Volt]
ΔF- amplitude of magnetic flux pulsations   [Weber]
ε - dielectric constant for a gas filling the chamber   [Farad/metre]
μ - magnetic permeability of a dielectric   [Henry/metre]
Ω - resistivity of a dielectric gas within the chamber
       determined at the moment of electric breakdown [Ohm*metre]

     Suffixes assigned to electrodes and other symbols:

B - Refers to a back electrode
F - Refers to a front electrode
L - Refers to a left electrode
R - Refers to a right electrode
N - Refers to a north magnetic pole
S - Refers to a south magnetic pole
I - Refers to an inner Oscillatory Chamber
O - Refers to an outer Oscillatory Chamber
C - Refers to a circulating flux of a twin-chamber capsule
R - Refers to a resultant flux of a twin-chamber capsule

No	The device utilizing the Oscillatory Chamber	Kind of energy		Principles of operation
		Supplied	Obtained	
1.	Electro-magnet	Electric current	Magnetic field	Electric energy supplied to the chamber will be transformed into a magnetic field.
2.	Heater	Electric current	Heat	Hot gas from the chamber will be circulated through a radiator.
3.	Electric motor	Electric current	Mechanical motion	Waves of controlled magnetic fields produced by a set of chambers will cause a mechanical motion of conductive elements.
4.	Transformer	Electric current	Electric current of different parameters	Two chambers of different working parameters exchange energy through their magnetic fields (utilizing a phase shift in their pulsations).
5.	Combustion engine	Heat	Mechanical motion	Heating of the gas in the chamber provides energy which is then consumed in the process of producing a mechanical motion.
6.	Electricity generator	Heat	Electricity	Gas filling the chamber circulates through a heat exchanger. Energy supplied in the form of heat is converted into an electrical charge and then withdrawn as an electric current.
7.	Generator	Mechanical motion	Electricity	Moving one chamber towards another changes the interactions of their magnetic fields, providing them with energy which can then be withdrawn.

Table F1. The utilization of Oscillatory Chamber. Listed are examples of present devices for conversion of energy which in the not-too-distant future will be replaced by twin-chamber capsules due to the multidimensional energy-transformation capabilities of the Oscillatory Chamber.
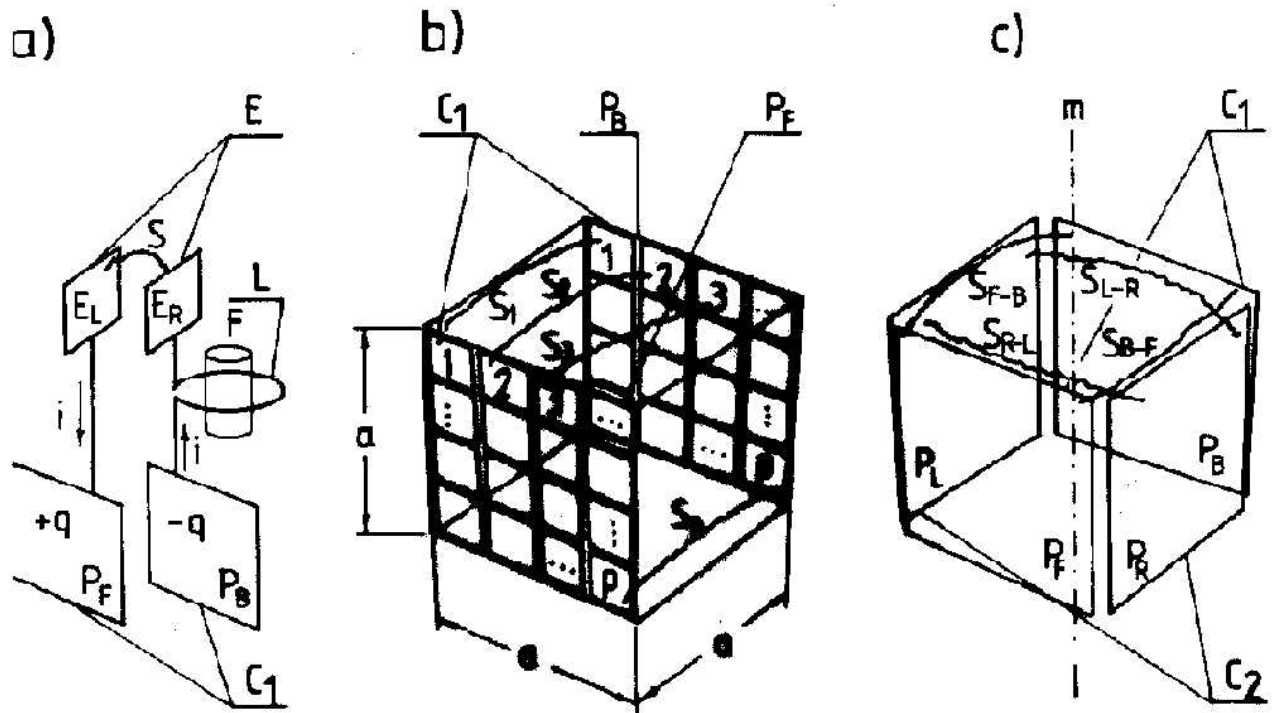
Fig. F1. The transformation of an oscillatory circuit with a spark gap into an Oscillatory Chamber.

(a) The conventional form of an oscillatory circuit with a spark gap, as it was discovered by J. Henry in 1845. Its three vital elements (i.e. capacitance "C1", inductance "L" and spark gap "E") are provided by separate devices.

(b) The modified version of the oscillatory circuit with a spark gap. All three vital elements are concentrated in one device, i.e. a set of conductive segments "1, 2, ..., p" forming two plates "PF" and "PB" joined to the inner surfaces of the two opposite walls of a cubical chamber made of an electric insulator. The side dimension of the cube is marked by "a".

(c) The Oscillatory Chamber formed by combining together two modified oscillatory circuits "C1" and "C2" identical to that presented in part (b) of this diagram. The consecutive appearance of sparks "Sr-l", "Sf-b", "Sl-r", "Sb-f" oscillating along the surface of the walls creates a kind of electric arc circulating around the inner perimeter of this chamber and producing a strong magnetic field.
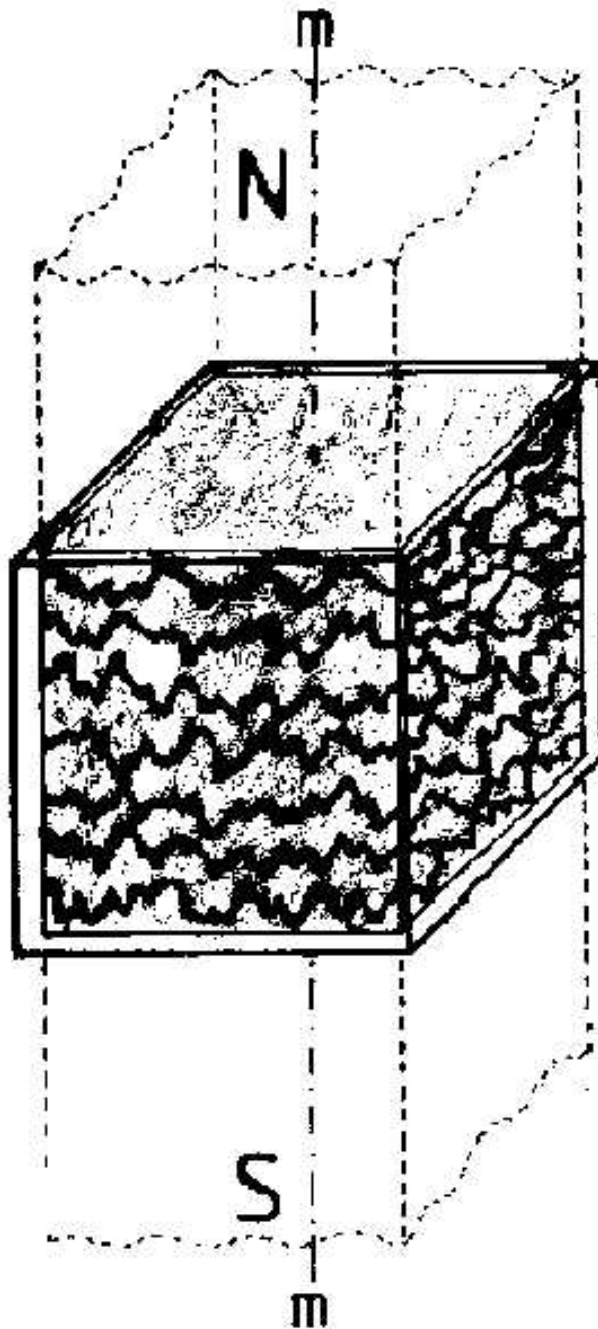
Fig. F2. The assumed appearance of the Oscillatory Chamber. It will look like a glass cube. Streaks of bright shimmering sparks of golden colour will run horizontally around the inner surfaces of it's side walls. These sparks will slowly move their plots like a knot of snakes writhing around their prey. Therefore the operational chamber will give an impression of a living creature preoccupied with some mysterious activity. The broken lines indicate the column of produced magnetic field distributed along the "m" axis. When viewed from the direction perpendicular to the magnetic field force lines (i.e. exactly as it is illustrated in the above diagram) this column will trap the light and thus it should be seen by the naked eye as a black bar extended in both directions from the chamber - see the description of such bars presented in subsection G5.4. Also this field should cause the inside of the chamber to be non-transparent. Therefore the chamber should look as if it is filled with black smoke. If viewed along the magnetic field force lines, the passage through the chamber should be transparent, except for the cases presented in Figure F5.
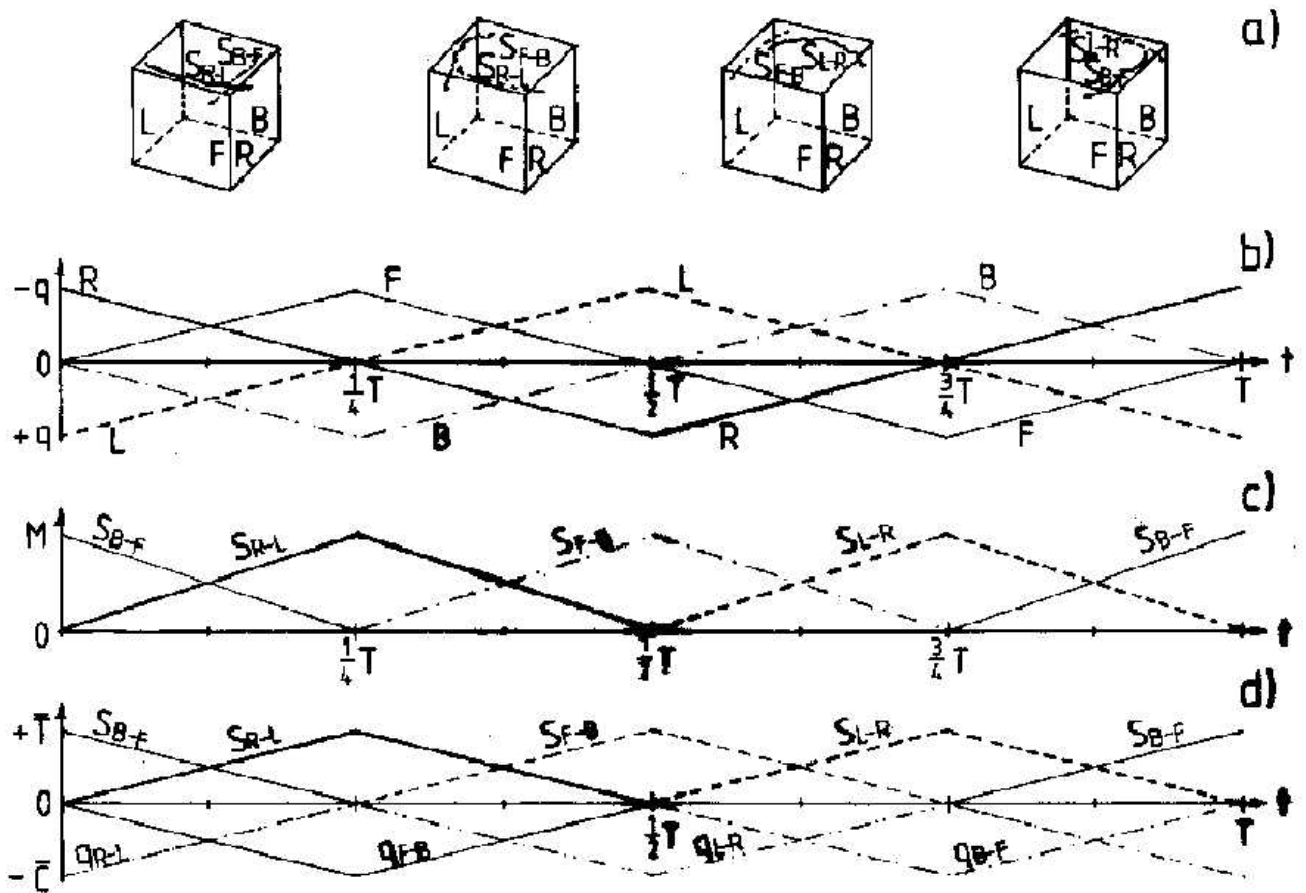
Fig. F3. The mechanism of mutual neutralization of the electro-magnetic forces, simultaneously tensing and compressing the Oscillatory Chamber in opposite directions.

(a) The four basic phases of operation of the Oscillatory Chamber. Symbols: R, L, F, B - the right, left, front and back plates of the chamber that together form two co-operating oscillatory circuits; Sr-l, Sf-b, Sl-r, Sb-f - the four streams of electric sparks that appear in succession during a single cycle of oscillations, thus forming one complete rotation of the square arc.

(b) The changes in the potential of the plates during a full cycle of the chamber's operation. Symbols: T - period of pulsation; t - time; +q, -q - positive and negative electric charges accumulated on plates.

(c) The changes in the electro-magnetic containment forces (M) acting on particular electric sparks.

(d) The changes in the tensing forces (T) and the compressing forces (C) that mutually neutralize each other. The tensing forces (T) are produced by the electro-magnetic containment interactions occurring between the sparks and the magnetic field that fills the chamber. The compressing forces (C) are caused by the reciprocal Coulombs attraction of the opposite electric charges accumulated on the facing plates. Note that both groups of these forces have a symmetrical course but opposite value. This is why they cancel each other's action.
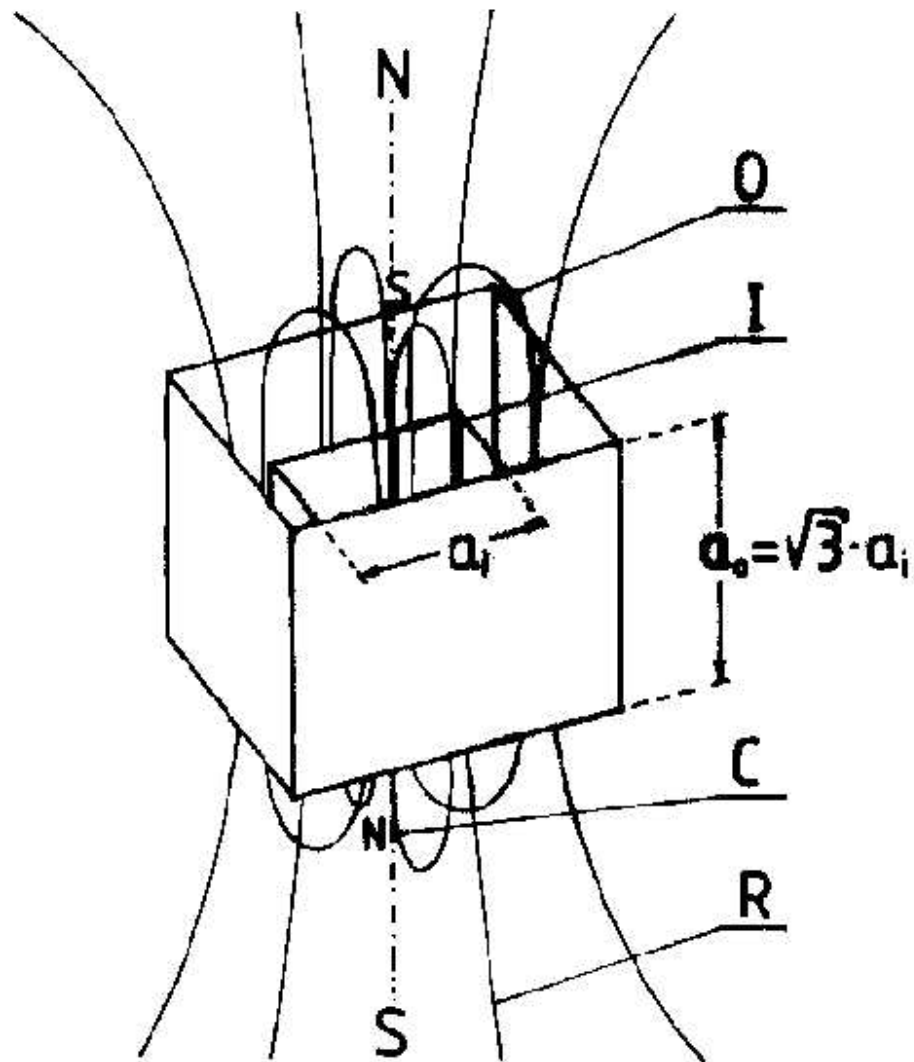
Fig. F4. A basic arrangement of two Oscillatory Chambers called the "twin-chamber capsule". The main application of this capsule is to constitute a propulsor for the Magnocraft. The twin-chamber capsule is formed from two oppositely oriented chambers placed one inside the other. Because of the need for free floating of the inner (I) chamber suspended inside of the outer (O) one, the side edges "a" of both Oscillatory Chambers must meet the equation: $a_o = 3 \cdot a_i$ (see equation G9). The resultant magnetic flux (R) yield to the environment from these arrangements is obtained as a difference between outputs from chambers having opposite orientation of poles. The principles of forming this resultant flux are illustrated in Figure F6. The twin-chamber capsule allows full control over all the attributes of the produced magnetic field. The subjects of control are the following properties of the resultant flux (R): (1) strength of the field (fluently controlled from zero to maximum), (2) frequency of pulsations, (3) ratio of the amplitude of the field's pulsations to its constant component (F/Fo - see Figure F8), (4) character of the field (i.e. constant, pulsating, alternating), (5) variation in time (i.e. linear, sinusoidal, beat-type curves), (6) polarity (i.e. from whichever side of the arrangement the N and S poles prevail). Symbols: O - outer chamber, I - inner chamber, C - circulating flux trapped inside the capsule, R - resultant flux yield from the capsule to the environment.
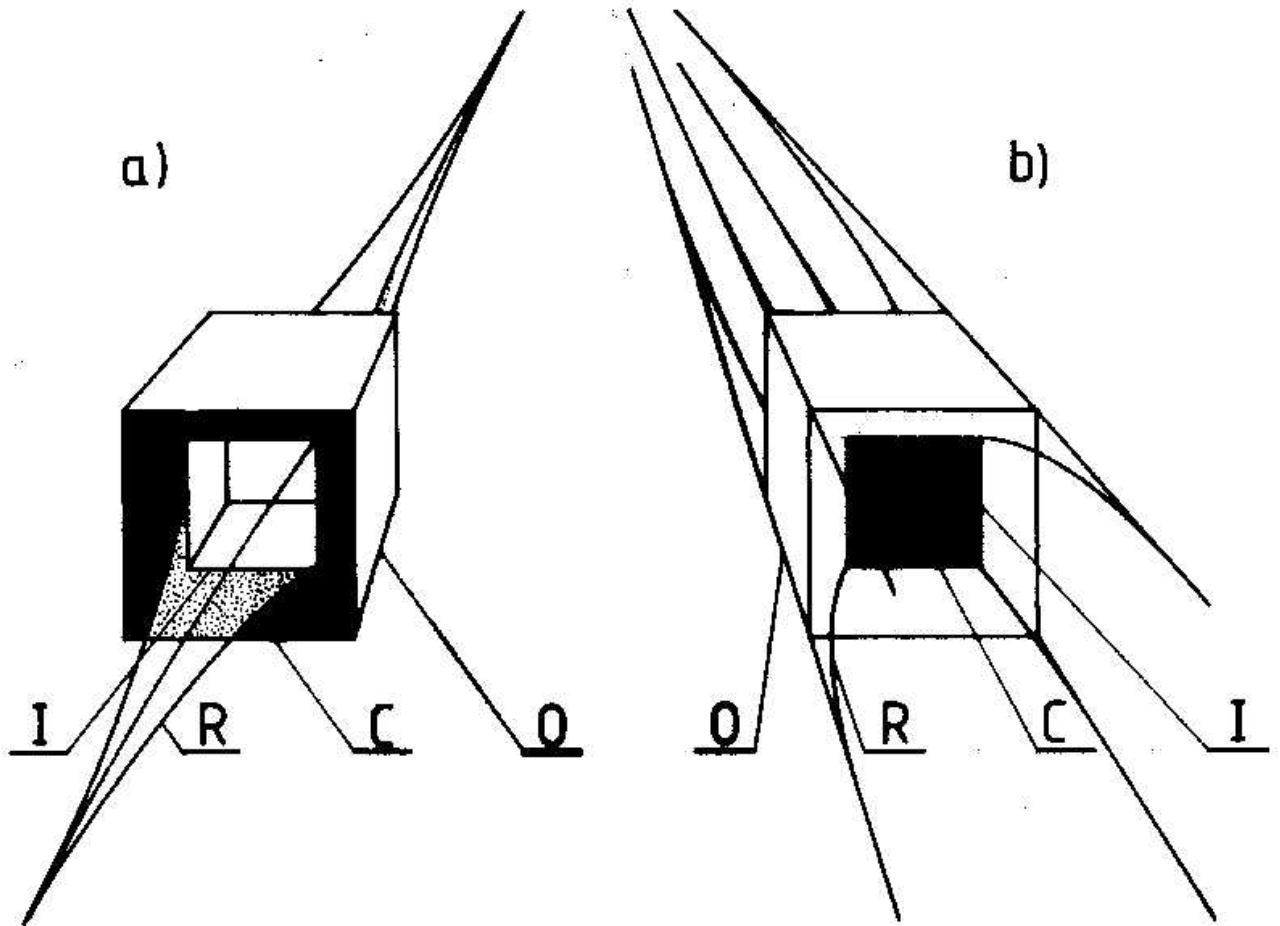
Fig. F5. The illustration of differences in visual appearance of twin-chamber capsules that operate in two opposite modes called: (a) the INNER flux prevalence, and (b) the OUTER flux prevalence. Because a strong magnetic field produced in both capsules is translucent only when observed along the field force lines, the curved force lines of circulating flux (C) are non-transparent to the outside observer and thus must be seen as black bars (compare the description from subsection G5.4 with Figure F4).

(a)The capsule with the inner flux prevalence. The resultant flux (R) is produced here by the inner chamber (I), whereas the entire output of the outer chamber (O) is turned into the circulating flux (C). Therefore in this capsule the space between the inner and outer chamber is impenetrable to light and appears as a totally blackened area.

(b) The capsule with the outer flux prevalence. The resultant flux (R) is produced here by the outer chamber (O). The inner chamber (I) supplies only the circulating flux (C) that entirely curves itself back into the outer chamber. Therefore in this capsule the cross area of the inner chamber is totally blackened.
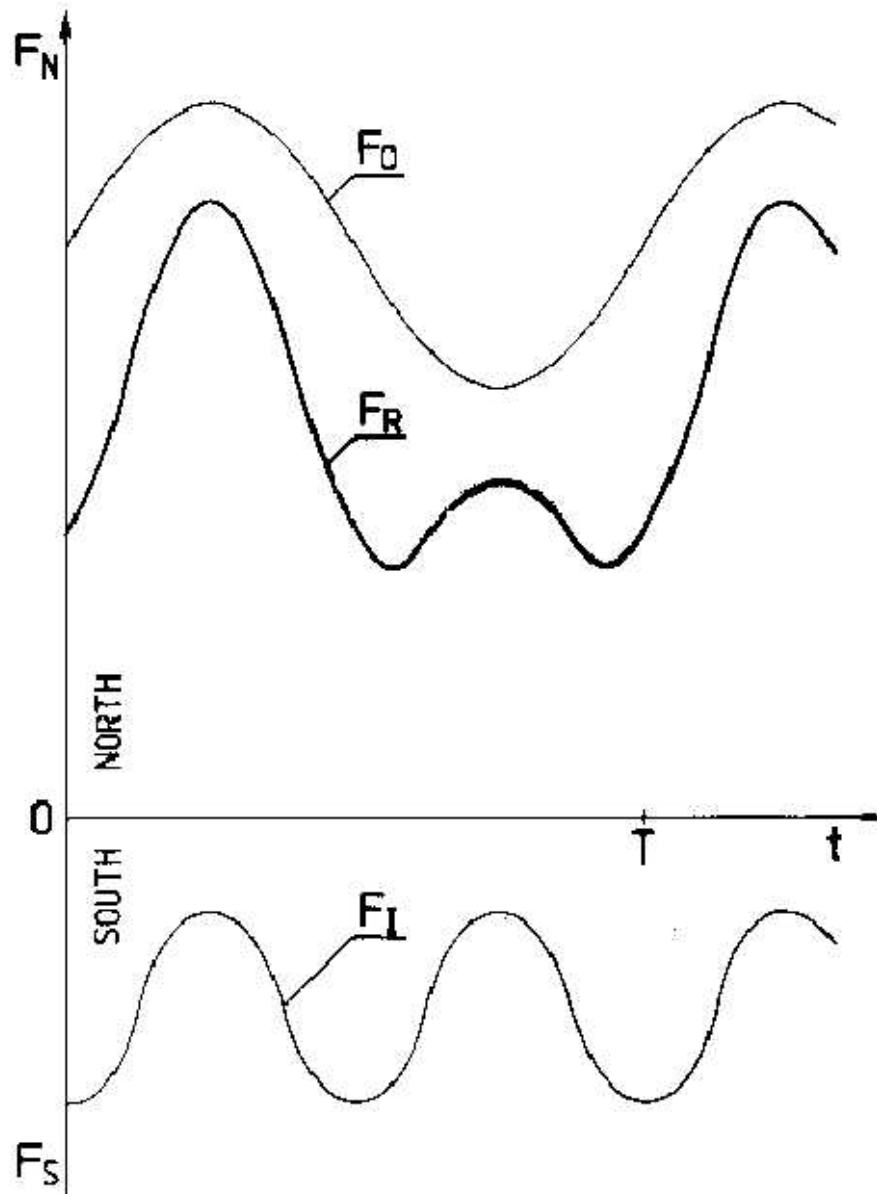
Fig. F6. Principle of combining together the outputs from both chambers of the twin-chamber capsule into the resultant flux "FR". The case of producing the resultant flux whose variation in time reflects a beat-type curve is considered. The outer chamber produces the greater flux (FN) whose variation in time (determined at its north, "N" pole) is represented by the curve "Fo". The inner chamber has the opposite polar orientation - see figures F4 and F5 "b". Therefore in the direction where the north, "N" pole of the outer chamber prevails, the inner one extends its south, "S" pole. The variation in time of the output (FS) from this inner chamber is represented by the curve "Fi". If two fluxes "Fo" and "Fi" of the opposite polarity are combined together, the resultant flux "FR" represents the difference in their values. This difference of fluxes is yield outside the twin-chamber capsule forming resultant flux "FR". The entire output "Fi" of the inner chamber remains trapped inside of the capsule as the circulating flux (C) that circulates internally between the inner and outer chambers. Note that: In further deductions the shape of the resultant beat-type curve "FR" is roughly represented by pulsing curves - see Figures F8 and G35. The "spider configurations" (see Figure F7) produce their resultant flux in an almost identical manner to the one described above.
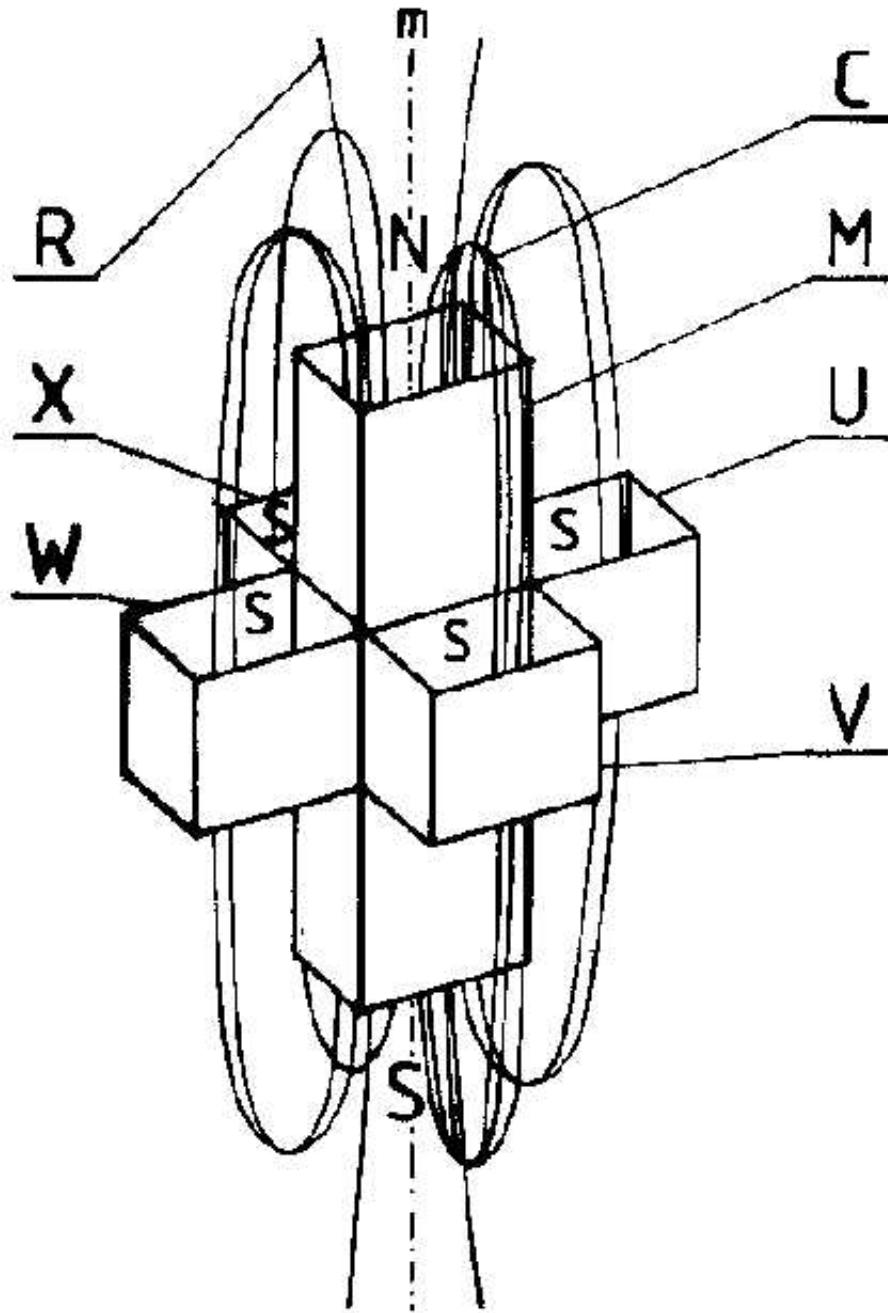
Fig. F7. A basic arrangement of the Oscillatory Chambers called the "spider configuration". This configuration is used as a propulsor for the four-propulsor spacecraft - see Figure I1. It is formed from five Oscillatory Chambers having the same cross area. The four cubical side chambers (marked U, V, W and X) surround the oppositely oriented main chamber (marked M) which is four times longer. The total volume of all four side chambers must be equal to the volume of the main one. This arrangement is the simplified model of the Magnocraft's propulsion system. The resultant magnetic flux (R) yield to the environment from the spider configuration is obtained as a difference between outputs from the main chamber and the oppositely oriented side chambers. The principles of forming this resultant flux are similar to those illustrated in Figure F6. The spider configuration, similar to the twin-chamber capsule, also allows full control over all the attributes of the produced magnetic field - see Figure F4. But in addition the spider configuration can spin the produced field around its magnetic axis "m" thus producing its own magnetic whirl.
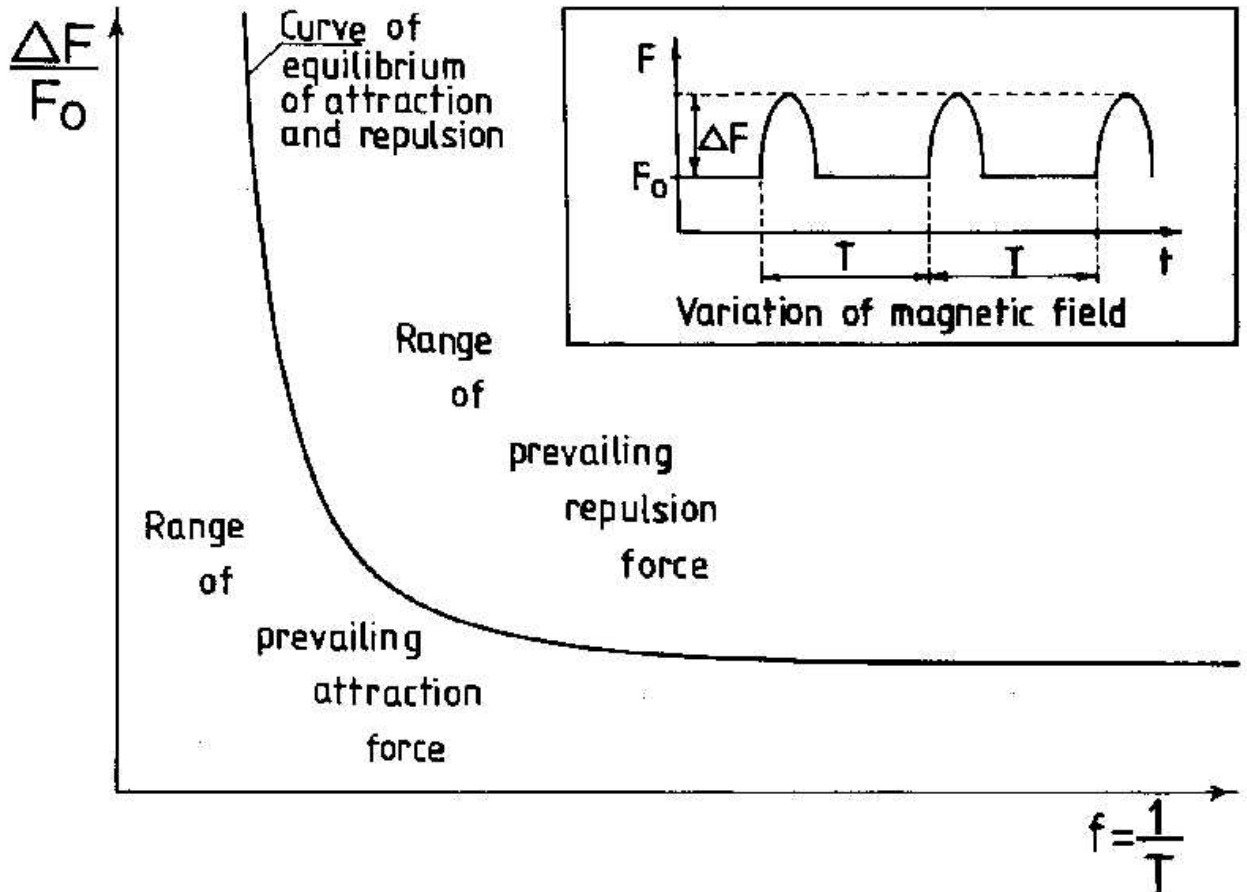
Fig. F8. The curve of the "interactions in equilibrium" between the magnetic field produced by a twin-chamber capsule or a spider configuration and all the ferromagnetic objects found in the range of this field. As it is known, the constant magnetic fields attract ferromagnetic objects. Therefore all fields in which the constant (Fo) component dominates over their pulsating (ΔF) component must attract ferromagnetic objects. The parameters of fields whose constant component dominates lie under the curve from this diagram. It is also known that pulsating magnetic fields repel all conductive (ferromagnetic) objects found in their range. So the fields which the pulsating component (ΔF) dominates over the constant one (Fo) will cause the repulsion of all ferromagnetic objects. The fields with the dominating pulsating component (ΔF) lie above the curve from this Figure. For the parameters of fields lying exactly at the curve, the attraction and repulsion components mutually neutralize each other. Thus such fields neither attract nor repel any ferromagnetic objects in their vicinity. These fields behave more like an "antigravity field" than a magnetic one. The frame contains the interpretation of all the involved parameters of the pulsating magnetic fields.

Fig. F9. Photographs of the operational model of the Oscillatory Chamber which, for the first time, was built in May 1987 by a Polish hobbyist, Ryszard Zudzin of Bydgoszcz. The model shown still requires further perfecting to become a powerful magnetic field producing device, and it may take many years before the first such chambers will be deployed. But it demonstrates that the complete rotation of electric sparks around the perimeters of a cube can be achieved, thus confirming the validity of the Oscillatory Chamber's principles. The secret of success with building the above chamber lies in the introduction of needle-shaped electrodes that replaced the square plates shown in Figure F1 "b" (see Figure F10), and in the appropriate shaping of electric impulses that produce the sparks. Mr Zudzin got the idea of such needle-shaped electrodes from the ancient descriptions of gold nails driven through the wooden walls of the Ark of the Covenant.

(a) The operation of the Chamber photographed in darkness. It reveals the fascinating appearance of streams of rotating electric sparks visible through transparent walls of this device.

(b) A Polish hobbyist and his Chamber connected to an impulse generator (of his construction) that supplies electric power.
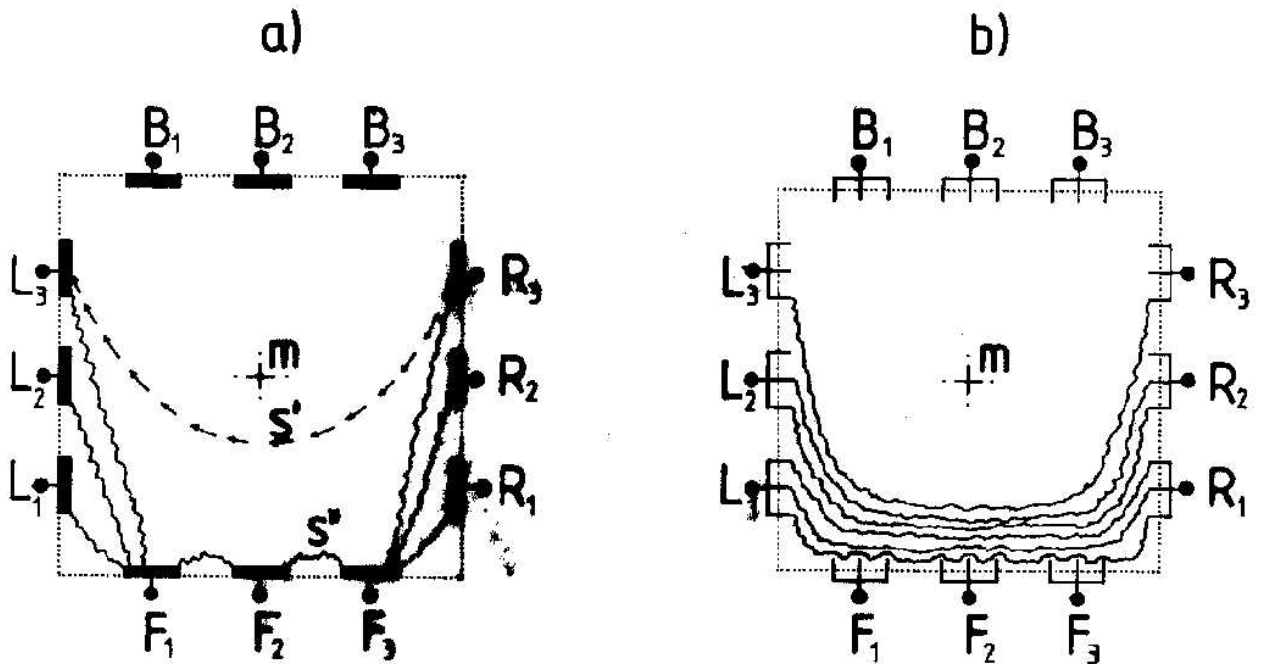
Fig. F10. The illustration that justifies the use of needle-shaped electrodes in the construction of Oscillatory Chambers. The diagram shows an overhead view at two versions of the Oscillatory Chambers during their operation. In both chambers streams of sparks are in the process of jumping along the indicated paths from electrodes marked as "R" (right) to electrodes marked as "L" (left). Because of the strong magnetic field prevailing along the vertical axis "m", the jumping sparks are pushed towards the wall with electrodes marked as "F" (front). This pushing causes that in the chambers utilizing the plate-shaped electrodes (see the chamber "a") instead of desired path (s') sparks take the line of least resistance (s") passing through the front plates "F". But these "short-cuts" are impossible in the chambers with needle-shaped electrodes (see the chamber "b") where the sharp tips of needles repel the sparks making impossible their entering the electrodes "F" and passing through them.

THE MAGNOCRAFT

The "Magnocraft" is the name given to a completely new type of space vehicle, which is propelled by a pulsating magnetic field. The main goal to be achieved through the invention of this vehicle is to obtain such a design for an interstellar spaceship that would make it possible for it to be completed by a small country, or even by a large industrial corporation. How close we are to achieving this goal is demonstrated in the analysis of the attributes of the Magnocraft listed below:

1. Not a single moving part is necessary, either for the flight or the manoeuvring of this spacecraft. (Theoretically speaking, the whole Magnocraft can be produced like a plastic balloon, i.e. from only one part. In comparison, the new Boeing 747 - 400 "Jumbo Jet" contains about four million individual parts.) Some versions of the Magnocraft (usually miniature, computer-operated probes) will in fact be built devoid of even a single moving part, and at the same time will perform all their required functions excellently. In the case of large, man-operated versions, moving parts, such as doors, will be included only for the convenience of the crew. How important a technological break-through this attribute of the Magnocraft is can be realized when we think of the production of all these millions of co-operating parts contained in space vehicles to date, and consider the consequences of the failure to move any of these parts somewhere in space.

2. The energy resources within the Magnocraft are self-rechargeable. When this spaceship accelerates it consumes the energy contained in its magnetic field, but when it decelerates the energy is returned back to the field. The principles of such self-recharging are the same as those involved in the return of electricity to the aerial overhead powerline by an electric train decelerating its speed by turning its motors into generators. Therefore, if the Magnocraft returns from a round trip in free space (where the flight does not involve any friction) its energy resources will be the same as they were at the moment of the start of the voyage. In effect, magnetic propulsion will allow this vehicle to travel unlimited distances, because - contrary to our rockets - its material and energy resources will never be exhausted. The self-rechargeability of the Magnocraft means that all countries which don't have their own energy resources or whose energy resources are close to exhaustion should be vitally interested in obtaining access to this vehicle.

3. The specifications for this spacecraft are at such an advanced level that it can not be compared with any other device that has been built to-date. For example, the Magnocraft is able to produce:

(a) A rotating "plasma saw" which is obtained from the surrounding medium by ionizing and swirling it with the vehicle's powerful "magnetic whirl". This plasma saw makes possible flights through solid matter (e.g. rocks, buildings, bunkers). An effect of such flights through solid matter is the formation of glassy tunnels.

(b) A local "vacuum bubble" surrounding the surface of the vehicle. This bubble is formed by the centrifugal forces that act on each particle of a swirled environmental medium. It isolates the vehicle's shell from the action of a hot environmental medium, making possible noiseless flights within the melted rocks and blazing gases, and also flights in the atmosphere at speeds exceeding the heat barrier. The vacuum bubble allows this spaceship to achieve a speed of approximately 70,000 km per hour in the atmosphere, plus flights close to the speed of light in free space.

(c) An "inductive shield" formed from the vehicle's spinning magnetic field. The inductive power of this shield is sufficient to change every piece of metal found in the range of the field into an explosive material and blast it to pieces.

(d) A kind of "magnetic framework" created from the system of reciprocally balanced magnetic forces produced by the vehicle's propulsors. This invisible framework reinforces

the physical structure of the vehicle. It possesses the ability to withstand any high environmental pressure - not only that which prevails on the bottom of oceanic trenches, but also that which exists at the centre of the Earth and probably even in star nuclei.

(e) A kind of "magnetic lens" that makes this vehicle invisible to radar and to the naked eye. This lens is formed through the saturation of space with magnetic energy to such an extent that it is equivalent to a local increase of mass density (according to relativistic equivalence of energy and mass). In turn the higher density of mass changes the optical properties of the space surrounding the Magnocraft, shaping it into a type of lens.

(f) Completely noiseless flights.

Such specifications will allow the Magnocraft to carry people to the stars, but also may turn this spacecraft into the most powerful weapon ever to be at our disposal. Therefore, it is probably only a matter of time before a country or a corporation willing to invest in the development of this extraordinary vehicle will be found.

There are two further attributes of the Magnocraft which introduce an obvious difference between the theory of this spacecraft and other already existing speculations concerning the future of interstellar travel. They are:

4. In a theoretical way, solutions to all the main problems that hold back the completion of this spacecraft have been found and worked out. Therefore its technical realization can be initiated without delay. This means that in the event of finding an authoritative sponsor and receiving appropriate support for research, the first flying prototype of this vehicle could be seen in our skies before the end of the next decade.

5. All the principles and phenomena applied in the operation of the Magnocraft are based on our current level of knowledge, and no part of the theory of this spacecraft - including the device called an "Oscillatory Chamber" which the vehicle uses as its "engine" - requires the discovery of any new tenet of physics or new phenomenon.

All the above attributes taken together make the Magnocraft one of the most attractive endeavours of our century.

G1. The magnetic propulsor

In subsection B2 "propulsor" was defined as a device that produces an absolute motion of a vehicle in its environment. Examples of propulsors used in conventional vehicles included a balloon, an aeroplane propeller and a rocket outlet. A type of propulsor must also be used in the Magnocraft to produce its motion. Of course, this advanced vehicle can not be propelled by any of our conventional devices, and it requires the development of an entirely new type of propulsor which is called here a magnetic propulsor. This subsection details what a magnetic propulsor is and how it works.

The operation of the magnetic propulsor is based on a well-known empirical finding that every two magnets of similar magnetic sizes must mutually repel themselves if they are appropriately oriented towards each other. Thus, when one of these magnets is Earth and the other is the magnetic propulsor itself, a suitable repulsive force must be produced if their magnetic sizes are comparable. The magnetic size of every magnet is defined by its so-called "effective length" (i.e. a length of space in which its magnetic field prevails). Therefore, in order to repel itself from the Earth's magnetic field, the magnetic propulsor must have its effective length comparable to the diameter of our planet. The effective length of a magnetic propulsor depends in turn on the value of flux that it generates. (To illustrate this dependence, magnetic flux can be compared to the gas pumped into a rubber balloon, i.e. the more gas that is pumped, the greater the volume of space the balloon stretches into.) If this flux is greater than the so-called "starting flux", the magnetic size of the propulsor becomes comparable to the size of the Earth.

Establishing the above enables us to define a magnetic propulsor. This definition states:

"A magnetic propulsor is any independent source of controlled magnetic field which is able to generate a flux in excess of the starting flux."

In this definition the starting flux is the flux needed to lift a propulsor as a result of its repulsive interaction with the Earth's magnetic field (a more detailed explanation of the starting flux is contained in subsection G5.1). When the propulsor's output exceeds the value of the starting flux, it is able to repel itself from the Earth's magnetic field. In this way it produces a lifting force sufficient to carry its own mass and the body of a vehicle attached to it. Because of this lifting capability, magnetic propulsors can be used to propel space vehicles.

In order to achieve the repulsive orientation of a magnetic propulsor in relation to the environmental magnetic field, the following two conditions must be met:

1. Identical magnetic poles are to be pointed towards each other (i.e. N of the propulsor towards the N of the environmental magnetic field, whereas S to S).

2. The magnetic axis of the propulsor is to be tangential to the local course of the force lines of the environmental magnetic field.

Note that on the Earth's north magnetic pole this repulsive orientation can be obtained when the north pole of the propulsor is pointed downwards. When above the magnetic equator, the magnetic axis of the propulsor should be horizontal and its magnetic polar orientation the same as Earth's (see Figure B2).

There are two major properties that every magnetic propulsor must display. These are:

(a) Its magnetic output exceeds the value required for producing sufficiently powerful thrust and lifting forces (i.e. this output is greater than the starting flux).

(b) The parameters and the direction of the produced field are controllable to the extent that complete manoeuvrability of the propelled vehicle is obtained.

Apart from the above, it is also desirable for a magnetic propulsor to possess a number of other useful properties, such as:

(c) The ability to accumulate and store the magnetic energy that will be consumed during flight (i.e. the operation as a fuel-tank that stores a magnetic field).

(d) The production of sufficient heat and electricity to satisfy the vehicle's internal consumption during a flight.

(e) The performing of a number of additional functions to increase the safety and efficiency of the flight, such as the formation of an inductive shield, working as a searchlight, etc.

All the properties listed above appear in the configurations of the Oscillatory Chambers called the twin-chamber capsule (see subsection F6.1). Therefore such configurations, after being assembled within appropriate spherical casings, are utilized as magnetic propulsors for the Magnocraft.

G1.1. The principle of tilting the magnetic axis in a Magnocraft's propulsor

For the convenience of the crew, the manoeuvring of large man-operated Magnocraft can be achieved by tilting the magnetic axes of the propulsors in relation to the body of these vehicles. Such tilting requires the twin-chamber capsules contained within the propulsors to turn towards the casings of these propulsors. The principle of such turning can be explained by the example of a hypothetical propulsor controlled by two sets of mechanical rollers.

The general design of this hypothetical propulsor is presented in Figure G1. The upper (A-A) part of this Figure shows the propulsor from an overhead view, whereas the lower (B-B) part shows a vertical cross-section. The propulsor's external casing (1) have the shape of a sphere which contains inside: eight rollers (2), a carrying structure (3) that holds Oscillatory Chambers and passes onto them the motion of the rollers, and a twin-chamber capsule (4) & (5). The twin-chamber capsule is composed of the outer Oscillatory Chamber, marked as (5), and an inner chamber marked as (4). The capsule is confined by the carrying structure (3) which looks like a fragment of a ball with the two opposite ends cut off. The shape of the structure (3) copies the inner surface of the spherical casing (1), but at

the same time it is able to rotate in relation to this casing. In Figure G1 this structure is indicated by shading with parallel lines. Apart from the twin-chamber capsule (4) & (5), the structure (3) also houses the devices for tilting the magnetic axis "m" of the propulsor. These devices can be imagined as two sets of rollers (2) driven by a control unit of the propulsor. Each set contains four rollers rotating in the same vertical plane. Both sets of rollers are placed along two vertical planes "x" and "y" that are perpendicular to each other. The axles of the rollers rotate in the carrying structure (3), while their race rolls on the inner surface of the casing (1). The motion of the rollers which follows the control signal causes displacement (slanting) of the carrying structure (3), and so also the displacement (slanting) of the twin-chamber capsule held in this structure. This in turn changes the direction of the field's magnetic axis "m" towards the propulsor's casing (1). Figure G1 also illustrates the outer diameter "Ds" of the propulsor's casing (1) which for the Magnocraft is an important design parameter - see Figure G23. Note that the side dimension "ao" of the cubical outer chamber (5) contained in this casing is much smaller than Ds, i.e. only about:

$$ao = (1/\sqrt{3}) \cdot Ds = 0.577 \cdot Ds \tag{G1}$$

The above description of a hypothetical propulsor is used to explain the principles involved in the tilting of the magnetic axis of the Magnocraft's field. The real design, however, is slightly different, although utilizing the same principles. In this design, rollers (2) are replaced by two sets of four miniature Oscillatory Chambers joined to the propulsor's casing (1), whereas the carrying structure (3) is replaced by invisible strings of magnetic field. The field from these miniature chambers interacts with the field produced by the twin-chamber capsule held by them, allowing for the free-floating suspension of the capsule inside the propulsor. Therefore in a real propulsor we should be able to actually see the cubical twin-chamber capsule (5) as it hovers suspended inside the transparent casing (1). Because the magnetic field which attaches this capsule to the eight miniature chambers is transparent, an observer would have the impression that the cubical capsule does not touch anything, and also that it does not seem to be held by anything.

G1.2. The propulsion unit

One magnetic propulsor alone is not able to provide adequate flight and manoeuvrability for the Magnocraft, just as a single wheel is not sufficient to construct a motor car. Therefore in the spaceship described here, a number of such propulsors strictly co-operating with one another must be utilized. The optimal configuration of propulsors which is able to fulfil all the requirements of flight and manoeuvrability is called here the "magnetic propulsion unit". Such a propulsion unit used in the Magnocraft is shown in Figure G2 (to simplify the explanations that follow, it is illustrated above the Earth's north magnetic pole). The main attribute of this unit is that it employs a minimal number of magnetic propulsors, providing at the same time the maximum range of operational possibilities. Therefore this unit, after only a slight modification, is also utilized in Personal Propulsion (refer to chapter H) and in the Four-Propulsor Spacecraft (refer to chapter I). The configuration of this unit is based on the shape of a bell. This is because in this propulsion unit the distribution of lifting and stabilizing forces resemble a bell-shape with a single holding point located at the centre, and a ring of stabilizing weights suspended below this point at even distances. (It is well-known that bells represent the physical form that is considered able to provide optimal stability in space.)

Let us now analyze the main components and operation of the magnetic propulsion unit. It consists of two different kinds of propulsors, i.e. a single main propulsor (marked "M" in Figure G2) located in the centre, and a number of side propulsors (marked "U, V, W, X" in Figure G2) distributed evenly around a lowered ring. The main propulsor is usually oriented so as to be repelled by the Earth's magnetic field. (The introductory part to subsection G1 explained that on the north magnetic pole of Earth, such a repulsive orientation of propulsors can be obtained when their north "N" pole is pointed downwards.) The side propulsors are usually oriented so that they are attracted by the field of the Earth.

By increasing the flux produced by the main propulsor (M) oriented in such a repulsive manner, an increase in the repulsion force "R" is achieved. At the moment when the repulsion force overcomes the gravitational pull, the propulsor (M) begins to ascend, lifting up the entire propulsion unit. If the main propulsor would operate alone, then its flight would be disturbed by the magnetic torque which would tend to turn around the propulsor's magnetic orientation so that attraction would replace repulsion. Thus, to compensate for the effects of the environmental magnetic torque trying to turn the main propulsor around, additional stabilizing side propulsors "U, V, W, X" are necessary. Their magnetic orientation opposes that of the main propulsor (M), i.e. when the main propulsor is to be repelled, side propulsors are to be attracted by the environmental magnetic field. A possible configuration of such side propulsors is illustrated in Figure G2. These side propulsors give flight stability to the whole propulsion unit. By appropriate adjustment of the produced fluxes, the side propulsors can enforce the balanced orientation of a craft in whatever attitude and position the crew requires.

The propulsion unit described above can operate in an "upright position" (see Figure G3) as well as in an "inverted position". The previous description relates to the upright position. In the inverted position the function of both kinds of propulsors is reversed, i.e. the main propulsor serves as a single stabilizer and the side propulsors as lifting devices. During horizontal flights in such an inverted position above the Earth's surface, the gravitational pull (G) acts as an additional stabilizer. Therefore, this position combines better stability with less power involved in the magnetic field produced by the vehicle. For this reason, it can be used when the area of flight should be less disturbed magnetically (but for the crew this position is probably less comfortable).

If the magnetic propulsion unit described above is built into a protective shell, which also contains the crew cabin and the craft's equipment, the final construction of the Magnocraft is obtained. The general view of this construction is shown in Figure G4. Describing the elements and characteristics of the Magnocraft's shell is the aim of subsection G2.

G1.3. Using propulsors as searchlights

We know from physics that some substances, when exposed to the action of conditions similar to those prevailing within the Oscillatory Chamber (i.e. bombardment by high energy ions, action of a strong pulsating magnetic field) will emit light. Therefore, if we build inside the Oscillatory Chamber a device which on command will move forward into the range of sparks a rod of such a substance, the propulsor becomes a means of producing light. This capability of a magnetic propulsor combines the role of a bulb with the role of a torch. It causes the emission of a concentrated beam of very strong light in the direction where the outlet from the propulsor is pointed. As this can be especially useful for landing, for low altitude flights, or as a searchlight during night, all the propulsors in each Magnocraft will have this modification.

The Magnocraft can light up just one of its propulsors and use it as a searchlight, or simultaneously any number of lights up to or equal to the number of all its propulsors. The direction of the beam of light emitted from a particular propulsor can not be changed without altering the angle of that propulsor or the position of the whole spaceship. Therefore, when more than one propulsor is used for such a purpose, outside observers should see a group of almost parallel beams of light descending downwards from the vehicle.

G2. The shell of the Magnocraft

The shell of the Magnocraft is a kind of hermetic wall which permanently separates two spaces where different environmental conditions prevail and which is made of material that possesses the required properties. For example, the shell will be the entire external

casing of the Magnocraft because it separates the inner parts of the vehicle - containing the crew cabin and important devices - from the outside environment in which the craft flies (e.g. vacuum, hot gases). The shell will also be the wall inside the vehicle that separates a propulsor (filled with dangerous magnetic field) from the crew cabin, where the field should not be present. But the shell will not be the partition walls subdividing the crew cabin into a number of rooms, as they do not separate different environments.

Some characteristics of the shell of the Magnocraft, just as those of the metal panels of motor vehicles, will be the subject of changes and evolution occurring during the period of this spacecraft's production. They will be dependent on the technology available at the time of producing the particular craft, on fashion, on the function for which it is built, on the individual wishes of its crew, etc. But there will be a number of features which, independently of changes introduced, must remain the same. An example of such a fixed feature is the external shape of the vehicle, which is strictly defined by the equations originating from the principles of its operation - see Figure G23. The descriptions which follow will concentrate mainly on the presentation of these fixed features.

G2.1. Terminology describing various parts of the Magnocraft's shell

Vehicles such as bicycles, motor cars or aeroplanes possess their own terminology allowing for a strict definition of whichever part is considered at a particular moment. Thus, when using names such as "pedals", "boot", or "wing", the attention of the interested person is directed to the right part. In order to make it possible to do the same with the deductions concerning the Magnocraft, the necessary terminology is introduced in this subsection. The terminology proposed here is subsequently used in the entire monograph. While subsequent terms are defined, an opportunity arises to also explain all the details of the Magnocraft's shape.

The parts of the Magnocraft's shell are named and described here using an example of the middle-sized vehicle, type K6, shown in Figure G5. The K6 type possesses all the features which can also appear in the shells of any other type of this spacecraft.

The shape of the Magnocraft's shell resembles the outline of a flat saucer turned upside down (compare Figure G5 with Figures G4 and B1). In the centre of this saucer, the single "main propulsor" (M) is suspended. The flange of the saucer contains numerous "side propulsors" (U), (W). The total number "n" of side propulsors in a particular type of vehicle is described by the equation (B1). In the Magnocraft type K6 this number is equal to n=20. The main propulsor, together with all the side propulsors, constitutes the "propulsion unit" of the Magnocraft which is described in subsection G1.2. Between the main propulsor and the flange of the craft a "crew cabin" (CC) is located. This cabin takes the shape of a parallel-piped ring surrounding the "central cylinder" (13) inside of which the main propulsor is suspended. Using again the saucer comparison, the crew cabin takes the place of the side walls of this saucer. The central cylinder (13) and the main propulsor (M) contained in it occupy the centre of the crew cabin (CC), forming a kind of vertical "column" that extends from the ceiling (5) to the bench (12) of the floor (11). Therefore this column constitutes a characteristic feature of the Magnocraft's deck, being visible from almost every compartment. Because this cylinder is made of a transparent material, the crew and visitors are able to observe the operation of the Oscillatory Chambers from the vehicle's main propulsor.

The underside of the Magnocraft's shell begins from the flat, ring-like "base" (11). This base, in all deductions concerning the vehicle, is taken as the starting point (benchmark) for assigning the dimensions and for referring to the position (see Figure G23). The central point "O" of the Magnocraft lies on the intersection of the central axis "Z" of the vehicle with the plane of the base. This point is in fact suspended in the air as the central part of the vehicle's underneath section curves upright, forming the "underside concave" (12), (14). This concave always consists of two parts: the "bowl" (14) and the "alignment cone" (12). In the vehicles types K3 to K6 both these parts (i.e. "bowl" and "alignment

cone") transform themselves tangential into each other, whereas in the rest of the Magnocraft they are joined together at almost a right angle (see Figure G24).

On the upper side of the Magnocraft the "topside convex" (2), (4) appears, which in shape is exactly symmetrical to the underside concave (12), (14) described above. This topside convex also consists of two parts, the central "dome" (4) of which has the shape of a hemispherical bowl with the radius "R", whereas the side "alignment cone" (2) is a fragment of the conical surface serving as an outer shell for the crew cabin (CC). In the vehicles K3 to K6 the apical angle of the alignment cone is so selected that this cone intersects the base plane exactly under the axes of the side propulsors. Because of the symmetry of the topside convex to the underside concave, a number of Magnocraft can be stacked one on top of another in a way similar to saucers in a kitchen cupboard, thus forming a flying complex called a "stacked cigar" - see Figure G8. The distance between the topside convex and the underside concave is determined by the diameter "DM" of the main propulsor (M).

The outer part of the craft's flat base (11) transforms itself into the base (10) of the "flange" (L). The flange (L) houses the side propulsors (U), ... (W). This flange has an overall appearance similar to that of the rim of a lens. The thickness of the flange is determined by the diameters "Ds" of the side propulsors which are housed inside it. Also its width is determined by the appropriate equation (G8). The top half of the flange has a magnetic "pole separator" (9) in the shape of a horizontal ring. The function of this separator is to divide the N and S magnetic poles in each of the side propulsors so that the side magnetic circuits must loop through the environment, not through the inside of the craft. The flange also houses a number of vertical partitions (not illustrated in Figure G5 but shown in Figures G4 and B1) which divide it into several magnetically separated chambers. Each chamber contains only one side propulsor. These partitions not only prevent the connection of the magnetic circuits within the craft's shell, but also prevent the circulation of plasma around the annual space holding the side propulsors.

Towards the centre of the outlets from the side propulsors the upper side of the Magnocraft's flange is transformed into a "complementary flange" (6). The thickness of this flange is "Gs" (compare Figures G23 and G8). Therefore it expands onto all the unused space between the Magnocraft which are coupled into "flying systems" (see Figures G16 and G22). This allows for an additional living space when vehicles are joined into these arrangements. Further towards the centre, the complementary flange (6) joins the topside convex (2) described earlier. The border (7) between the flange and the complementary flange also forms the outer edge of the crew cabin (CC).

G2.2. The Magnocraft's compartments

In the shell just described, two kinds of compartments can be distinguished: the crew's living compartment (CC) and the propulsion compartments (C) and (L). The crew's living compartment extends around 360 within the cone-shaped body of the craft; it surrounds the dome-shaped free space which exists under the main propulsor (M) and column (3) in which (M) is suspended. This space is left free so as to avoid interference with the magnetic field of the main propulsor, while the direction of this field changes for the purpose of manoeuvring. In the living compartment, the crew cabin, log computer, flight engineering equipment, life support system, etc. are stored. In the types of Magnocraft larger than K4, this compartment is further subdivided into a number of smaller cabins performing specialized functions. There are also two propulsion compartments in the Magnocraft: the central compartment (C) which contains the main propulsor (M), and the lateral compartment (L) which houses the side propulsors (U), ..., (W). Both of these compartments are divided into two parts which contain the field from only one (North or South) magnetic pole of the propulsors. The central compartment (C), is divided into two sections (CN) and (Cs) by the crew cabin of which the top part is joined to the spherical casing of the main propulsor. This top part (13) separates both of the magnetic poles of the

propulsor so that the force lines of the magnetic field have to loop through the medium surrounding the craft. For the lateral compartment (L), the magnetic poles of the side propulsors are separated by a ring (9). This compartment also contains two sections (LN) and (Ls) in which only a field from one pole prevails.

G2.3. The Magnocraft's facilities

Two other important features of the Magnocraft are its telescopic legs and its periscopes. The legs (15) lie along the conical section of the interior wall (12) of the crew cabin, extending from the ceiling (5). In flight, when the legs are fully retracted, they do not protrude below the base (11) but are extended at the moment of landing. The angled position of the legs gives them numerous advantages which are of an important consideration when landing on uneven ground. The number of legs may differ according to the type of craft. But they must always occupy positions between the side propulsors, thereby avoiding interference with the magnetic field yield from them. Smaller Magnocraft, whose number of side propulsors "n" is a multiple of three (e.g. K4, K7 types) have three telescopic legs, whilst all others have four - see Table G1. Larger Magnocraft have a multiple of three (in K10 type) or a multiple of four (in K8 and K9 types) legs.

Magnocraft are also equipped with four side periscopes (1) extending from the ceiling of the crew cabin, and two base periscopes (not shown in Figure G5). These are capable of extending beyond the range of the "ionic whirl" (see Figure G32) generated by the Magnocraft when it is operating in the magnetic whirl mode, and thus assist the crew in making precise manoeuvres. When the vehicle is in this mode of operation, the periscopes provide the only outside visual contact. To shield these periscopes from the destructive action of a plasma saw, their surface is protected by miniature magnetic screens.

G2.4. Materials for the Magnocraft's shell

Two drastically different types of material should be used to create the shell of the Magnocraft. The first, which hermetically covers the living compartment and also forms the separatory ring (9) with its vertical partitions, must possess magnetoreflective (magnetoresistive) properties. So the dimensionless parameter of its diamagnetic susceptibility must be x=-1. On the other hand, the second material, which covers aerodynamically the outside surfaces of the propulsion compartments, must provide maximum magnetic conductivity. Its diamagnetic susceptibility therefore must be x=0. This is vital, as any significant resistance to the magnetic flux could result in destructive energy conversion. Independently of these main magnetic properties, both materials must also be:

1. Electrical non-conductors.

2. Transparent/mirror-like (with a regulated ratio of transparency to light reflection). This means that materials should be able to either act like transparent glass or like a mirror (i.e. in extreme they should either let all light pass through them, or reflect all the light). Moreover, materials should also allow for a smooth control into any state between these two extremes (i.e. into any state between complete transparency - like glass, and complete light reflection - like a mirror).

3. Of robust mechanical construction.

4. Resistant to conversion of magnetic energy into any other form of energy (e.g. heat).

It should not be very difficult to produce a magneto-conductive material which fulfils the above requirements. We already know some substances (e.g. various kinds of glass) which are probably suitable. The real problem seems to lie in obtaining an appropriate magnetoreflective material. Although in nature a substance is known which displays a high magnetoreflectiveness, i.e. graphite; unfortunately it is also a good electric conductor. A non-conductive version of graphite, called "vitreous carbon", which is also highly

magnetoreflective, provides better prospects for this application, however it still is non-transparent. Thus the Magnocraft covered by it would not provide any visibility to its crew. Therefore, it seems that the production of the Magnocraft's shell will require a material specially engineered for this purpose. The guidelines for engineering such a material are provided by the so-called "electrodynamic model of magnetoreflectiveness".

G2.4.1. The electrodynamic model of magnetoreflectiveness

By "magnetoreflectiveness" we understand a property of materials, which allows them to reflect magnetic fields in a way similar to the way mirrors reflect light. It is necessary for some parts of the Magnocraft's shell (especially those encasing the crew cabin) to be perfectly magnetoreflective, i.e. they must reflect the entire 100% of the magnetic flux that is striking upon them.

In the research to date on magnetoreflectiveness, only the natural abilities of some chemical structures were utilized. Theoretically, however, there is another way of achieving the same effect. This way employs the Contradictory Rule governing electro-magnetism. According to this rule, every change of a magnetic field within a conductive material induces an electric current which produces its own magnetic field that is contradictory to the field inducing it. It is the Contradictory Rule which makes electric superconductors also perfect magnetic screens. But this rule can not be utilized directly by producing an electrically conductive shell for the Magnocraft. Large plates of such a shell would allow to induce within them extremely powerful electric currents that would produce an enormous amount of heat. In turn, this heat would be able to evaporate the vehicle.

There is, however, another way of achieving the same effect. The heat problem can be solved if the size of the conductive circuits is decreased to an atomic scale. To achieve this, microscopic droplets, about 5 m in diameter, of electrically polarized conductive material should be spread uniformly within the volume of an electric insulator. Each such droplet would contain only a few (i.e. up to about a hundred maximum) atoms. The spreading of these droplets would be similar to the distribution of graphite spheroids within modified cast-iron. In such small polarized conductive droplets, insulated electrically from each other, electric currents would take the form of a synchronization of movement of electrons within atomic orbits. Therefore, these currents would not be able to yield any heat, while still obeying the Contradictory Rule. In this way the currents would be able to produce the internal magnetic fields that would neutralize the action of an external field that induces them, while the vehicle's shell would remain cool. The above theoretical principle, on which this dynamic manner of forming magnetoreflectiveness is based, is called the "electrodynamic model of magnetoreflectiveness".

Of course, the technological implementation of the above model is not an easy task. This is because the obtaining of such material would encounter problems at two different levels, i.e. its design and its production. The main problems relating to the material's design are: selecting the chemical elements most appropriate for the conductive droplets and for the insulative material that will host them, and finding the optimal size of droplets and their optimal density in insulative material. The main problems with the production of such magnetoreflective material are caused by the necessity for the forced polarization of all atoms in the droplets (i.e. orienting all atoms within each droplet in the same direction), and on keeping the size and spatial distribution of droplets at the required level.

It should be stressed that the need for forced polarization of atoms inside each droplet imposes the use of a powerful electric field during the formation of such magnetoreflective material. In turn such polarized material must display some rather unique physical properties, for example when cut with a saw or file it must produce streams of powerful sparks (like the flint from a cigarette lighter).

G3. Shapes of the coupled Magnocraft

One of the most important attributes of the Magnocraft's propulsors is that they allow for easy and complete control over the produced output and over the orientation of their magnetic poles. Therefore, independently of their propelling functions, these propulsors can also be used as coupling devices, allowing for an attachment of one vehicle to another without disturbing the flight possibilities of either of them. The forces that join together the coupled Magnocraft are provided by the magnetic interaction of the vehicles' propulsors brought close to one another. Such an easy manner of joining several Magnocraft into a flying arrangement, combined with the numerous advantages that it provides, ensure that the coupling of these vehicles is a very common practice. Therefore observers of these spacecraft may on one occasion witness them as a single vehicle of an inverted saucer shape, whereas on another occasion they may see them as spheres, cigars, platforms, crosses, or hundreds of other possible shapes that can be arranged from several Magnocraft coupled together.

The main advantage of coupling Magnocraft together is the ability to pilot the whole resultant arrangement by a single crew on duty, while other crews can rest, investigate, consult each other, or socialize. Additional advantages include: setting up an inductive shield of greater width that makes travel much safer; an increase in propulsive power which subsequently enables the attainment of speeds higher and more uniform in heavier mediums than those of solo flights; an increase in the total number of compartments and the range of crew specializations. During long-distance interstellar voyages, the coupling increases security and comfort of flight, allows for the socializing of crews from different vehicles, and also makes it possible to transport damaged Magnocraft.

G3.1. The six classes of the Magnocraft arrangements

There are three factors which determine the shape and properties of the flying arrangements obtained as a result of coupling several Magnocraft together:

(a) The type of propulsors that face or interact with each other in each pair of joined vehicles. We can distinguish here as many as three different combinations: (1) main to main, (2) main to side, and (3) side to side.

(b) The character of the magnetic interaction occurring between each pair of facing propulsors, i.e. if it is (1) attraction, or (2) repulsion.

(c) The type of contact occurring between the shells of both joined craft. This contact can be one of the following: (1) fixed (e.g. plane to plane or cone to cone), (2) labile (e.g. two spheres touching each other in a point), and (3) detached (i.e. there is no physical contact between these shells).

The way the above three factors are combined together categorizes a particular flying arrangement into a specific class. There can be distinguished as many as six basic classes of different arrangements obtained through various manners of coupling the Magnocraft. Examples of these are illustrated in Figure G6. These classes are as follows:

#1. Flying complexes - see Figures G7 to G10. These are obtained when in the joined craft: (a) main propulsors always face other main propulsors and side propulsors always face other side propulsors; (b) all propulsors (i.e. main and side) create only attractive interactions; and (c) the coupling provides only fixed contacts.

#2. Semi-attached configurations - see Figures G11 and G12. In these arrangements: (a) the facing of the propulsors is the same as in the flying complexes; (b) the attractive interactions are formed only by the main propulsors, whereas the side propulsors of both vehicles repel one another; and (c) the contact between the vehicles is only labile (i.e. occurring only at the point where two convex hemispheres touch each other). In spite of such labile contact, the configuration is permanent and steady because the combining of the attractive and repulsive interactions between vehicles joined together provides the required stability.

#3. Detached configurations - see Figure G13. In these: (a) propulsors are faced in the same manner as in the physical complexes and semi-attached configurations; (b) the

character of the interactions is the reverse of semi-attached configurations, i.e. the main propulsors of both vehicles repel each other, whereas the side ones attract; and (c) there is no physical contact between the coupled vehicles so they keep apart at some distance from each other. But the magnetic interactions are so strong and steady that they maintain a stable and permanent configuration. Note that in these configurations the facing outlets of the side propulsors of both spacecraft must be joined by the columns of a highly concentrated magnetic field which catches the light and therefore appears as square "black bars" - see subsection G3.4.

#4. Carrier platforms - see Figures G14 and G15. Obtained when: (a) the main propulsor of one craft faces the side propulsor of the other craft; (b) all interactions are attractive; and (c) the contact is fixed. This arrangement is the most profitable when a number of small Magnocraft are to be carried under the base of a large mothership (see Figure G14). But it may also be used for coupling two vehicles of the same type (see Figure G15).

#5. Flying systems - see Figure G16. For these: (a) the side propulsor of one Magnocraft faces the side propulsor of the other one, while their main propulsors do not face each other; (b) all interactions are attractive; and (c) the contact is fixed. In flying systems, not only single vehicles but also entire stacked cigars are coupled together. In this way whole flying cities are formed. The flying systems are the highest rank of arrangements, usually formed for the duration of an interstellar voyage.

#6. Flying clusters - see Figure G17. These are simply various other arrangements of Magnocraft that are subsequently clustered together with magnetic forces. In flying clusters: (a) no propulsors of any arrangement face the propulsors of another flying arrangement (i.e. in all arrangements clustered together the magnetic axes of propulsors are parallel to one another); (b) two subsequent arrangements which belong to a given cluster (put simply) attract each other with their main propulsors and repel each other with their side propulsors; and (c) there is no physical contact between subsequent arrangements forming a given cluster. An example of a typical two-dimensional cluster could be a "flying cross" shown in Figure G6.

In each of the above classes we can further distinguish particular arrangements which differ from each other in shape, number of coupled craft, their mutual orientation, etc. The Magnocraft may actually form hundreds of such arrangements; each one unique, and each one very different from the others. The limited size of this monograph does not allow for the presentation of all of them. But to give readers an idea as to what variety of shapes can be formed just by coupling together a number of saucer-shaped Magnocraft, some of the most frequently appearing configurations are described below.

G3.1.1. Flying complexes

The flying complexes constitute a class of coupled Magnocraft formed for the duration of planetary and interplanetary voyages. In this class the following regular arrangements can be distinguished: (1) the spherical complex, (2) the stacked-cigar complex, (3) the double-ended cigar complex, and (4) the fir-tree complex. These regular flying complexes may join further between themselves, forming irregular arrangements of an almost unlimited variety of lengths and shapes. The enormous range of possibilities resulting from such further coupling may be left to the reader's imagination. Let us now review the main characteristics of the regular flying complexes.

1. The spherical complex. This is obtained when two Magnocraft of the same type are joined by their bases (i.e. base-to-base - see Figure G7). The name of this complex originates from its shape that roughly resembles a sphere (especially in the magnetic whirl mode of operation). Exactly in the middle of the height of this sphere a double flange which fastens the resultant arrangement horizontally can be distinguished. The upper part of Figure G7 shows the external (side) appearance of this complex, whereas the lower part of the same Figure shows its cut-away view. This cut-away view illustrates an upright vehicle

(1) and an inverted vehicle (2) forming such a complex, and it also indicates a gelatinous hydraulic substance (A) called "angel's hair" which fills the free space between both vehicles. This substance neutralizes the attracting pressure that originates from the interaction between the main propulsors (M) of both coupled Magnocraft. Its function is similar to that of the white of an egg which prevents the thin shell from being crushed by a uniform pressure, even that which could be exerted by the strongest athlete. The angel's hair, at the moment when the flying complexes decouple, drops from the Magnocraft and falls onto the Earth's surface, covering trees in a manner reminiscent of the Christmas decoration of the same name. Note that the decoupling of spherical complexes formed from subsequent types of Magnocraft must release a cumulatively growing volume of angel's hair. The volume of this substance for each type of Magnocraft can be calculated on the basis of data provided in Table G1. For a spherical complex formed from the smallest Magnocraft type K3 it exceeds 1 [m3].

      2. The stacked cigar-shape complex. This is created by stacking the convex top of one craft onto the concave part of the base of another, and so on. The result is similar to a pile of saucers, one on top of another, stored in a kitchen cupboard - see Figure G8. The facing outlets of the side propulsors in this configuration must be joined by columns of a highly concentrated magnetic field which looks like black bars (the description of these bars is provided in subsection G3.4). For this reason, when the shells of vehicles from such a cigar are transparent, and when this configuration flies in a throbbing mode of operation, to an outside observer looking at it from a side view it would resemble a kind of shiny ladder.

      3. The double-ended cigar complex. This is formed when more vehicles are coupled to both ends of a spherical complex, or when two stacked cigars couple together into a spherical-like configuration. The double-ended cigar complex, similarly to a spherical complex, also has a space in the middle which is filled with angel's hair (see Figure G9). In other details it resembles a stacked cigar complex.

      4. The fir-tree complex. All three flying complexes described above (the spherical, stacked-cigar, and double-ended cigar complexes) are <u>homogenous</u>, i.e. they are formed from Magnocraft belonging to the same type. There is also, however, the possibility of coupling in the same manner a number of Magnocraft belonging to various types. The group of arrangements resulting from such coupling is called the fir-tree complex. The name for these arrangements originates from the visual impression that they make on observers, i.e. eye-witnesses see them as a shape that closely resembles the outline of a fir-tree (see Figure G10).

      In general, the fir-tree complexes can be coupled as single-ended or double-ended. The single-ended ones are obtained when a number of Magnocraft belonging to various types join together by stacking vertically smaller types of craft on top of larger ones. The mutual positioning of vehicles is very similar to the one in stacked cigar-shaped flying complexes - compare Figure G10 and Figure G8. The double-ended fir-tree complexes are obtained when two such single-ended complexes are joined together base-to-base. The resultant arrangements are equivalent to double-ended cigar complexes.

      There are eight main types of Magnocraft, each of them possessing different dimensions (see Figure G24). Therefore depending on which of these types are coupled together and how many vehicles participate in a particular arrangement, the resultant shape of a fir-tree complex can be different. In this way, a large number of various shapes and sizes of these arrangements can be formed.

      G3.1.2. <u>Semi-attached configurations</u>

      The semi-attached configurations are formed in the docking stage of the Magnocraft's coupling into flying complexes (see subsection G3.2). To obtain any such arrangement, further coupling must be suspended in the middle of the docking stage, and the intermediate configuration so formed must remain unchanged for the duration of subsequent flights. In these configurations, the vehicles involved gain all the properties of a

flying complex, however their contact is only along those surfaces which are unable to give any physical stability to the arrangement (e.g. at the centre of two convex hemispheres - see Figure G11). The method of coupling together such configurations uses the set of forces of magnetic interactions between the propulsors of the craft that are joined, and which are kept in a state of permanent equilibrium. It is these magnetic forces, not physical contact, that keep the arrangement stable.

The semi-attached configurations possess the properties which enable an extensive usage of these arrangements in various circumstances. The most important of these properties are:

(a) The ability to join into one arrangement a set of vehicles (or a set of Magnocraft's arrangements) whose shape and/or orientation make it impossible for them to be coupled into an ordinary flying complex. An example of this can be the joining together of two Magnocraft which are touching each other with their convex tops (see Figure G11), or the joining together of two spherical flying complexes (see Figure G12).

(b) The convenient distribution of forces within such a configuration, which decreases the danger of the structure of both vehicles being crushed. This makes it possible to couple together differently the same Magnocraft which took part in an ordinary spherical-shaped flying complex (see Figures G7 and G17). However, in the semi-attached configuration it is unnecessary to use the hydraulic substance (angel's hair) for neutralizing the magnetic interactions between the propulsors. Therefore the spherical complexes which drop their hydraulic substance during decoupling may become semi-attached configurations in the event of further coupling back together.

(c) A quicker and less complicated coupling and decoupling of semi-attached configurations when compared with the formation of flying complexes. Therefore it allows for the arranging of temporary configurations which are intended to be quickly decoupled into single vehicles.

Note that each of the above properties apply also to the detached configurations.

G3.1.3. Detached configurations

The detached configurations, similarly as semi-attached ones, are also formed during the docking stage of the Magnocraft's coupling into flying complexes. Only the coupling routine leading to the formation of these configurations is different, i.e. it is the "routine through a detached configuration" (see subsection G3.2). The vehicles coupled into these configurations also behave like a flying complex, although they do not touch each other at all - see Figure G13. Because all the properties of the detached configurations are identical to those of semi-attached ones, their presentation is not repeated here.

G3.1.4. Carrier platforms

Carrier platforms are formed when a number of smaller Magnocraft adhere to the base of a larger mother ship, held by some of its side propulsors. The resultant arrangement reminds us of baby bats clinging under their mother's belly (see Figure G14). The coupling of these vehicles can be so tight that some eye witnesses may assume the small spacecraft to be protruberances swelling out from the base of the large vehicle (such witnesses may also wrongly believe that these protruberances perform major propelling functions, e.g. acting as "antigravity generators").

Depending on the differences between the "K" factor in both vehicles involved, i.e. between the "KM" factor in a mother ship and the "Kc" in a vehicle (or vehicles) carried by it, the carrying capabilities of the mother ship can vary. When this difference is equal to KM-Kc=1 (e.g. a mother ship is type K4, whereas all attached vehicles are type K3), only two smaller vehicles can be carried by a larger mother ship. But when these vehicles differ by KM-Kc=2 (e.g. a mother ship is type K5, whereas attached vehicles are type K3 - see

Figure G14), then as many as eight smaller vehicles can be carried by a larger mother ship. With the further increase of the "KM-Kc" difference, the number of vehicles which can be carried rapidly increases.

Carrier platforms can also be formed from vehicles of the same type. If two Magnocraft of the same size join together into such a carrier configuration, the resultant arrangement looks like a warped spherical complex (compare Figure G15 with Figure G7). During night flights, the ionized air at the outlets from the side propulsors will shape the image of this configuration into the form of a glowing zigzag.

G3.1.5. Flying systems

For the duration of long (e.g. interstellar) trips the Magnocraft are able to form arrangements of a higher rank than of all of those described previously. These arrangements are called flying systems (see Figure G16). A flying system may consist of a single cell only - like the system shown in Figure G16 "a", or a number of cells interloping with one another - see Figure G16 "b" and "c". Each individual cell of such a system is coupled from four stacked cigar-shaped complexes joined together rim-to-rim by their side propulsors. One of the many possible appearances of a single cell is presented in Figure G16 "a". The principles of its formation are explained in Figures G21 and G22.

Flying systems can be formed in an almost unlimited variety of sizes and shapes. Some of the possibilities are illustrated in Figure G16 "b" and "c". Note that further appendixes composed of any configurations described previously can also be joined to the main body of such systems. Thus the final structures of systems supplemented with such appendixes may reflect any form that the imagination can produce.

Flying systems are homogenous arrangements, i.e. only Magnocraft belonging to the same type can be included into their main body. Therefore, in order to join together Magnocraft that belong to various types another arrangement must be used, which here is called a flying cluster.

G3.1.6. Flying clusters

The most simple example of a flying cluster is shown in Figure G17 (it illustrates only two identical spherical complexes clustered together, although in reality any number of any type and arrangement of Magnocraft can be bond in this way). A flying cluster is formed through the touchless linking together of a group of independent Magnocraft. Because in the same effective way it incorporates single vehicles, spherical or cigar complexes, carrier platforms, or even flying systems, therefore its individual components are called here "units" (i.e. a "unit" in a flying cluster can be any possible arrangement of Magnocraft or a single vehicle of any type). After being linked together, subsequent units do not physically touch one another. Thus the entire cluster is bond only with magnetic forces (i.e. in a manner quite similar to that utilized by detached configurations, only that in flying clusters the subsequent units are joined sideways instead of being piled axially).

Flying clusters resemble a chain in which each two segments are joined together with a special link-segment. The function of such links, which in flying clusters bind individual units together, perform "unstable units" (see the unit on the right in Figure G17). These are obtained from ordinary flying arrangements (or from single Magnocraft) by reversing the polarity of their stabilizing propulsors. In this way, the unstable units have both groups of their propulsors oriented repulsively towards the environmental magnetic field. (In usual situations only one of these groups, e.g. a main propulsor, is oriented repulsively, whereas the other group, e.g. side propulsors, is oriented so as to attract the environmental magnetic field and thus to stabilize the vehicles.) Such an orientation of the propulsors causes them to provide lifting forces, but they are unable to provide stabilization forces. Therefore the unstable units are able to fly with repulsive orientation of all their propulsors

only when they are attached to some stable units (see the left unit in Figure G17). Such an attachment causes the stable units to ensure the stability of the unstable units. Because of the linking function that unstable units perform, every second unit of a cluster must have such reversed polarity of its propulsors to become an unstable unit.

The magnetic circuits are utilized in flying clusters for two different purposes. Apart from their usual lifting and stabilizing functions, they additionally serve the purpose of coupling. Using this purpose as a criterion, as many as four separate categories of magnetic circuits can be distinguished - see Figure G17. These are: separating, holding, tuning, and compensating circuits. (Note that in order to not obstruct the clarity of the drawing, Figure G17 shows only single examples of each category of the circuits listed above. But in real clusters each of these circuits can appear a number of times.) The deductions below explain the purpose for each of these categories.

- The separating circuits in a cluster are those that repel subsequent units from one another, thus making impossible the touching and accidental crushing of vehicles (see circuits indicated with a broken line in Figure G17). To this category belong magnetic circuits formed by almost all the side propulsors of the units participating in a given cluster. Because the orientation of the magnetic poles in all of these side propulsors is identical, they mutually repel one another, causing the separation of subsequent units.

- The holding circuits are those that attract subsequent units to one another, thus allowing for their bonding (holding) together. These are formed from the outputs of the main propulsors in stable units, circulated (looped) through the main and side propulsors in unstable units {see circuits (4), (5) and (6) in Figure G17}.

- The tuning circuits are those which allow for the final adjustments of mutual interactions between each pair of clustered units. These are formed by those pairs of side propulsors from each arrangement which are located next to the facing (2) side propulsors {see circuit number (3) in Figures G17 and M13}.

- The compensating circuits are those that neutralize the reaction torque created by the spin of the other magnetic circuits in a given unit. In Figure G17 they are marked as (Ts). Although subsection G6.4 provides a detailed description of the function of these compensating circuits, at this stage it should be explained that they act in the same way as the tail propeller in a helicopter (i.e. they do not allow the vehicles to revolve in an opposite direction from the direction in which their magnetic whirls rotate).

It is worth explaining here that when a cluster descends close to the ground, each category of its magnetic circuits scorches in the soil its own characteristic mark. A combination of these marks form the landing site of a very distinctive shape illustrated in Figure G17 "b". The clarity of this site especially increases when the cluster operates in the magnetic whirl mode. Then its whirling magnetic circuits act like powerful spinning combs, whose countless force lines sweep every inch of the soil thoroughly. Each of these circuits brushes the soil in rings, laying down every single blade of grass along perfectly circular paths. Because each different category of magnetic circuits also has a different length, depending on the height at which a given cluster hovers, only selected circuits can reach the ground and impress their own pattern on it. For this reason, various landings of such clusters in reality introduce further modifications to the basic pattern illustrated in Figure G17 "b".

There are significant forces of repulsion between all the individual arrangements (or individual vehicles) forming a given cluster. Therefore they tend to stretch along straight lines. For this reason, flying clusters can be divided into linear ones and two-dimensional ones. In linear clusters, each unstable unit holds only one or two stable units which are attached to it from opposite sides. Thus, such clusters spread their individual units along a single straight line, forming a kind of "flying chain". A simple example of such a chain is shown in Figure G17. In two-dimensional clusters, unstable units may have more than two other arrangements attached symmetrically to their sides. Thus, the two-dimensional clusters create a kind of mesh or net spreading along mutually crossing lines. A typical example of a two-dimensional cluster is a "flying cross" shown in Figure G6.

Apart from the advantages of all previous arrangements (e.g. being flown by only one pilot), the flying clusters display further important advantages. Some of these are: (1) clusters allow for a simple linking together of any number of individual arrangements or single vehicles, (2) there is no restriction concerning the type of vehicles, their number, or the kind of arrangements that can be clustered together, (3) to be clustered together, individual arrangements do not need to change their existing configuration (e.g. split into individual vehicles), and (4) individual arrangements can disconnect from the cluster at any time without the need to change their configuration.

G3.2. The principles of coupling and decoupling

Coupling of the Magnocraft is an activity of joining these vehicles in any flying arrangement described previously. This activity is usually carried out during the vehicles' flight. The reversal of coupling, i.e. splitting flying arrangements into individual vehicles, is called decoupling in this monograph. The principles of coupling and decoupling will be explained in the example of forming a spherical flying complex. Of course exactly the same principle is also applied for coupling Magnocraft into any other arrangement. In turn, knowing this procedure of coupling, it is obvious that to decouple any arrangement into single units, the procedure described below needs only to be reversed.

The entire coupling procedure is completed by only one active vehicle (in Figure G18 it is the lower one) which undergoes all transformations. The other unit (in Figure G18 the upper one) remains passive all the time, and its only function is to allow the active Magnocraft to approach it and to complete the necessary transformations. The polarity of propulsors in the active and passive units must be opposite. For example, if the propulsors of an active unit have the polarity characteristic for the inverted position (see Figure G3), then the passive unit must have the polarity characteristic for the upright position. Note that both units (i.e. passive and active) can be either single vehicles or entire flying arrangements.

The coupling of two Magnocraft is conducted in three phases, called the (#1) orientation phase, (#2) the docking phase, and (#3) the linking phase (see Figure G18). Each of these phases is discussed below.

#1. The "orientation phase" initiates the coupling of the active unit to a passive one. In this phase the active vehicle positions itself exactly opposite the surface to which it is later going to cling to (e.g. in Figure G18 directly beneath the passive unit). Then the active vehicle adjusts its angular position so that the outlets of its propulsors begin to face the corresponding outlets from the passive unit. The opposite polarity of the propulsors applied in the upright position and in the inverted position have the effect that in this phase both spacecraft have the same magnetic poles confronting one another. Therefore all the propulsors of both units repel one another (see Figure G3). For example, in the upright (passive) unit the North pole of the main propulsor and the South poles of the side propulsors are directed downwards, whereas in the inverted (active) Magnocraft the North pole of the main propulsor and the South poles of the side propulsors are directed upwards. In effect both Magnocraft act against each other only with repelling forces (R). This prevents the vehicles from accidentally colliding with each other. After finishing the orientation phase the active Magnocraft may advance to further stages of the coupling procedure.

#2. The second phase of coupling, called the "docking phase" (see part "b" of Figure G18) contains three steps which must be completed in a very fast sequence by the active vehicle. These are: (2A) the reorientation of the magnetic poles in the active vehicle, (2B) the balancing of the forces of interactions between both vehicles, and (2C) the closing-up of the distance between both vehicles.

(2A) In the first step, the active unit reorients the magnetic poles of its side propulsors from their repulsive (R) into their attractive (A) orientation towards the same propulsors of the passive unit. As a result, two opposite kinds of forces begin to co-exist

between both Magnocraft, i.e. a repulsion force (R) appears between their main propulsors, and forces of attraction (A) are produced between their side propulsors. Depending on which of these two types of forces is greater, both craft begin to move towards each other or diverge.

(2B) Immediately after the reorientation of the magnetic poles is finished, the active unit must also complete the second step of the docking phase which is the balancing step. In this step the outputs from the Magnocraft's main and side propulsors are so controlled that the forces of attraction (A) and repulsion (R) between both units reach an equilibrium. This equilibrium causes both vehicles to stop further movement towards each other (or diverge) and form a kind of "solid configuration" which we call the "detached configuration". The detached configuration displays all the properties of the physical complexes, i.e. stability, consistency, permanence, etc. Only the mutual attachment of units is achieved not by mechanical means but by a magnetic field. In this state, both craft could travel a long distance together without any need for a more "physical" coupling. If the formation of such a detached configuration is the aim of the coupling routine, then further actions are discontinued at this stage and the resulting arrangement flies away, controlled by only one pilot.

(2C) If both vehicles intend to couple into a physical flying complex, after the balancing step the third step of the docking phase begins to commence. In this third step the forces of reciprocal attraction (A) and repulsion (R) between the vehicles are controlled so that both Magnocraft very slowly draw nearer to each other until they achieve physical contact (e.g. base-to-base) .

#3. After physical contact the vehicles begin the third phase of coupling, called the "linking phase" (see part "c" in Figure G18). In this phase the polarity of the main propulsor in the active vehicle is reoriented so its repulsion with the main propulsor of the passive unit is replaced by reciprocal attraction (A). Both craft now physically hook onto each other, forming one solid complex.

The characteristic attribute of the coupling routine described above is that the vehicles subjected to it must pass through the following three stages: (1) independent units, (2) detached configuration, and (3) flying complex. Therefore we can call this routine the "routine through a detached configuration". There is also another coupling routine, shown in Figure G19, which can be called the "routine through a semi-attached configuration". This routine, during the second (docking) phase of coupling, achieves all the force interactions and the reciprocal orientation of propulsors that are characteristic for the semi-attached configurations. It should be noted that the only difference between both routines is in the type of propulsors which should be reoriented during the docking stage. For the routine through a detached configuration the side propulsors are reoriented, whereas in the routine through a semi-attached configuration it is the main propulsor whose magnetic poles are reoriented.

G3.3. The hydraulic substance filling the space between the craft (angel's hair)

The hydraulic substance used to fill the space between the units in the spherical and double-ended flying complexes needs some special properties. It must have a fibrous structure, similar to egg white, together with the same kind of gelatinous consistency. It cannot be a conductor of electric current, and at the same time must be an ideal magnetic field suspector. It must not convert the magnetic field energy into any other type of energy (e.g. heat).

It is hypothesized that these requirements are met by the class of materials known as the borosiloxane polymers, created by borosiloxane molecular strings. They can be made by a chemical reaction of the boron hydrides with the siloxanes. An example of such a reaction is the association of the boron hydride B_2H_6 with the methyl siloxane $(CH_3)_2SiO$:

$$nB_2H_6 + n(CH_3)_2SiO \text{ --- } (-B-O-Si-O-)$$
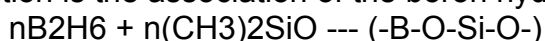
Theoretically, such a reaction would produce a huge amount of energy, much more than that currently obtained from rocket fuels (e.g. the association of hydrogen with oxygen). Thus, a reaction similar to this could possibly be used in the future for energy production, while the polymer received (like the waste exhaust gases emitted from motor vehicles) as a byproduct from this reaction could be recycled for filling the space between the Magnocraft. Unfortunately, because this reaction has a high activation energy, it is very difficult to carry out with our present level of technology. To accomplish it much more technical know-how is necessary.

It should be noted that the organic-like compound of boron with silicon, obtained in the effect of the reaction described above, is a gelatinous substance which has an absolutely neutral effect on the environment and people. Its serially connected borosiloxane strings can have a fibrous consistency. As a result of the water (which is present in the air) attacking the boron, these strings crack, creating volatile chemical compounds of the boraxine $(BHO)_3$ type. Therefore, the hydraulic substance which is dropped from decoupling complexes onto the Earth does not pollute the natural environment, and also evaporates after a while.

Another name for this hydraulic substance is the term "angel's hair", as when it is dropped from a vehicle and lands on a tree, it covers it with strands of long, wet, glassy fibers, creating a visual impression similar to that of the well-known Christmas tree decoration of the same name.

G3.4. The black bars of the magnetic field

There are some arrangements of the Magnocraft, e.g. the semi-attached or detached configurations (see Figures G11 to G13) and the cigar-shaped complexes (Figures G8 & G9), in which the side propulsors belonging to different vehicles face and attract one another, at the same time being kept at a distance. Therefore the highly concentrated magnetic field yielded by these propulsors passes through the environment, forming types of dense columns with clearly distinguishable boundaries. These columns, when observed from a direction that is perpendicular to the field's force lines, must trap and absorb the light, thus appearing to eye-witnesses as black, square bars. Because they appear intensely dark, they can be taken as solid forms extending from the structure of the vehicles. The cross section of these columns reflects the square shape of the Oscillatory Chambers which produce the field forming them. In various arrangements of the Magnocraft, the number of these black bars is always be equal to the number of operational side propulsors contained in the coupled vehicles. This could facilitate the type identification of the coupled vehicles, but unfortunately every such bar can not always be seen, as some of them can be hidden behind the vehicles' shells or behind other black bars. Notice that in semi-attached configurations the black bars pass between the main and side propulsors of the facing vehicles (see Figure G11).

A phenomenon identical to that which causes the black bars to appear is also in action during sightings of twin-chamber capsules - see Figure F5. The circulating flux of such capsules, when observed from a direction perpendicular to the field force lines, is perceived as an area of complete blackness. Moreover, when a Magnocraft's propulsor operating in the outer flux prevalence is observed from the inside of this vehicle, for the same reason it also looks as though it is filled with black smoke. (Further details concerning the phenomena involved in the blackish appearance of the Magnocraft's field observed from a direction perpendicular to its force lines are presented in subsection G9.4.)

G4. The conditions defining the shape of the Magnocraft's shell

Every type of propulsion imposes a unique set of requirements on the vehicles which utilize it. These requirements cause that a given type of vehicles must always display

certain fixed attributes, independently of who builds them, and when and where they are built. An example of such fixed attributes can be the wheels of a car, which must always be underneath it (e.g. even the most advanced cosmic intelligence is unlikely to build a car whose wheels are placed on the upper side). Other examples can include the wings of an aeroplane (it is impossible to build an aeroplane without some form of wings) and the hull of a boat (which must have an aerodynamic shape). The propulsion used in the Magnocraft also imposes a set of such unchangeable requirements. They dictate that the shell of this vehicle is strictly defined by a set of mathematical equations. The subsection that follows reviews the most basic conditions which the shell of the Magnocraft must fulfil, and presents the impact of these conditions on the final shape of this vehicle.

In subsection B2.2 the primary requirement for building a controllable propulsion system was described. This requirement states that the principle of operation of the propulsion must allow the working medium to circulate through the environment. For the Magnocraft this means that its magnetic field must form closed circuits whose paths must cross the environment. To fulfil this condition, the shell of this vehicle must be shaped in such a way that:

1. Both outlets from every propulsor must open out onto the environment.

2. Both poles of the same propulsor must be separated from each other so that the magnetic field is forced to circulate around the outside of the vehicle.

3. Every propulsor must be located in a separate chamber which only opens out onto the environment so that the magnetic field is prevented from forming circuits within the craft.

Above describes only one of numerous conditions that the shell of the Magnocraft must fulfil. This condition makes us realize that this vehicle is also subject to a distinct chain of causes and effects (causes are unique requirements imposed by the principles of operation of the Magnocraft, whereas effects are the ways in which the construction of the Magnocraft must be formulated so that it fulfils all these requirements). This cause-effect chain very strictly defines the shape and the mutual ratio of dimensions of the vehicle. These definitions take the form of a set of equations which the shape of the Magnocraft must fulfil.

The consequence of the chain of causes and effects described above is that not many details are left to the choice of the designer of the Magnocraft. Almost every element of its shell, every dimension and shape is strictly defined by numerous conditions. Let us now, one by one, analyze each such cause and mathematically describe its effects.

G4.1. <u>The condition of equilibrium between the thrust and stabilization forces</u>

The Magnocraft's propulsion is designed for equally effective flights in both possible positions, i.e. upright and inverted - see Figure G3. There are also some situations, for example coupling and decoupling into flying arrangements (see subsection G3.2), where the function of particular propulsors must be reversed. These reasons make it necessary for the propulsion unit of the Magnocraft to be designed in such a way that the total output produced by all the side propulsors is equal to the magnetic output provided by the main propulsor. Only in such a case can a selected kind of propulsor (i.e. the main or the side) in one application be used for propelling and in the other application be used for stabilization. Because the force of magnetic interaction is proportional to the output from the propulsor, the requirement presented here is called the "condition of the equilibrium between the thrust and stabilization forces".

The propulsors of the Magnocraft are built as cubical twin-chamber capsules and are located within the spherical casing (see Figure G1). The external diameters of these casings, i.e. DM and Ds, are the parameters that directly impact the shape and dimensions of the vehicle's shell - see subsection G2. But the diameters D_M and Ds of the propulsors' casings must depend on the output provided by the chambers located within them. This dependence results from the requirement that in the state of magnetic equilibrium, the density of energies in the main and side propulsors must be equal. To achieve such

equality, the volume of the main propulsor must be equal to the volumes of all "n" side propulsors, i.e.

$$(\pi D_M^3)/6 = n((\pi Ds^3)/6) \tag{G2}$$

When the above is transformed and reduced, the final form of the equation describing the condition of the equilibrium between the thrust and stabilization forces is derived. This equation takes the form:

$$D_M = (^3\sqrt{n})Ds \tag{G3}$$

where "n" is the number of side propulsors in the Magnocraft.

By applying the equation (G3) to the shell of the Magnocraft, the mutual ratio between the thickness of the flange (Ds) and the thickness of the body of the vehicle (DM) can be determined for each type of craft if we know only the number "n" of its side propulsors (see equation B1).

G4.2. <u>The basic condition for the force stability of the structure of a craft which uses magnetic propulsors</u>

The Magnocraft's propulsors not only produce the forces which propel this vehicle, but also form the internal forces of magnetic interactions amongst themselves. If unbalanced, both these types of forces would be transferred into the physical structure of the craft where they could cause tensions, fatigue of material and subsequent destruction. To eliminate any negative impact of these forces on the vehicle's shell, their value and directions must be so selected that they neutralize one another. The condition under which all forces appearing within the Magnocraft neutralize one another is called here the "basic condition for the force stability of the structure of a craft with magnetic propulsion", or briefly, the "condition of stability".

All forces appearing within the Magnocraft are presented in Figure G20. They can be divided into two groups: (1) the interactions between the propulsors and the environment, and (2) the interactions between successive propulsors themselves. The group of forces which interact with the environment includes: the force of magnetic repulsion (R) of the main propulsor from the environmental field, and the forces of attraction (A) between all "n" side propulsors and the environmental field. Note that during a Magnocraft's free hovering in the absence of gravitational interactions, the above forces must meet the condition:

$$R = n \cdot A = Ref \tag{G4}$$

The interactions between the propulsors themselves consist of two groups of different forces. These are: the attraction (Q) between the main propulsor and each side propulsor, and the repulsion (E) between each side propulsor and the other side propulsors. Note that each attraction force (Q) can be resolved into the radial component (Qd) and axial component (Qh). Also all repulsion forces (E) acting on the same side propulsor can be combined together giving the radial pull (Ed).

If we analyze the above forces appearing in the Magnocraft's structure, we notice that in every direction two forces act in opposition to each other. The kinds of action exerted by these forces on the vehicle's shell are as follows:

1. Axial tension. It is created by the opposite forces (R) and (A). The value of these forces depends only on the output from the propulsors, i.e. on the "Ref" from equation (G4).

2. Axial compression. It is formed by the axial components (Qh) of facing forces (Q) produced in each interaction between the main propulsor and a side one. The value of this compression depends on the ratio of the craft's dimensions "d/h" and on the "Ref" from equation (G4).

3. Radial tension. This is introduced by the radial pulls (Ed). The value of this tension depends on the "Ref" from equation (G4) and on the number "n" of side propulsors.

4. Radial compression. This is produced by the radial components (Qd) of the attraction forces (Q). Its value depends on the ratio of the craft's dimensions "d/h" and on the "Ref" from equation (G4).

Therefore, through an appropriate manipulation of the factors that define the values of these forces, i.e. ratio of the craft's dimensions "d/h" and the number of side propulsors "n", their mutual equilibrium can be achieved. As an effect of this equilibrium, the opposite forces reach equal values, i.e. Qd=Ed and Qh=A, so their actions reciprocally neutralize one another. The state of such an equilibrium is obtained when the Magnocraft's design fulfils the following condition:

$$d/h = n/4 + 1 \tag{G5}$$

A wooden barrel is a good example of an object which maintains the equilibrium of its forces in a manner almost identical to that utilized in the Magnocraft's shell. A barrel consists of a number of hooped staves that try to expand outwards and thus repel one another like the Magnocraft's side propulsors (these expansion forces in a barrel are equivalent to "Ed" forces formed by the Magnocraft's side propulsors). But simultaneously metal hoops compress these staves inwards, similarly as forces "Qd" do to the structure of the Magnocraft. The equilibrium reached through the mutual balance of these expansion and compression forces constitutes the barrel's own "condition of stability". The fulfilment of this condition provides the barrels with their excellent robust qualities.

The equation (G5) expresses the mathematical formulation of the "condition of stability" for the Magnocraft. The magnetic forces produced by the vehicle that fulfils this condition form a kind of invisible skeleton, or framework, which surrounds the Magnocraft's physical structure. This invisible skeleton is called here the "magnetic framework". The magnetic framework does not itself exert any forces on the vehicle. Moreover, it also protects the vehicle's shell from the action of other external forces directed at it.

In the equation (G5) the ratio of dimensions "d/h" defines an extremely important construction factor, called "Krotność" and marked by the letter "K". (The word "Krotność" in the Polish language means the "ratio of main dimensions" - usually diameter to height.) After the introduction of the "K" factor, the condition of stability can be expressed as:

$$K = (d/h) = (n/4) + 1 \tag{G6}$$

If we build the Magnocraft in such a way that the "K" factor takes only integer values from the range of K = 3 to K = 10, then the number "n" of side propulsors, as well as the ratio "d/h" of the craft's dimensions, is strictly defined and constant for every different "K". For this reason, all vehicles having the same "K" are classified as the same type, whose name is derived from the values that this factor acquires (this name is expressed as K3, K4, ..., K10).

G4.3. The condition for expressing the K factor by the ratio of outer dimensions

The propulsors of the Magnocraft are hidden inside its shell and are usually invisible to an outside observer. Therefore it would be rather difficult to determine the value of "Krotność", as also the type of craft under consideration, only by the number of its side propulsors or their positioning towards the main propulsor (i.e. by the "d/h" ratio). On the other hand, the type must be quickly recognizable by the crews of other vehicles and also by the technical personnel on the ground, as it defines their relationship towards the observed craft. Therefore it is necessary to introduce the additional condition that "K" is not only expressed by the ratio of inner dimensions "d/h", but also by the ratio of outer dimensions "D/H" (see Figure G25). When this condition is met, the crews of other vehicles as well as the personnel on the ground can easily determine the type of an approaching vehicle solely by determining the ratio (K=D/H) of its outer dimensions.

After the introduction of this condition, every Magnocraft must fulfil not only the equation (G6) but also the following equation:

$$K = D/H \qquad\qquad (G7)$$

This equation (G7) makes the determination of the type of observed magnocraft very simple - it is sufficient only to find out how many times the vehicle's apparent height "H" (base to top) is contained within the vehicle's apparent outer diameter "D". Of course this is a purely routine calculation, so it can be completed automatically by the appropriate computer system linked to an identification radar.

The factor "K" is able to fulfil simultaneously the equation (G6) and the equation (G7) only if the width "L" of the Magnocraft's flange (see Figure G20) is described by the equation:

$$L = (K/4)D_M \qquad\qquad (G8)$$

This equation (G8) together with the equation (G7) are the mathematical consequences of the necessity to express the type factor "K" by the ratio of outer dimensions of the Magnocraft.

G4.4. The condition for optimum coupling into flying systems

In subsection G3.1.5 the most advanced configuration of the coupled Magnocraft is presented. It is called a flying system - see Figure G16. The single cell of this configuration is formed from four stacked cigars, the flanges of which mesh with one another. (How such meshing is achieved for every two consecutive cigars is presented in Figure G22.) In order to pack into the flying system the greatest number of vehicles occupying the smallest space, the additional condition of "optimum coupling" must be involved. In accordance with this condition, all vehicles belonging to a particular cell must touch with their rims the central axis "Z" of this cell. Its appearance is presented in Figure G21 which illustrates such a cell from an overhead view (compare also Figure G22 with Figure G16). After joining the vehicles in this way, the distance between the axes of every two spaceships located on the opposite sides of the "Z" axis is equal to "D", whereas the distance between the axes of every two vehicles coupled together by their side propulsors is equal to "d". Using the Pythagoras theorem, the above can be expressed as:

$$D = d\sqrt{2} \qquad\qquad (G9)$$

Both diameters "D" and "d" must also fulfil the equation (see Figure G20):

$$D = d + 2L \qquad\qquad (G10)$$

in which the "L" can be replaced by (G8) combined with (G7); therefore after necessary reductions the final expression for the condition discussed here takes the form:

$$D_M = H\cdot(2 - \sqrt{2}) \qquad\qquad (G11)$$

The equation (G11) reveals that the ratio "H/DM" (i.e. the height "H" of the vehicle to the diameter "DM" of its main propulsor) is constant for every type of Magnocraft and equal to about: $H/D_m = 1.7$.

G4.5. The condition under which the flanges coincide

The optimum coupling of Magnocraft into flying systems also requires that the meshing of the flanges of all craft must coincide exact with one another. The principle of such coinciding of flanges is shown in Figure G22. As this Figure reveals, the entire space left between two stacked vehicles is taken by the mutually coinciding flanges and complementary flanges of the meshing crafts. Because the thicknesses of the flanges are equal to "Ds", whereas the distance between the bases of two consecutive stacked vehicles is equal to "DM", the thicknesses "Gs" of the Magnocraft's complementary flanges must be expressed by the equation:

$$Gs = D_M - Ds \qquad\qquad (G12)$$

The fulfilment of the equations (G11) and (G12) forms the Magnocraft's shell in such a way that after these vehicles are coupled into a flying system, there is almost no space left which would not be occupied by a craft.

G4.6. Types of Magnocraft

By the phrase "type of Magnocraft" is understood a group of identical vehicles which share exactly the same values of: their "K" factor, design parameters (e.g. "n", dimensions), external shape, and various standardized features subjected to international (or interplanetary) agreement. Therefore any group of Magnocraft belonging to the same type is able to couple together into homogenous arrangements, independently of who produced these vehicles and when, what their purpose is, etc. All Magnocraft of the same type will also look identical from the outside and will have the same number of side propulsors. But they can be subdivided into different internal rooms, may use different materials for their shells, be produced by different countries or companies, be made in different years, and so on.

It is worth mentioning here that a number of series of the Magnocraft will probably be built in the future for various purposes. We can imagine a minimum of two such series, i.e. (1) the basic series of crew-carrying vehicles, and (2) an additional series of the computer controlled Magnocraft. In these computer-controlled vehicles, types K3 to K5 could perform the functions of personal implements (e.g. weapons, couriers) whereas types K6 to K10 could perform the function of automatic probes. In each of these two series, the dimensions of particular types of vehicles must be different, but the general appearance, the number of side propulsors, and the mutual ratio of dimensions must remain the same for a given type. For the series of the crew-carrying Magnocraft, the best use of space seems to occur when outer diameters "D" of the subsequent types of vehicles fulfil the equation:

$$D = Cc \cdot 2K \quad \text{[metres]} \qquad\qquad\qquad (G13)$$

in which the constant "Cc" represents the cosmic unit of length, in this monograph called the "cosmic cubit". Its value is Cc=0.5486 [metres].

The outer diameters D' of the computer controlled Magnocraft should probably be 2^8=256 times smaller, thus expressed by another equation of the form: D' = 2.143·2K [millimeters]. Such defining of their values would cause that the outer diameter D'K10 of the K10 type of a computer controlled Magnocraft would be equal to a half of the outer diameter DK3 of the K3 type of a crew-carrying Magnocraft, i.e.: DK3 = 2·D'K10. The above demonstrates that in fact, for the complete categorizing of the Magnocraft, there is a need to identify not only the type to which it belongs, but also the series from which this type is taken (i.e. crew or computer controlled). However, because this monograph is not concerned with the specific possibilities of the applications of the Magnocraft, in the remainder of the text any reference to a computer controlled series of the Magnocraft will not be elaborated. Therefore any further reference to a type of Magnocraft will relate solely to the crew-carrying series of this vehicle.

The equation (G13) highlights the fact that the outer diameters of successive Magnocraft are organized in a binary fashion. By way of their organizing, the diameter "D" for each following type of Magnocraft is obtained by doubling the same diameter from the previous type. Because there is a linear relationship between the outer diameters "D" and all other dimensions and parameters of the Magnocraft, a number of various dimensions of these vehicles are also aligned in such a binary fashion. For example the diameters "d" of the circles of scorched vegetation left by landed Magnocraft (see Figure G38) are also organized in such a way that each subsequent circle is twice as big as the circle produced by the previous type of this vehicle.

The conditions defined earlier led to the deduction of a number of equations which completely describe the geometrical shape of the shell in each type of Magnocraft. These equations are listed in Figure G23. If we use the equation (G13) for defining diameter "D" of

the subsequent vehicles, we may determine the main dimensions for the crew-carrying series of Magnocraft. These dimensions are presented in Table G1.

Transforming the dimensions from Table G1 into diagrams, the outlines of all eight basic types of the Magnocraft are obtained. The final form of these outlines is presented in Figure G24. This Figure reveals that each type of Magnocraft possesses a unique and very distinct shape, which in the future will help us to visually identify them quickly and easily.

G4.7. Identifying the types of Magnocraft

A number of practical consequences result when the shell of the Magnocraft follows the conditions specified above. First and the most important of them, is the possibility of quick and easy identification of the type and size of the vehicles that are observed, and resulting from this, instant knowledge of almost all the construction parameters of these craft. An effective method of such quick identification of the Magnocraft's type is illustrated in Figure G25. All that is needed is to place a piece of thread, a blade of grass, a ruler, or any other linear object towards the flying Magnocraft or on a photograph of it, and then measure its apparent "H" and "D" dimensions. Next, the value of "Krotność" can immediately be established from the equation (G7) by a simple division of "D" by "H". If by this means the value of "K=D/H" is determined, almost all of the vehicle's parameters can later be found either by reading them from Table G1 or by calculating them from equations (G3) to (G13).

Determining the value of the K factor for a single craft is simple; we just use equation (G7). Also when two Magnocraft are coupled together (see subsection G3.1.1) into a spherical flying complex, "K" may be calculated from the following simple equation:

$$K_{spherical} = 2D/H \qquad \text{(G14)}$$

However, the "K" determination starts to be more complicated when one of the cigar-shaped flying complexes is analyzed. In this instance the final form of the equation used depends on the value of the following ratio:

$$H/(H - DM) = c \qquad \text{(G15)}$$

This ratio can be determined from the equation (G11) expressing the condition of optimum coupling into flying systems. After it is determined from this condition it takes the following value:

$$c = 1/(2 - 1) \qquad \text{(G16)}$$

After using this value for "c" for deducing the equation describing the "K" factor in cigar-shaped flying complexes, these equations take the following form:
- for the stacked cigar-shaped complex:

$$K = (m - (m-1)/c)(D/H) = (m - (m - 1)\cdot(\sqrt 2 - 1))(D/H) \qquad \text{(G17)}$$

- for the double-ended cigar shaped complex:

$$K = (m - (m-1)/c)(D/H) = (m - (m - 2)\cdot(\sqrt 2 - 1))(D/H) \qquad \text{(G18)}$$

The "m" represents the number of Magnocraft coupled together into a given flying complex, whereas " H" is the height and "D" is the outer diameter of the resultant arrangement.

Note that when the number of units takes the value m = 1, the equation (G17) reduces itself into the form of equation (G7). Similarly equation (G18), when applying the value of m = 2, transforms itself into equation (G14).

The final formulas for identifying the type of Magnocraft that form one of the flying configurations considered above are listed in Table G2.

G4.8. The magnetic framework

Another consequence of the "stability condition" is the resistance of the Magnocraft's structure to the action of even the highest of external pressures. Any external effects directed onto the craft are taken up by the magnetic whirl. This whirl is supported by the "magnetic framework" described in subsection G4.2. Therefore the environmental pressure is not transferred into the body of the craft, but is neutralized within the magnetic field's interactions. This makes it possible for the vehicle to withstand high pressures that otherwise would be destructive to its physical structure. Therefore the Magnocraft have the ability to penetrate the bottom of oceanic trenches where any other structure would be crushed by water pressure. Also the Magnocraft should not be in danger from any nearby explosion because the shockwaves would be stopped by the magnetic framework.

The other property of the Magnocraft, called the "magnetic whirl", prevents any extremely hot medium from touching the craft's surface. Simultaneously, the strong magnetic field ("magnetic lens") bends the thermal radiation, making it impossible to illuminate the surface of the craft. Therefore, Magnocraft are able to fly through any environment consisting of melted materials. This ability, together with the magnetic framework, should allow this vehicle to penetrate the Earth's nucleus, and also perhaps the centres of stars.

G5. The magnetic field of the Magnocraft

The operation of the Magnocraft involves a number of issues concerning the magnetic field of this vehicle. Some of them are very important and sensitive. For example, the issue of the effective length of the Magnocraft's propulsors is overlooked by the majority of those raising critical comments that refer to the uniform character of the Earth's magnetic field. Thus, if people who put forward such comments would become familiar with the author's deductions before they formulated their objections, most of the criticism directed towards the Magnocraft to date would be avoided. For this reason, the issues mentioned need to be addressed here to give readers a complete understanding of the scientific foundations behind this vehicle. Such an understanding would also enable readers to defend this spaceship from unjustified attacks by various sceptics who do not bother to learn the details of the Magnocraft's theory, but who are nevertheless quite eager to attack it. Unfortunately, the major issues concerning the magnetic field of this vehicle are rather difficult to understand, and also their comprehension seems to require some background in science or technology. Therefore some readers may find this subsection quite difficult. To minimize the gaps when someone omits the material on the Magnocraft's magnetic field, the author has arranged this chapter so that skipping through the subsection that follows should not disadvantage their comprehension of the entire material. But for those readers who are able to work through this subsection, the author highly recommends that they do so.

G5.1. The starting flux

Planet Earth, apart from numerous other properties, also acts as a huge magnet. If any man-made source of a magnetic field (e.g. a propulsor) is placed in the range of its field, then magnetic interactions between the Earth and this source must occur. A visual illustration for these interactions in action is the operation of a magnetic compass. It is commonly known from physics that any two magnets can be so oriented that they repel each other. This can also be achieved with the Earth and any man-made source of magnetic field. Unfortunately in this latter case, the low density of the Earth's magnetic field and its high uniformity cause that the forces of repulsion so created are negligible. But if the

man-made device is capable of increasing its magnetic output (and thus also its effective magnetic length), the force of its repulsion from Earth must also increase. Assuming that this source has unlimited capabilities to increase its output, such a moment must inevitably occur when the force of its repulsion from Earth will exceed the gravity pull. Therefore, at this significant moment a very critical output from this device is achieved which initiates its ascent into space. This critical output is called here the "starting flux".

The starting flux represents an extremely important constant for the devices that propel the Magnocraft. Its definition is as follows:

"The name, <u>starting flux</u> (Fs), is given to such a ratio of the magnetic flux (F) to the mass (m), that any device oriented repulsively towards the field of the Earth which achieves this ratio must autogenously begin to ascend."

Every man-made source of a magnetic field whose output exceeds the starting flux is able to break a gravity pull by its own force of magnetic repulsion from the Earth's field, and to ascend. Therefore the starting flux represents the magnetic equivalent of the "escape velocity" as applied in conventional space travel. Its value relates to geographical location and is lowest for the magnetic poles and highest for the magnetic equator. For the north magnetic pole of Earth it is equal to Fs=2.59 [Wb/kg]. But for the area of Poland it rises to the value of about Fs=3.45 [Wb/kg].

The starting flux is a physical constant of extreme importance for the magnetic propulsion of flying vehicles. It defines which sources of a magnetic field are only ordinary magnets and which of them can be used as magnetic propulsors. The primary condition for employing any source of a magnetic field as the magnetic propulsor is that its field-to-mass ratio must exceed the value of the starting flux.

From the historic point of view the starting flux constitutes an important breakthrough separating two eras. Until the completion of the device whose output will exceed the starting flux, the era of propulsion systems operating on the principle of circulation of matter (see Table B1) prevails on Earth. After the completion of such a device, the era of the magnetic propulsion of flying vehicles will arrive on Earth.

Up to now our devices for producing a controlled magnetic field (called electromagnets) possess a number of drawbacks that make it impossible to attain the outputs equal to, or greater than, the value of the starting flux. These drawbacks are listed in subsection F1. The Oscillatory Chamber described in chapter F of this monograph is the first device whose principles of operation allow us to achieve outputs higher that the value of the starting flux.

G5.2. <u>The naming of the magnetic poles</u>

In contemporary physics there is a rule for the naming of the magnetic poles which states that:

"The 'North (N) magnetic pole' is understood to be the pole of the magnetic needle tip pointing northward".

As a result of this notation, the North geographic pole is actually adjacent to the South magnetic pole and vice versa. Perhaps the above complication does not matter in the physical interpretation of electricity and magnetism, but it introduces confusion in the analysis of the Magnocraft's polarity in relation to its geographic location.

Therefore to standardize our understanding of the geographic and magnetic poles and to rationalize the description of the Magnocraft's polarity in relation to the geographical location of this spacecraft, in this monograph and in other works by the author the magnetic poles are named as follows:

"The 'North (N) magnetic pole' is understood to be the pole of the Earth's field which exists adjacent to the Earth's North geographic pole, whereas the 'South (S) magnetic pole' exists near the Earth's South geographic pole".

It should be stressed that the above definition is the reverse of the naming of the magnetic poles as used in physics.

G5.3. The effective length of the Oscillatory Chamber and the net magnetic force

There is a popular claim repeated frequently by various "experts" in magnetism that because of the highly uniform nature of the Earth's magnetic field, a magnetic propulsor is not supposed to be able to produce a sufficiently high net magnetic force to lift a spacecraft. As is explained in this subsection, such a claim is groundless. But because it is stated by "experts", who should know what they are talking about, its repetition introduces a significant confusion in people whose educational backgrounds do not concentrate on the area of magnetism. For this reason, the subsection that follows explains the common mistake of "experts" stating this claim, and why the net magnetic force produced by the Oscillatory Chamber is in fact sufficiently high to lift a vehicle.

The operational size of every bar magnet is described by two parameters, called a "physical length" and an "effective length". The physical length is the length of the physical body of a magnet; the effective length is the length of space in which the field of this magnet prevails. The physical length is very easy to measure, but the measurement of the effective length of a magnet is very difficult and impossible without very precise and complicated equipment. For this reason elementary books on magnetism simplify the equations for the forces of interaction formed by magnets. They express these forces as depending on physical length, whereas in fact they depend only on the effective lengths of the magnets involved. Such simplification does not matter at secondary school level, but it is inexcusable in a consideration of the Magnocraft's behaviour in space. This is the reason why the problem of the effective length of a magnet is highlighted here.

Contrary to physical length which is difficult to change, the effective length of a magnet changes easily. It can be increased in the following three ways, by:

(a) An increase of the physical length of a given magnet.

(b) An increase of the ratio between the density of the field produced by this magnet and the density of an environmental magnetic field.

(c) Spinning of the force lines of the magnet with a very high angular velocity (see the relativistic phenomenon described at the end of subsection I2).

The Oscillatory Chamber represents a magnet of a relatively short physical length, but the ratio of its field density over the density of the Earth's magnetic field may be increased unlimitedly. Therefore the effective length of the Oscillatory Chamber can reach any desired value. The value of the Earth's field density determined for the latitude of the southern boundary of the United States is 5.4×10^{-5} [weber/m2] (see "General Physics" by O.H. Blackwood and others, 4th edition, John Wiley & Sons Inc., New York 1973, ISBN 0-471-07923-5, page 424). Thus the ratio of the Magnocraft's flux density to the Earth's flux density exceeds the range of 108 when the vehicle produces only the starting flux. But because this spacecraft needs a further power reserve for the purpose of accelerating and manoeuvring, the above ratio should be additionally increased by a range of 104 or even more. This allows us to estimate that the effective lengths of the Magnocraft's Oscillatory Chambers will exceed over a million times their physical dimensions. So in fact a chamber with a physical length of around one meter will extend its effective length to a value of around a thousand kilometres, thus being comparable to the diameter of the Earth. This means that in spite of a small physical size, magnetically the chamber would behave in the same way as would a magnet of such enormous length.

When the magnetic propulsor is so oriented that it is repelled by the Earth's magnetic field, and if the effective length of its Oscillatory Chambers covers the appropriate gradient of the environmental field, a significant repulsive net force must be produced. We know that planetary, solar and galactic magnetic fields are uniform by human standards, i.e. their values do not vary appreciably over the physical dimensions of any man-made object. Therefore, it is not expected that a significant net translation force is exerted on an ordinary magnet of a low output (whose density is comparable to that of the environmental magnetic field), because its effective length could not greatly exceed its physical dimension. But for

the outputs from the Oscillatory Chamber exceeding the value of the starting flux, the effective length of this device is comparable to the size of the Earth. Thus it easily overcomes the uniform character of the field of the Earth, Sun or Galaxy. Therefore such a chamber must produce a significant net repulsive force capable of lifting not only this device, but also a heavy spacecraft attached to it. This is why the Oscillatory Chamber <u>can be used</u> as a magnetic propulsor, and why individuals claiming otherwise are mistaken.

G5.4. <u>The determination of the value for the "starting flux"</u>

Let us assume that we have a hypothetical bar magnet whose properties correspond exactly to those of the Oscillatory Chamber. This means that the output (F) of this magnet can be increased to an infinitively large value, and also its length is comparable to the effective length of the Oscillatory Chamber (i.e. about a thousand kilometres). Let us also assume that we place this hypothetical bar magnet in a vertical orientation on the north (N) magnetic pole of the Earth. Thus its north pole (N) is close to the ground and is pointed downwards, whereas its south pole (S) extends to the height where the Earth's magnetic field is almost completely non-existent. Because of the enormous length of this hypothetical magnet, the repulsive force (R) created by the north pole of the Earth acts on its north magnetic pole, whereas no force acts on its south pole as it is extended too far in cosmic space. Therefore the net magnetic force acting on this magnet is equal to the repulsion (R) of its north pole with the north magnetic pole of Earth (the attraction between the north magnetic pole of Earth and the south pole of the magnet is negligible).

Simultaneously with the magnetic force (R), the hypothetical magnet will also be acted upon by the gravitational pull (G) which is determined by gravitational acceleration (g). If we assume that the mass of this source of field is equal to (m), we can determine the value of this gravitational attraction:

$$G = m \cdot g \tag{G19}$$

On the other hand we know the magnetic flux (F) which is produced by our hypothetical magnet and we know also the strength (H) of the Earth's magnetic field. This allows us to determine the force (R) of reciprocal repulsion occurring between our source of field and the Earth's magnetic field. The value of this force is described by the definition of the field's strength, fundamental in magnetism. This definition states that "the field strength (H) at a point is the force (R) exerted on a unit north pole (F) at that point" (see Loeb L.G. "Fundamentals of electricity and magnetism", Dover Publications Inc., New York 1947, pp. 29 and 49). This can be expressed by the following equation:

$$R = H \cdot F \quad [dyn] \tag{G20}$$

For the hypothetical magnet to ascend, the condition must be met that its repelling force (R) must overcome the gravitational pull (G):

$$R > G \tag{G21}$$

If in the relation (G21) we replace the variables by the equation (G19) and (G20) we find that our hypothetical magnet begins to ascend when the ratio of its magnetic flux (F) to its mass (m) exceeds the value:

$$F/m > g/H \quad [Mx/gram] \tag{G22}$$

The relation (G22) has been derived for the CGS Unit system only. After its conversion into SI Units it takes the form:

$$F/m > (4\pi g)/H \quad [Wb/kg] \tag{G23}$$

The ratio of F/m in the relation (G23) is called here the "starting flux" and we label it with the letters Fs:

$$Fs = F/m \tag{G24}$$

After introducing the definition of the starting flux, the final form of the relation (G23) is the following:

$$Fs > (4\pi g)/H \qquad [Wb/kg] \qquad\qquad (G25)$$

This relation describes the value of the starting flux which must be produced by the Oscillatory Chamber in order to begin the ascent.

To determine the value of the starting flux at the north magnetic pole of the Earth, we must substitute the variables in the relation (G25) with their appropriate values. Taking the strength of the Earth's magnetic field at the north magnetic pole H = 0.6 [Oe] = 47.75 [A/m] and the gravitational acceleration g = 9.81 [m/s2], we will receive Fs > 2.59 [Wb/kg]. This means that the Oscillatory Chamber starts to ascend from the north magnetic pole of the Earth when each kilogram of its mass yields a magnetic flux larger than 2.59 Weber. Because the Earth's field is strongest at the pole, the starting flux will increase proportionally to the distance from the Earth's magnetic pole. For example, at Poland's latitudes it is over 3.45 [Wb/kg]. Certainly the field sources utilized for propulsion must be much more efficient than this, because they carry not only themselves but also the whole structure of the craft. As well, they must possess the reserve of power to enable them to accelerate the vehicle in the weakened fields of free space.

The above deduction of the equation for the starting flux, and also the determination of its value, were presented for the first time in the article "Teoria rozwoju napedów" (The theory of propulsion development), published in the Polish Journal Astronautyka, no. 5/1976, pp. 16-21.

G5.5. The energy of the Magnocraft's field

We also need to consider the problem of the amount of energy consumed by the magnetic field of the Magnocraft. The first impression is that this energy should be high. But analysis has shown that the Magnocraft consumes only a small fraction of the energy required by a supersonic aeroplane of the same size (mass). This is explained by the principle which states that attracting or repelling forces produced by a magnetic field do not consume energy. For example, a permanent magnet can interact with the Earth's field for millions of years without losing its power. Also the electric current in the closed circuit of a superconductive electromagnet can circulate for many years and produce the same value of the magnetic field which interacts with the field of the environment. Therefore, producing the thrust and stabilization forces in the Magnocraft does not require the expenditure of any energy, and this fact is independent of the speed of the craft. The Magnocraft flying in this manner is similar to a balloon soaring rather than to the thrust of a rocket. The energy consumption of the Magnocraft is caused only by: production of the magnetic whirl which has to fight against friction (this friction is absent in free space); inducing currents in objects in the environment; electromagnetic radiation; acceleration of the craft; and the so-called "initial energy" necessary to create (but not maintain) the magnetic field of high intensity. We should also remember at this point that the energy of the Magnocraft's field is self-rechargeable, i.e. its consumption during an acceleration of the vehicle is replaced by its recovery during deceleration.

The initial energy in the Magnocraft is analogous to the electrical energy consumed by a car's starter motor during the starting of the engine, or to the energy used for pumping gas into a balloon casing. It is spent only once - during the starting of the Magnocraft's propulsors. Therefore it is obtained from an outside source of energy which is accessible at the starting sites of the Oscillatory Chambers. The value of this energy is equal to the sum of energy contained in the fields generated by each vehicle's propulsor.

It is possible to calculate the energy involved in this "initial energy". Such a calculation is presented below. We know that if the density of the magnetic flux (f) is increased from zero to f, the energy density stored in the magnetic field (e) will be

expressed as (see Slemon G.R. Straughen: <u>Electric Machines</u>, Addison-Wesley Publishing Company, USA, 1980, page 18):

$$e = \frac{1}{\mu_o}\int_o^f f\,df = \frac{f^2}{2\cdot\mu_o} \qquad [J/m3] \qquad\qquad (G26)$$

Substituting the value of the starting flux Fs=2.59 [Wb/kg] (obtained from equation (G25)) divided by this part of the K3 Magnocraft's base area s=0.00785 [m2] which belongs to one kilogram of its mass (see Table G1) for f, and the magnetic permeability of free space o=4· ·10-7 [T·m/A] for o, we obtain the result that the initial energy density required for a Magnocraft to ascend from the North magnetic pole of the Earth is approximately e=12 [MWh/m3] for each kilogram of the craft's mass. This value must be increased, depending on the strength of the local environmental field (in comparison to the strength at the North magnetic pole of Earth) where the craft operates, and also depending on the maximal acceleration for which the craft is designed. By reference to the values of mass of particular types of Magnocraft which are listed in Table G1, and considering the distribution of the magnetic field around the craft, the total initial energy can be found. For example, the estimative calculation of this energy for the K3 type of Magnocraft gives an approximate result of 1.5 [Tera·Watt·hours]. To give an idea of how great this is, we can say that it is equivalent to two months' consumption of all types of energy by all of New Zealand.

The storing of such enormous amounts of energy within the Oscillatory Chambers of a Magnocraft transforms this vehicle into a flying bomb of tremendous power. Let us now determine the destructive potential of this bomb in the event of the Magnocraft accidentally exploding. We know that one ton of TNT releases 4.18·109 [Joules] (or 1.61 [MWh]) of energy - see the book "McGraw-Hill Dictionary of Scientific and Technical Terms", Third Edition, 1984, ISBN 0-07-045269-5, page 1656 (term: "ton"). This means that the explosion of the smallest, K3 type Magnocraft whose Oscillatory Chambers are loaded with 1.5 [TWh] of magnetic energy, would be equivalent to a blast of almost one-megaton thermonuclear bomb, or to the simultaneous exploding of almost 80 atomic bombs similar to the one dropped on Hiroshima. Also, the major effects of such a detonation of the Magnocraft would be the same as the effects of a powerful hydrogen bomb explosion. Only the area destroyed would not be polluted by any radioactive isotopes, so that this area could be populated again almost immediately.

G5.6. <u>The energy of the Magnocraft's field is self-rechargeable</u>

The electric motors operating on the principle of interaction between magnetic fields have introduced a new quality unknown before in steam or combustion engines. They are able to recover during their decelerating the energy consumed for accelerating. Therefore an electric train or tram, when decreasing its speed, may turn its own motors into generators and return the electricity to the overhead powerline.

The above phenomenon also applies to the Magnocraft. This vehicle, when accelerating, transforms the energy of its magnetic field into a kinetic energy of its motion. But when decelerating the process is reversed, and its magnetic field becomes recharged. Therefore, if a long interstellar voyage which does not involve any friction is completed, the Magnocraft's field should contain the same amount of energy it had at the moment of starting. Thus we may say that the energy resources within the Magnocraft are self-rechargeable.

G5.7. <u>Why the Earth's magnetic field should not be called "weak"</u>

In our view of the Earth's magnetic field a stereotype opinion prevails that it is too "weak" to be able to support a space vehicle. Let us analyze the validity of this view.

As far as the magnetic field is concerned, the terms "weak" and "strong" describe the amount of energy contained in this field. The indicator for this amount is the work needed to remagnetize a given source of the field, i.e. to exchange its north magnetic pole into south and vice-versa. So by a weak magnet is understood a magnet which, when acted upon by the field of the other magnet, easily changes the orientation of its poles, almost without absorbing any energy during this process. However, if we try to imagine or calculate the amount of energy necessary for remagnetizing the Earth - that means to change its north magnetic pole into its south magnetic pole and vice-versa - we very quickly come to the conclusion that the Earth's field is extremely strong. It is not possible by any means to remagnetize this field by the field of even the heaviest spacecraft that can be built. However, the field of the Earth, because of the dimensions of our planet, stretches into a vast distance in space. This in turn decreases its density. People who do not understand the direct relationship between the amount of the field's energy and its strength wrongly use this low density as justification for calling the Earth's field "weak".

G5.8. The Earth's magnetic field is able to carry out technically useful work

The spreading of the Earth's magnetic field over a large area causes a decrease of its density to the level where it is unable to form any technically significant force interactions. This is the reason why in our technical projects we ignore the influence of the field of the Earth. This tendency is now advanced to the extent that we automatically assume that this field is unable to complete any technically useful work at all. The following example indicates how wrong this assumption is.

Mr H.G. Slingsby (Half Moon Bay, Stewart Island, New Zealand) built a magnetic motor which, instead of having a stator, uses the Earth's magnetic field. This motor works on a principle which is a combination of a DC motor and the magnetic needle of a compass. Mr Slingsby connected twelve horizontal electromagnets, positioned like the points of a star around a vertical axle, with the commutator attached to this axle. The commutator provided the current only to the electromagnets which were oriented in an east-west direction, and disconnected the electromagnets which were oriented north-south. The switching on of the current caused the electromagnets to act like the needles of a powerful compass which tried to turn in a north-south direction. This forced the rotation of the whole set of magnets that were joined to the commutator. As a result, when some of these electromagnets were disconnected from the current after reaching a north-south orientation, the current was then supplied to the next electromagnets pointed east-west, and so on.

Mr Slingsby's motor proves that mechanical motion can be obtained from the Earth's magnetic field, and that this motion can display the same power that some people believe could only be produced by a technically induced field of high density (i.e. similar to that which appears in modern electric motors). Thus, his motor empirically demonstrates that space vehicles whose flight utilizes the field of the Earth, Sun or Galaxy can definitely be built.

G6. The manoeuvring of the Magnocraft

The behaviour of the Magnocraft in space is determined by the vectorial sum of all external forces and torques acting upon its body. These forces and torques in turn are formed as the effect of interactions occurring between the field produced by the vehicle itself and an environmental magnetic field. There are as many as four different kinds of interactions with the environmental magnetic field which the Magnocraft may create. These are:

1. A lifting force (i.e. the magnetic buoyancy).
2. A meridional thrust (i.e. acting in a north-south or south-north direction).

3. A latitudinal thrust that pushes the vehicle in an west-east or east-west direction (i.e. it is formed by the magnetic equivalent of the Magnus Effect known in hydromechanics).

4. A rotary torque.

To cause the flight of the Magnocraft in a desired direction, a coordination of the effects of all the four interactions above is required, so that the resultant force pushes the vehicle according to the crew's intentions.

The manner of flying utilized by the Magnocraft poses a number of requirements which this vehicle must fulfil. The most important of these is that the magnetic axes of the propulsors should be close to their parallel orientation towards an environmental field. Practically, this means that during flights the Magnocraft tends to be oriented with its base almost perpendicular towards the local course of the force lines of the environmental magnetic field (i.e. we may never see this vehicle flying {stable} with its base parallel to these force lines). The above requirement makes the principles of the Magnocraft easily distinguishable from all the different principles possible to be applied for flight, because in order to prove that the observed craft does not use magnetic propulsion it is sufficient to document that it flies stable with its base parallel to the Earth's field force lines.

G6.1. Ascent, hovering, and descent

In every stage of the Magnocraft's flight one kind of propulsor remains oriented so as to be repelled by an environmental field. For vehicles flying in the upright position it is the main propulsor, whereas for vehicles flying in the inverted position the side propulsors are thus oriented - see Figure G3. The force "R" formed by the propulsors so oriented is called the lifting force, or - because of its similarity to hydraulic buoyancy - the force of magnetic buoyancy. This force allows the craft to overcome the gravity pull "G".

In order to produce magnetic buoyancy, it is sufficient that the Magnocraft's lifting propulsors fulfil conditions 1 and 2 specified in the introductory part of subsection G1. Notice that these conditions also make it possible to form the lifting force above the Earth's equator - the principles for achieving this are illustrated in Figure B2.

Independently of the lifting force "R", the Magnocraft also produces counteracting interactions called stabilization forces "A". These are formed by orienting the propulsors so that they are attracted by the environmental magnetic field. The main function of the stabilization forces is to ensure the steadiness of the vehicle in space. They can be used additionally to cause the spacecraft to descend.

Control over the relation between the value of lifting force "R" and the value of stabilization forces "A" makes possible the ascent, suspension (hovering) and descent of the vehicle. In general, if the lifting force "R" dominates over all the forces directed downwards, i.e. over the stabilization forces "A" and the gravity pull "G", the Magnocraft ascends. If an equilibrium appears between these two groups of forces, the vehicle hovers motionless at the same height. But when the forces "A" directed downwards are dominating, the spacecraft descends. Because the relation mentioned above depends on the outputs provided by both kinds of propulsors, control over the discussed behaviour of the Magnocraft is limited to an appropriate selection of the values of the resultant fluxes yielded from the craft's twin-chamber capsules.

G6.2. Meridional flights

Flights of the Magnocraft in meridional directions, i.e. from north to south and south to north, are achieved by slanting the magnetic axes of the craft's propulsors from their parallel orientation towards the local course of the Earth's magnetic field. As the effect of such slanting, the meridional components of the force interactions between the craft's field and the environmental field are created. The value of these components and the direction

of their thrust depends on the outputs from the slanted propulsors and on their inclination angle "I". By appropriate differentiation between the outputs and "I" angles from the main and the side propulsors, a suitable meridional thrust force is formed which pushes the vehicle into the direction desired.

G6.3. Latitudinal flights

In hydromechanics we know of the so-called "Magnus Effect" which employs a rotary cylinder to produce a thrust force acting perpendicularly to the drift lines of a flowing medium. Because of the similarities revealed between the flow of a liquid and a magnetic field (see subsection D4.1) the author has formed the hypothesis that a version of this effect must also appear in magnetism. The validity of this hypothesis is supported by the theoretical deduction whose description follows, and which can also be verified experimentally. This effect can be utilized by the Magnocraft to create a latitudinal thrust force, i.e. a force propelling the vehicle from east to west or from west to east. To obtain this force it is sufficient for the vehicle to spin its magnetic field around its own body. Such a spinning field is called a magnetic whirl and the principles of its formation are described in subsection G7.

During initial discussions on the magnetic equivalent of the "Magnus Effect" the author's colleagues named it jocularly the "Pajak Effect". For practical reasons this name was later also used on other occasions. However, in this monograph the discussed effect will be called with its long name: "the magnetic equivalent of the Magnus Effect".

G6.3.1. An experiment showing the existence of the latitudinal thrust force

The formation of the latitudinal thrust force can be proved experimentally through the building of a "magnetic transmission". Such a transmission can be formed from two circular magnets axled like two co-operating gear wheels. They should not touch each other so that their mutual interactions must be passed through their magnetic fields. The axes of rotation of these magnets should be parallel to each other so that their fields could interact in the same way as the magnetic whirl of the Magnocraft interacts with the field of the Earth. Even though these magnets physically do not touch each other, by spinning the first of them a detectable torque is formed which acts on the other magnet forcing it to rotate also. So the fields of these magnets act like a kind of magnetic gears. Exactly the same phenomenon occurs between the Earth and the Magnocraft. Thus if the mass of a Magnocraft would be comparable with the mass of Earth, this vehicle when flying above the equator would turn the Earth, just as our experimental magnets do to each other. But because the Magnocraft has an insignificantly smaller mass than that of the Earth, instead of turning the Earth this vehicle flies around it.

Because of the limited powers of the fields produced by ordinary magnets, a successful completion of the experiment explained here requires a high degree of precision in the balancing of both magnets and in the sensitivity of their bearings.

G6.3.2. The deduction that explains the principles of the latitudinal thrust force formation

The author has also developed a formal deduction which supports his hypothesis that in magnetism, a version of the Magnus Effect must appear. This deduction is based on the illustration from Figure G26. Its presentation is as follows.

The density of the magnetic field which is created by the Earth, Sun or other planets and stars depends on its radial distance from the source of the field. If a point "H" is above the Earth's surface at a height greater than point "L" (for convenience, H and L are

assumed to be above the equator), then the density of the Earth's field is greater at L than at H, i.e. FL > FH. If these points are at the same radial distance from the centre of the Magnocraft, then the whirling magnetic field must induce local electrical fields UL and UH, where UL = UH. The values of UL and UH are determined by Maxwell's equation. The Contradictory Rule which applies to electro-magnetism states that these electrical fields must create their own local magnetic fields which then react against the rotation of the vehicle's field. The whirling field of the Magnocraft interacts with these locally induced fields and tries to cause them to rotate. However, they are prevented from rotating because of their interaction with the Earth's field. The forces preventing the local fields from rotating are proportional to the local density of the Earth's magnetic field. The reaction force TL at L is thus greater than the reaction force TH at H, i.e. TL > TH. These elemental forces represent the magnetic resistance which the environmental field gives against the magnetic whirl. As the elemental reaction forces differentiate with height, an elemental thrust force acting on the Magnocraft is produced. Its magnitude is given as dP = TL - TH. This force acts along an equipotential surface of the environmental field, perpendicularly to the whirl's axis. The resultant thrust force "P" can be calculated by summarizing the elemental thrust forces "dP" along each force line of the Magnocraft's field "f" over the number of these force lines "n":

$$P = \int_f \int_n dP \tag{G27}$$

It can be observed that similarities to the "Magnus Effect" also exist in every other kind of heterogeneous field, e.g. a pressure field. There is only one condition necessary for this effect to occur: a whirl must be formed from the medium which is creating the field, and the axis of the whirl's rotation must lie on the equipotential surface. For this reason, the magnetic thrust force "P" in the atmospheric pressure field (or in the ocean) is increased by an aerodynamic (or hydraulic) version of the "Magnus Effect" due to the Magnocraft producing a whirling of the environmental medium.

The magnetic version of the "Magnus Effect" described above is similar to the mechanism which is the basis of a number of other phenomena that are already well understood. One example of such phenomena is the Lorentz force. If an electrically charged particle in an environmental magnetic field moves, it produces its own vortex magnetic field. This vortex magnetic field, by interacting with the environmental field, causes an action similar to the magnetic equivalent of the "Magnus Effect", and as a result the path of an electrically charged particle is bent in a direction perpendicular to the force lines of the environmental magnetic field. Another example of this is Fleming's right-hand rule (or its opposite version, the left-hand rule - often called the motor effect). When an electric current flows through a straight wire, a vortex magnetic field which surrounds this wire is produced (see subsection D4.1). This vortex field, by interaction with an environmental magnetic field, produces a force which tries to move the wire in a direction perpendicular to the force lines of the environmental field. These examples prove that simple forms of the magnetic equivalent to the "Magnus Effect" are already known, therefore using this effect for the creation of the thrust force in the Magnocraft is just applying them in a different and more general way.

G6.3.3. How to determine the direction of the thrust force created by the magnetic whirl (the "rolling sphere rule")

The magnetic whirl spinning around the Magnocraft is able to form a thrust force which can act in the same direction as that followed by the Sun. In such a case it can be called a "solar" thrust. This "solar" thrust propels the vehicle from east to west. The Magnocraft can also produce a "counter-solar" thrust which propels the vehicle from west to east. There is a simple method, called the "rolling sphere rule", which allows for a very easy determination of the direction in which the particular rotation of a magnetic whirl pushes the Magnocraft.

In the "rolling sphere rule" the spinning magnetic field of the Magnocraft is replaced by an imaginary sphere which also spins around the same axis and in the same direction as does the field of the vehicle. The diameter of this sphere is so assumed that its imaginary surface touches the ground. Because the sphere spins, after its surface makes contact with the ground it must roll forward. The direction in which it rolls is also the direction in which the thrust force created by the Magnocraft's magnetic whirl pushes this vehicle - see Figure G27.

The "rolling sphere rule" also allows us to determine the direction in which a particular type of whirl flattens plants on the landing sites of the Magnocraft (see subsection G10). This is very useful in deducing the direction of the vehicle's flight from the marks left by it at a landing site. The method used in such a case is identical to the one applied for determining a flight direction, with the one difference that the imaginary sphere is not rolled along the ground but swirls the plants as the effect of its rotation in one place. When applying this method we notice that the "solar" whirl in the Southern hemisphere causes clockwise swirl patterns in any plants that may have been flattened on the landing site by the whirl-induced winds. The same "solar" whirl in the Northern hemisphere forms counter-clockwise swirl patterns. A "counter-solar" whirl reverses the direction of swirl patterns already described.

G6.4. The rotation of the Magnocraft

The magnetic whirl, because of the action of the magnetic equivalent of the "Magnus Effect", causes a reaction torque "TR" to act on the Magnocraft during flight. This torque tries to rotate the vehicle in a direction opposite from the direction of rotation of the magnetic whirl - see Figure G28. To prevent this, the vehicle must produce its own stabilization torque "Ts" which keeps its position stable during flight (see Figure G17). This stabilization torque is created by varying the output flux "A" and inclination angle "I" of the side propulsors located on the east and west sides of the vehicle. The values of these two parameters ("A" and "I") are chosen so that the vertical components "V" of the stabilization forces "A" created by the side propulsors are equal. This ensures the stability of the vertical orientation of the vehicle. At the same time, the horizontal components "H" of the forces created by these propulsors differ from one another. The difference between these components, multiplied by the radius "R", produces the necessary stabilization (rotary) torque:

$$Ts = R \cdot (HE - HW) \tag{G28}$$

The value of torque "Ts" is controlled by the logcomputer of the Magnocraft. To keep it at a required level, the propulsors located on the eastern or/and western sides of the Magnocraft should usually have a much greater output than the output of the other side propulsors of this vehicle. During landings such a greater output will be indicated by additional markings left on the ground (see marks "Ts" in Figure G17).

The rotary torque makes it possible not only to fly the Magnocraft in a stable orientation, but also for the crew to control the rotation of the vehicle. Such rotation is utilized to orientate the pilot's seat in the direction of flight, to facilitate the crew's watch of the vehicle's surroundings, and to orientate the propulsors' outlets during a coupling manoeuvre. In free space, such controlled rotation could create an artificial gravity inside the crew cabin.

It should also be mentioned here that principles similar to those described above are involved in swaying the Magnocraft around a horizontal axis. For this, the output from the side propulsors located at one end of a given vehicle may sometimes need to be extinguished partially or completely. Therefore on some occasions, especially during landings on the slope of a hill when the Magnocraft tries to orient its base parallel to the ground, the propulsors located on one side of the vehicle can be completely extinguished. As a result, only half-rings are scorched on such landing sites (see subsection G10).

G7. The magnetic whirl

In the Magnocraft, the name "magnetic whirl" is assigned to the effects of fast rotation of the field's force lines around the central axis "Z" of the vehicle.

The main function of the magnetic whirl is to produce a thrust force acting in a latitudinal (i.e. an east-west or west-east) direction. But it also performs some additional functions, such as the protection of the vehicle from any missile or meteorite attack (i.e. the formation of an inductive shield), the creation of a whirling plasma saw that evaporates solid barriers, the illumination of surroundings, the emission of optic (light) signals, etc.

The magnetic whirl is responsible for the creation of a unique ionic picture of the Magnocraft and also for putting this vehicle into a specific state of operation, called a magnetic whirl mode. In addition to the magnetic whirl mode, the Magnocraft's propulsion may also operate in a throbbing mode - while its field is non-whirling, but shrinking and expanding in a manner like the action of a heart; and in a magnetic lens mode - while a constant (i.e. non-pulsating and non-whirling) field is produced.

The creation of the magnetic whirl in the Magnocraft utilizes almost the same principles as those applied during the creation of a similar whirl in asynchronous electric motors. It involves a rather complicated mechanism initiated by the appropriate sequencing of the pulsating outputs from the side propulsors. The magnetic circuits of the Magnocraft convert these pulsations of outputs into the rotation of the field's force lines around the vehicle's central axis. This subsection explains the mechanism of the magnetic whirl formation.

G7.1. The magnetic circuits in the Magnocraft

The term "magnetic circuit" is introduced in this monograph to describe different paths that strands of magnetic force lines produced by various Magnocraft's propulsors may take. The term "magnetic circuits" originates from the analogy of the magnetic force lines to the paths of electric currents in conductive wires. In the same way as electric currents produced by a given cell circulate along closed paths (i.e. after leaving from one pole of this cell they always return back to the other pole) the magnetic force lines are also endless, i.e. after leaving one outlet from a propulsor they always return to the opposite outlet of the same propulsor in order to join themselves in the middle of it. The magnetic field force lines that leave a given propulsor tend to group themselves in compact strands, each of which follows a different closed path. The path may pass through the environment and/or another propulsor. Each separate strand that loops (passes) through such a different path is distinguished as a separate magnetic circuit.

The mutually opposite orientation of the magnetic poles in the main magnetic propulsor (M) in relation to all the side propulsors (U, V, W, X) channels the field of the Magnocraft into three separate groups of magnetic circuits - see Figure G29. These are called the main (M) central (C) and side (S) circuits.

- The main magnetic circuits (M) are formed from that part of the main propulsor's output which is intercepted and bonded by the side propulsors. Therefore the force lines belonging to this group of circuits loop (circulate) through the main and side propulsors. Note that in each Magnocraft there are as many main circuits as the vehicle has operational side propulsors.

- The single central magnetic circuit (C) is formed from the non-bonded part of the main propulsor's output and therefore apart from the environment, it loops (circulates) only through the twin-chamber capsule of this main propulsor.

- The side (S) magnetic circuits are formed from the non-bonded parts of the side propulsors' output and they loop (apart from the environment) only through the twin-chamber capsules of these side propulsors.

The paths of the magnetic circuits described above apply only to a single vehicle. When a number of Magnocraft are coupled into various configurations, these paths must be appropriately modified in order to include the propulsors of other vehicles. As was explained in subsection G3.1.6 and illustrated in Figure G17, depending on the shape of a final arrangement, the functions and paths of the same circuits can become drastically different.

The course of the magnetic circuits shown in Figure G29 appears only if the field produced by a given single vehicle is stationary, i.e. does not form a magnetic whirl. When the field begins to whirl, the described course becomes deformed and the circuits transform themselves into the shapes illustrated in Figure G30. The largest deformation occurs in the central circuit. This is because the environmental magnetic field is stationary and is opposed to the whirling of the force lines of the vehicle's field. The central circuit, which contains the smallest part of the main propulsor's power and whose force lines penetrate the largest volume of space, receives most of this opposing environmental field. Therefore the rotation of its lines is stopped at a certain distance from both ends of the craft, and further out from the vehicle these lines remain stationary. But within this distance the force lines are whirling. The whirling force lines of the central circuit are connected to the stationary part of this same circuit at the two end points of the rotating field's axis. These are called the "slip" points.

It should also be noted that the manoeuvring of the Magnocraft requires changes in the relation between the outputs from the main and side propulsors. Such changes will affect the proportions of magnetic energy engaged within the particular circuits. In general, when the Magnocraft descends (i.e. it creates no lifting force) the central circuit tends to disappear, whereas the side circuits become reinforced - see Figure G30. During ascending the situation is reversed, i.e. the central circuit become very strong, whereas the side ones almost disappear.

G7.2. Creation of a magnetic whirl

The magnetic whirl is formed from the waves of a magnetic field which circulate around the Magnocraft. These magnetic waves are produced in a way very similar to waves on the surface of the sea, i.e. through the appropriate sequencing of rises and falls of the outputs from the vehicle's side propulsors. To achieve such rises and falls of these outputs, the pulsations of the magnetic field produced by subsequent side propulsors are appropriately shifted in phase. Below is explained the mechanism involved in such phase shifting and sequencing of outputs from the Magnocraft's side propulsors to produce a magnetic whirl.

The principle of magnetic whirl production is illustrated in Figure G31. As this Figure shows, the Magnocraft's side propulsors are arranged in repeated sets of four units, each labelled with the letters U, V, W and X. The main propulsor is labelled M - see (b) and (c) in Figure G31. Each section of the vehicle's flange which contains one set of four subsequent side propulsors (marked U, V, W and X) is called a "sector". The K3 type of Magnocraft, which possesses eight side propulsors, has two such sectors. Each successive type of craft has one sector more than the preceding type. For example, the K4 type has three sectors and the K6 type has five sectors (see Figure G29).

In each sector the same letter labels a propulsor that is to pulsate with a given phase shift. All propulsors of the Magnocraft that are labelled with the same letter must also pulsate with exactly the same phase shift (i.e. in harmony with one another). For this reason all side propulsors marked with the same letter are called a "group". Thus in the Magnocraft there is a "U group", a "V group", a "W group" and an "X group" of side propulsors. The number of propulsors in each group is equal to the number of sectors in the vehicle.

Propulsors of the same group pulsate in synchronization towards each other - see (a) in Figure G31. But between the output of the propulsors that belong to different groups there is a cumulative phase shift of one quarter of a period (1/4T), or 90 degrees for a cyclic function. As a result of this phase shift, each group of side propulsors has a different value

of a magnetic flux (F) at a given moment of time (t). The variation (change) of this value in time is reflected by the course of sinusoids illustrated in part (a) of Figure G31.

As an example, let us analyze the distribution of the magnetic flux around the Magnocraft at a moment of time t = 1/4T. This distribution is illustrated in part (b) of Figure G31 which shows the Magnocraft from an overhead view (letters M, and U, V, W, X label the main and side propulsors of this vehicle). At this specific time the value of the magnetic flux in the "U" propulsor of any sector is decreasing, "V" is at its maximum value, "W" is increasing, and "X" is at its minimum value. The field from the "U" propulsor in the next sector is likewise decreasing, and so on. The effect of these outputs so sequenced is to produce two magnetic waves around the Magnocraft. These waves are moving all the time. Their movement can be realized by observing the change of the waves' position after a further quarter of a period of field pulsation (i.e. from t = 1/4T to t = 1/2T) which is illustrated in part (c) of Figure G31. At a moment of time t = 1/2T the "W" propulsors are at their maximum value and the other propulsors are similarly progressed. To measure the movement of the waves, the factor (A) which represents the angular position of the maximum of a first wave is introduced. It illustrates that with the elapse of time, the angular position (A) of the waves is also progressed in accordance with the field pulsation. After the time t=2T the waves completely circulate around the vehicle. In such a way, the high frequency rotation of these waves produces the required magnetic whirl. The period TW of the waves' rotation is described by the following equation:

$$TW = 0.25 \cdot n \cdot T \tag{G29}$$

This period is a function of the total number (n) of side propulsors and the period (T) of pulsation of the magnetic field generated by these propulsors (the value of T is expressed by equation F7).

The amplitude of the waves circulating around the Magnocraft (so also the power of the whirl) is controlled by adjusting the amplitude of the field's pulsations within the side propulsors. But the amplitudinal waves formed from the outputs of the side propulsors affect the force lines of the main magnetic circuit shown in Figure G29. The part of the field produced by the main propulsor, which previously was connected to the side propulsors which decrease their output, must jump and connect to the next side propulsors whose outputs are increasing. In this manner, the circulation of the amplitude waves activates the changes in the paths of the magnetic circuits by pushing them to join the next propulsors, and in this way causing the force lines of these circuits to rotate also. Thus the sequent pulsations of the outputs from the side propulsors produce a magnetic whirl which manifests itself as the whirling of the Magnocraft's force lines around the vehicle's central axis.

Notice that the whirl is produced for any synchronized time-varying output of the side propulsors and not just for the sinusoidal variation, shown for convenience in Figure G31. As was explained in subsection F6.1, the Magnocraft's propulsors in reality produce a field with a variation which follows a kind of "beat-type" curve, roughly represented by FR in Figure F6.

G7.3. The ionic picture of a whirl

The magnetic circuits of the Magnocraft during their whirling create a unique picture called the "ionic picture of a whirl". It is shown in Figure G32. Because air ionized by the magnetic whirl emits coloured lights, the picture is visible when the Magnocraft flies. The subsection that follows explains the mechanism of its formation and also its main characteristics.

Figure G32 gives the outlines of the Magnocraft (see broken lines) and the characteristic elements of its magneto-ionic whirl. These elements include the magnetic circuits (also presented in Figures G29 and G30) and the traces created from the air ionized by these circuits. Continuous lines in Figure G32 indicate the central magnetic circuit (C), the main magnetic circuits (M), and the side magnetic circuits (S). When these circuits are whirling they form a pattern which is visible due to the ionization, shown in Figure G32 as

blackened areas. In this ionic picture of a whirl, several characteristic features can be distinguished. The most significant of these are: the central swirling pillar (2), the main swirling block (3), and the flange (4) of side swirling. These features' intensity of colour in the picture depends on the local density of the ionized layer. For example, the curving of the lower part of the main swirling block forms two bulges (5) below the side swirling flange (4). A notable feature of this picture is the "upper slip point" (1) of the central pillar. At this point, the whirling section of force lines of the central circuit (C) meet the stationary section of these lines. Above the slip point the whirling movement of the lines of the central circuit stops. Therefore the air ceases to glow and the circuit becomes invisible. The central circuit also has a "lower slip point" (6), but usually it is concealed behind the main and side swirlings.

The ionic picture of a whirl described here may change, depending on the Magnocraft's flight phase and the vehicle's type. The whirl shape illustrated here relates only to a motionless (e.g. landed) craft of a small type (e.g. K3 or K4). But during flight the movement of air changes the shape of the whirl, depending on the orientation of the vehicle in relation to the direction of its flight. Also, other types of Magnocraft (and other configurations) create a slightly different shape of the whirl. Generally, as the "Krotność" factor (see subsection G4.7) increases its value, thus flattening the vehicle's body, also the main swirling block flattens and gradually disappears behind the flange of side swirling.

G8. Three modes of the Magnocraft's operation

The Magnocraft's magnetic field can be in one of three different states: (1) whirling, (2) throbbing, and (3) constant. Thus depending on the state this field takes, the Magnocraft can operate in one of three possible modes. The subsection that follows describes each of these modes and explains their properties and capabilities.

The state of the Magnocraft's field while a magnetic whirl is being produced is called in this monograph the "magnetic whirl mode of operation". The characteristic attribute of this mode is that the side propulsors of the vehicle produce a pulsating magnetic field with a strictly controlled mutual phase shift. A different mode, when the side propulsors of the Magnocraft still produce a pulsating magnetic field but eliminate their mutual phase shift, is called here a "throbbing mode". In the throbbing mode of operation the magnetic whirl is not produced at all. But the field shrinks and expands in a manner similar to the beating of the heart. The pulsating output from the propulsors of the Magnocraft can also be changed into a constant (i.e. non-pulsating) one. In such a case the vehicle's propulsion operates in a "magnetic lens mode". Notice that the Magnocraft's crew may smoothly transform any one of these modes into any other mode. Also, because the parameters of the produced field in this vehicle can be smoothly controlled, there are very flexible possibilities for passing from one mode to any other, when any intensity for each of these modes can be achieved.

The most frequently used mode of operation is the magnetic whirl mode. This is because the spinning magnetic field provides the Magnocraft with the latitudinal component of the thrust force, i.e. the component which acts in an east-west or west-east direction. It is necessary to combine this latitudinal component with the meridional component (formed by slanting the propulsors - see subsection G6.2) in order to achieve flights in any other direction except that of precisely meridional ones. (Meridional flights are those which exactly follow the magnetic north-south or south-north direction.) Of course the intensity of the produced magnetic whirl varies depending on the direction of flight and is the strongest for precisely latitudinal flights and decreases gradually when the direction of flight becomes closer to being meridional. For precisely meridional flights the magnetic whirl must be extinguished completely.

The throbbing mode of operation has a rather limited use. This is because the throbbing mode allows only for vertical and strictly meridional flights. But it provides the crew with perfect visibility of the vehicle's surroundings. Therefore it is mainly used for purposes of watching or for leisure. Also, as it causes the least damage to the environment,

it is particularly useful for landing and for take off. Because of the less harmful effects of this mode, for the purpose of landing a special, safer version of it is introduced. This version is called here the "four-circuits" mode of operation. In the four-circuits mode, independently of the type of Magnocraft, only four of its side propulsors are left operational, whereas the output from the rest of them is extinguished (see Figure G29). Practically this means that the vehicle forms only four main magnetic circuits, which affect the environment to a much smaller extent than would be the case when the circuits of all the "n" side propulsors are active (see subsection G10). Of course, the four-circuits mode limits significantly the operational abilities of the Magnocraft therefore it is used almost exclusively for the purposes of landing and take off.

The magnetic lens mode of operation, similarly to the throbbing mode, also has limited use as it only allows for strictly meridional and vertical flights. Moreover, it makes it impossible for the crew to observe the environment visually and requires all watching to be conducted with instruments. But because this mode makes the Magnocraft invisible, it can be used in all those cases when the crew does not wish to be noticed (e.g. in all spying and military missions, for the watch of the uninterrupted behaviour of people, or during visits to planets with hostile civilizations).

G8.1. Visual recognition of the mode

During each mode of the Magnocraft's operation, the attributes of this vehicle (including visual ones) are very different. A summary of these attributes is presented in the next subsections. Only those attributes are examined here which impact on the visual appearance of the Magnocraft. One of the main reasons for which it is vital that people know how to recognize the Magnocraft's mode of operation is safety. In the magnetic whirl mode of operation the Magnocraft is extremely dangerous as it can cause instant death (through the magnetic burning of tissues) of people who approach it, and the melting or inductive explosion of metallic vehicles that come too close. But in the throbbing and magnetic lens mode of operation the Magnocraft is reasonably safe (apart from the direct exposure to the outlets from its propulsors) and can be approached and even touched without fear. Therefore it is important that individuals, as well as special services (police, pilots) are able to easily distinguish between the dangerous and the safe operation of this vehicle (especially in the light of the proof that "UFOs are already operational Magnocraft" presented in chapter J).

The mode of the Magnocraft's operation can be determined during a visual sighting of this vehicle or during an examination of its photographs. In the magnetic whirl mode of operation, the vehicle is hidden inside a cloud of ionized air formed by the magnetic whirl. This cloud, when observed by the naked eye or photographed with a long time exposure, displays a number of features characteristic of the ionic picture of a whirl (which are illustrated and explained in Figure G32). If this cloud is photographed with a very short time exposure, the picture reveals only the strands of air ionized within the magnetic circuits - see Figure G30. Notice that such spinning strands of the main magnetic circuit look like streams of water dispersed from a rotating sprinkler. But the direction of the whirl rotation of the Magnocraft's field is opposite from that of the water jets from sprinklers of a similar shape. This is because the motion of the Magnocraft's field is forced at the vehicle's edge, whereas the sprinkler is propelled at its axis.

In the throbbing mode of operation the surface of the Magnocraft can be clearly visible. But during poor light conditions, at the outlets from the propulsors and also along the magnetic circuits some glowing areas may be noticed. These glowing areas may take the shape shown in Figure G33, when observed by the naked eye or when photographed with a long time exposure from a motionless spacecraft. It is worth stressing here that because the opposite magnetic poles of the Magnocraft's propulsors cause the ionized air to glow in different colours, patterns shown in Figure G33 allow us to determine the polarity of the vehicle's propulsors. In general, a red-yellow glow is emitted by the air ionized at the

outlets where the north magnetic pole (N) prevails, whereas a blue-green colour is emitted by the air ionized at the propulsors' outlets where the south magnetic pole (S) prevails. When the Magnocraft moves fast or when it is taken with a short time of exposure, individual pulsations of its magnetic field produce a variety of patterns that reflect a multiple image of the vehicle's circuits. The principles of formation of these multiple images of the Magnocraft's circuits are explained in Figure G34. The shapes of the patterns revealed in such cases depend on many factors, such as the orientation of the craft (i.e. the section of its magnetic circuits directed towards the observer), the direction of its movement, the light and weather conditions, etc.

There may occur some problems with recognition of the magnetic lens mode of the Magnocraft's operation, as the vehicle is then completely invisible to the naked eye and undetectable by a radar beam, but slightly registrable (as a kind of unfocussed shape) on a sensitive photographic film. Such photographs only reveal the light produced by the spacecraft itself (i.e. not the light reflected from it) as only this light is able to pass outwards through the magnetic lens. Of course the crew may intentionally eliminate any emission of light from the spacecraft.

G8.2. The SUB system for indicating the Magnocraft's mode of operation

Because of reasons of safety, the actual mode in which the propulsors of the Magnocraft work must be known not only by the crew of a given vehicle, but also by people on the ground and by crews of any other vehicles which are in the vicinity. This is very important for avoiding accidents, for space traffic control, and for coupling/decoupling activities. Therefore, to indicate the actual state of propulsion, a special system of lamps must be installed in the Magnocraft. This system represents an advanced version of the positional (navigation) lights used in modern aeroplanes. It is called here the "SUB system" from the first letters of its Polish name, "system Sygnalizacji Ukladami Barwnymi". This subsection explains its components, operation, and main functions.

The components of the SUB system are shown in Figure G35. It consists of four, or a multiple of four, large signalling lamps (lights) installed around the vehicle's perimeter, usually on the outer tip of its flange, plus a further four small lamps installed on the pilot's control panel in the crew cabin. The large lamps from the vehicle's flange are positioned with equal spacing between themselves. They are marked with the letters U, V, W and X. The four small lights on the pilot's control panel are positioned in a row and marked with the letters ui, vi, wi, and xi. These lights on the control panel are duplicates of the lights on the flange and are installed for the pilot's use; i.e. they light up in an identical manner to the lights from the flange that are marked with a corresponding letter. Each lamp of the SUB system emits the colour of light which corresponds to the variation in the magnetic field of the group of side propulsors marked with the same letter (see Figure G31). Therefore the pattern created by the lights is dependent on the field pulsation in the particular side propulsors. The light emitted by the SUB system has three main colours whose precise shades are closely controlled. These shades within the light's main colour may vary depending on the pole of the magnetic field and the intensity (amplitude) of the field's pulsation. On the other hand, the main colours of the lamps' glow depend on the actual state of the output's amplitude from this group of propulsors which are signalled by a given set of lamps. For example, if the value of a pulsating output in the "U" propulsors reaches the maximum of its amplitude, all the "U" lamps emit red light - see Figure G35. When the value of the field in the "U" propulsors reaches the middle of its amplitude, then all the "U" lights change colour to bright yellow (compare the diagram in Figure G31 with Figure G35). When the value of the field in the "U" propulsors reaches its minimum, the "U" lamps emit a blue colour. In a similar manner colours also change in the lamps that reflect the output from the "V", "W" and "X" groups of propulsors.

The above explanation illustrates that the changing of colours in each light is a visual indication of the field variation of the particular group of propulsors. Thus the SUB lights

give complete information about the state of the vehicle's magnetic field. They indicate the mode of operation of the propulsors (by showing: the rotation of colours for the magnetic whirl mode, the stationary on/off flashing for the throbbing mode, or the continuous one colour glow for the magnetic lens mode of the propulsors' operation), the direction of whirl rotation (by the direction in which given colours apparently move), the orientation of the magnetic poles (which colour is dominant), the amplitude of pulsation (by differentiation between the depths of the colours at extreme points of pulses), and the level of the constant component in the propulsors' output (by a mean shade of main colours). So in this way the lights of the SUB system warn the crews of other vehicles and people on the ground about the field configuration and parameters that prevail around a given Magnocraft. It is vital that ordinary people also learn to recognize these warnings (see also subsection J2.9).

G9. The properties of the Magnocraft

The Magnocraft is an unusual vehicle. Its completion will introduce to our civilization a technological advancement that has never occurred before. This craft will send us to the stars and carry us to the centre of the Earth, will fly with a speed close to the speed of light or will hover motionless over our gardens, will save countless lives but can also be used as a tool of destruction.

The unique operation of the Magnocraft is the source of its unusual properties. Many of these are unknown to us, as no other human device has previously been able to create them. Such attributes as the magnetic framework, inductive shield, magnetic whirl, plasma saw, vacuum bubble, magnetic lens, etc., are completely unfamiliar, so they may be difficult to comprehend as many people have no frame of reference to which these properties could be compared.

The descriptions that follow reveal the basic attributes of the Magnocraft as it appears in all three modes of operation. It should be stressed that these are very brief descriptions, and that the limited size of this monograph forces the author to introduce short cuts in the explanations provided. But further details can be deducted from the material presented here. Also the author welcomes questions, inquiries, and comments concerning any part of this monograph.

G9.1. The properties of the Magnocraft during the magnetic whirl mode of operation

The powerful whirling magnetic field creates a circular electrical field around the Magnocraft's surface which sweeps away any ionized molecules present in the air. These molecules collide with one another, causing cumulative ionization of the air near the vehicle, and creating a plasma whirl which follows the whirling magnetic field. So the first property caused by the magnetic whirl is a plasma whirl which also circulates around the Magnocraft's surface. This swirled plasma creates an ionic picture of the whirl which is explained in subsection G7.3. The particles from the plasma whirl that rotate around the vehicle are acted upon by centrifugal forces. These forces cause the rejection of air from the Magnocraft's surface and the creation of a local vacuum bubble around its body. So when the Magnocraft flies in the air or water, it in fact flies in a small hole of the local vacuum that it created around itself. This vacuum bubble eliminates viscous friction between the craft and the atmosphere, making it possible to reach speeds much higher than would normally be possible because of the heat barrier. A rough estimation of these speeds gives the value of around 70,000 km per hour in the air, and about 800 kilometers per hour for flights under water. In free space away from the atmosphere, this vehicle can attain a speed only a small fraction of a percent smaller than the speed of light.

The second important property of the Magnocraft is the elimination of sound waves by the plasma whirl. This principle involves the breaking of the pressure cone which is

formed in front of all flying vehicles and which is the source of sound caused by their flight. This enables the Magnocraft to fly noiselessly.

Air plasma emits a light. Therefore the third property is the emission of a strong incandescent light from the ionized air. In the magnetic whirl mode of operation, the body of the Magnocraft is completely hidden inside a ionized cloud. For precise manoeuvring in this mode, it is necessary to use special periscopes (see (1) in Figure G5) which extend beyond the range of the ionized air. Because the main constituents of air are nitrogen and oxygen, whose ions glow red, yellow, green and violet, depending on the conditions, these colours are dominant in the plasma cloud produced around the Magnocraft.

High energy plasma can destroy all hard materials, as is shown in the application of plasma lancets. Therefore the plasma whirl of a Magnocraft forms a kind of circular saw of enormous power, which in this monograph is called the "plasma saw". This plasma saw provides another property, whereby the vehicle is able to cut into the hardest rock and tunnel through it. During these flights of the Magnocraft through solid materials, such as rocks, buildings or machinery, it leaves behind tunnels with a geometrical shape and vitreous surface - see Figure G36. The attributes of these tunnels are described in the subsection that follows.

Both the whirling magnetic field of the Magnocraft and the plasma saw that follows it, both create a sort of inductive shield that protects the vehicle from outside attack. Therefore the next property the Magnocraft has is the ability to destroy and repulse any objects in its path which are made of electrical current conductors (such as missiles, aeroplanes, meteorites, or cosmic dust). The destruction of such objects is achieved by inducing in them powerful electric currents that cause the material from these objects to instantly evaporate from the inside until they explode and then burn up in the plasma whirl. Splinters from such exploding objects are porous and full of vapour bubbles. When the distance from the Magnocraft is sufficiently great, the whirling currents induced in any electrical circuits prevent the flow of electrical power. This cuts the circuits off from any electricity supply. In the effect, certain electricity consumers or entire power stations found in the vicinity of such a vehicle, are deprived of their supply of electric power.

The magnetic whirl also produces electromagnetic beams which may destroy television transmission, radio connections, telecommunications, etc.

G9.1.1. Properties of the tunnels made in rocks by the Magnocraft

The properties of the tunnels hollowed out in rock by the Magnocraft's "plasma saw" remain in strict correlation to the principles of operation of this vehicle. This means that the action of each principle applied by the vehicle causes the appearance of a particular set of properties within the tunnel. To highlight this correlation, the main principles of the Magnocraft's operation (indicated by the letters #A, #B, ..., #F) are listed first, followed by the specification of the properties of the tunnels that result from these principles (these subsequent properties are indicated by the numbers 1, 2, ..., 17).

#A. The Magnocraft flies in a magnetic (non-aerodynamic) manner, which characteristic features include: following straight lines, rapid (almost right-angle) changes of flight direction without the benefit of a curve radius, and suspending motionlessly in the same position.

1. The tunnels evaporated in rock during flights of this vehicle comprise long, straight sections which are joined together by sharp corners.

2. In locations where the Magnocraft remains motionless, the rounded, drum-shaped caves modelling the magnetic whirl outlines (e.g. the ionic picture of a whirl - see Figure G32) should appear in the middle of these tunnels. These caves should show evidence that the magnetic whirl has removed surrounding rock by vaporization.

#B. Propelling and stabilizing forces are obtained by the interaction of the Magnocraft's magnetic field with a field produced by the Earth, planets, Sun, or Galaxy.

3. Disturbances in the direction of the Earth's magnetic field should be frozen in the rocks surrounding the tunnels (a magnetic compass used within the tunnels can register false readings, varying directions from place to place).

#C. During its flight the saucer-shaped Magnocraft must all the time be oriented in the same direction, i.e. in such a manner that its base remains almost perpendicular to the local course of the force lines of the Earth's magnetic field. Therefore, depending on which direction it flies, the shape of the tunnels that it leaves behind must either reflect the vehicle's circular overhead outline or its triangular side outline.

4. When the Magnocraft flies in the direction of magnetic north-to-south or south-to-north, the shape of the tunnels is elliptical in cross-section. The long axis of this ellipse is horizontal, and the ratio of the long to the short axis is proportional to the inclination angle of the Earth's magnetic field (i.e. on the magnetic equator the tunnels should be circular in cross-section) - see Fig. G36 "b".

5. When the Magnocraft flies in an east-west or west-east direction, the shape of the tunnels matches the outlines of the saucer (i.e. it roughly resembles the shape of an obtuse triangle) - see Figure G36 "c".

6. When the paths of the tunnels change direction, their shape should change from elliptical into triangular, or vice versa, depending on the geographical direction of the vehicle's course.

#D. The tunnels are cut by a saucer-shaped spinning cloud of plasma (i.e. the plasma saw) which tightly surrounds the Magnocraft's body. Thus the appearance of these tunnels must roughly reflect the shape obtained by the intersection of the vehicle with the solid material that surrounds it.

7. The tunnels are geometrically shaped, even, and of a technological appearance.

8. The shape, dimensions, and patterns (ripples) on the walls of the tunnels should remain the same as long as the spacecraft which made them was maintaining an unchanged speed and direction of movement and did not cross the path of another tunnel (i.e. each straight section of the tunnels should look approximately the same along its entire length).

#E. The rock in the vehicle's path is removed through the melting and evaporation by the plasma saw.

9. The tunnels should have a smooth, glossy surface, resulting from the melting of the rocks by the plasma whirl of the vehicle.

10. The plasma whirl should leave some characteristic, repetitive indentations (ripples) on the surfaces of the tunnels. The shape, course, and intensity of these ripples depend on the mutual positioning of the tunnels' walls and the direction of the whirl rotation. In elliptical tunnels, formed during north-south flights of the Magnocraft, the indentations should take the form of shallow grooves running around the periphery of the tunnel at even distances from one another (the distance between successive grooves depends on the speed of the Magnocraft which produced them). The appearance of these ripples should resemble those left by drilling tools. At the ends of the drum-shaped caves formed by motionless vehicles, the indentations should be shaped in clear spirals whose flutes recede towards the centre of the vehicle's whirl rotation. Such spirals should resemble the shape of a magnetic whirl illustrated in the lowest part of Figure G30.

11. The tunnels should have a rough and craggy apparent floor (the "apparent floor" is the one that can be seen when someone enters these tunnels; the "original floor" is hidden under this apparent one). This should have been created by the falling and subsequent hardening on the original floor, of the rock particles melted during the flight of the Magnocraft.

12. The shape of the tunnels' lowest (original) surface, which is hidden under the layer of hardened rock particles creating an apparent floor of the tunnels, is symmetrical to the shape of the tunnels' ceiling.

13. The thermally induced changes in the crystallographic properties of native rock located close to the tunnel's surface should be detectable. Such changes,

disappearing at some distance from the tunnel's surface, do not appear in the rocks of the caves created by hydraulic or mechanical interactions.

#F. The volume of rocks, evaporated when acted upon by the Magnocraft's plasma whirl, form a kind of super-hot, highly compressed vapour which expands along the area of the tunnel created behind the vehicle.

14. The particles of vaporized rock, when hardening on the surfaces of the tunnel (especially on its floor), must form a monotropic structure whose arrangement reflects the direction of movement of this medium.

15. At shallow locations of the long tunnels, the expanding gases cause breaches to the land's surface (see "2" in Figure G36). These breaches and cracks take advantage of the occasional weak spots within native rock and can be formed at random without displaying any regularity in shape or course.

16. At crossing points of the tunnels the movement of expanding vapors creates hardening drifts which may block the entrance to the tunnel which had been made earlier.

17. Particles of hardened vaporized rock should be spread over a wide area in the vicinity of the entrance (not the exit) to a tunnel, i.e. the place where the Magnocraft descended below the surface of the ground, as well as in the vicinity of the outlets from breaches formed by the expansion of vapour from a long and shallow tunnel. The effects caused by this should be similar to the raining down of volcanic ash after a small eruption.

* * *

It should be mentioned here that numerous tunnels which display properties exactly corresponding to those listed above have already been found on Earth. Examples are listed and discussed in subsection M2.

G9.2. The properties of the Magnocraft during the throbbing mode of operation

During the throbbing mode of the Magnocraft's operation, most of the properties characteristic for the magnetic whirl mode disappear. Thus the vehicle becomes safe and non-destructive. But also the latitudinal component of the thrust force no longer exists. The Magnocraft in this mode is only able to fly vertically and in the direction of the meridian. Because the magnetic whirl does not exist, the cloud of luminous air disappears as well. Thus, during daylight, watching of the Magnocraft's surface is possible (in this mode the Magnocraft's crew are also able to observe visually {i.e. without any instruments} the vehicle's environment). Because there is a local air ionization at the outlets from the propulsors (see Figure G33), some glowing areas can be visible on a cloudy day and at night. As the magnetic field separates the ions, the light from these areas has two different colours, depending on the field's dominant pole. Near the north (N) pole of each propulsor, the light is red-yellow, whereas near the south (S) magnetic pole of the propulsors, it is blue-green (see Figure G33).

The pulsating field generated by the Magnocraft during the throbbing mode has some characteristics similar to the field in our electricity transformers. Therefore in this mode electrical currents are induced in every closed circuit which is present in the field's range. This is especially effective where there is a transformer at the beginning of the circuit. Thus the nearby flight of the Magnocraft may cause the activation of radio and television sets and other items of electrical equipment (e.g. commutator electric motors) which are disconnected from the electrical power supply. It should be noticed that the effect of the Magnocraft acting in this throbbing mode on electrical equipment is opposite from the magnetic whirl mode, when electrical devices cease working because they are cut off from the electricity supply.

G9.3. Humming noises appearing in both the magnetic whirl and throbbing modes of operation

There exists also a number of effects caused by the Magnocraft, independently of whichever mode of operation described above is in force. The most common of these are "humming noises". These noises are similar to the buzzing of high voltage transformers, but with a higher tone (rather like a flying bumblebee) because of the higher frequency of field pulsation. The generating of such sounds depends on the inducing of electrical currents in conductive objects found within the range of the pulsating field. The currents around these conductive objects produce their own magnetic field which interacts with the Magnocraft's pulsating field, and as a result the objects vibrate at the same frequency as the vehicle's pulsating field. Accordingly, these sound waves are produced by the conductive objects which are present in the Magnocraft's environment, not by the Magnocraft itself (this vehicle is made of material which is resistant to the induction of currents).

Some people may develop a hyper-sensitivity of a nerve inside their ears which allows them to perceive the magnetic vibrations of a Magnocraft at a long distance (people who at some stage find themselves very close to an operational Magnocraft can be especially sensitive). These people may hear humming sounds when a Magnocraft approaches, even if they can't see it and no one else hears any noise. Although in the majority of cases these people may believe that the noises they unexpectedly experience result from an unrecognized medical problem, knowledge of their capability can be extremely useful as it gives them (and other people nearby) a remote sensing of the approaching Magnocraft.

G9.4. The properties of the Magnocraft during the magnetic lens mode of operation

The Magnocraft's Oscillatory Chambers can also be so controlled that they produce a constant (i.e. non-pulsating) and stable magnetic field - see subsection F6.1. In such a case the vehicle displays a manoeuvrability identical to that present during the throbbing mode of operation (i.e. it is only capable of meridional and vertical flights), but it forms additionally the so-called "magnetic lens".

By the term "magnetic lens" the combination of two different optical effects is described. The first and the most significant of these is bending the path of light with the energy density of the vehicle's concentrated magnetic field. This effect originates from the equivalence of mass to energy (i.e. from the famous equation: $E = m \cdot c2$) expressed by the theory of general relativity. The enormous concentration of energy within the Magnocraft's field (see subsection G5.5) is equivalent to the concentration of additional transparent matter around the vehicle's surface. This matter, although it is invisible, increases the "density" of the air, thus changing its optical properties. An effect of this is similar to surrounding the Magnocraft with a thick layer of invisible glass which has an index of refraction different from that of air. Therefore, the electromagnetic radiation entering the range of the vehicle's dense field must be deflected significantly. Such deflection can be comparable to that caused by optical lenses.

The second effect that contributes to the formation of the magnetic lens results from the monotropic nature of magnetic fields. This nature causes that in magnetic fields of extreme density light can only pass along the fields' force lines, but is stopped or bent when passing across these lines. This causes the Magnocraft to have a tendency to bend light so that it follows the path of their magnetic circuits.

The magnetic lens allows the Magnocraft's crew to make the vehicle completely invisible to radar detection and to the naked eye. It also deflects the beams of military lasers from targets, shields the crew from the action of electromagnetic radiation caused by a nuclear explosion, screens the vehicle from heat radiation, etc. Therefore it makes the Magnocraft not only invisible, but also indestructible by any high-energy emissions.

Contrary to the optical lenses, the magnetic lens does not have any clearly distinguishable surfaces that may reflect light. It displays a transparency identical to that of air, but its mass density and saturation of space with magnetic force lines gradually change.

Therefore the magnetic lens may remain unnoticeable even if an observer is only a few meters from it.

The complete version of the magnetic lens appears only when the Magnocraft produces a constant (i.e. non-pulsating) magnetic field. However, when other types of field surround this vehicle (especially the throbbing one) a partial magnetic lens effect can also be created. In such cases the light bends near the outlets from the vehicle's propulsors, thus distorting the apparent shape of the Magnocraft's shell. There is also a special case when such a partial effect of a magnetic lens becomes highly noticeable. This case reveals itself when a Magnocraft ascends. Because it represents one of the most common occasions when the action of a magnetic lens becomes obvious to outside observers, it requires a separate explanation.

G9.4.1. The magnetic lens action in ascending Magnocraft

The central magnetic circuits of ascending Magnocraft produce a unique magnetic-lens effect based on the course of magnetic force lines. This effect facilitates the visual watching of twin-chamber capsules from the main propulsors of these vehicles, but obstructs the visibility of remaining parts of these vehicles. Thus it allows outside observers to see and precisely describe the main twin-chamber capsule from the Magnocraft, and even to photograph this capsule. The mechanism involved in producing this particular magnetic-lens effect is as follows.

In the ascending Magnocraft, the power of a magnetic field involved in the vehicle's central magnetic circuit exceeds many times the power involved in the main and side circuits. For this reason force lines of the central magnetic circuit hermetically surround not only the entire body of such an ascending vehicle, but also its main and side magnetic circuits which become wrapped into a kind of a magnetic doughnut (i.e. looping magnetic force lines). Principles involved in the formation of this doughnut are illustrated in Figure G37.

As was stressed in the previous subsection, the extremely concentrated magnetic field of the Magnocraft interferes with light. This interference manifests itself most evidently by allowing the light to pass easily along the field force lines, but bending the paths of the light which try to pass across these lines. The above mentioned magnetic doughnut formed around the ascending Magnocraft means that to reach the vehicle's shell, the light would need to pass across the doughnut's field force lines. Therefore anything contained inside this donut becomes invisible to an observer looking from underneath, as the picture of it (i.e. light reflected from it) would need to cross the field - see path (1) in Figure G37. But in order to reach the main propulsor, the light needs to follow these lines - see path (2) in Figure G37. For this reason, outside witnesses who observe such an ascending Magnocraft can easily see a twin-chamber capsule from the main propulsor, but they are unable to see any other part of the vehicle's shell. While looking at an ascending Magnocraft, these people notice that at a certain angle the entire sides of the vehicle gradually disappear from view, and the only element remaining visible becomes a small "diamond-shaped" device located in the centre of the vehicle. This device is in fact the twin-chamber capsule from the vehicle's main magnetic propulsor (some witnesses, unaware of the principles described here, can wrongly take this "diamond" for a new kind of vehicle whose shape differs from that of the Magnocraft). The cubical edges of this capsule, when looked at from an angle, take the shape of a diamond. Notice that the situation described above changes drastically when the Magnocraft terminate their ascent. While they are hovering or descending, their main magnetic circuits stop being dominant over other circuits, thus the entire vehicle must appear visible again to observers.

G10. The landing sites of the Magnocraft

When a vehicle contacts the solid ground it must leave recognizable marks. For example, the wheels of a car leave rather characteristic tracks, whereas a hovercraft produces a band of swirled and flattened vegetation. The Magnocraft's propulsion utilizes a very powerful magnetic field which is capable of cooking the soil in a manner similar to that utilized in microwave ovens. Therefore when the Magnocraft lands, its propulsors must also scorch on the ground a number of distinctive marks. These marks can provide vital information about the vehicle which produced them. They reflect the type of vehicle, its orientation, configuration, mode of operation, etc. To enable the correct interpretation of such marks, the subsection that follows is devoted to the description of the main attributes of the Magnocraft's landing sites.

It is worth emphasizing here that the popular understanding of the term "landing" is inspired by the operation of helicopters and aeroplanes. These machines lead us to believe that if a flying vehicle lands, the burning of its fuel must be shut down and its propulsion system must go into a dead, passive state. However the principles of the Magnocraft's operation are more like those of a balloon or airship than those of our helicopters or aircraft. Therefore when applying the term "landing" to the Magnocraft, consideration must be given to the fact that this vehicle does not dissipate its energy resources during motionless hovering. Therefore the Magnocraft's landing more involves hovering close to the ground (with its propulsion still remaining operational) so that its crew and passengers are able to leave or enter the deck, rather than an actual "sitting" on the ground and extinguishing of its propelling field.

G10.1. Environmental damage caused by the landed Magnocraft

Five major categories of environmental damage should be distinguishable in the Magnocraft's landing sites. These categories can be classified as: (1) scorching, (2) biological impact, (3) changes in energy level, (4) chemical changes, and (5) mechanical destruction. The primary cause for all of them is the action of a highly concentrated magnetic field that is yielded from the propulsors of a landed vehicle. But some types of damage appear as the effect of an indirect action of this field, e.g. its ability to produce a highly aggressive ozone that attacks the chemical components of soil and air. Although real landing sites must incorporate the simultaneous action of a number of causes discussed below, for the clarity of analysis this subsection describes separately each major category of damage.

1. Scorching is the most dominant type of damage caused by the magnetic circuits of a landed Magnocraft. It occurs because a highly concentrated magnetic field passes through solid matter. The result is similar to that caused by an over-active microwave oven. In the effect, all organic matter (e.g. plants, animals, insects) in the range of the vehicle's magnetic field is cooked (e.g. wood is completely bleached), incinerated, or turned into brown-gray ash. The non-organic matter (e.g. soil) is parched, demineralized and emaciated.

One of the unusual attributes of such magnetic scorching is that it differs in principle from scorching by a fire or by oxidation. Therefore ashes of the organic matter produced during such scorching can be burned later with a high intensity (unlike the ashes from a fire). On the other hand, highly flammable materials that display signs of such scorching do not ignite a fire when the scorching occurs.

2. Biological destabilization is the most noticeable and long-lasting type of environmental damage resulting from the landing of the Magnocraft. It is caused by the extermination of all micro-organisms found in the range of the vehicle's magnetic circuits. Thus, within the former Magnocraft's landing sites, all the parasitic micro-organisms that normally would keep the population of mushrooms under control are killed. The biological effect of such an extermination is an exact equivalent to that of a thermal sterilization of the compost utilized by mushroom growers. Of course after a vehicle ascends, the mushroom spores present in free air instantly take advantage of such ideal growth conditions and take

over the sterilized soil. The biological balance, once so disturbed, is then extremely difficult to restore. Therefore, within the Magnocraft's former landing sites, an explosive growth of mushrooms is observed which may last for many decades (the author estimates that in the case of non-cultivated soil, the natural restoration of a biological balance at the Magnocraft's landing sites may take over 100 years). Because such a technologically induced growth must outline the circular pattern of the vehicle's propulsors (see Figures G38, G39 and B1), these mushroom circles are called here by their folk name of "fairy rings".

It should be stressed that in order to biologically destabilize the soil, the Magnocraft must hover in the same place over a period of time that exceeds the so-called "critical time". This critical time is the duration required for the vehicle's magnetic field to completely cook all micro-organisms from the soil. It can be compared to the minimal time needed to cook a particular product in a microwave oven. For the K3 type of Magnocraft the author estimates this critical time to exceed ten minutes. If a vehicle hovers above a particular landing site shorter than this critical time, then the soil is not destabilized and a long-lasting fairy ring is not established in it. Thus all signs of such a short-duration landing would disappear after only a couple of months.

The "fairy rings" produced by the effect of the Magnocraft's long-duration landings must display a number of <u>unique attributes</u> which are absent in natural mushroom growths. The most important of these attributes, which can be used as identification characteristics of the Magnocraft's landing sites, are listed below:

(A) The dimensions which exactly correspond to the "d" diameters (nominal) of the vehicles that made them. These "d" diameters are the Magnocraft's equivalent to the widths of wheel tracks made by motor cars - see Figure G23. Thus the nominal diameters of fairy rings, when determined according to the rules described in subsection G10.3.1, must fulfil the equation (G30) and must correspond to the data from column "d" of Table G1. Practically this means that the sizes of fairy rings comprise the terms of a geometric progression with ratio two, and that these rings repeat the binary progression of the "d" diameters from K3 to K10 types of the Magnocraft, i.e. every subsequent ring is twice as big as the previous one. Note that the nominal diameters of the fairy rings depend only on the type of vehicles that produced them, and for the same type they must remain exactly the same independently of: soil conditions; species of mushrooms that populate the landing site; area, country or continent where the sites are found; etc.

(B) The repetitive growth in precisely the same locations year after year for many decades. No slow drifting away or transformations, so typical of natural growths, will be observed.

(C) Remaining exactly the same size from year to year. Note that if the rings were to grow naturally they would increase their diameter by not less than about 2 metres each year.

(D) Remaining in a perfect circular or elliptical shape, independently of soil and topographic conditions that may stimulate a monotropic growth.

(E) A complete taking over of the entire sterilized soil by mushroom spawn, as the natural self-defense mechanisms of this soil are totally destroyed by the magnetic circuits of a landed vehicle. Thus, mushroom spawn completely chokes up every pore of the soil, leaving no air or space for parasites and other micro-organisms. Also, if a surface layer of the affected soil is replaced, the spore should take it over again by attacking from below (i.e. the rings are extremely difficult to remove).

(F) The underground distribution of mushroom spawn so that it reflects the course of the magnetic circuits of a landed vehicle. This means that inside the soil the pattern formed by spawn must exhibit all the elements characteristic of the Magnocraft's landing site, i.e. must consist of a central patch formed by the main propulsor, which is surrounded by a ring formed by the side propulsors - see Figure G39.

Moreover such "fairy rings" may sometimes be accompanied by imprints of the vehicle's legs lying within the circle (if the Magnocraft did not hover just above the ground, but used its legs while landing).

It should be stressed that the biological consequences of fairy rings involve a variety of effects which are strongly dependable on the season of the year. For example in some seasons (e.g. spring) the mushrooms may stimulate a faster growth of grass, in other seasons (e.g. autumn) they may tend to kill the grass. Because of their ability to heat the soil, such mushroom rings also encourage animals and birds to gather and rest on their surfaces.

3. <u>The increase in energy level</u> causes the damage done to all substances affected by the Magnocraft's magnetic field. It is already established that solid matter exposed to the action of an extremely strong magnetic field changes its energy-related properties and begins to behave in a completely different manner. For example such magnetic impact is already utilized commercially for making a concrete stronger than steel, for producing a non-destructible rubber, for growing monocrystals, etc. In the Magnocraft's landing sites it must similarly affect the environment, changing the properties of the soil in a way that may last for many years.

The changes in energy level of the soil affected by a landed Magnocraft <u>should be detectable by a number of instruments and techniques</u>. The most simple of these techniques involves the measurement of the electric resistance of the affected soil with an ordinary "ohmmeter". This resistance should be many times higher than the resistance of the non-affected soil from the same landing site. (Note that ordinary soil that is only affected by mushroom spore while its energy level remains unchanged has its electric resistance much smaller than from the same soil which is free of mushrooms.) Similarly, X-ray diffraction techniques should produce results that differ from those for non-affected soil. The increased energy level of the soil must also be manifested through the changes to its inter-particle (surface) tension. This means that the soil affected by the Magnocraft's field refuses to absorb water. Thus the ordinary measurements of the water absorption capability (or humidity) of such soil should provide results that differ from those of unaffected soil. The action of a turbulent magnetic field on the soil should also alter its magnetic properties (e.g. polarity and the level of magnetization). Thus sensitive magnetometers should indicate anomalies in readings at the Magnocraft's landing sites. Finally, the exposure to a highly concentrated magnetic energy together with the bombardment by air ions may also cause short-term radioactivity of the landing site. This radioactivity should be registrable by various radiometers and radiation detectors.

4. <u>Chemical changes</u> are the next type of damage appearing at the Magnocraft's landing sites. These changes involve highly complex phenomena occurring in two steps. In the first step, circuits of the vehicle's magnetic field act on the particles of oxygen found in the field's range and transform this oxygen into a highly active ozone. In the second step, the ozone so obtained attacks all substances in the vicinity, producing a mixture of chemical products (usually various salts). Then these chemical products either fill up pores existing within the soil (if the ozone was formed within the soil), or fall down covering the surface of the scorched marks (if the ozone was formed in free air above the ground).

5. <u>Mechanical destruction</u> is the last category of damage caused by a landed Magnocraft. Three forms of destruction originating from the vehicle's magnetic field can be classified into this category, i.e. (a) flattening of plants, (b) soil compression, and (c) soil extraction. In addition, the mechanical damage can also be caused by various parts of the vehicle (e.g. its legs) which touch the ground. But because the damage from such parts is rather obvious, elaboration here would be unnecessary and so is omitted.

(a) <u>Flattening of plants</u> can be caused by two different mechanisms. The first of these involves the spinning magnetic circuits of a vehicle. It appears in the sites where the Magnocraft hovered at a low height only for a very short duration (i.e. shorter than the "critical time"). In such cases the vehicle's field had insufficient time to scorch the vegetation, but spinning magnetic circuits exerted enough force to push down every single blade of grass. The strands of force lines of these circuits act like huge combs that brush down thoroughly all vegetation within the circuits' path. A characteristic attribute of sites formed in such a manner is that all the blades of grass (or crops) are flattened with astonishing precision. They all lie down parallel to each other, perfectly straight and evenly

distributed, forming a kind of mirror that reflects the light. If looked at (or photographed) from a distance the site looks as if flooded with water.

The second mechanism of the flattening of the plants is caused solely by the air that spins around the Magnocraft during the magnetic whirl mode of operation, or by the plasma whirl that surrounds a landed vehicle. This type of damage frequently appears at the sites where a vehicle hovered at a significant height so that its magnetic circuits looped entirely in the air (see Figure G41 and description from subsection G10.3). Most frequently it takes the form of a swirling and flattening of chaotic circular nests of grass or crops. In some instances trees can be cut down by a plasma whirl.

(b) When a heavy Magnocraft hovers suspended near the ground, the magnetic circuits of this vehicle transmit its weight onto the soil. This in turn must cause the detectable <u>compression of soil</u> within the landing site. Because in addition to such a compression the soil is scorched, magnetically energetized, and its pores are choked with the mushroom spawn, the soil thus becomes almost totally impervious to water.

(c) <u>Soil extraction</u> occurs when the vehicle's magnetic circuits rapidly pull up the material they envelope. Because these circuits simultaneously magnetize the material they act upon, they are able to extract it from the surrounding soil and lift it into the air. A perfect example of such a mechanical extraction of soil would be the case where a Magnocraft, hovering motionless with its magnetic circuits looped under the ground (see Figure G39), rapidly initiates a very fast ascent. In the throbbing mode of operation, such a rapid ascent would cause lumps of soil contained within the magnetic circuits to be extracted, pulled away and dropped in other areas. In the magnetic whirl mode of operation, the entire cylinder-shaped volume of ground placed within the spinning magnetic circuits may be cut out from its surroundings and transported to another place. Notice that during slow ascents of the Magnocraft this kind of damage will not occur.

It is worth mentioning that the rapid ascent of a Magnocraft that hovered just above a water reservoir would cause the extraction of water as well. The principles involved here are similar to those for the extraction of soil. Therefore eye-witnesses may sometimes see this vehicle departing into space with huge balloons of water attached to the underneath of it (one can imagine what kind of speculations this would induce in witnesses who are unaware of the principles explained here).

G10.2. <u>Three main classes of the Magnocraft's landings</u>

There are two main factors which define the attributes of the marks left on the ground by a landed Magnocraft. These are: (1) the mutual positioning of the Magnocraft and the ground level at a particular landing site, and (2) the dynamic state of the vehicle's magnetic field. This subsection reviews the main classes of landing sites of the Magnocraft, formed as a result of variations on the above factors.

Figure G38 "a" illustrates the impact that the height at which a particular Magnocraft hovers has on the type of marks that this vehicle leaves on the ground. It shows the total distance "ht" from the vehicle's base to the end of the Magnocraft's magnetic circuits. Because this distance "ht" is limited, there are only three cases to be considered. In these cases the positioning of the vehicle's magnetic circuits in relation to the ground level can be such that:

(1) The magnetic circuits of the Magnocraft are looped under the surface of the ground. (The term "are looped" means that the circuits first enter underground and then turn back to the surface.) This occurs when the height "hx" at which the vehicle hovers is less than the total length "ht" of the vehicle's magnetic circuits (see Figure G38).

(2) The looping of these circuits occurs along lines exactly level with the surface of the ground. This occurs when the Magnocraft hovers exactly at the height "ht".

(3) The magnetic circuits of the Magnocraft are located totally in the air and so do not touch the surface of the ground. This occurs when the Magnocraft hovers at a height that is much greater than the total length "ht" of the vehicle's magnetic circuits.

Since the marks left in each of the above cases must differ, they are discussed separately in the subsections that follow.

Where the dynamic states of the vehicle's magnetic field are concerned, two of these can be distinguished, i.e. (1) a stationary (non-whirling) field - which prevails in the throbbing and the magnetic lens mode of the Magnocraft's operation, and (2) a field whose force lines are spinning around the spacecraft - this prevails when the vehicle operates in the magnetic whirl mode. The impact that these two modes have on the marks left on the ground mainly concerns the mutual connection between subsequent marks. In general, the non-whirling magnetic field produces a series of mutually separated marks, each of which is left by a different side propulsor, whereas the whirling field joins all the marks from the side propulsors into one continuous ring.

G10.3. <u>The landing sites for the magnetic circuits looped under the ground</u>

In Figure G39 is shown an example of the Magnocraft hovering so close to the surface of the ground that its magnetic circuits are looping (turning back) under the surface. In such a case the columns of a strong, pulsating magnetic field produced by the particular propulsors have no opportunity to spread out before they enter the ground. Therefore their action upon plants and soil is very concentrated, and affects only the small areas located exactly opposite the outlets from the propulsors - see part (b) in Figure G39. Moreover, between the place where the column from the main propulsor (1) and the places where the columns from the side propulsors (2) enter underground is an area of unaffected vegetation. Because this area is within the reversible parts of the magnetic circuits, the highly concentrated magnetic field does not act upon it directly.

As an effect of the Magnocraft's field acting upon plants and soil located at the outlets from the propulsors, a very characteristic pattern of marks is formed. This pattern consists of a central mark (1) surrounded by a ring of side marks (2). The side marks (2) are located exactly under the outlets from the side propulsors, as the magnetic axes of these propulsors are kept perpendicular to the Magnocraft's base during landing. The nominal diameter "d" of the circle on which these marks are located is dependent on the type of landed vehicle, and corresponds to the data collected in Table G1. Also the number of marks is equal to the number "n" of side propulsors in this type of Magnocraft, or is equal to four - if the vehicle is landing with only the "four-circuits" mode of operation (see subsection G8). On flat ground, the location of the central mark (1) must be shifted from the geometrical centre of the landing site. This shifting is caused by the slanting of the magnetic axis of the main propulsor to a position tangential to the local course of the force lines of the Earth's magnetic field. Therefore for a single vehicle, the central mark (1) is displaced in the direction of magnetic north in the Northern hemisphere and in the direction of magnetic south in the Southern hemisphere - see Figure G39 "b". The degree of its displacement from the central location on the site depends on the inclination angle (I) of the Earth's magnetic field and on the height of the suspension of the main propulsor above the level of the ground. This allows the Magnocraft's log computer to utilize this displacement for the detection and maintenance of the vehicle's distance from the ground (similarly as boats do with their "acoustic depth sounder"). When this "sounder" is switched on, all types of landed Magnocraft produce similarly-shaped landings in which the central mark touches the ring of marks from the side propulsors (in such a case the main magnetic circuits respond the most to even a small change in the vehicle's height).

For the throbbing mode of the Magnocraft's operation, the above marks are the only ones left at the landing site. But if the vehicle's propulsion during landing remains in a magnetic whirl mode of operation, then the circulation of the magnetic field causes additional scorching of the circular trail (3) joining together the individual marks from the side propulsors. This trail is formed by the force lines of the main magnetic circuits jumping from each side propulsor to the other during the formation of a magnetic whirl.

The configuration of the landing site presented in part (b) of Figure G39 appears only when the Magnocraft hovers just above the ground at a height less than the so-called "critical height - hc". For other heights "hx" greater than this critical one, the curvature of the vehicle's magnetic circuits causes a patch of the central mark (1) to expand into an inner circle located within the outer circle (2). The illustration of this curvature and the effect that it has on the shape of the landing marks is shown in Figure G38 (c).

G10.3.1. Determination of the Magnocraft's dimensions from the scorch marks left at landing sites

It was proven in subsection G4 that the shape and dimensions of the Magnocraft must follow strictly a set of equations listed in Figure G23. Thus a knowledgeable observer who applies these equations should be able to determine every detail of the Magnocraft's structure if he/she knows only the diameter "d" on which the vehicle's side propulsors are located. The descriptions from subsection G10.3 have shown that the diameter "d" is precisely reflected by the dimensions of a scorched circle left at the landing site by a vehicle whose magnetic circuits looped under the ground (see Figure G39). This justifies the search for a simple technique which would allow the exact diameter "d" of a Magnocraft to be determined by the measurement of the marks that the spacecraft leaves after landing. Such a technique is described below.

The equation for the theoretical value of the diameter "d" can be obtained by combining two equations (G9) and (G13) already derived in subsection G4. The final equation that expresses this diameter takes the following form:

$$d = (C/\sqrt{2})(2^K) \qquad \{\text{where } C=0.5486 \text{ [metres]}\} \qquad (G30)$$

The constant "C" from the equation (G30) is called a "cubit" and it represents the unit of length used by builders of the Magnocraft for defining all its dimensions. Thus "C" represents a kind of "Cosmic Meter". There is a strong justification for believing that all civilizations that are mature enough to build the Magnocraft, standardize their units of length, using the same cubit. Therefore, in most instances of a landed Magnocraft, probably the unit "C" must take exactly the same value. In all calculations from this monograph this value is equal to C = 0.5486 [metres].

If it is assumed that the builders of a particular Magnocraft use the above specified cubit (C=0.5486 [metres]), then determining the type of Magnocraft that has landed becomes quite an easy task. It involves only the following steps: (1) measurement of the diameter "d" of the circle scorched by the vehicle on the ground, and (2) determining from the equation (G30) or from column "d" of Table G1 the type of vehicle which made the circle.

The problem becomes more complex, although still resolvable, if we do not know the length of the cubit used by the builders of a particular Magnocraft, or if we wish to verify the cubit that was determined by someone else. In such cases the examination of scorch marks left by a landed vehicle must establish two different values, i.e. the number of side propulsors "n" and the diameter "d". Knowing these two values, the type "K" of the landed vehicle can be established from the equation (G6) or equation (B1), and then the value of the cubit used by its builders can be calculated from the equation (G30).

The determination of the number "n" of side propulsors in a particular landed vehicle is quite an easy task, as each one of these propulsors should scorch a clearly visible mark on the ground opposite its own outlet - see (2) from Figure G39. These marks scorched by individual side propulsors are usually more extensively damaged than the circular trail that joins them together, as the scorching occurring just under the outlets from the propulsors is the most intensive (e.g. the grass below should be burned to expose bare soil). Therefore,

in most cases the determining of "n" depends on the simple counting of the number of extensively scorched patches appearing at the landing site under examination.

A more difficult task is the precise measurement of the diameter "d", especially as the accuracy of determining the value of cubit "C" depends on the precision of this measurement. The complication of this measurement comes from the unknown height at which a particular vehicle hovered. As can be seen from Figure G38, the magnetic circuits that scorch the landing site are curved inwards. Therefore the higher a vehicle hovers, the smaller is the outer diameter "do" of the scorched site, and the greater the difference between this diameter "do" and the nominal diameter "d" that we intend to determine. Only a Magnocraft whose base touches the ground would cause scorch marks with dimensions that would exactly correspond to the dimensions of the vehicle.

Fortunately, there is a distinctive regularity in the curvature of the Magnocraft's magnetic circuits which allows us to develop a correction technique for an "under" error, to be applied in determining the exact value of "d" diameter. This regularity is illustrated in Figure G38. A Magnocraft shown in Figure G38 hovers at an unknown height "hx" which is greater than the height "hc". For such a height two circles (not one) must be scorched on the ground, the inner one of which is an equivalent of the central mark (1) shown in Figure G39. The regularity discussed here depends on such curving of the vehicle's magnetic circuits so that the changes in the inner "di" and outer "do" diameters of these two scorched circles are symmetrical for a particular height. This means that the distance between the outer diameter "do" of the outer scorched circle and the diameter "d" of the vehicle (i.e. the distance between points "S" and "O" in Figure G38) are equal to the distance between the inner diameter "di" of the inner circle and the site's central point "M" (i.e. the distance between points "I" and "M" in Figure G38). This can be expressed mathematically by the following equation:

$$d - do = di - zero \tag{G31}$$

Note that "zero" in this equation represents the diameter of the site's central point "M". If this equation (G31) is changed so as to define the value of the "d" diameter, it will take the following final form:

$$d = do + di \tag{G32}$$

The above equation (G32) expresses the essence of the correction technique described here for an "under" error (i.e. for the sites which contain two concentric rings). It states that if we measure precisely the outer diameter "do" of the outer ring scorched by a landed Magnocraft, and also the inner diameter "di" of the inner ring scorched on the same site, the algebraic sum of these two diameters must yield the exact value for the nominal diameter "d" that we are searching for.

In all cases where a Magnocraft hovers at a height smaller than "hc" so that its central mark is not shaped into a circle, the measured value of "do" must lie between "d" and "(d+a)" - see Figure G38. In these cases the measurement of "do" diameter involves an "over" error. For such landing sites the appropriate correction technique can be developed as well. The principle of this technique for an "over" error is also shown in Figure G38. It depends on the precise measurement of the diameter "da" of the most intensively scorched patch in the single central mark left below the main propulsor. Knowing this diameter "da" and the outer diameter "do" of the outer ring, the exact value for "d" can be determined from the following equation:

$$d = do - da \tag{G33}$$

The manner of deriving the equation (G33) is similar to that already described for the equation (G32).

* * *

At this point it should be mentioned that in various parts of the world (especially in New Zealand and England) mysterious circles of scorched vegetation keep appearing. All the attributes of these circles correspond to those from the Magnocraft's landing sites - see the description from subsection G10.1. The author has conducted field measurements for a large number of such circles, using the correction techniques described in this subsection. As a result he has established that the diameters of these circles exactly fulfil the equation

(G30), and that the cubit used for their formation corresponds to the one applied in this monograph (i.e. C = 0.5486 [metres]). The summary of results obtained during these measurements, together with photographs of the circles, are presented in subsection M1.

G10.4. The landing sites with magnetic circuits looped along the surface of the ground

Figure G40 presents a Magnocraft which hovers in the inverted position. Its height is such that the main magnetic circuits are looping back just as they touch the surface of the ground. In this case, the pattern of marks formed in the throbbing mode of operation takes the form of one central spot (C) and a number of concentric trails (M) - see part (b) of Figure G40. The spot (C) is formed by the pillar of the central magnetic circuit, whereas each separate trail (M) is scorched by one of the main circuits (such main circuits join the main propulsor with every operative side propulsor).

In the magnetic whirl mode of operation, the hovering Magnocraft causes a slightly different pattern - see part (C) of Figure G40. In this case, one circular, wide strip of damaged soil replaces the previous concentric trails. In this strip not only damage originating from a magnetic field occurs (described in detail in subsection G10.1), but also mechanical destruction caused by a spinning of ionized air that follows the magnetic whirl.

It should be noted that the width of a scorched trail for the landing in an inverted position is much narrower than for the upright Magnocraft. This results because only a central part of each main magnetic circuit touches the ground, whereas the side circuits do not leave any marks at all. If the Magnocraft were to hover in an upright position, then the side circuits would also cause damage, and therefore the size of the site would approximately be close to the size of the vehicle. But in this position the central spot (C) would not be formed, as the lower slip point would be far above the surface of the ground - see also Figure G32.

Figure G40 presents the situation where the inclination angle (I) of the Earth's magnetic field is equal to 90 degrees. Therefore all marks illustrated are symmetrically located. But in reality the value of this angle changes with the geographic latitude at which the Magnocraft lands. Therefore the pattern of marks presented in Figure G40 must also be appropriately altered.

G10.5. The landing sites for circuits looped in the air

If the magnetic circuits are not touching the ground, scorch marks are not formed. However, during the magnetic whirl mode of operation a whirl of air (sometimes called a "devil's whirl") is produced. This whirl is able to flatten plants located even a long distance under the base of the Magnocraft. Therefore the attribute of the landing sites discussed here is a complete circle (not just a ring) of plants aerodynamically laid flat and swirled in the direction of the magnetic whirl rotation - see Figure G41. The destruction of these plants is caused mainly by a mechanical breaking, although when acted on for a long time by a magnetic field of the vehicle's central circuit they can also be slightly scorched.

It should be mentioned here that patches (complete circles) of swirled and flattened vegetation can also be produced sometimes when a vehicle hovers with its circuits looped under the ground. For example flying clusters produce this kind of landing - see Figure G17. However there is a difference in appearance between the vegetation swirled aerodynamically by whirling air, and the vegetation swirled magnetically by spinning magnetic circuits. In the latter case individual grass blades are perfectly aligned with one another and spread horizontally, like after being brushed thoroughly with a huge rotating comb. So when looked at or photographed from a distance, such a magnetically brushed site looks shiny, as though covered with water.

G10.6. The landing sites formed by arrangements of the Magnocraft

All classes of the Magnocraft's landing sites discussed above are made by a single vehicle. But various arrangements of the Magnocraft can also produce appropriate landing sites whose properties can differ from those left by solo flying vehicles. This subsection discusses the properties of the landing sites produced by such arrangements.

In general, the landing sites produced by various arrangements of the Magnocraft can be divided into two groups: (1) those which look very similar to the landing sites left by single vehicles (e.g. sites produced by spherical and cigar-shaped complexes), and (2) those whose appearance is unique to a given arrangement (e.g. sites produced by flying systems and by flying clusters). Where the sites which look similar to those made by single vehicles are concerned, most of the information from the previous subsections also applies. But two details differ from those provided so far. The first of these is that the sites central scorch mark is displaced from the centre of the site into the opposite direction from what it would be in at the site when produced by a single vehicle (i.e. in the Southern hemisphere, single vehicles displace this central mark towards a south direction, whereas arrangements of the Magnocraft displace the same central mark towards a north direction). Such an opposite displacement of the central mark results from the use by flying arrangements of a different principles for balancing their motionless weight during hovering. The second different detail is that the magnetic field produced by flying arrangements is much more powerful than that produced by single vehicles. Therefore in the sites where such arrangements have landed, damage to the soil must also be much more extensive.

The arrangements of the Magnocraft whose landings significantly differ from those for single vehicles are flying clusters. An example of their landing is presented in Figure G17. Note that such a landing must take the shape of a chain of scorched circles joined together with a linear central burning. Every second circle of this chain takes the distinctive shape of a concentric ring (or rings) surrounding a central circle. This distinctive shape is caused by the unique field distribution under each unstable unit of the cluster. Note that for linear clusters all circles of the chain are placed along a straight line directed magnetic south-north, whereas for two-dimensional clusters subsequent scorched rings form a net (or mesh) extending along two or three sets of mutually crossing lines (Figure M13).

The arrangements of the Magnocraft which produce the most distinct landing sites are flying systems. Figure G42 shows three examples of such landings. The most characteristic pattern left on the ground by a flying system is the one produced by a single cell, illustrated in Figure G16. Such a cell scorches a unique pattern that resembles a "four-leaf clover" - see Figure G42 (A). An analysis of the landing produced by such a cell shows that it is characterized by two different dimensions, marked as "du" and "di". The values of these dimensions can easily be determined if the diameters "D" and "d" (plus a length "L") of the vehicles which scorched a given site are known.

As this is explained in subsection G3.1.5 and illustrated in Figure G16, an almost unlimited number of various shapes can be achieved by joining Magnocraft into flying systems. For this reason, apart from the "four-leaf clover" pattern described above, there is almost no chance that two landing sites produced by such systems can have an identical shape. Thus also an analysis of the landing sites left by such systems can not relate to their shapes, but must concern general regularities existing in them. There are two regularities that such sites display: (1) their dimensions "du" and "di", and (2) the characteristic configuration of curvatures that is repeated along their edges. General principles that apply to both of these regularities can be worked out from Figure G42.

G11. Explosion sites of the Magnocraft

It was determined in subsection G5.5 that the amount of magnetic energy accumulated within the propulsors of the smallest K3 type of the Magnocraft is an

equivalent of about 1 Megaton of TNT. Thus a rapid release of all this energy (e.g. through the exploding of a vehicle) must produce an enormous area of destruction.

The sites where any magnetically propelled (i.e. Magnocraft-like) vehicle have exploded must be characterized by a number of unique attributes which are absent in land formations of a natural origin. The uniqueness of these attributes directly results from the unconventional construction and operation of the Magnocraft. The most distinctive of these attributes can be used for identification of the Magnocraft's explosion sites and for distinguishing them from any other catastrophic formations, such as meteorite impact craters, volcanic eruptions, etc. These distinctive attributes are as follows:

#1. An energy yield comparable to that of the most powerful thermonuclear bomb. Magnocraft's explosion sites must show an enormous yield of energy which should always exceed 1 Megaton of TNT (i.e. 1 Megaton of TNT is the minimal energy content of the smallest type K3 of the Magnocraft. This means that the blasting of the smallest Magnocraft is equivalent to the simultaneous explosion of about 80 atomic bombs of the size dropped at Hiroshima). Such an enormous energy yield on the one hand will NOT be accompanied by a detectable radioactive pollution of the area (as would be the case with a nuclear explosion), on the other hand it WILL be accompanied by a strong, turbulent magnetization of the surrounding area (see #7).

#2. Devastation that is distinctive for an explosion, not for the impact of a space object or for an eruption. The destruction at the Magnocraft's explosion site is caused by the effects of a powerful explosion in mid-air or near/at the ground level. So such a site will NOT display any attributes of an impact crater (i.e. alien debris, uplifted rejection rim, etc.) or an eruption crater. If the vehicle exploded in mid-air, the effects will be similar to that of an aerial nuclear explosion (i.e. no crater present, trees still standing below the zero point, etc.). If the vehicle exploded on or near the ground, a rimless elliptical crater of shockwave origin (not impact origin) will be formed.

#3. Sequence of detonations. Each Oscillatory Chamber contained in an exploding vehicle constitutes a separate bomb heavily loaded with magnetic energy. Thus, there must appear short time delays between the explosions of subsequent Oscillatory Chambers. If the exploding vehicle consists of a cigar-shaped flying complex (see Figure G8), the blasting of which spread from one of its ends to the other, slightly longer time delays should also appear between the explosions of subsequent vehicles. Therefore eye witnesses who survived such an explosion of a cigar-shaped configuration of the Magnocraft should NOT describe the explosion as a single "bang". They rather should recall it as a few separate series of detonations. Each one of these series would indicate a different vehicle exploding and thus would comprise a fast sequence of bangs from the explosions of individual Oscillatory Chambers inside this vehicle. An appropriate counting of individual bangs should allow them to determine the type of vehicle (because of their "n" number), whereas counting the number of series allows them to determine the number of vehicles that exploded.

An unusual feature of the acoustic effects caused by the explosions of the Magnocraft is that their sound is carried by two independent media, i.e. magnetic field waves and acoustic waves. The disturbance of the magnetic field moves with the speed of light and causes a shaking of the individual ions contained in the air. Thus bangs carried by these magnetic waves must be heard simultaneously with the flash of the explosion, and are not able to reach witnesses who are beyond the horizon. The acoustic waves move slower (depending on the distance from the exploding Magnocraft, they will arrive appropriately later) and they are able to reach beyond the horizon.

#4. Cumulative explosion. Contemporary military technology uses an advanced type of missile containing so-called "cumulative charges". Such cumulative explosive charges are formed into a parabolic concave shape that resembles the mirror from a spot-light. They are designed to produce directed shockwaves, so that crushing of otherwise indestructible objects (such as tanks, bunkers, shields, etc.) can be achieved. The placement of Oscillatory Chambers within the Magnocraft also resembles the parabolic mirror from a spot-light. Thus this placement is equivalent to the distribution of explosives within missiles with cumulative charges. Therefore the explosion of the Magnocraft must also display a

cumulative character in which shockwaves are channeled in the direction perpendicular to the vehicle's base.

#5. Formation of a triangular devastation area. Because a Magnocraft flies almost always with its axis slanted towards the ground (in order to match the local course of the Earth's magnetic field), the shockwaves of its cumulative explosions must hit the ground at an angle. Therefore the area of destruction caused by an explosion of this vehicle should have a roughly triangular (butterfly) shape. The explosion site itself, i.e. the area into which the energy of explosion was directed (e.g. a crater) should have an elliptical shape with a triangular entry. The geometrical axis of the destruction area and explosion site must lie along the line that at the time of explosion was occupied by the magnetic south/north direction.

#6. Magnetic south/north orientation of the site. The axis of the explosion site and the devastation area must always be oriented towards a magnetic north-south or south-north direction. Because throughout the years the positions of the magnetic poles are changeable, the explosion site is always oriented according to the date of the explosion (thus this date can be more easily determined):
- If the direction of flight of the vehicle that exploded has been observed by eye witnesses, the orientation of this axis may drastically contradict the expected direction of the vehicle's impact (e.g. eye witnesses may have seen a vehicle descending westward, expecting the impact to also be channeled in the same direction, whereas in fact the explosion is directed southward).
- If the considered site is suspected to be made by a meteorite impact, the above does not agree with the general direction of the flights of meteorites (it is known that the configuration of free space causes the direction of meteorite falls to coincide with the eastward/westward vertical plane).

The attributes #5 and #6 listed above result from the general principle that the central axis of a magnetically propelled vehicle should always be aligned towards the Earth's magnetic field force lines. Thus this axis must also be directed to the Earth in the plane of a magnetic south-north direction for the time of the explosion.

#7. Turbulent magnetization of the site. The entire area of the explosion site must be strongly magnetized in a turbulent (i.e. disorganized) manner. Such turbulent magnetization originates from a rapid release of the magnetic energy contained in the propulsors of the magnetically propelled flying vehicle. It should manifest itself through:
- The anomalies in the direction and strength of the local magnetic field. Thus a sensitive magnetic compass used in the area should indicate wrong directions, its needle should spin, and the readings should vary from place to place.
- Unusual radio-communication problems (e.g. self-vocalization of radio signals, diminishing reception).
- The appearance of unusual weather anomalies, especially those which are perpetuated or conditioned by the electromagnetic mechanism (e.g. thunder storms, ionic winds, tornadoes).

#8. Magnetic stimulation of the environment. The strong electro-magnetic disturbances frozen in the explosion sites should lead to the destruction of the subtle magnetic balance of the soil. This in turn, when combined with the long term action of increased magnetic activity, could cause unpredictable biological consequences. For example:
- Mutation of some plants, insects, and animals.
- Deficiency of some sensitive microelements (e.g. selenium). This deficiency may in turn affect the health of organisms living in the area, causing some unusual illnesses to appear, etc.

#9. The presence of fragments from the vehicle's structure (most probably made of, or consisting of, metals). During the explosion this structure is torn apart and partially melted or evaporated. It also may mix with local materials lifted from the ground, creating forms that contain parts of the structure from the exploding vehicle and a congealed silicate from the soil. Note that during the explosion all ferromagnetic metals become magnetized,

therefore iron remains of the vehicle should appear as "magnetite" (i.e. magnetized iron oxide particles).

#10. The presence at the site of some minerals originating from the liquidation and subsequent hardening of the site's native soil, lifted (sucked) or rejected as the result of the explosion. These minerals may take either the form of trinitite-type dust falls or china-type (ceramic) stones.

The "trinitite" dust falls originate from the sucking of loose soil dust by the explosion, the melting of this dust, and subsequent dropping of it after being hardened. It contains numerous globules of silicate in small, glassy droplets or bulbs, like the congealed particles of "trinitite" found in 1945 at the atomic test site at Alamogordo, New Mexico.

The larger ceramic "china stones" are formed from big lumps of clay and soil originating from an explosion site that were blasted into the air, compressed by the pressure of the explosion, aerodynamically shaped by the flight, baked by the heat, and then dropped along the direction of the shockwaves. Thus they take aerodynamic shapes, and their properties resemble those of china. Sometimes china stones may incorporate organic matter (leaves, branches, grass, etc.) that during the explosion mixed with local soil. China stones can be formed only during near ground or ground level (i.e. not mid-air) explosions whose shockwaves spray lumps of soil into the air.

#11. Eye witness reports. Local stories describing the explosion should contain some eye witness accounts which indicate that a flying vehicle had been seen just before the actual explosion took place.

#12. Interest in the site displayed by pilots of other magnetically propelled vehicles. This interests originates from the three following sources:

(a) Operational. The strong magnetization of the explosion site must disturb the environmental magnetic field, thus interacting with the vehicles' propulsion systems. In effect, some reaction on the part of the controlling computers is forced. This in turn must draw the attention of the crews of such vehicles to the site, as a slippery road draws the attention of car drivers. Of course, the scientifically-minded members of the crews should try to check what the cause of these flight disturbances is.

(b) Psychological. The place where a magnetically propelled vehicle exploded must fascinate pilots of other similar vehicles. This fascination corresponds to that of car drivers who are drawn to the sites of fatal car accidents. Therefore, just for pure curiosity, pilots of similar vehicles may take the opportunity of flying nearby to have a close look at the place where their colleagues died so spectacularly.

(c) Scientific. Because of the cataclysmic consequences of each Magnocraft's explosion, the designers of this vehicle must do everything possible to prevent a recurrence of such a catastrophe. Therefore, there will not be many places where such a vehicle exploded. But if an explosion in fact occurs, its site must be the subject of intensive scientific research to investigate the causes, course, and consequences of such an explosion.

Of course, any more noticeable interest in a particular area by pilots of such advanced vehicles as the Magnocraft must be noticed by the local population. Moreover, all landings of these vehicles must leave marks on the ground, which are described in subsection G10. Therefore, reports of local citizens of the frequent sightings of the Magnocraft, supported by the presence of numerous landing marks, will provide further distinctive attributes that should help to identify a Magnocraft's explosion site.

* * *

It is worth mentioning at this stage that two sites whose attributes exactly correspond to those listed above have already been discovered and investigated. These are: the Tunguska Blast Site (formed on 30 June 1908 in the Tunguska region of Central Siberia, USSR) and the Tapanui Crater (formed on 19 June 1178 in West Otago, New Zealand). A more detailed description of both these sites is provided in subsection M3.

G12. <u>Summary of the attributes of the Magnocraft</u>

This subsection summarizes all the attributes of the Magnocraft that have been discussed or revealed in previous parts of this chapter. A review of them makes us realize how a powerful vehicle the Magnocraft is and what type of phenomena its observers and users may encounter. For the consistency of the review, various attributes are grouped in classes depending on their mutual relationship (not on the order of their presentation in previous subsections). These classes are numbered from #1 to #12.

#1. The unique, disc-like shape similar to that of an inverted saucer. The characteristic attributes of this shape are:

(a) Its flattening ratio "K=D/H", expressed by the design factor called "Krotnosc", is a mathematical function of the number "n" of side propulsors (see equation G6) and takes the integer value from the range K=3 to K=10.

(b) It forms the eight basic types of the Magnocraft which can be recognized from this shape, or from the value of their design factor "K", diameters "D" and "d", or the number of propulsors "n".

(c) It repeats the same main elements in the shells of all types of the Magnocraft, although the shape and mutual configurations of these elements may differ slightly in various types.

(d) It is strictly defined by the set of equations listed in Figure G23.

#2. An ability to couple a number of Magnocraft into various flying arrangements which appear as essentially different shapes. The manifestation of this ability is that:

(a) Apart from the saucer-like shape of a single unit, the flying Magnocraft can also be observed taking almost any shape that can be imagined, e.g. sphere, cigar, cone, fir-tree, beads, spool, four-leaf clover, honeycomb, platform, cross.

(b) The Magnocraft is able to form six different classes of flying arrangements. These are: (1) flying complexes, (2) semi-attached configurations, (3) detached configurations, (4) carrier platforms, (5) flying systems, and (6) flying clusters (see Figure G6).

(c) Arrangements of a number of Magnocraft are able to couple and decouple during flight.

(d) The gelatinous hydraulic substance which fills the space between two vehicles (angel's hair) drops to the Earth's surface at the moment of the disconnection of a spherical flying complex or a double-ended cigar-shaped complex.

#3. The lack of parts cooperating mechanically which could become worn out with wear and tear. The reasons for this are:

(a) The principles of the Magnocraft's operation do not require any moving parts.

(b) The moving parts that are introduced for the convenience of the crew are designed in a manner in which mechanical cooperation is unnecessary (see the free-floating suspension of the Oscillatory Chambers within the propulsors - subsection G1.1).

The effects gained by this are:

(A) An almost unlimited time for use of the vehicle.

(B) An extremely low potential for failure.

(C) A low cost of production.

#4. The propulsion unit of the Magnocraft is constituted as the balanced arrangement of two different types of propulsors producing counter-acting forces, the first of which supports the vehicle while the other stabilizes it. The important points associated with such a formation of the propulsion are:

(a) The configuration of propulsors that form a bell-shape (i.e. where one propulsor is uplifted at the center of the vehicle, and the others positioned around it but slightly below the central propulsor).

(b) The formation of magnetic circuits.

(c) An unique layout of the burnt marks left at landing sites that correspond to the location of the propulsors.

(d) The existence of the "magnetic framework" which strengthens the resistance of the vehicle's shell.

(e) The controllability over the magnetic interactions with other vehicles. These interactions can be changed smoothly from attraction into repulsion.

#5. The utilization of magnetic interactions with the environmental field for producing propelling forces. This provides:

(a) Noiselessness in flight.

(b) The achievement of speeds in a vacuum close to the speed of light.

(c) The ability to produce propelling forces in all environments.

(d) Magnetic changes forced on surrounding areas, such as: (1) burn marks on plants and on the ground; (2) properties of the soil changed by the magnetic action; (3) disturbance of the Earth's magnetic field; (4) neutralization of the natural magnetism of materials; (5) erasure of tape recordings and the recording on them of a pulsating signal.

(e) Magnetic forces acting on metal objects. Such forces may cause: (1) the momentary joining together of adjacent parts of machines (which in turn causes engines to stop working, turbines to stop rotating, etc.); (2) the pushing or pulling (depending on the wishes of the crew - see Figure F8) of complete objects from the pulsating magnetic field generated by the Magnocraft; (3) the humming of metallic objects (when they are supported by any flexible material).

(f) The physical effects on living organisms. These may appear as: (1) an unusual impression of a humming sound sensed by a person under the influence of the field but which in reality does not exist; (2) a metallic taste in the mouth that doesn't have any connection with what has been eaten; (3) a special kind of paralysis that numbs the mind and actions of a person in the range of the Magnocraft's field.

#6. The ability to create a magnetic whirl. Its effects can be:

(a) A whirl of air or water which follows the whirling magnetic field (this whirl breaks a sound wave produced by the vehicle).

(b) The creation of a local vacuum bubble near the surface of the craft, which makes possible the noiseless flight of the Magnocraft in air or water, with speeds much higher that those possible with the heat barrier.

(c) A flattening of plants in swaths around the Magnocraft's landing sites.

(d) Creation of the magnetic equivalent of the "Magnus Effect" which produces a thrust force acting in the latitudinal direction.

(e) The formation of an inductive shield around the vehicle, which is able to destroy any objects made of good electric conductors in its path. The effects of using such a shield can include: (1) all objects that are made of metal explode when they come in contact with the Magnocraft; (2) splinters from the exploding objects are porous and have an uneven surface; (3) the temperature of all metallic objects entering the range of the shield rapidly increases.

(f) The formation of tunnels and craters of geometric shapes in solid objects and in the Earth's crust.

#7. The ability to operate in three different modes called: the magnetic whirl mode, the throbbing mode, and the magnetic lens mode. The manifestation of the use of these modes is:

(a) The appearance to eye-witnesses on one occasion as material vehicles with clearly distinguishable surfaces, and on another as clouds of ionized air. From both of the above modes they can also be re-controlled into a magnetic lens mode, thus disappearing completely from view.

(b) The displaying of opposite and reciprocally negating properties, for example:

- in the magnetic whirl mode: (1) the burning, destroying and falling down of everything within the vicinity of the Magnocraft; (2) induction of an electrical "cork" which cuts off the flow of current in electric power mains.

- in the throbbing mode: (1) safe and nondestructive work of the propulsors; (2) generation of the flow of current in electrical devices which are disconnected from sources of energy.

#8. The induction of electric currents. The effects of these currents produce the following phenomena:

(a) The electrical charging of non-conductive materials (e.g. hair, clothing, plants).

(b) Causing the operation of appliances that have been disconnected from their source of electricity (e.g. radio and television receivers, vacuum cleaners, etc.).

(c) Ionization of the surrounding medium and the production of highly active ozone. When the Magnocraft is flying in the air, this causes: (1) a smell of ozone near the Magnocraft itself and on its path of flight; (2) the formation of chemical components (salts) from the close contact of materials and the ionized air - these salts are produced because of the reaction of environmental substances (soil, air, pollution, etc.) with very active ozone; (3) emission of radiation, caused by the bombardment of hard materials with high energy ions; (4) condensation of steam in the wake of the flying Magnocraft.

#9. The emission of various light signals. The sources of these signals, resulting from the vehicle's operation (i.e. "natural" sources of light) are:

(a) In the magnetic whirl mode of operation: the ionic picture of the whirl. The light from the whirl displays approximately the same colour and the same intensity in the whole volume. The luminous flux produced is very high.

(b) In the throbbing mode of operation: a glowing of the surrounding medium in two "opposite" colours at the propulsor outlets (i.e. in the air, a yellow-red near the north (N) pole and a blue-green near the south (S) magnetic pole of each propulsor). Characteristic for this glow are: (1) the "opposite" colours of the light are emitted from the main and side propulsors' outlets situated on the same side (on topside or underside) of the vehicle; (2) the colours that the same propulsors glow are reversed when viewed from below and above the vehicle; (3) the change of colours into "opposite" ones after the Magnocraft flies over one of the Earth's magnetic poles (this change is caused by the need to reorientate the propulsors).

(c) In the magnetic lens mode: a very sensitive photographic film should be able to detect a light from the crew cabin (if any is produced) passing through the lens from inwards. The naked eye or radar is not able to detect the presence of the vehicle.

The sources of the "artificial" light signals emitted by the Magnocraft are:

(d) The SUB system performing the function of navigation lamps.

(e) The propulsors used by the crew as searchlights for lighting a chosen area under the vehicle.

#10. Interference with the paths of electromagnetic radiation. This interference may take one of the following forms:

(a) A "magnetic lens" which deflects electromagnetic radiation from the vehicle, making it totally invisible to visual watch and radar detection. The lens is obtained when the Magnocraft's field is constant and forms the shape of the lens whose boundaries display a smooth change in the field's density. A partial lens can also appear when the vehicle's field is pulsating. Such a partial magnetic lens may obstruct or deform the visibility of the shell near the outlets from the Magnocraft's propulsors.

(b) An enhancement of the sighting of the main twin-chamber capsule in an ascending Magnocraft, connected with the simultaneous diminishing of the whole body of the vehicle.

(c) "Black bars" joining the outlets of the facing propulsors in some arrangements of coupled Magnocraft (e.g. semi-attached and detached configurations, cigar-shaped complexes, etc.) and black areas visible inside the twin-chamber capsules. These bars and areas are obtained when the columns of a highly concentrated magnetic field with clearly distinguishable boundaries (e.g. produced between facing propulsors of the coupled vehicles) are observed from the direction perpendicular to the magnetic field force lines.

(d) Disturbances in radio reception, television broadcasts, radar images, and telephone signals. These are induced when the Magnocraft's whirling magnetic field emits its own electromagnetic waves.

#11. Fully controllable, and reversible, energy management. It is manifested in the following ways:

(a) The character and parameters of the vehicle's field are formed exactly as are necessary for the flight conditions.

(b) The produced field can be reduced without any change in the amount of energy accumulated in the propulsors.

(c) The Magnocraft can hover motionless near the ground like a balloon for any period of time without decreasing the amount of its energy.

(d) The vehicle's magnetic field accumulates (before flight) the entire energy necessary for a long-distance trip.

(e) The vehicle's energy resources are self-rechargeable. If the flight does not involve friction, the energy resources at the moment of finishing a round trip are the same as at the moment of starting this trip.

#12. The magnetic (non-aerodynamic) manner of flying which adheres to the laws of magnetism. This is characterized by:

(a) Flights with the base almost perpendicular to the force lines of the environmental magnetic field. This means that the Magnocraft always maintains the same orientation (i.e. its base faces roughly a north-south direction), independently of the direction of its movement and the type of maneuver it is performing. Moreover, the Magnocraft moves in directions that are independent from its orientation, even if these directions produce the highest aerodynamic resistance of its shell.

(b) Flying along straight lines, with rapid changes of direction without the benefit of a curve radius.

(c) Rapid jumps into random directions mixed with frequent stops, which to observers resemble the behaviour of a "dragon fly".

(d) The ability to hover motionlessly in one place for extensively long periods of time (e.g. hours, days, or even longer).

G13. Military aspects of the Magnocraft

It must be emphasized that building a Magnocraft will promote peace through providing the facilities for interstellar expansion and for the utilization of unlimited cosmic resources. However, in our highly militarized world it is impossible to create a new kind of vehicle which potentially would not be used for military purposes. Therefore, to complete the picture of this vehicle, its basic military capabilities must also be highlighted. This is because today's predictions of the Theory of the Magnocraft may in the not-too-distant future become a surprising reality for those citizens of our planet whose taxes maintain scholars preoccupied with condemning subjects which in their opinion are unbecoming to scientists, to still have time for observing what is happening around them.

The most simple military application of the Magnocraft is a rapid releasing (for example through a detonation) of the huge amount of energy accumulated in its propulsors. The explosion caused in this way in its effects and range could be compared only to the famous Tunguska (USSR) blast, which on 30 June 1908 devastated over a thousand square kilometres of taiga in the Tunguska region of Central Siberia. As was the case with this event, the exploding of the Magnocraft would not pollute the environment radioactively. Therefore the affected area would immediately be available for occupation and colonization.

However, using the Magnocraft as a flying bomb would be a waste of its huge military potential. The other possible applications of this vehicle offer even greater advantages. It can act as a transportation facility carrying weapons and military forces for attacking the command centers and government locations of the opposite side, or as a very selectively acting weapon for controlled destruction. This subsection reviews the capabilities of the Magnocraft in both of these applications.

G13.1. Use of the Magnocraft as a weapons platform or transportation facility

In the transportation or weapons platform mode, the following characteristics of the Magnocraft can be significant:

1. Very high speeds. In excess of 70,000 km per hour in the atmosphere and almost at the speed of light when travelling in the near vacuum of space.

2. The capability to move through any medium, i.e. space, air, water, solid materials (such as soil, rocks, buildings, or bunkers) and also molten media such as the Earth's nuclei or the centres of stars. It can also move from one medium to another with no preparation necessary.

3. The capability to move directly to the target despite any man-made or natural obstacles in its path. The Magnocraft can tunnel through the Earth's surface, buildings, pillboxes, barriers and anything else that can be used for the protection of command centers and underground bunkers.

4. The Magnocraft, when flying, is completely noiseless and has the capability to switch on optical and radar invisibility.

5. Special characteristics enabling a Magnocraft to withstand any weapon that could be used against it. The features which protect the vehicle against weapons are:

(a) A spinning magnetic field that creates an "inductive shield", a destructive "plasma saw" made from ionized air molecules that follow the spinning magnetic force lines, and the repelling action of a pulsating magnetic field (see Figure F8). These effects act on missiles, guns, and other projectile (non-energy) weapons.

(b) A "magnetic framework" formed within the vehicle which provides support many times stronger than any physical body can. This framework is able to withstand the shockwaves of nearby explosions.

(c) A "magnetic lens" which deflects laser beams and other energy-beam weapons as well as the thermal radiation from a nuclear explosion.

6. An effective resistance to extreme environmental conditions:

(a) Very high temperatures. Heat transfer is made impossible because the environmental medium is kept away from the Magnocraft's surface by the plasma whirl which uses the centrifugal force to reject all alien particles.

(b) Very high pressures. These are neutralized by the "magnetic framework" which can withstand any possible external pressure.

(c) High energy electromagnetic radiation. This is deflected by the "magnetic lens" which is produced by the constant output from the Magnocraft's propulsors.

7. The ability to switch on a "field of attraction" which would intercept and neutralize any nearby objects that are constructed of ferromagnetic materials. This applies to cars, large guns, tanks, and even aeroplanes. The attraction force is created by the constant component of the magnetic field yield from the vehicle's propulsors - see Figure F8. Its range and attraction effect can be controlled by balancing with the repulsion force which is produced by the pulsating component of the vehicle's magnetic field.

G13.2. Use of the Magnocraft as a selectively acting weapon

To use the Magnocraft as a selectively acting weapon for controlled destruction, concentrating its impact on the metallic objects of the other side, the destructive properties of its "inductive shield" are utilized. Simultaneously the "plasma whirl", always appearing together with the inductive shield, is prevented from acting on people and on organic substances so that they stay uninjured. The method by which the Magnocraft can be used for military operations, aimed at the destruction of the enemy's equipment only, is as follows:

Step 1. Switching to maximum power the spinning magnetic field that forms the magnetic whirl circulating around the vehicle. The force lines of that field passing through nearby conductive objects induce in them powerful electric currents that explosively evaporate their material.

Step 2. Forming from this spinning field a broad inductive shield with a range of evaporation to about 100 metres from the vehicle's surface (when the destructive plasma whirl has a range of only about 5 metres).

Step 3. Flying at an altitude of around 10 to 30 metres above an enemy's territory. As a result of such a flight, every object which is constructed from electrically conducting material will explode. This effect has a radius of about 100 metres from the craft. The disintegration of these materials will cause in turn:

(a) Complete destruction of every object made of metal, such as: weapons, machinery, factories and their equipment, iron bridges, electric-power connections, underground installations made of metal, storage facilities, etc.

(b) Destruction or damage of objects containing some parts made of metal, such as: buildings, concrete bridges, bunkers, roads, airfields, ports, etc.

Step 4. Undertaking a systematic flight covering every part of the target area, similar to the way a farmer ploughs a field.

It should be noted that the very high speed and manoeuvrability of the Magnocraft would allow operation in such a manner as to render totally powerless a middle-sized European country, with only one Magnocraft, in about 12 hours.

The military properties of the Magnocraft used as a weapon have no equivalent in any other fighting facility made by man to date. There are neither weapons nor defense methods that can oppose this vehicle. However, there is a major difference between the action of the Magnocraft and the effects of other means of mass destruction. The Magnocraft acts selectively against the weapons, equipment, and technology of the other side, but not against people. So it disarms the enemy but leaves the population alive. Therefore even when used as a tool of destruction, it can still promote peace and serve humanity.

No	Type	Basic data		Outer shell dimensions				Location & dimension of side propulsors				Main propulsor details			No. of legs	Crew	Weight of vehicle
		K	n	D	H	L	Gs	d	Arc	Ds	as	h	DM	aM			
-	-	-	-	m	m	m	m	m	m	m	m	m	m	m	-	-	tonne
1.	K3	3	8	4.39	1.46	0.64	0.43	3.10	1.22	0.43	0.25	1.03	0.86	0.49	4	3	1
2.	K4	4	12	8.78	2.19	1.28	0.72	6.20	1.63	0.56	0.32	1.55	1.28	0.74	3	4	8
3.	K5	5	16	17.56	3.51	2.57	1.13	12.41	2.44	0.75	0.43	2.48	1.88	1.09	4	5	54
4.	K6	6	20	35.11	5.85	5.14	2.17	24.82	3.90	1.26	0.73	4.14	3.43	1.98	4	6	360
5.	K7	7	24	70.22	10.03	10.28	3.84	49.65	6.50	2.04	1.18	7.09	5.88	3.39	3 or 4	7	2 472
6.	K8	8	28	140.44	17.56	20.57	6.78	99.30	11.14	3.33	1.92	12.41	10.11	5.84	4	8	17 317
7.	K9	9	32	280.88	31.21	41.14	12.52	198.61	19.50	5.76	3.32	22.07	18.28	10.56	4	9	123 113
8.	K10	10	36	561.76	56.18	82.28	22.94	397.22	34.66	9.97	5.75	39.72	32.91	19.00	3 or 4	10	886 448

Table G1. Construction parameters data sheet for eight basic types of crew-carrying Magnocraft. The interpretation of symbols used is illustrated in Figure G23. The dimensions of particular vehicles are determined on the assumption that the outer diameter "D" in each type fulfils the equation (G16): $D = 0.5486 * 2^K$ [meters]. All dimensions from this table are expressed in metres.

Note equations that describe the mutual interrelations occurring between items presented in the above table (see also Figure G18):

$H=D/K$ $\quad$ $K=D/H$ $\quad$ $n=4(K-1)$ $\quad$ $Arc=\pi d/n$ $\quad$ $D_M=H(2-\sqrt{2})$ $\quad$ $a_M=D_M/\sqrt{3}$ $\quad$ $as=Ds/\sqrt{3}$ $\quad$ $Crew=K$

$h=d/K$ $\quad$ $K=d/h$ $\quad$ $L=(D-d)/2$ $\quad$ $d=D/\sqrt{2}$ $\quad$ $Gs=D_M-Ds$ $\quad$ $Ds=D_M/\sqrt[3]{n}$ $\quad$ $Weight=0.05 \cdot D^2 \cdot H$

Number of vehicl.	Kind & appearan. of configuration of the vehicles	What must be measured in this configuration	Use the equat. for the value of "K"
1	Individual vehicle, e.g. as this one from Figures F15, F1 (a)	Measure: -Hight "H" of this vehicle, -Diameter "D" of this vehicle	Calculate "K" from equation (G10): K=D/H
2	"Spherical complex", e.g. as this one from Figure F1 (b)	Measure: -Height "ΣH" of entire complex -Diameter "D" of any vehicle	Calculate "K" from equation (G17): K=2*D/(ΣH)
m	"Stacked cigar shaped complex" e.g. as this one from Figures F1(b), F6 (#1), F1 (c)	Determine: -Number "m" of vehicles, -Height "ΣH" of entire cigar, -Diameter "D" of any vehicle	Calculate "K" from equation (G20): K=(m-(m-1)* (sqrt(2)-1)) *(D/(ΣH))
m	"Double-ended flying cigar" e.g. as this one from Figure F7 (1)	Determine: -Number "m" of vehicles, -Height "ΣH" of entire cigar, -Diameter "D" of any vehicle	Calculate "K" from equation (G21): K=(m-(m-2)* (sqrt(2)-1)) *(D/(ΣH))

Table G2. The determination of the "K" factor from the correlation between the value of this "K" factor and the "D/H" ratio for a single Magnocraft and for three homogenic configurations of the coupled Magnocraft (namely for the spherical complex, for a stacked cigar, and for a double-ended cigar). In turn the knowledge of "K" allows us to determine precisely the type of individual vehicles arranged into a given configuration. After we find out this type it is possible to read all technical data for a given vehicle from Table G1

Notice that equations for both cigars provided in this table are valid only if during the measurements the central axis of these cigars remains perpendicular to the line of our sight. In remaining cases a deviation angle "α" from the position that is perpendicular to the line of our sight must be determined, and then the value of "ΣH" should be corrected trigonometrically by the factor which depends on this deviation angle "α".

It should be noticed, that in order to determine the "K" factor for any of the configurations of Magnocraft presented in the above table, it is enough to determine the height "ΣH" and the outer diameter "D" of this configuration from a photograph, from a radar picture, or from a visual sighting of this configuration. Then these two data need to be used in the equation provided for a given configuration in the last column of this table. In case of a stacked cigar, or a double-ended cigar, it is required to additionally determine the number "m" of vehicles that compose a given configuration, and conditionally also an angle of deviation "α" by which the central axis of this configuration slants from the position that is perpendicular to our line of sight. (This angle "α" allows us to correct trigonometrically the apparent - means the measured by us, value of the height "ΣH" to a value that is the real value of this height "ΣH".

For a practical verifying of equations from the table above, I would propose to determine the type of vehicles that create the stacked cigar shown in part (d) of photograph from Figure J10.
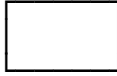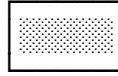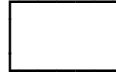
time \ lamp	U	V	W	X
t = 0	red	yellow	blue	yellow
t = 1/4T	yellow	red	yellow	blue
t = 1/2T	blue	yellow	red	yellow
t = 3/4T	yellow	blue	yellow	red
t = 1T	red	yellow	blue	yellow
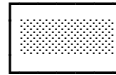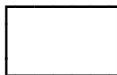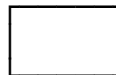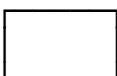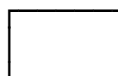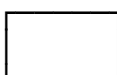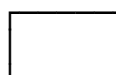
Colours emitted by subsequent lamps:

‖‖‖	red	= n
(blank)	yellow	= o
(dotted)	blue	= s

Table G3. The colour changes in the lights of the SUB system of lamps (the location of these lamps on the Magnocraft's shell is presented in Figure G35). The SUB system indicates the Magnocraft's mode of operation. The sequence of colours emitted by each lamp of this system and shown by this table is characteristic for the magnetic whirl mode of the Magnocraft's operation (this particular table illustrates colour signals that would accompany the magnetic whirl from Figure G31). The rows in this table show the subsequent colours that each lamp emits at a given moment of time to describe the operation of propulsors which are labelled with a letter corresponding to that lamp (i.e. U, V, W, X). By observing only one lamp (e.g. that labelled V) it is evident that its colours change according to a sinusoidal curve that simulates the change of the magnetic field in a given (e.g. V) group of propulsors. In this way the oscillation of colours simulate the pulsation of the magnetic field. But by observing only one colour (e.g. red) this table shows that with the elapse of time (i.e. after each quarter of the propulsors' period of pulsations) each colour moves to the next lamp. In this way the apparent motion of colours reflects the motion of the magnetic waves around the Magnocraft. Note that for the throbbing mode of operation the colours of the lights would change in the same way in each lamp, whereas in the magnetic lens mode all lamps would emit a yellow colour at all times. Symbols: t - time; T - period of the propulsor's output pulsation; n, o, s - output levels of amplitude in a particular propulsor (i.e. maximal, middle, minimal).
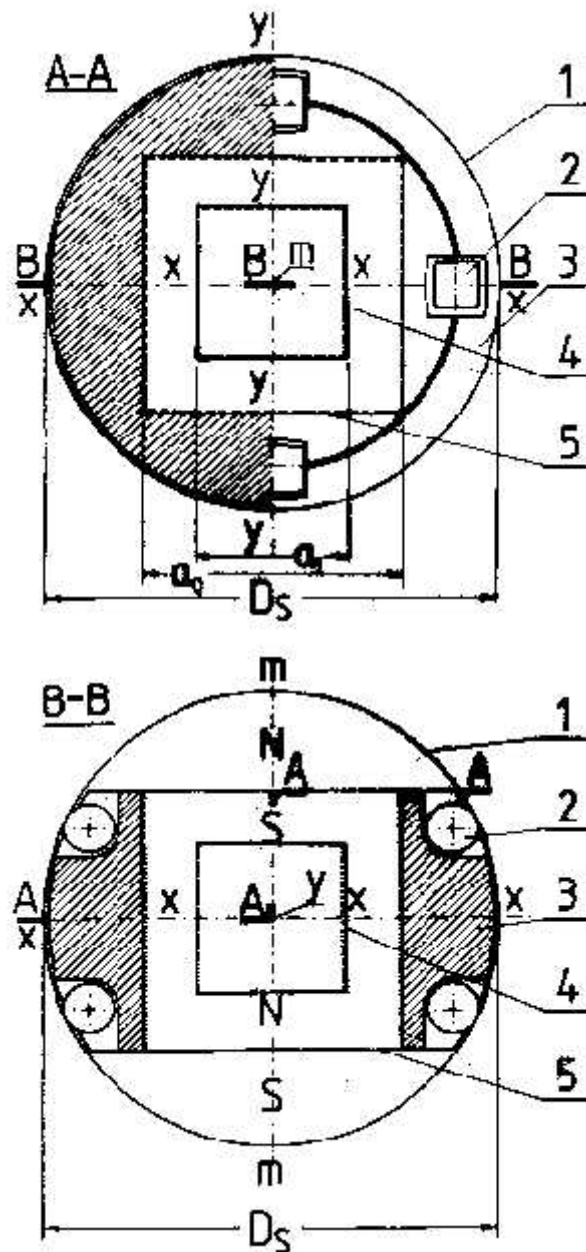
Fig. G1. This diagram demonstrates the principle of tilting a column of the magnetic field that is yielded from a hypothetical propulsor. In the propulsor illustrated, the magnetic axis "m" of a twin-chamber capsule which yields this field is controlled by two sets of mechanical rollers. The upper part "A-A" of the diagram presents this propulsor from two positions: as an overhead view (i.e. the right half of the diagram) and as the horizontal cross section along its top half (i.e. the left half of the diagram). The lower part "B-B" shows the same propulsor in vertical cross section (i.e. in the cross section passing through the magnetic axis "m" and the tilting plane "x"). Illustrated are: 1 - the spherical casing of the propulsor (the diameter "Ds" of this casing is equal to: $Ds = a_o\sqrt{3}$); 2 - one of four rollers operating in the vertical plane "x" (as well as these, the propulsor also contains another set of four similar rollers operating in the vertical plane "y"); 3 - the carrying structure, tilted by rollers, which holds the twin-chamber capsule; 4 - the inner cubical Oscillatory Chamber of the twin-chamber capsule, whose side edge is marked as "ai"; 5 - the outer cubical Oscillatory Chamber of the twin-chamber capsule whose side dimension "ao" is equal to: $a_o = a_i\sqrt{3}$; m - magnetic axis of the propulsor (this axis represents the direction in which the propulsor's output is pointed); x, y - the two vertical tilting planes, perpendicular to each other.
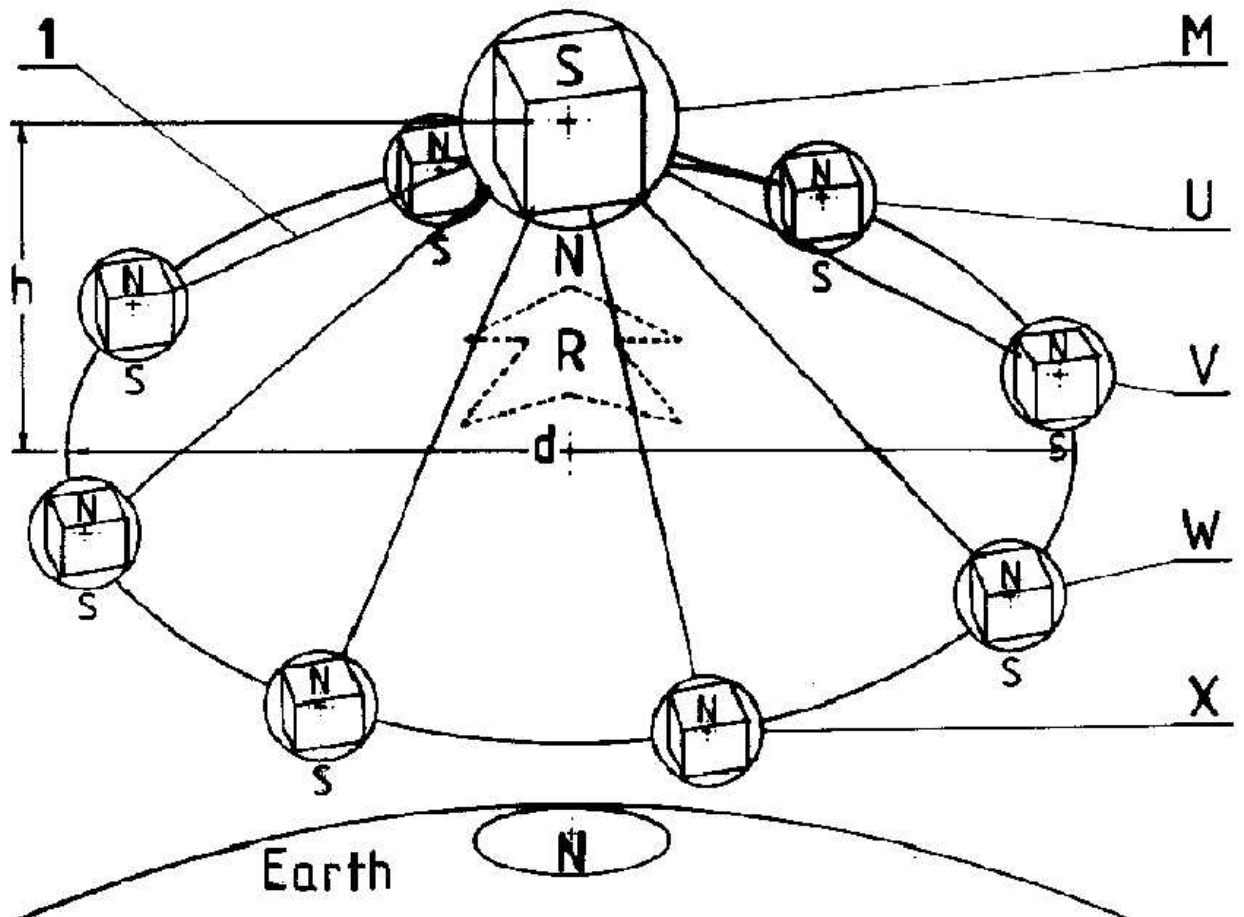
Fig. G2. The magnetic propulsion unit of the Magnocraft. Illustrated are: the single main propulsor (M) involved in a repulsive interaction with the Earth's magnetic field; eight side propulsors (U, V, W, X) situated so as to attract the environmental field. Each of these propulsors consists of a twin-chamber capsule (formed from one inner and one outer Oscillatory Chamber) located inside a spherical casing. Through an appropriate synchronization of the field pulsations in the side propulsors, a whirling magnetic field can be produced by this unit. Symbols: N - north magnetic pole, S - south magnetic pole, 1 - frame which joins the propulsors together; d - the maximal distance between the centers of any two side propulsors located diagonally opposite from each other in the unit (this distance "d" represents the "nominal diameter" of rings burned by side propulsors during landings of the Magnocraft); h - the height of the centre of the main propulsor above the bases of the side propulsors; R - the force of magnetic repulsion.
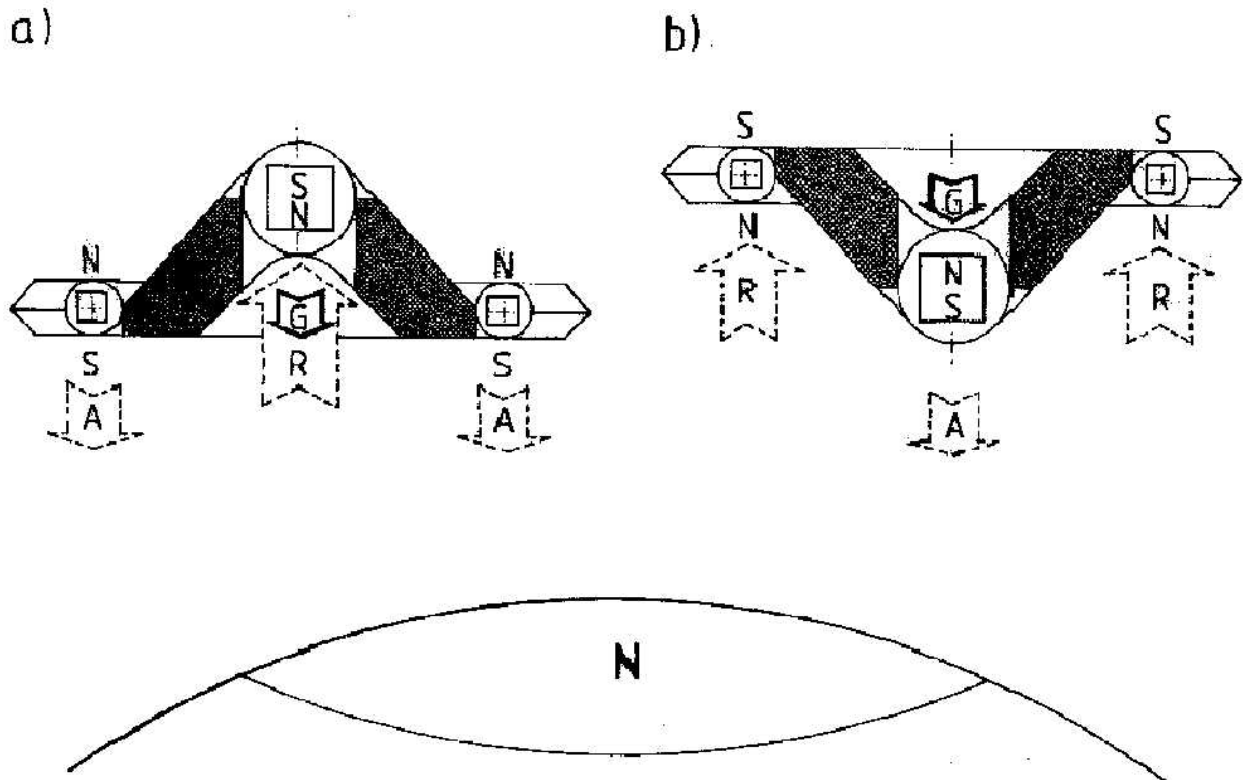
Fig. G3. Two alternative positions of the Magnocraft during flight, called the "upright position" and the "inverted position". To illustrate the polarization of propulsors and the type of force interactions they create, both Magnocraft type K3 are shown in vertical cross-sections while hovering above the north magnetic pole of Earth. Crossed lines mark the location of their crew cabins. Note that independent of which one of these two flight positions is taken, the orientation of the magnetic poles of the propulsors in relation to the Magnocraft's shell remains unchanged. Therefore, when two vehicles so positioned (i.e. one in the upright position and the other in the inverted position) fly directly above/beneath each other, each one faces the other with like magnetic poles. Thus only repulsive forces can be created between two such Magnocraft (see also Figures G18 and G19). Symbols: R - a force of magnetic repulsion; A - a force of magnetic attraction; G - gravity pull; N, S - North and South magnetic poles.

(a) The upright position. The lifting force (R) is created by the main propulsor, whereas the side propulsors create stabilization forces (A).

(b) The inverted position. This reverses the functions of the vehicle's propulsors, i.e. the main propulsor acts as a single stabilizer (A), whereas the side propulsors produce the lifting forces (R). During horizontal flights close to Earth, the gravity pull (G) acts like an additional stabilizer.
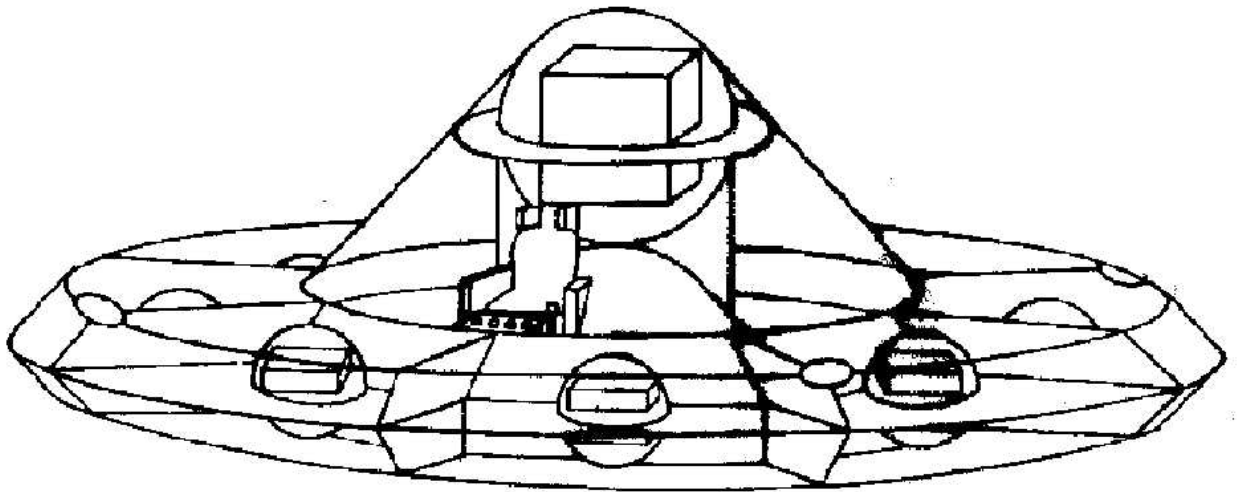
Fig. G4. The appearance of the Magnocraft type K3, as it is defined by the theory from this monograph. The general shape and outlines of this vehicle are strictly defined by the set of mathematical equations derived from the design and operational conditions (these equations are listed in Figure G23). Its dimensions are also defined by these equations (the outer diameter for the Magnocraft type K=3 is equal to: $D = 0.5486*2^K = 4.39$ metres). The vehicle's shell is made of a mirror-like material whose degree of transparency and light reflectiveness can be strictly controlled. Thus, when the crew makes this shell transparent, elements of the internal structure (e.g. propulsors, compartments, separatory chambers, etc.) can be seen by an outside observer. In the above illustration seven spherical propulsors (out of a total number of n=8) placed in the horizontal flange are visible. Each of these propulsors contains inside a twin-chamber capsule composed of two Oscillatory Chambers. The eight vertical partitions divide the vehicle's flange into eight separate chambers, each housing one side propulsor. The horizontal separatory ring placed at the top-half of the flange separates both magnetic poles (N and S) in each of these side propulsors, thus forcing the magnetic field which is produced to circulate through the environment. On the upper part of the flange three lamps of the SUB system (i.e. equivalent to the position lamps in aeroplanes) are indicated - see also Figure G35. In the centre of the vehicle the single main propulsor and its twin-chamber capsule are shown. Within the ring-shaped crew cabin a pilot's seat is visible. (Compare this illustration with Figure B1).
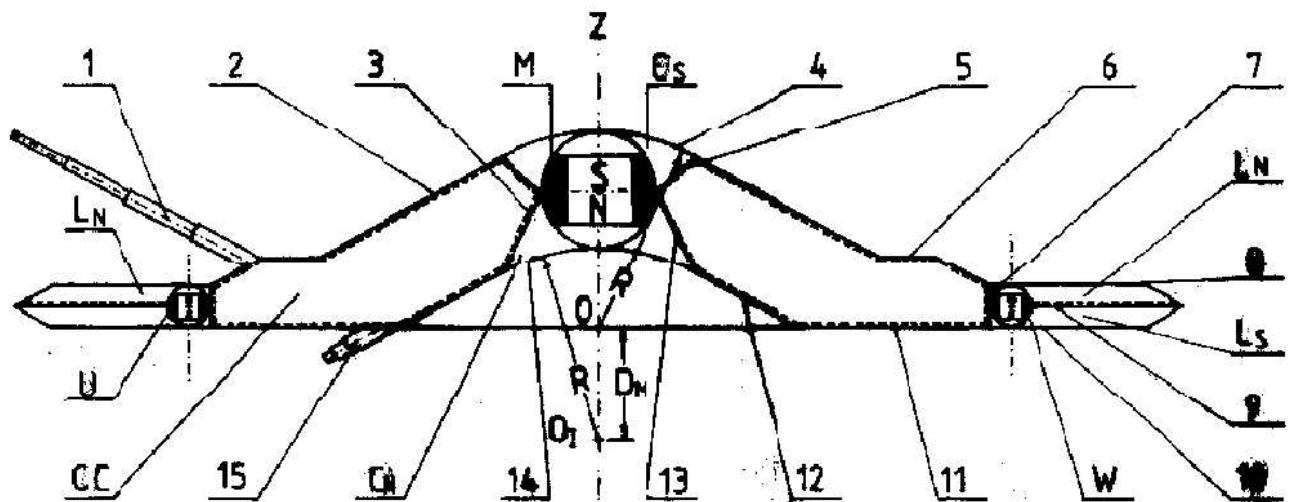
<u>Fig. G5</u>. The internal design of the Magnocraft and the main features of its shell. It is illustrated using an example of the middle-sized vehicle type K6, which utilizes n=20 side propulsors and whose outer dimensions are: D = 0.5486*2^6 = 35.11, H = D/6 = 5.85 meters. The material impenetrable by a magnetic field (magnetoreflective) is indicated by a broken line.

The diagram presents:

- Magnetic propulsors: main (M), and two examples of side propulsors (U), (W).

- Magnetoreflective shells: ceiling (5), topside alignment cone (2), complementary flange (6), crew cabin edge (7), base (11), underside alignment cone (12), central cylinder (3) and (13), separatory ring (9).

- Magnetoconductive shells: topside dome (4), flange's aerodynamic cover (8), flange's base (10), underside bowl (14).

- Compartments: crew cabin (CC), central propulsion compartment (C) subdivided into north (CN) and south (Cs) sections, lateral propulsion compartment (L) with its north (LN) and south (Ls) sections.

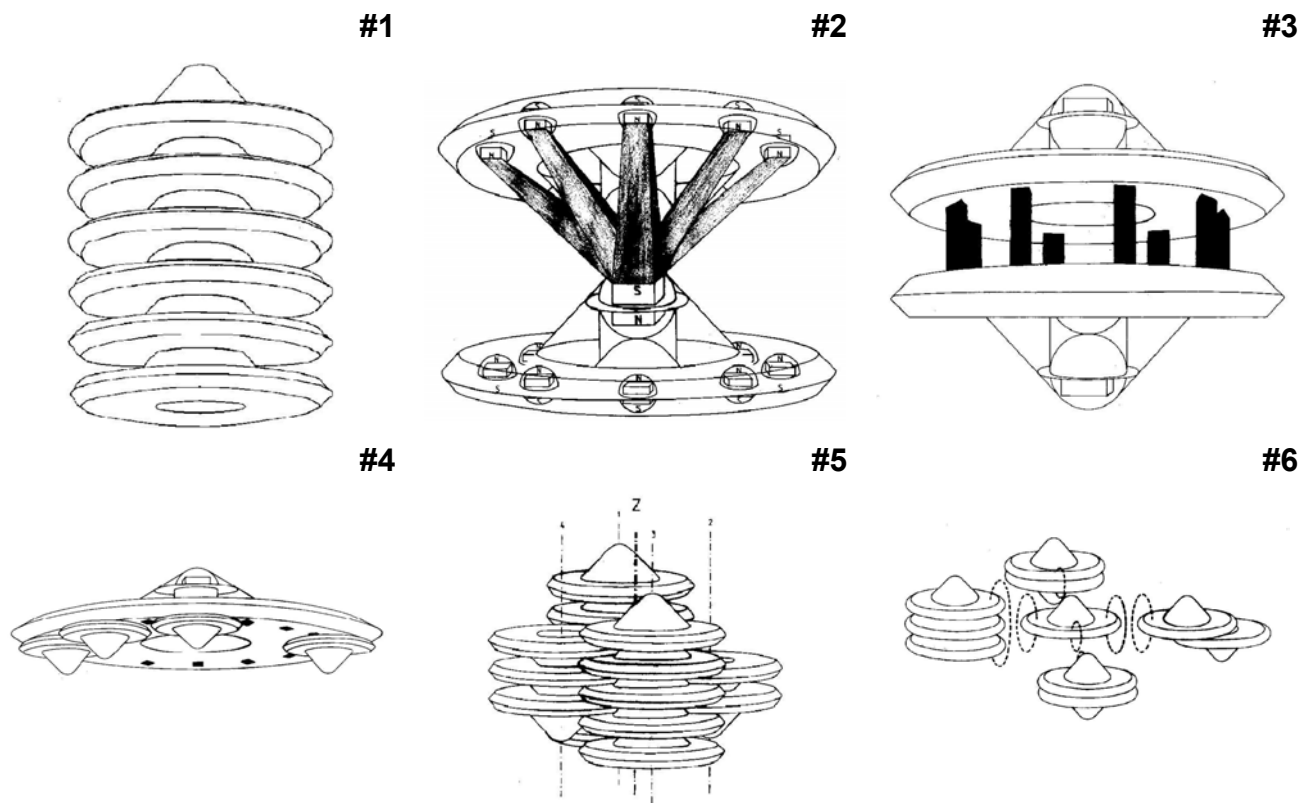- Facilities: periscopes (1), telescopic legs (15).

Fig. G6. Examples of six classes of arrangements of the Magnocraft. Each class is obtained through coupling in a different manner several discoidal vehicles (illustrated above are arrangements of mainly K3 type Magnocraft). Within each class a number of further specific arrangements (not shown in this illustration) can be distinguished. For example, flying complexes (class #1) can be subdivided into: (a) spherical flying complexes (shown in Figure G7), (b) cigar-shaped complexes (shown above) and (c) fir-tree complexes (Figure G10). Also vehicles arranged in any of the above classes can further cluster or couple with other arrangements, forming in this way an almost unlimited variety of shapes. Illustrated are examples of:

#1. Flying complexes - obtained when coupled vehicles are fixed in a steady physical contact. Illustrated is a cigar-shaped stack consisting of six Magnocraft type K3.

#2. Semi-attached configurations - in spite of labile (point) contact, vehicles are steadily bond together with magnetic circuits visible as black bars.

#3. Detached configurations - vehicles do not physically touch each other, but are bond with repulsive and attractive magnetic interactions in equilibrium. The black bars mark the columns of magnetic field that join the side propulsors oriented as to attract one another (the main propulsors of both vehicles repel each other).

#4. Carrier platforms - obtained when smaller Magnocraft are suspended under the side propulsors of a bigger mother-ship (shown is a K5 type mother-ship carrying four K3 type vehicles).

#5. Flying systems - formed when several flying cigars are physically coupled together by their side propulsors.

#6. Flying clusters. These are formed through the bonding (without physical contact) of any other arrangements listed before. A two-dimensional "flying cross" is illustrated here. Its magnetic circuits that separate subsequent vehicles are shown with broken lines (these are always accompanied by numerous holding circuits which, for the clarity of illustration, are omitted here).
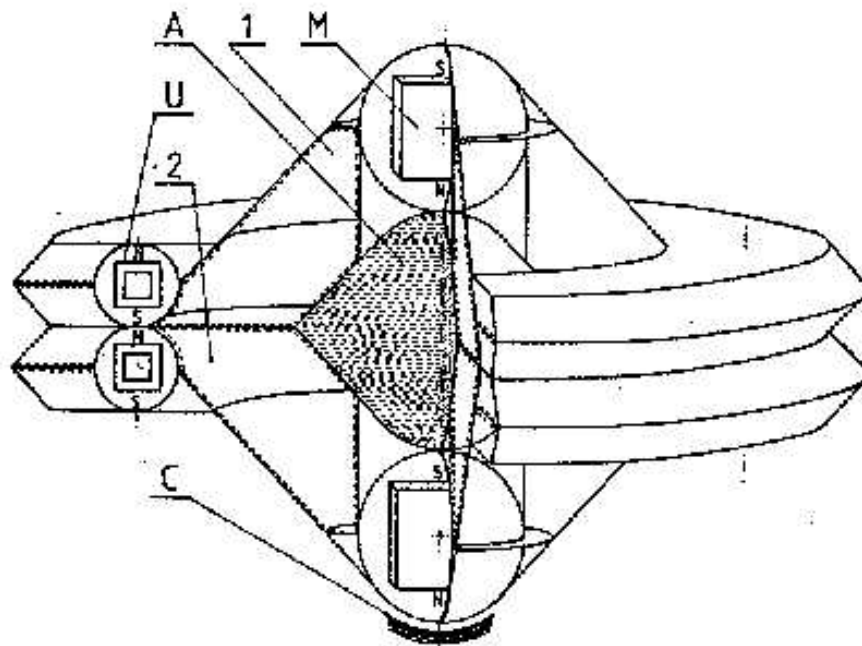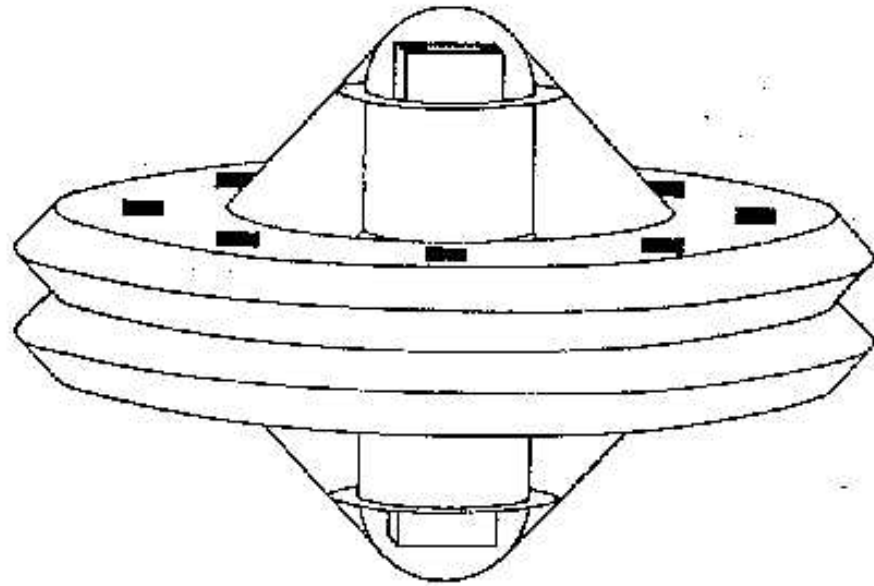
Fig. G7. A spherical flying complex obtained by coupling base-to-base two Magnocraft type K3. Notice that the coupling of larger vehicles (i.e. types K4 to K10) will produce a more flattened shape of such complexes.

(Upper) External (side) view of the whole complex.

(Lower) Cut-away view of the complex. Illustrated is the interaction between the propulsors and the relative positioning of the compartments in both coupled vehicles. Symbols: 1 - upright vehicle; 2 - inverted vehicle; A - gelatinous hydraulic substance ("angel's hair") which assists the structure of the vehicles to withstand the forces of mutual attraction appearing between the main propulsors of both spaceships; M - main propulsor of the upright vehicle; U - a vertical cross-section of one of the eight side propulsors of the upright vehicle; N, S - the orientation of the north and south magnetic poles in the propulsors of both vehicles.

(a)   **(b)**
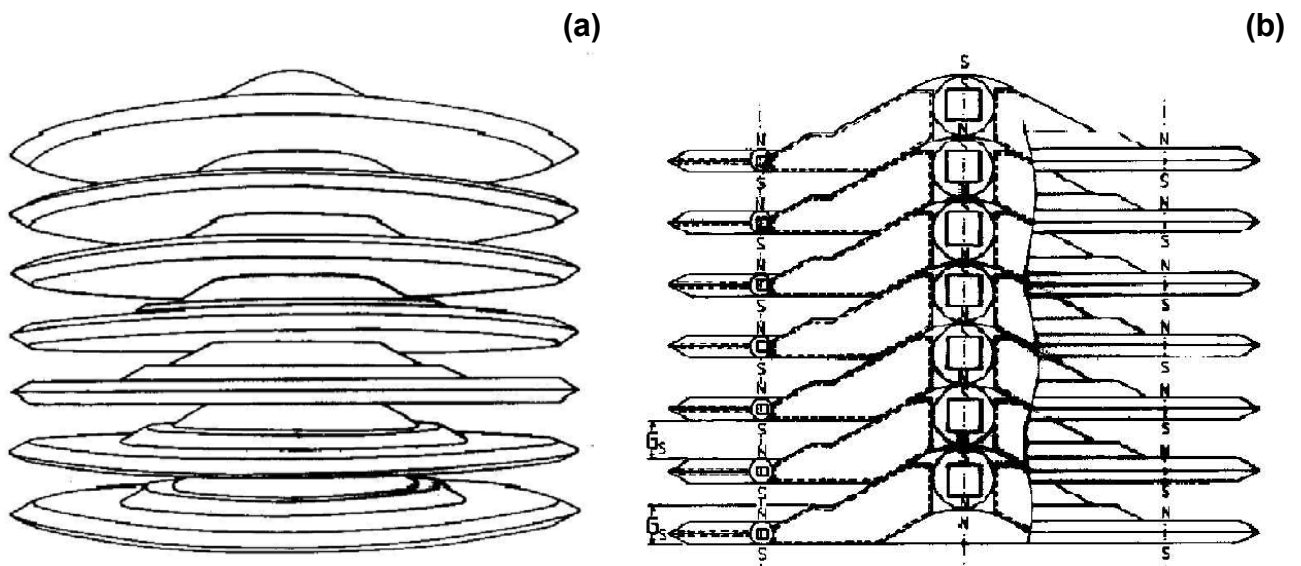
Fig. G8. A stacked cigar-shaped flying complex which represents one of the most efficient configurations obtainable through the magnetic coupling of a number of Magnocraft. This configuration is formed by stacking a number of subsequent Magnocraft of the same type (illustrated is a stack consisting of seven vehicles type K6) one on top of the other, like a pile of saucers stored in a kitchen cupboard. The outer dimensions of the Magnocraft type K6 are: D=35.11, H=5.85 [m] - see equations G13 and G7. After landing, this type of vehicle scorches a ring on the ground having the nominal diameter $d=D/\sqrt{2} = 24.82$ [m] - see equation G9.

       (a) External (side) view of the whole complex.

       (b) Vertical cross section of the complex showing the interaction of propulsors and the relative positioning of the compartments in the coupled vehicles. Symbols: GS - the thickness of the complementary flange which is equal to the gap between the flanges of two subsequent vehicles (because this is equal, a number of such cigar-shaped flying complexes can be further coupled rim-to-rim into flying systems - see Figure G22); N, S - polarity of the subsequent magnetic propulsors.
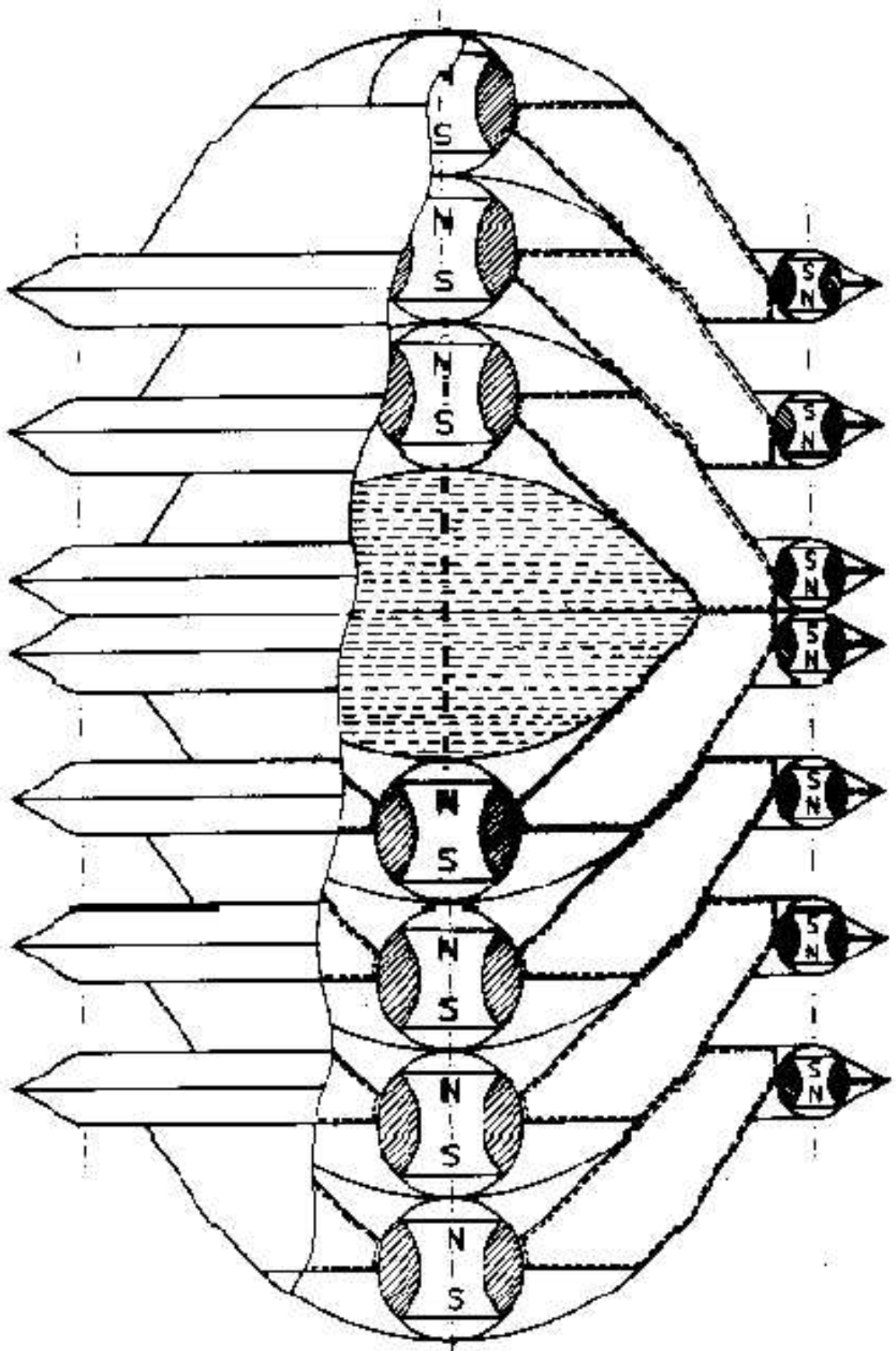
Fig. G9. Cut-away view of a double-ended cigar-shaped flying complex made by coupling further units to both ends of a spherical complex. The hydraulic substance "angle's hair" is shown between the two central Magnocraft joined at their bases.
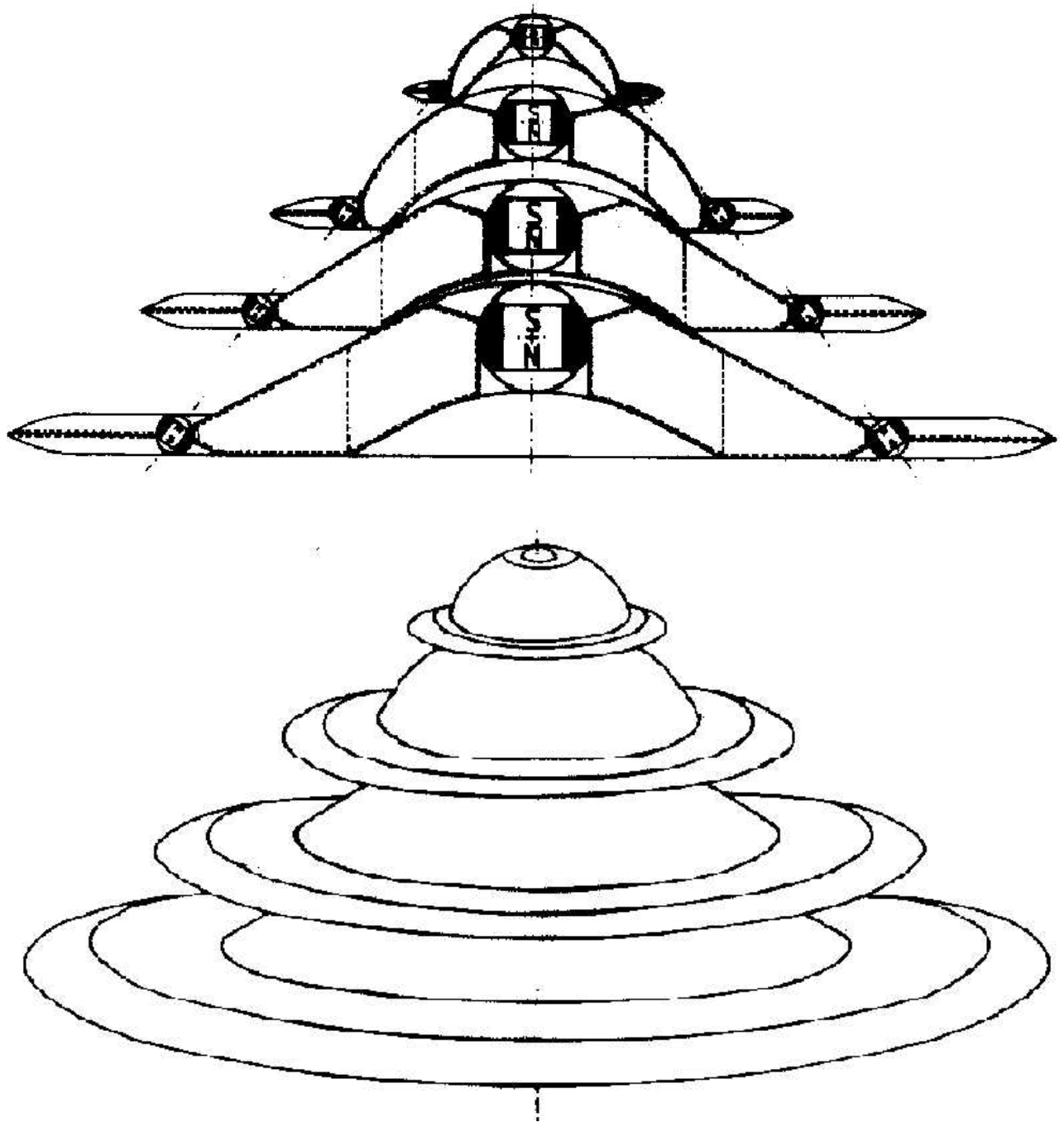
Fig. G10. An example of a "fir-tree" shaped flying complex formed by the stacking of smaller types of Magnocraft upon larger types.

     (a - upper) Sectional view of the complex, showing the cooperation of propulsors and the relative positioning of compartments in the coupled vehicles.

     (b - lower) External view of the whole complex.
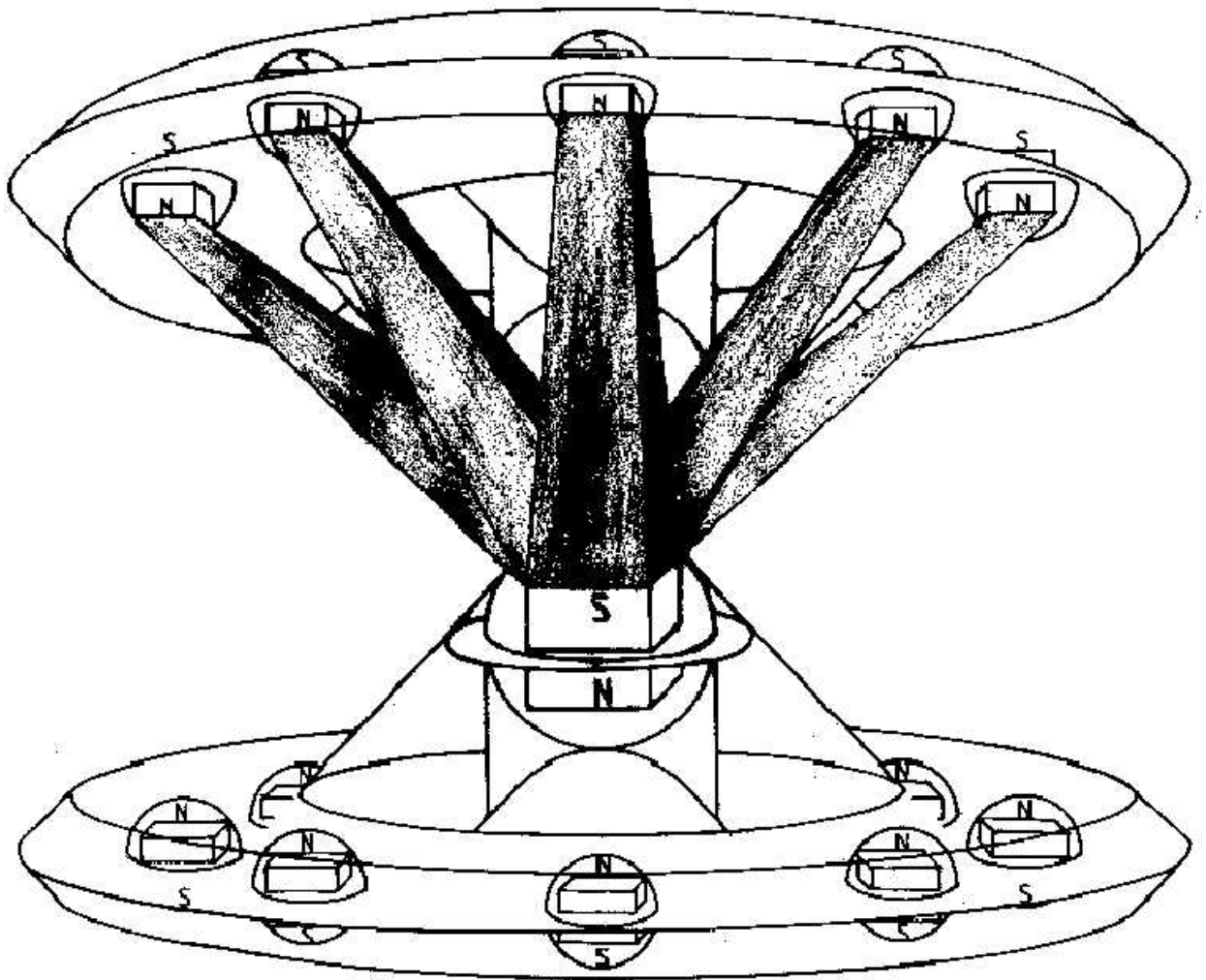
Fig. G11. An example of the simplest semi-attached configuration. The spool-shaped arrangement illustrated here is formed by coupling together two Magnocraft type K3 whose topside domes touch each other. The physical contact between both vehicles is at only one point, thus it is unable to provide a bond sufficient for a safe flight. Therefore the vehicles are bonded with the magnetic forces. The mutual attraction of the main propulsors of both vehicles keeps the configuration joined together, whereas the mutual repulsion of the vehicles' side propulsors maintains the permanency of the reciprocal orientation of both Magnocraft. The propulsors with a high output which lift the entire configuration are: the main one in the lower vehicle and the side ones in the upper vehicle. The main propulsor of the upper Magnocraft and the side propulsors in the lower vehicle produce only a very small output, just enough to maintain the stability of the configuration. Both vehicles have their high-output propulsors oriented by unlike magnetic poles towards each other. Therefore the outlets of these propulsors must be joined by the columns of a highly concentrated magnetic field which looks like bars made of a black substance (see also the black bars from Figure G13). The cross-section of these black bars reflects the square shape of the Oscillatory Chambers that yield the magnetic field. The above illustration shows the course of the black bars. The letters "N" and "S" indicate the polarity of the field yield of particular propulsors.
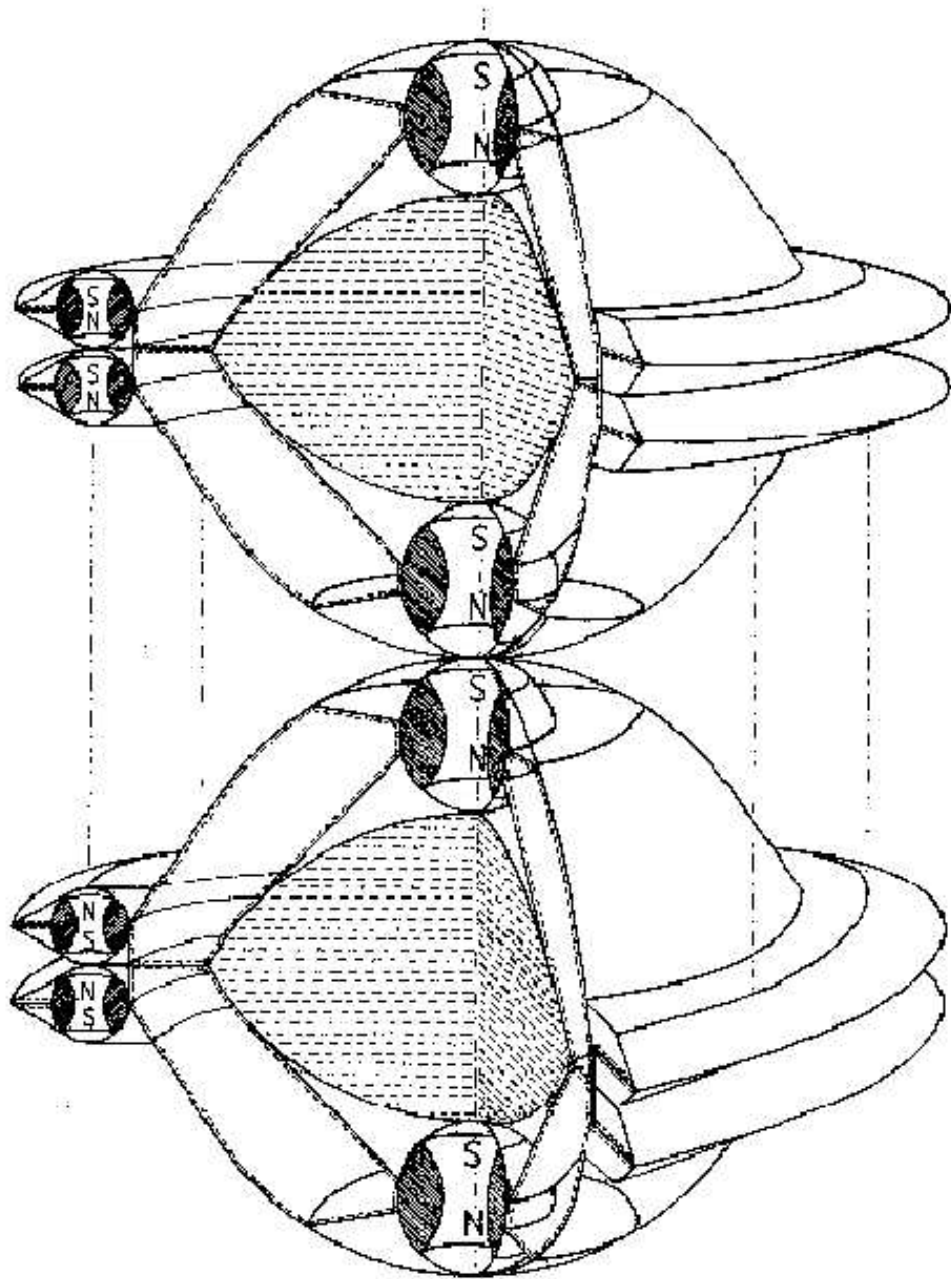
Fig. G12. An example of a semi-attached configuration ("flying necklace") formed from a chain of spherical flying complexes which are further coupled together by their topside domes. The principles of this coupling are the same as for the configuration shown in Figure G11. The forces that keep the configuration joined together are obtained from the mutual attraction of the vehicles' main propulsors. The side propulsors of both complexes are oriented repulsively towards each other, thus maintaining the steadiness of the mutual positioning of these complexes. To illustrate the polarity of the vehicles' propulsors the above diagram shows a cut-away view of the Magnocraft. Inside each spherical complex the presence of "angel's hair" is indicated (see Figure G7). The outlets of some propulsors in the above configuration are also mutually linked with black bars of the highly concentrated magnetic field. As the course and shape of the black bars would be identical to the one from Figure G11, to avoid obscuring the clarity of the illustration presentation of these bars is not repeated. Note that in the illustrated manner any number and any type of complexes can be joined together, thus forming "flying necklaces" with almost unlimited length, shape, and variation of individual beads.
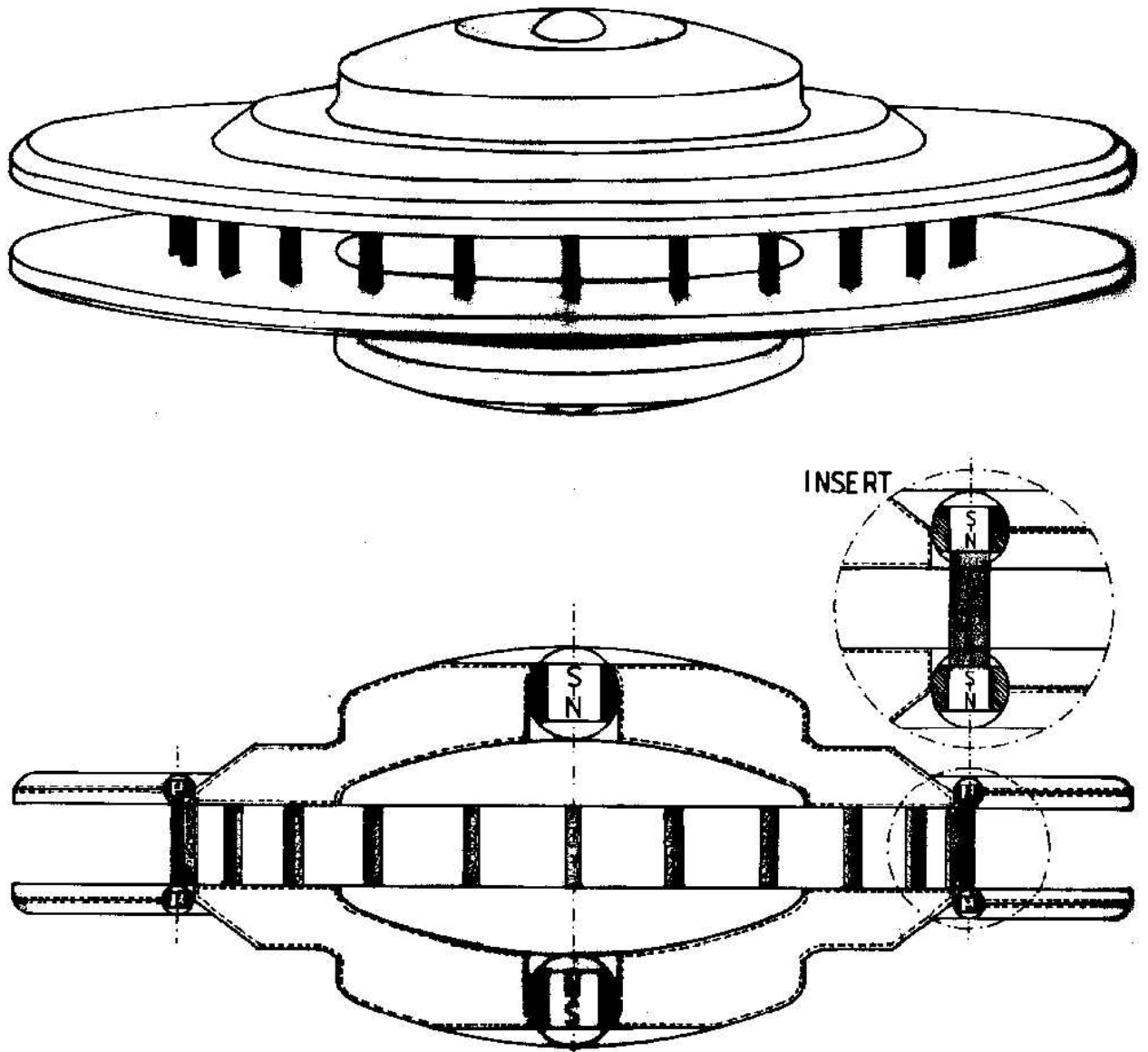
Fig. G13. An example of the detached configuration. Illustrated is the coupling of two Magnocraft type K7 oriented base-to-base. The lower cross-section of this configuration illustrates the polarity of the propulsors in both vehicles. The mutual interaction between these propulsors produces two counter-balanced sets of forces which keep the vehicles apart, but also simultaneously fasten them together. The first set, formed by the main propulsors, causes the repelling of one Magnocraft from the other. The second set of forces, formed by the side propulsors, causes an attraction between both craft. The columns of the magnetic field joining the outlets of every pair of side propulsors facing each other are shown in black. As these columns have clearly distinguishable boundaries, they trap the light and therefore they appear as black bars. The cross-section of these bars must be square, as they reflect the shape of the Oscillatory Chambers that yield the magnetic field.

(Upper) An external view of the whole configuration. The shape, location, and the number of visible black bars is illustrated. Notice that during an actual appearance of this configuration the shape of the lower vehicle would become distorted by the action of a magnetic lens.

(Lower) A vertical cross-section of the configuration. The mutual co-operation between propulsors is shown. An INSERT illustrates the polarity of two side propulsors facing each other, each one of which belongs to a different vehicle (notice a square black bar joining the outlets from both of these propulsors).
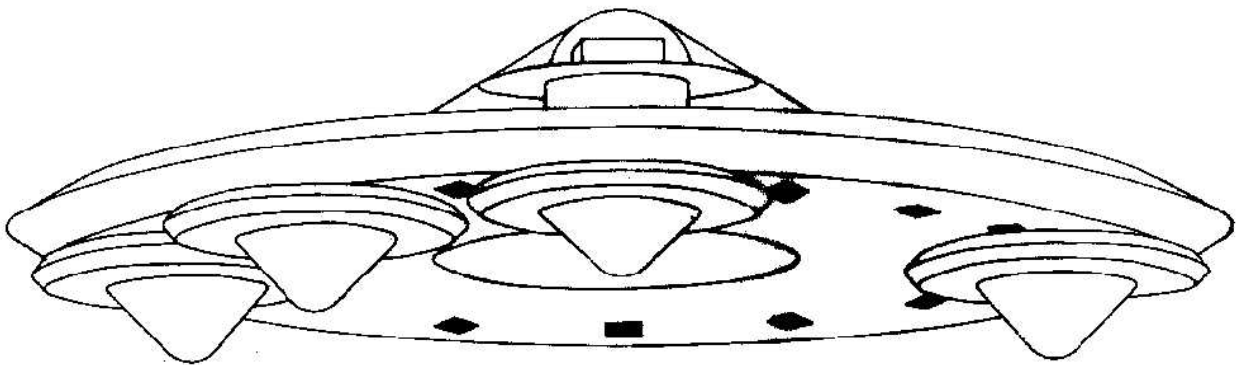
Fig. G14. An example of the carrier platform, i.e. a configuration formed when a number of smaller Magnocraft are suspended under the base of a bigger mother ship. The distinctive characteristic of this flying arrangement of Magnocraft is that the main propulsor of each suspended Magnocraft is facing a side propulsor from the mother ship. The forces that join all the spacecraft together are created as the effect of mutual attraction occurring between one of the side propulsors of the mother ship and the main propulsor of each Magnocraft suspended under it. The illustration shows four Magnocraft type K3 (out of a total of eight vehicles type K3 possible to be carried by the sixteen side propulsors of a K5 type mother ship) clinging under the base of a K5 type Magnocraft.
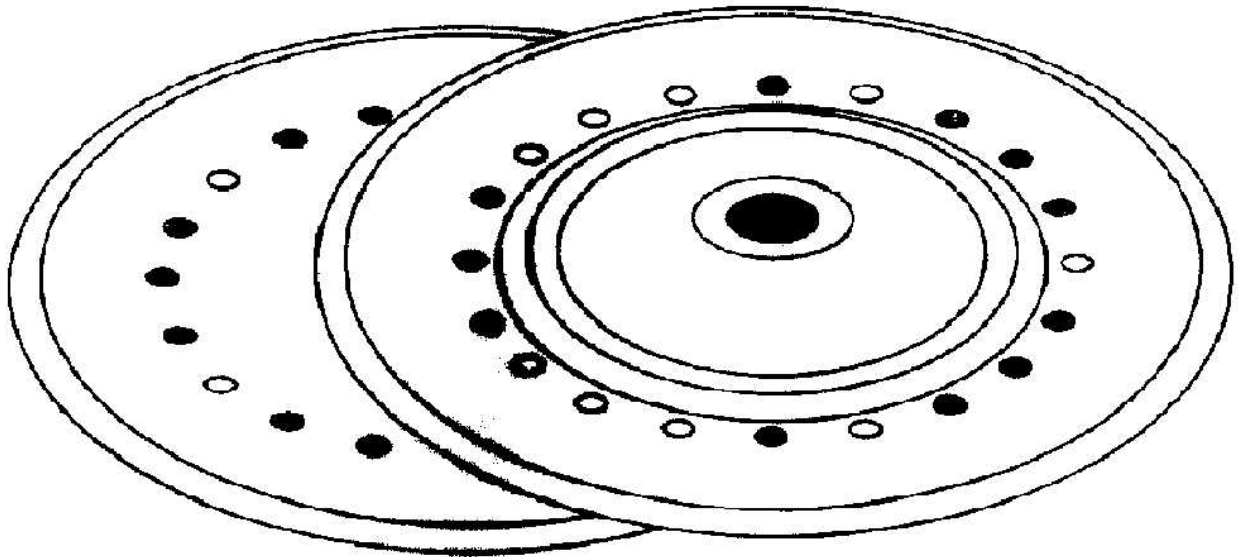
Fig. G15. The carrier configuration formed when two Magnocraft of the same type are coupled base-to-base in such a way that the main propulsor of each of them faces the side propulsor of the other one. Illustrated is an example of the coupling of two type K6 vehicles. The above configuration is the other version of the carrier complex - see Figure G14, and differs from the spherical flying complex presented in Figure G7. At night, the glowing magnetic circuits of such a configuration produce a characteristic "zig-zag" shape.
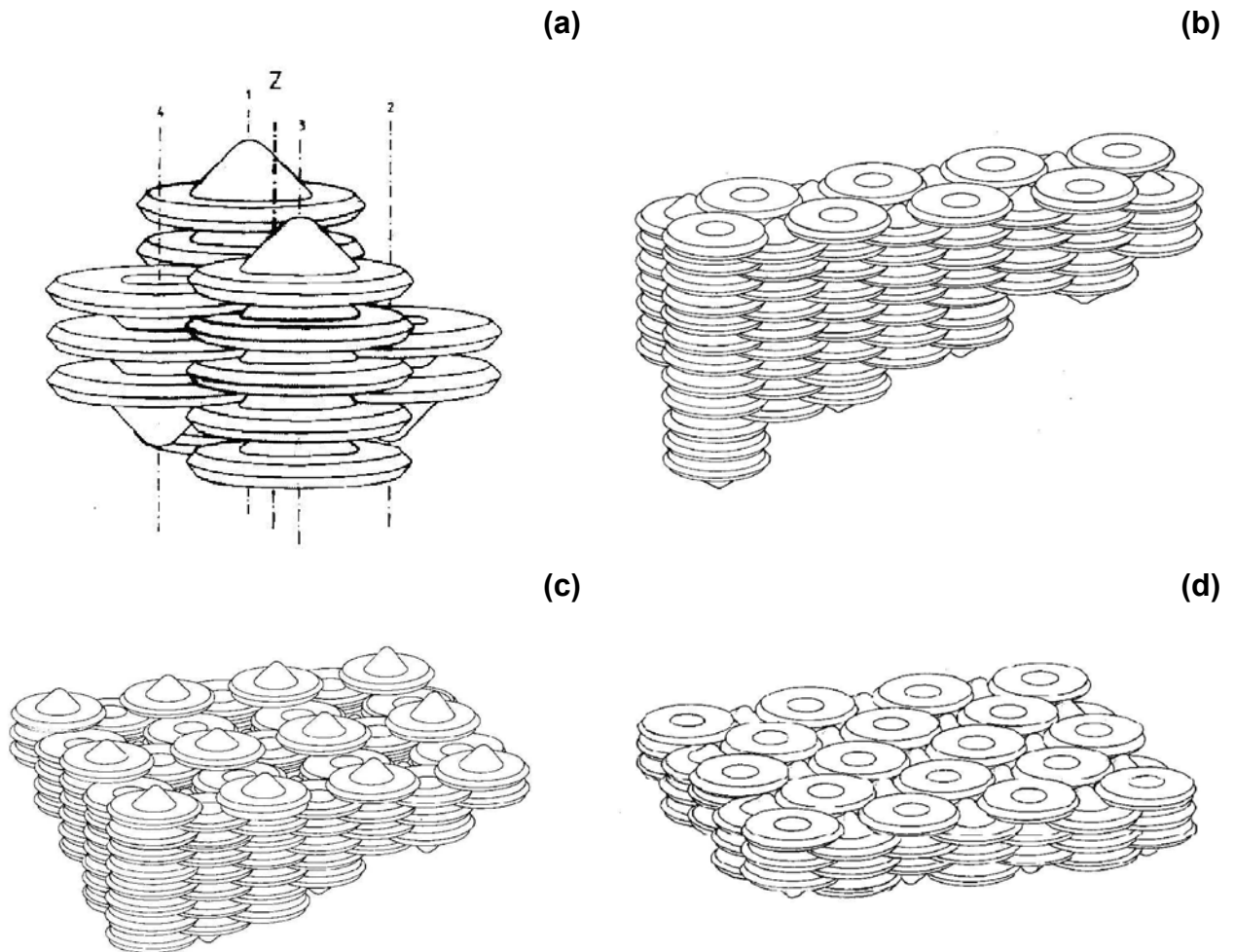
Fig. G16. Flying systems. These are the most highly developed arrangements of the Magnocraft. They provide a physical coupling of vehicles that belong to the same type, and usually are formed for the duration of interstellar travel.

(a) A honeycomb-like single cell of such a flying system. The example shown here contains four cigar-shaped complexes obtained by stacking together the following number of Magnocraft type K3: (1) six, (2) two, (3) five, and (4) three. Indexes 1 and 3 are used to mark the magnetic axes of the Magnocraft oriented in the upright position, indexes 2 and 4 mark the axes of the vehicles oriented in the inverted position. "Z" is the central axis of the cell (the outermost edge of all the Magnocraft forming this cell must touch "Z" axis). Figures G21 and G22 illustrate basic principles involved in the formation of the above cell. The single cell from this illustration may be extended by attaching rim-to-rim an even number of stacked, cigar-shaped complexes that would form further similar cell formations. Examples of extended flying systems obtained in this manner are shown in the next two parts of this illustration.

(b), (c), (d) Examples of unusual shapes that can be formed by the Magnocraft arranged into flying systems. Shown are: (b) panpipe, (c) honeycomb, and (d) platform.
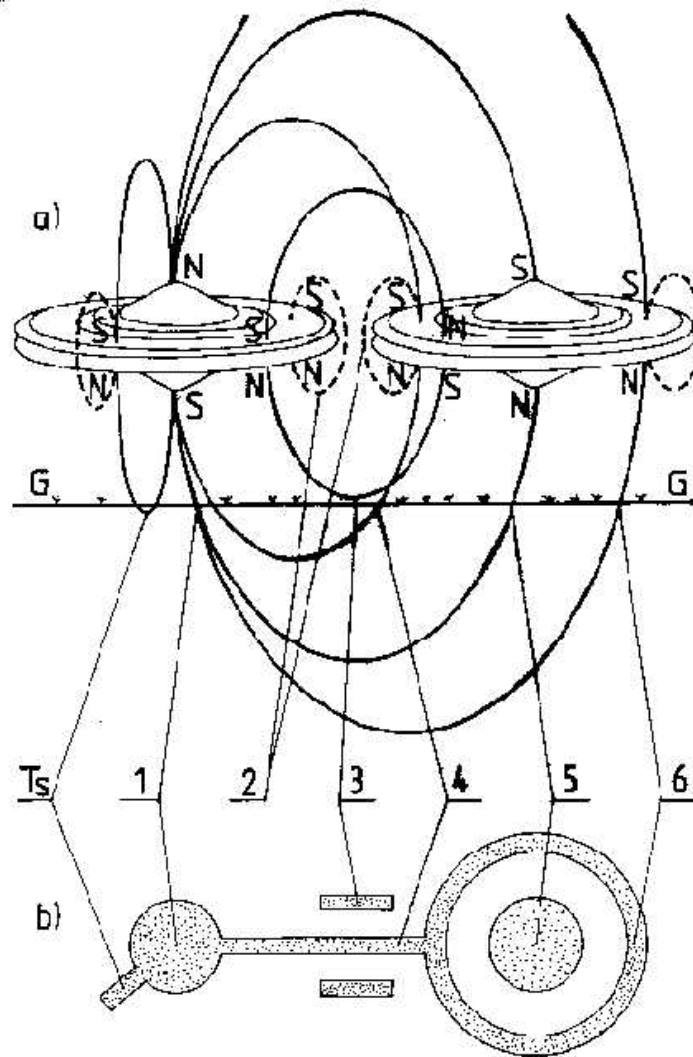
Fig. G17. An example of a flying cluster. Illustrated is one of the simplest cases of the linear clustering together of two spherical complexes type K6. The main advantages of the resultant configuration include: ability to couple together the Magnocraft of any possible arrangements and types (not only spherical complexes shown here), preserving the original configurations of vehicles that form the cluster, and flying the whole cluster with only one pilot. A flying cluster is obtained through the magnetic bonding of a number of independent vehicles which do not touch one another. Such bonding without physical contact is obtained by the formation of two opposite types of magnetic circuits: i.e. those that repel coupled vehicles {see circuits labelled (2) that are shown with a broken line} and those that simultaneously attract the vehicles {i.e. circuits (3) to (6)}. The function of the links for these circuits is performed by "unstable units", i.e. vehicles whose propulsors produce only lifting and attraction forces (i.e. no stabilization forces) - see the complex on the right. Note that any other vehicles or arrangements can be attached in addition to the above cluster, with the condition that between every two stable units an unstable unit is placed to link them together.

(a) A side appearance of this linear cluster. Illustrated are: the polarization of propulsors (N, S) in the coupled vehicles characteristic for the Northern Hemisphere; examples of magnetic circuits that provide each class of interactions required between both vehicles {i.e. separating (2), holding (4) to (6), tuning (3), and compensating (Ts)}; and the penetration of the ground (G-G) by these circuits {this penetration causes the formation of very distinctive landing marks shown in part (b)}. Note that to keep this illustration simple it has not been shown that every side propulsor of the unstable unit is either linked with the main propulsor of the stable unit by a holding circuit {see (6)} or is involved in a tuning circuit.

(b) An overhead view of a distinctive landing site which such a linear cluster produces if it hovers at a low height with the magnetic whirl mode of operation. The labels link each characteristic element of this site with the appropriate class of magnetic circuits that produces this element. Note that a change in the height of the vehicles must result in a slight alteration of the site's shape and main features.
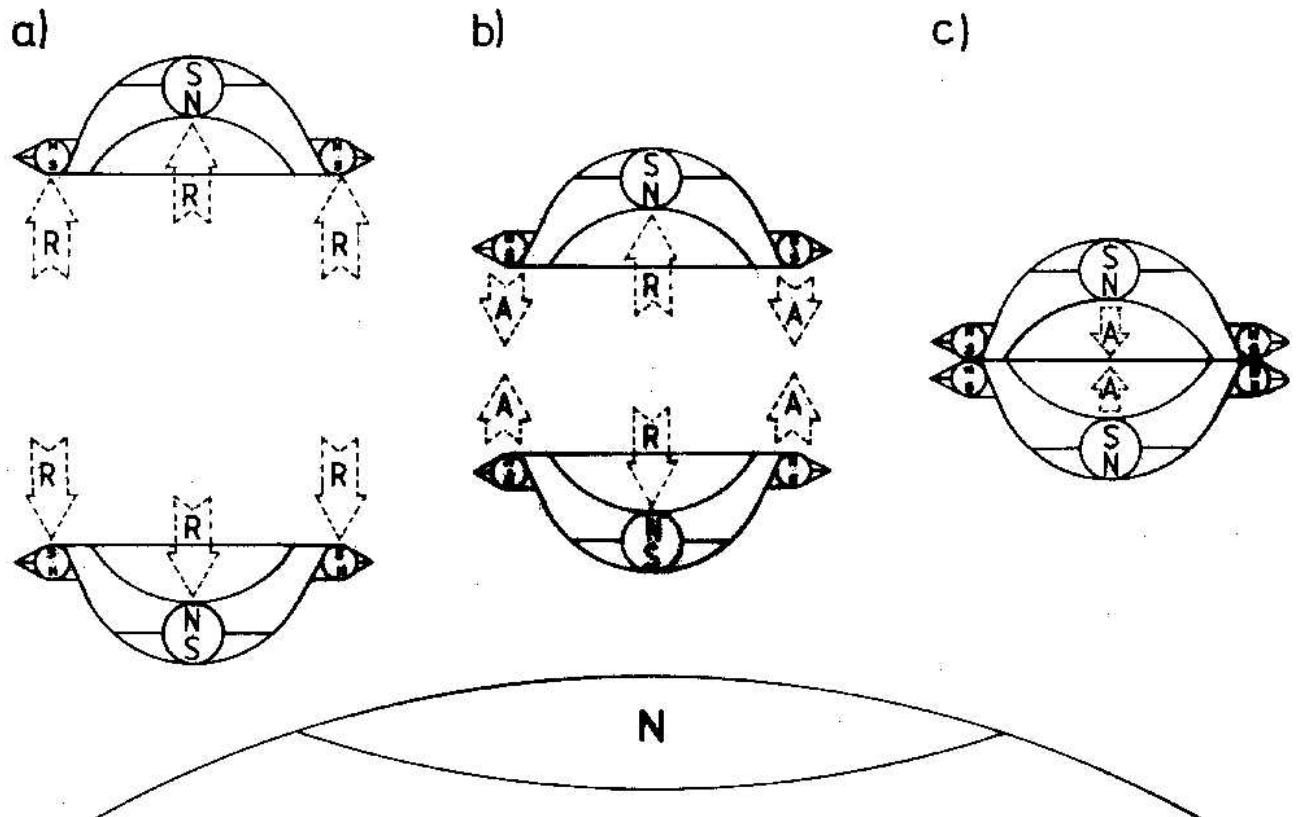
Fig. G18. The principle of coupling two Magnocraft into a spherical flying complex involving the so-called "routine through a detached configuration". The active vehicle, which undergoes all necessary transformations, is the lower one. The passive vehicle, to which the active Magnocraft is to be joined, is the upper spacecraft. The coupling routine consists of the following phases:

(a) Orienting. The effect of this phase is the reciprocal confrontation of the propulsors from both craft. These propulsors, however, only interact with repulsive (R) forces because they face each other with like magnetic poles.

(b) Docking. The effect of this phase is the formation of a detached configuration, in which both vehicles magnetically cling to each other because of the equilibrium of their mutual repulsion (R) and attraction (A). In the docking phase the vehicles do not make physical contact with each other.

(c) Linking. As the effect of this phase the spherical flying complex is formed in which both vehicles are physically linked and kept together by the forces of mutual attraction (A) of all their magnetic propulsors.
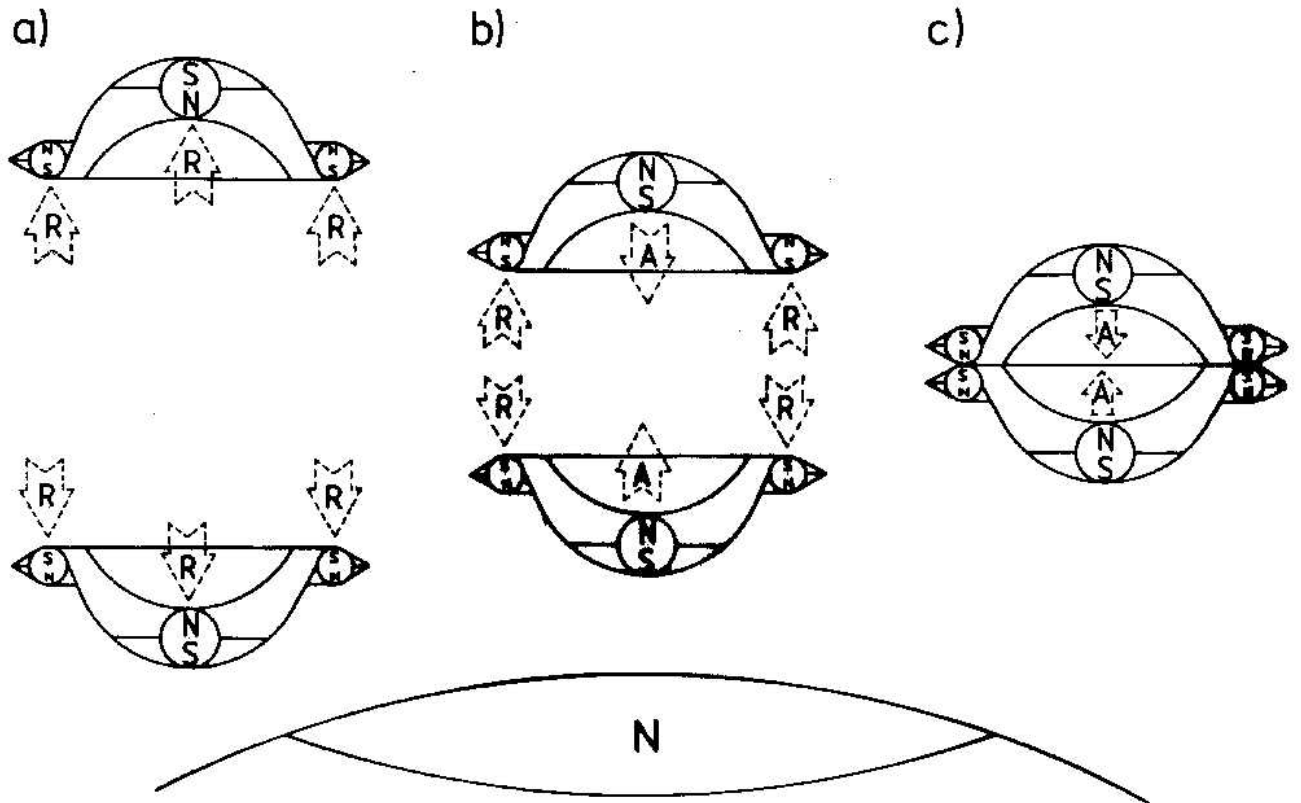
Fig. G19. The principle of coupling two Magnocraft into a spherical flying complex, alternative to the principle shown in Figure G18. The routine illustrated here is called the "routine through a semi-attached configuration". In this illustration the active vehicle is the upper one, whereas the passive vehicle is the lower one. Shown are:
        (a) The orienting phase.
        (b) The docking phase.
        (c) The linking phase.
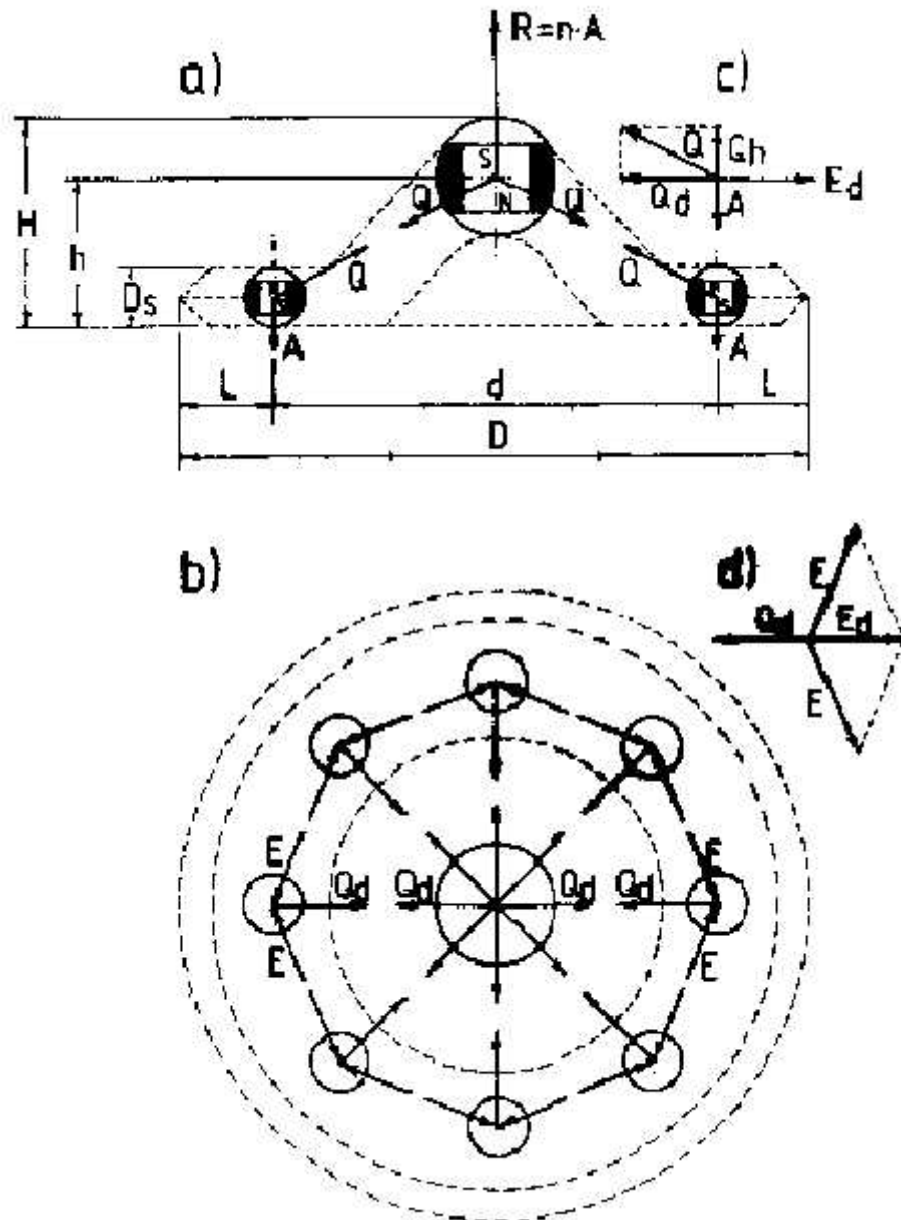
Fig. G20. The forces of magnetic interactions caused by the Magnocraft's propulsors. Shown are: R, A - repulsion and attraction of the vehicle's propulsors by the environmental magnetic field (the action of these forces R and A tenses the Magnocraft in the axial direction); Q - relative attraction of the side propulsor and the main propulsor; Qd - radial components of the Q forces (compressing the Magnocraft in the radial direction); Qh - axial components of the Q forces (compressing the vehicle in the axial direction); E - relative repulsion between two side propulsors; Ed - the result of the repulsive forces E acting on a particular side propulsor (the set of the Ed forces tenses the vehicle in the radial direction).

(a) Sectional view of the Magnocraft presenting forces acting in an axial plane. The interpretation of the dimensions involved is shown in an outline of the K3 type of Magnocraft drawn with a broken line.

(b) Plan view of the Magnocraft showing forces which act in the radial plane.

(c) Equilibrium condition of forces acting in the axial plane, illustrated using vector notation.

(d) Equilibrium condition of forces acting in the radial plane illustrated using vector notation.
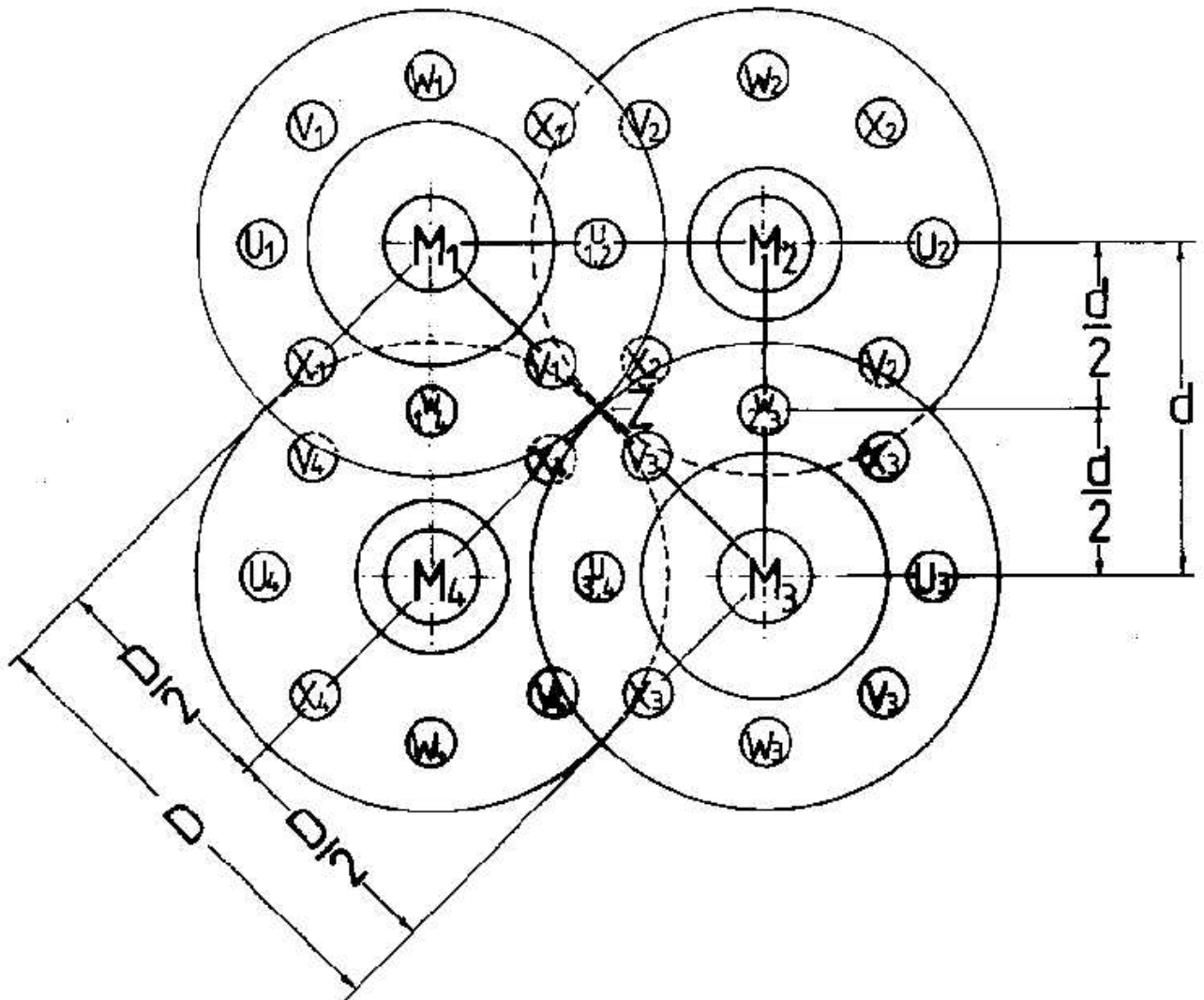
Fig. G21. An overhead view of one cell of the flying system arranged from four stacked cigar-shaped complexes joined rim-to-rim by the forces of attraction from their side propulsors. The diagram illustrates that the dimensions of the Magnocraft must obey the equation: D=d√2 (see also Figures G16 & G23, and equation G9). Symbols: M - main propulsors; U, V, W, X - four groups of side propulsors the output of which pulsates with mutual phase shifts; Z - central axis of the cell (the outer edge of each Magnocraft forming this single cell of the flying system must touch the Z axis); d - the nominal diameter of the circle on which the side propulsors within each spacecraft are located; D - the outer diameter of the Magnocraft. Indexes 1 and 3 are attributed to the spacecraft oriented in the upright position, indexes 2 and 4 are assigned to the spacecraft in the inverted position.

(a)
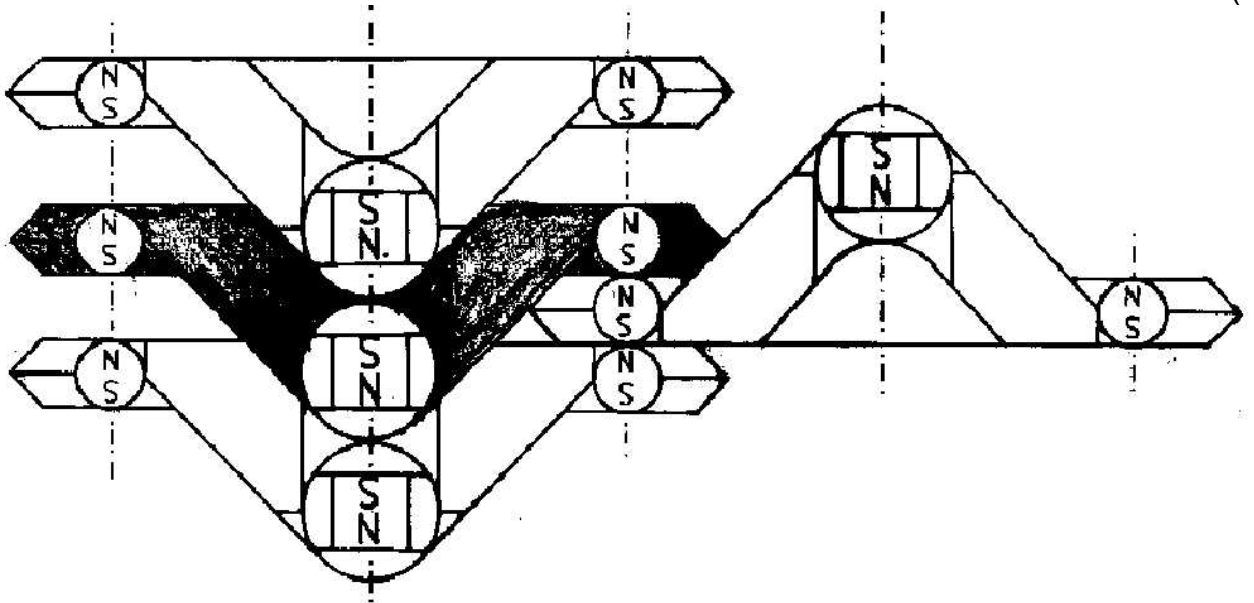
(b)
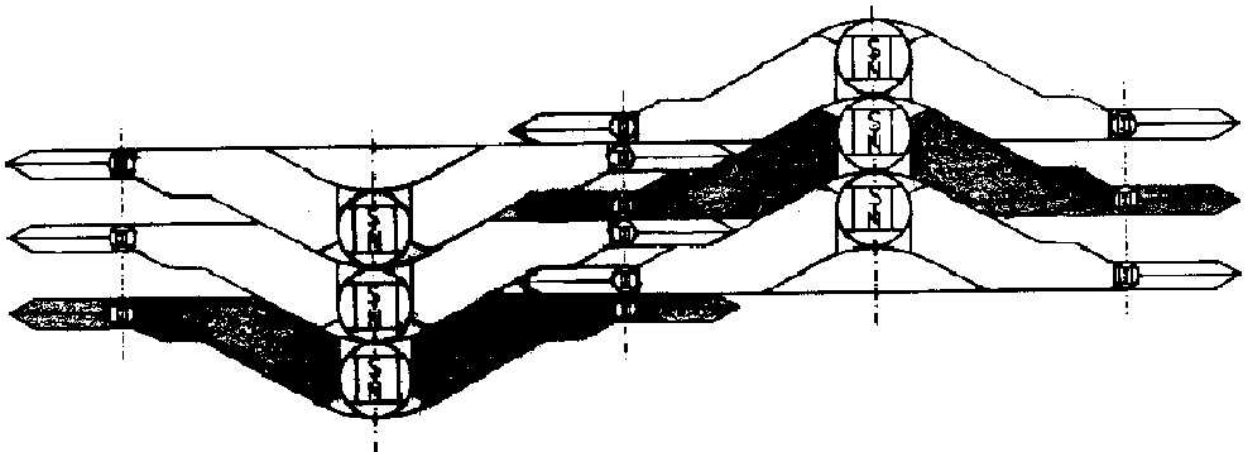
(c)
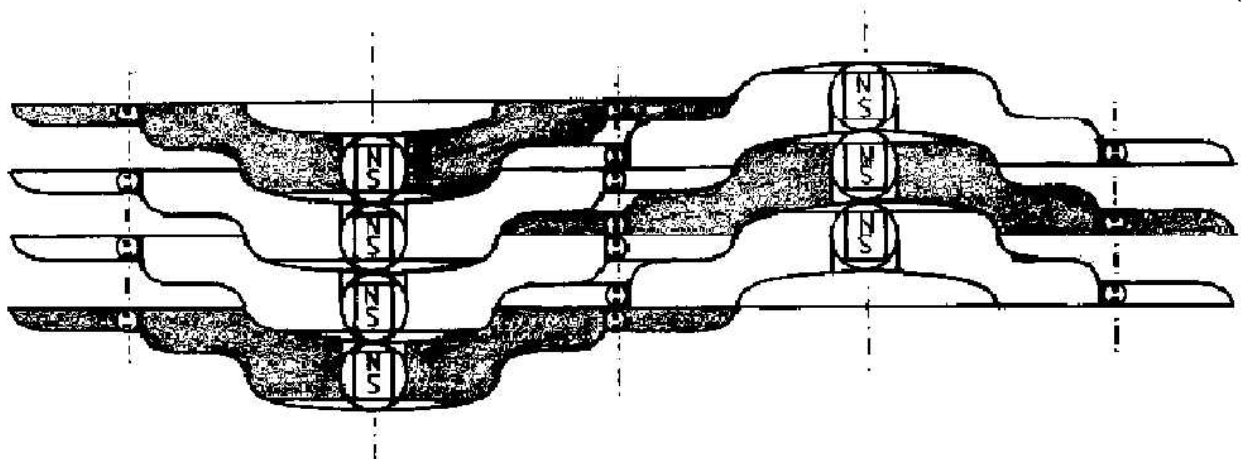
Fig. G22. The principles involved in the meshing of flanges in flying systems. These principles are illustrated with examples of vertical cross sections of pairs of co-operating cigars taking part in the formation of such systems. As shown, the cigars coupled rim-to-rim are oriented in reverse of each other (see Figure G16). The joining forces are created by the positioning of the side propulsors of the coupled spacecraft in a straight line so that each is able to attract the propulsor of its counterpart. The diagram presents the coupling of the following types of Magnocraft: (a) K3, (b) K6, and (c) K7.

$$K = \frac{d}{h} = \frac{D}{H} = \frac{n}{4} + 1$$

$$D_M = H \cdot (2 - \sqrt{2})$$

$$L = 0.25 \cdot K \cdot D_M$$

$$D_S = \frac{1}{\sqrt[3]{n}} \cdot D_M$$

$$G_S = D_M - D_S$$
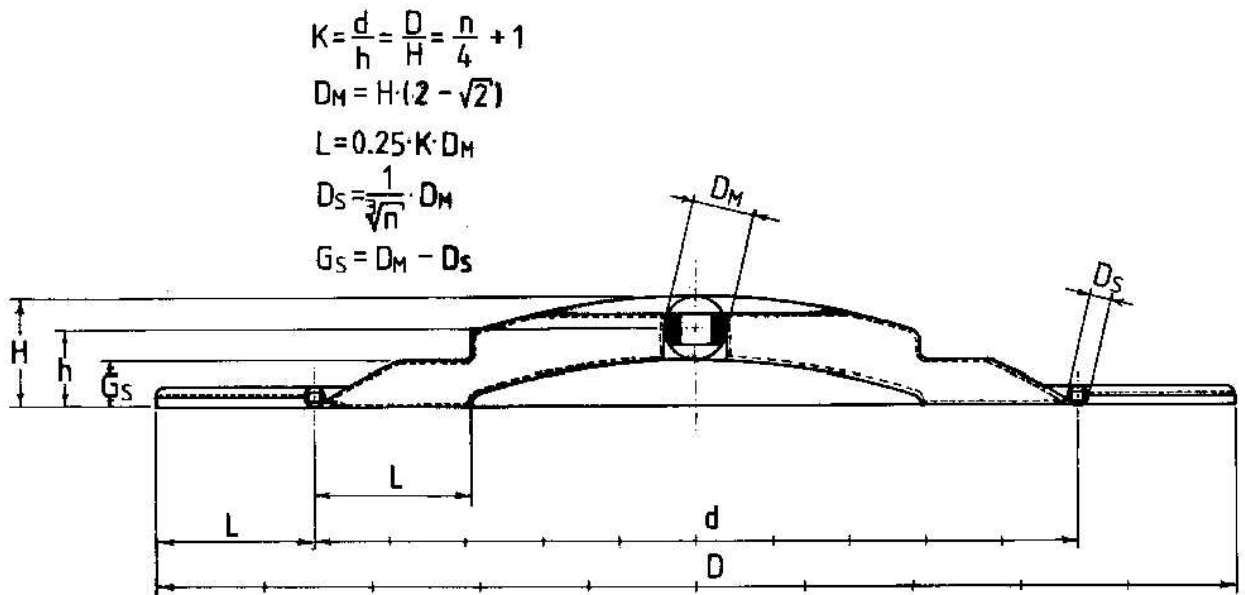
Fig. G23. A compendium of basic equations which combine the most important parameters describing the shape of the Magnocraft's shell. An interpretation of the dimensions involved is shown in an outline of the K10 type of this vehicle. Symbols: "H" is the height of the craft (base to top); "D" is the outer diameter of the vehicle (it is expressed by the equation $D = 0.5486 \cdot 2^K$, thus for the Magnocraft type K10 it is equal to D = 561.75 metres); "DM" and "Ds" are the diameters of the spherical casings that cover the main and side propulsors; "K" represents the "Krotność" factor which in consecutive types of Magnocraft takes the integer values ranging from K=3 to K=10 (for the vehicle type K10 this factor takes the value K=10); "n" represents the number of side propulsors.
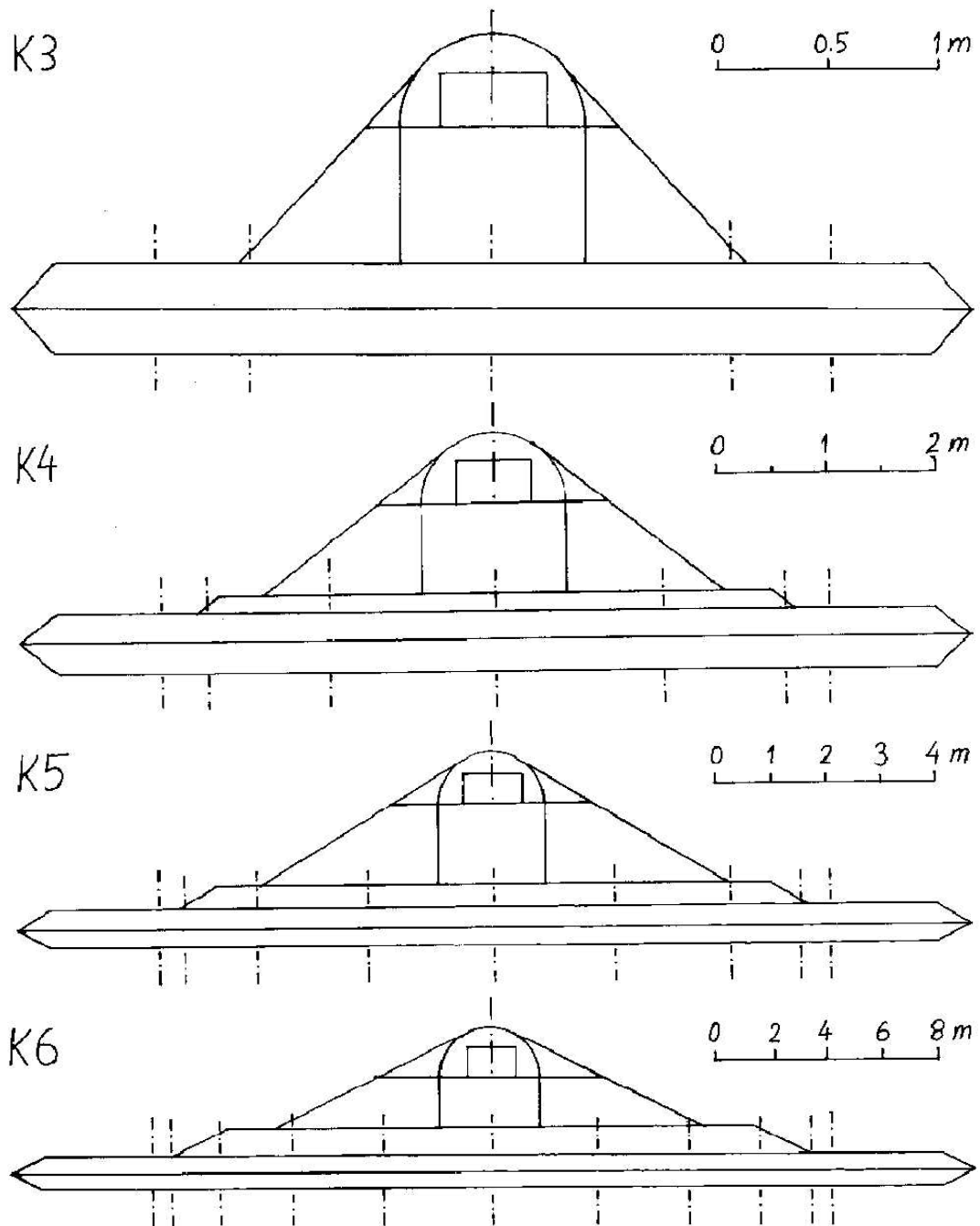
Fig. G24 (a). The side outlines for basic types of Magnocraft. Shown are types K3 to K6. The Magnocraft of these types are characterised by a lens-like (i.e. sharp like edges of an optical lens) side flange. These outlines are obtained when equations that describe the Magnocraft (listed in Figure G23) are resolved for each individual value of the "K" factor. Shown are the shapes of the crew cabin, the flange with side propulsors, and the transparent top bowl with the main propulsor. Because each type of Magnocraft looks different, knowledge of the above outlines allows for fast identification of the type of vehicle in question. Although this diagram does not illustrate the vehicles' underneath, each type of the Magnocraft has a symmetrical concavity in its base which exactly corresponds to the topside convexity (in this way Magnocraft of the same type are able to stack one on top of the other, forming the cigar shaped configurations shown in Figure G8).

Fig. G24 (b). The side outlines for basic types of Magnocraft. Shown are types K7 to K10. The Magnocraft of these types are characterised by a by cylindrical (i.e. vertical and flat) peripheral of the side flange. These outlines are obtained when equations that describe the Magnocraft (listed in Figure G23) are resolved for each individual value of the "K" factor. Shown are the shapes of the crew cabin, the flange with side propulsors, and the transparent top bowl with the main propulsor. Because each type of Magnocraft looks different, knowledge of the above outlines allows for fast identification of the type of vehicle in question. Although this diagram does not illustrate the vehicles' underneath, each type of the Magnocraft has a symmetrical concavity in its base which exactly corresponds to the topside convexity (in this way Magnocraft of the same type are able to stack one on top of the other, forming the cigar shaped configurations shown in Figure G8).

Fig. G25. Compendium of easy to use methods of identifying the type of Magnocraft through determining its type factor "K". (Because all technical details of this spaceship are derived from "K", when this factor is known, the rest of the vehicle's dimensions and parameters can be learned from Table G1 or calculated from a set of appropriate equations listed in Figure G23.)

#1. The method involving proportion of main dimensions. It allows for the direct determination of the vehicle's type factor "K", through measurement of the apparent height "H" of the observed spacecraft (base to top) and then determining how many times this height is contained within the outer diameter "D" of the vehicle's flange (the result of the division K=D/H represents the value of "K" which must take one of the following numbers type "integer": K=3, K=4, K=5, K=6, K=7, K=8, K=9, or K=10). In the above example the apparent height "H" is contained three times in the vehicle's apparent diameter "D", thus the illustrated vehicle is type K3 (i.e. its type factor is equal to: K=3).

#2. The method involving counting the number "n" of the vehicle's side propulsors. The "K" factor is then determined from the following equation: K=1+n/4 (see equations B1 and G6).

#3. The method involving measurement of the nominal diameter "d" of the circular marks scorched during landings on the ground by the vehicle's side propulsors. The relationship between this diameter and the "K" factor is: $d = (0.5486/\sqrt{2})*2^K$ [metres] (see equation G30). Thus knowing "d", the value of "K" can either be calculated from this equation or learned from Table G1.

#4. The method involving identification of the vehicle's outlines by matching with the shapes of all eight types of Magnocraft listed in Figure G24.
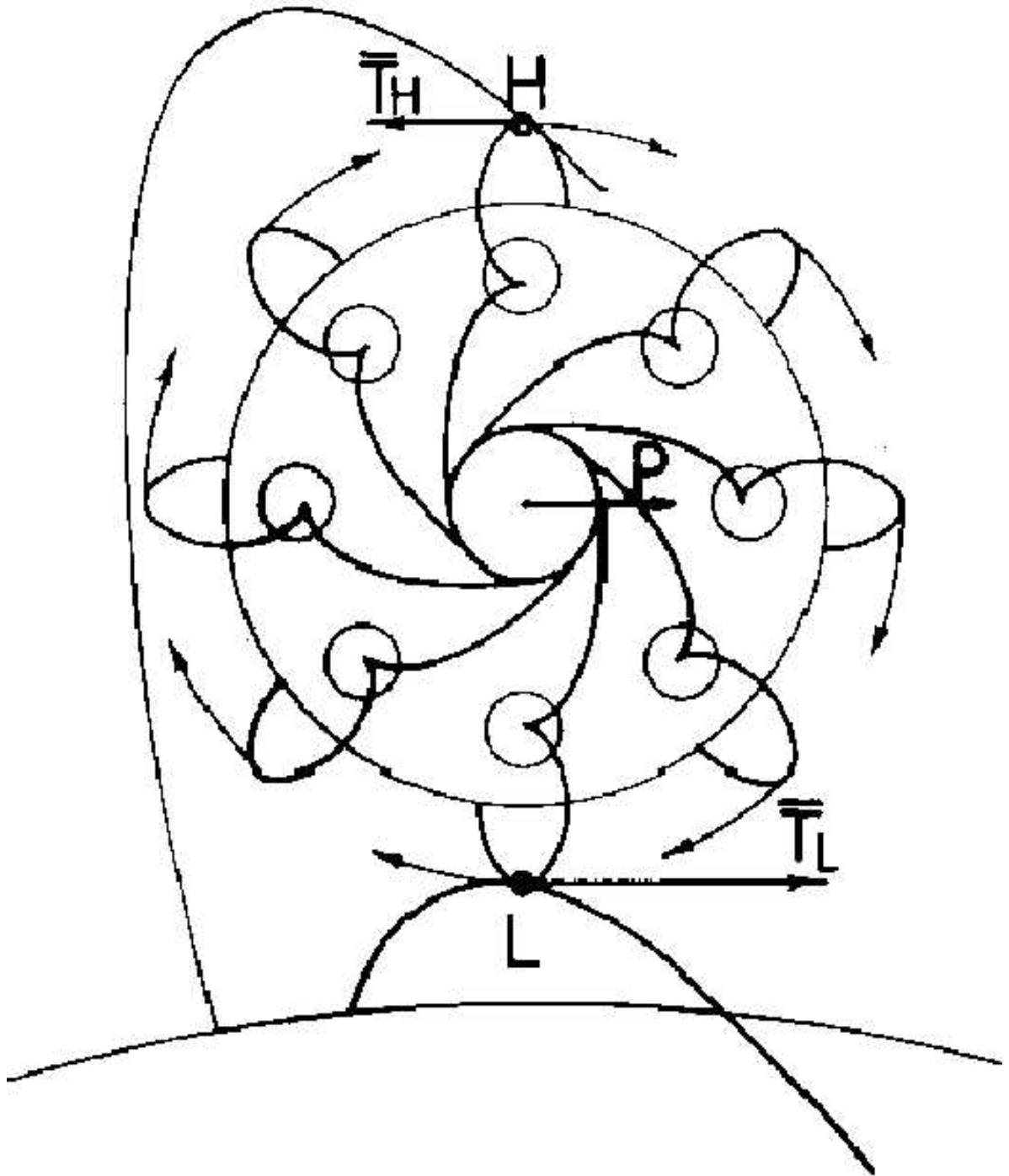
Fig. G26. The principle involved in the creation of a latitudinal thrust force by the magnetic whirl of the Magnocraft. In two points, higher "H" and lower "L", a different density of the environmental magnetic field prevails. This environmental field opposes the rotation of the magnetic whirl. It forms elemental forces of magnetic resistance "TH" and "TL" which counteract the rotation of the vehicle's field (this resistance can be compared to that posed by the ground to a rotating wheel). The value of these elemental forces is proportional to the local densities of the environmental magnetic field. Therefore their integration along the perimeter of the vehicle's whirl produces the resultant thrust force "P" acting on the Magnocraft, causing its latitudinal flight.
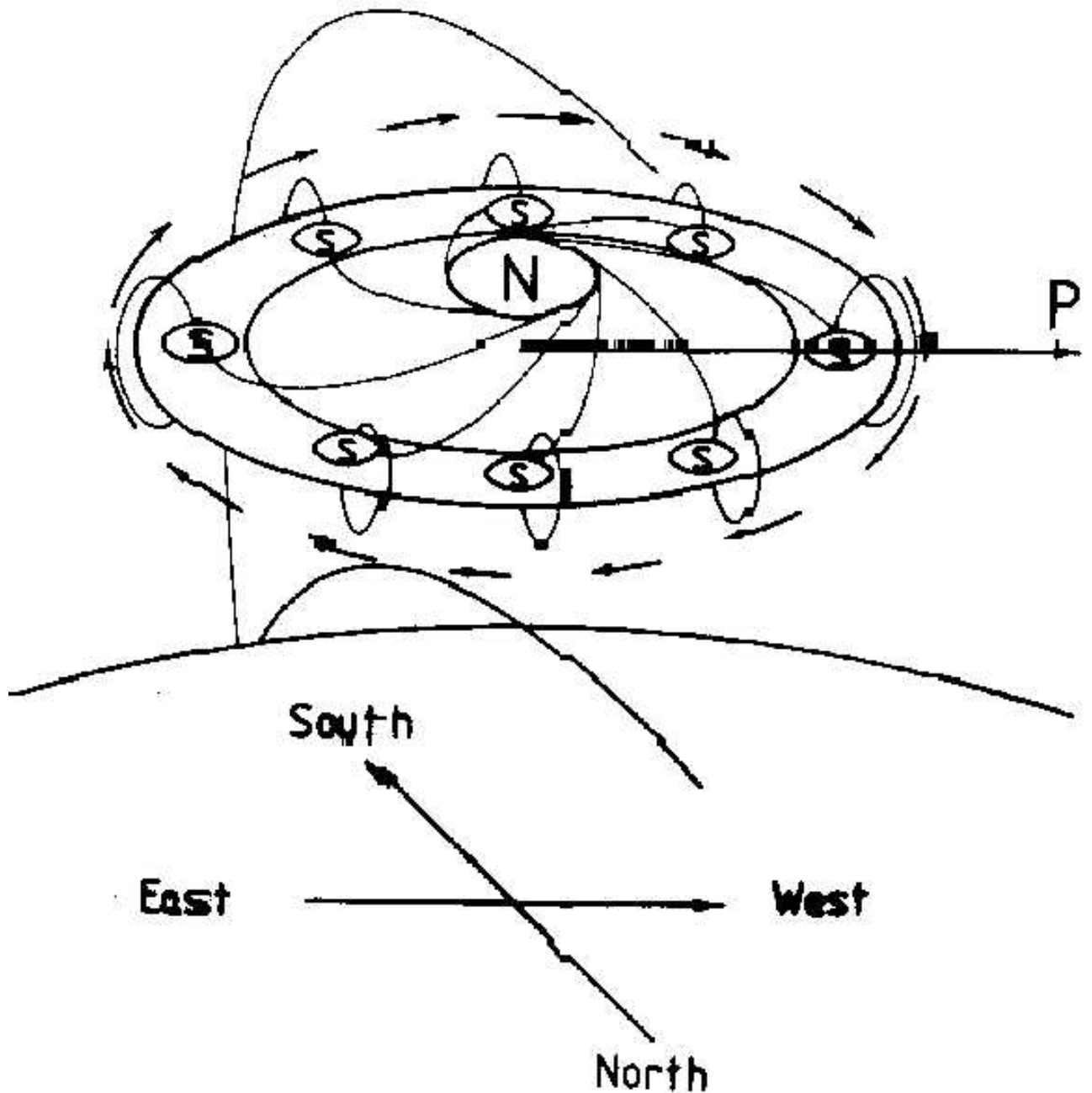
Fig. G27. The method called the "rolling sphere rule" for determining the direction in which the Magnocraft is propelled by a particular spin of its magnetic whirl. In this method, the vehicle's whirling magnetic field is replaced by an imaginary sphere which rotates around the vehicle's central axis and whose surface touches the ground. The direction this sphere would roll is also the direction in which a given magnetic whirl propels the Magnocraft. In the illustrated example, the direction of the whirl's spinning would "roll" the imaginary sphere from east to west. Therefore the diagram presents the "solar" magnetic whirl which creates the thrust force "P" that propels the spacecraft in an east-to-west direction.
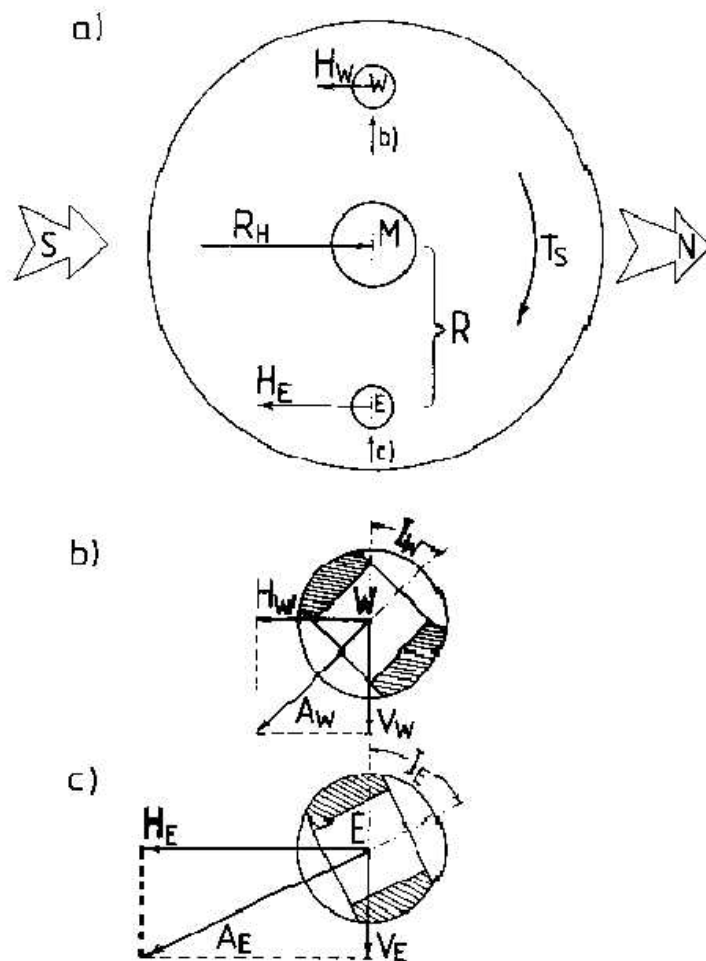
Fig. G28. The principle for the creation of a rotary torque "Ts" which counteracts the magnetic whirl reaction and allows for control over the rotation of the Magnocraft. The vehicle is illustrated flying in a direction from south to north. The meridional thrust force "RH" is produced by the main propulsor "M". The side propulsors located on the eastern "E" and western "W" sides of the Magnocraft produce stabilization forces "AE" and "AW" which are greater than such forces from the other side propulsors. The inclination angles "IE" and "IW" of these side propulsors are so controlled that each propulsor produces the same value of the vertical component of the stabilization forces, i.e. VE = VW. But the horizontal components of the stabilization forces are not equal, and thus the side propulsor located in the eastern part of the vehicle dominates over the western one, i.e. HE > HW. The difference in the values of both these horizontal components acting on the radius "R" produces the rotary torque: Ts=R(HE - HW).

     (a) The overhead view of the flying Magnocraft illustrating the forces acting in the horizontal plane and the propulsors which produce them. For simplicity, only two side propulsors, vital for producing the rotary torque, are shown. Of course, during the actual flight, all the side propulsors would usually be operational (except that the output from the other side propulsors would not be so high).

     (b) The vertical cross-section of the side propulsor located in the western (W) part of the Magnocraft. Note that the total stabilization force "AW" produced by this propulsor can be resolved into the vertical component "VW" and horizontal component "HW".

     (c) The vertical cross-section of the side propulsor in the eastern part of the Magnocraft. Note that by controlling the inclination angle "IE", a change in the relation HE/VE can be obtained.
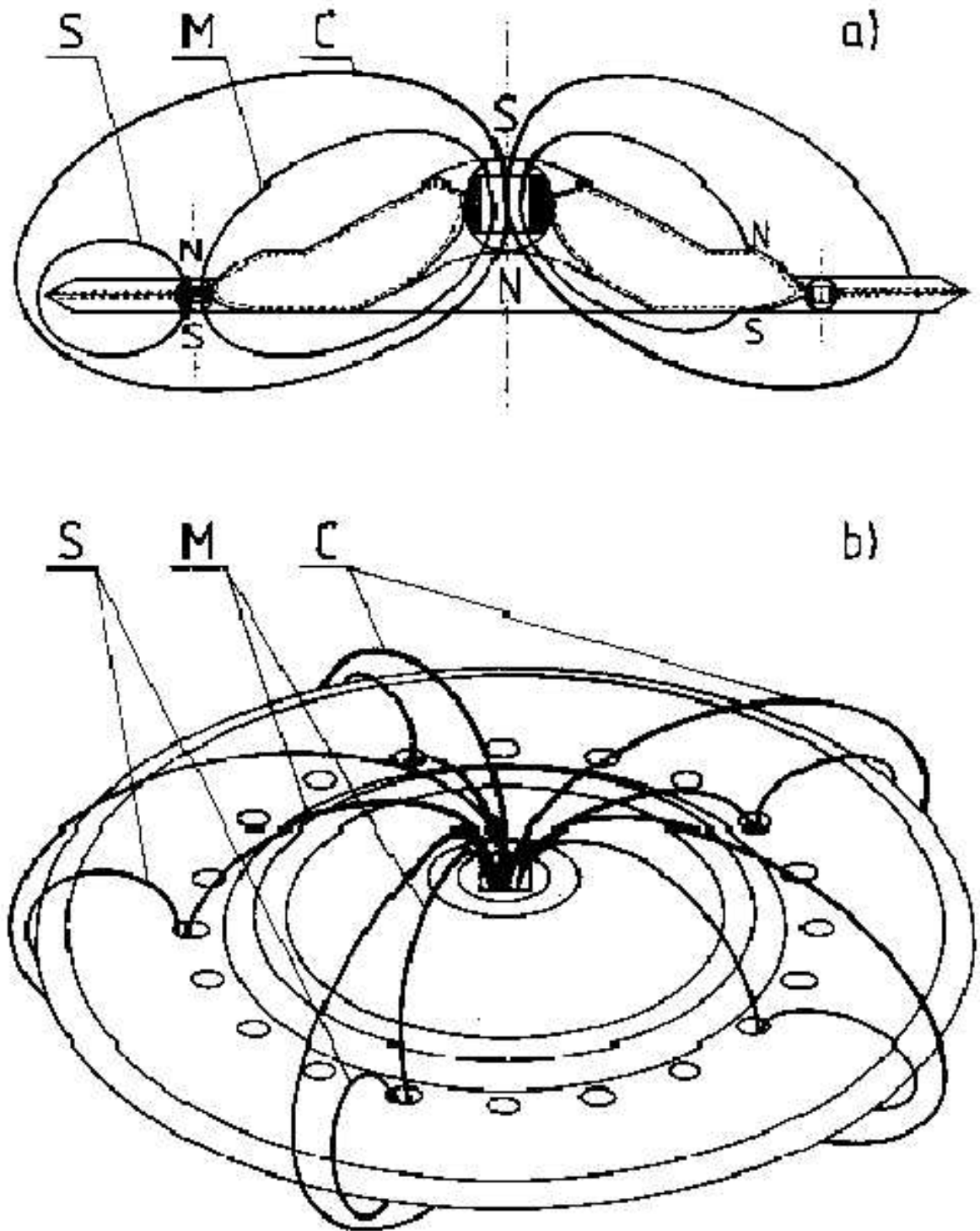
Fig. G29. Magnetic circuits formed by the K6 type of Magnocraft producing a stationary (i.e. non-whirling) magnetic field. All three types of circuits are illustrated, i.e. the central "C", main "M", and side "S". Symbols: N, S - magnetic poles of the vehicle's propulsors.

(a) A vertical cross-section of the Magnocraft illustrating the path of particular circuits.

(b) An overhead view of the Magnocraft illustrating the distribution of the magnetic circuits around the vehicle's shell. The vehicle is shown as if it is operated in the "four-circuit mode".
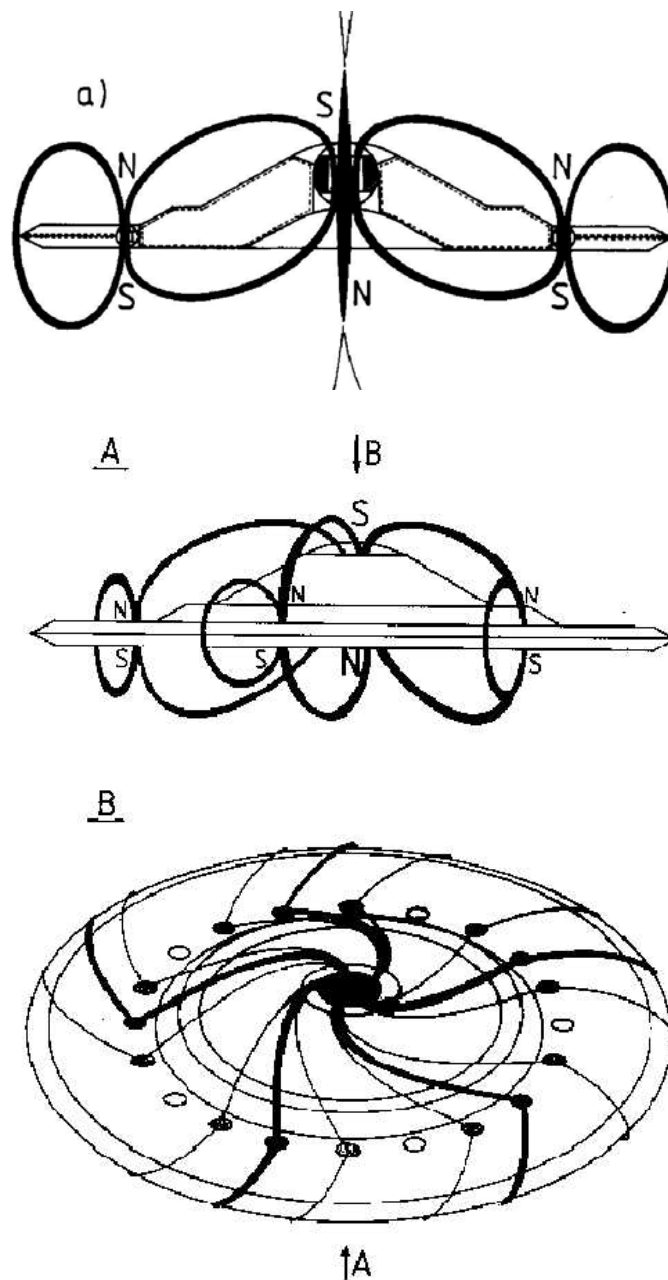
Fig. G30. Spinning magnetic circuits of the Magnocraft type K6. The formation of a magnetic whirl is illustrated. The strands of the magnetic field presented here should be visible on photographs taken with a very short time of exposure, i.e. when the motion of the strands is unnoticeable on a single frame. All three magnetic circuits are present. In the central magnetic circuit two "slip points" are indicated. Because the non-whirling magnetic force lines do not ionize air, outwards from these slip points the central circuit becomes invisible. Symbols: N. S - magnetic poles in the vehicle's propulsors.

(a - top) A vertical cross-section of the Magnocraft illustrating the polarization of propulsors and the vertical course of the whirling magnetic circuits.

(b - middle) A side view of the Magnocraft illustrating the main and side magnetic circuits in one of their many possible positions. The location of the field's strands reflects the situation shown in diagram (c).

(c bottom) An overhead view of the Magnocraft presenting the spinning magnetic circuits frozen in one of their many positions. Notice that the thickness of the successive strands of the field has a sinusoidal distribution, i.e. if the side propulsors "V" have their maximal output, the propulsors next to them (i.e. "U" and "W") are in the mean value of their output, whereas propulsors "X" produce no output at all - see also Figure G31 "b".
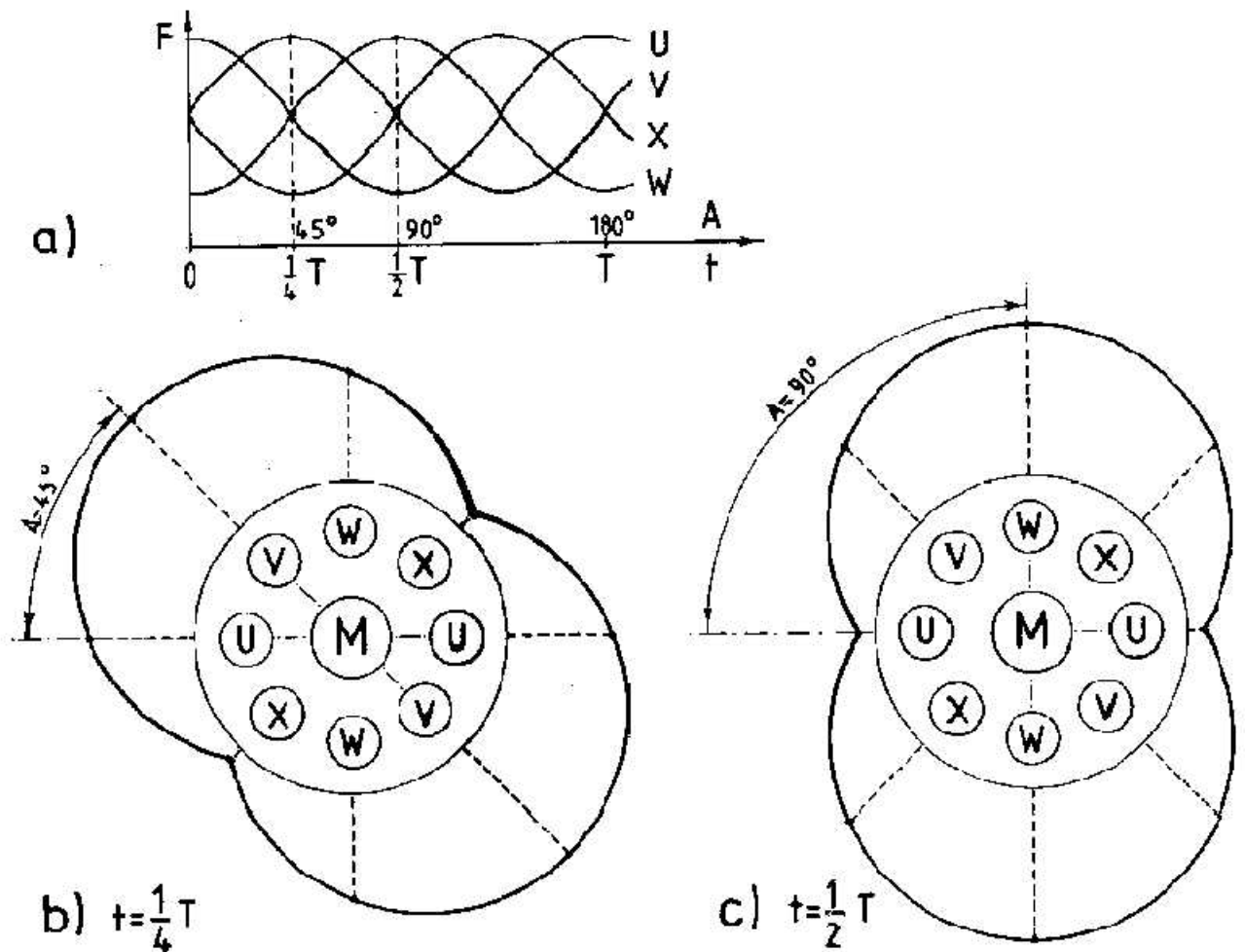
Fig. G31. The principle of the magnetic whirl formation (illustrated on an example of a K3 type of Magnocraft).

(a) The pulsation curves for the outputs from the side propulsors. The sequence of phase-shifting in the pulsation of output in successive side propulsors is illustrated. The broken lines indicate two moments of time for which the parts (b) and (c) of this Figure present the distribution of a magnetic field. Symbols: F - value of the magnetic flux; t - time; T - period of the field pulsation; A - angular position of a magnetic wave maximum; U, V, W, X - curves of the output time variation for successive side propulsors.

(b) The distribution of a magnetic field around the K3 type of Magnocraft at the moment of time t = $\frac{1}{4}$T. The outlines of the vehicle are shown from an overhead view. The lengths of radial broken lines coming outwards from the side propulsors are proportional to the value of output produced by these propulsors. The thick continuous line indicates the distribution of a magnetic field around the vehicle. The illustration shows the positions of two magnetic waves formed by the output from the side propulsors. Symbols: M - main propulsor; U, V, W, X - side propulsors; A - angular position of the magnetic wave under consideration - here this wave is at 45 degrees.

(c) The distribution of a magnetic field at the moment of time t=1/2T. Notice that the maximum of the magnetic wave now occupies the angular position A=90 degrees.
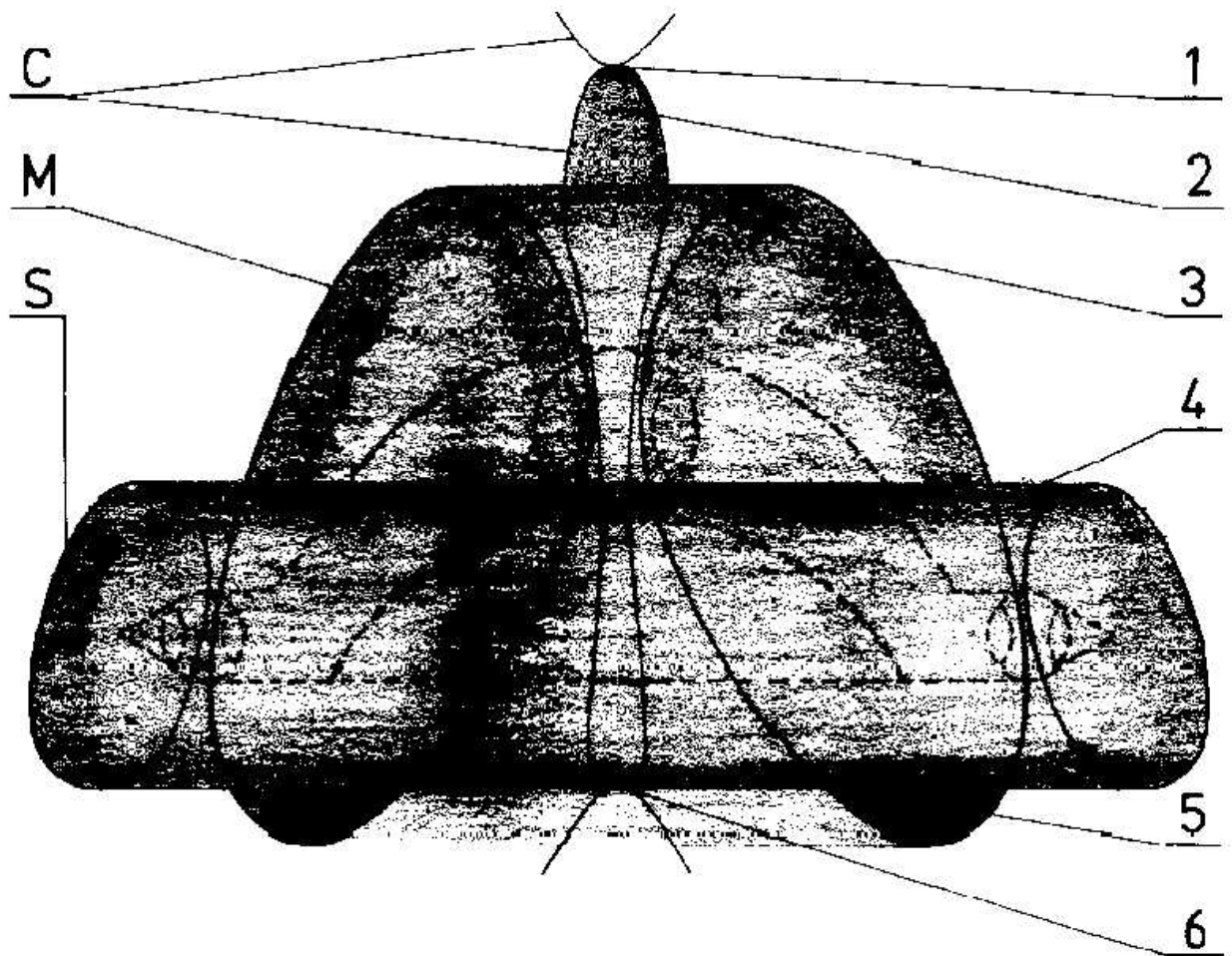
Fig. G32. An example of the "ionic picture of a whirl". This picture represents the apparent shape of the magnetic whirl surrounding an operational Magnocraft (illustrated above is a whirl formed by a motionless single Magnocraft type K3). The visible part of the ionic picture is formed from particles of ionized air (whose spin follows the rotation of force lines of the magnetic field around the central axis of the spacecraft). The outline of the vehicle is indicated by a broken line. Continuous lines illustrate the path of the three types of magnetic circuits formed from the output of the Magnocraft's propulsors, i.e. C - central circuit looping through the main propulsor only; M - main circuits passing through the main and side propulsors; and S - side circuits looping through the side propulsors only. The force lines of these circuits are kept spinning permanently. The blackened areas indicate the shape which appears to an eye-witness. The characteristic features of this shape are: 1 - the "upper slip point" of the central pillar; 2 - the pillar of central swirling; 3 - the block of main swirling; 4 - the flange of side swirling; 5 - the bulges of the lower part of the main swirling; 6 - the "lower slip point" usually concealed behind the main and side swirlings. Note that the motion of the Magnocraft may change (disperse) the visible shape of the magnetic whirl presented here.
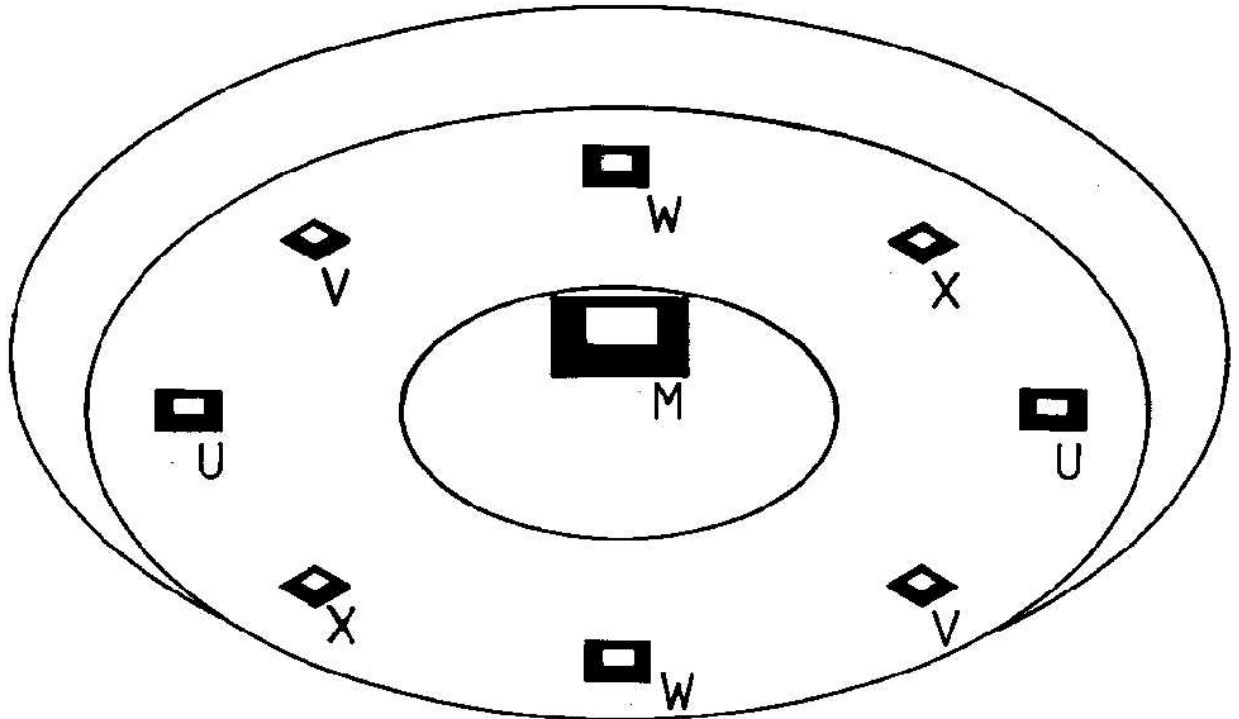
Fig. G33. General view looking upward at a K3 type Magnocraft. Layers of ionized air at the outlets of the propulsors are indicated. These outlets are shown as if the twin-chamber capsules of all propulsors operate in the inner flux prevalence mode (see also Figure F5). When the light is subdued these layers should be visible. Blackened areas indicate the outlets of the side magnetic propulsors (marked U, V, W, X). When the Magnocraft flies in the Southern Hemisphere, the side propulsors should emit a reddish-yellow light because their North (N) magnetic poles are oriented downwards. Crossed lines show the outlet of the main propulsor (marked M), which in the Southern Hemisphere should emit a blue-green light because its South (S) magnetic pole points downwards. Note that these colours are reversed (i.e. a reddish-yellow replaces a blue-green and vice verse) when the Magnocraft flies in the inverted position or changes hemispheres. Also, when viewed from overhead, the outlets of the same propulsors have colours which are the reverse of those seen from below.
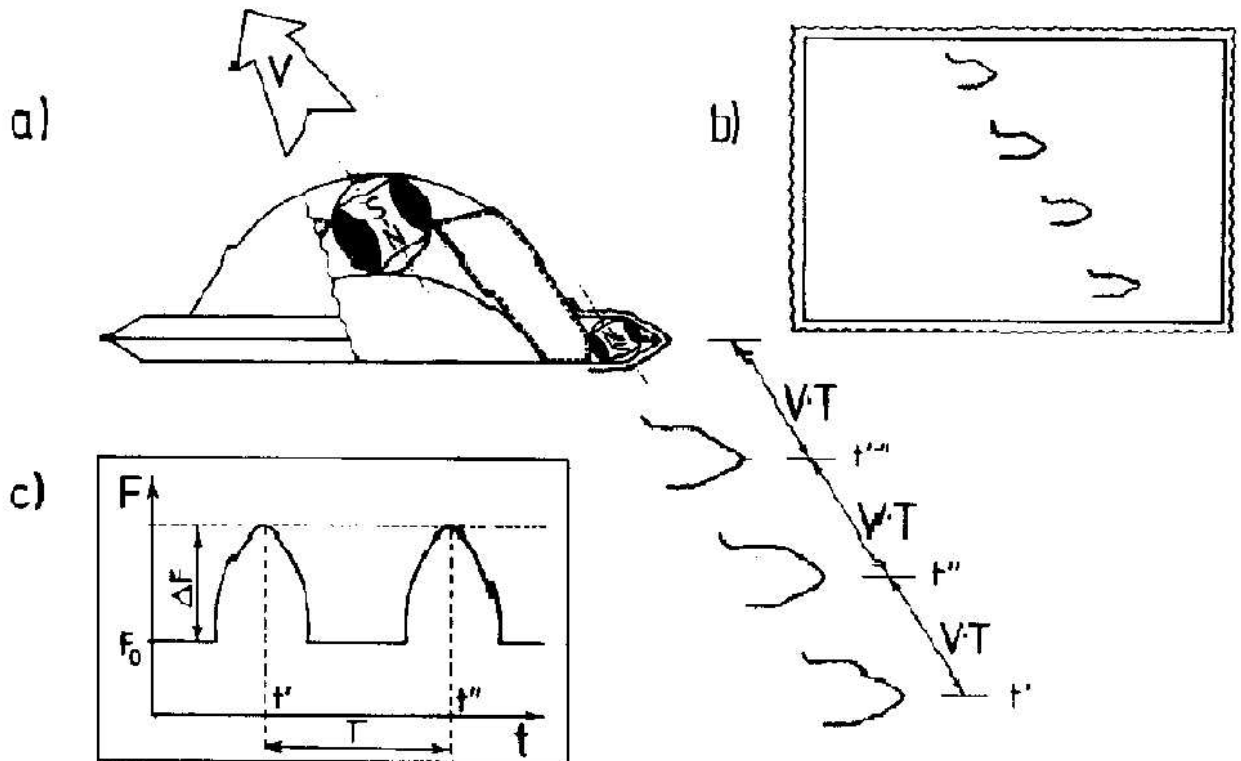
Fig. G34. The principle of forming a multiple image of the propulsors' outlets on night-time photographs of the Magnocraft taken when it flies with a throbbing mode of operation.

(a) Outline of the spacecraft with an indication of the ionized air layers at the outlets of a side propulsor. Symbols: V - speed vector, T - period of magnetic flux (F) pulsation, t - time.

(b) Photograph of this spacecraft taken at night. Only the flashes from the air ionized at the outlets of a propulsor are visible in darkness. The spreading of these flashes indicates the movement of the propulsor during the time of film exposure.

(c) Curve of a variation in time (t) of the magnetic flux (F) produced by the side propulsors of the Magnocraft. This variation corresponds to the beat-type curve explained in Figure F6. Such a field ionizes the air only when its value goes through a "peak".
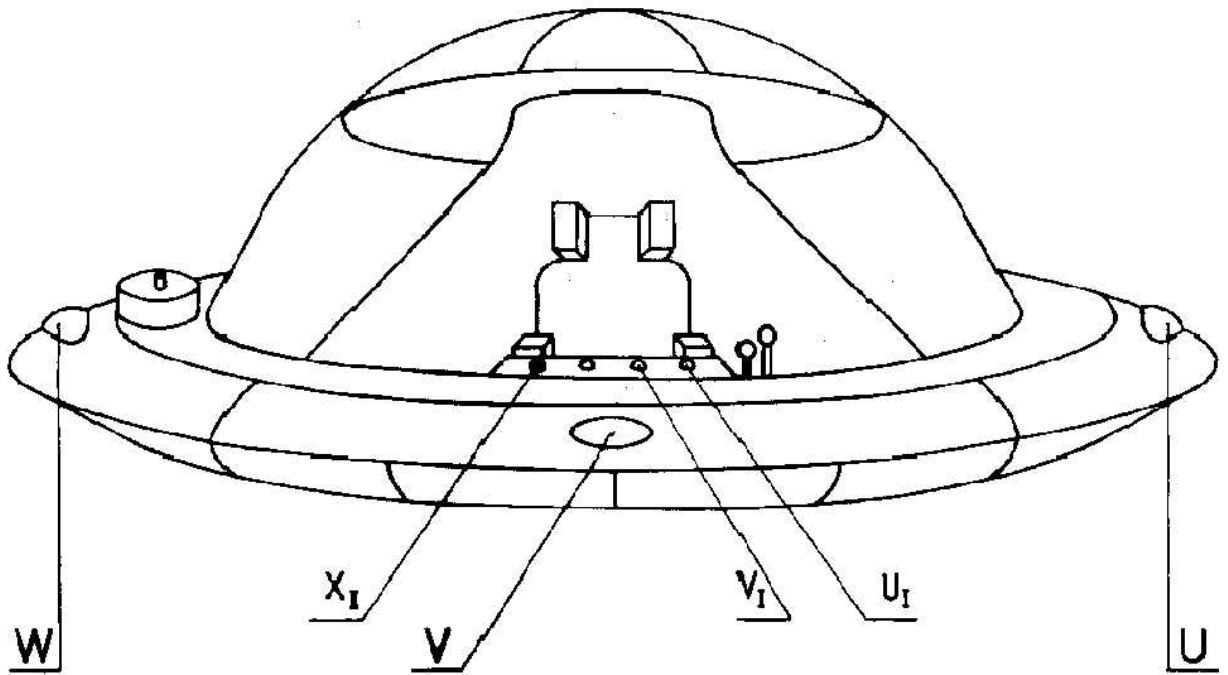
Fig. G35. The location of SUB system lamps in the Magnocraft. The capital letters U, V, W, X are assigned to the lamps installed on the vehicle's flange. The small letters ui, vi, wi and xi label the four smaller versions of these lamps installed on the pilot's control panel.

The SUB system of lamps indicates the Magnocraft's mode of operation. This system is an advanced version of the navigation lights used in present aeroplanes. The colour of the light flashed by each lamp reflects the state of the magnetic field produced by the group of side propulsors marked with the same letter with which this lamp is labelled (see also Figure G31), whereas the dynamic state of colours from all lamps simulate the general state of the field produced by the whole vehicle.
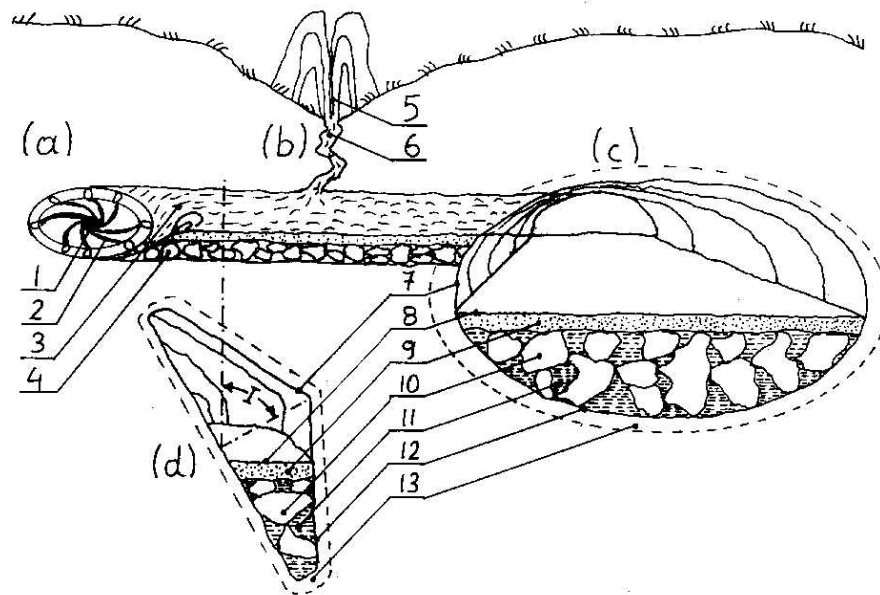
Fig. G36. Tunnels formed during underground flights of the Magnocraft, illustrated as they would be observed if the ground were transparent. The final shape of the tunnel is defined by the fact that the Magnocraft during flights always tries to keep its floor perpendicular to the local course of Earth magnetic field. (This diagram from 8 March 1998 replaces an older and less illustrative version that tried to explain the same principle of formation of such tunnels.)

(a) Principle of evaporation of tunnels. It shows the penetration of the native rock by a "plasma saw" of the Magnocraft which changed the direction of flight from the initial south to north, into the final illustrated here from an east to west. Symbols: 1 - the Magnocraft whose magnetic field spins and thus produces a whirling plasma saw, 2 - the spinning disk of the plasma saw which cuts into the rock and evaporates the tunnel, 3 - vapours of the rock that expand along the tunnel already evaporated, 4 - rock rubble that fell on the bottom of the tunnel behind the Magnocraft.

(b) The breach from the tunnel. Such a breach is a crack in the native rock caused by the pressure of compressed gasses that expand towards the surface of the ground. It can later be used as an additional entrance to the tunnel. Symbols: 5 - the spewing of the rock vapours that forms a kind of miniature volcano at the breach outlet (the presence of this vapour discloses the location of the breach, 6 - the breach canal formed by the compressed vapours expanding to the surface of the ground.

(c) An elliptical tunnel left by the Magnocraft flying in a north-south or south-north direction. Such a tunnel has an elliptical cross-section because its shape reflects the circular shape of the vehicle that flies with the base perpendicular to the environmental magnetic field. Symbols: 7 - glossy walls and ceiling of the tunnel (the close-up of their surface must show hardened rock bubbles), 8 - the aerodynamic, although rough and craggy "apparent floor" of the tunnel, that represents the upper surface of the "rock bridge"; in horizontal tunnels this floor is flat and relatively even and dry, while in tunnels running under angle it has a shape of hardened "dunes" and "bridges" through which flows water, 9 - a "rock bridge" formed from hardened particles of native rock which bury the lower part of the tunnel (this bridge lies on the rock rubble), 10 - rock rubble that fills up the lower half of the tunnel and covers the "real floor" of the tunnel, 11 - water that accumulates in gaps between rock rubble and that forms a stream which flows under an apparent floor of the tunnel, 12 - the "real floor" of the tunnel along which water flows, 13 - the range of magnetic, thermal, and crystallographic changes in the native rock, caused by the action on this rock of plasma and field of the vehicle.

(d) A triangular tunnel formed by the Magnocraft flying in an east-west or west-east direction. This shape results from reflecting in the rock the side outlines of the vehicle that evaporates this tunnel. Symbols: I - the angle of the vehicle's inclination reflecting the course of the force lines of the Earth's magnetic field and thus also the slanting of triangular tunnels or the degree of flattening of elliptical tunnels (or more strictly the ratio of the horizontal to the vertical axis). Symbols 7 to 13 have meaning explained in part (c) of this Figure.
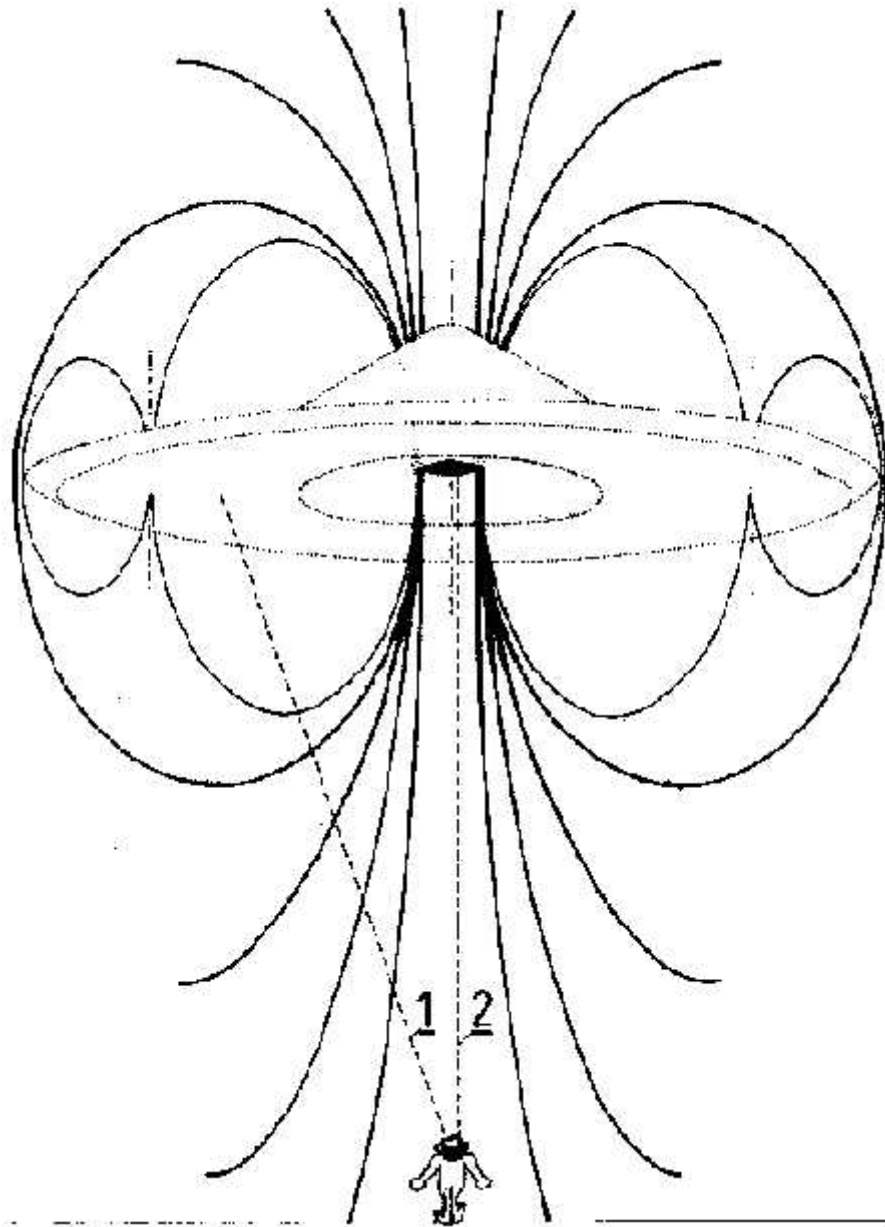
Fig. G37. The explanation for a magnetic-lens effect produced by the central magnetic circuits of an ascending Magnocraft. This effect means that an observer who watches such an ascending Magnocraft from below sees only a twin-chamber capsule from the main propulsor, whereas the entire shell of the vehicle remains invisible to him/her. This is because in the ascending Magnocraft, the power of the magnetic field involved in the central magnetic circuit exceeds many times the power involved in the main and side circuits. Thus force lines of the central magnetic circuit hermetically surround not only the entire body of the vehicle, but also its main and side magnetic circuits. The extremely concentrated magnetic field from this central circuit interferes with light reflected to the observer. This interference manifests itself in the following two ways: (1) paths of light which pass across the field force lines are bent (i.e. the light reflected from the vehicle's body is deflected so that it does not reach the eye of an observer), but (2) light which passes along the field force lines is unaffected (i.e. the light reflected from the twin-chamber capsule reaches the eye of an observer). Therefore the observer, who watches such an ascending Magnocraft from below, can easily see a twin-chamber capsule from the main propulsor, but he/she is unable to see all the other parts of the vehicle which are hermetically sealed in magnetic force lines (see also Figures L3, F5, L4, and J31). Symbols: 1 - path along which light is unable to pass through; 2 - unaffected path of light.
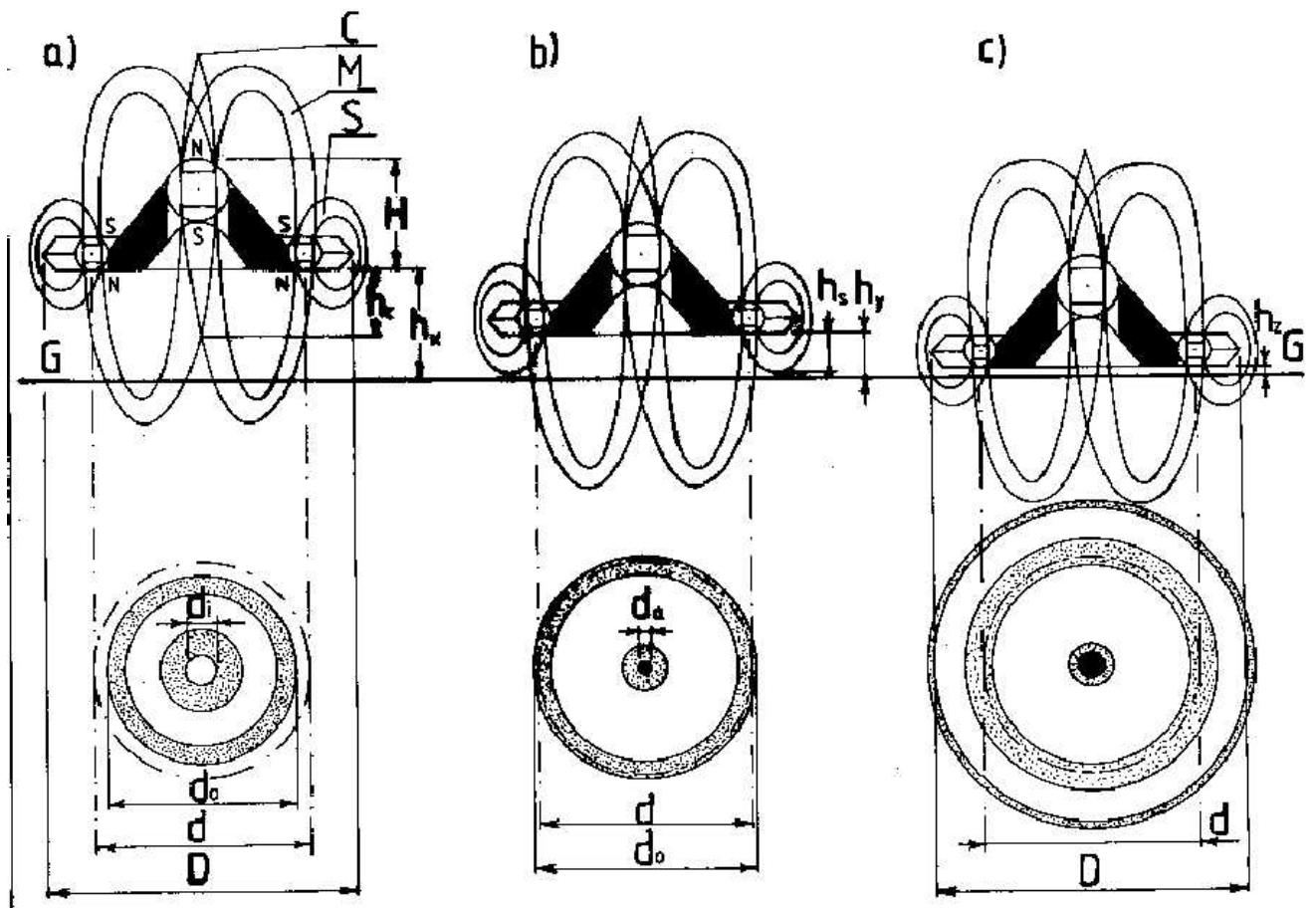
Fig. G38. A compendium of shapes and important dimensions for the scorch marks left on the ground from various heights by hovering Magnocraft. Notice that height "ht" determines the maximal range of scorching. All vehicles which hover below the height "ht" must have their magnetic circuits looped under the ground, thus their scorch marks should correspond to those shown in Figure G39. The vehicles which hover exactly at the height "ht" sustain their magnetic circuits tangential to the surface of the ground, thus their scorch marks should correspond to those shown in Figure G40. All vehicles hovering at a height greater then "ht" do not leave any scorch marks, but the air rotated by their magnetic whirls may mechanically swirl the vegetation below - see Figure G41. Within the height "ht" a critical height "hc" should be distinguished. The vehicles hovering at a height "hy" which is smaller then "hc" must scorch a single central patch whose shape and location is presented in part (B) of this illustration and also in Figure G39 (b). The nominal diameter "d" of this site can be determined from the equation: d=do-da. The vehicles which hover at any height "hx", which is greater then "hc" but smaller then "ht", instead of a single central patch must scorch another inner ring located within the trail from the side propulsors. The landing site caused from such a "hx" height is illustrated in part (C) of this diagram. The nominal diameter "d" for such a site can be determined from the equation: d=do+di.
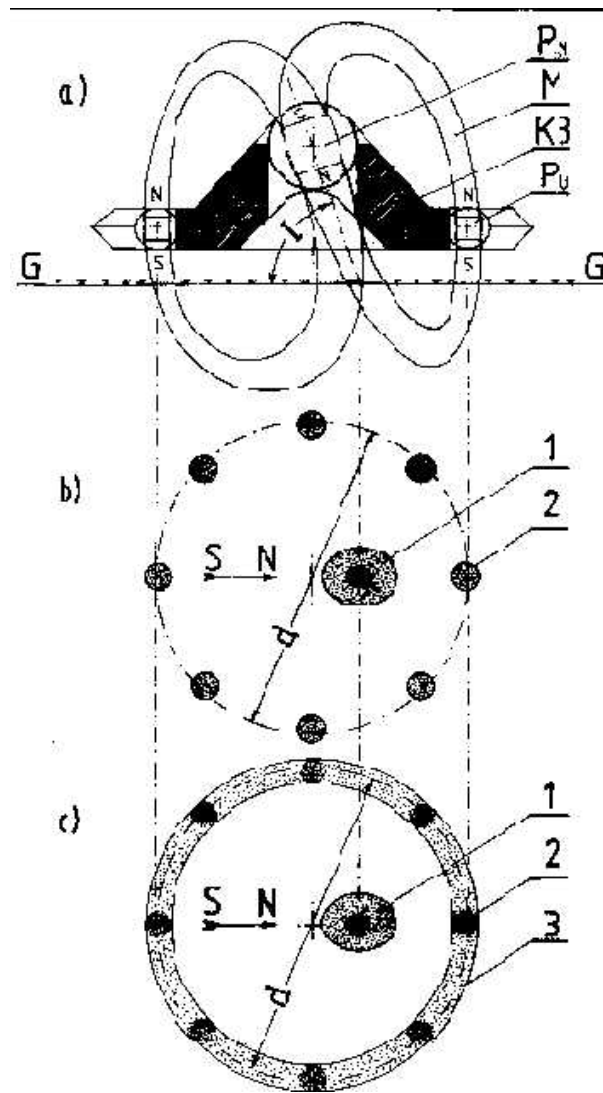
Fig. G39. Typical landing marks left by the Magnocraft hovering close to the ground (i.e. when the vehicle's main magnetic circuits "M" penetrate the soil and reverse their paths underground).

(a) Cross-section of a type K3 Magnocraft and the ground showing distribution of the magnetic field from the main circuits "M". Note that when the spacecraft is hovering so close to the ground, damage to vegetation occurs only at points where magnetic circuits enter the soil. Symbols: PM - the main propulsor, M - the main magnetic circuits whose force lines loop through the main and side propulsors; K3 - the crew cabin, PU - one of side propulsors; G - the surface of the ground; I - the inclination angle of the Earth's magnetic field.

(b) An overhead view of the ring of scorch marks left by this vehicle during the throbbing mode of operation. Symbols: 1 - the mark from the column of the magnetic field produced by the main propulsor (in the Northern Hemisphere this mark is dislocated towards magnetic north from the centre of the landing site); 2 - one of the burn marks produced by side propulsors; d - the nominal diameter of the vehicle's propulsion unit (i.e. diameter of the circle that passes through the centre of the side propulsors).

(c) An overhead view of marks formed during the magnetic whirl mode of operation. Apart from the scorch patches "1" and "2" also formed during the throbbing mode of operation, the magnetic whirl additionally burns the circular trail "3". Note that when the vehicle hovers at a height greater than the critical "hc" (see Figure G38) then the central scorch patch "1" expands into an inner scorch ring (shown in Figure G38 "c").
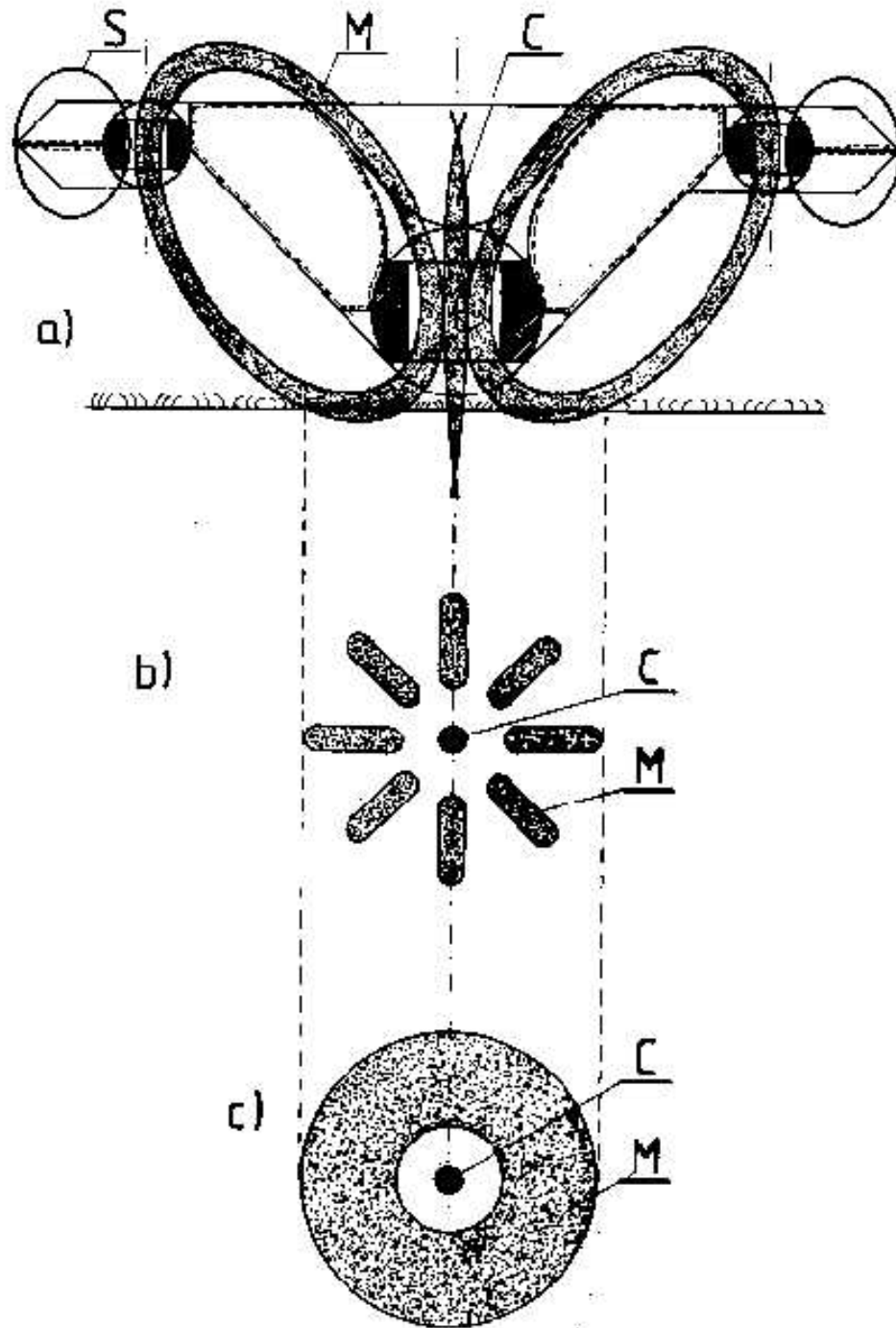
Fig. G40. The marks left on landing sites by the inverted Magnocraft hovering just at the height where its magnetic circuits are tangential to the surface of the ground. The illustrated pattern of marks is not distorted by any slanting of the magnetic axes of the propulsors (as would be the case during a real landing). Symbols: C - the pillar of the central magnetic circuit and the mark caused by it; M - the main magnetic circuits and marks caused by them; S - the side magnetic circuits (note that in this orientation of the vehicle they do not reach the ground).

(a) A cross-section of the vehicle and ground, showing the course of the magnetic circuits and the range of ground affected by them.

(b) The marks caused during the throbbing mode of the Magnocraft's operation.

(c) An overhead view of the pattern of marks formed during the magnetic whirl mode of operation.
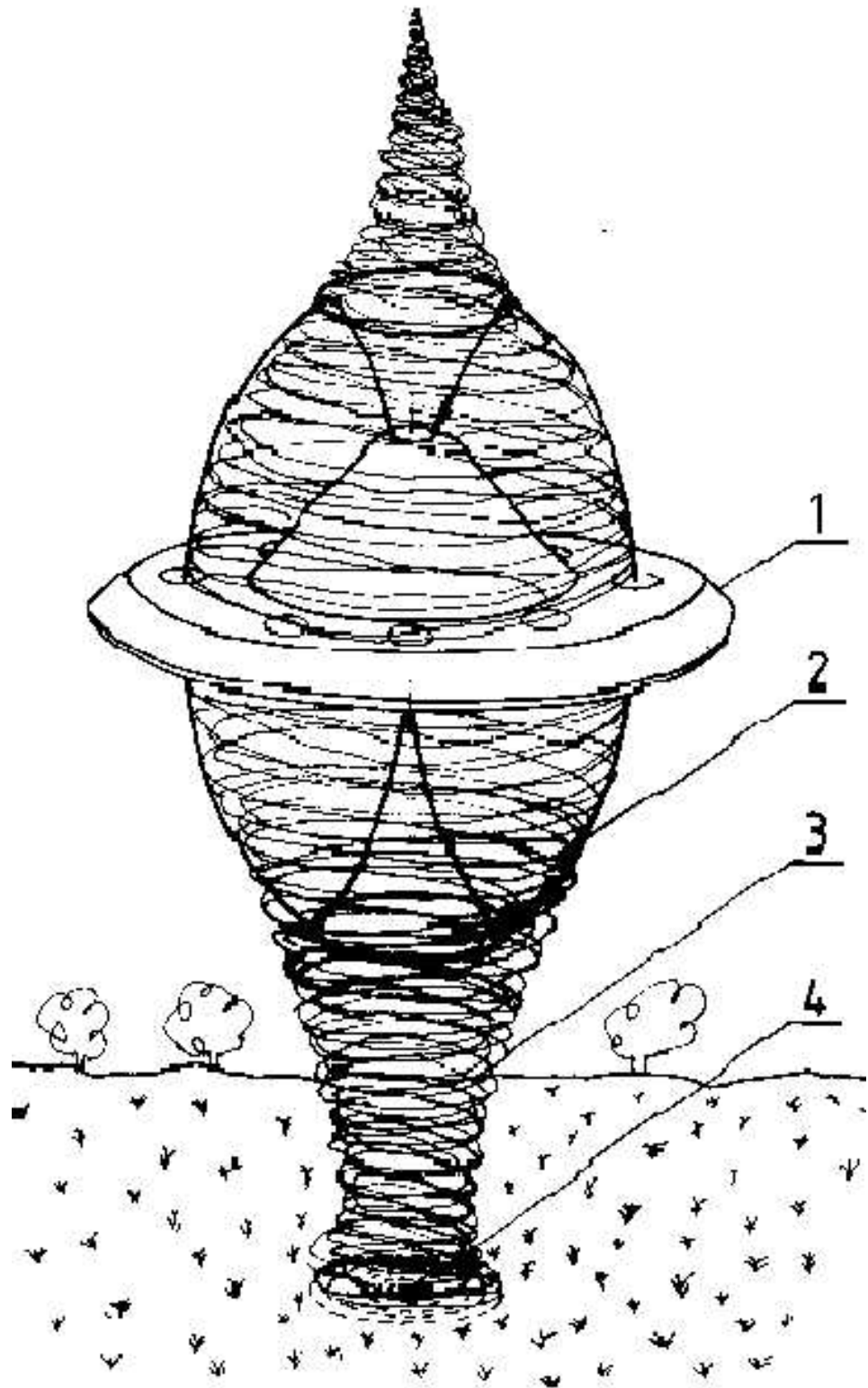
Fig. G41. The formation of a circle of swirled plants caused by a low hovering single Magnocraft whose magnetic circuits loop entirely in the air. Illustrated are: 1 - the stationary Magnocraft type K3 whose propulsion system operates in the magnetic whirl mode, 2 - the spinning magnetic circuits of the vehicle (these spinning circuits ionize the air, causing it to rotate also), 3 - the whirlwind of air (sometimes called the "devil's whirl") formed by the vehicle's spinning magnetic field, 4 - the nest of plants aerodynamically flattened and swirled in the direction of the whirlwind's rotation.
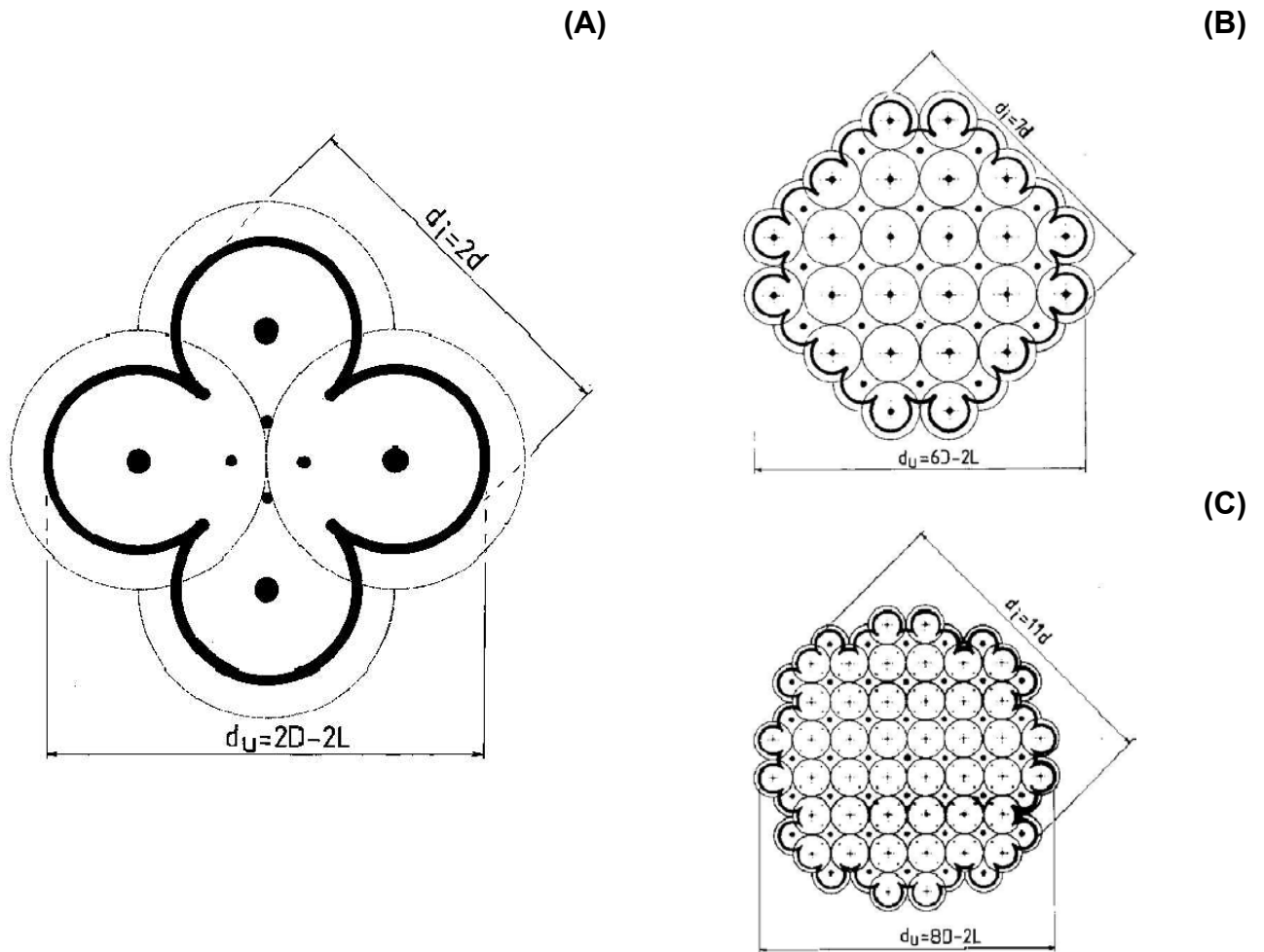
Fig. G42. Examples of various landing patterns scorched on the ground by Magnocraft-like vehicles arranged in flying systems. For each system are shown: (1) the number and mutual positioning of the cigar-shaped stacks joined together in the configurations illustrated (complete circles drawn with thin lines represent overhead outlines of cigar-shaped arrangements that are positioned upright - see also Figures G8 and G16), (2) a complicated pattern of scorched vegetation (see a thick line composed of small half-circles) left by side propulsors around the peripheral of an entire system, (3) a net-like pattern of marks (thick dots) scorched on the ground by the main propulsors of each cigar-shaped arrangement, (4) the principles for determining two basic dimensions of each flying system (these dimensions are marked as "du" and "di", and they should be measured in directions slanted 45 degrees towards each other). The pattern (A) resembling a "four-leaf clover" is formed by the single cell of such a system (similar to the cell shown in Figure G16 "a"). Pattern (B) is scorched by a flying platform six-rows wide, in this case consisting of forty-six cigar-shaped configurations coupled together. Pattern (C) represents a circular flying system eight-rows wide.

Chapter H:

PERSONAL PROPULSION

The Magnocraft utilizes only one of a number of propulsion units which can be formed by a combination of magnetic propulsors. A unit entirely different from that of the Magnocraft, but whose applications are as equally wide ranging as those of the Magnocraft itself, is shown in Figure H1. The main characteristic of this new unit is that its framework creates a human-shaped structure. For this reason it is called "magnetic personal propulsion". The propulsion based on this new unit can be applied to cause the displacement of a person in space without using any vehicle, or to enhance the ways this person normally moves.

Similarly as is the case with the Magnocraft, the personal propulsion also contains a set of eight side propulsors (marked U, V, W, and X) and a set of two main propulsors (in Figure H1 marked ML, MR). Both these sets are connected by the body of the user into one effective propulsion system. The body performs the function of a "carrying structure" or a framework. Each propulsor from both sets contains a single twin-chamber capsule, only a few millimeters in size, which is assembled inside of a spherical casing. The casing and its capsule are similar to that used in the Magnocraft (see Figure G1), only they are drastically miniaturized. Each of the twin-chamber capsules is composed of two small Oscillatory Chambers inserted one inside the other, as was described in subsection F6.1. The operation of Oscillatory Chambers allows for their miniaturization to the size of only a few millimeters, without any significant decrease in their output. Therefore, the propulsors of the personal propulsion system can be built small enough to allow for their assembly into articles of human apparel (i.e. belts and shoes) without causing any noticeable discomfort or change in the size and weight of these articles. On the other hand, these propulsors which are almost unnoticeable, will provide their wearer with the ability to fly in the air or space with a speed limited only by the performance of physiological functions (especially breathing), with enormous physical strength, with invisibility, and with protection from the action of any weapon that could be used against him/her.

H1. The standard garment of personal propulsion

The standard garment of personal propulsion is shown in Figure H2. This garment includes a number of special components. Shoes (1) contain miniature magnetic propulsors built into the soles. These are called "main propulsors". Apart from this, the personal propulsion garment uses another eight miniaturized propulsors assembled into a segmented belt (2). These are called "side" propulsors. The garment also includes a kind of magnetoreflective "skin". This "skin" consists of a one-piece costume (3) with a protective hood (5), and gloves (4). These are worn to prevent the magnetic field from looping through the person's body. The hood (5) and gloves (4) are so designed that they hermetically join with the costume (3), thus forming a single-piece garment.

Each part of the garment's "skin" is made of a magnetoreflective material, which cannot be penetrated by a magnetic field, so that it protects the body from the destructive action of a strong, pulsating magnetic field. Even though the face remains uncovered, the magnetic field cannot penetrate the brain because the design of the hood makes the looping of the force lines impossible. A graphite-based cream can be used to additionally protect the facial skin. (It was discovered that graphite is the best natural magnetoreflective material.) But this cream which stops the magnetic field from acting, also gives the face a strange colouring.

The special gloves (4) complementing the magnetic personal propulsion are so designed that they not only protect the fingers from the magnetic field, but also from electric charges. These charges are a by-product of the propulsors' operation. The pulsating magnetic field generated by the side propulsors (2) induces a strong electrical field around the person's hip. Charges from this field accumulate at the tips of the person's fingers. The forces of relative repulsion from these charges part the fingers (similar to the way they do with the foils of an electroscope). This action is too weak to cause bodily injury, but after a length of time could cause a painful racking of the skin and muscles. The web-like connectors between the fingers of the gloves protect the wearer from these unpleasant effects.

When the wearer of this costume is required to do heavy physical work, he/she wears two additional enhancement propulsors, which are placed on the joints of the wrists {similar to our wrist watches - see Figure H3 (b)}. These propulsors, by co-operation with the magnetic framework created by the other propulsors, give unusual strength to his/her hand movements. Therefore, a person so equipped is able to lift loads weighing several tons, remove strong structures, tear trees out by the roots, and so on.

H2. A special version of personal propulsion with cushions around the hips

The standard garment of personal propulsion described in the previous subsection can be subjected to two modifications, producing some useful operational attributes. The first such modification of the standard garment is shown in Figure H3 (a). In this version, the wearer's palms are shielded from the action of a strong field by a protective screen. Therefore it allows for the elimination of gloves. This enables the hands to perform precisely (e.g. to assemble a very precise device under water) without the necessity for switching off the action of the propulsors.

In this first modification of the garment, the special protective cushions (1) are joined around the eight-segmented belt (3). These are filled with helium, the gas which has the highest resistance to ionization (or ionization electric potential). The inner surface of the outside cover of these cushions has a magnetoreflective screen (2). Because of this, the field yield of the belt cannot act on the hands as strongly as in the standard version of the garment, so they do not need to be protected with gloves. The cushions (1) are divided by partitions (4) into eight separate chambers. Each propulsor from the belt (3) is housed in such a separate chamber. This makes it impossible to create a plasma whirl which would follow the magnetic whirl produced by the propulsors in the belt. Therefore there is no danger of the person's hands being burnt. This costume, which has the helium cushions, looks strange as it is thicker around the person's hips.

Part (a) of Figure H3 shows also an alternative protection of the user's head. In this protection the transparent and magnetically impenetrable helmet (5) replaces the hood and the graphite cream described with the standard version of personal propulsion. It should be stressed that such a helmet can be used with every version of personal propulsion, not only with the one discussed in this subsection.

H3. The garment with the main propulsors in epaulets

In both versions of the personal propulsion described above, the main propulsors were built into the soles of shoes. Such a solution displays, however, a serious drawback, which is the set of two forces "B" {see part (b) of Figure H4}. These forces, acting between the legs, cause legs to stay apart. In effect, the movements of the wearer of this propulsion are not completely free and convenient.

To eliminate these forces "B", another version of personal propulsion will be built, which is shown in Figure H3 (b). In this version the main propulsors are removed from the soles of the shoes and placed in the epaulets (1) of the user. From the operational point of

view such a change of position does not introduce any difference in the effectiveness of the propulsion. But for the user it means freedom of leg movements. Therefore the version of personal propulsion presented here can be applied in every situation requiring the use of the legs. Its drawback is the closeness of the head to the sources of a strong magnetic field (i.e. to both main propulsors). Therefore the face and head must be protected particularly carefully. In the case where there is a danger of the layer of protective cream being torn from the face (i.e. as the effect of work being performed), the user needs to wear a special mask on his/her face (similar to the mask used by the "spiderman" and "superheroes" in American movies, or to the type favoured by bank robbers). Because of the impression of widening the user's shoulders by the main propulsors placed within the epaulets, this version of personal propulsion gives its wearer a distinct triangular appearance.

H4. Principles of operation of magnetic personal propulsion

The principles of operation of magnetic personal propulsion are illustrated in Figure H4. Part (a) shows eight side propulsors which are assembled into the belt, and which are oriented so as to repel the Earth's magnetic field. By this they create a lifting force "R" which carries the wearer. The miniature main propulsors in the soles of the shoes are oriented towards the attraction with the environmental magnetic field. Thus they produce stabilization forces "A" which determine the position required by the person during flight. Both forces "R" and "A" are produced by the Earth's magnetic field interacting with the field generated by the main and side propulsors. So the product of this group of interactions can be called the "outside" forces. Apart from these, the personal propulsion produces another type of interaction, which can be called "inside" forces. These are formed by the relative interactions between the subsequent propulsors themselves. The "inside" forces are shown in Figure H4 (b). They include:
1. The forces "B" of relative repulsion occurring between both of the main propulsors from the soles of the shoes. The repulsive forces "B" are created because the magnetic poles of both these propulsors are oriented in the same direction.
2. The forces "E" of relative repulsion between each of the eight side propulsors from the belt.
3. The forces "Q" of relative attraction between each main propulsor from the shoes and each side propulsor from the belt. These attraction forces "Q" are created because the magnetic poles of the two main propulsors are oriented in opposition to the poles of all of the side propulsors.
Note that there is a close correlation between the sets of "outside" and "inside" forces formed in the personal propulsion, and the similar forces formed in the structure of the Magnocraft - see Figure G20 and subsection G4.2.
The presence of the outside and inside forces benefit the person because they join the separate elements of the propulsion into one solid system. The operation of this system is so determined that opposing forces are relatively balanced. For example, when the carrying "R" and stabilizing "A" forces tense the wearer, simultaneously the forces "Q" appear which compress his/her body along the same direction. This system of mutually balanced forces creates a "magnetic framework" which holds and carries the person in a way identical to that of the Magnocraft. There is a special condition for the balancing of the repulsive forces "B" acting between the legs. This requires that the legs must be kept apart at all times when the personal propulsion is used. This gives the body a stance that is very distinctive for wearers of personal propulsion. Their legs must be kept apart not only during all flights, but also when aiding the usual manner of moving, such as walking, swimming, etc.
To control the personal propulsion specially adjusted micro-computers are used. These computers read bio-currents from the back of the neck and transform them into control signals. So just to think of moving up, sideways or downwards causes instant achievement of the desired displacement, which is obtained without any movement from the

appropriate parts of the body. The means used for flight control are similar to these utilized by the Magnocraft. Also the method of obtaining a magnetic whirl is similar. Only the frequency of rotation of the whirl is much higher here, to make impossible the creation of a plasma whirl (which could burn up the person's hands). But even if the angular speed of the rotating magnetic whirl is too high to sweep up and accelerate the ionized particles of the air, the outlets of the propulsors can ionize the air locally. Therefore at night an emission of light can be noticed near the belt and the shoes. Also, foreign materials that stick to the garment and the shoes are dispelled by the centrifugal action of the magnetic whirl.

H5. The attributes of Personal Propulsion

Magnetic Personal Propulsion provides its users with a number of unique and very useful properties. Most of these are similar to those known from the Magnocraft, but there are also some which occur only with personal propulsion. These are as follows:

#1. The necessity for a special garment to be worn. It is not much different from the contemporary clothes worn by people (although it more resembles the dress of monks and nuns). Included in this outfit are:

(a) Shoes, whose soles contain the main propulsors. Sometimes the propulsors can be shifted from the shoes to the epaulets.

(b) The eight-segment belt carrying the side propulsors.

(c) Two bracelets placed on the wrist joints containing enhancement propulsors that assist in heavy physical work. These propulsors are not used for flight, therefore they are worn only when an increase in the user's physical strength is required.

(d) The controlling computer fastened to the back of the neck.

(e) The one-piece garment, including the hood or helmet.

(f) The gloves with web-like connectors between the fingers.

(g) The graphite-based cream to coat the parts of the skin that are uncovered.

#2. The ability of a person to fly noiselessly, together with the ability to have any required orientation of the body (hanging, standing, lying, or being at an angle). The control and positioning of the body doesn't require it to make any movement.

#3. The ability to facilitate the normal manner of movement (walking, swimming, etc.). This makes it possible to perform movements which contradict our understanding of physical laws, for example:

(a) Walking upside down on the ceiling.

(b) Going up or down on vertical walls with the body in a horizontal position (i.e. in the manner of an insect).

(c) Jumping to enormous lengths and heights (e.g. jumping from the level of street level straight onto roofs of high buildings).

(d) Walking on the surface of water.

#4. Extraordinary abilities given to a person using this system of propulsion. These are:

(a) Resistance to the effects of guns directed to them, owing to a protective action from the "inductive shield".

(b) Making oneself invisible by switching on the "magnetic lens" which bends the light.

(c) Movement at a high speed which is limited only by the physiological functions of the body (basically the breathing). This movement does not require the use of any visible vehicle.

(d) An unusual strength and force gained from the action of the enhancement propulsors. Such strength allows for the knocking down of buildings, tearing of trees out by the roots, carrying of huge boulders, and doing other work which to us would appear to be supernatural.

(e) A biological sterilization of the environment through the killing of micro-organisms that are in the range of the field (this sterilization in turn can trigger various biological consequences).

#5. The need for the body to adopt a particular stance which is characterized by: the legs permanently set apart or bent into a squat position, the hands being forced away from the belt, the parting of the fingers, etc. Also, as a result of an electrical charge, all hair on the uncovered parts of the body can be standing on end.

#6. The forcing of magnetic-borne changes in the surroundings, similar to those caused by the Magnocraft's propulsion. We can mention here especially: burn marks on surfaces underneath the shoes, firing away of objects which come close to the belt, the electrical charging of insulating materials (e.g. hair), ionizing of the air (which can cause a glow near the belt and shoes), production of an active ozone, the smell of which will accompany the propulsion's wearer (this smell can be confused with the smell of sulfur by those not accustomed to it), etc.
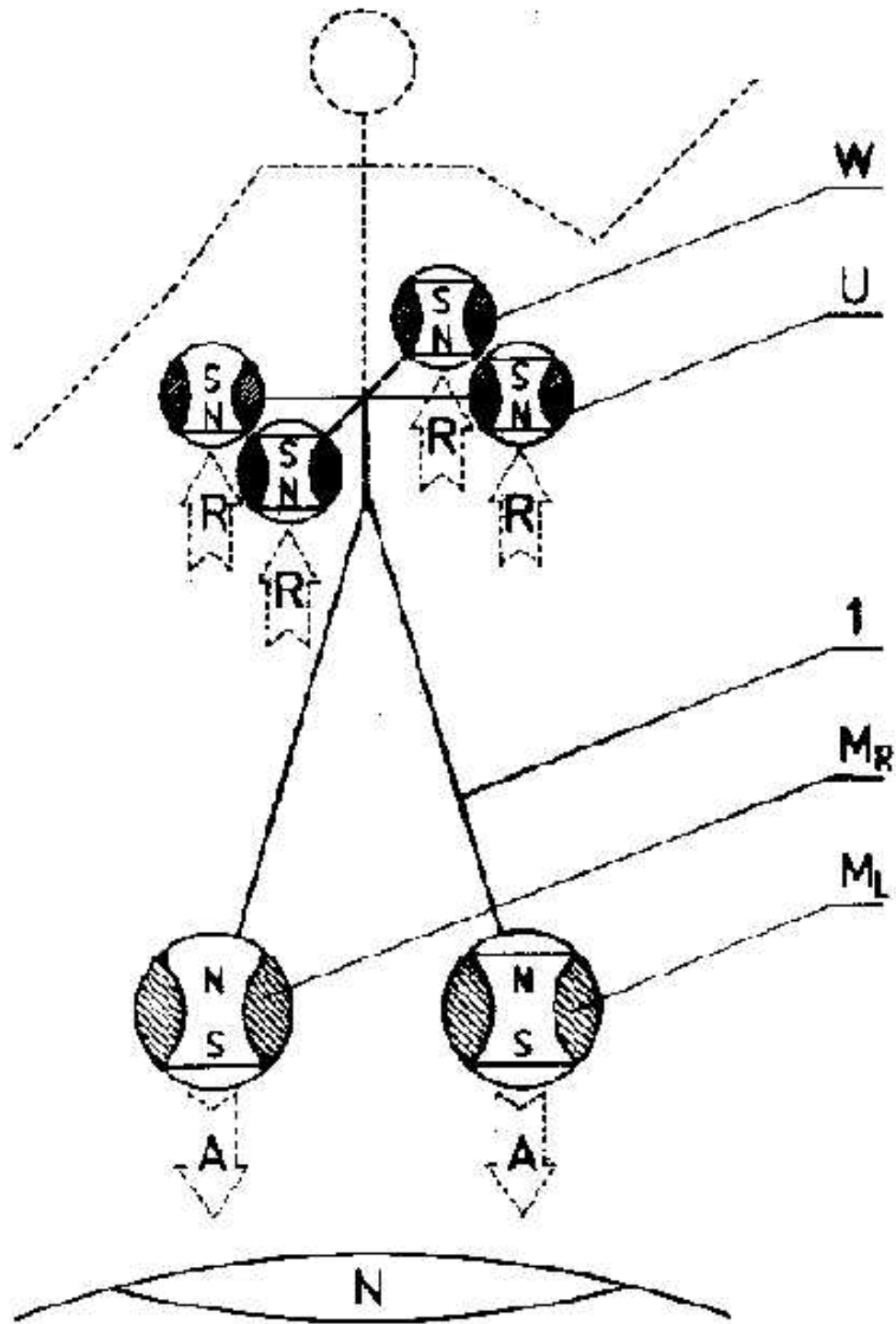
Fig. H1. The magnetic propulsion unit composed into a human-shaped structure. It provides the principle for the formation of the so-called "magnetic personal propulsion". Human figures supported with such a propulsion unit will be able to fly in the air without using any apparent vehicle. This propulsion unit contains two miniaturized main propulsors (labelled MR, ML) assembled in the right and left soles of the shoes. These produce the lifting forces (R). Moreover, the unit contains also eight side propulsors (labelled U, V, W, X) assembled inside the belt. These produce stabilizing forces (A). The body (1) of the propulsion's user provides a "carrying structure" that combines all these propulsors together.
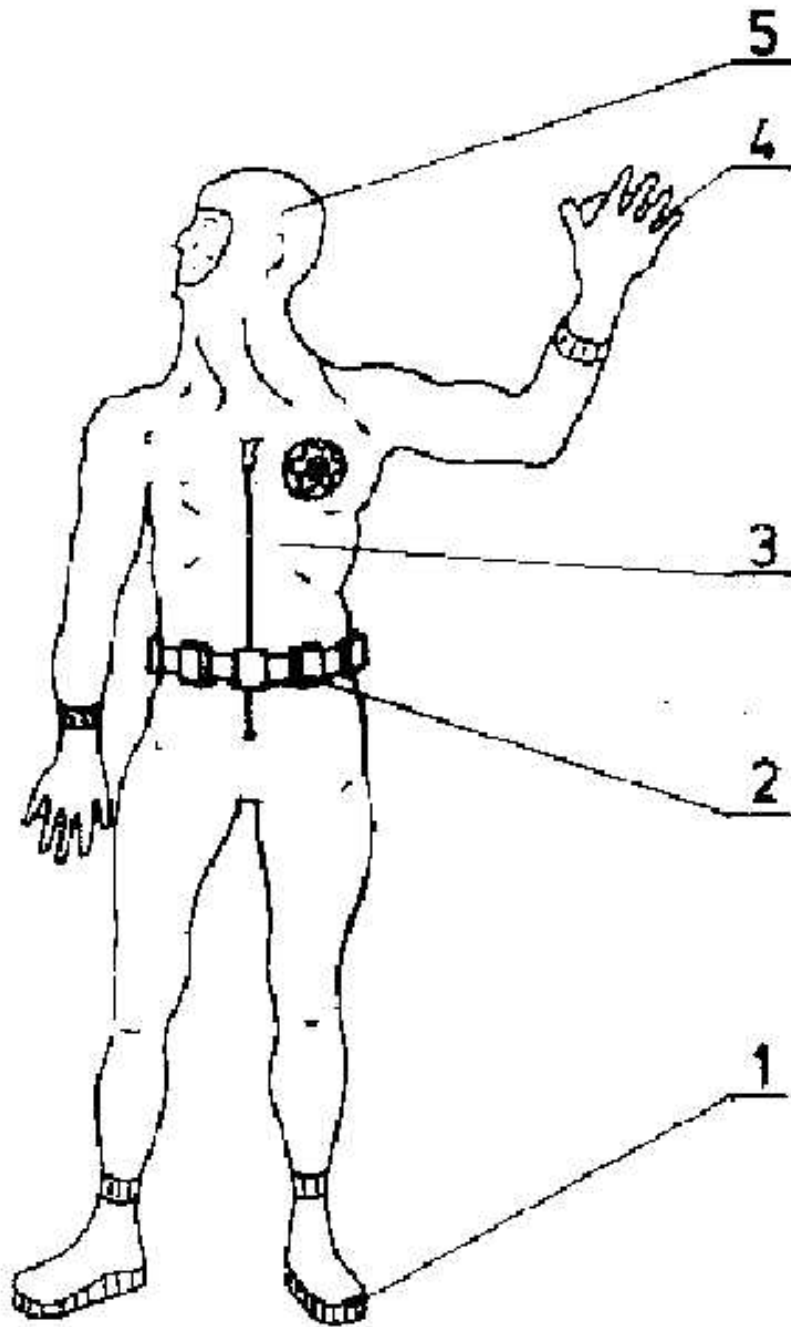
Fig. H2. Components and general appearance of the standard personal propulsion garment. Wearers of such propulsion will be able to fly noiselessly in the air, walk on the surface of water, become resistant to gunfire, invisible, etc. This garment contains: (1) shoes, whose soles contain the main propulsors; (2) the eight-segment belt carrying the side propulsors; (3) the one-piece garment made of magnetoreflective material, which includes a hood (5) or a helmet; (4) the gloves with web-like connectors between the fingers. All of this is complemented with the graphite-based cream that coats the uncovered parts of the skin to protect them from the strong magnetic field, and the controlling computer fastened to the back of the neck, which reads the bio-signals and converts them into propelling actions. When a heavy job needs to be done, additional bracelets containing enhancement propulsors can be worn on the wrist joints (shown in Figure H3 "b"). These propulsors will co-operate with those from the belt and shoes, thus giving the user almost supernatural strength, e.g. enabling him/her to tear trees up by the roots, carry huge boulders, knock down buildings, etc.

(a)   **(b)**
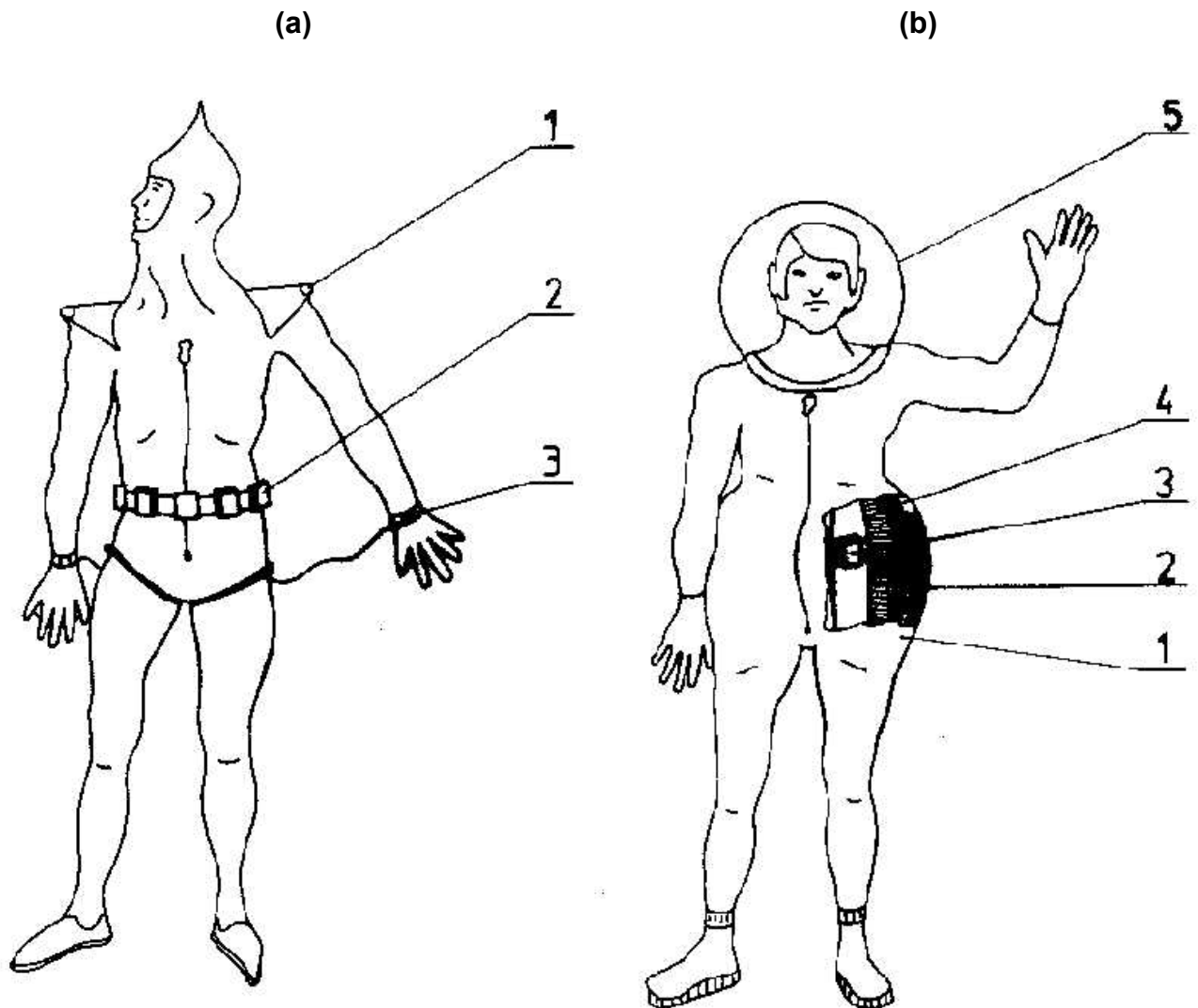
Fig. H3. Examples of two useful modifications of the standard personal propulsion.

(a) The version of personal propulsion with the main propulsors in the epaulets. Shown are: (1) one of the two main propulsors; (2) the eight-segment belt housing the side propulsors; (3) one of the two bracelets placed on the joints of the wrists. These bracelets contain the additional enhancement propulsors (not used for flights) which multiply the user's physical strength when he/she performs heavy work. Note that to strengthen the garment, sometimes two crossed suspenders can additionally join the belt with the epaulets (these suspenders are shown in Figure N4).

(b) The version of personal propulsion with a helmet and protective cushions around the hips. Shown are: (1) the cushions protecting the user's hands from the magnetic field and electrostatic charges; (2) the magnetically impenetrable screen and anti-electrostatic insulation around the outer perimeter of the cushions; (3) a single segment of the eight-segment belt containing the side propulsors; (4) one of the partitions that divide the cushion into eight separate chambers (each of these chambers houses one side propulsor).
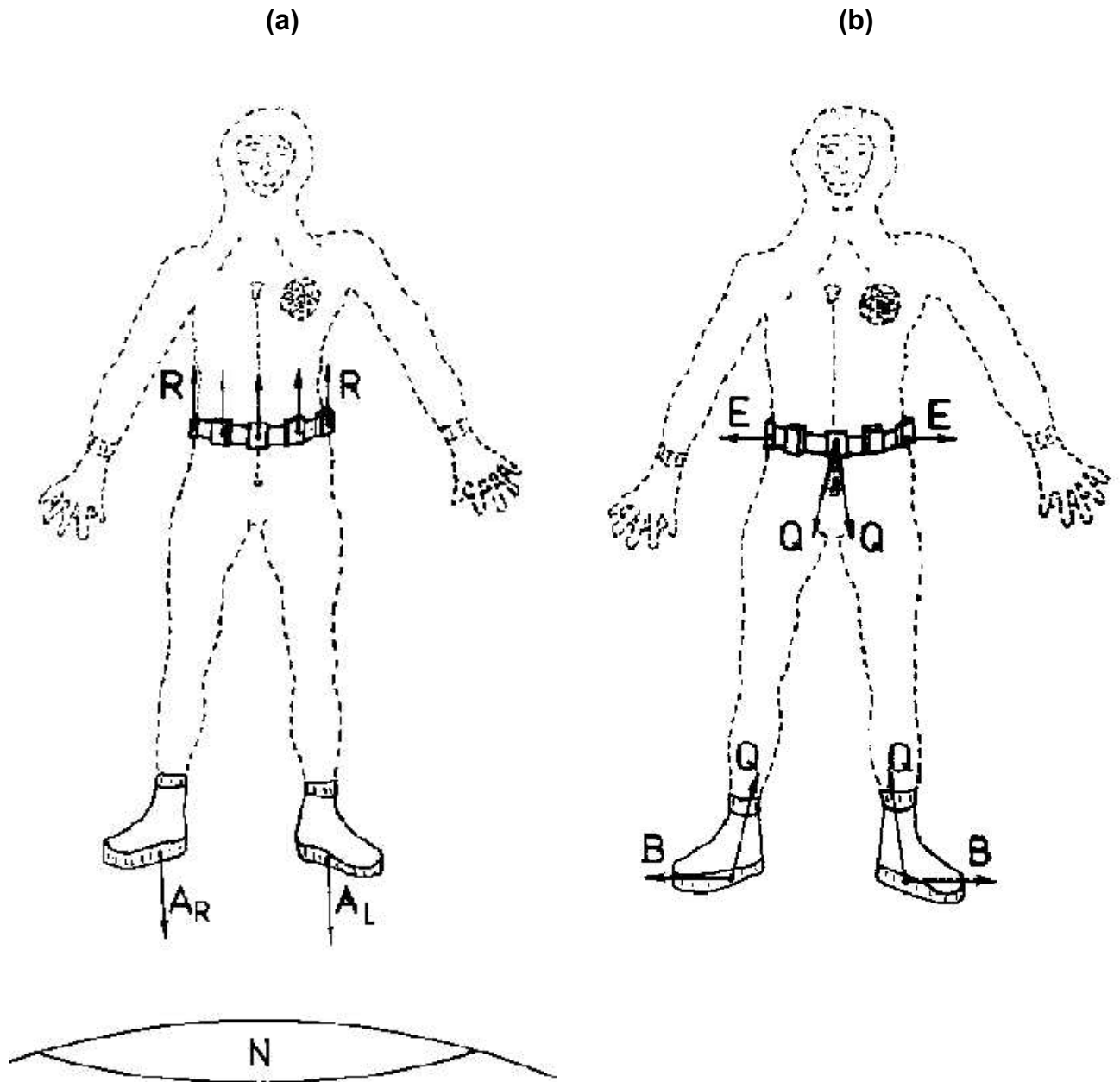
Fig. H4. External (part "a") and internal (part "b") magnetic forces formed within the personal propulsion. Note that both these sets of forces neutralize each other. While forces (R) and (A) acting in opposite directions tense the user's body, forces (Q) simultaneously compress his/her body. Only forces (B) remain unbalanced, thus causing the user to keep his/her legs apart.

(a) The set of external forces formed because the propulsors of personal propulsion interact with the environmental magnetic field. This set of forces includes: R - lifting forces produced as the result of repulsive interactions; A - stabilization forces produced as the result of attractive interactions (indexes: R - right, L - left).

(b) The set of internal forces formed because all propulsors also interact magnetically between themselves. These forces include: B - the forces of relative repulsion of both of the main propulsors from each other (these cause a permanent separation {straddle} of the legs); E - the forces of mutual repulsion of the side propulsors from each other (these cause the outward tensing of the belt); Q - the forces of mutual attraction between each main and each side propulsor.

THE FOUR-PROPULSOR SPACECRAFT

The Four-Propulsor Spacecraft, together with the Magnocraft and Personal Propulsion, represents the third basic application of magnetic propulsors. While the operation of the first two propulsion systems was based on the so-called "twin-chamber capsule", this third basic spacecraft utilizes the unique properties of a different arrangement of Oscillatory Chambers, called the "spider configuration" - see subsection F6.2. Each propulsor of the Four-Propulsor Spacecraft consists of one such spider configuration. A magnetic field produced by this configuration displays all the attributes required for flight and for manoeuvring a vehicle. This is the reason why the Four-Propulsor Spacecraft can limit its entire propulsion system to four propulsors only. Because the number of propulsors is the most unique feature of this spacecraft, its name incorporates this number. Each of its propulsors is attached to the crew cabin. Thus, the four barrel-shaped propulsors protruding outside the main body of the spacecraft also form an identifying feature very characteristic of this type of vehicle.

An important attribute of the Four-Propulsor Spacecraft is that its living compartment, containing crew cabin and cargo space, may take any shape. Therefore this vehicle will be built in the various geometrical forms which best fit the shape of the cargo being carried inside, or which is most convenient to the comfort of people traveling within it.

I1. The general design of the Four-Propulsor Spacecraft

The general design of the Four-Propulsor Spacecraft is shown in Figure I1. The main body of this vehicle is formed from its living compartment (2). This compartment has a general shape of a cubical or rectangular hut. On its top a gable roof (1) is attached which adds aerodynamic properties to the vehicle, and which also allows for the recognition of its type at a distance. At all four corners of the living compartment individual, barrel-shaped or jug-shaped propulsors (3) are placed. Each of these propulsors produces its own column of a spinning magnetic field, whose core is marked as (4) in Figure I1. Within each column, a dark core (4) and lighter crust (5) can be distinguished. The core (4) is formed because the output of the main Oscillatory Chamber (marked M in Figure I2) of the propulsor's spider configuration spins around its own magnetic axis "m". But the crust (5) is formed because the four columns of magnetic field produced by the side Oscillatory Chambers (marked U, V, W and X) rotate at some distance from the magnetic axis "m". The appearance of these two parts of the field's columns make them appear as spinning black drills. (These drills bear some resemblance to helicopter blades, except that they are quite narrow and long instead of wide and short. Therefore, some amateur witnesses may occasionally confuse the Four-Propulsor Spacecraft with a multiple-rotor helicopter.)

The living compartment (2) is hermetically covered by a shell made of material impenetrable by the magnetic field (i.e. magnetoreflective). Therefore its interior is screened from any dangerous action of a strong field, and may contain the crew cabin, passenger decks, cargo holds, instruments, equipment utilities, etc. The shape of the living compartment takes a geometrical form best suiting the comfort of crew and passengers or well adapted to the shape of cargo carried inside. Usually it will be hut-like or cubicle in shape, but on special occasions many other forms can be used, for example spherical, rocket-like, or cone-like (because these other shapes will be used rather rarely, an illustration of their characteristics is not provided here). The walls of the living compartment are made of a mirror-like transparent material, whose degree of transparency and light reflectiveness can be regulated by the crew (i.e. during flights at night the crew

can make these walls completely transparent, whereas during flights near the Sun they can transform the walls, making them completely reflective so that inside the spaceship a pleasant shade can prevail). Therefore there will be no need to provide the vehicle with windows. However, to enable crew and passengers to go into (and from) the deck, the Four-Propulsor Spacecraft must contain a door.

I2. The operation of the Four-Propulsor Spacecraft

The operation of the Four-Propulsor Spacecraft is slightly different from the operation of both of the magnetic propulsion systems presented previously, i.e. from the discoidal Magnocraft and Personal Propulsion System. But this operation is also quite similar. In the Four-Propulsor Spacecraft, each of its four propulsors forms a kind of miniature Magnocraft. This means that each of its propulsors is capable of independent flight and manoeuvring. Therefore the living compartment of the Four-Propulsor Spacecraft is carried by something like four independent, miniature Magnocraft, flying on parallel paths, each of them joined to the main body. Every propulsor produces its own column of magnetic field, and during landing it can make its own scorch mark on the ground.

The general design of a propulsor for the Four-Propulsor Spacecraft is shown in Figure I2. It consists of five Oscillatory Chambers arranged together into the "spider configuration" and covered with a magnetically penetrable shell. The propulsor's shell can take either the shape of a barrel {see (1) in part (a) of Figure I2} or the shape of a jug {see (2) in part (b) of Figure I2}. The propulsor's spider configuration is composed of the main Oscillatory Chamber (M) which is surrounded by four side chambers (U, V, W, and X). Such an arrangement of chambers gives to each propulsor of the Four-Propulsor Spacecraft all the attributes that previously were provided by the entire propulsion unit of the Magnocraft - compare subsections F6.2 and G1.2. It is able to produce a spinning magnetic field, all of whose parameters are strictly controlled. Therefore even when acting in isolation from the rest of the spacecraft, this configuration would be able to fully control its flight and maneuvers. Thus, the flying of the Four-Propulsor Spacecraft depends mainly on an appropriate co-ordination of the actions of all four propulsors, so that the total effect is to pull the spacecraft in the desired direction.

The propulsors of the Four-Propulsor Spacecraft produce two kinds of magnetic whirls. Each propulsor produces a local magnetic whirl which involves its own output spinning around its own axis "m". In Figure I1 these four local whirls are marked as spinning columns (4) of magnetic field. Simultaneously all four propulsors co-operate in producing a resultant magnetic whirl that circulates around the entire crew cabin. But this resultant whirl is not so efficient as the one formed by the Magnocraft. An entirely different principle is employed in its creation (i.e. buoyancy instead of rotation of the magnetic circuits), and also it rotates around a different path. Thus, the resultant whirl just suffices to create an inductive shield that protects the Four-Propulsor Spacecraft from material objects directed at it, but it is insufficient to produce an effective vacuum bubble.

All propulsors in the Four-Propulsor Spacecraft produce a very high magnetic output. At the same time, the like-poles of these propulsors are oriented in the same direction. Therefore, if their output was non-spinning, they would repel one another with an enormously powerful force. However, because their output spins, they create the relativistic phenomenon described below, which significantly reduces the forces of this reciprocal repulsion. Moreover, the magneto-dynamic effect described previously under the name of the magnetic equivalent of the "Magnus Effect" (see subsection G6.3.2) produces forces acting in the opposite directions, and therefore further neutralizing the repulsive interactions among propulsors. In this way, the force stability of the Four-Propulsor Spacecraft is achieved in a dynamic manner. To maintain this stability, the output from the spacecraft's propulsors must always be spinning. For this reason, the basic requirement of the mutual neutralization of inter-propulsor interactions explained above is that the magnetic field produced by each propulsor must spin all the time, even when the vehicle is motionless.

The relativistic phenomenon employed in neutralization of interactions between propulsors of the Four-Propulsor Spacecraft is quite well known amongst experts in magnetism. It depends on extending the effective length of a bar magnet as the result of a very fast spinning of its force lines around the magnet's central axis - see subsection G5.3. If the force lines spin fast enough around the magnet's central axis, their curvature contracts, and as a result the flux is limited to an area just around the magnet. This transforms a short bar magnet so that it acts like a very long thin one. Of course, it is not possible to mechanically spin a magnet fast enough to obtain the desired results. But the spider configuration simulates such a spinning through the forming from the subsequent outputs of its four side Oscillatory Chambers of a rotating magnetic wave similar to the wave produced by the side propulsors of the Magnocraft (see explanation in subsections G7.2 and F6.2). This wave spins around the propulsor's main magnetic axis "m". It can reach any desired angular velocity, causing the formation of the relativistic phenomenon which keeps the Four-Propulsor Spacecraft stable.

I3. The properties of the Four-Propulsor Spacecraft

The differences in the operation of the Four-Propulsor Spacecraft, in comparison to the operation of the Magnocraft, also cause differences in the properties of these vehicles. In general, the Four-Propulsor Spacecraft is not able to create an effective vacuum bubble around its surface (see subsection G9.1). Therefore all properties connected with the existence of the protective vacuum bubble do not apply to this vehicle. For example its flights are accompanied by friction with the atmosphere and by the sound effects produced from such friction (e.g. by a loud bang after passing the sound barrier). Therefore the vehicle's speed in the atmosphere will also be limited by the heat barrier. However, in free space, its speed may still be close to the speed of light. The absence of a vacuum bubble protecting this spacecraft will also make its flights through solid matter impossible (e.g. in rocks). The manoeuvrability of the Four-Propulsor Spacecraft will be on the same level as the manoeuvrability of the Magnocraft. But its ionic picture will have quite a different shape and features. During the ascent of this vehicle the picture will contain four very distinctive columns of ionized air, placed around the perimeter of the resultant magnetic whirl that surrounds the spacecraft's shape (e.g. a gable-roofed hut). This hut-shaped (resultant) whirl will be much less intensive than the four local whirls produced by the propulsors. During the descent of the Four-Propulsor Spacecraft, the local whirls from its propulsors can diminish, thus only a resultant hut-shaped whirl may remain visible.

A number of Four-Propulsor Spacecraft are able to couple with one another into several configurations known from the Magnocraft. Two or more of these vehicles can join together forming an equivalent of the cigar-shaped flying complex (see Figure G8) or an equivalent of the spherical flying complex (see Figure G7). Also, the set of flying cigars formed in this way may join further into a higher ranking arrangement, representing an equivalent to the flying system of the Magnocraft (see Figure G16).

The Four-Propulsor Spacecraft may also form configurations with the discoidal Magnocraft. In these configurations the spacecraft clings to the Magnocraft in such a way that the outlets from its four propulsors exactly align with the outlets of the Magnocraft's side propulsors. In order to enable such an alignment, the Four-Propulsor Spacecraft will only be built in such sizes which correspond to the sizes of the Magnocraft (i.e. which allow for the alignment of outlets from propulsors of both these vehicles). For this reason, eight separate types of the Four-Propulsor Spacecraft will also be distinguished. Their dimensions are provided in Table I1. The subsequent types of this spacecraft are marked as T2, T3, ..., and T9. Each of these types corresponds to an appropriate type of Magnocraft (e.g. type T2 of the Four-Propulsor Spacecraft corresponds to type K3 of the Magnocraft, T3 to K4, etc.).

The long, thin columns of the spinning magnetic field produced by each propulsor will possess clearly defined boundaries. Therefore they will form a trap for the light, appearing

to the casual witness as columns of a black material (i.e. black bars - see subsection G3.4). Because they will be in a permanent spin, they will give an observer the impression of looking at a set of four black drills rotating with enormous velocity. This, together with the rectangular helicopter-like shape of this vehicle, may cause an inexperienced witnesses to confuse it with twin- or multiple-rotor helicopters.

The shape of the living compartment in the Four-Propulsor Spacecraft is not limited by strict stability conditions, as was the case with the Magnocraft (see subsection G4.2). Therefore, it can be designed in a manner which: allows the fastest identification of a given vehicle; provides the highest comfort for the crew and passengers; and ensures the easiest landing, carrying and unloading of the transported cargo, etc. These are the main reasons why, in spite of a few disadvantages when compared with the Magnocraft, the Four-Propulsor Spacecraft should have many applications.

I4. Identification of the type of Four-Propulsor Spacecraft

To allow other space travellers to identify from a distance the type of Four-Propulsor Spacecraft that they approach, significant geometrical features of this vehicle are built in appropriate proportions. Therefore the identification of its type is very simple and can be done by a computer. It only requires to determine the mutual proportion between the vehicle's significant dimensions. In turn, these proportions describe the type factor "T" of a given Four-Propulsor Spacecraft. The value of this "T" factor is equal to the ratio of the crew cabin height "G" to the height "Z" of the roof, or to the height "h" of a propulsor (see Figure I1):

$$T = G/Z = G/h \qquad (I1)$$

Each type of Four-Propulsor Spacecraft has a corresponding type of discoidal Magnocraft (e.g. T3 has K3, ..., T10 has K10). For this reason, the shape and dimensions of the Four-Propulsor Spaceship were so designed, that they also allow for the determining of the type factor "K" of the Magnocraft to which a given spaceship corresponds. This "K" factor can be determined through dividing the height "H" of the body of this spacecraft by the height "Z" of its roof, or by the height "h" of its propulsors, i.e.:

$$K = H/Z = H/h \qquad (I2)$$

When a given Four-Propulsor Spacecraft reveals the value of its factors T or K, all its remaining data can be learned from Table I1.
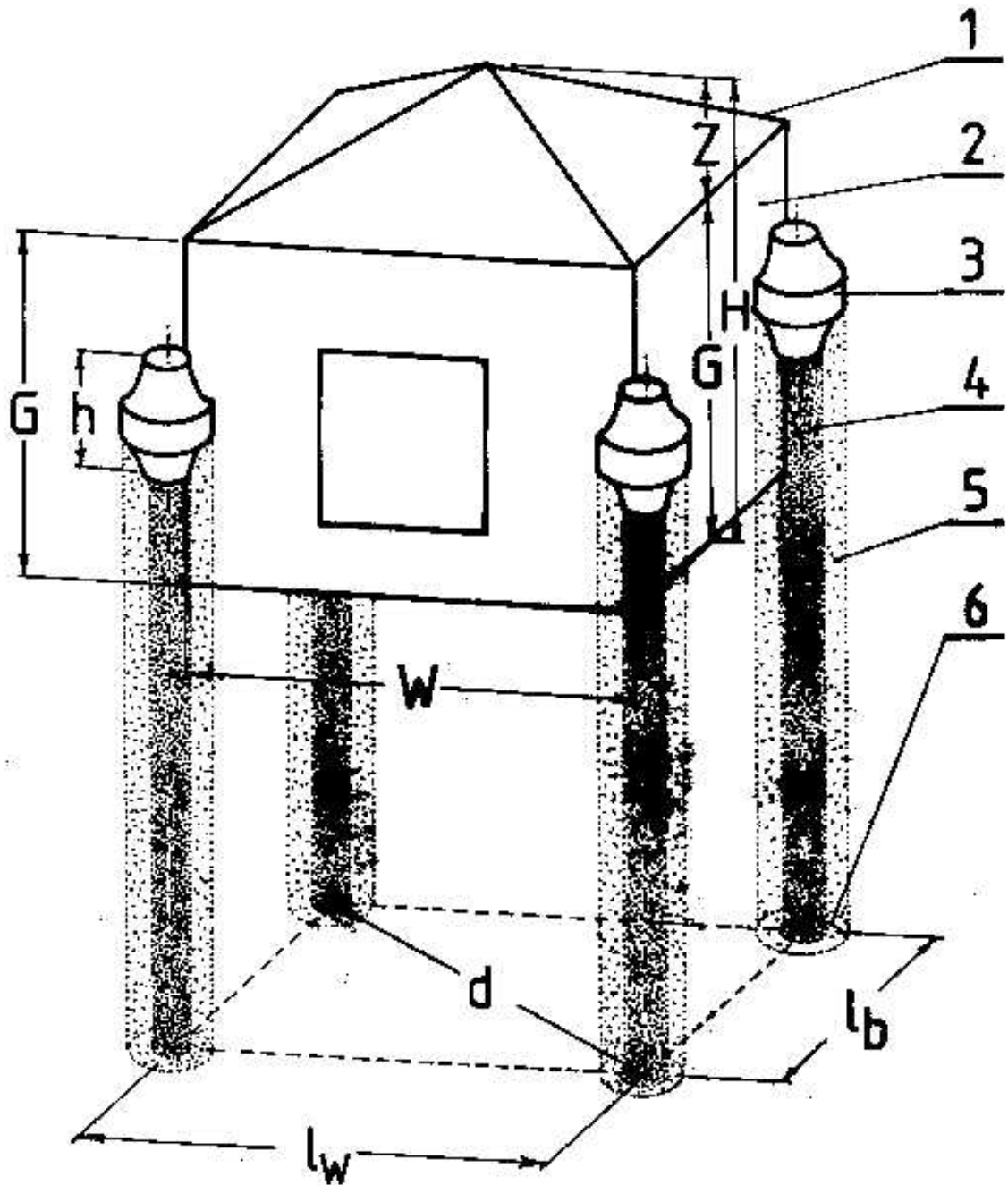
Fig. I1. A Four-Propulsor Magnocraft which, together with a discoidal Magnocraft and Personal Propulsion System, represents the third basic application of magnetic propulsion. Illustrated are: the appearance, components, and basic dimensions of this vehicle. Symbols: 1 - a gable roof; 2 - a cubical living compartment containing crew cabin; 3 - one of the four propulsors; 4 - a core of high density spinning magnetic field yield from the M chamber of the vehicle's propulsors (see "M" in Figure I2), 5 - a crust of spinning segments of magnetic field yield from the U, V, W and X chambers of each vehicle's propulsor; 6 - one of the four scorch marks left on the ground by a low hovering vehicle. Dimensions: H, Z, G, W - describe the size of a cubical-like crew cabin (i.e. total height, roof height, wall height, width); d, lw=lb=l - describe the span of the vehicle's magnetic axes; h - describe height of propulsors.
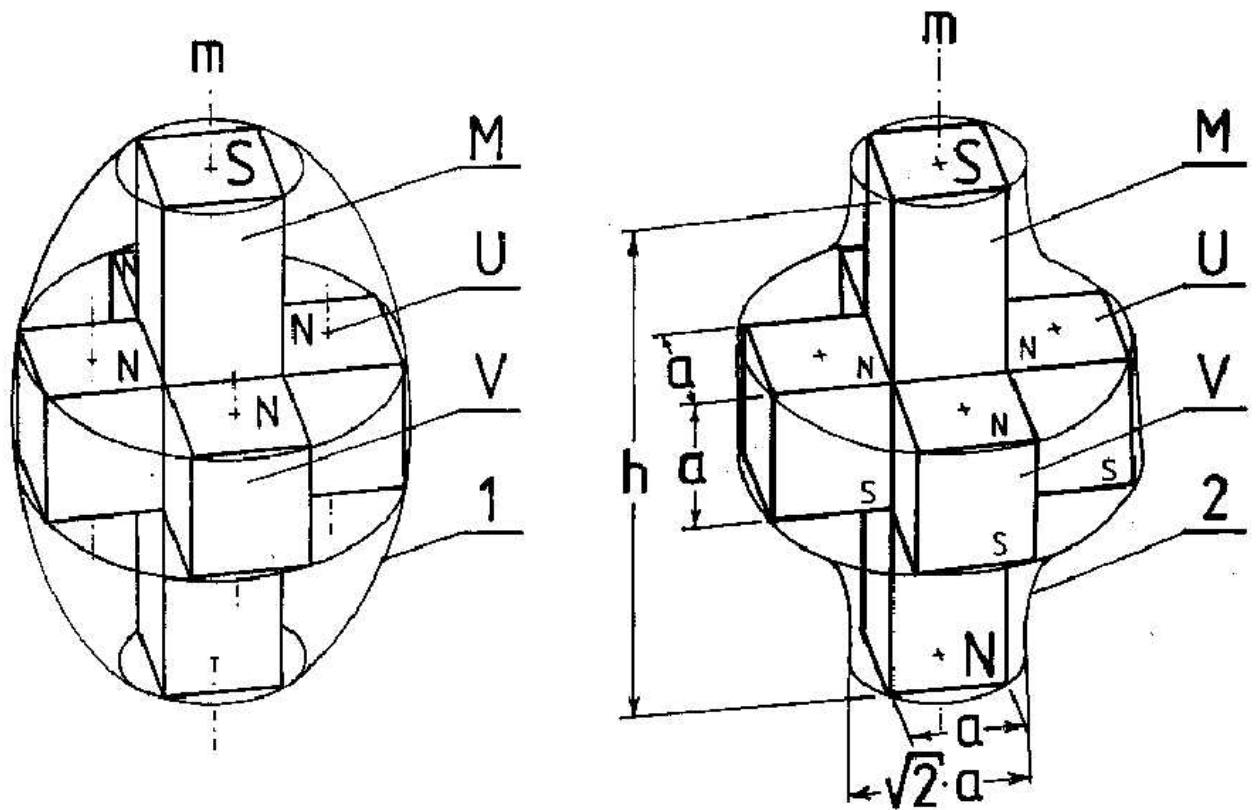
Fig. I2. The shape, dimensions, and components of propulsors utilized in the Four-Propulsor Magnocraft. These propulsors utilize the arrangement of Oscillatory Chambers called the "spider configuration" (for details see Figure F7). Symbols: M, U, V - subsequent chambers of the spider configuration; 1 - barrel-like aerodynamic shell that may cover the propulsor (note that this shell can take any form, from barrel-shaped to rectangular; not just the shape shown in this illustration); 2 - jug-like aerodynamic shell that may cover the propulsor; a - side dimensions of cubical Oscillatory Chambers; h - the height of the propulsor; N, S - the orientation of magnetic poles in subsequent Oscillatory Chambers; m - magnetic axis of the propulsor.
    (a) The barrel-shaped propulsor.
    (b) The jug-shaped propulsor.

PART 3

THE EVIDENCE CONFIRMING THE VALIDITY OF THE THEORY OF THE MAGNOCRAFT

Professor Tom Stonier in his book, "The Wealth of Information", (Thomas Methuen, London 1983, ISBN 0-423-00800-5 pb, page 12) says:

"Unlike earlier times when practical experience laid the foundation for new science, the flow of information is now generally in the opposite direction. For example, in the nineteenth century, the experience with the steam engine led to the science of thermodynamics. In contrast, the development of the transistor in the middle of the twentieth century was dependent on the solid-state physics conducted decades earlier."

This statement very precisely reflects the revolution which we are observing in technology at present. From now onwards our inventions will become so complex and so sophisticated that there is no way we can come upon them accidentally while conducting other experiments. Behind each major device now completed stands some complicated theory which is an accumulation of an enormous amount of knowledge, and we must accept that this process will escalate in the future. Therefore the time when we could expect from an inventor that he/she would provide working hardware in support of his/her claims belongs to the irreversible past. From now on new inventions will be first presented on paper - like the Oscillatory Chamber and Magnocraft in this monograph - and then will come the long, expensive and difficult task of actually building them, involving the co-ordinated effort of many people.

This new situation with regard to inventions also requires the developing of new methods for evaluating the validity and usefulness of a particular creation, before the construction of it is in fact started. These methods must be able to ascertain whether an invention is correct, feasible and useful when it is still on paper and presented in theoretical form only. Unfortunately, such methods do not exist as yet. We must start to create and develop them as soon as possible.

In the part of this monograph that follows, the author's approach in developing such a method is presented. This approach takes the form of logical deductions and supporting evidence which prove that the propelling devices described in the previous part of this monograph are already used on Earth by some extraterrestrial civilizations. At the moment when the deductions prove this, they also prove that the completion of the Magnocraft and the Oscillatory Chamber by our civilization must be feasible as well. This is because the laws of the universe work the same for everyone. Therefore no matter who implements a particular invention, its principles must still be valid and its completion feasible. The principles working for extraterrestrials must eventually work also for us. Thus conclusive proof for the use of a particular device by extraterrestrials is equivalent to actually seeing a working model of this device. Of course, because such a working model is "imported" (not built here on Earth), our civilization still faces the problem of its completion. But our aim becomes clearly defined, the final success assured, and the completion procedure justified.

Chapter J

FORMAL PROOF THAT "UFOs ARE ALREADY OPERATIONAL MAGNOCRAFT"

It is obvious that the best way of convincing someone about the feasibility of building a Magnocraft is to demonstrate this vehicle when it is already built and operational. By an extraordinary coincidence, advanced spaceships are observed on Earth whose attributes exactly correspond to those of the operational Magnocraft. These spaceships are called UFOs (an acronym from "Unidentified Flying Objects"). Of course, in order to use UFOs to validate the Magnocraft, formal proof that "UFOs are already operational Magnocraft" must first be conducted. This proof is presented in the chapter that follows.

The Magnocraft is entirely an Earth vehicle, i.e. it has been invented, developed, and it is proposed to build it on Earth without any extraterrestrial influence or inspiration. It was only after all the attributes of this vehicle were fully identified and published that numerous readers contacted the author and reported that they have actually seen the Magnocraft in operation - only they called it differently, i.e. a UFO. Although at that stage the author did not envisage any connection of his Magnocraft and UFOs, just in case there was one he followed these reports and tried to identify the differences or similarities existing between both these vehicles. Soon afterwards, with the weight of the evidence that he collected, he realized that in fact there are UFO vehicles already operational on Earth which display all the attributes that have been theoretically predicted for the Magnocraft. Subsequently the formal proof that "UFOs are already operational Magnocraft" has been worked out and published. It appeared for the first time in the Polish Journal "Przeglad Techniczny Innowacje", no 12/1981, pp.43-5. The proof presented in this chapter is only an extension, with additional evidence, of this original proof published in the Polish Journal.

The formal proof that "UFOs are already operational Magnocraft" is based on a very old methodology adopted by present science and called the methodology of "matching the attributes". In this methodology two sets of attributes describing two independent objects are compared (matched), in order to prove that both these objects are identical. An ancient example of using this methodology would be a hunter who matches the attributes of a trail with attributes of an animal known to him in order to determine as to whether this animal made the trail. This methodology is one of the most reliable, successful, and frequently used ways of identifying unknown objects. It is used in the majority of identification procedures, including criminal investigations (matching the evidence with a suspect), medicine (matching symptoms with a disease), military reconnaissances, etc. In order to prove with this methodology that the Magnocraft and UFOs are identical vehicles, a total match between the theoretically deduced attributes of the Magnocraft and the observed attributes of UFOs must be documented. Therefore, this proof is formulated as a logical structure comprising the following 4 steps:

1. Proposing the working thesis that "UFOs are already operational Magnocraft" and defining a way of proving the truth of this thesis. (The introductory part of chapter J achieves this).

2. Identifying the Magnocraft's attributes, to be subjected to matching. Through applying the theory of the Magnocraft, 12 most representative attributes that will characterize the operational Magnocraft were theoretically identified and are listed in subsection G12. The reason why, in the proof presented here, only 12 attributes are used (instead of, for example, 13 or 24) is that from the probability point of view 12 attributes suffice for this purpose (see the justification from subsection A3). But the complexity of the Magnocraft enables us to identify and describe a large number of further attributes not considered here. Therefore, almost any required number of the Magnocraft's attributes can be included in this proof later, if required.

3. Documenting the corresponding attributes of UFOs. By analyzing various UFO sightings and photographs, corresponding 12 attributes of UFOs were revealed and documented.

4. Matching each attribute of the Magnocraft deduced theoretically with the corresponding attribute observed on UFOs. If this matching is total, it automatically proves the truth of the working thesis, thus constituting formal proof that "UFOs are already operational Magnocraft".

The completion of the above logical structure is achieved in 3 sections of this chapter. The first section J1 explains the principles applied during the selection of evidence concerning UFOs to be presented here. The second section J2 conducts the matching of both groups of attributes, i.e. those deducted theoretically for the Magnocraft and those observed on UFOs. This J2 section is further sub-divided into 12 subsections, each one of which describes the next representative attribute of the Magnocraft, and then matches this attribute with the corresponding evidence collected during sightings of UFOs. The section J3 presents the final conclusions derived from the presentation of the logical structure of this proof.

The completion of the proof that "UFOs are already operational Magnocraft" introduces a number of important implications. The three most significant of these are as follows:

(1) It constitutes proof that "UFOs do exist".

(2) It validates the theory behind the Magnocraft. From the point of view of the Magnocraft's validity, the existence of UFOs which employ the Magnocraft's principles of operation has the same value as the presentation of a working model of the Magnocraft.

(3) It stresses the importance of UFO research. Scientific analyses of UFOs are vital for rapid progress towards the completion of the Magnocraft. Thus, it is also vital for the achievement by our civilization of a capability for interstellar transportation.

The methodology of "matching attributes" applied here to prove formally that "UFOs are already operational Magnocraft" also provides an additional benefit. It introduces the important "postulate of interchange between UFOs and the Magnocraft". According to this postulate every correct equation, principle and fact established for the Magnocraft must also apply to UFOs; as well, every fact observed on UFOs must apply to the Magnocraft. The practical utilization of this postulate allows for the more rapid solving of the UFO's secrets by applying to them all the findings concerning the Magnocraft, and also allows for faster progress in the building of our Magnocraft through utilizing technical solutions that are already observed on UFOs.

There have been already, and will be in the future, numerous attempts to discredit the validity of deductions presented here (e.g. see OMNI, February 1984, Vol. 6, no. 5, page 87). However, in spite of these attacks from opponents of the Magnocraft, so far no one has managed to invalidate the theory behind this vehicle, or refute the validity of the proof based on this theory. Every single objection against the Magnocraft that has been raised to date is a result of critics overlooking an important solution already postulated by the theory of this vehicle. On the other hand, success in the experimental completion of the devices postulated by the Magnocraft's theory (such as the Oscillatory Chamber and free energy devices) reinforces the validity of this vehicle.

The proof is based on the methodology of "matching the attributes" in definition allows an unlimited number of comparisons (i.e. every fact gathered from a UFO sighting can be compared to a corresponding fact derived theoretically from the Magnocraft). Therefore, this kind of proof still remains valid even if the individual attributes of UFOs that it utilizes could not be validated for some reason. This characteristic of the proof presented here completely neutralizes the debunking strategy used so far by sceptics to abolish previous attempts proving the existence of UFOs. We know that all these previous attempts were based on single facts (e.g. single sighting, single event, single material evidence). On the other hand, there is no single fact that can't be put in doubt by scientists who are so willing. Therefore, by adopting the strategy of continually putting such single facts in doubt, the UFO sceptics have managed to invalidate every other proof put forward to date.

Fortunately, with regard to the proof presented here, this strategy used by sceptics would simply not work. In order to put it in doubt they would need to prove conclusively that all the evidence of UFO manifestations is non-existent (philosophically, proving this is impossible). For this reason, the structure of logical proof presented in this chapter is "sceptic-proof".

The impossibility of discrediting the proof presented here puts UFO sceptics in a rather uncomfortable position. Their reaction observed so far is to ignore its existence. But such ignoring has no significance in the long run - it delays the official recognition of the proof, but is unable to prevent it. <u>The proof is there, it was formally published, no-one is able to disprove it, therefore every person involved in UFO research is obliged to respect its validity</u>.

As is usually the case with the acceptance of new scientific developments, acknowledgment of the author's formal proof that "UFOs are already operational Magnocraft" is progressing very slowly. Probably even when the first Magnocraft built on Earth will carry ambassadors from our planet to other civilizations, some individuals will still refuse to recognize all the implications that this vehicle introduces (similar to the situation where believers in a "flat Earth" still refuse to accept that our planet is round). However, in spite of this, the Magnocraft steadily gains further adherents in an ever increasing number of countries. At present it is already well established in such countries as: New Zealand, Poland, Switzerland, USA, USSR, and West Germany. Further investigators from other countries display a growing interest in this vehicle, and in the ideas that it introduces.

J1. <u>Principles of selecting the relevant UFO evidence</u>

There is an overwhelming wealth of evidence available at present concerning UFO manifestations. If "UFOs are already operational Magnocraft", then all these UFO manifestations must correspond exactly in every detail to the future effects of the Magnocraft's operation. Of course it would be impossible to present all the evidence concerning UFOs in one small chapter. For this reason, only selected samples of "court-type" evidence are used here. These samples represent evidence that would be recognized in any court during trials involving human lives, and include UFO photographs and eye witness reports. Apart from this court-type evidence, there is a wealth of material evidence available on UFOs, such as marks left on the ground during landing of UFOs, sites where UFOs exploded, glassy tunnels made in rocks during underground flights of UFOs, etc. This material evidence is referred to here, but its detailed presentation will be contained in the next chapters in support of more specific aspects of the Magnocraft's theory. Most of it has a stationary, permanent character, thus it can be subjected to scientific investigations without the need for altering traditional research methodologies (e.g. the marks left on the ground during landing or the explosion sites of UFOs do not fly away when scientists approach them). Its interpretation significantly advances our ability to commence the building of the Magnocraft.

Included in the court-type UFO evidence are a vast number of UFO photographs and eye-witness reports. This number is too large to be reviewed fully in one small chapter. Also the main goal of this presentation is more to explain the principles of matching the attributes of UFOs with those of the Magnocraft, rather than to accommodate all the UFO evidence available for this purpose. Therefore for each topic addressed, the author selected only one single sample of evidence which in his opinion is the most representative of all the material collected on this topic. Everywhere, where it is possible, the author has used photographs to illustrate his deductions, as they constitute the most objective evidence. In some topics, however, where the deductions concern matters impossible to be photographed (e.g. course of events, electric currents, etc.), appropriate eye-witness reports are provided.

All evidence used in this chapter has been selected from the most classic examples of UFO photographs and sightings. Therefore copies and descriptions of this evidence are contained in various books and periodicals dedicated to UFOs. In order to save readers' time, the author has listed at the end of this chapter some resources known to him of UFO

evidence. Although these books contain all the descriptions of cases referred to in this chapter, they are not the only sources which supply the details of the evidence discussed here and which allow for the verification of this evidence. For scientific exactitude, each time deductions are supported by UFO evidence, the author has also provided the source materials where the original description of this evidence can be found. Such a reference takes the form explained in subsection A2, i.e. "[...J] page number". For example "[4J] p. 134" means: look at page 134 in the 4th book in the list provided on the last page of chapter "J". (Notice that the first book in the list at the end of chapter J is written in German. But because, in the author's opinion, it contains the best atlas of UFO photographs ever published, it is highly recommended for English speaking readers also.)

The author has dedicated an enormous amount of time and effort to provide readers with the best possible quality of evidence. He has searched for the authors of UFO books and photographs, has written numerous letters to them, has asked for copyright permission, higher quality copies of photographs, details which were lacking on some evidence, etc. Unfortunately most of these efforts have not produced results. Thus some evidence of key importance must be presented here in the form which is available to the author, i.e. sometimes with important data unavailable, or not of the highest quality copy. But he will continue his effort and in the next edition of this monograph the quality of the evidence presented should be improved further. The author would like to take this opportunity to issue an appeal for assistance in contacting owners of UFO photographs, in finding the sources of the higher-quality UFO pictures, in the collecting of unavailable details (e.g. authors, dates, places, etc.) on the evidence already presented here, etc. To improve this monograph is not just to expand one more book on UFOs, but to strengthen the scientific foundations on which the rationalized research of UFO manifestations can be built.

As is obvious from the content of chapters G, H and I, UFOs are not one type of vehicle, but a mixture of three kinds of devices which in this monograph are called the Magnocraft, Personal Propulsion, and Four-Propulsor Spacecraft. In the deductions from this subsection only the Magnocraft-like (i.e. disc-shaped) UFOs will be considered and analyzed. The personal propulsion of UFOnauts will be discussed in chapter N, whereas the four-propulsor UFOs will be commented on in chapter O.

The many distinguishable differences between the anatomy of occupants from various UFO spaceships allow us to deduce that numerous civilizations have sent their vehicles to Earth. This is even confirmed by the claims of UFOnauts themselves. In the author's private files there is a report of a New Zealand citizen abducted onto a UFO deck for a medical examination (the Auckland incident of abduction, Auckland, New Zealand, December 1979) who discussed this matter with an alien doctor. In this report the information provided by the UFOnaut is recorded. Below is quoted what the abducted person repeated of the alien's statements:

"They have planets of people who are above them and planets who are below. We are below - not in any space, time or anything, simply in development. As he said and always emphasizes, knowledge is responsibility. They know about us, they have a responsibility to help us, as those higher than them have a   responsibility to help them."
Because the level of development of the civilizations sending UFOs varies, so also the technological advancement of their vehicles must differ. Thus Earth is most probably visited by a mixture of vehicles which are equivalent to all three generations of the Magnocraft. But we know from subsection B5 that each one of these generations is able to operate in the magnetic convention also. Therefore all UFOs in some stages of their flight display the attributes of the Magnocraft of the first generation. In this chapter, such magnetic attributes only will be considered. The UFOs flying in other conventions, i.e. teleportative and time travel, are discussed in chapter K.

As was proven in subsection G4, the general shape of all vehicles which employ the Magnocraft's operation is strictly predefined by the set of laws utilized in their propulsion. This shape must obey the set of equations listed in Figure G23. The only details which could vary for vehicles of different civilizations are the dimensions, materials and the internal divisions into crew compartments. But a common logic says that for practical

reasons (e.g. rescue missions in space) the dimensions of UFOs should also be standardized by various civilizations who use these vehicles. Therefore, it is almost certain that all civilizations who have already built Magnocraft-like vehicles are organized into an "intergalactic confederation" whose aims also include the standardization of these vehicles' dimensions. (Various reports from UFO abductees mention the existence of this confederation, e.g. the abduction of Serg. Moody on 13 August 1975, Alamogordo, New Mexico, USA - see Xenolog (New Zealand), no 104, May-June 1976, pp. 11-14.) The assumption adopted in this chapter is that such an intergalactic confederation in fact does exist. This assumption allows for a consistent approach in considering all disc-shaped (discoidal) UFOs, without determining which civilization produced them.

J2. Matching of the Magnocraft's attributes with those observed in UFOs

The order of the Magnocraft's attributes discussed in the subsections that follow coincides with that from subsection G12. Therefore for the better comprehension of subsequent topics, readers are recommended to refer to subsection G12.

J2.1. The observed shapes of solo flying vehicles

Although UFOs never pose for photographs and it is extremely difficult to obtain a clear picture of these vehicles, throughout the years a number of legible photos have been accumulated. While reviewing these photographs it becomes evident that the shapes of discoidal UFOs correspond to the shape of the Magnocraft in every detail - compare the Figures that follow with the description from subsection G.1. As we may see from Figure J1 an outline of a UFO reminds us of an inverted saucer (see also Figures N1 and G4). Identical to the Magnocraft, UFOs also possess the flange that surrounds these vehicles around their base - see Figure J2. In the centre of their base there is an underside concave - see Figure J3. In the centre of the UFOs' topside convex, a central propulsion compartment containing the main propulsor is located - compare Figures J4 and G5.

Similarly as is the case with the Magnocraft, UFOs are also built in the eight basic types K3 to K10, which differ from one another by the value of their "Krotność" factor (see subsection G4.7) and also by all attributes which depend on this "K" factor (e.g. number of side propulsors, general shape, dimensions). The existence of these eight types of UFOs can easily be revealed during the geometrical analysis of the objects photographed. The object shown in Figures J1 and J17 represents the UFO type K3. Figures J5 and J2 show respectively UFOs type K4 and K5. A UFO type K6 is shown in Figures J11 and J19. Type K7 is presented in Figures L2 and J30. The three largest types of UFOs, i.e. K8, K9 and K10 are presented respectively in Figures J6, J7 and J8.

The geometrical analysis of the photographs of discoidal UFOs reveals that each type of these objects exactly fulfils the set of equations listed in Figure G23. This means that the design conditions, which for the Magnocraft were described in subsection G4, are also operational in the structure of UFOs (these conditions are only operational when a given vehicle employs the Magnocraft-like propulsion system).

Mechanical protrusions which strongly confirm the similarity between the structures of UFOs and those of the Magnocraft are the telescopic legs of UFOs positioned beneath at an angle. As can be learned from Figure B1, the legs in the small types of Magnocraft (i.e. K3 to K5 type) must be extended at an angle in relation to the vehicle's base. There are a number of UFO photographs - see Figures J9 and J22 - which show that the legs of these extraterrestrial vehicles are in fact extended beneath at an angle. It should be stressed here that frequently at landing sites of UFOs very clear prints from these legs remain. An example of such a print is shown in Figure M1. The determinations of the weight of UFOs which made these imprints indicate that they are very close to the predicted weight of the Magnocraft, listed in Table G1.

The most direct confirmation of the similarity between the designs of UFOs and the Magnocraft originates from the reports of people taken onto the deck of UFOs (so-called abductees). If we omit from consideration the internal partitions dividing the crew's cabins into smaller rooms (which in various UFOs must be placed in different ways to suit the specific specialization of a particular vehicle) the design of every UFO's shell corresponds exactly to that of the Magnocraft. In almost every report the central cylinder containing the main propulsor (see 13 in Figure G5) is either directly mentioned or its existence can be deduced. Here is how Antonio Villas Boas (Brazil), abducted onto a UFO deck on October 15, 1957, describes the interior of the spaceship which he visited - see [5J] p. 20:

"... this room was in the centre of the machine. In the middle of the room there was a metal column running from ceiling to floor".

Similar central cylinders, sometimes even including accounts of the Oscillatory Chamber, can be found in numerous other well-known descriptions of a UFO interior, e.g. see the classical book by Jonathan Swift, "Gulliver's Travels", chapter III of a voyage to Laputa, where the interior of the Laputians' "flying island" (i.e. a UFO) is described in detail.

Moreover, almost every UFO abductee in his/her report also mentions the flange with side propulsors. Even from such brief quotations of abductees, like those provided in subsections L1 and K2, the similarity of UFO and Magnocraft shapes is evident (see also Figure G5).

J2.1.1. The vision distorting factors

The evidence presented above indicates that the saucer-like shapes of all discoidal UFOs should be perceived by various witnesses as almost identical. On the other hand, we know from practice that individual witnesses may differ in their perception of this shape almost to the extreme. In Figure J10 only a small sample of the almost unlimited variety of shapes and forms of UFOs which are observed and photographed is presented. So what is the reason for such significant differences between the objective shape of discoidal UFOs and their subjectively perceived picture? The deductions that follow explain this.

With UFOs, the unique principles of operation, the changes caused in the environment, the materials used for the shell, and the coupling capabilities, introduce seven "vision distorting factors" which may completely alter our perception of these vehicles. In appropriate situations, the distorting factors affect, at random, our sightings, causing the same UFO to be perceived completely differently by various witnesses. Let us now examine each factor separately, considering them in the order of their distorting power. (Readers should notice that the identification and evaluation of each factor is only possible because the Theory of the Magnocraft so clearly defines them.)

#1. The ionic picture of a whirl. In the magnetic whirl mode of a UFO's operation, the spinning cloud of ionized air may completely cover the surface of a vehicle (this cloud is called here the ionic picture of a whirl). Because this cloud is nontransparent, intensive, and with clearly defined boundaries, it is taken by numerous witnesses to be the surface of UFOs. The classic shape of an ionic picture of a whirl (see Figure G32) is easily deformed by the vehicle's motion, magnetic field configuration, etc. It also depends strongly on the type of UFO vehicle that formed it and on the intensity of the magnetic whirl, which (intensity) can change smoothly from zero to maximum. Thus the ionic picture of a whirl can provide witnesses with hundreds of various perceptions of the same vehicle - see Figures J9, J22, J23, J26 and J33.

#2. The coupling of a number of discoidal UFOs into various flying arrangements. The shapes of these arrangements drastically differ from the shapes of vehicles flying solo. Subsection G3 reveals how many different final forms can be obtained from such couplings. Figures J11 to J16 and also Figure L2 confirm that UFOs in fact produce each one of these forms. For example, the vehicle D/2 from Figure J10 is not a UFO of an entirely new shape, but a flying system formed from a number of discoidal UFOs - compare this D/2 shape and Figure G16.

#3. The action of a magnetic lens. This action is especially confusing as it may significantly alter the apparent shape of a UFO. It manifests itself through two different effects, i.e. (1) making parts of vehicles located close to the propulsors (i.e. flanges and topside domes - see Figures J5 and J30) become partially or totally invisible, and (2) distorting the apparent shape of visible parts of the vehicles in a similar way as objects partially submerged in a transparent liquid can be distorted. The second effect causes the hemispheres to be seen as ovals, spheres to be seen as egg-shaped, and flanges from behind objects may appear on the side of UFOs or on top of them - giving an impression of wings, tails, etc. An excellent example of this type of distortion is an apparent deformation of a lower UFO in detached configurations (compare Figures G13 and L1, which both show exactly the same configuration of vehicles).

One of the frequently reported results of the magnetic lens action is revealed to a witness who observes a UFO from underneath. In such cases the entire body of a vehicle may disappear, with only the twin-chamber capsule from the main propulsor remaining visible - compare Figures G37 and J31. In this way the discoidal UFOs are perceived by eye-witnesses as diamond-shaped or square objects. This phenomenon was reported by the witness of the UFO from Figure N1. Also the shape D/7 from Figure J10 was formed in the same way - see the description from subsection J2.10.

#4. The emission of various light signals. During darkness or poor visibility, eye-witnesses and photographs reveal only the shapes of light emitted by UFOs. Thus the real form of UFOs remains hidden behind these lights. Figures J19, J21, J25 and J28 illustrate how much distortion and concealing of the real shape of a UFO such lights may induce - see also the descriptions from subsection J2.9.

#5. The black bars of a magnetic field. The columns of a strong magnetic field yielded by propulsors of UFOs may trap light and look as though they were made of a black material. Thus, for some witnesses they may appear as solid elements protruding from vehicles. When combined with the action of a magnetic lens these black bars may significantly alter the appearance of UFOs - see Figure L1 which was the model for the drawing B/6 from Figure J10.

#6. The transparency of the UFOs' shell. The shells of UFOs is made of transparent mirror-like material whose degree of light reflection is controlled by the crew. Therefore, if the crew so wishes, the shell can be completely transparent or, like a mirror, may completely reflect the light. All the stages of the continuum between these two extremes can also be obtained. This ability to become transparent causes some internal elements of vehicles to be observed (especially when the shell of a UFO is looked through at an angle close to 90 degrees), while the outlines of the external shell remain unnoticeable. For example in Figure J8 the main propulsor and the crew's cabin ceiling are clearly visible through the transparent topside dome. Thus, while analyzing this photograph, one could obtain a completely false impression about the shape, size and location of topside domes in UFOs type K10.

#7. The various elements protruding from UFOs (e.g. legs, periscopes). These may also significantly change the appearance of the observed vehicles - see Figures J9 and J22.

If during an actual sighting more than one of the above factors acts simultaneously, the resultant perception of the UFO's shape is able to confuse even the most experienced investigator. For this reason the factors listed have contributed to forty years of difficulty in piecing together the enigma of UFOs. A theoretical approach to the problem, achieved through the formulation of the Theory of the Magnocraft, allowed a breakthrough in this ocean of misinformation and the discovery of a single source from which the shapes of all UFOs originate. Thus, thanks to the Theory of the Magnocraft, all UFO shapes can now be explained.

J2.2. The observable arrangements of coupled vehicles

It is confirmed that UFOs are also able to create all the arrangements which are described for the Magnocraft in subsection G3. The most frequently observed arrangement of UFOs is the spherical flying complex - see Figure J11. In numerous photographs of such complexes not only are both vehicles visible, but also the double flange which fastens the complex around its centre can be distinguished - see also Figure J30.

The spherical complex is not the only arrangement observed. There are numerous photographs and reports revealing the existence of cigar-shaped flying complexes of UFOs - see Figure J12. The various sources reveal that such cigar shapes are reported in 5% to 8% of all UFO sightings (see [4J] p. 132). Also the fir-tree flying complexes of UFOs have been seen in some cases - see Figure J13.

Different classes of UFO arrangements, not just physical flying complexes, are also reported. Frequently detached configurations of UFOs are sighted - see Figures J14, K4 and L1. Some photographs and witnesses reports confirm the appearances of semi-attached configurations - see Figures J15 and L2. On sporadic occasions the carrier platforms (see Figure J16), flying systems (see shape D/2 from Figure J10) and even flying clusters (compare Figures J20, G17 and M31) have been witnessed and photographed.

UFOs have not only been observed flying while already formed in all these numerous arrangements, but also have been seen when performing in-flight manoeuvres of coupling and decoupling. For example, the photograph from Figure J1 was taken when a spherical complex was observed to split (decouple) into two solo flying UFOs.

The manoeuvre of decoupling the spherical complexes of UFOs is frequently accompanied by the falling to Earth of the hydraulic substance which in subsection G3.1.1 and G3.3 is called "angel's hair". The use of this substance confirms that between the main propulsors of the coupled UFOs there also appears the forces of magnetic attraction, identical to those predicted for the Magnocraft. Thus the falling of "angel's hair" not only indicates the arranging of UFOs in a way similar to the Magnocraft, but also proves that both these vehicles (i.e. UFOs and the Magnocraft) utilize exactly the same propulsion systems. Described below are examples of cases of "angel's hair" falling - refer to [4J] p. 101. Notice that in each case the presence of a spherical flying complex of UFOs, which dropped the substance is reported.

1. Oloron, France, 17 October 1952. At 12.50 p.m. a huge white cylindrical object tilted at a 45 degree angle and moved silently across the skies accompanied by about thirty domed discs travelling in pairs. Lightning-like flashes arced between each pair. The top of the cylinder spewed out white vapour while wispy filaments of material fell to the ground in large amounts where it evaporated.

2. Sadbury, Massachusetts, USA, October 22, 1973. Jane was house-cleaning when her four year old son burst into the house to proclaim that huge spiderwebs were falling from the sky. She stepped outside to see masses of web-like material draped over the bushes, telephone lines, and on the lawn. ...While collecting samples, she glanced upward to see where the wispy threads were coming from. She noticed a type of globe, a ball-shaped object in the sky.

3. Watson/Zachary, Louisiana, USA, 18 October 1973. At 4:30 a.m. early morning workers at a neighbourhood store in the town of Baton Rouge were frightened by loud whirring sounds and flashing coloured lights in the sky. A few hours later, at nearby Watson, R.E. Clark and others sighted a fast manoeuvring object that emitted swirling white material which left circular trails in the sky. Later the same day, a cigar-shaped object streaked across the skies trailing white streamers in its wake. The substance was described as a "long white silky substance" with some strands as much as 2 meters long. One worried mother removed the fallen substance from her little boy. It evaporated on contact with her skin!

In the late 1970s Polish UFO investigating groups accessed a document called the Azaps' Report (dated 24 November 1977). It contained the summary of official UFO investigations conducted by the Academy of Science USSR, Section on Underwater Phenomena. This document stated that an examination of the "angel's hair" was conducted in seven scientific Institutes of the USSR. The scientist Pietranow-Sokolow determined that

this substance represents a compound of boron with silicon, which Earth's technology, to date, has been unable to produce (compare the above with subsection G3.3).

J2.3 The absence of mechanically co-operating parts

The principal drawback of every contemporary means of transportation built on Earth is that it must contain thousands of parts co-operating mechanically. For example, the new Boeing 747 - 400 contains about four million individual parts. The precise manufacture of all these parts makes our vehicles expensive, whereas their failure to operate causes numerous catastrophes that take many human lives. The Magnocraft is free of this drawback. Its operation does not require any mechanically co-operating parts (theoretically speaking the whole Magnocraft can be produced like a plastic balloon, i.e. from only one part). Thus the cost of the Magnocraft's production will be low, the potential for its failure insignificant, and the length of time for its use almost unlimited as its use is not prevented by the wearing out of mechanical parts.

Even the most thorough analysis of the evidence available on UFOs at present does not provide any indication that these vehicles require any mechanically co-operating parts for their operation. There has never been reported any movable wings, propellers, rudders, stabilizers, or other protrusions which would be necessary for the control or propulsion of these spacecraft. The only movable parts that there are, like doors, legs, periscopes or ladders, are used in UFOs for the convenience of the crew, not because their existence is necessary for the vehicle's operation. Such relative motions observed of UFOs, as the spinning of lights, swirling of air, or whirling of electric sparks, are all confirmed to be caused in the electro-magnetic manner.

The absence of mechanically co-operating parts in UFOs is also confirmed by witnesses taken on to the decks of these vehicles. For example, the quotation presented in subsection L1.3 (the Auckland abduction incident, Auckland, New Zealand, December 1979) reveals that even the main twin-chamber capsule is free-floating in the central cylinder of the UFO, suspended only by invisible strings of a magnetic field (see also the description from subsection G1.1).

That the operation of UFOs does not require any co-operating (and thus liable to break down) mechanical parts is also confirmed by the extremely low potential for failure of these vehicles. Because of the enormous amount of energy contained in the magnetic propulsors of UFOs (see subsection G5.5), any accident involving these vehicles must result in a gigantic explosion, comparable only to the blast from a hydrogen bomb. The instruments capable of registering such an explosion have been at the disposal of our civilization for more than a century. In this period of time only one known destruction of a UFO has occurred (the previous destruction, namely near Tapanui, New Zealand, has occurred in 1178 - see subsection M3). This was the famous Tunguska Blast that took place on 30 June 1908 and is described in chapter M. But how many of our space rockets were destroyed during the last 25 years because of malfunctioning?

J2.4. The predetermined (Magnocraft-like) location of propulsors

There is a wealth of evidence available which documents that in UFOs the propulsors are located in exactly the same place as in the Magnocraft. The first such evidence consists of photographs of UFOs in which the areas of glowing air indicate the location of propulsors. Perhaps the best known of these photographs is the one taken over Butterworth, Malaysia, and subsequently published in the 4th January 1979 edition of the "National Echo", Penang. A copy of this photograph was presented in the MUFON UFO Journal, February 1980 issue, page 8 (see Figure J17). A similar photograph was also taken in New Zealand at Motunau Beach - see Figure J18.

Other evidence revealing the location of the propulsors from UFOs is the scorched patterns left at landing sites of these vehicles. Analysis of such patterns confirms that they correspond exactly to the marks which the Magnocraft would leave when landing. The most frequent UFO landing sites contain a ring of scorched vegetation, which usually includes a number of strongly scorched patches which correspond to the location of the vehicle's side propulsors (see Figure M3). Within this ring there is an additional scorched patch usually shifted either southward (when single vehicles land in the Southern Hemisphere) from the geometrical centre of this ring, or shifted northward (when flying complexes land in the Southern Hemisphere) from this centre. An extensive description of the marks formed at UFO landing sites is provided in subsection M1.

Finally, there is evidence available which confirms UFOs are capable of forming the so called "magnetic framework". This evidence originates from sighting of UFOs on the bottom of oceanic trenches (i.e. submerged over 12 kilometres), where the pressure of water is so high that even the strongest of our submarines would be instantly crushed. Note that such magnetic framework can only be created when the propulsion system of these vehicles fulfils the "condition of the force stability" described in subsection G4.2. Therefore, the evidence that UFOs form this framework represents confirmation that the propulsion system of these vehicles is identical to that utilized by the Magnocraft.

J2.5. The utilization of magnetic interactions for producing the propelling forces

UFOs, as with the Magnocraft, utilize the principles of magnetic attraction and repulsion for producing the propelling forces. Such exploitation of the magnetic interactions by the propulsion system of UFOs induces a number of manifestations which are now able to be clearly identified. The most important of these manifestations is the formation of magnetic circuits, whose presence in UFOs can be revealed by photographs. Amongst numerous photographs showing these magnetic circuits the most evidential is the one taken by Enrique Hausmann over Mallorka, Spain - see Figure J19. It presents the outlet from the main propulsor of a K6 type UFO, from which spreads five spirals of the spinning field's strands formed from the force lines of the UFO's main magnetic circuits - compare this photograph to Figure G30 (c). Hausmann's photograph shows the UFO's magnetic circuits in an overhead view. The other picture, also available, shows the magnetic circuits of UFOs in a different, side view - see Figure J20 and compare it with Figure G30 (b).

The other manifestation of the magnetic activity of UFOs is the impact these vehicles have on permanent magnets and magnetic materials. An example of such an impact can be the spinning of compasses caused by a UFO hovering above them. Sightings of spinning compasses were made on a number of occasions. The most widely known of these took place during the Army Helicopter Incident (Mansfield, Ohio, USA) on October 18, 1973 - see [2J] p. 94, [4J] p. 83. When a UFO hovered just above this helicopter, Captain Coyne noticed and reported later that "the magnetic compass was spinning wildly and had to be replaced" (see also the book [1J2.5] by Ronald D. Story, "UFOs and the limits of science", ISBN 0-450-04817-9, page 164).

UFOs not only produce a strong magnetic field, but this field also pulsates similarly to the one produced by the propulsors of the Magnocraft. The photographic confirmation of the pulsating character of the magnetic output from UFOs provides the night-time pictures that reveal the multiple images of these vehicles - see Figure J21. The principles used for the obtaining of such multiple images are explained for the Magnocraft in Figure G34.

Apart from the photographic evidence discussed above, there is a wealth of descriptive evidence available that also confirms the production of a strong, pulsating magnetic field by the propulsion systems of UFOs. Almost every UFO book contains numerous reports describing cases where car engines stop by being blocked by magnetic interactions, magnetic tapes are erased, humming noises are heard, and so on - see item #5 from subsection G12. The magnetic effects caused by UFOs are even employed practically in the construction of so-called "UFO detectors" - see [7J] p. 186.

J2.5.1. Why the Magnocraft's principles could not be formulated 40 years earlier

The evidence available at present reveals that the magnetic effects accompanying UFO manifestations are frequently reported and definitely confirmed. When the first sightings revealed a link between UFOs and magnetic phenomena, some investigators speculated that these extraterrestrial vehicles probably utilize magnetic propulsion systems. But these early speculations were very quickly extinguished by "experts" who condemned the possibility of such magnetic propulsion - see [2J] p. 219. The arguments of "experts" damning the magnetic propulsion of UFOs has been based on the following:-
#1. The physical dimensions of UFOs are too small for a sufficient gradient of the Earth's magnetic field to be encompassed within the vehicle's size. Therefore the magnetic field of UFOs, in the experts' opinion should not be able to produce a significant lifting force - see [2J] p. 219.
#2. If UFOs used magnetic propulsion systems then, in the experts' opinion, they should attract all ferromagnetic objects (acting like huge magnetic cranes). But no such attraction has been observed.
#3. There are numerous UFO sightings reported which are not accompanied by the effects which our contemporary science could recognize as "magnetic".
Although this monograph demonstrates that none of the above arguments has any merit, in the past they were sufficiently strong to destroy all attempts to proceed with the formulation of a magnetic explanation for UFO manifestations. Thus, the correct line of thinking, which could have led to the devising of the Magnocraft's principles almost 40 years earlier, was unnecessarily abandoned because of the effect of "expert" intervention.
When the Theory of the Magnocraft was developed it proved that all the above arguments completely missed the point. The reason why each one of them has no merit is explained below.
Refer to #1. The geometric size of UFOs would only be relevant if the field produced by them would have the strength comparable to the strength of the Earth's field. But the field of UFOs has its strength more than 10^{12} times greater. Thus the interaction of UFOs with the Earth's magnetic field is dependent on the so-called "effective length" of their propulsors, not on any physical length - see subsection G5.3. This effective length in UFOs is so enormously high that it easily encompasses the gradient of the Earth's magnetic field sufficiently to produce a repulsive force having the ability to propel these vehicles (see also subsection G1).
Refer to #2. Most of the time UFOs produce a pulsating magnetic field whose parameters lie on the curve of "interactions in equilibrium" - see Figure F8. The magnetic field with parameters from this curve neither attracts nor repels ferromagnetic objects. Therefore, the magnetic field of UFOs behaves like a speculative "antigravitational" field rather than a magnetic one, thereby confusing the majority of "experts" (for details refer to subsection F6.3).
Refer to #3. The Cyclic Principle (see Table B1) indicates that only a small number of UFOs (i.e. those originating from the least developed of the civilizations visiting us) always operate in a strictly magnetic convention. The majority of UFOs should implement the principles of the Magnocraft of the third generation or at least the Magnocraft of the second generation - see subsections B6.3 and B7. Therefore, the majority of discoidal UFOs use the magnetic convention of flight only sometimes, and they mostly operate in the conventions of teleportative operation or time travel. For the above reason, although these vehicles implement very advanced versions of magnetic propulsion (see subsections D3 to D5), their magnetic effects extend beyond the categories recognizable by contemporary science. As such, these effects can not be detected and identified by our present magnetic equipment.
As is shown in the above explanations, the "anti-magnetic" campaign of "experts" claiming that UFOs do not utilize magnetic propulsion has no merit in the light of the Theory

of the Magnocraft. It is unfortunate, to say the least, that in the name of knowledge the hollow arguments of these people have prevented the advancement of properly directed UFO research for over 40 years.

J2.6. The formation of a magnetic whirl

There are also numerous photographs available which prove that UFOs form a magnetic whirl identical to the one produced by the Magnocraft. An excellent example of such a whirl was already presented in Figure J19. The different photographs of the so-called "ionic picture of a whirl" provide another evidence for the existence of these magnetic whirls - see Figure J22. In such pictures all the elements inferred theoretically for the whirl of the Magnocraft are present (compare Figure J22 to Figure G32). Notice that the correlating sizes of these elements depends on the type of UFO which created them and also on the manoeuvre that this UFO was actually performing - see Figure J23.

The different class of photographs documenting the formation of a magnetic whirl by UFOs provides the accidental capturing on film of very fast moving UFOs (i.e. faster than the heat barrier). The objects from these photographs move so fast that they cross a significant part of the frame in a fraction of a second - see Figure J24. Attaining such a speed can only be possible if UFOs have no friction with the atmosphere. Thus, the photographs of such fast moving UFOs document that these vehicles must create a local vacuum bubble - which, in order to be formed, requires the employment of a magnetic whirl.

The non-photographic evidence confirming the formation of a magnetic whirl by UFOs includes the action of the so-called "inductive shield". There are already a number of reports collected, which provide information on the destruction of aeroplanes and missiles when they attacked UFOs. The descriptions available of such destructions precisely correspond to the expected action of an inductive shield. The most famous of these involved the destroying of a F-51 Mustang fighter plane flown by Captain Thomas Mantell, Jr, near Fort Knox, Kentucky, USA, on 7 January 1948 - see [2J] p. 220. An examination of the debris from Mantell's aeroplane indicated that numerous bubbles and pores were formed in the aircraft's metal. Moreover, a significant part of the aeroplane simply evaporated.

Plasma whirls and inductive shields combined together provide UFOs with very destructive abilities (see subsection G13.2). There are cases on record where UFOs have actually demonstrated these abilities. An example of this is the damage to the small village of Saladare in Ethiopia, at 11:30 on the morning of 7 August 1970. The event lasted only about ten minutes, but during this time a red glowing ball swept over the village, destroying houses, knocking down the stone walls of a bridge, uprooting trees, and melting asphalt and metal cooking utensils. That the destruction caused by this vehicle had its origin in the magnetic whirl is confirmed by the fact that no fire was started in the environment which was filled with flammable materials, and also that all metals were molten (see description from the book [1J2.6], "Into the Unknown", Reader's Digest, Sydney, 1982, ISBN 0-909486-92-1, page 313).

One of the manifestations of the destructive power of a magnetic whirl of UFOs is the ability of these vehicles to penetrate through solid matter. The glassy tunnels left in the wake of such action are described in subsection M2.

J2.7. The ability to change the mode of the UFO's operation

The evidence already available confirms that UFOs can operate in three different modes of operation. In each mode, the properties of UFOs correspond exactly to those of the Magnocraft when it operates in the same mode (see the descriptions from subsection G9). The photographic evidence documenting the operation of UFOs in a particular mode

can be classified into two categories, depending on whether the particular picture was taken during daylight or at night.

In the daytime photographs of UFOs operating in the throbbing mode, the shapes and outlines of these vehicles are very clearly shown - compare Figures J1, J6 and J8. But the daytime photographs of UFOs operating in the magnetic whirl mode reveal only various shapes of the ionic picture of a magnetic whirl, behind which are hidden the real outlines of these vehicles - see Figures J9, J12, and J23.

With night time photography, the appearance of UFOs changes and the only visible forms become the areas where the ionized air emits a registrable glow. Thus, photos of motionless, throbbing UFOs taken with a delayed time exposure show only the single glowing outlet from the main propulsor located in the centre of the vehicle and a ring of glowing outlets from the side propulsors located along the flange - see Figure J25. When UFOs operate in the magnetic whirl mode, photographs reveal only a cloud of glowing air spinning around these spacecraft - see Figure J26.

UFOs operating in the magnetic whirl mode and the throbbing mode also drastically differ in their effects on the wires of electric conductors. In the magnetic whirl mode of operation UFOs form electrical "corks" which block the flow of currents in electric power mains. The appearance of such "corks" is caused by the eddy currents induced by the vehicles' whirling magnetic fields. The blocking of these electric currents in turn causes car lights to fade, engines to stop (because the entire electrical systems of engines fail to work), the electricity supply to homes or cities to be extinguished, etc. The most classic example of such effects connected with the appearance of a UFO are the Levelland (Texas, USA) landings, observed on the night of 2/3 November 1957 - see [2J] page 210.

In the Levelland sightings, the electric wires in seven different cars temporarily failed to perform their functions because of a UFO appearing in close proximity. In all seven cases witnesses reported a similar object. Their descriptions revealed that the UFO displayed characteristics of a magnetic whirl mode of operation with a low intensity of whirl rotation.

When UFOs operating in the magnetic whirl mode hover close to electrical powerlines, they can also cause blackouts of individual homes or even entire cities. The principles involved in such blackouts are similar to those which cause car engines to stop. There are numerous power failures reported in connection with UFOs. The most famous of these is the New York City blackout on November 9, 1965 - see a description of its causes contained in [3J] p. 154. The other cases of blackouts which are connected with the operation of UFOs are described in [3J] page 19.

There are also reports of UFOs causing the opposite effects, i.e. while electric currents are in fact generated in closed circuitry. UFOs causing such effects always display the characteristics of the throbbing mode of operation. Probably the most imaginative illustration for this ability of UFOs was presented in the film, "Close Encounters of the Third Kind" (Columbia Pictures, 1977) - a movie which reconstructs in part the precise events that take place during real UFO encounters. One scene from this movie shows electrical appliances which are disconnected from the power supply, begin to operate when a UFO approached the home.

When UFOs operate in the magnetic lens mode, their field should deflect the light coming from outside. But the light produced by vehicles themselves should penetrate the lenses from inside, and thus this light should be registrable on sensitive photographic film. There are numerous cases of stationary UFOs captured on film when witnesses claimed that the sky appeared to be empty. An example of such a photograph is presented in Figure J27. This kind of picture confirms the ability of UFOs to become invisible. There also exists further direct evidence which documents the presence of a magnetic lens in UFOs. It will be described in subsection J2.10 and presented in Figures J30 and J31.

In Warsaw there exists a group "OSSA" who specialize in photographing such invisible UFOs. The OSSA members claim to have taken over 200 photographs of such objects. The address of this group is: Klub OSSA Sekcja UFO, ul. Bernardynska 17 m. 58, 02-904 Warszawa, Poland.

J2.8. The induction of electric currents

The ability of UFOs to induce electric currents is confirmed by the numerous side effects accompanying the appearance of these vehicles. Some of these effects have been discussed earlier, e.g. an inductive shield and the plasma whirl (see subsection J2.6). But there are also effects which directly involve the accumulation of electric charges. An example of these can be the electrical charging of non-conductive materials, e.g. hair or clothing. Below is a description of the sighting that took place along Route 133 near Sagamore Hill, Ipswich, in the north-east corner of Massachusetts, USA, on September 3, 1965 - see [4J] p. 143.

"As his car approached the crest of the hill overlooking Candlewood Golf Course, Dennis felt the hairs rise on the back of his neck. As he reached the top of the hill and started down the other side, a feeling like static electricity coursed through his body. Simultaneously he was startled by a strange glow just off the road to his left. Moments later he was almost broadside to it. He noticed an object like an inverted saucer with a flat dome floating nearby. Surrounded by a weird greyish glow with a reddish tint, it seemed about 12 meters in diameter. Dennis continued his driving. He wanted no part of it."

J2.9. The emission of various light signals

UFOs are well known for emitting a large variety of light signals. These signals usually impress the eye witnesses and confuse the UFO investigators. However, if UFOs utilize the Magnocraft's principles of operation, all the light signals observed on these extraterrestrial vehicles must correspond to the signals described in item #9 from subsection G12. Thus, we should be able to recognize and interpret them easily.

Let us firstly identify the "natural sources of light", i.e. those resulting from the UFOs' operation. As was shown in subsection J2.6, in the magnetic whirl mode of operation UFOs definitely produce a glowing whirl of ionized air. This whirl forms the ionic picture of a whirl. Some examples of photographs revealing pictures of such a whirl glowing intensely are presented in Figures J12, J22, and J26.

In the throbbing mode of operation, the natural sources of light are the glowing areas located at the outlets from the UFOs' propulsors. Figures J17, J18, J25, and J28 in fact document the existence of such glowing areas in UFOs. Also, according to the Theory of the Magnocraft, in this throbbing mode of operation the outlet from each separate magnetic pole of any propulsor must glow in a different colour, i.e. a yellow-red colour at an outlet from the north (N) pole and a violet-green at an outlet from the south (S) pole. In all colour photographs of glowing UFOs, such a separation of colours occurring in the throbbing mode is confirmed - see Figure J25 and J28.

Mr Karol Burchardt, a retired Captain of the Polish Merchant Navy who is well known in Poland through his book "Znaczy Kapitan", had also documented the change of colours of UFOs after they flew over one of the Earth's magnetic poles. He published a short report in the Polish Journal "Przekrój", in which he described sightings of UFOs during their flights over the Antarctic. He indicated that while passing above a pole, UFOs always change their colour from blue to red or from red to blue. It should be stressed here that, according to the Theory of the Magnocraft, those vehicles which pass over the Earth's pole must change the orientation of their magnetic poles (e.g. from attraction into repulsion - see subsection G6.2). Because such a change in orientation reverses the polarity of the vehicles' propulsors, eye witnesses observe it as a shift to a glow of different colour (i.e. a colour that glows the opposite pole).

The sources of "artificial" light signals emitted by UFOs will now be reviewed. These sources should include searchlights formed from the appropriately re-controlled propulsors (see subsection G1.3) and lamps of the SUB system (see subsection G8.2).

The use of UFO propulsors as searchlights is confirmed by numerous witnesses. Moreover, there are photographs available which show the thin beams of light produced by the propulsors of these extraterrestrial vehicles - see Figure J29.

It should be stressed that numerous sightings of UFOs operating in the throbbing mode also reveal the use of an equivalent of the lamps of the SUB system by these vehicles. (The location of such SUB systems in the Magnocraft is shown in Figures G4 and G35). The UFO's SUB system of lamps detailed in [4J] page 133 is now described. The reported incident took place in South Hampton, New Hampshire, Massachusetts, USA.

"On June 6, 1974, Vivian (47), her son Richard (11), daughter Barbara (10) and niece Helen (30), were driving home from a PTA meeting at Amesbury, Massachusetts. Richard and Barbara called attention to a bright red beacon-like light in the sky a few miles ahead. As they passed an open area, Helen slowed the Volkswagen stationwagon, fully expecting to see a beacon on a tower or tall crane. To their amazement, a large red illuminated dome was hovering over the edge of the clearing. Beneath the dome was a bright rectangular opening with something like "blades spinning around inside". The whirling blades seemed to protrude outside as well. Within this lighted rectangle was centred a dark square, like a darkened window. From the bright opening emanated white, blue, and yellow sparks in simultaneous double bursts, 180 degrees apart.

Helen stopped her car. As soon as she cautiously stepped out (the others felt safer observing from inside), a band of soft-glowing coloured lights appeared around the object's perimeter, greenish-yellow, then deep red, pinkish-red, dark green, and finally a deep blue, like a "string of beads". The coloured lights flickered on and off, one by one.

The reflection from these multicoloured lights revealed a lower, larger, inverted bowl-shaped section, to which a central dome was attached. After the coloured lights blinked off and on for a short time, all of the lights would go on at once with just one solid colour: first red, then blue, then green. Helen stood transfixed at this sight until the object began moving around the field in a "jerky motion" and began to descend towards the ground. Helen thought it was going to land! As Barbara dived onto the backseat floor, Helen jumped back in the car and drove quickly to Vivian's house to call the police."

Because every-day English was used in the above report, its general expressions will now be translated into the terminology from this monograph. Thus what actually had been seen will be revealed. Notice that the details provided in the report allow us to identify the observed vehicle as a UFO type K3, which shape exactly corresponds to that shown in Figure G4.

The "illuminated dome" was the "topside convex" of the UFO (see (4) in Figure G5). The "bright rectangular opening" was the outlet from the outer chamber of the "twin-chamber capsule" performing the function of the "main propulsor" in this UFO (see (M) in Figure G5). This capsule operated in the mode of outer flux prevalence. The "blades spinning around inside" were in fact the strands of a magnetic field forming the magnetic whirl of the UFO. These "whirling blades protruded outside as well" because they formed the main magnetic circuits - compare Figure G30 (c) and Figure J19. A "dark square" centred in the lighted rectangle was the inner Oscillatory Chamber from the main twin-chamber capsule, whose entire output was used for the circulating flux (see Figures F5 (b) and J31 together with the relevant explanations from subsections F6.1 and J2.10). "Double bursts, 180 degree apart" were two main magnetic waves (see subsection G7.2) circulating around the vehicle. The existence of only two such waves indicates that the observed UFO was type K3 whose eight side propulsors allow for only two magnetic waves to be formed (for example UFOs type K6 form five such waves, as can be seen in Figure J19). A "band of soft-glowing coloured lights" was a set of lamps from the SUB system - see Figure G35. When the "coloured lights flickered on and off, one by one", the SUB system indicated that the vehicle operates in the magnetic whirl mode - see the explanations from Table G3. When "the lights go on at once with just one solid colour", the UFO's crew turned the vehicle's propulsors into a throbbing mode of operation, which is safer for witnesses. A "lower, larger, inverted bowl-shaped section" was in fact the upper shell of the flange (see

(8) in Figure G5) in which the lamps of the SUB system are assembled (compare also Figures G35 and J1).

J2.10. <u>The interference with electromagnetic radiation</u>

Sightings of UFOs reveal that these extraterrestrial vehicles also cause all types of interference with electromagnetic radiation which is characteristic for the Magnocraft's propulsion. The three basic types of interference are: (1) the TV, radio, radar, and radio-telephone disturbances, (2) the so-called "black bars" and (3) the "Magnetic lens" - see the descriptions from item #10 in subsection G12.

The strong correlation between the disturbances in telecommunications (especially in TV reception) and close-range sightings of UFOs are often reported. A summary of such electromagnetic disturbances as well as the descriptions of individual cases can be found in many UFO books - see [2J] p. 111, [4J] p. 47.

The columns of a strong magnetic field from the propulsors of UFOs frequently form the "black bars" envisaged for the Magnocraft - see the description from subsection G3.4. The evidence for these black bars in UFOs is discussed in subsection L1 - see Figures L1 and L2.

The most unusual disturbance of electromagnetic radiation caused by UFOs is the formation of "magnetic lenses". There are two categories of evidence available at present which definitely confirms the operation of magnetic lenses in UFOs. These are:

a) Photographs of UFOs on which some parts of the vehicles are lacking, whereas it is definitely known from other evidence (e.g. photographs taken in different conditions) that these parts must be present.

b) Witnessed reports certifying that certain parts of UFOs gradually faded from view while the observer was looking at them.

There are a number of UFO photographs which show that parts of these vehicles located in close vicinity to the propulsors are absent. These missing parts include flanges that hold the side propulsors and the topside spherical domes in which the main propulsors are placed. A classic photograph that reveals this effect is presented in Figure J30. The evidential value of this photo is increased by the fact that it was taken as one of a series (see also Figure J32), so the existence of the absent parts can be confirmed by an analysis of the other photos from the same series - see [1J] p. 159. Also, on high quality copies of this photograph a faint outline of the topside dome is slightly distinguishable. The other example of this same effect is shown in Figure J5.

The magnetic lens can also distort the shape of a whole UFO or the shape of any other object that could be located behind this UFO. An example of such action of a magnetic lens is presented in Figure L1. Notice that in this Figure the lower object from a detached configuration of two UFOs is almost completely suppressed.

The most convincing evidence documenting the operation of magnetic lenses in UFOs originates from witnesses who observed an ascending object. These people frequently noticed that at a certain angle the entire sides of the vehicle gradually disappeared from view, and the only visible element remaining was a small "diamond-shaped" device located in the centre of the UFO. This device, in fact, is the twin-chamber capsule from the vehicle's main magnetic propulsor, which - when looked at from an angle - takes the shape of a diamond. Exactly this effect was observed by Stanislaw Masłowski whose report is presented in subsection L1.4 and illustrated in Figure N1. Also the evidence presented in Figures J10 (shape D/7), L5, and J31 (discussed below) originates from such effects.

The Theory of the Magnocraft provides the explanation of why, for ascending UFOs, their side edges diminish from view. When UFOs ascend the output from their main propulsors significantly exceeds the output from the side propulsors. Therefore, the field force lines surrounding the UFO take a course similar to the one presented in Figure G37. As is shown in this Figure, the UFO's structure is hermetically locked inside the loop from a

super strong magnetic field. Anything contained inside this loop becomes invisible to an observer looking from underneath, as the picture of it (i.e. light reflected from it) would need to pass across the field. But the picture of the twin-chamber capsule from the main propulsor does not need to cross the force lines - it simply passes along them. Therefore, this capsule remains visible to the witnesses. Notice that the situation described above changes drastically when UFOs terminate their ascent. With UFOs which are hovering or descending, their main magnetic circuit is not so dominant, thus the entire vehicle must appear again to witnesses.

The twin-chamber capsules from the diminishing UFOs are not only observed, but are also photographed. One of the best examples of such photographs is presented in Figure J31. As can be seen from this Figure, the shell of the photographed UFO completely disappeared. The only visible element that remains is the outlet from the main twin-chamber capsule. This outlet takes the form of a diamond with two back edges being hidden behind the cone-like column of a magnetic field extending downward from the capsule. Such a conical column of the magnetic field was also observed by Stanislaw Masłowski, who even drew it as a triangle appearing beneath the main propulsor of the vehicle from Figure N1. In subsection F6.1 it was stated that the output from the twin-chamber capsules is divided into two fluxes. The first of these is the circulating flux (C) whereas the other one is the resultant flux (R) - see Figure F5 "a". It is up to the computer controlling a particular capsule which of its chambers - inner or outer - produces the resultant flux and which one produces the circulating flux. But because the circulating flux forms a consistent magnetic circuit looping entirely inside the capsule, it is easily recognizable because it must produce a kind of "black bar" similar to the one described in subsection G3.4. Therefore during the sighting of a working capsule, the interior of the chamber which produces the resultant flux remains open to outside witnesses. Thus the flashes from its sparks should be visible to observers as a kind of gold or yellow glow. In the photograph from Figure J31 the resultant flux (gold) is produced by the inner chamber, whereas the circulating flux (black) is produced by the outer chamber. In the description from subsection J2.9 (South Hampton, New Hampshire, Massachusetts, USA case - 6 June 1974) the situation is reversed. These witnesses reported that the dark square was in the centre (i.e. the inner chamber), whereas the yellowish glowing rectangle was on its peripherals (i.e. the outer chamber) - see Figure F5 "b" and Figure L5.

The extent to which UFOs interfere with electromagnetic radiation imposes on investigators a requirement for extra care in tests aimed at distinguishing between a genuine photograph of these vehicles and a possible fake. The theory behind the Magnocraft states that the central magnetic circuit of a genuine UFO may produce in some computer analyses (e.g. digital image enhancement) an effect similar to that caused by a thread running through the centre of the photographed object. Because of this, the field configuration around genuine UFOs may be the reason for unfortunate discrediting some valuable photographs - see Figure J32. The above reasoning practically means that the value of some computer analyses concerning UFO photographs is at least doubtful, if not totally useless, and that a revision of verdicts is necessary for many photographs condemned in this way.

J2.11. The ability to control the resources of the UFO's energy

UFO sightings provide the evidence that the energy used for propelling these vehicles is obtained through the use of stored resources, not through the continuous burning of a fuel. There are no exhaustion products dispersed by UFOs. Also witnesses visiting the decks of these vehicles report that the only propelling devices are the glowing cubes (i.e. the Oscillatory Chambers). No combustion apparatus that could be used for burning fuel has been described.

The Oscillatory Chambers of a UFO carry a vast amount of energy which is sufficient for the entire journey (see subsection M3). But the evidence available clearly indicates that

the release and the effectiveness of this energy is strictly controlled. This in turn conforms that the UFOs' ability to control their resources of energy closely corresponds to that characteristic of the Magnocraft's principles of operation.

One of the most frequent confirmations for the ability of UFOs to control their resources of energy is the capability these vehicles have for a rapid change in behaviour and the effects on the environment. The same UFO in one moment can be terrorizing witnesses with the power of its induced glow; in another it can look as if completely "inert". Then again it may burst instantaneously into light and glow. The only explanation not involving the burning of fuels, which justifies such transformations from a powerful vehicle to an inert object and vice versa, is that which involves the application of twin-chamber capsules or spider configurations - see subsections F6.1 and F6.2. With any other solution the vehicles' energy, once released, must be spent or it remains active all the time. Reports from UFO investigators are filled with descriptions of vehicles that drastically changed their state. An example of these can be the next stage of the South Hampton sighting dated 6 June 1974, already described in subsection J2.9 (see [4J] page 135), where a powerful UFO rapidly extinguished all its lights and turned itself into an inert-looking object.

J2.12. The magnetic manner of flying which contradicts the laws of hydromechanics

If UFOs utilize the Magnocraft's principles of operation, their behaviour in space should be described by the laws of magnetism, not by the laws of hydromechanics. We know that the aerodynamic flight of contemporary aeroplanes is controlled by a set of hydromechanical laws. From these laws the main attributes of present flying machines result, such as: aerodynamic shapes, various protrusions (wings, rudders, stabilizers) attached to every aircraft, smooth, flowing flights, etc.

If we now consider those vehicles whose operation is based on the laws of magnetism (e.g. Magnocraft and UFOs), their attributes will be completely different from those of aircraft. The magnetic vehicles are not required to have aerodynamic shapes, but their shells must fulfil the set of equations listed in Figure G23. They will not have any controls or protrusions, as their flight and manoeuvres are achieved by appropriate changes in outputs from the magnetic propulsors hidden inside their shells. Also their behaviour in space will be drastically different from that of contemporary aircraft, because they must obey the laws of magnetism. These laws cause the flight of such magnetic vehicles to be characterized by the following main factors:

1. Creating the resultant motion as a vectorial sum of three independent movements obtained by drastically different principles (i.e. (1) buoyancy, (2) magnetic translation force, and (3) the Pajak Effect - see subsection G6). Thus the final motion of these vehicles will be jerky, intermittent and with rapid changes of direction.

2. The necessity to orient the vehicles' bases perpendicular to the local course of the force lines of the environmental magnetic field. The author estimates that in dynamically stable flights, the average slant of the vehicle's base from such a perpendicular orientation should not exceed 30 degrees. However, for the duration of landing this angle can be increased, because the static stability of magnetic vehicles should still be preserved when the angle of their slanting is within the range of 70 degrees.

3. Flying mainly along the force lines of the Earth's magnetic field, as flights across these lines require the switching on of the action of a magnetic whirl which in many cases is highly undesirable. Therefore descending or ascending vehicles will favour paths which coincide with the local course (inclination) of the Earth's magnetic field, whereas vehicles flying horizontally will favour the magnetic north-to-south or south-to-north directions.

An analysis of UFO sightings confirms the presence of the above factors. Let us review the evidence which ascertains this.

In order to describe the resultant motion of UFOs, numerous witnesses use expressions which very precisely reflect their combined, magnetic character - see [2J] p. 122, [4J] p. 133. The typical manoeuvre patterns reported from sightings are:

1. A pendulum or jerky step-by-step motion like a falling leaf, when descending.

2. Wobbling on an axis and yawing in one location, especially when stopping suddenly.

3. A forward up-and-down movement similar to a wave.

4. Rotating around its central axis while remaining motionless.

5. Making abrupt right-angle turns without the benefit of a curve radius.

6. Coming to a sudden stop, accelerating with a sudden burst of speed, or reversing direction suddenly. The flight pattern of UFOs is frequently described by eye-witnesses as resembling the "flight of a dragon fly".

Reports from UFO sightings are also full of other expressions which could not be used to describe aerodynamic flight, but which are fully justified for magnetic propulsion. Those expressions concerning UFOs which are most frequently used are: zigzagged across the sky, rocked back and forth, swayed from side to side, shot up, darted away, etc.

A wealth of evidence for the magnetic flights of UFOs also results from the requirement that magnetically propelled vehicles must always orientate their bases perpendicularly to the force lines of the environmental magnetic field. At the beginning of 1986, the author requested to five Polish UFO investigation groups to re-examine the sightings contained in their files to determine whether any case exists of a UFO that flew with its base non-perpendicular (i.e. parallel) to the force lines of the Earth's magnetic field. No such case was found. Moreover, the author determined the geographic orientation of UFOs in all sightings he personally investigated, and of all the UFO photographs whose topographic situation he could establish. In all cases which the author examined, the orientation of the vehicles' bases perpendicular to the Earth's magnetic field were confirmed.

An example of a UFO sighting which exactly confirms the favouring by UFOs of flight paths that coincide with the course of the Earth's magnetic field force lines was reported by Mr. Peter T. McClunie of Atiamuri, New Zealand. His sighting took place during a frosty, clear starlit night, at 0:30 a.m. on 25 June 1978, above the north-eastern side of the Ohakuri hydro-lake, in the North Island of New Zealand. The witness was standing approximately south-west from the UFO, at a distance of about 1.2 kilometre from the take-off point. The vehicle was saucer-shaped, about 4.4 metres in diameter, 1.5 meter high (i.e. K3 type UFO - see Table G1), and surrounded with a strong glow that rotated counter-clockwise. This glow was dazzling-white near the vehicle's main propulsor, and bright, shimmering, bluish-white near the vehicle's side propulsors (i.e. along the crew cabin and flange). The sighting took only about 7 seconds, but during this time the UFO completed a flight about 1 kilometre long, manoeuvring in absolute silence along a vertical parabolic trajectory which consisted of a sharp ascent, rounded down turn and an almost vertical descent, terminated by vanishing in mid-air at approximately two-thirds the height of its trajectory. The UFO completed almost all of these manoeuvres while its central axis remained parallel to the local course of the Earth's magnetic field.

The manoeuvres of this UFO were as follows. Initially the vehicle ascended towards a magnetic north-west direction. Its trajectory was inclined about 70 degrees, i.e. the angle corresponding to the inclination of the Earth's magnetic field in that area. The UFO's base was directed southward, and maintained perpendicular to the Earth's magnetic field force lines. The witness, who was standing south-west from the vehicle, saw its base clearly. The vehicle's magnetic whirl was rotating counter-clockwise. The witness noticed a slight westward drift of the UFO from the trajectory that otherwise would follow exactly the Earth's magnetic field force lines. (The principles of magnetic flight require that to follow exactly the Earth's field force lines, the UFO would need to totally extinguish its magnetic whirl, thus employing only the forces of repulsive interactions.) After reaching the apex of its trajectory, the UFO slowed down, floated for a moment, and then tilted over to direct its top towards the magnetic south pole, so that the witness could now see its upper side. In this new orientation the UFO's central axis was again aligned with the Earth's magnetic field force lines. Moreover, during this tilting, the rotation of the UFO's magnetic whirl ceased and was then restored to its original counter-clockwise rotation. Then the vehicle dropped down

almost vertically. During this drop a significant drift into a westward direction was again observed by the witness. This drift exactly corresponded to that caused by the action of the 'rolling sphere rule' for a counter-clockwise rotation - see Figure G27. Finally the vehicle vanished in mid-air, approximately 400 metres above a local hydro-dam. Its disappearance resembled a bulb being switched off.

In addition to eye-witness reports, the author has collected material evidence confirming the magnetic flight of UFOs. A significant part of this evidence also confirms that UFOs always fly with their base perpendicular to the force lines of the Earth's magnetic field. The first source of this material evidence is the underground tunnels formed by UFOs. The shapes of these tunnels are triangular when they lead in an east-west direction, and elliptical when they lead in a south-north direction - see the descriptions of these tunnels provided in subsection M2. Note that such a radical difference in the shapes of these tunnels is a direct result of saucer-shaped UFOs always flying with their base perpendicular to the Earth's magnetic field force lines - see Figure G36. Because the orientation of these vehicles is constant, depending on the direction in which they fly, the tunnels they make either reflect their face (circular) outlines, or their side (triangular) outlines. The second source of material evidence confirming the magnetic flight of UFOs is the landing sites scorched on the ground by these vehicles. The evidence belonging to this category is going to be discussed extensively in subsection M1. It reveals that the shapes of almost all the UFO landing sites fulfil the requirement of the vehicle's base being kept perpendicular to the Earth's magnetic field. For example the great majority of elliptical UFO landings have their long axis oriented towards a magnetic north-to-south direction. (Note that the capability of UFOs to also slant their base in any other direction from the preferred north/south orientation accounts for the existence of a few randomly oriented elliptical UFO landing sites.) On the other hand, UFO landings formed on the slopes of hills are scorched into complete circles only if the surfaces of slopes are close to being perpendicular to the force lines of the Earth's magnetic field. (Of course UFOs can hover above every slope, but when the surface of the ground is close to being parallel with the local field's force lines, the scorched ring of the landing site will not be shaped into a complete circle, and also a mark formed by the main propulsor will be dislocated from the centre.) The author examined a number of UFO landing sites, and he established that all the sites shaped into complete circles are located on slopes whose orientation does not divert by more than about 30 from being perpendicular to the force lines of the Earth's magnetic field. An especially good confirmation of this fact is illustrated in Figures M11 and M16.

The magnetic character of UFO flights can also be determined from an analysis of shapes that the ionic picture of a whirl shows on some photographs. In the photograph from Figure J33 a formation of flying UFOs is captured, and the vehicles' ionic picture of a whirl displays a very unusual "shoe" shape. We know from the mechanism which forms such ionic pictures that unless special dynamic conditions occur which cause the deformation of these pictures, their shape should be symmetrical towards the vertical axis (refer to subsection G7.3). The Italian investigator, Renato Vesco (see [1J] p. 212) analyzed the dynamic conditions forming the pictures presented in Figure J33 and he made some very interesting discoveries. According to his findings, UFOs need to fly slanted in relation to the direction of their motion in order to produce such a "shoe" shaped ionic picture of their whirls - see Figure J34. This means that whenever a clash occurs between the magnetic requirement of flying with the base perpendicular to the environmental field's force lines and the aerodynamic requirement of minimal resistance orientation, UFOs always fulfil the magnetic requirement. Thus the picture in Figure J33 presents photographic confirmation for the magnetic flights of UFOs.

J3. Concluding the reasoning and evidence from this chapter

In previous subsections of this chapter, a number of individual facts were presented in support of the thesis that "UFOs are already operational Magnocraft". The common attributes of all of these facts are as follows:

1. They belong to evidence recognized by the courts and by scientific methodologies as the most objective, i.e. they include: (a) photographs; (b) reports of multiple witnesses frequently conducting independent sightings; (c) material marks such as the scorched patterns, underground tunnels, remains of explosions, etc.

2. They originate from various sources, independent from one another. For example, almost every single UFO photograph presented in this chapter was taken by a different person, and most of these people had not seen any other photographs of these vehicles beforehand.

3. They document an extremely wide range of phenomena, starting from clear photographic records of disc-shaped flying vehicles, through to machines malfunctioning, electrical phenomena, sounds, smells, lights in the sky, and concluding with the effects of explosions, melted tunnels, and scorched vegetation.

4. They present only a fraction of an enormously large body of evidence available at present from various sources. Although for the presentation in this subsection only the most representative evidence was selected, there are available thousands of other facts which would lead to the same conclusions that have not been included here.

5. They all consistently confirm the same truth: that a working model of the Magnocraft is already operational on Earth, and that this model is observed under the popular name of "UFO".

While looking at these common attributes, every scientist must admit that many already recognized scientific theories are based on a much smaller number of facts, whose variety and quality may not even be compared to those presented in this chapter.

When a variety of independent facts combined together into a logical deduction lead to one consistent conclusion, they constitute formal proof. Because the reasoning and evidence from chapter J in fact reveals a common conclusion which states that "UFOs are already operational Magnocraft", then the content of this conclusion must be recognized as formally proven.

Since formal proof that "UFOs are already operational Magnocraft" is finally formulated and published, the initial period of speculation on "what UFOs are" should be definitely closed. Now is the time to open the next stage in our development, i.e. the actual building of the Earth's version of this vehicle. The theoretical foundation contained in this monograph provides the starting point for such construction, whereas sighting of UFOs supplies further inspiration and guidance.

Proof that UFOs are already operational Magnocraft introduces numerous implications, some of which were mentioned at the beginning of this chapter. Because the Magnocraft are material vehicles, obtained technologically, and can only be built and controlled by intelligent beings, this proof incorporates a whole series of fractional proofs, namely that:

1. UFOs are material, thus they must exist objectively.

2. UFOs are vehicles.

3. UFOs need to be built and controlled by intelligent beings.

4. The civilization(s) sending UFOs must be extraterrestrial as mankind has not yet developed technology sufficiently sophisticated for the completion of such vehicles.

At this point we should establish the significance of the formal proof presented in this chapter, to a routine of including the UFO phenomena in the scope of scientific recognition. The epistemology (i.e. the science of science) states that each scientific proof must pass through the following four stages:

#1. Collection of a body of evidence. At this stage various facts which later will be used for completion of the proof are observed, identified and recorded.

#2. Legal disclosure. An expert combines the available evidence, experience and knowledge and presents formal proof publicly. This proof can be delivered in one of many

possible forms, e.g. as a theoretical publication, demonstration of a working device, experiment.

#3. Approval. An authoritative institution or a panel of individual investigators thoroughly examines the merit of the legal disclosure and issues a statement which confirms its function as formal proof.

#4. Implementation. The substance of the proof together with the statement of its approval are made accessible for public appraisal so it can be used by other interested members of society.

How the above routine works can be explained through historic analysis of the course of events concerning scientific recognition of meteorites.

The proof for the existence of meteorites followed the same pattern to which at present UFO manifestations seem to be subjected. The body of evidence concerning "stones falling from heaven" has been collected since ancient times. In the eighteenth century the facts accumulated on meteorites were so overwhelming that the scientific establishment needed to use the administrative restrictions and authoritative pressure in order to maintain its original (condemning) stance. At that time the "anti-meteorite" hysteria reached the level of the present "anti-UFO" campaign, where UFO witnesses are ridiculed, scoffed at, and even lose public jobs because authorities feel that their credibility has diminished (see the fate of police chief Jeff Greenhaw - the author of a photograph from Figure N3 - described in [3J] page 116, and also the statement of President Jefferson quoted in subsection E1). After the enormous fall of meteorites in the French village of L'Aigle on April 26, 1803, the scientist Jean-Baptiste Biot prepared a document in which he presented proof that stones in fact fall from heaven. This document was soon approved of by the French Academy of Science. After Biot's proof was officially disseminated by the Academy documents, the entire scientific establishment changed its views on meteorites. Now these "stones from heaven" are the source of extremely important information, and the development of significant areas of our knowledge depends on investigations of them.   If we transfer the above routine to UFO manifestations, we will see that the first two stages are already completed. UFO sightings recorded since Kenneth Arnold's famous flight on 24 June 1947 - when the first UFO sighting was officially reported - supply us with a sufficient body of evidence. The publication of this monograph provides a legal disclosure of the required proof. Thus, in order to complete the entire UFO recognition routine, only two stages remain, i.e. approval and implementation.

Formal approval of the proof presented here can be achieved in the following four ways:

(a) Someone will complete a working model of a device described in this monograph (e.g. the Oscillatory Chamber) in this way providing the hardware approval for the deductions presented.

(b) One of the bodies which exists already, for example the USA National Enquirer Blue Ribbon UFO Panel (see [2J] page 245) or the USSR centre for the co-ordination of UFO research (lately very interested in the Magnocraft) will provide official approval.

(c) An appropriate body will be specially formed for the issuing of such approval (e.g. UFO investigators from a progressive country will organize a special assembly for this purpose).

(d) There will be no institutional approval, but the ever increasing number of UFO investigators will individually accept the deductions from this chapter and thus the statistical majority of the public will recognize this monograph as formal proof. In order to establish this approval, publishing this monograph in the form of a widely accessible book should suffice.

So far, (d) seems to be taking its natural course in heightening public awareness.

Since the proof is formulated and the routine of its formal establishment is defined, it becomes the responsibility of everyone to make the best use of these. The right conditions for the success in officially recognizing UFOs are now fully crystallized. All that remains is the implementing of the facts established here.

J4. <u>Chapter J reference material</u>

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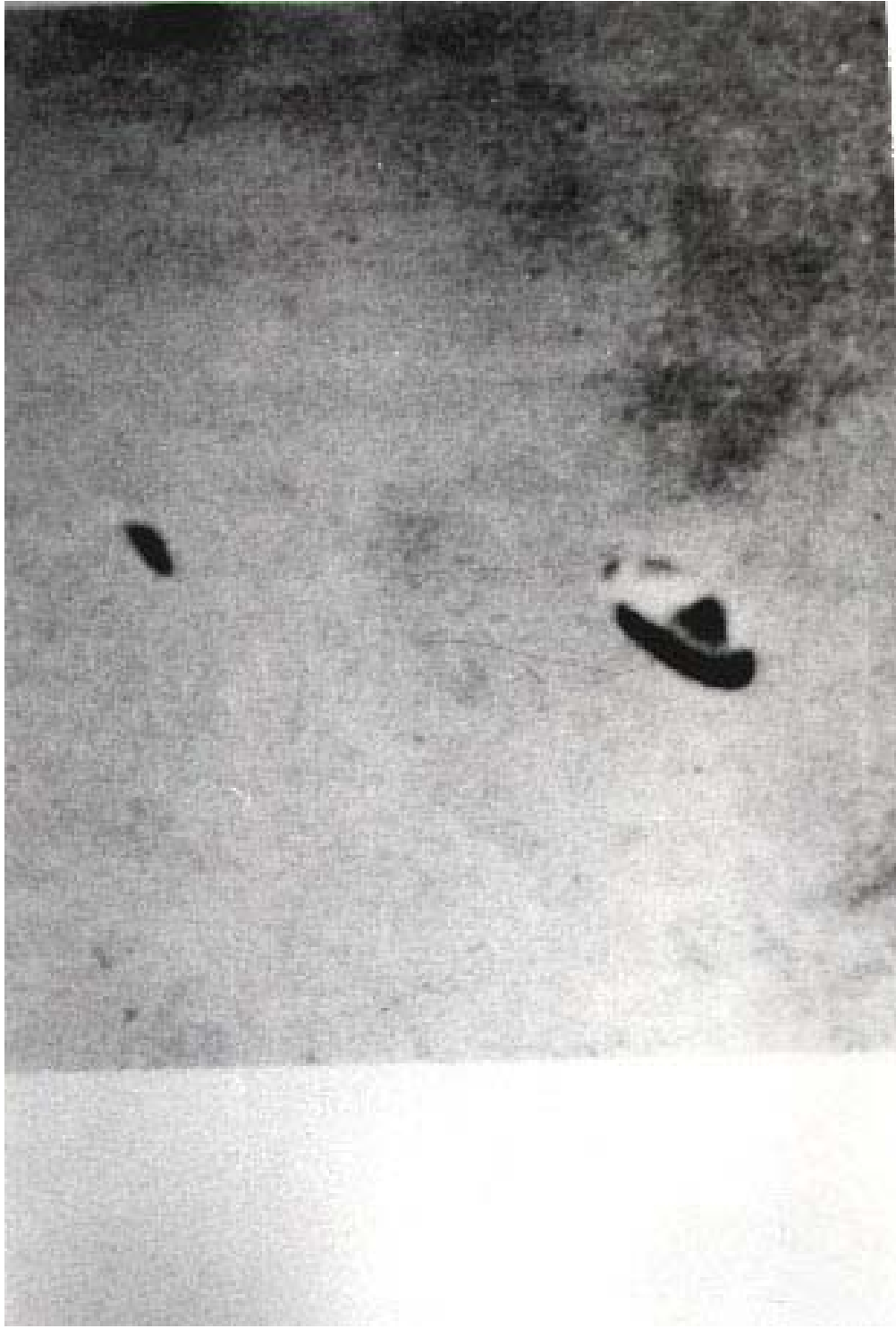
Fig. J1. A UFO photograph selected from a sequence of four colour pictures taken by Augusto Arranda near Yungay, Peru, in March 1967 - see [1J] p. 119, [2J] p. 39. The whole sequence presents two UFOs type K3 captured in the various stages of their decoupling (from a spherical flying complex shown in Figure G7) and separating. Both vehicles fly in the throbbing mode of operation, thus their shape is clearly visible. The geometrical analysis shows the striking similarities of these K3 type UFOs to the Magnocraft type K3 - see also Figure G4. The outline of this UFO reminds us of an inverted saucer. In its centre the topside convex is clearly distinguishable (in the Magnocraft it houses the crew cabin and the central propulsion compartment where the main propulsor is located). The UFO also possesses a lens-shaped flange that fastens around the vehicle's base.
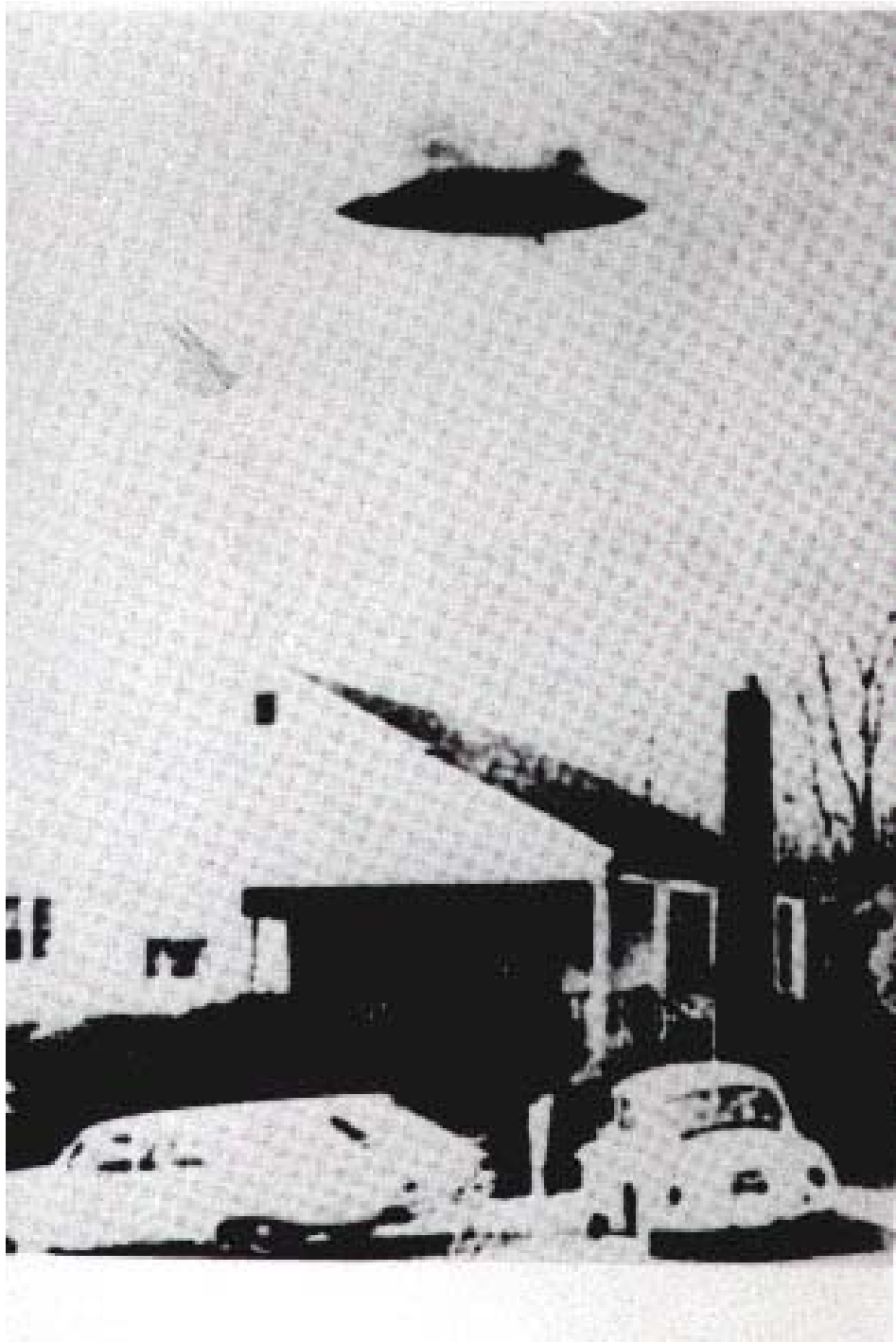
Fig. J2. A photograph of a UFO type K5 taken by Ralph Ditter over Zanesville, Ohio, USA, on November 13, 1966 - see [1J] p. 103, [2J] p. 253, [6J] p. 92, [8J] p. 140. The Sun was so positioned that its line of shadow revealed the outline of the crews' cabin and a flange. Thus, this photograph documents clearly that there is a horizontal flange at the base of UFOs, whose shape and location is identical to the flange of the Magnocraft - see also Figures G6 and G12. In the Magnocraft this flange houses the vehicle's side propulsors. Note that the apex angle of the conical side walls of the crew cabin is significantly wider in this K5 type of UFOs than the same angle in UFOs type K3 (compare outline of crew cabins in Figures J1 and J2).

Fig. J3. One of the photographs of a UFO taken by George Stock, Passaic, New Jersey, USA, on 29 July 1952 - see [1J] page 94, [8J] pp. 54-5. The vehicle is flying in the inverted position - compare this photo with Figure G3 "b". The shadow caused by the orientation of this UFO in relation to the Sun reveals that in the centre of the UFO's base there is an underside concave (see also (12) and (14) in Figure G5) identical to the one appearing in the Magnocraft's shell.
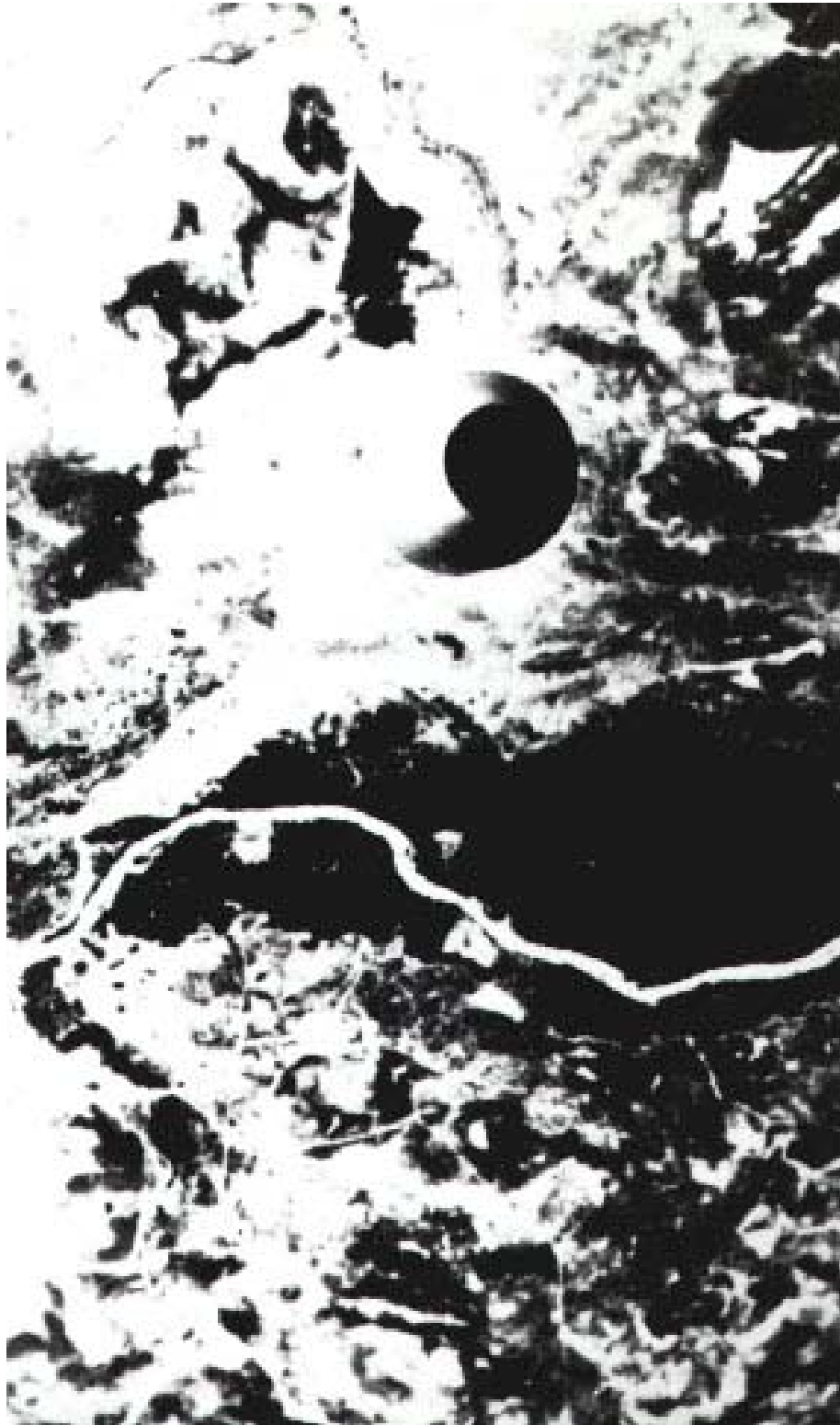
Fig. J4. An aerial photograph of a cigar-shaped UFO, taken from an aeroplane (at 2500 metres) by Inake Oses, over Calabozo Reservoir in Guarico, Venezuela, on 13 February 1966 - see [1J] p. 185, [2J] p. 256. The Sun's location shades the black round space in the middle of this spaceship and so reveals that through the centre of UFOs a type of vertical cylinder must run. An identical cylinder, designed to house the main magnetic propulsor, must appear in the structure of every vehicle that utilizes the Magnocraft's principles of operation (see (3) and (5) in Figure G5 and also Figure G8).

Fig. J5. Frame no. 9 from the series of 12 colour photographs of a UFO type K4 taken by Rudi Nagora, 8 km south of Deutschlandsberg, Austria, on 21 May 1971 - see [1J] page 125. The action of a magnetic lens caused the parts of the UFO located close to the magnetic propulsors, i.e. the flange and the topside dome, to remain partially invisible in this photograph (see also Figure J30). Notice a slight difference between the apex angle of the conical crew cabin walls from the above vehicle type K4 and the same angle in UFOs type K3 and K5 shown in Figures J1 and J2 (see also Figure G24).

     (a - upper) The entire photograph.
     (b - lower) A close-up enlargement of the UFO.

Fig. J6. A photograph of a K8 type UFO taken by an unknown person from Grenoble, France, on 12 February 1971. The object was photographed over Corsica, near Olmo, 20 km from Bastia - see [1J], p. 129. Although the object in this photo is clearly visible, its shape differs from the small types of UFOs (i.e. K3 to K5) known to the majority of investigators as "typical". This is because all the UFOs type K6 to K10 contain an additional complementary flange (see (6) in Figure G5) which deforms the outlines of their topside dome. Therefore, for some "UFO experts" this difference in shape sufficed to proclaim the above photograph as a "hoax" or at least a "controversy" (using a similar argument some "UFO experts" also tried to disqualify the photograph from Figure J8). Of course geometrical analysis confirms that the shell's formation in this UFO exactly corresponds to the equations from figure G23 (for K=8). Moreover, there are also other UFO photographs available which display the same shape (e.g. see the photo published in OMNI magazine, Vol. 7, No. 6, March 1985, page 95). This confirms that the above photograph is in fact genuine, and also proves that all the equations deduced about the Magnocraft are applicable to the description of UFO shapes.

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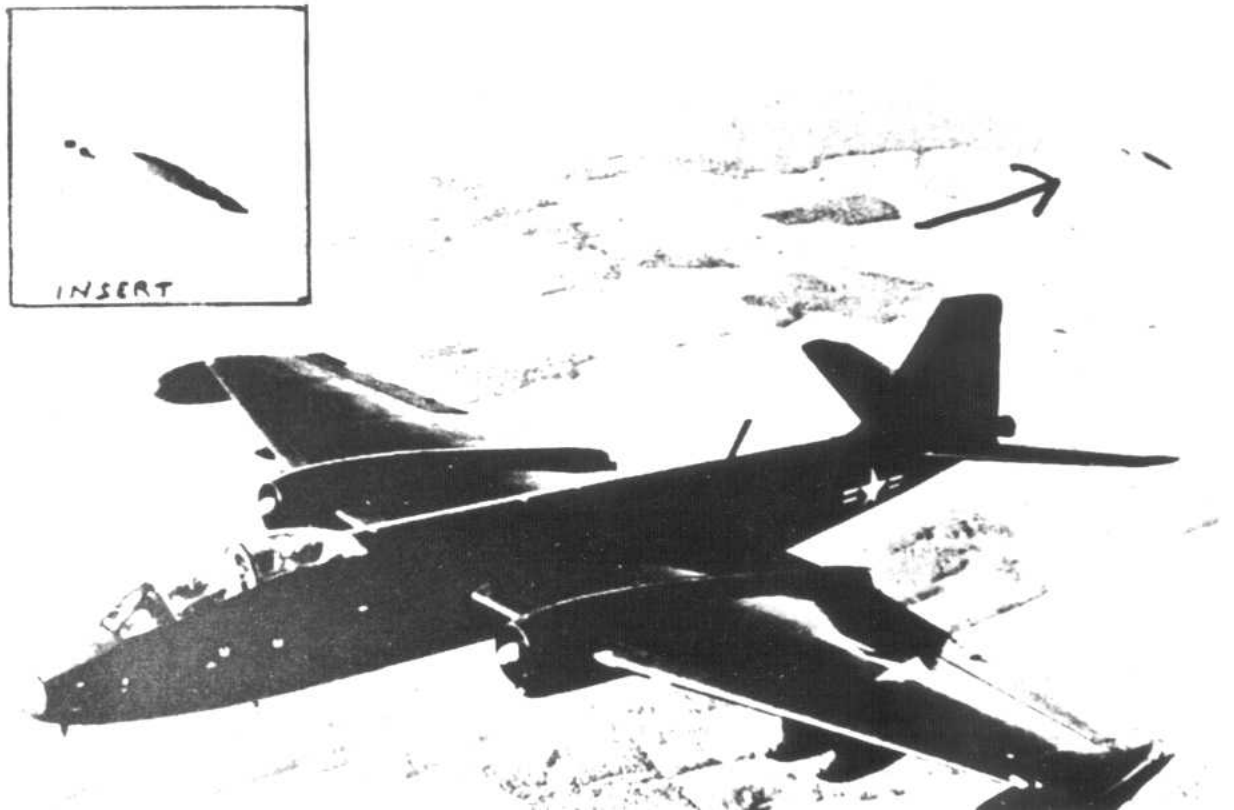
Fig. J7. A photograph of a UFO type K9. This object was taken around 1954 while following a Martin (Canberra) B-57 bomber near Edwards Air Force Base in California, USA (see [1J] p. 118; [2J] p. 36).

On the entire photograph the position of the UFO is indicated by an arrow. Then the framed part shows a close-up enlargement of the UFO.

Fig. J8. One of the best photographs of a UFO type K10 taken to date. The object was photographed by Ed Keffel and Joao Martins, two journalists from the "O Cruzeiro" magazine, over Bara de Tijuca, Brazil, on May 7, 1952 - see [1J] p. 108, [2J] p. 43, [6J] p. 6, [8J] pp. 48-9. The geometrical shape of this vehicle strictly fulfils the equations from figure G23. Note the spherical casing of the main propulsor visible through the transparent shell of the topside dome. See also Figure G24.

(a - upper) The entire photograph (one from a series of five shots of the same object).

(b - lower) A close-up of the UFO.
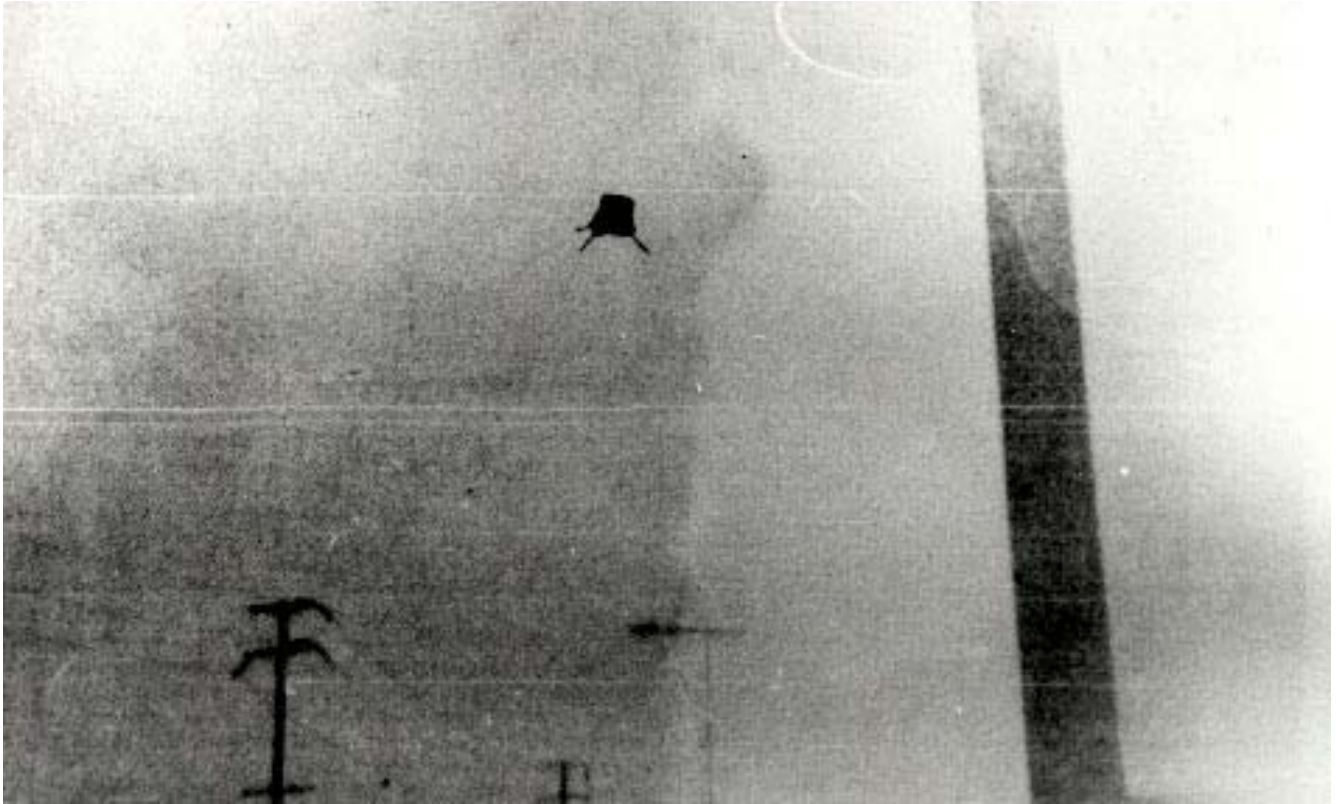
Fig. J9. The so-called Yorba Linda UFO photograph. It was taken on January 24, 1967 by a fourteen year-old boy (name withheld by request) 60 km from Los Angeles, California, USA, through a window of his home in Yorba Linda - see [1J] p. 182, [2J] p. 398. It presents a UFO flying in the magnetic whirl mode of operation, while four of its telescopic legs are still extended (the fourth leg is invisible on this photo but it was reported by the witness). The angular positioning of the legs of this object perfectly match the identical orientation of legs predicted for the small types of the Magnocraft (e.g. K3 type - see also Figure B1). The UFO is surrounded by a whirl of ionized air which in daylight gives the impression of a dark cloud - see also Figures G32 and J22. Although this whirl would destroy external objects, the vehicle's legs and periscopes are protected by magnetic deflectors and so they can protrude through the layer of a whirling plasma. Various details of this UFO (e.g. the shape of the magnetic whirl that it creates) indicate that it belongs to a small type, most probably K3.
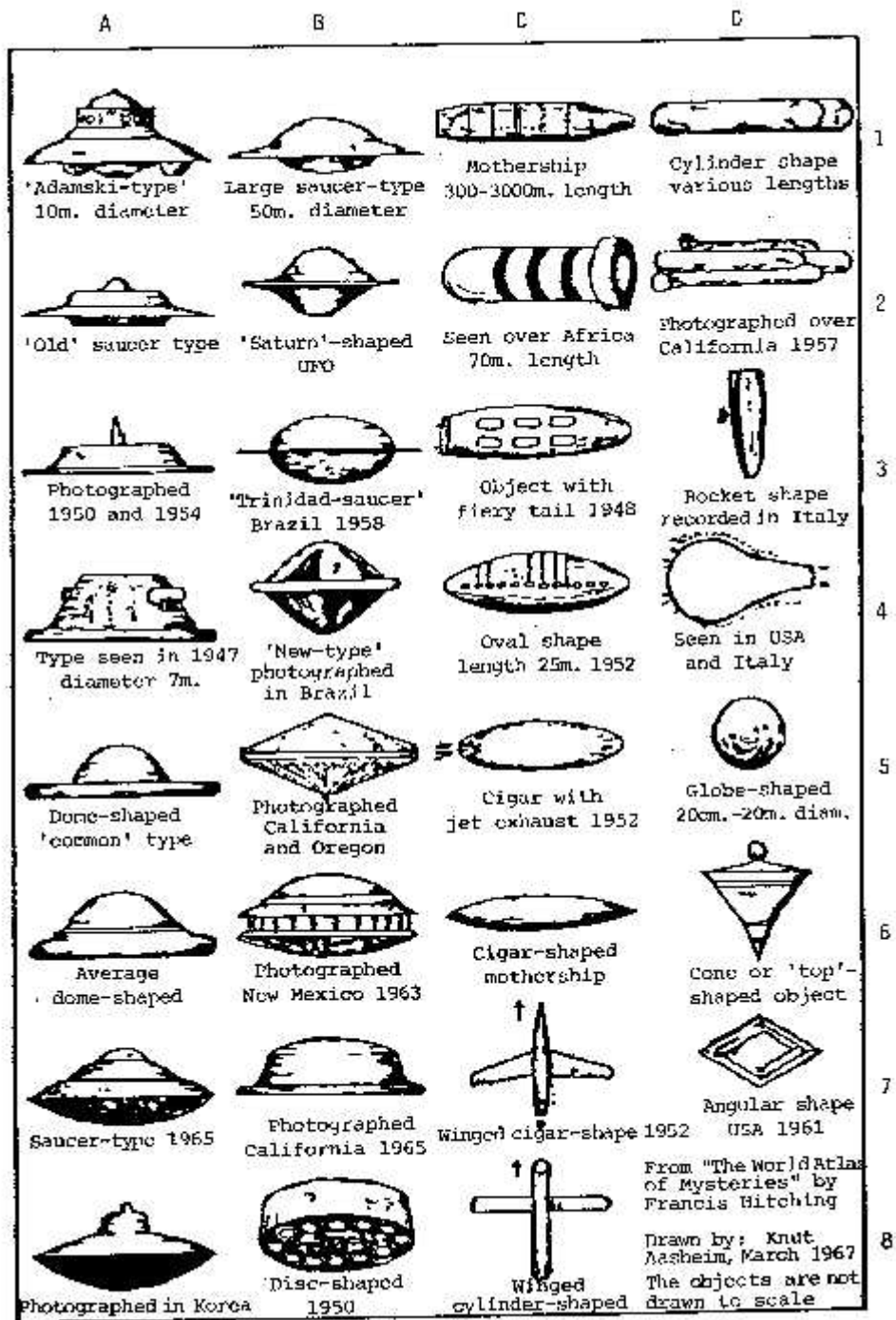
Fig. J10. The compendium of UFO shapes compiled by Knut Aasheim and published in the book [1J2.1.1] by Francis Hitching, "The World Atlas of Mysteries", Book club Associates & Pan Books Ltd., London 1981, page 188. According to the Theory of the Magnocraft, all the shapes shown in this diagram may represent various appearances of the same class of discoidal UFOs. The reason for such a variety of witnesses' perceptions of the same shaped objects lies in the "vision distorting factors" listed in subsection J2.1.1. These factors in certain conditions cause the UFOs' appearance to drastically differ from their true shape. For example, the shape D/7 in the above diagram represents a slanted twin-chamber capsule from the main magnetic propulsor, observed from below, when the remaining shell of a discoidal object diminishes because of the action of a magnetic lens (see also the encounters illustrated in Figures N1 and L5 to L6). The shape D/2 is obtained when many discoidal UFOs are coupled together into a flying system - see also Figure G16.

(a)

(c)

(b)

(d)

(e)
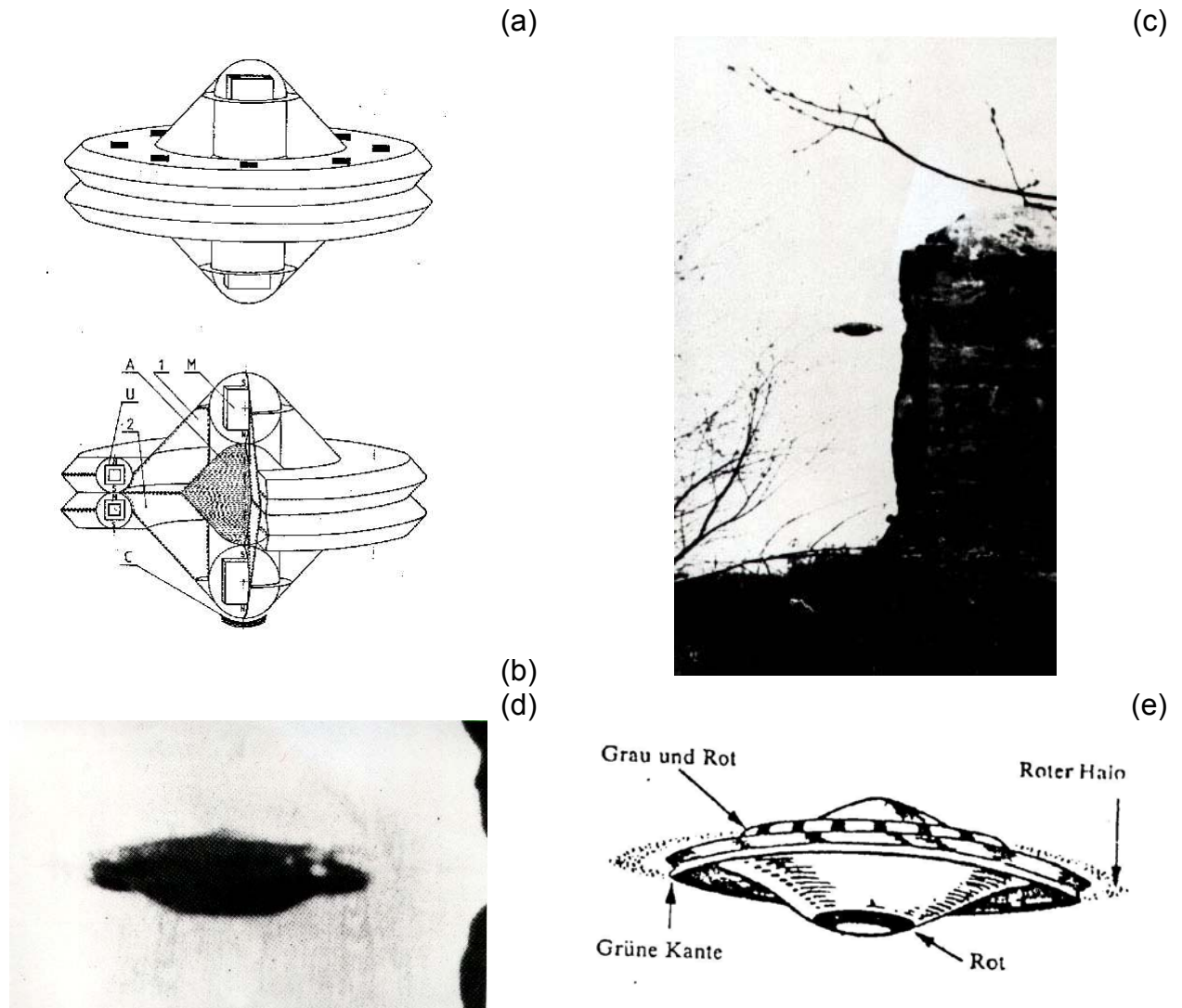
Fig. J11. A spherical flying complex of two UFOs, type K6, photographed over Sweden by Lars Thorn on 6 May 1971 (see also Figure G7).

(a), (b) The theoretical appearance of a spherical flying complex formed from two Magnocraft type K3 (instead from two UFOs type K6 shown on the Thorn's photo). This theoretical shape and appearance of Magnocraft type K6 is illustrated in Figure G7.

(c) The entire frame of Thorn's photograph.

(d) The enlargement of the photographed complex of the UFOs.

(e) The reconstruction of the shape of this complex, prepared by the Stockholm investigating group GICOFF. This reconstruction, together with the above photographs, is published in [1J] p. 81.
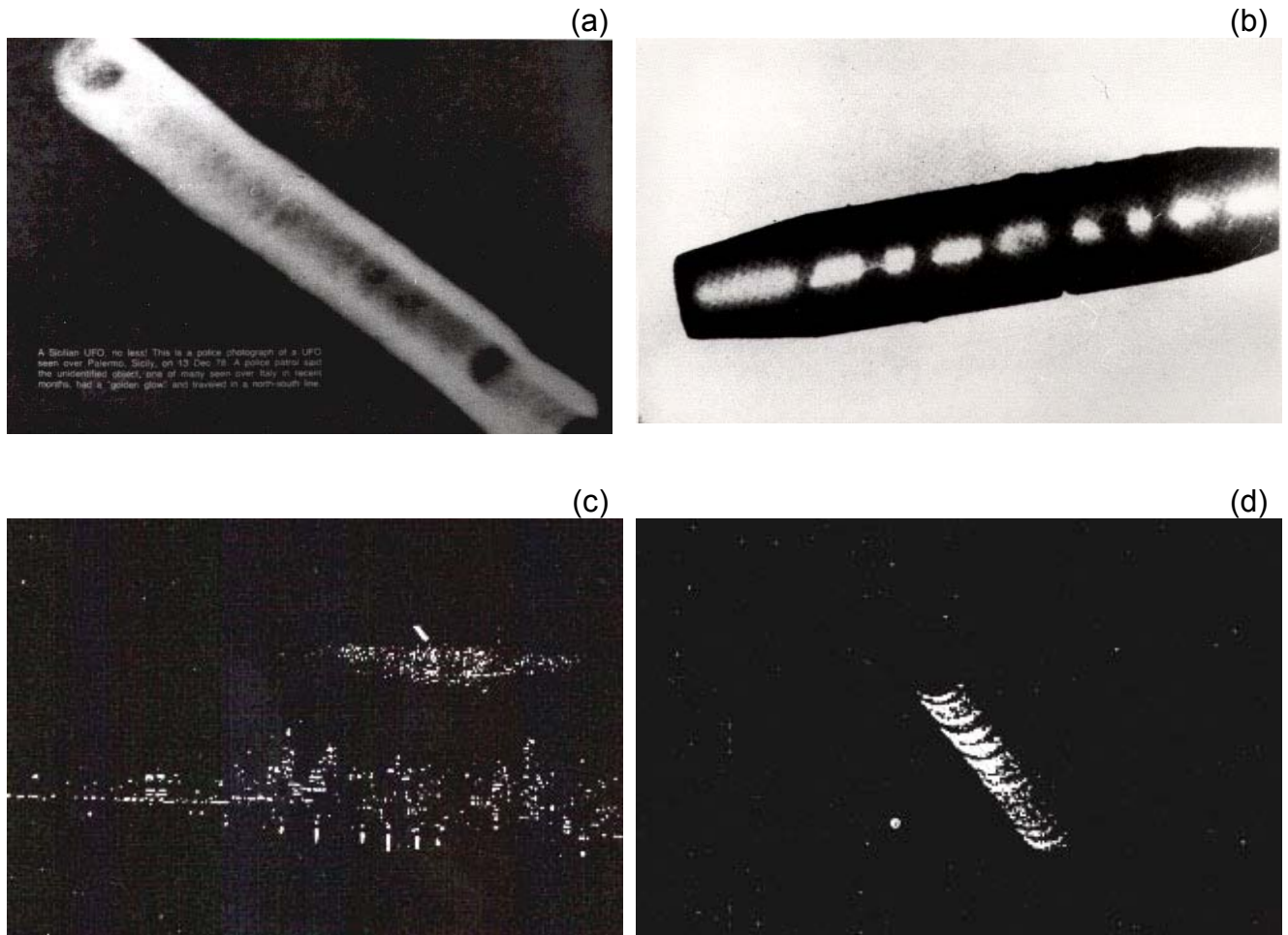
Fig. J12. Day and night photographs of two cigar-shaped flying complexes of UFOs. Both these objects fly in the magnetic whirl mode of operation, so their real shapes are concealed by the whirling cloud of ionized air. But the visible irregularities in the plasma whirls reveal the segmental structure of the complexes hidden inside (compare also the photograph published in OMNI magazine, September 1982 issue, page 99, and [8J] p. 42). Thus, the above photographs confirm that the cigar-shaped UFOs are in fact composed of a number of smaller discoidal vehicles - as explained in Figure G8.

(a) A night-time photograph of a stacked-cigar complex of UFOs, taken by a police patrol over Palermo, Sicily, Italy, on 13 December 1978.

(b) The double-ended cigar-shaped complex of UFOs photographed by George Adamski, over Palomar Gardens, USA, on May 1, 1952 - see [1P2] p. 191.

(c) A night photograph of a cigar-shaped flying complex formed from several UFOs. It was taken on 20 march 1950 over New York, USA. It was published in the book by David C. Knight: "UFOs: A Pictorial History from Antiquity to the Present", McGraw-Hill Book Company (1221 Avenue of the Americas, New York, NY 10020, USA), New York-St. Louis-San Francisco, 1980, ISBN 0-07-035103-1, page 43. The enlargement of the same object (but without the background - see (d)) was also published in the OMNI magazine, issue from September 1982, page 99. This particular photograph excellently confirms that cigar-shaped UFOs are actually composed of several discoidal vehicles, as this is explained in Figure F7.

(d) The enlargement of the vehicle from part (c).

Fig. J13. Two illustrations documenting that UFOs also form "fir-tree" flying complexes (see also Figure G10).

(a - top) A UFO witnessed by Mrs. Josephine Hewison of Lower Broadmoor Farm, West Wales, England, at about 8 a.m. on Saturday, 26 March 1977. This drawing is published in [2J2] "The Unexplained" magazine, Vol. 4, Issue 44, p. 877;

(b - bottom) The object witnessed by a woman who wishes to be known as Mrs. W. The sighting took place about 50 kilometres north-east of Launceston, Tasmania, Australia, at 5:20 p.m. on 22 September 1974. Published in [3J2] "The Unexplained", Vol. 7, Issue 74, p.1480.

Fig. J14. A drawing of detached configuration formed from two UFOs type K3 (see also Figure G13). It was observed by Captain Chrysologo Rocha and his family (eight witnesses in all) on 10 January 1958, near Curitiba, Brazil. The first presentation of this drawing that came in the author's possession was published in [4J2] "The Unexplained", Vol. 5, Issue 57, page 1140.

Fig. J15. The so-called Oregon UFO. This object was taken by a Ph.D. biochemistry consultant while it was hovering over the forest in Willamette Pass, northern Oregon, USA, on November 22, 1966 - see [1J] p. 84, [4J] p. 114, [6J] p. 114. The object represents a semi-attached configuration formed from two spherical complexes of K6 type vehicles, joined by their domes (see also Figure J11). The final shape corresponds precisely to the configuration of the Magnocraft shown in figure G12.

Fig. J16. A carrier platform formed from a large mother ship carrying a number of small UFOs (see also Figure G14). This arrangement was photographed over West New York, New Jersey, USA, on July 7, 1967 - see [6J] p. 111, [8J] p. 159. A similar carrier platform, but captured at a less spectacular angle, was photographed by W. D. Hall over Australia in 1954 - see [6J] p. 56, [8J] p. 66.
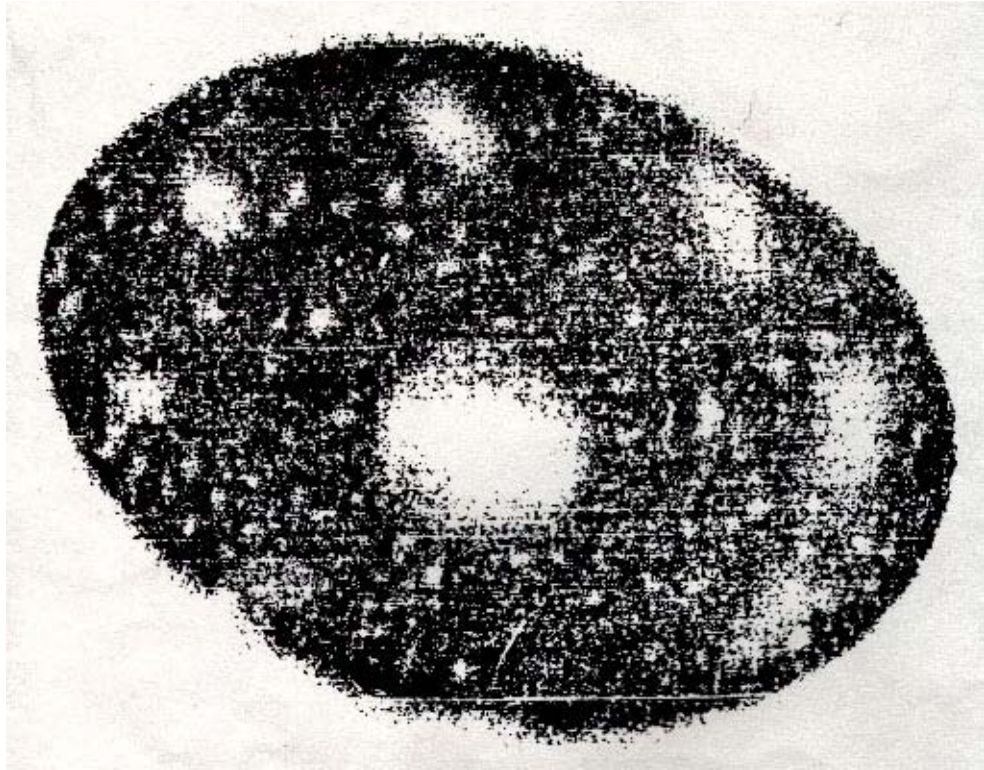
Fig. J17. A UFO type K3 photographed from beneath while hovering over Butterworth, Malaysia, on 3 January, 1979. The above photograph was published in the January 4 1979 edition of the "National Echo", Penang, Malaysia, and subsequently reproduced in the February 1980 issue of the "Mufon UFO Journal", page 8. It shows the glowing areas appearing at the outlets from the vehicle's propulsors. Thus, the photograph allows us to determine the location of these propulsors in the shell. The mutual orientation of the propulsors (the main one is placed in the centre of the UFO and is surrounded by eight side propulsors), also their number and positioning in relation to the edges of the shell, correspond exactly to the details of the K3 type of Magnocraft (compare Table G1 and Figure G33).

Fig. J18. The Motunau Beach UFO taken on October 27th 1979. This photograph belongs to Mr Norman Neilson of Greta Valley Road, Motunau Beach, North Canterbury, New Zealand. It shows the areas of ionized air at the outlets of the spacecraft's side propulsors - compare with Figure J17. Because of the unfavourable light conditions when this photograph was taken, the outline of the spacecraft itself remains elusive. This photo was an object of study conducted by a former Air Force photography expert, the late Mr Dickeson of Timaru, New Zealand. He discovered that each light source consists of two segments varying in intensity, like the side walls of a cube. This endorses the interpretation that the columns of magnetic field produced by the UFO's propulsion are square in cross-section, and that each pair of segments in the photograph represent two side surfaces of these columns. Therefore the above photograph is additional evidence supporting the hypothesis that UFOs utilize Oscillatory Chambers to produce a magnetic field used by their propulsion.
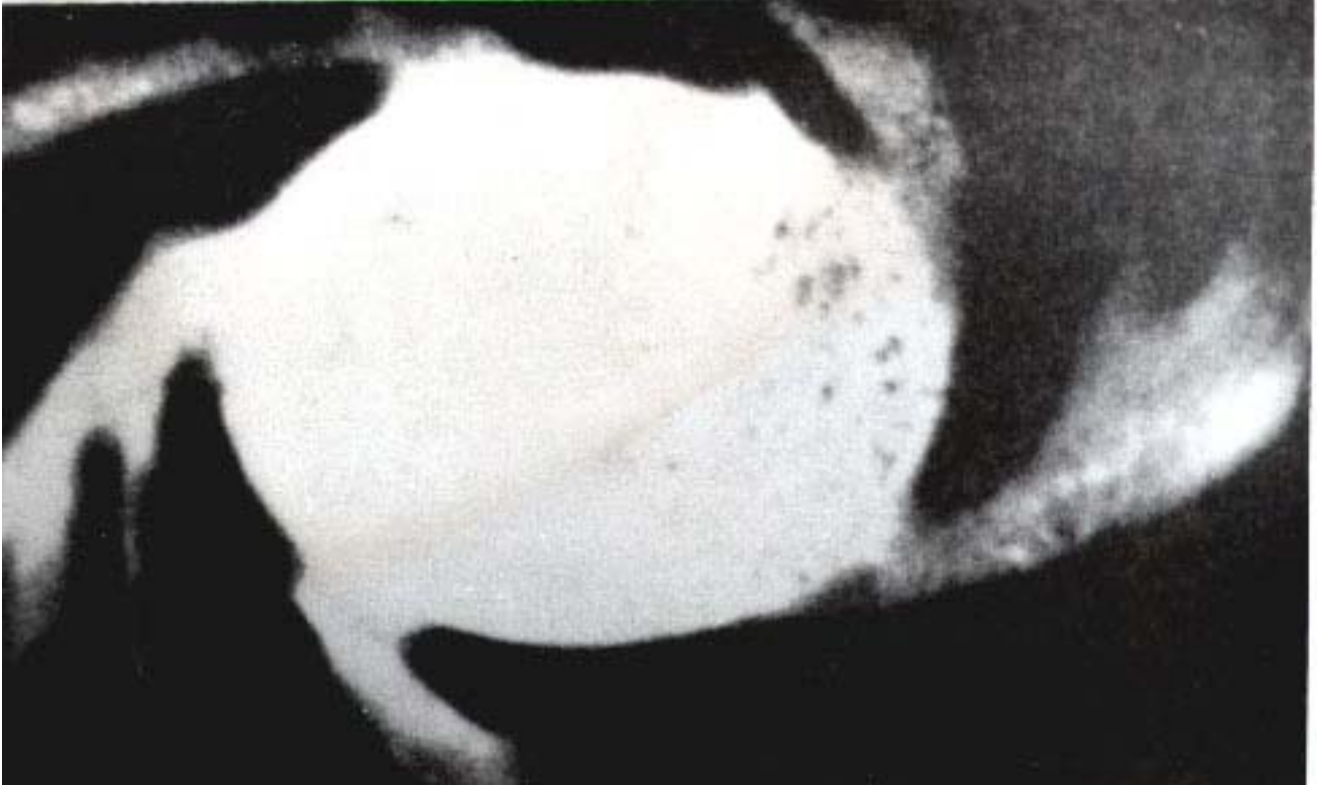
Fig. J19. The photograph of a UFO type K6 flying in the magnetic whirl mode of operation. It was taken by Enrique Hausmann over Mallorka (Palma Island), Spain, on 24 April 1950 - see [1J] page 218. The UFO travelled from east to west, appeared to rotate, and produced a loud buzzing sound. The photograph captures, from below, an outlet of the vehicle's main propulsor. Five strands of spinning force lines of the main magnetic circuits are spiralling radially from this outlet - compare the above photo with Figure G30 (c). At the edges of the photograph, each one of these five strands splits into three separate streams of the field's force lines. Notice that each middle stream engages more energy from the field than the two side streams. This results from the sinusoidal distribution of the outputs from the vehicle's side propulsors (compare Figure G30 (c) and the description from subsection G7.2).
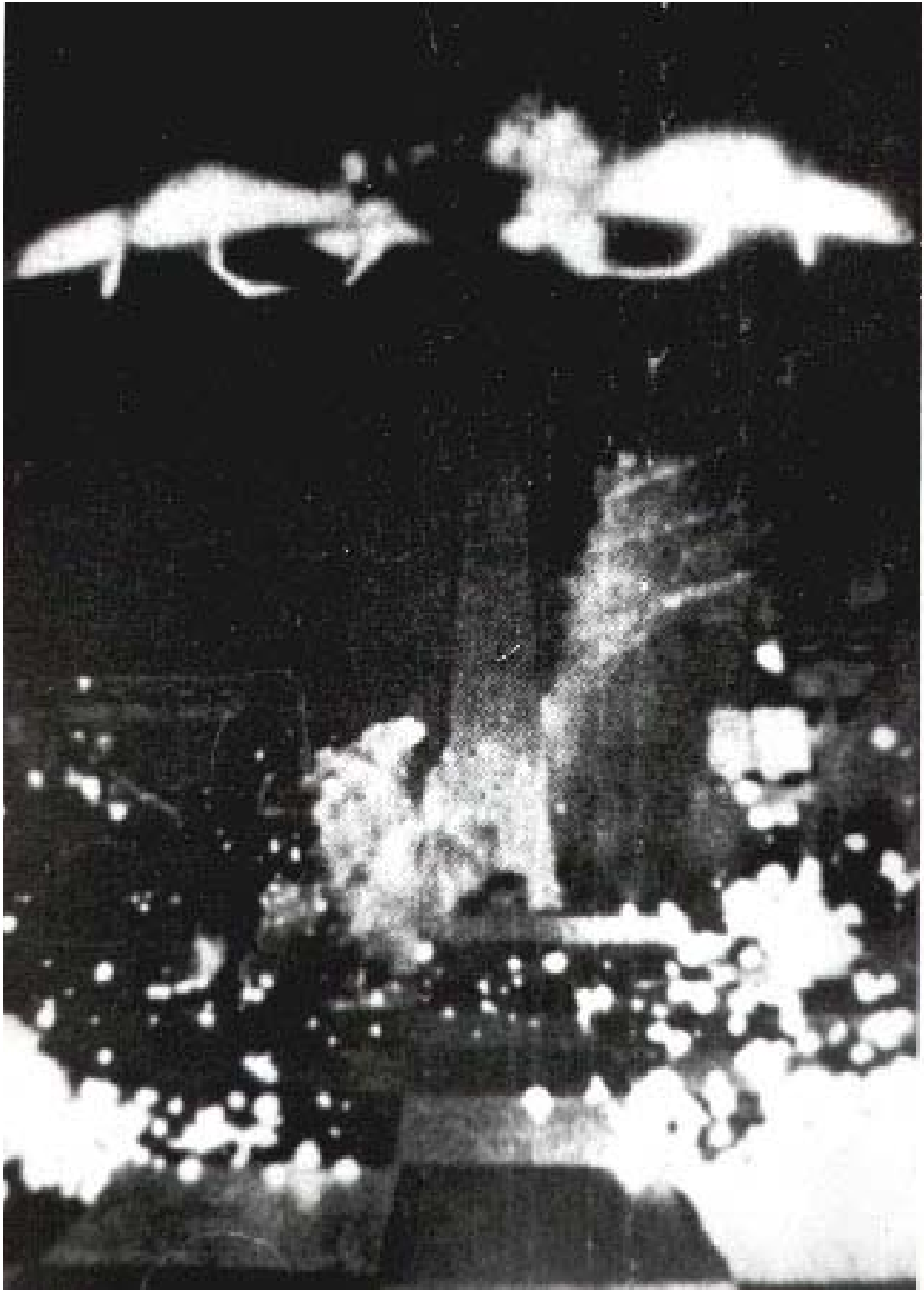
Fig. J20. A night-time photograph of two UFOs type K6 published in the Journal [5J2] "UFO Sightings" (USA), January 1981 edition, page 15. This photo is the best presentation known to the author of the magnetic circuits of a UFO shown from the side view. It definitely confirms that the strands of magnetic field force lines join the outlet from the vehicle's main propulsor with the outlets from side propulsors. Compare the above photograph with part (b) of Figures G30.
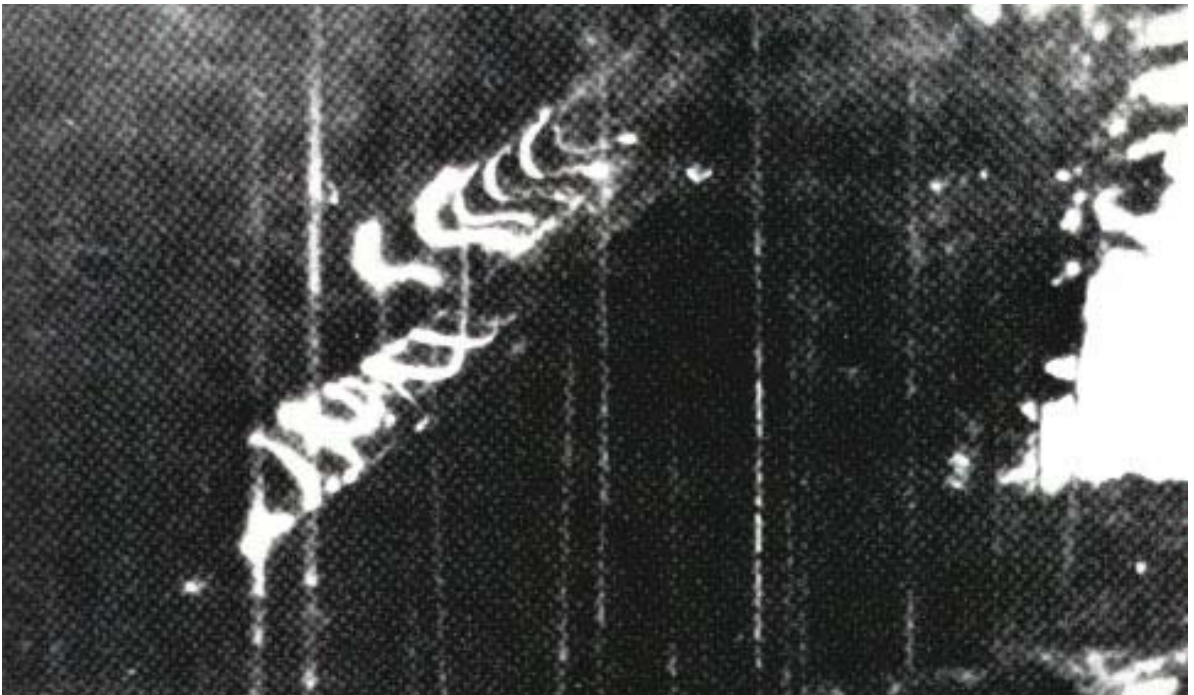
Fig. J21. Examples of UFO photographs which document the pulsating character of the vehicles' magnetic field. On each of these pictures it was only possible to see the fragment of the vehicle's magnetic circuit, which was oriented in the direction of the photographer. (The principles for the formation of such multiple images from a single magnetic circuit are explained in Figure G34). Notice that because of poor light conditions (night or evening) and the high speed of the photographed UFOs, the above pictures only captured flashes of the air ionized by the strands of the pulsating magnetic field, whereas the vehicles' shell remained invisible.

a) Photo taken by Ken Chamberlain, over Outerbelt, Ohio, USA, about 10 p.m. on 17 October 1973 - see [1J] page 205.

b) Photo taken by Karl Maier, over Wolfsburg, West Germany, on 26 February 1962 - see [1J] page 235.
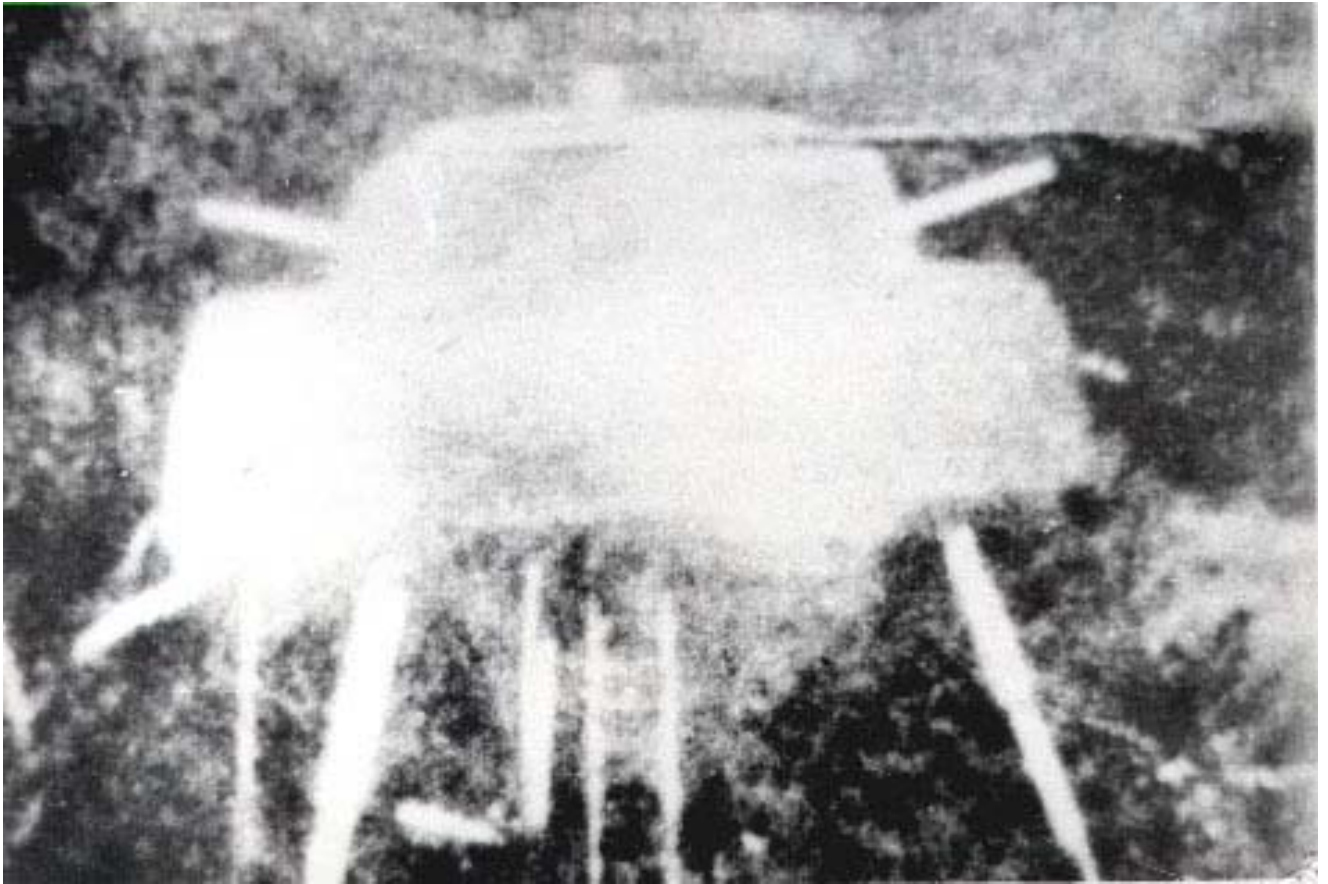
Fig. J22. A night-time photograph of a landed UFO type K4 taken by an anonymous photographer in Genui, Italy, on 23 June 1963 - see [1J] page 184. It was first published in the Journal "Domenica del Corriere", 8 September 1963. The above photograph perfectly illustrates the ionic picture of the UFO's magnetic whirl and its similarities to the Magnocraft's picture - compare this photo with Figure G32. Shown are all the elements characteristic for such an ionic picture of a whirl. The photograph also illustrates the three telescopic legs extended to support the landed vehicle, a ladder, and a set of periscopes allowing for the visual watch of the environment. Notice that the legs are located at an angle slanted towards the vehicle's base - see also Figure B1.
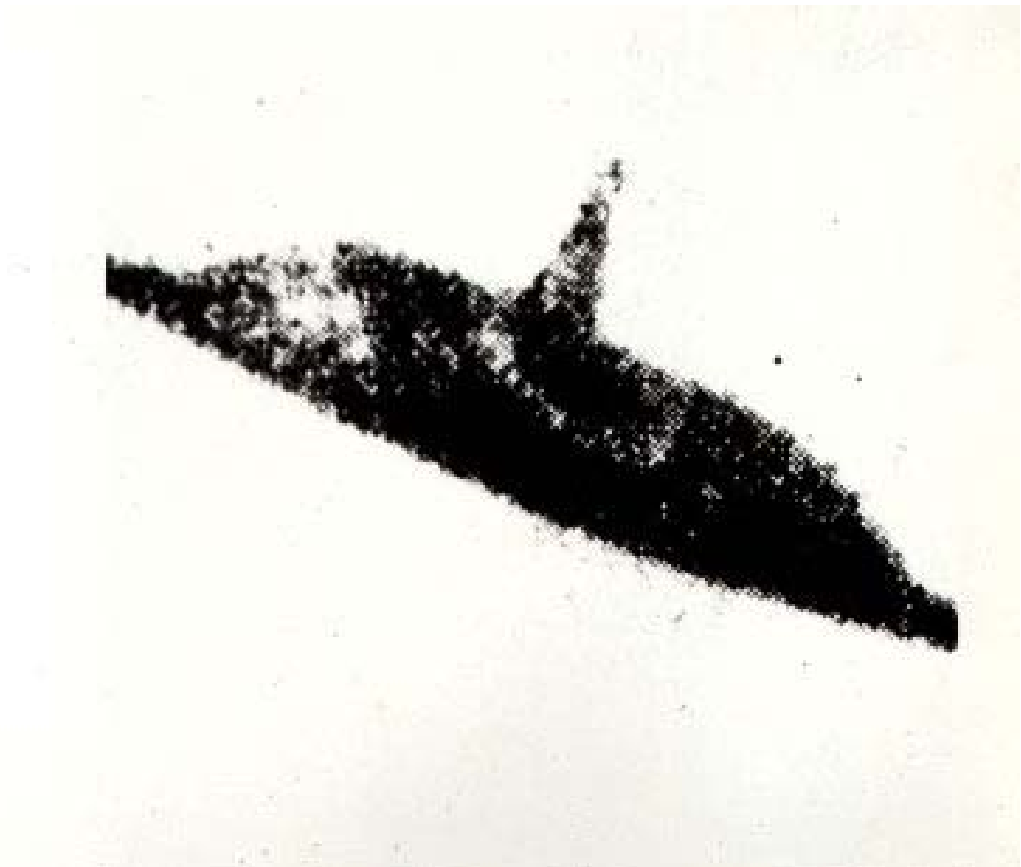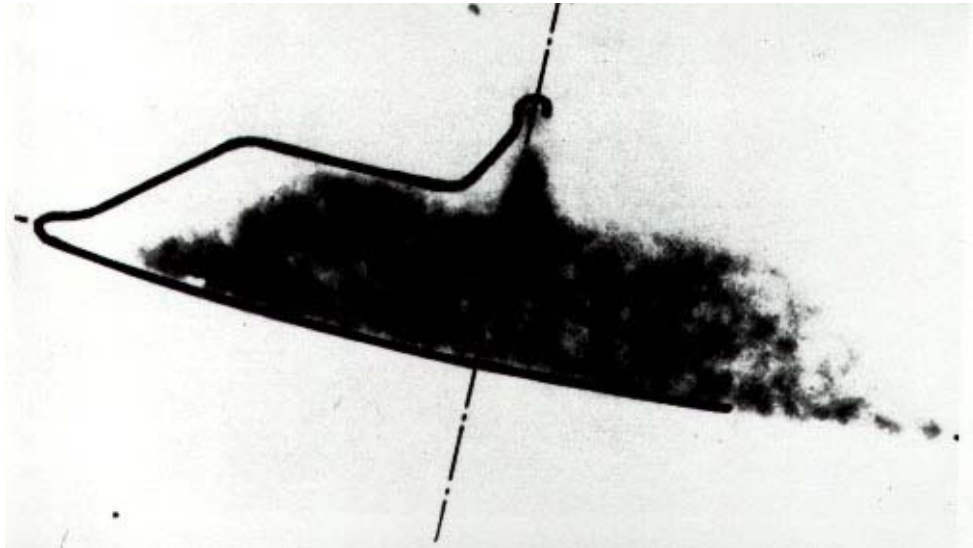
Fig. J23. Two classic UFO photographs taken in daylight that illustrate various forms of the ionic picture of a magnetic whirl. Both vehicles ascend with the magnetic whirl mode of operation. See also Figure G32.

　　　(a - top) The photograph of a UFO type K7 taken by Mr Paul Trent of McMinnville, Oregon, USA, on May 11, 1950, at about 7:45 p.m. - see [1J] p. 105, [2J] p. 223, [5J] p. 71, [6J] p. 72, [8J] pp. 41-2.

　　　(b - bottom) The photograph of a UFO type K8 taken by a pilot over Rouen, France, in March 1954 - [1J] p. 107, [2J] p. 330, [7J] p.14, [8J] p.42.

Fig. J24. An extremely fast moving UFO taken by Mrs Edwards B. of Devona Street, Aspley, Brisbane, Australia, on 12 May 1973. She took this photograph while on holiday when Mr Sinel (her friend) fell from a yacht into the water, approximately 6 km off the south-east Bay of Mayor Island (Tuhua Rocks), New Zealand. After the film was developed, a vehicle unnoticed by witnesses at the time appeared to fly just above the horizon. The estimated speed of this UFO was about 60,000 kilometres per hour. On the next frame, taken a few seconds later, the vehicle did not appear.

(a - upper) The entire frame.
(b - lower) The blow-up of the flying UFO.

Fig. J25. A night photo of a UFO type K3 flying in a throbbing mode of operation. The above photograph (originally in colour) was taken on 2 August 1965 by 14 year old Alan Smith, over Tulsa, Oklahoma, USA - see [1J] p. 241 and [2J] p. 371. In the centre of this UFO, at the outlet from its main propulsor, a layer of ionized air glowing a blue colour is visible. Around the vehicle's flange the air ionized by the magnetic field from the side propulsors is glowing a yellow-red colour. The non-glowing main body of the UFO remains invisible in darkness. Compare the above photograph with Figures G33 and J28.
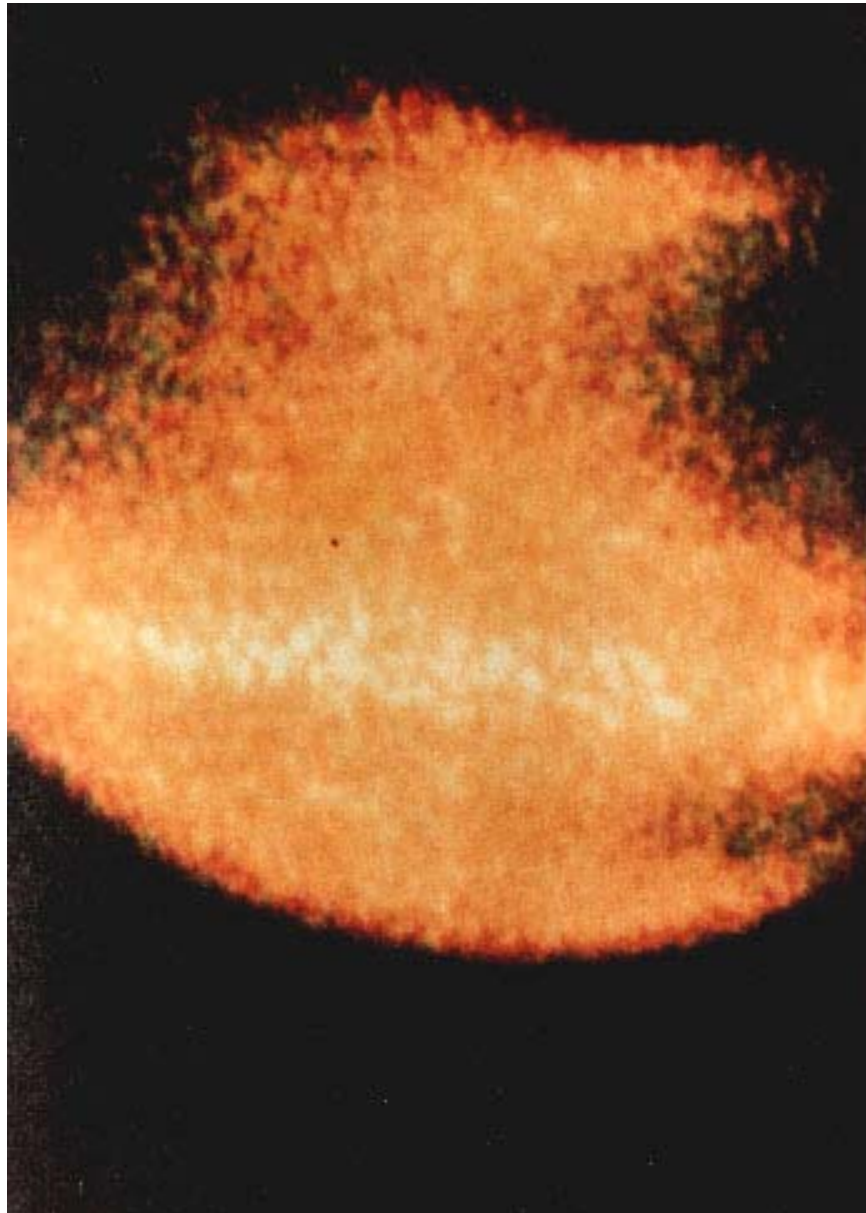
Fig. J26. A night photograph of a spherical flying complex formed from two K3 type UFOs flying in a magnetic whirl mode of operation - compare also Figures G7 and G32. This illustration shows only a single frame from the large colour movie film taken over Kaikoura, New Zealand, on the night of December 31, 1979, from the deck of a cargo airliner "Argosy". The history of this movie is the subject of two books: [8J2] by Captain Bill L. Startup and Neil Illingworth, "The Kaikoura UFOs" (Hodder and Stoughton Ltd., Auckland 1980, ISBN 0-340-256893); and [9J2] by Quentin Fogarty, "Let's hope they're friendly" (A.H.&A.W. Reed Ltd., Wellington, New Zealand 1982, ISBN 0-598-01463-3). The interesting detail revealed by the above frame is the lack of symmetry between the ionic whirls produced by the lower and upper vehicles. The ionic picture of a whirl formed by the lower (inverted) UFO of this complex takes a regular, hemispherical shape. The location of the characteristic whirl elements in this lower picture is indicated through the changes in density of the air ionization, not through the course of the whirl outlines (as is the case with the upper part of this picture). Such a dynamic asymmetry in the whirl's shape of this spherical complex results from the principles of the magnetic buoyancy formation, i.e. the weight of the UFO compresses the magnetic circuits under a lower vehicle in a way similar to a cushion being squashed by a person who sits on it, whereas the spinning of these circuits shapes them into a regular hemisphere.

Fig. J27. A photograph of a stationary UFO taken when the sky was apparently empty. The above picture documents the ability of UFOs to create a very efficient magnetic lens. It was taken by Andy Collins in May 1979 over Prestatyn, England, and subsequently published in the book [10J2] by J. Randles & P. Whetnall, "Alien Contact", Neville Spearman Ltd., Suffolk, England, 1981, ISBN 85435-444-1, page 45. Notice two white spots which reveal the vehicle's side propulsors oriented towards the photographer in such a way that their strong glow penetrated from inwards through the magnetic lens.
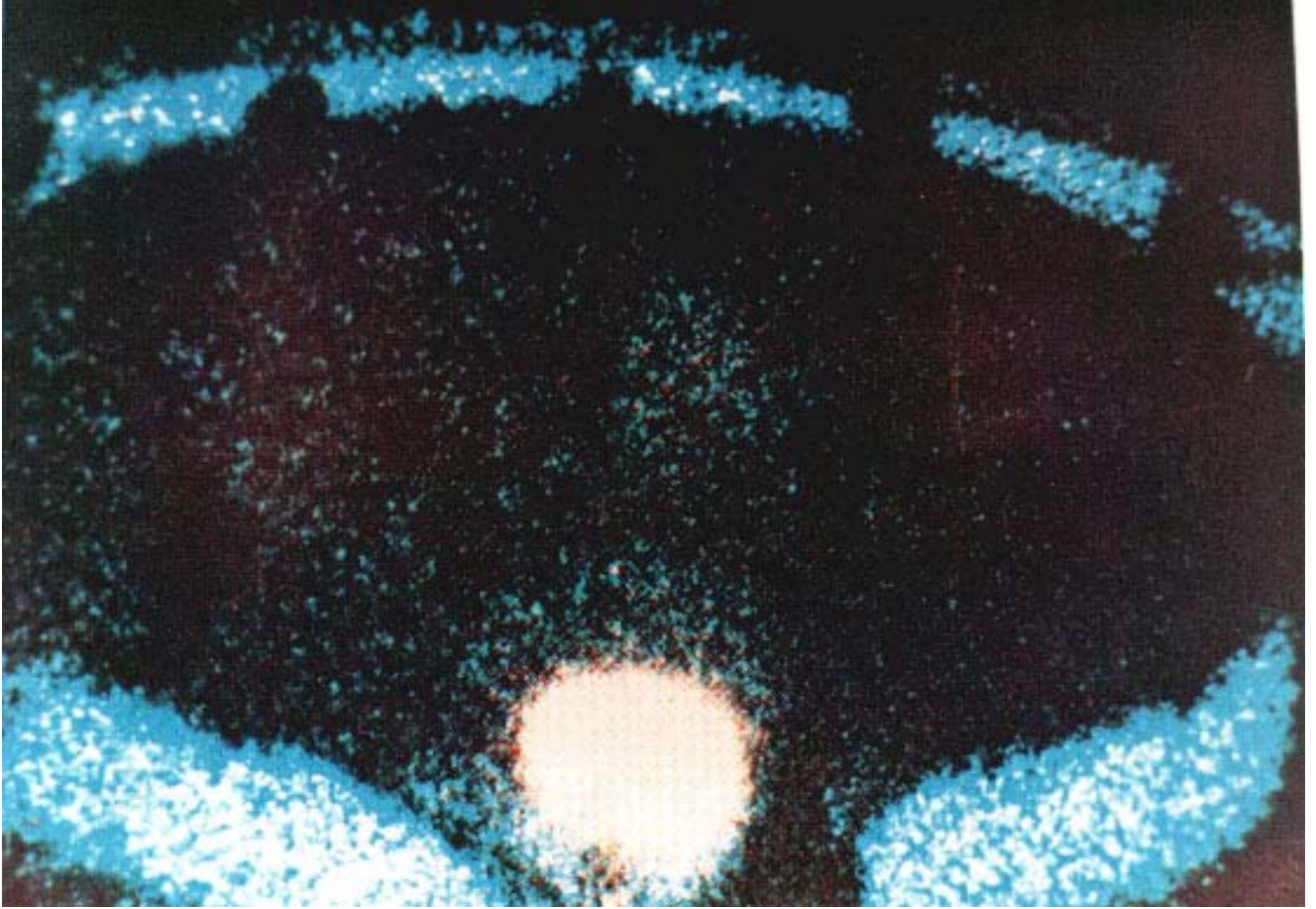
Fig. J28. A single frame from a colour movie film of a UFO taken at night by Ellis E. Matthews above Alberton, South Australia, in 1967 - see book by Bruce Cathie & P.N. Temm, "Harmonic 695" (Wellington, N.Z., 1971, ISBN 0-589-01054-9) page 134. It presents a stationary vehicle type K5 hovering in darkness in the throbbing mode of operation. The film captured only a glow of air, ionized by the magnetic field from the vehicle's propulsors. The main body of the UFO remained invisible in darkness. In the above photograph the colours of the glowing air provide perfect confirmation for the statements of the Theory of the Magnocraft. The air at the single outlet from the main propulsor, whose axis is slanted from the centre, glows a yellow-orange colour, whereas the ring of outlets from the side propulsors induces a blue-green glow. This means that the UFO's topside was oriented towards the photographer, so in the main propulsor a north (N) magnetic pole prevails, whereas in the side propulsors their south (S) poles are displayed - see also Figure G33. Compare the colours from this frame taken in the southern hemisphere with the colours in the photograph from Figure J25 taken in the northern hemisphere. (Notice that in the different hemispheres the polarity of the UFOs' propulsors must be reversed.)

Fig. J29. A night photograph of a UFO published in the book [7J], page 48. The searchlight beam is emanating from the centre of the vehicle, i.e. from the place where the main propulsor is located. The unusual stratification of this beam of light suggests that it is directed along the column of a magnetic field from the vehicle's central circuit.
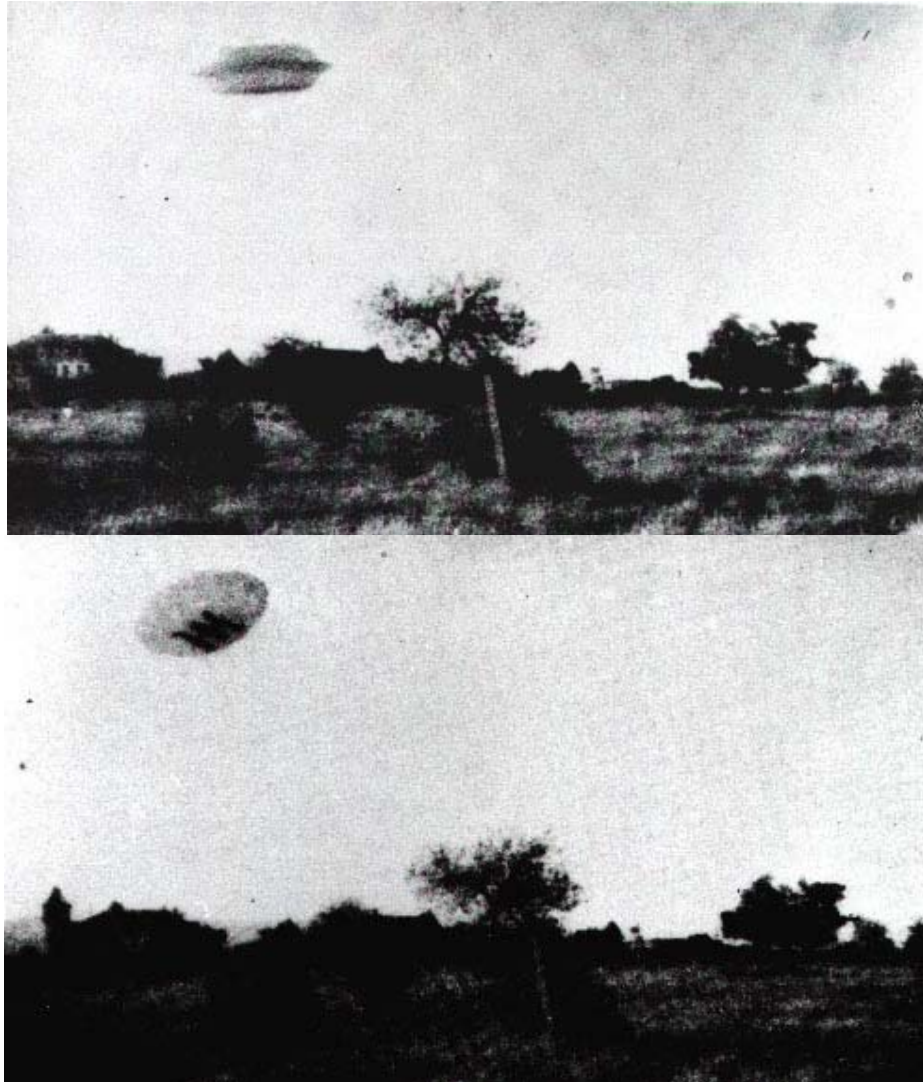
Fig. J30. Two frames from a large set of daylight photographs taken by Antonio Pardo over San Jose de Valeras (Spain) about 8:30 p.m. on June 1, 1966 - see [1J] p. 159. This photograph shows a spherical complex of two K7 type UFOs (see also Figures L1 and K4 showing UFOs of the same type only that coupled into different arrangements). The outlines of both vehicles are distorted by the strong action of the magnetic lens. The areas affected by this lens are concentrated around the propulsors of the UFOs. Thus the flanges containing the side propulsors are only partially visible, whereas the spherical bowls that cover the ceilings of the crews' cabins are completely diminished. On high quality copies of this photograph a faint outline of the spherical bowl at the top of the upper vehicle is slightly distinguishable.

Fig. J31. One of the best colour photographs of a twin-chamber capsule from the main propulsor of an ascending UFO. It was taken by a teacher in Hawaii and subsequently published in the book [7J2], "Into the Unknown", Reader's Digest, Sydney, Australia, 1982, ISBN 0-909486-92-1, page 315. In the above photograph the vehicle's main magnetic circuits form an effective magnetic lens which dissipates the outer parts of the UFO - see also Figure G37. But because the central magnetic circuit radiates from this lens and forms a type of vision channel directed towards the photographer, the twin-chamber capsule that produced this circuit remains clearly visible. In the photographed capsule the resultant flux is provided by the inner chamber, whereas the entire output from the outer chamber is drawn into the circulating flux - see Figure F5 (a). Therefore in higher quality copies of this photograph, a cone-like column of a magnetic field yielded by the inner chamber can be clearly distinguished. (A similar cone-like column of a magnetic field is indicated under the main propulsor from the vehicle presented in Figure N1.) This cone conceals the outlines of the remaining two edges of the capsule located behind it. The magnetic field bent by the outer chamber into the circulating flux has a clearly distinguishable boundary and therefore acts as a trap for light (see the description of "black bars" - subsection G3.4). Thus, the inside of the outer chamber is visible as a blackened area. Notice that this photograph allows one to determine the relation between the side edges of the outer "ao" and inner "ai" chambers in the twin-chamber capsules of UFOs. This relation is: ao = ai $\sqrt{3}$ - see also Figure F4 and equation (F8).

(a)

(b)

Fig. J32. An example of an unjustified claim for a genuine UFO photograph being a hoax, only because the computer technique of "digital image enhancement" revealed a form that resembles a vertical "thread" running above the object. The deductions from subsection J2.10 indicate, however, that the "thread" is in fact an effect of the light being dissipated by the central magnetic circuit of this UFO. This invisible circuit of the highly concentrated magnetic field yielded from the vehicle's main Oscillatory Chamber: (1) must be positioned exactly in the indicated place, (2) should take the presented proportions of dimensions, and (3) its interaction with light should produce the impression of a rectangular column - in fact appearing on the image (hoaxers would not use a rectangular thread!). Moreover, the same computer image also revealed edges of the "topside alignment cone" and the "complementary flange" visible at the upper side of the vehicle. These edges are distinguishable features for the UFO type K7 - see (2) and (6) in Figure G5 and Figure G24. But the so-called hoaxers could not possibly have known about them. Therefore, the edges additionally testify to the authenticity of this photograph.

(a - upper) An original photograph of the K7 type UFO, taken by an anonymous photographer calling himself "N.N." on 1 June 1966 over San Jose de Valderas, Spain - see [1J] p. 161, [8J] p. 161. It is one of a series of photographs of the same object taken by two independent photographers - see also Figure J30.

(b - lower) A computer image of the object from this photograph, produced with the use of the "digital image enhancement" technique and published in the book [7J] p. 208. This image is claimed to be the "undisputed proof" that the photograph is a hoax. No investigator to-date has had the courage to argue with such "scientific evidence" and to provide a fair interpretation of the image.

Fig. J33. A formation of UFOs taken by Carl R. Hart, Jr. above Lubbock, Texas, USA, on the evening of 31 August 1951 - see [1J] p. 211, and [2J] p. 215, [8J] p. 46. Five pictures were taken of the two UFO formations flying in two different directions were taken. The above photograph shows the V-formation of UFOs flying in a magnetic whirl mode of operation. The ionic pictures of the vehicles' whirls take the very unusual shape of "shoes". As it is explained in Figure J34 such "shoe-shapes" result from the requirement that UFOs must always fly with their base perpendicular to the local course of the force lines of the Earth's magnetic field. Thus this photograph adds significantly to the proof that UFOs obey the laws of magnetic flight.
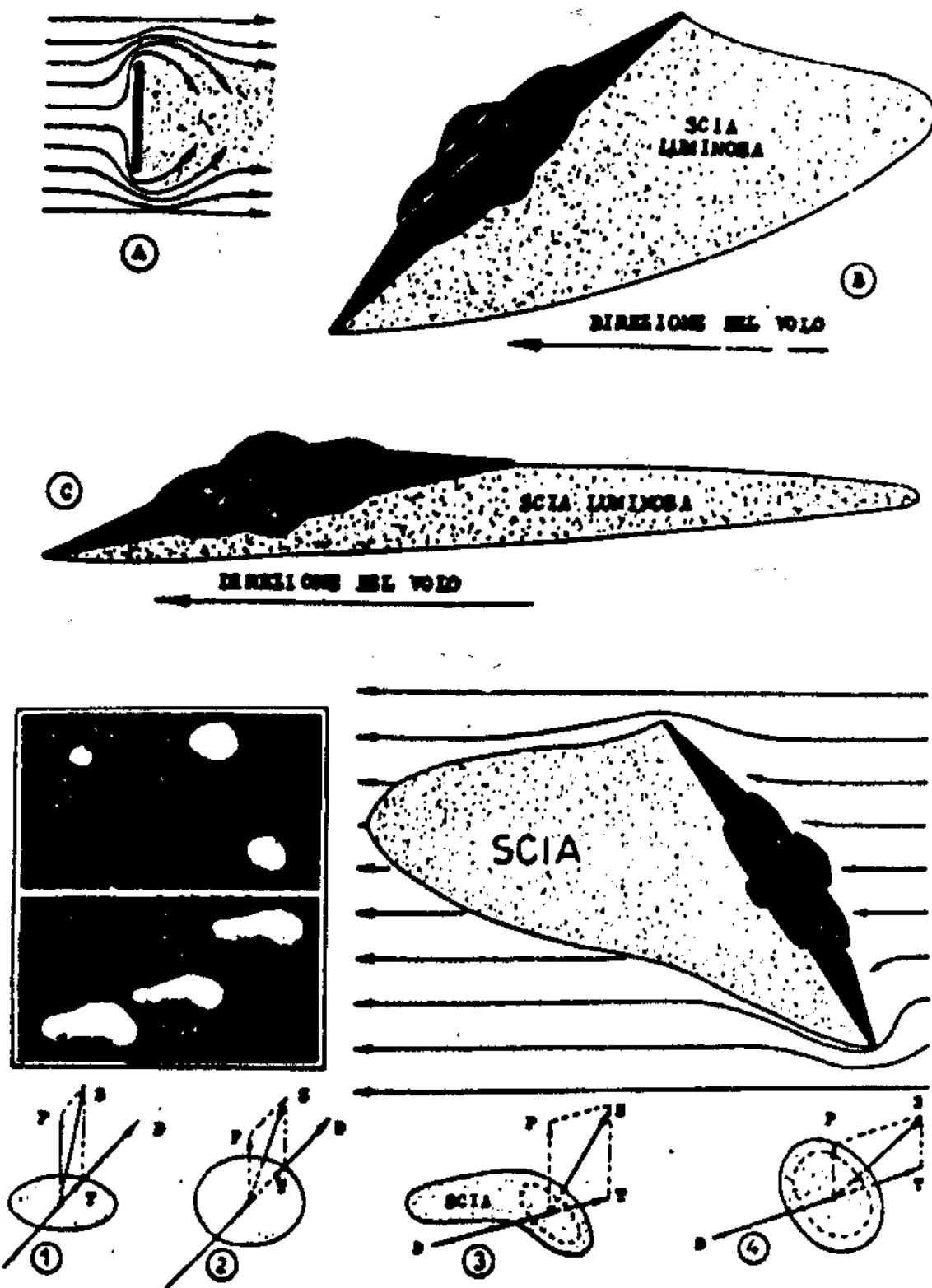
Fig. J34. The drawings illustrating the deductions by Renato Vesco. They are published in [1J] p. 212. In 1972, an Italian investigator Renato Vesco proved that UFOs flying slanted from the least aerodynamic resistance orientation must produce a "shoe-shaped" ionic picture of a whirl. His proof supported by the photograph presented in Figure J33 confirms that UFOs fly in the non-aerodynamic magnetic manner that contradicts the laws of hydromechanics. The primary condition always fulfilled during this flight is that UFOs are oriented so that their bases are perpendicular to the force lines of the Earth's magnetic field.

Chapter K:

THE VALIDATION OF THE CONCEPT OF DIPOLAR GRAVITY

In chapter D every individual aspect of the Concept of Dipolar Gravity, after being presented, was immediately confronted with various facts taken from reality. In this way the general statements of the Concept of Dipolar Gravity were instantly validated on the existing evidence. Moreover, such facts as: photographs of the extraction glow, achievements of ESP practitioners (e.g. Plank's pump), effects of the Boomerang Principle, Kirlian Photography, Wave-Particle Duality of Matter, and many others, could only appear when the Concept of Dipolar Gravity is correct and valid. Therefore the general formulation of this concept does not require further confirmation. However, independently from statements of the general nature, the Concept of Dipolar Gravity found a specific application in the building of advanced propulsion systems (i.e. Teleportation Vehicles and Time Vehicles). This applicational aspect of the concept mentioned is of major importance to the subject of this monograph. Because of this, the application of the Concept of Dipolar Gravity for transportation purposes will be additionally validated in this chapter.

There are three categories of evidence which confirm that the findings of the Concept of Dipolar Gravity have a direct application for transportation purposes. These are:

1. Premises for the existence on Earth of a navigational beacon system which demonstrates the operation based on some form of technological telepathy.

2. Sightings of the Teleportation Vehicles which represent the Magnocraft of the second generation utilizing a psychokinetic propulsor.

3. Sightings of the Time Vehicles which represent the Magnocraft of the third generation.

Let us review the evidence accumulated so far for each of these categories.

K1. Premises for the telepathic beacon system installed on Earth

On 10 May 1978, Jan Wolski, a farmer from the small village of Emilcin (51 08'N, 22 05'E) near Lublin, Poland, was abducted onto a deck of a four-propulsor UFO by two humanoids. The course of his abduction is briefly described in subsection O1. The investigation that followed revealed that the trail of Wolski's abductors led to a strange stone, locally called a "devil stone", which has distinctive imprints of human feet and hands deeply embedded in its surface - see Figure K1 (c). UFO investigators examining the stone discovered that humanoids actually manipulated something on it. In the result it was established that this particular stone, not Wolski's abduction, was the main reason for the UFO visit.

When the author obtained a report showing that the Emilcin UFOnauts were manipulating something on the stone with hand- and footprints, he recalled the old family stories from his childhood about an other similar stone located in the vicinity of Zemanow village, near Milicz (also present-day Poland). In these stories Zemanow's devil stone was also the centre of mysterious "devil" activity which contemporary people would interpret as the frequent visits from UFOnauts. This inspired the author to propose a hypothesis that devil stones may contain some devices hidden inside them, and that these devices may be still in use by UFOs (e.g. as navigation beacons).

After the formulating of this hypothesis, the author devoted his 1981 summer vacation to the search for further devil stones. As a result of this search he discovered two more such stones located in Kamień Pomorski (the English translation for the Polish name of this city is "Seaside Stone") - 53 59'N, 14 43'E, and Stopka (the name translates as "Footprint") - 53 20'N, 17 55'E. The subsequent processing of co-ordinates of all four stones by a computer revealed that they are located in a regular "diamond-shaped" net. The author

calculated the remaining locations of this network and then he directed other UFO investigators to the determined areas. In a few cases (but not in all) other devil stones were discovered, exactly as was predicted by a computer. Further stones were reported by various people when an article dedicated to the "devil network" was published in the Polish newspaper "Kurier Polski", no. 79, 1982, page 5. The discovery of these other stones confirmed that the area of central Europe, including Western Russia, Poland, Germany and even England, is uniformly covered by a network of devil stones. {One of such stones, discovered in Addingham High Moor, England, 53 57'N, 1 53'W, is described in Journal "The Unexplained, Mysteries of Mind Space & Time", Volume 10, Issue 110, 1982, page 2193 - see Figure K1 (d)}. Research into the devil stones reveals that they are all characterized by the following attributes:

1. Their upper surface contains a very clear footprint or handprint embedded on it. In this imprint, or very close to it, a shallow indentation is located (compare Figure K1 (d) with Figure K3). Each stone has a stable, usually pyramidal, shape that favours an upward directing of the imprint, and a large size of about 1 to 10 metres.

2. They are geographically located along straight lines, exactly in the points of intersections of two opposite sets of lines. Each of these two sets is tangential from the opposite side, to the elliptical path that the magnetic pole of Earth follows in its motion around the north geographic pole.

3. All stones have a very similar legend describing their origin. In most of these legends, stones were delivered by devils or angels to their present locations. The most representative of such legends was published in the German Journal "Heimat-Blätter für ben Kreis Militsch-Trachenberg", no. 2/1925, page 12, and concerns the stone from the village of Zemanów, near Milicz (51 36'N, 17 32'E) - see Figure K1 "a". The English translation of this legend from the German is as follows:

"The devil was furious because citizens of Trzebicko village were planning to build a church. He decided to destroy the construction which had just been started. One pitch black night he picked up a huge stone in his hand and flew in the direction of Trzebicko in order to smash the church. However the strong westerly wind impeded his flight. He had only just reached a place where the village of Zemanów now stands, when the first rays of the rising sun appeared and a rooster began to crow. The devil had to drop the stone and then flew back to where he came from. On the surface of the stone was left the impression of a large clawed paw."

4. The historic proximity of the dates of the placing of these stones at their present locations. When the historic facts in the legends describing the stones' origins are analyzed, they always point to the same two years, i.e. c. 1570 or c. 990 A.D. It is an amazing coincidence that in these two years the north magnetic pole of the Earth in relation to the area of Poland was located most eastwards (c. 1570) or most westwards (c. 990) while moving around the north geographic pole (see the book by A.E. Scheidegger: Foundations of Geophysics, Elsevier Scientific Publishing Company, Amsterdam-Oxford-New York, 1976, page 67, which collects the historic details of the motion of the north magnetic pole).

5. Unusual phenomena, such as strange lights, voices, the trampling of plants, and unexpected panic shown by animals (especially horses and dogs) occur frequently around these stones.

However, the most unusual fact about devil stones is that they generate a discrete (i.e. not continuous) emission of a penetrating radiation of the "extraction glow" type. This radiation can be registered on a photographic film that is factory-wrapped in black paper. The first time, this radiation was detected by coincidence - see Figure K2. It was when the author calculated the theoretical locations for the missing devil stones, and asked other investigators to check these locations. To one of these locations, i.e. between the villages of Wilkowice and Miedary near Strzybnica, Eng. Wiesław Jabłoński (ul. Kotlarza 11c/50, 40-338 Katowice, Poland) was directed. Unfortunately after coming to this location, he found that the stone had recently been blown up by dynamite. But he still managed to take some photographs of the debris, shown in Figure K2. He also noticed that the weather that day was quite cloudy and misty. In his photographs, after they were developed, a

geometrical source of strong light located within the debris appeared unexpectedly. Because of the cloudy weather and the lack of a flash, this light could not be any reflection - it must have been emitted by the stone itself. Moreover, two different photographs of debris taken from two directions revealed the same tube-like source of light penetrating through one piece of stone. Eng. Jabłoński himself did not notice any glow emitted by the stone. But he discovered and photographed an unusual "technological" structure within the debris, rounded-square in shape, which looked like a contemporary microprocessor, only it was made of similar material to the rest of the stone. Moreover, the skin of the hand which he used to examine the debris later appeared to be strangely "burned" and took a long time to heal.

Jabloński's accidental discovery was passed on to other UFO investigators, with the recommendation to check their nearest devil stones for the same radiation. In one other case, i.e. in the stone from the village of Stopka near Bydgoszcz, the emission of this radiation was also registered - see Figure K3. Frequent research of the Stopka stone revealed that the emission is not continuous - the radiation appears and diminishes at random, thus making some registrations successful, others unsuccessful.

An analysis of the characteristics of the radiation emitted from both devil stones leads to the conclusion that this radiation represents an emission similar to the "extraction glow" described in subsections D2 and D11. This in turn suggests that inside devil stones some processes similar to technological telekinesis occur. It is most probable that these processes take the form of "technological telepathy" which when activated send out navigational messages to a nearby UFO. Because the registration of the extraction glow on these stones is not always successful, probably the telepathic processes inside them are not continuous, but are activated by an outside signal or by the destruction of the stone.

The registration of the technological extraction glow emitted from devil stones confirms that various potentials contained in the Concept of Dipolar Gravity are already utilized for transportation purposes by an extraterrestrial civilization.

In 1982 the author left Poland and consequently he discontinued any further research on devil stones. After his departure the Polish UFO research groups involved in this research have also terminated their investigations. This is a pity, because they could contribute significantly to our knowledge of technologically induced telepathy.

K2. Sightings of Teleportation Vehicles in operation

The findings of the Concept of Dipolar Gravity reveal that there is a possibility of building Teleportation Vehicles and garments of Teleportative Personal Propulsion (see subsection D6 and subsection B6.3). The use of such vehicles and garments should be quite easily identifiable, as they would display the following two attributes absent in other propulsion systems:

1. In the teleportative convention, the surface of these vehicles and garments would be covered with a thin layer of the extraction glow. This would make them look as if they were "oiled with light".

2. The vehicles and garments could move through solid objects without any damage to these objects or to the vehicles' own consistency.

There is vast evidence available which confirms the presence of both the above attributes in some contemporary UFO sightings. This allows us to deduce that some UFOs can already utilize the teleportative convention of operation. Further deductions lead to the conclusion that the part of the Concept of Dipolar Gravity which concerns propulsion systems utilizing technological telekinesis is valid and correct. Let us now examine some examples of evidence that confirms each of the attributes listed above.

There are numerous UFO photographs available which illustrate shapes exactly corresponding to those deducted for the Magnocraft, but in which the vehicle looks as if it is "oiled with light". An example of such a photograph is shown in Figure K4. In this photograph the light covering the surface of a UFO displays all the properties of the

extraction glow. Moreover, the fact that a single frame shows exactly the same vehicle twice, but moved discretely to two different locations, indicates that the vehicle moves in a telekinetic state - see subsection B6.3. The above is additionally reinforced by the fact that in any of the magnetic modes of the Magnocraft's operation (i.e. magnetic whirl mode, throbbing mode, or magnetic lens mode) the appearance of the vehicle as in Figure K4 can not be induced. To conclude the above, in order to achieve all the attributes recorded in the photograph from Figure K4, the UFO needed to employ a technological version of telekinesis.

Garments of personal propulsion used by UFOnauts can also look as if they are "oiled with light". Such an appearance is reported in the following eye-witness report by Miss Jock Laing, 7 Smith St., Roxburgh, Central Otago, New Zealand. The events reported by her took place one weekend in December 1958, when she was 9 years old.

"I was lying on my bed and reading a book. The bed was a heavy construction, made of brass, with three horizontal bars at the foot of the bed. Behind the foot of the bed there was a window, closed that day, through which could be seen branches of a huge apple tree. For some unknown reason I lifted my eyes from the book and saw three little beings of about 85 cm in height, dressed in shiny, radiant clothes. They were suspended in the air, exactly in the place where the three horizontal bars at the foot of the bed were located. The metal of these bars penetrated through their bodies. The outlines of these beings were also unusual. The entire surface of their bodies and clothes was covered with a thin layer of white light. This light made their outlines quite fuzzy. The beings were not intimidating, and somehow I felt a calmness and friendliness emanating from them. They communicated with me without a sound - just by putting the information straight into my head. When they finished this silent talk, they departed rapidly, still facing in my direction. They accelerated backwards in a straight line, passing through the glass of the closed window and through branches of a tree behind it. The brass of my bed displayed no damage afterwards. Also the glass in the window was untouched. When I described the events to my family they laughed at me, telling me that I was too old to see fairies. No-one had heard about UFOnauts in those days."

In the above sighting both attributes unique to the use of teleportative propulsion systems were confirmed, i.e. the appearance of the extraction glow on the surface of the personal propulsion garments, and the ability to penetrate solid matter without any damage to that matter or to the UFOnauts themselves.

Probably it is also worth mentioning here that in 1987 the author conducted a research of UFO landing sites in the Roxburgh area. Some of the landings investigated there are presented in Figure M12. On the slope of hills range that passes behind the garden of Miss Laing, the author noticed numerous old landings of a UFO type K4. These landings could have been scorched in 1958.

Very similar attributes were revealed in another case of use of the teleportative propulsion, known to the author. On the night of 29 May 1983, at 1:30 a.m., Mr Witold Rusek, ul. Wiktorska, Warsaw, Poland, was abducted by two UFOnauts onto the deck of a spherical UFO complex (similar to the one shown in Figure J11) where he was subjected to a medical examination. Here are some excerpts from his written report describing the event.

"... I stayed near the window in my room and observed this huge sphere, with two black horizontal flanges fastened round the middle of it, which gently hovered above the ground, emanating a brown-red colour. ... Rapidly from the wall near my window emerged two beings about 2 metres high, dressed in white glowing garments. ... They grabbed my wrists and began to pull me in the direction of the wall. It terrified me because I could become stuck inside the wall. But when I thought this, they sent back to me, probably telepathically, the feeling of their amusement and this relaxed my resistance. ... Inside the spaceship there was a square room, the ceiling of which curved on one side into a wall. ... On one of the walls protruded something that appeared to me to be like a square window. I tried to look through it but I could not see anything. ..."

The last two sentences of this excerpt concern the sighting of the Oscillatory Chamber, and are connected with the content of subsection L1.

There are also opposite situations reported, when UFOnauts are motionless, whereas material objects (e.g. people) penetrate through them. A highly evidential sighting which clearly confirms such an ability of UFOnauts was made on Starr Hill, Warminster, England (this sighting is described in [3J] page 132). In this incident a team of eight witnesses was present, which included Sally Pike, who reported it, and her husband Neil. The witnesses had spotted two high-flying UFOs when they all felt the air become warmer (compare the conversion of thermal energy during telekinetic release - subsection D11). Then two aliens appeared. They were about 2 metres tall, and it was as if they were made out of smoke (see transparent properties of psychokinetic state - subsection B6.3). The observing team could see their outlines down to their waists, then they gradually started to dissipate. When Neil approached them, he seemed to blend in with them. He couldn't see them when he got close, but the team of observers watched him walk straight through the figures and out the other side. The aliens remained in the same place for about half-an-hour, then disappeared.

K3. The evidence confirming the existence of Time Vehicles

The content of subsections D3 and B7 indicate that it is possible to complete the Magnocraft of the third generation capable of time travel (i.e. Time Vehicle). On the other hand, it is proven in chapter J that the vehicles popularly known by the name of UFOs represent Magnocraft which are already operational and which are manufactured by some extraterrestrial civilization. By merging together both the above premises, a working thesis of this subsection can be formulated. This thesis states that:

"on our planet operate civilizations which already use Time Vehicles".

The descriptions that follow present the evidence accumulated by the author so far, which confirms that the above thesis is true.

Various UFO sightings provided a significant body of evidence which confirms that some UFOs operate as Time Vehicles. This evidence can be classified into the following four categories:

1. UFOnauts' statements (i.e. various abductees reported that UFOnauts claim their vehicles to be capable of time travel).

2. Cases of abductions onto a UFO deck which took less time than the timespan of individual activities which were completed during these abductions.

3. The documented cases of the time acceleration on wristwatches of people having close encounters with UFOs (i.e. these watches registered time which was significantly accelerated in comparison to the time shown by other clocks).

4. Reports from sightings of the "state of suspended animation" which was described in the fifth paragraph before the end of subsection B7 (this state can be caused only as the result of the operation of Time Vehicles).

Reviewed below are examples of the most representative evidence belonging to each one of these categories.

#1. An example of an UFOnaut's statement claiming the capability of their vehicle to travel in time is supplied by a New Zealand citizen abducted onto a UFO deck for a medical examination (The Auckland Case of Abduction, Auckland, New Zealand, December 1979). The spoken and written report from this abduction, given under hypnosis, is contained in the author's files (notice that the same case is quoted in subsection L1.4). A few selected statements from this report are repeated below. The excerpt quoted is limited only to the the alien's explanations concerning time travel. The person reporting refers to the alien guide who provided these explanations as "he".

"He told me about time too, that time - actually doesn't move but we move over time, so that he can actually meet me once - or come together once, but we can meet many times. So he can actually meet me in the future as well, so sometimes when I get the feeling that I've been to see him at night or something I only have met him once but, and we come together once at that point or that's, but, but you see because time doesn't move he

can, he can, oh how can I explain this. But those points are there for him to be at when I pass through them, and that's why I sometimes get the impression that he's there again.

... He told me so much about, or showed me the way time works and space and things but I, I just haven't got the words. ...

He showed me but he, their navigating is so, is so different because they actually, they're operating more on, on more than three dimensional, it's five, six, seven, it's, it's because they're going through space and through time, and through holes and up ...".

Notice that in the above quotation the capability of alien vehicles to travel in time is definitely confirmed. Moreover, this quotation reveals that the aliens' understanding of time very closely corresponds to that derived from the concept of Dipolar Gravity - compare the first (underlined) statement in the above quotation with the content of subsection D3.

#2. An example of abduction, which took less time than the duration of individual activities taking place during it, is the case of the abduction of Carl Higdon that took place on October 25, 1974 (see [2J] page 171, [5J] page 16, and compare these with the description under Figure N4). A brief description of events taking place during Higdon's abduction is as follows:

About 4:15 p.m. he began elk hunting on the north edge of the Medicine Bow National Forest, south of Rawlings, Wyoming, USA. "I walked over this hill and saw five elk. I raised my rifle and fired, but the bullet only went about fifty feet and dropped." When picking up the bullet he noticed a man standing near by. The appearance of this man is illustrated in Figure N4. The man called himself "Ausso". Ausso gave Higdon a pill which he said was to satisfy his hunger for four days. Then he took him into a transparent cubicle (i.e. four-propulsor UFO, see Figure O1). Inside was another similar alien. After they took off, Higdon saw a basket-ball-shaped object under the cubicle, which he took to be Earth. Ausso said they had travelled 163,000 "light miles". They landed near a strange tower with a bright, dazzling light. There were five human-like people around. Ausso took him into the tower and subjected him to what looked like an X-ray. Afterwards he announced that Higdon was not what they needed and that they would take him back. He placed Higdon on the seat inside his cubicle and moved a control lever. Instantaneously, without any noticeable travel, Higdon found himself in the same place where he picked up his bullet, prior to his unusual encounter. Time seemed to shift backward to the beginning of his experience. At this moment Higdon didn't know who or where he was. He started to wander around, walking about a mile past his truck. This walk was estimated to take him over two hours. Then he returned to the truck and about 6:30 p.m. he called for help by CB radio. He was taken to hospital where he had no appetite for another 3 days. He displayed symptoms of exposure to some kind of radiation.

By our measure of time Higdon's entire abduction took only about 2 hours, i.e. between 4:15 p.m. (when he began his elk hunt) and 6:30 p.m. (when he called on the CB radio after returning to his truck). But during this time he visited his abductor's planet, was medically examined, returned back to Earth, had a long wander in the forest, found his car and called for help. Even if the speed of his abductor's vehicle was hundreds of times that of the speed of light, reaching a planet from a distant star in less than 2 hours would be impossible. On the other hand, all the other elements of Higdon's story, including the personal propulsion of his abductor - see Figure N4, were confirmed by the evidence. So there is no reason to dismiss his report of visiting the alien's planet. But to make this possible, some form of time travel (e.g. reversing backward the elapse of time) must be involved. Thus, the abduction of Carl Higdon provides further evidence confirming the ability of some UFOs to time travel.

#3. A case of accelerating time as shown by a wristwatch after a close encounter with a huge UFO, is well illustrated by the so-called "Kentucky abduction" that took place near Hustonville, Kentucky, on 31 January 1976. This abduction involved three women: Louise Smith, Mona Stafford and Elaine Thomas. Quoted below is a sentence taken from the report that describes this abduction (see [2J] page 193):

"Prior to washing her hands, Louise had taken off her watch and was startled to see that the hands of her watch were moving at an accelerated rate of speed, the minute hand moving at the speed of a second hand, and the hour hand was moving also."

#4. An excellent sighting of the "state of suspended animation" is provided by Mr. Richard B. (surname suppressed on request) of Dunedin, New Zealand. Here is how he describes his experience (a spoken record of his sighting is contained in the author's files):

"The events that I am reporting took place on one week day in July 1975 (most probably on Tuesday, 12 July 1975) around 12:50 p.m. As well as me, it was witnessed by three of my friends, namely Pat S., Nancy T., and Ross K. Because all of them used to be well known figures in Dunedin, I will not reveal their full names. That day four of us had lunch together in a coffee bar, "Stewarts", located on the south side of Dunedin's Octagon. This lunch was one of many that we have together in the same coffee bar, as our everyday meetings here had a long tradition. On that particular day our conversation didn't spark, as the weather was cold and damp, Pat had flu, Nancy had migraine, Ross cut the top of his finger, and I had a headache. We sat around our table located opposite the stairs and quietly ate our lunches. All of a sudden time stood still. The noisy and busy coffee bar occupied by about 80 people turned into an absolutely silent place where everything froze. This looked like a still frame from a movie film. People were twisted in strange positions, frozen whilst performing movements. Their bodies looked comic and their positions seemed to be very unstable. I remember a cloud of steam suspended motionlessly in a dynamic configuration above the expresso machine. I also remember a waitress pulling out burning hot cakes from the oven, and sustaining their heat in the motionless hands. In the whole cafe only four of us seemed to remain non-affected, thus having the occasion to observe what actually happened.

At the top of the stairs that led down to the coffee bar from street level, an unusual man appeared. He was about 1.75 metres high and looked about 19 years old. He was dark, thin, with olive skin and black wavy hair. His clothes looked normal, but displayed high taste and elegance. Everything about him looked strikingly perfect. The man was surrounded by a beautiful white glow, especially around his head and chest. The light seemed to be emitted not from him, but from the air that surrounded him. He glided down the stairs without moving his legs. He actually floated in the air slightly above the level of the stairs. Then he moved to the counter and stood first in the queue. As soon as he got there, everything started to happen normally again. People continued their actions from the point when they were suspended in motion. Steam continued to rush from the expresso. Everything looked as though nothing had happened. The man bought a glass of fruit juice and sat at the last free chair left at a 12 person table. He acknowledged our attention by a smile. We wanted to talk to him and find out more about his unusual arrival, but there was no access to his chair. So we decided to leave the coffee bar and wait for him upstairs at the only way out. After about 5 minutes waiting and not seeing him pass, I went back down to find that he was gone. There is no other exit from this coffee bar. This day we were also surprised to find out that Pat's flu and Nancy's migraine were gone, I had no more headache, and the top of Ross's finger looked as though it never had been cut.

We talked about this experience almost continually, and really wanted to learn more about this unusual young man. About six weeks later we spotted him again. He stood at the top of the stairs, intending to enter the cafe. He moved his head in our direction in a kind of greeting. His clothes were the same, except that this time he was surrounded by a faint green glow (not white). When he appeared nothing actually happened. He walked down as normal people do (his steps looked somehow more light then ours) unnoticed by anyone but us. He again bought a glass of fruit juice and again sat in the same place. A few times he acknowledged our attention by a friendly look at us. This time we decided to interrupt him, and to find out who he was. We wanted to stand up and come closer, but none of us could move. When finally we managed to stand up, we directed ourselves out of the coffee bar (seemingly against our will). Pat desperately tried to turn back to him, but her efforts failed. After a while Pat decided to return back to the coffee bar, only to find out that he had

already gone. We never met him again. The experience shook our lives and has remained the deepest mystery."

The above mystery was resolved on 1 October 1988, when Richard B. described these unusual events to the author. In the impulse of the moment the author read to him the fifth paragraph from the end of subsection B7 that describes the "state of suspended animation". The author previously described this state theoretically, solely from the analysis of the operation of Time Vehicles. Thus, Richard B. was the first person known to the author who actually witnessed this state, without any prior knowledge of the theory behind it. Therefore his report provides an extremely valuable confirmation that Time Vehicles in fact already do exist.

In March 1989 the author discussed the "state of suspended animation" with Mr. Mac X. of Waikouaiti near Dunedin. During this discussion Mac admitted that he also witnessed such a state. Unfortunately, because of various pressures, he was unable to give a written or a recorded report as to what he has seen. But he was willing to describe verbally his experience. Mac's sighting had a very similar course to that of Richard B. It occurred around 11 a.m. one week day, sometime between June and August 1976. During the experience Mac was siting at the table nearest to the stairs in the Dunedin coffee bar, "Stewarts", drinking his coffee. His attention was alerted when an unusual silence fell on the busy coffee bar. He witnessed all the people in the coffee bar, except for himself, frozen motionlessly for about 4 minutes in extremely uncomfortable positions. It is worth mentioning here that Richard B. and Mac X. never met and remained unaware of each others independent sighting of so similar events.

* * *

The evidence provided in this subsection reveals that the interpretation of time provided by the Concept of Dipolar Gravity is confirmed by the statements of extraterrestrials, and also that there are numerous sightings of UFOs which operate as Time Vehicles. Thus, the existing evidence proves the validity of the main thesis of this subsection.

(a)

(c)

(b)

(d)
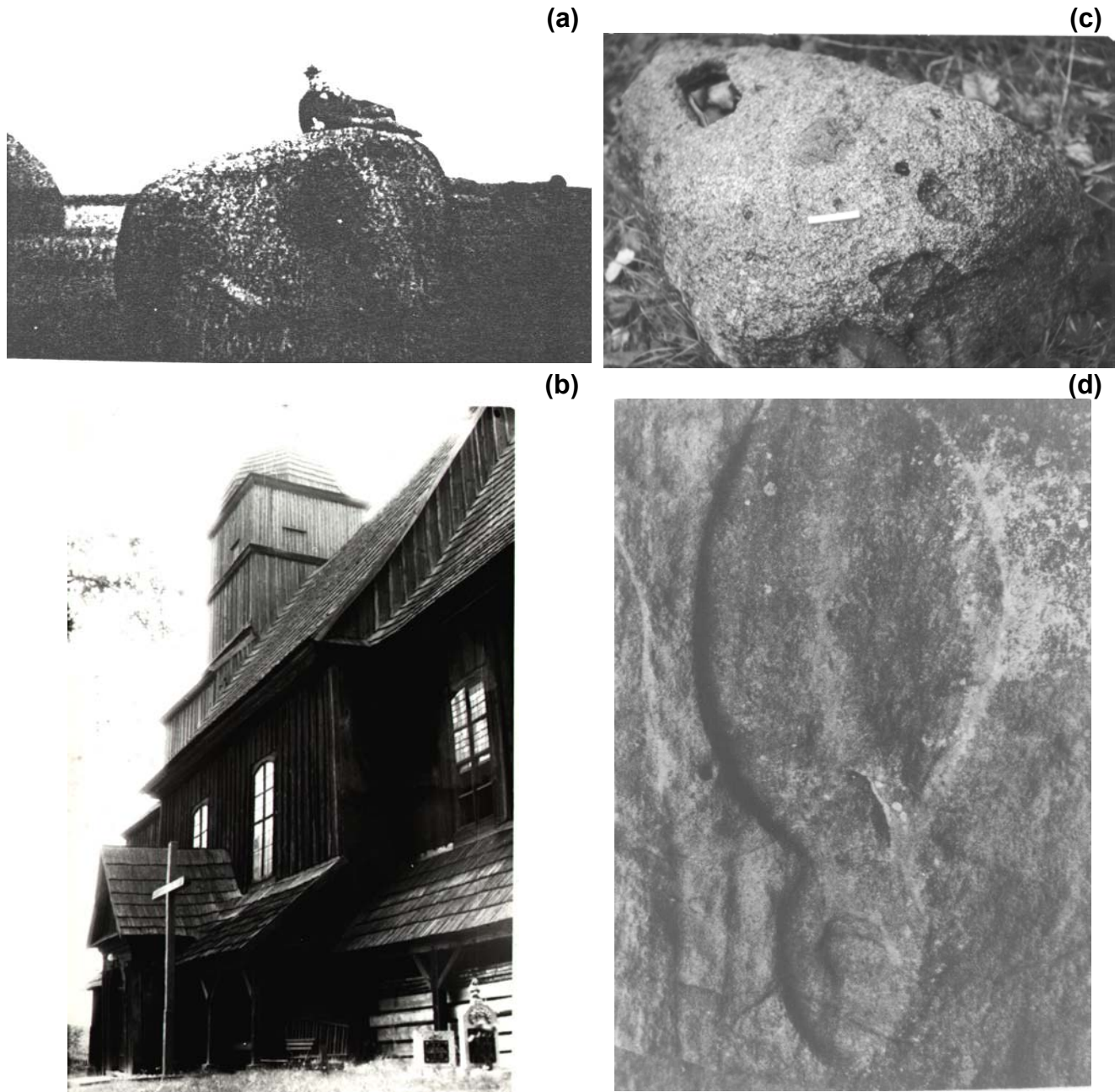
Fig. K1. Photographs illustrating the characteristics of the mysterious network of "devil stones" existing in Poland and some parts of Western Europe (e.g. Ukraine, Germany, England and Italy).

(a) The devil stone from the village of Zemanów near Milicz (51 36'N, 17 32'E) blown up by dynamite in 1925. This photo by O. Stahr taken in 1912, together with the legend quoted in subsection K1, was published in "Heimat-Blaetter ...", No 2, 1925, page 12.

(b) The wooden church in Trzebicko to which, according to the legend, the devil carried the Zemanów's stone. The first historic mention of this church is dated 1571.

(c) Footprints on the devil stone from the village of Emilcin (51 08'N, 22 05'E). The research of the abduction of a local farmer, Jan Wolski, on 10 May 1978, revealed that a UFO crew manipulated something on this stone.

(d) The footprint on the stone from Addingham High Moor, England (53 57'N, 1 53'W), published in "The Unexplained" Volume 10, Issue 110, page 2193.

Fig. K2. The emission of the extraction glow registered on the debris of a "devil stone" located between the villages of Wilkowice and Miedary, near Strzybnica (50 27'N, 18 46'E). Photographed by Mgr. Eng. Wieslaw Jabłoński of Katowice, on 20 September 1981. Two photographs taken from different angles show two opposite outlets from a single, perfectly cylindrical source of light that penetrates through the same piece of stone.
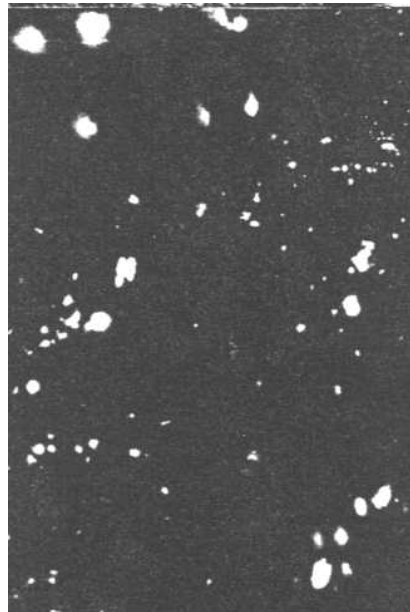
<u>Fig. K3</u>. The "angel stone" from the village of Stopka near Bydgoszcz (53 20'N, 17 55'E). In the heel of the footprint from this stone a shallow indentation appears, similar to the one from the stone illustrated in Figure K1 (d). The above photographs were taken by Mr. Ryszard Zudzin of Bydgoszcz.

    (a - upper) The general view of the stone. The photographed ruler is 0.3 [m] in length. On the footprint, photographic material samples were placed, while the stone was being checked for radiation.

    (b - lower) The emission of the extraction glow from the heel of the footprint registered on the sample of photographic material.

Fig. K4. A photograph (originally in colour) of two UFOs type K7 published in Journal "The Unexplained. Mysteries of Mind, Space & Time", Volume 1, Issue 1, 1980, page 4. Both vehicles are coupled together into a detached configuration, which formation is explained in Figure G13 and which other example (but operating in the magnetic convention) is shown in Figure L1. In high quality copies of this photograph the vehicles look as if they are "oiled with white light", thus confirming their emission of the extraction glow. Moreover, the same configuration is simultaneously captured in two subsequent pulses of the telekinetic state (see explanations from subsection B6.3), i.e. a state so distinctive to the teleportative convention. This in turn certify that the photographed UFOs must represent the Teleportative Vehicles.

EVIDENCE CONFIRMING THE VALIDITY OF THE OSCILLATORY CHAMBER

In this monograph two groups of premises are confronted. On one hand there are the theoretical premises which highlight the importance of Oscillatory Chambers for all magnetically propelled space vehicles. Examples of these can be indicated (1) the logical deductions from chapter D which lead to the conclusion that every spacecraft traveling interstellar distances must apply the Magnocraft's principles of operation, and (2) the presentation from subsection G2 which reveal that the Oscillatory Chambers must be seen from every compartment of the Magnocraft. On the other hand this monograph also contains some empirical premises which show that our planet is continually visited by some extraterrestrial civilizations that already have operational Magnocraft. Examples of these empirical premises are: (1) the formal proof completed in chapter J which reveals that UFOs are already operational Magnocraft, and (2) the evidence from chapter O that reports sightings of four-propulsor UFOs (the propulsors of four-propulsor UFOs utilize arrangements of Oscillatory Chambers, called spider configurations, which simulate the operation of a simplified Magnocraft propulsion system - see chapter I). Combining both these groups of premises allows the proposal for the main thesis of this chapter. This thesis states that:

"The Oscillatory Chamber is already utilized in UFOs as their power source (propulsor) and energy storage".

The goal is to prove the truth of this thesis.

The proof that UFOs utilize the Oscillatory Chamber as their propulsor is easy to provide. It only requires the collecting of evidence that the Oscillatory Chamber is included in the structure of these vehicles. Subsections that follow contain such evidence in plenty. The more difficult task is to prove that UFOs do not use any fuel for their operation, and that their entire energy supply is stored in the form of a magnetic field within the arrangements of their Oscillatory Chambers (e.g. twin-chamber capsules). To complete this proof it is necessary to provide evidence that the Oscillatory Chambers of discoidal UFOs are in fact arranged into twin-chamber capsules whose circulating flux allows the storage of huge amounts of energy. Fortunately, the author has managed to find extensive evidence which documents this. Moreover, the energy storage function of these devices in UFOs was confirmed verbally by UFOnauts on a number of occasions.

To prove the truth of the main thesis of this chapter, the author completed large-scale investigations aimed at identifying the evidence required. As a result, numerous facts have been established, all of which indicate the long-standing and continuous use of Oscillatory Chambers on Earth by some advanced civilizations. These facts can be classified into three following categories:

1. Contemporary sightings and photographs of the Oscillatory Chambers used in the propulsors of UFOs.

2. Material evidence left on Earth that originates from the Oscillatory Chambers of UFOs.

3. The historic descriptions of the device called the Ark of the Covenant which seems to represent the ancient version of the Oscillatory Chamber.

The first three subsections of this chapter present the evidence from each subsequent category in support of the main thesis. The conclusion is presented in subsection L4.

L1. Sightings and photographs of Oscillatory Chambers used in UFO propulsors

According to the previously mentioned proof from chapter J, which states that UFOs are already operational Magnocraft, the most noticeable components of every UFO

spacecraft should be the arrangements of Oscillatory Chambers constituting the propulsors and the energy storage for this vehicle. These arrangements should be seen by every human visitor entering a UFO deck, as well as being seen by observers of a flying UFO. Moreover, the magnetic field produced by UFO Oscillatory Chambers should affect the environment in a manner that is unique for these devices. The four separate categories of evidence originating from the above sources, which all confirm the presence of Oscillatory Chambers in UFOs, are presented in the subsequent subsections. Notice that in this chapter only the evidence which concerns the arrangement of the Oscillatory Chambers utilized in discoidal UFOs and called the twin-chamber capsule is presented (see the description of the twin-chamber capsule contained in subsections F6.1. and G1). The use of the arrangements of Oscillatory Chambers called spider configurations by UFOs will be discussed in chapter O.

L1.1. Columns of magnetic field yield from UFO propulsors are square in the cross-section

The columns of magnetic field yielded from the propulsors of a UFO must reflect the shape of the device that produced them. If these columns are yielded by Oscillatory Chambers, they must be square in the cross-section, thus they would differ from the circular columns of the field yielded by any other device that may possibly have produced them. As it is easy to recognize the shape of the columns of magnetic field yield by UFOs, there is an opportunity to detect whether these extraterrestrial spacecraft in fact use the Oscillatory Chamber.

The easiest way of recognizing the shape of the field's columns is by observing the black bars formed from this field. (The formation of these black bars is described in subsection G3.4). These black bars must reflect the shape of the field's columns and therefore they must also be square in the cross-section.

In the majority of sightings the shape of the black bars seen at the outlets from UFO propulsors was not determined. However, there is still a number of such cases when the witnesses took special notice of this shape, and remember it exactly. In all these cases the black bars appear to be square. Let us now review examples of such sightings, whose detailed documentation has come into the files of the author of this monograph.

On 12 July 1981 Mrs and Mr Thew of Temuka, New Zealand, witnessed two UFOs hovering over their home, which were coupled together in the so-called detached configuration. The observed configuration was identical to the one shown on the photograph from Figure L1. In the Temuka vehicle, however, the shape of the second, inverted spacecraft was not warped by the action of a magnetic lens, and therefore this lower spacecraft was as clearly visible as the upper one. It is stressed by the Theory of the Magnocraft that in such detached configurations the facing outlets of the side propulsors of both spacecraft must be joined by the columns of a highly concentrated magnetic field (see Figure G13 "upper") taking the shape of black bars. Mrs and Mr Thew saw these black bars and very definitely noted that they were square in the cross-section.

In the book [5J] page 11 is published an illustration of the semi-attached configuration of two UFOs, which kidnapped a Brazilian soldier named José Antonio da Silva - see Figure L2 and compare it with Figure G11. The black bars observed on this vehicle were clearly indicated to be square in the cross-section.

One of the most objective types of evidence confirming the square cross section of columns of magnetic field yield by UFOs are the scorched marks left on the ground by these vehicles during their landings. Such marks, called in this monograph "UFO landing sites", usually take the shape of a ring with a single scorched patch in the centre. (A detailed description of these marks is provided in subsection M1.) When a UFO lands in an inverted position, the outlet from its main propulsor almost touches the ground. In such a case, a central mark scorched on the ground by this propulsor must correspond to the shape of a column of magnetic field yield from this propulsor. The author has investigated

some UFO marks resulting from such landings, and in fact has discovered sites which contain a clearly burnt square mark in their centre. An example of such a site is shown in Figure L3 (compare the central mark from this Figure with the outlines of the twin-chamber capsule shown in Figure L5). The existence of these permanently burnt square marks in UFO landing sites provides vital evidence in support of the main thesis of this chapter.

L1.2. Outlets of UFO propulsors are square and reveal gold or yellow bands of electric sparks rotating inside

The shape of the columns of the magnetic field yielded by UFOs can also be recognized from the sightings of layers of ionized air that glows at the outlets of vehicles' propulsors, or from the outlines of the propulsors' contours. The evidence that follows will document this aspect.

On october 1979, Mr Norman Neilson of Motunau Beach, North Canterbury, New Zealand, took a slide photograph of a K5 type UFO in which the areas of ionized air at the outlets from the side propulsors of this spacecraft are clearly visible. His photograph is presented in Figure J18. A former Air Force photography expert, Mr Fred Dickenson of Timaru, New Zealand, conducted some research on the Motunau UFO picture. His enlargements revealed that the columns of a magnetic field yield from the outlets of the side propulsors of the spacecraft display the features characteristic for the square shape in the cross-section. The above mentioned photograph and its enlargement have been published in the "Xenolog UFO Magazine" (New Zealand), no 122, January/March 1980, pp. 10-12.

In the book [4L] page 599, there is the description of a landed UFO observed by Mr Gabriel Gachignard, a customs official from Marignane Airport (France). He noticed the square shape of the forms which he took to be windows, but which in fact were the layers of air ionized by the pulsating magnetic field at the outlets of the vehicle's side propulsors. Here is the relevant quotation from [4L], which describes Gachignard's UFO sighting:

"It had the shape of a football, he recalls, with very pointed ends. He estimated the object's dimensions to be 3 ft. high and 15 ft. long (i.e. around 0.9 and 4.5 metres). The underside was in a shadow, but along the top was a row of four SQUARE windows, from which emanated a pulsating light, ghostly and soft, which changed colours from bluish to greenish in a sort of throbbing pattern."
To make the above quotation more understandable, perhaps it is worth presenting the formal interpretation of this sighting, prepared on the basis of the Theory of the Magnocraft. This interpretation states that Mr Gachignard saw only the upper surface of two side flanges in a spherical complex formed from two UFOs type K3. (The manner of forming such a complex is presented in Figure G7, whereas the exact shape of single vehicles that were combined into this complex is illustrated in Figure G4). This complex was slightly slanted towards the observer, so the outlines of its flange took the oval appearance. The main body of the vehicle, namely its two domes containing crew cabins, was hidden from the sight in darkness. The orientation of the vehicle allowed the witness to see the outlets from four side propulsors (outlets from the remaining four side propulsors were hidden behind the unseen crew cabin of the upper vehicle).

On 20th January 1982, Mr Wayne Lockwood of Wanganui, New Zealand, was momentarily dazzled by a beam of white light emitted from the centre of a UFO hovering over him. It is known from the Theory of the Magnocraft that such a light is produced when a rod of special substance is inserted into the Oscillatory Chamber (see subsection G1.3). Therefore the outlet of the device which produces this beam of light should be square-shaped. Mr Lockwood looked up to the source of light and noted clearly that it was square in contour.

On 23 July 1981 at 10:30 PM Mr James L. McCabe of 49 Highland Avenue, Dover, New Jersey, USA, observed for about 20 seconds a metallic object approaching his home at the height of approximately 500 metres. On the upper surface of this UFO he noticed some RECTANGULAR-shaped forms which he described as windows or port-holes made

of magnifying lenses. They were set back from the surface in two steps similar to graduations. The left form had an irregular band of YELLOW light running down and around the edges of its central part. McCabe's description of the above forms corresponds perfectly to the facing surfaces of the twin-chamber capsules from the side propulsors of the observed UFO, operating in the mode of inner flux prevalence - see Figure F5 (a). The impression of magnifying and dislocation was probably caused by the light being bent by the circulating flux yield from the outer chamber. The description of Mr McCabe's sighting is published in the April-May 1983 issue of the "CUFOS Associate Newsletter", pages 4 to 5.

L1.3. <u>Twin-chamber capsules formed from two Oscillatory Chambers are frequently observed in UFOs and even photographed</u>

The central magnetic circuits of ascending discoidal UFOs produce a unique magnetic-lens effect which facilitate visual sighting of twin-chamber capsules from the main propulsors of these vehicles. This effect allowed a number of outside witnesses to see and to precisely describe twin-chamber capsules in UFOs, and to even photograph this capsule on numerous occasions (see Figures L5 and J31). The mechanism involved in producing this magnetic-lens effect is the subject of explanations in subsection G9.4.1. But for the consistency of presentation, this effect is also briefly summarized below.

In the ascending UFOs the power of a magnetic field involved in vehicles' central magnetic circuit exceeds many times the power involved in the main and side circuits. For this reason force lines of the central magnetic circuit hermetically surround not only the entire body of such an ascending UFO, but also its main and side magnetic circuits, which became wrapped in a kind of a magnetic donut. Principles involved in the formation of this donut are illustrated in Figure G37. As this was stressed in subsection G9.4, the extremely concentrated magnetic field of a UFO interferes with light. This interference in general depends on allowing the light to pass easily along the field force lines, but bending paths of the light which tries to pass across these lines. The mentioned magnetic donut formed around the ascending UFO means that to reach the vehicle's shell the light would need to pass across the donut's field force lines. But in order to reach the main propulsor, the light would need to follow these lines. For this reason, the outside observer who witnesses such an ascending UFO can easily see a twin-chamber capsule from the main propulsor, but he/she is unable to see any other part of the vehicle's shell.

Stanislaw Masłowski of Poland drew the author's attention to this magnetic-lens effect. He observed a UFO that took-off from ground level. While watching the rise of this UFO, he noticed to his astonishment that the entire body of the vehicle gradually diminished to his eyes and only a small diamond-shaped device (i.e. a twin-chamber capsule from the main propulsor) in its centre became visible. Below is provided a description of his sighting.

On the 29 August 1979 at about 7 PM, 9 year old Stanislaw Masłowski of Wroclaw, Poland, encountered a K3 type UFO in the Popowice Park of Wrocław. The object was hovering at a height of about a half a metre, and two (out of three) members of its crew had left the deck. The witness came to the vehicle at a distance of about 6 metres, approaching the nearest UFO-naut at a distance of about 2 metres. The encounter took about 10 minutes and provided numerous technical details of the object and its crew - see also the description with reference to Figure N1. Afterwards, Stanislaw observed this UFO taking-off. When the vehicle only slightly increased its height, the body of its shell began fade away, although the UFO was still too close for Stanislaw to loose his clear visibility because of the distance. Simultaneously, exactly in the centre of the former body of this ascending vehicle appeared a much smaller device emanating a strong, dark-yellow light. Stanislaw described the shape of this device as resembling a "diamond", i.e. a shape which is obtained when one observes a square from an angle.

After Stanislaw Maslowski revealed the existence of the above effect, the author began collecting other evidence. The analysis of the evidence accumulated so-far leads to the conclusion that the majority of witnesses who see and describe a square, rectangular,

or diamond-shaped UFO which emits from the inside a strong, gold or yellow glow, in fact do not see the whole vehicle, but only the twin-chamber capsules of their main propulsors. The additional confirmation that these rectangular objects represent the arrangements of Oscillatory Chambers, not the entire vehicles (e.g. four-propulsor UFOs described in chapter O) is the unique glow of gold electric sparks always emitted from their inside.

A good example of a typical sighting of a twin-chamber capsule from the main propulsor of an ascending UFO is the sighting by Mr Wayne Hill of Invercargill, New Zealand. A drawing of the device that Mr Hill observed is presented in Figure L4. This is how he describes his sighting:

"It was about 11:30 PM, on 20th December 1978, shortly after sunset. I was having a lone walk along a road about 7 kilometres south of Nelson, New Zealand. The road in that place runs exactly in the south to north direction. I was walking northward. Rapidly, an uneasy feeling of being followed made me look up. Above my head, at a height of about 30 metres, a lit diamond-shaped outlet having the edge of about 10 metres, was silently passing through the sky. It was flying from south to north. Then it stopped moving and hovered above me. I noticed the edges of an outer cube, lit up by a kind of glow. In the centre of this lit cube, a face wall of another black one was visible. Between the edges of both cubes I noticed a strong yellow glow, which seemed to be more concentrated in the corners of the diamond. I had the impression that this glow came from a filament of a square bulb. The remaining, non-glowing space between both cubes was greyish in colour. Behind the edges of the outer cube I did not notice any remaining parts of a vehicle. My sighting lasted only about 20 seconds. After this time the vehicle begin to ascend sharply and then disappeared from my view into cloud."

Sightings of twin-chamber capsules from the main propulsor of ascending UFOs constitute a large portion of all UFO sightings. For example such a sighting was the blueprint for shape D/7 drawn in Figure J10. It is also described in page 93 of the February 1982 issue (Vol. 4 No. 5) of OMNI magazine, it is discussed in [4J] page 133, etc.

The most objective documentation of twin-chamber capsules from ascending UFOs is provided in photographs. A number of photographs of these capsules have already been taken, although their authors do not realize what their pictures reveal. Examples of such photographs are shown in Figures L5 and J31. In order to be able to recognize their meaning, it is necessary to know about the action of the UFO's magnetic lens (explained at the beginning of this subsection) and also to know the characteristics of the twin-chamber capsules in their "inner flux prevalence" and "outer flux prevalence" modes of operation (these characteristics are illustrated in Figure F5 and discussed in subsection F6.1).

L1.4. Oscillatory Chambers have been seen on the decks of UFOs as described by numerous abductees

Probably the most important source of evidence that UFOs already utilize the Oscillatory Chamber originate from the reports of people taken on the decks of UFOs. The author of this monograph has collected four such reports. Each one of these originates from a different, independent witness. But all of them seem to describe in detail the same device whose properties correspond exactly to the envisaged appearance and operation of the Oscillatory Chamber. Let us review the key information from these reports.

The greatest luck in respect of seeing the Oscillatory Chamber was had by nine-year-old Gaynor Sunderland, who observed this device twice: once as an outside witness of a landed UFO and next time as an abductee on the deck of a UFO. The description of the device that she saw is contained in [1L] pages 9 to 13, and 76.

The first of the mentioned encounters took place in Oakenholt near Flint, North Wales, England, one afternoon (around 2 PM) on a Saturday in July 1976. The girl observed a landed UFO (probably K4 type) from a distance of about 30 metres. On the top of this vehicle she noticed a cubical device visible through the transparent topside dome. Its attributes and the location suggest that it was a twin-chamber capsule from the vehicle's

main propulsor. Quoted below is Gaynor's description of the vehicle and its mysterious device (see [1L] page 9):

"The object was flat at the bottom with a kind of rim surrounding it. It glinted silvery in the sunshine as if made of metal or tinfoil, and stretched about thirty feet (9 metres) from rim to rim, rising to a shallow dome of about ten feet (3 metres). On top was a small, square box - dull red in colour."

Four pages later (i.e. on page 13) the UFO prepares itself for a departure. The cubical device is mentioned again:

"Immediately the red box on top of the dome began to flash brightly, on and off. It was apparent that preparations for departure were being made."

On page 76 of the same book there is a report of Gaynor's September 1979 abduction on the deck of a UFO. Again she saw the main twin-chamber capsule of this vehicle, occupying the centre of the crew cabin. Here is its description:

"In the centre of the floor ... stood an octagonal object in a box. It looked like a crystal with plug sockets and wires leading from it into one end of the wall. She was told that this crystal generated the power needed by the object to move, although how was not explained."

Here it should be noted that the free suspension of the inner chamber in the twin-chamber capsule allows this inner chamber to slightly revolve around its magnetic axis during the magnetic whirl mode of vehicle's operation. This revolving may result in the re-orienting of the inner chamber in relation to the outer chamber, so that the side walls of both chambers are not parallel to each other (but the top walls always remain parallel!). After such mutual re-orientation of both chambers, the twin-chamber capsule would appear to the witness as an octagonal object.

In December of 1979 a New Zealand citizen (surname and address have been suppressed) was taken on a UFO deck for a medical examination. When touring this spacecraft, after the completion of the examination, this person observed a fascinating device in the shape of a cubical block. It was glowing strongly and emitted countless lightening flashes. A view of it was provided from every compartment of the spacecraft. During the first series of investigations under hypnosis, the person quoted gives the following details of the observed device:

"... there's a big cylinder going right down the middle of the spaceship; it looks like it's made out of crystal or something but I'm sure there's some big white glowing block or something in there. That's got something to do with power, lightning or something."

In the next stage of touring, the alien guide explained:

"The whole universe revolves on the positive and negative, that is, that is our power, that is how we fly, using the positive and negative ...".

The spoken and written records of the above report, given in an hour-long session under hypnosis are in the files of the author. While reading this report, it is difficult to imagine a better description of the central cylinder of a UFO together with its main propulsor, (see 3, 13, and M in Figure G5) given by a non-trained observer.

In January 1985 the author of this monograph met the above-mentioned witness personally. As a result of this meeting a number of further details on the device utilized by UFOs was revealed. In the January meeting, again the information was confirmed that the device used by UFOs for propulsion and energy storage, has the shape of a transparent chamber, square in cross-section, along the inner surfaces of which golden streams of flickering sparks zig-zag horizontally. The thickness and pattern of these sparks reminded the observer of the "system of veins on the hand of an overworked person".

The most evidential and informative sighting of the UFO Oscillatory Chamber is contained in [2L] page 69. This sighting is part of the report from Mr Robert Luca's medical examination conducted on a UFO deck. This is how he described his sighting (the description quoted is reproduced by kind permission from Mrs Betty A. Luca, copyright holder):

"Then there's a box on the other side that's behind this bench and I can see from standing. It looks like a glass cube and it fascinates me 'cause it's filled with, looks like black

smoke. It looks like there's lightning inside it or something gold. Looks like it has streaks of gold running all through it - a   bright, bright gold. It's a cube, maybe not a yard square. No, it's less than   three feet and it's got all little lightning bolts inside it. It's all black with these gold streaks running through it (Figure 13). It looks like the lightning has been frozen right in its path."

Figure 13 from [2L] presents also the reconstruction (drawing) of the appearance of the above-mentioned cube, prepared by Mrs Betty A Luca. This reconstruction is reproduced in Figure L6. The drawing corresponds exactly to how we envisage the future appearance of the Oscillatory Chamber (compare Figures L6 and F2). Notice that although UFO propulsors utilize twin-chamber capsules, instead of single Oscillatory Chambers, because of the mode in which this particular capsule operated (i.e. inner flux prevalence), the outlines of the inner chamber were unrecognizable to the witness behind a black bar of the magnetic field (see also Figure F5).

In answer to the inquiry of the author of this monograph about how the assumed appearance of the Oscillatory Chamber corresponds to the cube sighted by him on a UFO deck, Mr Robert Luca replied:

"Yes! Your Fig. F2 illustration looks very much like what was seen."
His wife, Mrs Betty A. Luca, in her letter of 4th March 1985 supplemented the above description with the following data:

"There is a second book called, "The Andreasson Affair". This pertains to my 1947 encounter. I did see a hatch (square with rounded corners) that had wind and lightning coming out of it. It appeared to be in suspended animation. This was their stored energy. At the bottom (after the wind and lightning was withdrawn) I saw four coils and one hollow cylinder. At the other end of the hatch (coming from the curved wall) I then saw the square like device pulled   partially out of the wall. The outer edge was sort of honeycombed. Inside had thin protruding stems with tiny glass droplets on the end. There were also clusters of needle wires pointing outward."
One may wonder at this point if it is possible to receive a more precise description of a twin-chamber capsule from an untrained observer who never saw it before or after, and who do not know the theory behind it.

L1.5. Indirect confirmations that UFOs use Oscillatory Chambers

The evidence collected in previous subsections probably represents only a small fraction of the vast amount of facts spread amongst various publications, which directly document that UFO vehicles already utilize Oscillatory Chambers in their propulsors. The identification and revealing of this evidence turned out to be a slow process, as it involves a lot of research.

In the process of searching for such a direct evidence, the author encountered some indirect evidence as well. This indirect evidence also leads to the conclusion that the Oscillatory Chamber is used in UFOs. But this conclusion is not obvious and must be reached by logical deduction. However, because the use of such indirect evidence in the proof concerning UFOs could be the subject of criticism on the part of sceptically inclined investigators, the presentation of facts belonging to this indirect class will be omitted. But to give readers some idea as how consistently these facts support the main thesis of this chapter, the main groups of them will be named. These groups are as follows:

(1) Sightings that a magnetic field of UFOs does not attract or repel ferromagnetic objects. As it is explained in subsection F6.3, only the appropriate arrangements of Oscillatory Chambers can produce such a non-interacting (antigravity-type) magnetic field.

(2) Sightings that UFOs frequently hover close to powerlines and seem to "tank" our electric energy. Of course, in order to absorb the energy from powerlines these vehicles must posses the capability of electric transformers and storage for electric energy. The Oscillatory Chamber in fact provide such a capability - see Table F1.

(3) Sightings that UFO structures always include a flange and a central cylinder that runs vertically in the middle of vehicles. Both these components are only justified if UFOs utilize Oscillatory Chambers for propelling themselves.

(4) UFO crews never mention that a fuel supply is required for their vehicles, although the same crews frequently mention that the cubical devices (Oscillatory Chambers) witnessed in their spacecraft store their reserves of energy - see subsection L1.4.

L2. Material evidence left by UFO Oscillatory Chambers

In addition to all the empirical evidence described in the previous subsection, needle-shaped electrodes from UFO Oscillatory Chambers were found in USSR. The presence of such needle-shaped electrodes inside of the UFO Oscillatory Chambers was for the first time reported by Mrs Betty A. Luca, in her letter quoted in subsection L1.4. Unfortunately, her finding would have remain unrecognized, if Mr Ryszard Zudzin of Poland, who without knowing about her sighting, had not discovered during his experiments that in order to make the Oscillatory Chamber operational, needle-shaped electrodes must be used (see Figures F9 and F10). Mrs Luca's report and Mr Zudzin's finding reinforce each other, thus helping to establish that UFO Oscillatory Chambers utilize conductive needles for their electrodes. Establishing this, alerted the author to evidence indicating the connection between conductive needles and UFOs. In fact material evidence documenting this connection was found. It is described in the book [3L] page 148. Here is the relevant quotation:

"Zigel talks of another form of UFO 'left-over' found by geophysicist Alexander Zayekin at Tambov, south of Moscow. He calls it 'space tumbleweed' and claims it contained 'intertwining metal needles each about five to eight centimetres long and a half a millimetre in diameter'. 'The needles,' he goes on, 'were of an unknown brittle, gray-coloured metal'."

It seems that at Tambov a UFO crew changed the worn out electrodes from the Oscillatory Chambers of their vehicle, and afterwards threw away or forgot the packets of old, damaged electrodes.

L3. Ancient descriptions of the Oscillatory Chamber

Numerous ancient sources contain descriptions of a mysterious device which we know by the name of the Ark of the Covenant. As well as in the Bible, this device is also mentioned in the Jewish cabalistic work, "Zohar", the Ethiopian epic, "Kebra Nagast", and in the Indian epics, "Mahabharata" and "Ramayana". Throughout history, a number of scientists have tried to reveal the secret of the Ark and to determine what kind of device it was. Various investigators came to different conclusions, on one occasion describing the Ark of the Covenant as "a fairly complete system of electrical instruments" (a German philosopher and mathematician, Lazarus Bendavid), and on another occasion as the "manna machine" (see the book "The Manna Machine", by George Sassoon and Rodney Dale, London 1978). A review of the conclusions drawn by various investigators in this matter is contained in the book [5L].

In 1984, when the first monograph [2F] on the Oscillatory Chamber was published, a number of readers drew the author's attention to the fact that the attributes of the Oscillatory Chamber very closely correspond to those of the Ark of the Covenant. The author followed up all these suggestions and the results of his findings are presented in this subsection.

From the material available at present it can not be conclusively proven that the Ark of the Covenant was in fact the ancient version of the Oscillatory Chamber. But it seems to be highly probable that the Ark was, in its entirety, an Oscillatory Chamber, or contained the

chamber as one of its vital parts. The evidence that supports such a conclusion is as follows:

#1. The simplicity of the Ark corresponds to that of the Oscillatory Chamber. God provided Moses only with written instructions and with a display of a working model in operation, but the Ark itself was made by Jewish craftsmen entirely of materials accessible to them. Therefore it could not require skills, tools, or materials (e.g. radioactive isotopes) only available to societies having highly advanced technologies. The Oscillatory Chamber, in contrast to a nuclear reactor or fusion installation, is a simple device - sufficiently straight-forward to be completed without difficulties a few thousands years ago, if, of course, the instructions for its production were provided by someone holding the necessary knowledge.

#2. The shape, structure, and materials of the Ark are identical to those required by the Oscillatory Chamber. The Ark also took the form of a chamber, empty inside, and square in one of its cross-sections. The ratio of its dimensions (width:height:length) was 1:1:1.75. Similarly to the chamber, the chest of the Ark was made of an electric insulator (i.e. acacia wood) which incorporated some conductive elements (i.e. gold plates and nails).

#3. The Ark was without doubt the source of a very strong field, possessing an identical nature to a magnetic one. This field caused an illness quite similar in symptoms to exposure to strong radiation (e.g. the fatal illness of the Philistines - see Samuel I 5:6). The Levities wore special protective clothing as a screening from this field. The power emitted from the Ark is referred to in the book "Zohar", as "the Ancient of Days".

Various deductions contained in chapter D and in this subsection reveal that there is a striking correspondence between the present concept of "magnetic field" and the ancient concept of "The Ancient of Days". This correspondence extends to all interpretations that christian tradition assigns to the Ancient of Days. To realize this, commonly known properties of a magnetic field ('), together with relevant conclusions from this monograph, are combined in pairs with some old interpretations for the Ancient of Days (").

A: (') Subsection D4.1 revealed that the force field which contemporary science describes with the term "magnetic field" is in fact a circulating stream of the invisible substance called "counter-matter". Oscillatory Chambers will be the most powerful sources of such a circulating stream of counter-matter (chapter F). Some properties of this force field include: invisibility, silent interactions, transmission of power, induction of glows, relation to light.

(") The Ancient of Days was interpreted as a name for the mysterious power emitted from the Ark of the Covenant. Following hymns still in use in Presbyterian churches (see: Hymns 32 and 35, "The Psalms and Church Hymnary", Oxford University Press, London 1973) describe some properties of the Ancient of Days:

32:     "Immortal, invisible, God only wise
         In light inaccessible hid from our eyes
         Most blessed, most glorious, the Ancient of Days
         ... Unresting, unhasting, and silent as light
         ... Great Father of Glory, pure Father of light ..."

35:     "O worship the King all glorious above;
         ... Our Shield and Defender, the Ancient of Days,
         Pavilioned in splendour and girded with praise ...".

To comprehend more precisely the identical meaning of both concepts (i.e. the circulation of counter-matter known to us as a magnetic field, and the Ancient of Days), one should imagine how one would explain to the ancient Israelites what a magnetic field actually is (using the definition of a magnetic field provided by the Concept of Dipolar Gravity - see subsection D4.1). In this explanation only the terms and phenomena known and conceivable to them could be used. And then imagine also what would be left of this explanation after a few thousand years.

B: (') A magnetic field is a manifestation of the circulating counter-matter. Counter-matter in turn is an invisible carrier of the Universal Intellect whose interpretation in Dipolar Gravity corresponds to that of God in various religions.

(") The Ancient of Days was interpreted as an invisible presence of God himself.

C: (') In the Concept of Dipolar Gravity counter-matter carries the registers that describe all past events occurring in our Universe - see subsection D7. So the manifestation of counter-matter (i.e. magnetic field) in fact contains the records of ancient times (i.e. of ancient days).

(") The Ancient of Days recorded the past. The term Ancient of Days itself, as well as the context in which it is used in the Bible (see Daniel 7:13) may suggest that the phenomenon behind this concept has something to do with memorizing the events which took place in the days that passed (ancient).

D: (') Counter-matter is also a thinking substance which executes the fulfilment of Moral Laws - see subsection D10.2. On the other hand Christian commandments are specific interpretations of these Laws - see evidence #3D10.2. Merging the above together we could say that counter-matter is a medium which expresses Moral Laws, including the part of these Laws which was described by the set of Christian commandments.

(")The Ancient of Days indirectly seemed to be a medium on which the set of commandments was expressed. This interpretation is implied indirectly by statements which on one hand suggest that the Ark of the Covenant was inhabited by the Ancient of Days, whereas on the other hand claim that the same Ark was storage for the commandments.

When each pair of the above interpretations (i.e. that of a magnetic field from the Concept of Dipolar Gravity and that of the Ancient of Days from Christian tradition) are compared, the recognizable correspondence between both interpretations seems to be obvious.

#4. The Ark induced electric currents in its external metallic parts and probably also in nearby conductive objects. The people who touched its outside gold parts were killed by an electric shock (e.g. Uzza's death - see Samuel II, 6:3-7). When transported from Israel to Ethiopia it destroyed a number of objects in Egypt, probably by inducing strong electric currents within them (compare the description from "Kebra Nagast" with the "inductive shield" formed by the field of the Magnocraft).

#5. The Ark produced strong external forces which acted on its transporters. In this matter the Ark was identical to the behaviour of the Oscillatory Chamber whose powerful magnetic field will also produce forces of interaction with the Earth's magnetic field. For carrying the small-sized Ark (or perhaps to prevent it from ascending) it was necessary to apply the strength of six Levities. The Ethiopian book, "Kebra Nagast", says that the Ark lifted people, loads and animals up into the air.

#6. The Ark produced strong forces acting on the environment. These forces can be explained as the interaction between the Ark's magnetic field and nearby objects. An example of such forces could be the destruction of Jericho's fortifications. Also the famous formation of the channel within the Red Sea can be explained as an interaction between the strong, pulsating magnetic field produced by the Ark and particles of surrounding sea water. A quite similar effect of repulsion of sea water is sometimes observed within the range of a UFO's magnetic field.

#7. A vital component of the Ark could be stolen, when the Ark itself physically remained untouched. It is claimed in the epic, "Kebra Nagast", that the Ethiopian hero named "Bayna-lehkem" stole the Ark of the Covenant and delivered it to Ethiopia - see the description in [5L], page 39. The epic explains in detail that in order to achieve this, he needed to prepare an exact copy of the Ark, according to the original descriptions obtained from Solomon. But this Ethiopian claim contradicts Jewish sources which although seem to confirm the theft, but simultaneously document that the Ark still remained operational in Israel after this event took place. The above could mean that a part of the precious magnetic energy contained in the original Ark was in fact stolen by the Ethiopian hero, who used an exact copy of the Ark to carry it away. But the operational Ark itself, with the remaining part of its energy, still stayed in Israel. Thus Israelites perhaps got upset because the "Bayna-lehkem" stole the non-replaceable energy from the Ark, not the Ark itself.

Some readers at this point may wonder why the author tries to establish if the Ark was in fact an ancient version of the newly rediscovered Oscillatory Chamber. Justification lies in the chance of benefiting from old instructions for the building of this device. The detailed description of the Ark of the Covenant is contained in many ancient manuscripts, only a small fraction of which is listed at the beginning to this subsection. For example the Jewish "Zohar" devotes almost 50 pages to this purpose. Therefore, if in fact the Ark was an Oscillatory Chamber, then the documentation describing how to complete it is readily available - see Figure L7. Because the tools, materials, and knowledge accessible to every contemporary hobbyist, are without doubt superior to those available to ancient craftsmen, there should be no problems with the construction of this device. All we need to do is follow strictly the old instructions.

The above assumption already proved itself to work. Mr Ryszard Zudzin of Poland, who completed the first working model of the Oscillatory Chamber, based his device on the ancient descriptions of the Ark of the Covenant (a photograph of his working device is shown in Figure F9). One of the vital solutions which he acquired from these ancient descriptions were needle-shaped electrodes - see Figure F10. He took the idea of using these electrodes from the descriptions of gold nails driven into the Ark's wooden walls.

L4. Conclusion

The vast body of evidence presented in this chapter consistently confirms the truth of the thesis proposed in the introduction and stating that: the Oscillatory Chamber is already utilized in UFOs as their propulsor and energy storage.

The proof that UFOs already use the Oscillatory Chamber introduces numerous implications. The most important of these is the confirmation that the idea of the Oscillatory Chamber is valid and feasible. Such a confirmation represents almost an equivalent to the presentation of a working model of the Oscillatory Chamber. Thus the mentioned proof should be vital encouragement to become involved in the building of this device as soon as possible. The other important implication is that the sightings of UFO Oscillatory Chambers facilitate the more rapid and less expensive completion of these devices on Earth, through direct implementations of ready-made technical solutions espionaged from UFOs.

As a final reflection it is worth stressing that before the author of this monograph invented the Oscillatory Chamber, all the reports from UFO sightings, which described a transparent cube witnessed on decks of these space vehicles, remained unnoticed. It seems that people are able to recognize only the objects whose meaning is known to them previously. Now everyone has the opportunity to learn the hidden significance of the plain transparent cube with lightning inside. Thus, it becomes our common responsibility to glean every new fact that may contribute to the completion of this device on Earth.

L5. Chapter L reference material

[1L] J. Randles & P. Whetnall, "Alien Contact", Neville Spearman Ltd., Suffolk, Great Britain, 1981, ISBN 85435-444-1.

[2L] Raymond E. Fowler, "The Andreasson Affair, Phase Two", Prentice Hall, Inc., Englewood Cliffs, New Jersey 07632, USA, 1982, ISBN 0-13-036624-2.

[3L] Jack Stoneley, "Tunguska: Cauldron of Hell", A Star Book, A Howard and Wyndham Company, 123 King Street, London 1977, ISBN 0-352-39619-9.

[4L] David Wallechinsky and Irving Wallace, "The People's Almanac #2", A Bantam Book, Inc., New York 1978, ISBN 0-553-01137-5.

[5L]Erich von Däniken, "Signs of the Gods?", Souvenir Press, London, 1980, ISBN 0-285-62435-0.

[6L]Alec MacLellan, "The Lost World of Agharti, The Mystery of Vril Power", Souvenir Press, London 1982, ISBN 0-62521-7.

Fig. L1. A frame from the series of colour photographs of a low flying UFO taken by Paul Villa of Alberquerque, New Mexico, USA, on 16 June 1963. The best reproduction of this series is published in one of the earlier issues of OMNI magazine (probably 1979 issue). Selected photographs are also reproduced in: "The Unexplained" magazine, Vol 1, No 1, 1980, page 10 (in colour); [7J] page 210, and [8J] pages 110-111. The UFO illustrated above represents a detached configuration formed from two K7 type vehicles, whose manner of coupling is explained in Figure G13. The outlines of a lower vehicle, flying in the inverted position, are warped by the action of a magnetic lens and therefore only partially visible. In high quality copies of these photographs, eleven black bars running between the side propulsors of the lower and upper vehicle are clearly distinguishable. The shape of these black bars is unfortunately impossible to determine here. But in similar cases, eye witnesses have firmly reported them as square in the cross-section (see subsection L1.1).

The ship that carried da Silva away.
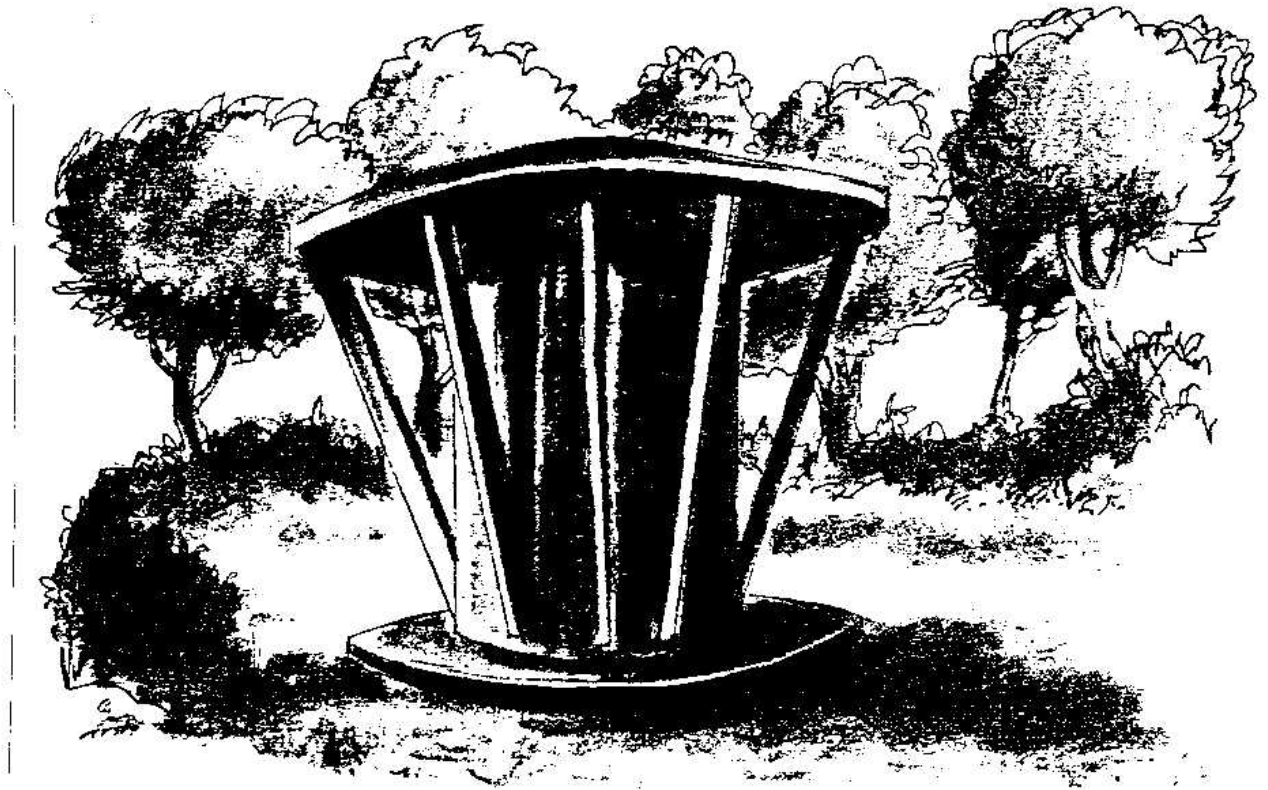
Fig. L2. A diagram illustrating clearly that the black bars formed from a highly concentrated magnetic field yield by the propulsors of a UFO are square in the cross section. This in turn provides further evidence that the propulsors of UFOs utilize Oscillatory Chambers for the magnetic field production. The above diagram of a spool-shaped UFO is reproduced from the book [5J], page 11. It illustrates a witness's recollection of the spaceship which on May 9, 1969 abducted a soldier named Jose Antonio da Silva from Victoria, Brasil. He was found 4 days later in Bebedouro, 800 kilometres away. From the point of view of the Theory of the Magnocraft, the illustrated spaceship represents the semi-attached configuration obtained through coupling together by their topside domes two type K3 vehicles, mutually facing each other - see Figure G11. In such a configuration between the main propulsor of the lower craft and the side propulsors of the upper vehicle there must appear columns of a highly concentrated magnetic field that traps light and therefore are visible as black bars (shown on the sides of the above illustrated vehicle). The cross-section of these columns must reflect the shape of the devices (Oscillatory Chambers) used to generate the magnetic field.

Fig. L3. A photograph of marks scorched by a UFO type K5 when it landed on the grass of a football field that belongs to the "Pirates Football Club", Dunedin, New Zealand. This UFO landed in the inverted position (see Figure G3 "b"), slightly slanted magnetic northward, and the outlet from its main propulsor almost touched the grass. Therefore marks that its propulsors scorched in the grass consist of two separate parts: (1) a slightly deformed (i.e. having a small concavity on its north side) ring of bare soil, 8.5 metres in outer diameter, and (2) a square mark burnt in the centre of this ring. (In the above photograph a reference circle of exactly 1 meter in diameter is placed near this square mark, with its arrow pointing magnetic north.) The square mark has a side dimension of 1.55 meters, and an inner square of grass is left unscorched inside it (the side dimension of this inner square is 0.89 meters). This means that the UFO's main propulsor operated in the mode of "outer flux prevalence" - see Figure F5 "b". The landing took place around 15 January 1989, but the author photographed this site on 17 February 1990. Apart from scorching the above landing marks, the same vehicle also flattened a large lamp located in the same football field and scorched a similar ring under it. Mrs Kathy Morrison (17 Taupo Street, Ravensbourne, Dunedin) witnessed this UFO when it approached the landing.
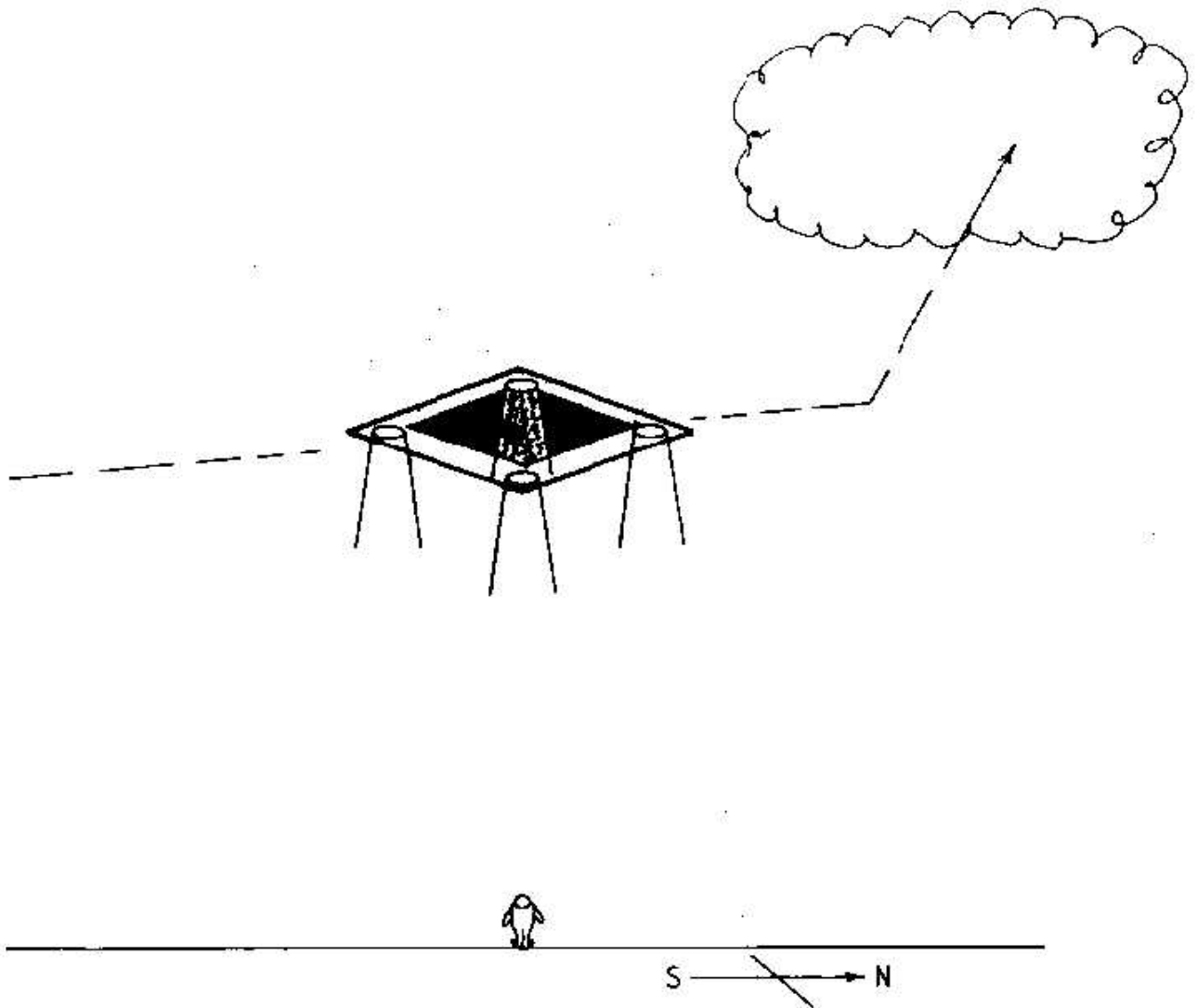
Fig. L4. A drawing of a main twin-chamber capsule from an ascending UFO that was seen by Mr Wayne Hill of Invercargill at 11:30 PM on 20 December 1978. This capsule was observed directly from underneath, when hovering at the height of about 30 metres. It had the shape of two cubes, one inside the other, with their front outlets both facing the witness. The side dimension of the outer cube was about a_M=10 metres (this means that the observed UFO most probably was the type K9 - see dimension "a_M" in Table G1). The walls of the outer cube were lit by a yellow glow, whereas the inner one remained completely dark. This strong, yellow glow seemed to be more concentrated in the corners of the outer cube from which it shone downwards. The remaining, non-glowing space between both cubes was greyish in colour. The sighting took place on a lone road about 7 kilometres south of Nelson, New Zealand, and lasted for about 20 seconds. Initially the UFO was flying in the south to north direction, and then stopped moving exactly above the witness - as it is shown in the drawing. The action of a magnetic lens hid the contour of the vehicle and only the outlines of both Oscillatory Chambers (i.e. inner dark and outer lit up) from the main propulsor remained visible - see the explanations in subsection G9.4.1 and Figure G37.

Fig. L5. A night-time photograph of the twin chamber capsule from an ascending UFO, taken by a newspaper reporter over Clovis, New Mexico, on January 23, 1976 - see [5J] page 49. The illustrated capsule operates in the mode of outer flux prevalence, the visual appearance of which is explained in Figure F5 (b). In this mode the resultant magnetic flux is produced by the outer Oscillatory Chamber, whereas the entire output of the inner chamber is bound into the circulating flux - see the explanations in Figure F4. In this way the resultant flux yield to the environment must strongly ionize the air, thus in night photographs it appears as thick, glowing edges of an outer diamond. On the other hand the circulating flux must produce a black inner diamond, which because of the darkness is not distinguishable from the similarly black background. Because of the orientation of the above capsule towards the photographer, two rear glowing edges of the outer diamond are hidden behind the non-transparent column of a magnetic field yield from the capsule. Therefore the above picture reveals only two front glowing edges of the outlet from a twin-chamber capsule which from a distance appears as a half-diamond. Notice that the thickness of the glowing space between the inner and outer chamber fulfils the equation "aO=al· 3" - see Figure F4. See also the photograph in Figure J31 which shows an other twin-chamber capsule of a UFO, but operating in the mode of inner flux prevalence.
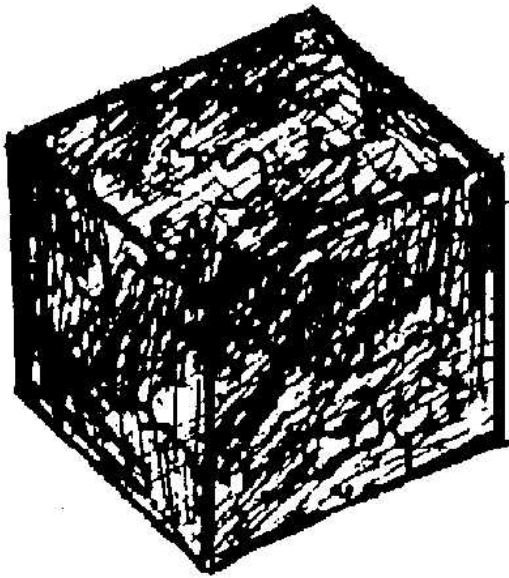
Figure 13. Glass or crystal cube with
motionless black smoke and lightning

Fig. L6. The illustration of a transparent cube with electric sparks which looked like lightning inside, sighted by Mr Robert Luca on a UFO deck. (Compare this illustration with Figure F2 that shows the appearance of the Oscillatory Chamber.) The above diagram and description are reproduced from the book by R. E. Fowler, "The Andreasson Affair, Phase Two" (Prentice-Hall, Inc., USA, ISBN 0-13-036624-2, page 70) by kind permission from Mrs Betty A. Luca, copyright holder. It presents the outer Oscillatory Chamber from the twin-chamber capsule which constituted the main propulsor of this UFO. The above illustration introduces a breakthrough in our certainty of the Magnocraft's principles, as it not only confirms through an eye-witness's report that the Oscillatory Chambers are already utilized in the propulsion of UFOs, but it also proves that our intention to built the Oscillatory Chamber on Earth is feasible and valid.
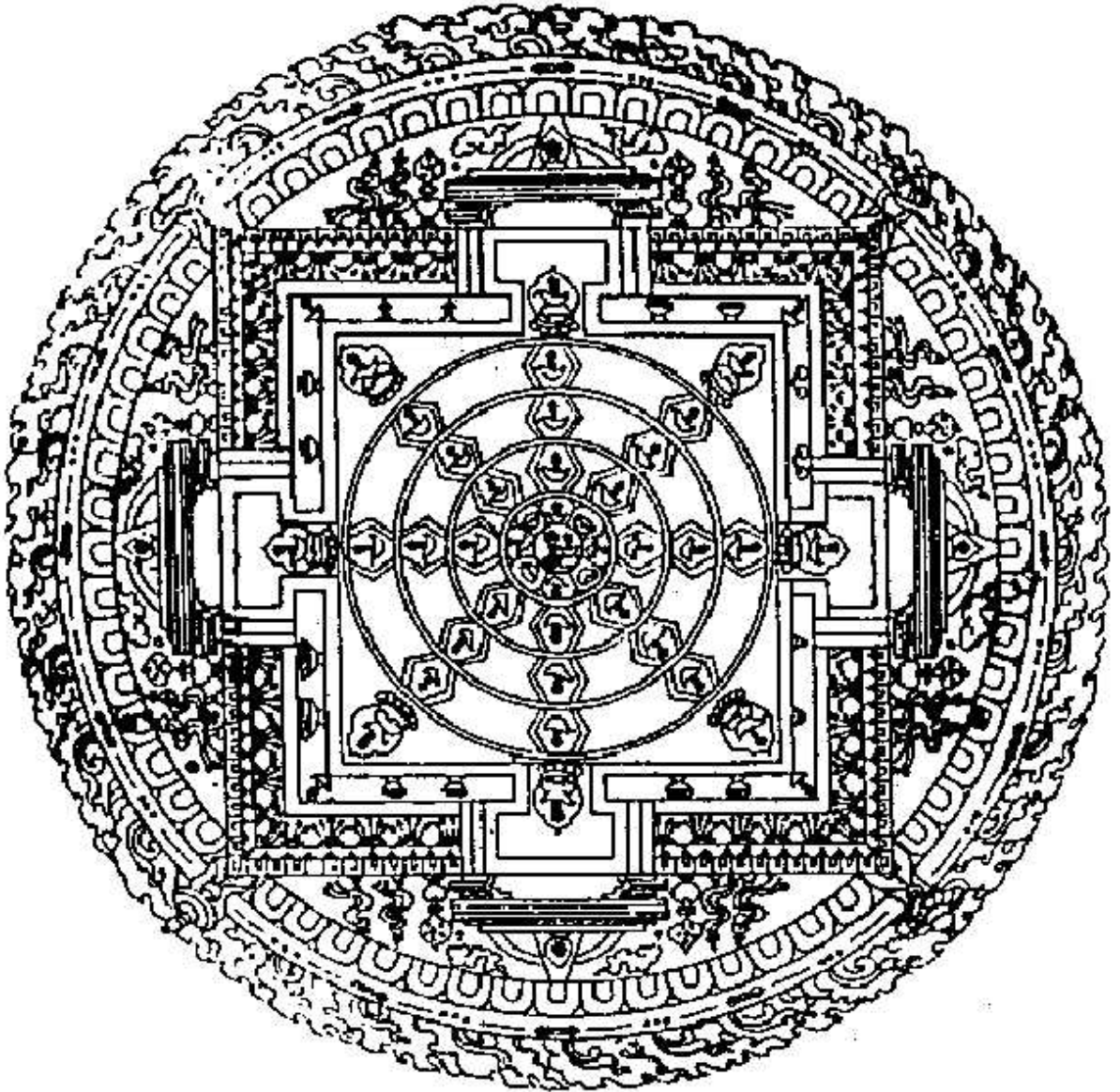
Fig. L7. A drawing that was found by Mr Ryszard Zudzin of Poland in an ancient manuscript originating from Tibetan Buddhists. He postulates (and the author agrees with it) that the drawing illustrates either a technical design of the Oscillatory Chamber, or the entire spherical propulsor containing such a chamber. While analyzing this drawing, one may notice clusters of needles which exactly correspond to the following description of a UFO Oscillatory Chamber provided by Mrs Betty A. Luca (see the end of subsection L1.4): "inside had thin protruding stems with tiny glass droplets on the end". It seems to be relevant to mention at this point that all ancient sculptures show the Buddha as having extraordinary long ears, but the same sculptures show the other people surrounding him as having normal, human ears. On the other hand it is reported by numerous witnesses that UFOnauts have exactly these kinds of ears. Thus, such a vital anatomic difference could mean that the Buddha was an ancient UFOnaut, and that his priests knew the design of the Oscillatory Chamber.

<u>Chapter M</u>:

THE MATERIAL EVIDENCE AVAILABLE THAT CONFIRMS THE LONGSTANDING USE OF MAGNOCRAFT-TYPE UFOs

There is a wealth of material evidence available at present which indicates that Earth is continually explored by UFO vehicles whose operation is identical to that of the Magnocraft. This evidence is the subject of various "natural" explanations that refuse to acknowledge its technological origin. But the existing facts do not conform to any of these "natural" explanations. The more desperate the search for a "natural" cause, the more apparent it becomes that this evidence is technologically formed. The chapter that follows provides the technological explanation for this evidence. In this way the evidence not only reinforces the proof from chapter J that "UFOs are already operational Magnocraft", but it also discloses the answers to a number of vital secrets concerning UFO vehicles.

The author has collected examples from four categories of such material evidence. These categories all exhibit the active involvement of extraterrestrial vehicles applying the Magnocraft's principles of operation. They are: (1) UFO landing sites, (2) glassy tunnels made by underground flights of UFOs, (3) UFO explosion sites, and (4) fragments of UFOs shells. Let us summarize each of these categories separately.

#1. The marks left at UFO landing sites. These marks, which most frequently appear as rings of scorched vegetation, are continually being discovered in various parts of our planet. In numerous cases eye witnesses report that they in fact have observed a landed UFO in the area where such scorched rings have appeared. Also the attributes of these rings in every detail correspond to those of the Magnocraft's landing sites (see subsection G10). The above provides sufficient evidence to consider the circles as landing sites of vehicles that utilize the Magnocraft's principles of operation.

#2. Long, straight, geometrically shaped glassy underground tunnels exist in numerous areas around the world. Two well known examples of these are: the Ecuador system of tunnels shown in Figure M17, and the Cocklebiddy Cave in Western Australia shown in Figure M18. All the properties of these tunnels revealed so far correspond exactly to the predicted properties of tunnels left after the underground flight of a Magnocraft - compare the properties listed in subsection G9.1.1 with the description of these tunnels provided in subsection M2.

#3. UFO explosion sites. Two catastrophic areas whose attributes correspond exactly to explosion sites of the Magnocraft have been discovered and investigated. These are: the Tapanui Crater (formed on 19 June 1178 in West Otago, South Island, New Zealand) and the Tunguska Blast Site (formed on 30 June 1908 in Central Siberia, USSR). All facts collected so far at these sites indicate that their cause was the accidental releasing of vast energy contained in the Oscillatory Chambers of a cigar-shaped stack of spacecraft that applied the Magnocraft's principles of operation.

#4. Fragments of UFO spaceships. The most thoroughly researched fragment was found in 1976 near the Vashka River, USSR (i.e. at the extension of the trajectory followed by the UFO vehicles which exploded in Tunguska in 1908). It represents a part of the central cylinder from a UFO type K4. Its structure and properties correspond exactly to the magnetoreflective material predicted for use in the Magnocraft's protective shell - see subsection G2.4.1.

The common attribute of all four classes of evidence listed above is that it has a stationary, permanent character. Therefore it can be subjected to investigation with the use of present research methodologies. Moreover, it provides a unique opportunity for all those people whose personal philosophy requires them "to see in order to believe". This is

because the evidence is available, it can be seen, touched, investigated, and won't fly away or disappear when someone approaches it.

It should also be mentioned again that in addition to the above evidence of a permanent, material character, a wealth of the "court-type" evidence concerning UFOs has also been accumulated. But because this court-type evidence is already presented in chapter J, it is unnecessary to repeating it.

M1. Material evidence on UFO landing sites

Taking into account the statements of countless eye-witnesses who reported sightings of UFOs, the enormous body of other evidence documenting visits of these vehicles on Earth, and the formal proof that "UFOs are already operational Magnocraft" presented in chapter J; the initial axiom adopted for this subsection is that our planet is continually visited by members of an advanced extraterrestrial civilization who have already operational Magnocraft at their disposal. According to subsection G10.1, in such a case the spaceships of this civilization must cause noticeable damage during their landing. This environmental damage should be easily detectable, as it must exactly match the unique properties of the Magnocraft landing sites presented in subsection G10.

To detect and identify examples of this damage, the author initiated extensive field research aimed at discovering possible UFO landing sites and verifying their correspondence to the envisaged Magnocraft landing sites. The effect of this research was overwhelming, as it not only provided further evidence to confirm the validity of the Magnocraft's principles, but also led to additional findings, for example: (1) the exact dimensions of each type of UFO, (2) the value of the "Cosmic Cubit" - i.e. the unit of measure used by extraterrestrial civilizations in building their spacecraft (see equation G30), etc. In this subsection the evidence collected so far and the results of relevant research are presented.

All the deductions presented in this subsection are based on empirical data gathered during extensive field investigations. Where appropriate, relevant photographs documenting the evidence are also included (to illustrate the size of the marks presented in these photographs, either a person was photographed or a so-called "reference circle", i.e. a white circle exactly one meter in diameter whose black arrow points magnetic north, is shown).

So far, the author has discovered in New Zealand five areas of mass UFO landings (i.e. Weka Pass, Moeraki Boulders, Waikoikoi, Roxburgh and Cadrona), each of them containing from about 30 to over 100 landings concentrated in a relatively small area; plus a number of reconnaissance UFO landing areas (e.g. Wanaka, Maitland, Invercargill, Middlemarch) which contain from 1 to 5 scorched landings in close proximity. There are probably three reasons for the author's success in this search: (1) New Zealand seems to be a favorite target for UFO visits, (2) the type of farming (sheep and cattle grazing) existing in New Zealand tends to conserve the UFO landing sites, and (3) the Theory of the Magnocraft has given the author very exact knowledge of what he is looking for.

During his investigations of the landing sites, the author also tried to establish the connection between the landing marks left on the ground and the sighting of an Unidentified Flying Vehicle (UFO) that could have formed them. In numerous cases, a UFO was observed either hovering exactly over the spot where the landing site was formed, or flying in close proximity to this spot. In many other cases the involvement of such a vehicle was confirmed indirectly, for example through the presence of large imprints of its three or four telescopic legs (like the imprints shown in Figure M1) spaced symmetrically and embedded within the site.

M1.1. All three known types of landing sites are formed by visiting extraterrestrial vehicles

Subsections G10.2 to G10.5 describe three basic types of Magnocraft landing sites which are caused when this vehicle hovers with its magnetic circuits looping (1) under the ground, (2) on the surface of the ground and (3) entirely in the air - see Figures G39, G40, and G41. The author found perfect examples of UFO landing sites which confirm that extraterrestrial vehicles also form these three types of sites. Let us have a close look at the evidence that documents this.

#1. As could be expected, the most frequently discovered UFO landing site is formed when the vehicle hovers with its magnetic circuits looped under the ground - see Figure G39. When a landed UFO operates in the magnetic whirl mode the site contains a ring of scorched vegetation, within which there is an additional scorched spot shifted southward or northward from the centre. An excellent example of such a site, discovered near Invercargill, New Zealand, is shown in Figure M2.

There are also cases where a UFO, whose propulsors operate in a throbbing or magnetic lens mode, landed so that its magnetic circuits loop under the ground. Then the site contains only a circular pattern of scorched spots representing the outlets from the side propulsors, plus one asymmetrical central spot scorched by the main propulsor. (No trail joining the side propulsor is present.) An example of such a site is shown in Figure M3.

#2. The UFOs that hover with their magnetic circuits looped along the surface of the ground produce entirely different landing sites. The shapes of these sites are illustrated in Figure G40. This type of landing site is rather rare and its discovery represents a more difficult task. However, after numerous field searches and many hours of reviewing the available literature, the author had the good luck to succeed, and examples of these sites were found. A UFO landing site formed during the throbbing mode of operation should contain a number of linear scorched trails aligned in a radial direction towards one central mark - see Figure G40 (b). An example of such a UFO landing site is presented in Figure M4. A site formed during the magnetic whirl mode of operation, when a vehicle touches the ground with its magnetic circuits, should contain a wide ring of vegetation and soil which has been totally destroyed - see Figure G40 (c). An example of such a site is also presented in Figure M4.

#3. The last type of UFO landing site is made when the vehicles hover with their circuits looped entirely in the air. These sites take the shape of a pattern or a "nest" of swirled vegetation. The task of finding these sites is extremely difficult, as their validity requires the "catching on the spot" of the vehicle that formed them. Again the author was lucky, and appropriate examples of such landings are presented in Figure M5. Notice that through the use of the "rolling sphere rule" (see subsection G6.3.3) the direction of a UFO flight can be determined from such swirled nests. The author completed these checks, and the results obtained confirm the theory presented in subsection G6.3.3.

M1.2. The value of the Cosmic Cubit can be determined from UFO landing sites

With the discovery of each UFO landing site, the author conducted precise measurements of the patterns left on the ground. In this way an extensive bank of data about UFO landing sites was gradually gathered. From this data, determination of the value of the "Cosmic Cubit (CC)" (i.e. the unit of measure used by the manufacturers of UFOs - see equation G30) became possible.

The methodology for determination of this CC unit from the dimensions of UFO landing sites incorporated the following four basic stages:

1. The selection of the valid data. As was illustrated in Figure G38, depending on the height at which a particular vehicle hovered, the diameter of the circle scorched by its propulsors will differ. Therefore only that data which originated from the sites clear enough to guarantee successful application of the correction techniques described in subsection G10.3.1 could be used for the calculations. So this stage depended on selecting for further

processing only samples of such valid data from all the data gathered during numerous field measurements.

2. The correction of the empirical measurements. Data selected for further calculations were processed by the appropriate correction equations presented in subsection G10.3.1. Thus, nominal diameters "d" of the vehicles that formed these sites were obtained. An example of an application of the first correction technique, based on equation G32, is presented in Figure M6. The same technique was also used for sites shown in Figures M7, M10, and M11.

3. The determination of the empirical value of the Cosmic Cubit through the application of equation (G30). When the set of nominal (corrected) dimensions of the various types of landing sites was established, the determination of the empirical value for the Cosmic Cubit "CC" was only a matter of using the appropriate calculations based on equation (G30).

After analysis of the various data, to which the above methodology was applied, the author determined the following empirical value for the Cosmic Cubit:

CC = 0.55 [meter]   (i.e. almost 22 [inches])   (M1)

This value indicates that the builders of the UFO vehicles are using a cosmic unit of length which is slightly greater than half of our meter. In the British Imperial System its value is almost 22 inches.

4. The increase of precision of the Cosmic Cubit so determined. This stage involved finding and utilizing other, historical data that was available, which allowed the accuracy of the empirically determined CC unit to be increased.

The technique applied to increase the precision of the empirical value of CC {see equation (M1) above} is based on the author's assumption that if "UFOs are already operational Magnocraft", then members of the civilizations that visit Earth in these vehicles would have left somewhere a sample of the exact value of their unit of measure. (For example members of these civilizations could have built on Earth some monuments using this unit of measure). After formulating this assumption the author began to search for an ancient unit of length that would correspond to the empirical value of CC - see equation (M1). The results again were overwhelming. Quoted below is what is written in the book [1M1] by John Perry, "The Story of Standards" (Funk & Wagnalls Co., New York 1955, p. 9) about a unit of length called a "cubit" that was used in ancient Egypt for building pyramids:

"... another cubit, measuring a little less than 21.6 inches, was used in laying some of the upper courses of the Pyramids. This dimension is almost exactly one million times the wavelength of light from a mercury 198 lamp, a lamp employing a rare isotope of mercury made by bombarding gold with neutrons. Surely one can conclude that those wonderful Egyptians were familiar with nuclear physics!".

Ancient Assyria also used a cubit of exactly the same length (i.e. 21.6 English inches). Moreover, the cubit recorded in the Bible had a similar length (see the book [2M1] by William D. Johnstone, "For good Measure", Holt, Rinehard and Winston, New York, 1975, ISBN 0-03-013946-6, page 10).

English Professor Alexander Thom measured stone circles and standing stones (menhirs) throughout the British Isles, as well as in the northern part of France. He submitted the collected dimensions in his book [3M1] entitled, "Megalithic Sites In Britain" (Oxford University Press, Oxford, England, 1967). A great many of these circles had diameters of 261.12 inches, or 6.632 metres (which correspond surprisingly well to the outer diameters "do" of scorched rings left by the K4 type of UFOs whose bases touched the ground). Because all the most popular systems of measure in ancient times were developed on the basis of 12 (dozen), it could be assumed, that the above circles also contain 12 elementary units of length. Thus by dividing the diameters by 12, a value very close to the ancient "cubit" discussed above is obtained (a small difference between both these values can be attributed to the wrong diameter of the stone circles being measured - e.g. outer instead of middle).

All the above data suggests that there is a justification for assuming that the "Cosmic Cubit" used by the builders of UFO vehicles is also represented on Earth in numerous

ancient monuments. Therefore through narrowing down the value of the cubit from equation (M1) to the exact value of this ancient unit of length, any required precision of the Cosmic Cubit should be achieved. For the purpose of this monograph, the exact value of the Cosmic Cubit has been determined as:

$$CC = 0.5486 \text{ [metres]} \qquad \text{(or CC=21.6 inches)} \qquad (M2)$$

Such a precise value of the CC unit allows us to calculate the dimensions of UFOs with a margin of error of less than one millimetre. In the future, this will permit us to build Magnocraft precise enough to couple with UFOs in perfectly fitting flying configurations.

After applying the value (M2) to the equation (G30) a set of precise nominal diameters "d" for eight subsequent types of UFOs can be theoretically determined. These diameters take the values (see column "d" in Table G1): 3.10, 6.20, 12.41, 24.82, 49.65, 99.30, 198.61 and 397.22 metres. All the empirical measurements completed by the author so far confirm that the dimensions of every single UFO landing site arise from one of these eight theoretical diameters.

M1.3. The diameters of landing sites confirm the existence of eight basic types of extraterrestrial vehicles

UFO landing sites are the extraterrestrial equivalent to tracks made on the ground by the tyres of our automobiles. Therefore the dimensions of these circular landing sites must reflect the type of vehicle which made them, similarly as the span of our automobile marks reflects the type of car that imprinted them.

After the value of the CC was precisely determined, the author began his search for landing sites that would confirm the existence of eight basic types of UFOs. He reasoned that if the Theory of the Magnocraft is valid, then UFOs, as with the Magnocraft, must be constructed in eight basic types. Moreover, the measurements of the shape and dimensions of these eight basic types of UFOs should correspond exactly to the theoretical shape and dimensions of 8 basic types of the Magnocraft (this is because the shape and dimensions of all magnetically propelled vehicles result more from the laws of magnetism than from the creativity and inclination of their builders - see subsection G4).

The author partially succeeded in his search, and so far landing sites scorched by the first six of eight basic types of UFOs have been found. Unfortunately, the two biggest UFO vehicles (types K9 and K10) either land extremely infrequently on Earth, or their landing sites (because of the size) are very difficult to discover. Therefore the landing sites of UFOs type K9 and K10 have not been found as yet. But there is photographic evidence already accumulated (see Figures J7 and J8 together with the relevant descriptions from subsection J2.1) which certifies that these last two types of UFOs are being used on Earth. So, there is a significant likelihood that their landing sites will probably be discovered soon.

Landing sites formed by the UFOs types K3 to K8 are shown in subsequent Figures M7 to M11. Notice that all the remaining Figures also show the landing sites that were made by various types of these vehicles (e.g. Figure M3 presents another site left by a UFO type K5).

Figure M11 illustrates also the principle that UFO vehicles, in order to fly, must orient their base perpendicularly to the local course of the force lines of the Earth's magnetic field, whereas to land they try to orient their base parallel to the surface of the ground - see Figure M11 and compare it with Figure M16. Wherever the configuration of the ground makes it impossible for UFOs to have their base simultaneously parallel to the ground and perpendicular to the force lines of the Earth's magnetic field, the landing site is either elliptical (see Figure M7) or takes the shape of a half-circle (see Figure M16).

It should be noted that to enable us to identify precisely a particular UFO landing site with one of the eight main types (K3 to K10), it must be clear enough to give us an exact measurement of its two diameters, i.e. "do" and "da" - see equation G38 (b), or "do" and "di" - see equation G38 (c). Only after these diameters are established, the nominal diameter "d" of the site can be exactly determined, thus allowing us to assign the type of landed UFO

to this site. Unfortunately, there are numerous sites left by UFOs that remain motionless for only a very short time, making their marks very unclear. The dimensions of these "transient" landing sites are difficult, or even impossible, for exact measurement. Although in many cases they have quite clear outlines of "do" diameter (produced by the side propulsors that attract the Earth's magnetic field), the mark left by the main propulsor oriented repulsively towards the field of the Earth is not sufficiently clear, thus making it impossible to establish "di" or "da" diameters. This kind of site can still be categorized as one of the eight main types of UFOs, because its diameter "do" is equal to, or slightly (i.e. up to 40%) smaller than the nominal diameter "d" (i.e. this diameter "do" still significantly exceeds the diameter "d" of a previous, smaller type of UFO). But such "transient" sites can not be used for scientific purposes, e.g. to determine the dimensions of UFOs or to verify the findings described in this monograph.

The author would like to stress at this point that every clear UFO landing site that he has found so far, always yields the nominal diameter "d" equal to, or very close to, one of the following values: dK3=3.1, or dK4=6.2, or dK5=12.4, or dK6=24.8, or dK7=49.6, or dK8=99.3 metres. (Note that it is very easy to remember all these diameters, because if we know the first one, i.e. dK3=3.1, then the next one is simply the previous diameter multiplied by two, e.g. dK4=2 3.1.) No UFO landing site has been found in which the corrected nominal diameter differs from the values resulting from equations G30 and M2.

M1.4. <u>Some marks left on the ground document the landing of entire configurations of UFOs (including flying systems)</u>

UFO landing sites found so far by the author were formed not only by solo flying vehicles, but also by entire flying arrangements. The most distinctive sites are formed by the flying complexes and flying clusters (illustrated in Figures G16 and G17). A perfect example of such a site, left by a single cell of a flying system formed from K3 type UFOs, is shown in Figure M12. (The theoretical shape that this site should display is illustrated in Figure G42 (A), whereas the mutual arrangement of UFOs in a cell that possibly could have made it is shown in Figure G16.) Apart from that shown in Figure M12, a number of further sites formed by flying systems of UFOs were also found. The important detail of all these landing sites is that their dimensions correspond exactly to those resulting from the Theory of the Magnocraft (compare Figure G42 with Figures M12) and from the CC unit of measure applied by UFOs.

There has been a lot of publicity recently about crop circles of a very distinctive shape which have appeared in southern England. An example of such a site is shown in Figure M13. Even a brief analysis of the shape, dimensions, and characteristic features of these English sites confirm that they are formed by flying clusters of UFOs (compare Figure G17 and Figure M13).

More difficult to discover are landing sites left by configurations of UFOs that were coupled into the vertical arrangements (e.g. cigar-shaped flying complexes). Rings scorched by such vertical arrangements have the same dimensions and shape as those left by solo flying vehicles. But there exists a distinguishable attribute of such vertical configurations, i.e. to maintain their stability the scorched mark formed by their main propulsor must be displaced from the centre of the site in the opposite direction from the mark left by solo flying vehicles. Therefore in New Zealand (which is located in the Southern Hemisphere) UFOs flying solo scorch the main mark dislocated towards the magnetic south direction from the centre of the site. But the cigar-shaped flying complexes scorch this mark displaced towards magnetic north direction (compare Figure M10 with Figures M2 and M8).

M1.5. <u>Why UFO landing sites could not be formed by the growth of mushrooms or by any other natural cause</u>

Present science refuses to acknowledge the technological origin of UFO landing sites. As an excuse for this refusal, a misinterpretation of the biological effects (namely the explosive mushroom growth) that landed UFOs have on the soil is used. It was explained in subsection G10.1, that the Theory of the Magnocraft determined the following cause-effect mechanism for UFO landing sites:

THE CAUSE is a strong, pulsating magnetic field of a landed UFO that cooks (like a microwave oven) and totally exterminates all parasitic micro-organisms that normally keep the mushroom population under control,

THE EFFECT is an explosive growth of mushrooms within former UFOs landing sites which may last up to a hundred years after the landing took place (such a technologically induced growth of mushrooms is known by the name "fairy rings").

Present science completely misinterprets the above cause-effect mechanism occurring within UFO landing sites, and claims that everything occurs in a reversed order, i.e. that the mushroom growth in a radial direction is the CAUSE, and that the rings of scorched and poisoned vegetation are the EFFECTS of this growth.

Of course, after understanding the above misinterpretation of the cause-effect mechanism concerning UFO landing sites, the author initiated vigorous research aimed at correcting this error of the scientists. The first task of this research was to prove that the UFO landing sites sustain their dimensions unchanged for many years (as we know, the present explanation for "fairy rings" claims that these rings grow outwards from their center thus increasing their diameter each year). In 1987 the author placed under strict sighting a number of UFO landing sites in four mutually distant areas of New Zealand (i.e. Roxburgh, Waikoikoi, Moeraki Boulders, and Weka Pass), marking their outer edges by wooden pegs and systematically checking the measurements of these rings. No changes in the nominal diameter of the UFO landing sites being observed were detected, in spite of such verification being continued for three subsequent years (and to be continued after completion of this the edition of the monograph). The only change in dimensions of these rings which the author has observed with the elapse of time is the increase in width of scorched patches (i.e. the increase in difference between the inner "di" and outer "do" diameter of the same ring) and also the decay of the sharp edges of the scorched areas (i.e. their edges become curved and non-continuous). But these changes radiate from the ring in both directions (i.e. towards the inside as well as towards the outside of the ring) at the same rate, so that the nominal (mean) diameter "d" of the ring remains unchanged.

The second task of this research was to prove that in former UFO landing sites, an explosive growth of mushrooms occurs. This was easy to prove, as the microscopic analysis of soil samples taken from numerous UFO landing sites clearly shows the presence of mushroom spawn (this is also confirmed by the research of other investigators - see [7J] page 131). Also, in each UFO landing site an intensive mushroom growth was noticeable in the appropriate seasons (in New Zealand: March-May) - see Figure M14 (lower).

The third task the author has undertaken was to prove that physical properties of the soil affected by landed UFOs differ from the properties of the soil affected by mushroom growth only. For this purpose he measured the electrical resistance of soil. It turned out that the magnetically affected soil from the ring scorched by a landed UFO has, on average, about three times greater electrical resistance than the same soil only few metres from the edge of the ring. On the other hand, identical measurements of the electrical resistance of the compost used by commercial mushroom growers showed that after mushrooms germinate, the resistance of the compost is actually lower than the resistance of the same compost before mushroom spore were planted in it. This means that the presence of mushrooms in the soil from UFO landing sites is not responsible for the increase in the electrical resistance of this soil. Thus, the change in the resistance of the soil must be caused by an additional factor, i.e. by a powerful magnetic field of a UFO that altered the physical state of this soil.

The experimental findings discussed above, reinforced by their agreement with the Theory of the Magnocraft, indicate the total irrelevance of the present claims by science

concerning fairy rings. These findings prove that UFO landing sites are in fact formed technologically by magnetically propelled vehicles, and that the mushroom growths observed at these sites are the effect of UFO landings that took place earlier (not the cause of the appearance of these scorched marks).

After the "mushroom explanation" for UFO landing sites is proved to be discreditable, the validity of all other possible natural explanations for these sites should also be considered. But even a brief analysis of the attributes of UFO landing sites eliminates any natural cause for the appearance of these rings. No natural factor is able to form circles that display the following attributes characteristic of all UFO landing sites:

(A) the diameters of UFO landing sites, similar to the span of the tracks left by a car, correspond exactly to the dimensions of the vehicles that made them. Thus, the nominal diameters "d" of UFO landing sites (or fairy rings), after being determined and corrected according to the rules described in subsection G10.3.1, fulfil the equation (G30) and correspond to the data from column "d" of Table G1.

(B) The dimensions of all UFO landing sites are based on the unit of length called here the Cosmic Cubit. This unit was also used by builders of the pyramids and other ancient monuments.

(C) The sizes of subsequent UFO landing sites comprise the elements of a geometric progression with the ratio of 2, and thus they repeat the binary progression of the "d" diameters from K3 to K10 types of the Magnocraft. It means that every subsequent type of ring is twice as big as the previous one - a good illustration of this is provided in Figure M8. Notice that the dimensions of these sites depend only on the type of vehicles that produced them, and for the same type they must remain exactly the same independently of soil conditions, the type of mushrooms that populated the landing site, the area, country or continent where the sites are found, etc.

(D) Types of mushrooms that populate subsequent landing sites vary from area to area (in New Zealand the most frequent are meadow {agaricus campester}, horse {macrolepiota procera} and toadstall {marasmius oreades} mushrooms). Because the physiology of mushrooms implies that each type should exert different biological effects on the soil, such attributes of UFO landing sites as dimensions, shape, response to stimuli (e.g. magnetic south/north asymmetry), and seasonal changes in appearance, should also vary from area to area. However, field research shows that independently of the types of mushrooms, all the sites' attributes remain unchanged.

(E) UFO landing sites are scorched in a strictly defined manner which corresponds to the location of the propulsors and to the operation mode of these magnetically propelled vehicles. This goes so far that mutual relationships between various characteristics of the landing sites can be expressed in the form of mathematical equations. Apart from equations G32 and G33 mentioned earlier, other examples of such equations are: (1) the number "n" of scorch marks left by the side propulsors is correlated to the type factor "K" of a particular landed vehicle - see equation B1; (2) this number "n" has a direct correlation with the nominal diameter "d" of a UFO that landed - see equations G30 and G6; (3) the mean ratio of outer diameters of the elliptical UFO landing sites measured in the east-west "do(E-W)" and north-south "do(N-S)" directions is a direct function of the local inclination angle "I" of the Earth's magnetic field and the slope of the ground, etc.

(F) Most of the sites, as well as the ring of scorched vegetation, also incorporate a single central mark made by the main propulsor, the location of which is displaced towards a magnetic south or a magnetic north direction.

(G) UFO landing sites remain in precisely the same locations and shapes year after year. No slow drifting away or transformations, so typical of natural growths, are observed.

(H) Some UFO landing sites last for many decades. The oldest sites discovered so far have been in existence (in the same place) for over sixty years - see Figure M14.

(I) They maintain exactly the same diameter from year to year. Notice that if the rings would grow naturally, they should increase their diameter by not less than about two metres each year.

(J) They have a perfect circular or elliptical shape, independently of the soil and topographic conditions that may stimulate a monotropic growth. Elliptical sites almost always have their long axis oriented exactly towards the magnetic north/south direction, whereas the short axis is oriented towards the magnetic east/west direction (defining this more precisely: elliptical landing sites display the shape which results from the intersection of the surface of the ground with a perfectly circular tube formed from the vehicle's magnetic circuits oriented parallel to the Earth's magnetic field force lines).

(K) They are sometimes accompanied by three or four symmetrical imprints of the vehicle's legs located within the circle - see Figure M1.

None of the above attributes could appear if these rings were formed in a natural manner. Therefore the presence of the above attributes in UFO landing sites completely rules out their natural origin, proving in this way that they are formed technologically by landed extraterrestrial vehicles.

M1.6. There is a critical landing duration after which sites become permanent

The destructive biological impact that the super-strong UFO field exerts on the soil divides all landing sites into two categories, i.e. permanent and transient. Permanent sites are those where UFO vehicles landed for a period of time sufficient to exterminate (cook) all the parasitic micro-organisms which keep mushroom growth under control. Therefore in permanent sites mushroom spawn takes over the soil completely. These sites can be easily recognized because in some parts their scorched rings display soil which is totally burnt and bare. The author estimates that about 100 years will pass before the biological balance returns back to normal (in uncultivated soil). Until the balance is restored, these UFO landing sites remain visible staying year after year in exactly the same place and with exactly the same shape. Transient sites are all those in which a UFO remained in one place for too short a period of time to put the soil out of biological balance. Grass in these sites remains unburned, but displays a different, darker colour. Also various types of beans (which have the ability to absorb nitrogen from the air) and some types of grass grow much faster there. The soil in these transient sites is not taken over by mushroom spawn. Experience shows that such sites disappear about three months after a UFO landing took place.

The existence of permanent and transient sites indicate that there must be a "critical landing duration" after which the biological balance of the soil is destroyed. (This critical duration can be compared to the time needed to cook micro-organisms in a microwave oven.) All the sites on which the landing took less than this critical duration disappear after about three months, whereas all landings whose time-span exceeds the critical duration remain visible for many decades. At present we do not know exactly how long this critical duration is. But on the base of the sparse data already available, the author estimates that for K3 type of UFOs it exceeds ten minutes. If we could determine it precisely then landing sites would become a rich source of further data on UFOs. For example, these sites would then allow us to estimate: the duration of UFO landings, the strength of their magnetic fields, the efficiency of their equipment and activities, etc.

M1.7. More that else we can learn from UFO landing sites

UFO landing sites provide us with extremely valuable sources of information on this extraterrestrial spacecraft. The most important data derived from these sites has already been discussed in previous subsections. Let us now list additional information that the author has gathered from these sites.

#1. Only a small fraction of UFO landing sites (the author estimates it to be about 1 site in 200) is scorched by vehicles that actually landed. Most of the sites are left by vehicles that hovered motionless for some time at a height exceeding half of their effective

diameter "d". On the paddock of Mr Allan M. Chapman of Goodwood (R.D. 1, Palmerston, New Zealand) a K5 type UFO produced marks that allowed the precise determination of the height at which these spacecraft usually hover - see Figure M15. This particular UFO simultaneously broke the top of a tree and scorched an elliptical landing site under this tree. The top of the tree was broken at a height of 6.8 meters from the ground (i.e. at about d/2). The dimensions of the scorched ellipse left under this tree were: do(E-W)=12.0, do(S-N)=14.4, and as=0.65 [metres]. Because in this site the scorched ring was distinctively visible and its dimensions were more close to the nominal diameter "d" of K5 type UFOs than the dimensions of many other sites, the above evidence revealed that in normal circumstances K5 UFOs produce sites while hovering at a height even greater then 6.8 metres.

#2. The orientation of the flying or high-hovering (i.e. hovering at a height exceeding half of their diameter) UFOs fulfils the two following conditions: (1) their base is horizontal along its east-west axis, and (2) this base is simultaneously kept slanted along its north-south axis, so that the vehicles' propulsors are directed towards the local course of the Earth's magnetic field. Therefore, all the measurements of UFO landing sites should be done in an east-west direction to obtain correct dimensions. But when the configuration of the ground is such that the east-west direction runs down a slope, then correction of measurements for the angle of slanting of this slope should additionally be made. Marks scorched by such south-north slanted UFOs usually take the shape of an ellipse. On very steep slopes the above conditions may cause the mark scorched to take the shape of a half-circle - see Figure M16. All the landed or low-hovering (i.e. hovering at a height below a half of their diameter) UFOs try to orient their bases parallel to the surface of the ground - if the local course of the Earth's magnetic field allows for this. The UFOs so oriented leave landing sites that are almost perfectly circular in shape.

#3. The crews of UFOs consist of scientists who are vitally interested in our planet. For example, a significant number of UFO landing sites are accompanied by square soil-sampling indentations - see Figures M8 and M6. In a number of cases this removal of soil occurred in the same paddock over many subsequent years (always approximately in the same month of each year). Moreover, a team of K5 and K7 UFO vehicles landed consecutively in various football fields throughout New Zealand. In January 1989 a lamp from the floodlights of the Pirates Football Club in Dunedin was even smashed by a K5 type UFO.

#4. UFOs appear to visit our planet in fleets. These fleets arrive here about a year before there is a maximum of solar activity (i.e. a maximal number of spots on the Sun), and stay on Earth for about three subsequent years. In the 20th century solar activity reached its maximum in the years: 1907, 1917, 1928, 1937, 1947, 1957, 1968, 1979, 1989, 1999 - see [4M1] D.J. Schove: "Sunspot Cycles", Hutchison Co., USA, 1983, ISBN 0-87933-424-X, page 14. These years also coincide with waves of increased UFO activity. (The above book [4M1] stresses that during periods of maximal solar activity, there is also an extremely intensive wave of political events occurring on our planet, i.e. wars, revolutions, changes of governments, etc. This may explain why UFO scientists tend to visit us at these times.)

#5. UFOs keep returning to the same areas of interest. In a number of cases the author discovered the appearance of completely new UFO landing sites near ones that were already nine to twelve years old (i.e. originated from the previous period of maximum solar activity). Notice that this discovery is the first step in determining the predictability of UFO behaviour. This means that we may soon be able to predict where and when UFOs will appear next, and be ready for them.

#6. Each type of UFO seems to specialize in a different task. For example the author established that type K6 UFOs always land near unusual stone or other interesting geological formations. Thus K6 UFOs seem to specialize in geological research.

#7. There appear to be three different strategies of UFO landings: (1) reconnaissance, (2) survey, and (3) task. If they land for reconnaissance purposes, only one or a few landings appear at random. If they conduct a survey, they choose an area of

about 12x60 kilometers and investigate it systematically, inch by inch. For this, a fleet of about 400 UFO vehicles spreads in a front-line formation so that it covers the width of the entire area being surveyed, and then simultaneously moves along this area. Because each UFO vehicle stops every 30 to 50 metres, sets of parallel lines of subsequent landings can be found afterwards along the surveyed area. If they conduct a <u>task</u> research, then mass landings appear in a relatively small area (i.e. sometimes over 100 landings can be found in an area less then 9 square kilometres). Between the areas of such concentrated landings, large gaps of about 30 to 120 kilometres exist where no UFO landings can be found at all.

#8. Areas of mass UFO landings usually conceal some kind of mystery. For example a concentration of UFO landing sites appears along the line of China Stones that spread from the Tapanui Crater - see line "C" in Figure M21. Such areas as Waikoikoi (see Figures M6, M8, M15), Maitland (Figure M3) and Roxburgh (Figure M12) all lie on this line of China Stones. Another large concentration of UFO landings is located near the mysterious Moeraki Boulders (see Figure M7) described in so many books, including those by von Däniken.

The above information was possible to gather even though our investigations of the UFO landing sites are still in their initial stage. But now, when our understanding of these sites is increasing, it should be possible to wrest a large number of further secrets out of them.

M2. <u>Long, straight, geometrically-shaped underground tunnels - material evidence of the ancient operation of the Magnocraft</u>

Our science attributes a solely natural origin to all underground caves existing on Earth. However, it seems that there are a number of cases where a technological origin could explain perfectly well the properties of some underground tunnels, whereas none of the natural explanations is supported by existing facts.

The best known case is the system of tunnels extending thousands of miles under the area of Ecuador and Peru - see Figure M17. Descriptions and photographs of these are published in two books by Erich von Däniken: [1M2] "In Search of Ancient Gods", Souvenir Press, Leeds, England 1973; and [2M2] "The Gold of the Gods" (First published in Germany by Econ-Verlag under the title "Aussaat und Kosmos"), Redwood Press Ltd., Towbridge, England 1973. All the properties of the Ecuador tunnels described in von Däniken's books correspond exactly to those which one would expect to find in the tunnels made by a Magnocraft's flight underground - compare the quotation that follows with the properties presented in subsection G9.1.1. To highlight the similarities between them let us quote a few sentences from "The Gold of the Gods":

"The passages all form right angles. The walls are smooth and often seem to be polished. The ceilings are flat and at times look as if they were covered with a kind of glaze. When I tried to use my compass to find out where these galleries lead, it went on strike. I shook it, but the needle did not move."
For further details, the books indicated above are recommended.

Numerous examples of such long, straight and geometrically shaped underground tunnels are described and illustrated in various other books. For example the book [3M2] by Ben Lyon, "Venturing Underground - the new speleo's guide" (E.P. Publishing Ltd, 1983, ISBN 0-7158-0825-7), provides photographs and descriptions for a whole series of tunnels. The tunnel shown in this book that deserves our special attention is the Mammoth Cave System in Kentucky, USA. To date it has been found to have over three hundred kilometres of underground passages. Other examples of similar tunnels, one located under the Island of Malta and another leading from Cuzco in Peru through Lima to Bolivia (together almost 2000 kilometres long), are described in the book by William Gordon Allen, "The Steiner-Tesla Enigma Fantastique", pages 80 to 85.

Unusual underground tunnels - glassy and regularly (technologically) shaped, have even been presented in some recent television programmes. In the TV series, "The

Wonders of Western Australia", produced by Guy Baskin, Channel 9, Perth, Australia, exploration of the Cocklebiddy Cave system located in the Nullarbor Plain of South Australia was shown. The film makers were quite puzzled by the unnatural, continuous, and smooth shapes of these endless passages, but they did not suggest or investigate their technological origin.

That the Cocklebiddy Cave has a technological origin is almost certain after reviewing photographs of it published in the Australian magazine, "People", December 5, 1983, page 7-10. The cross-section of this cave is elliptical, i.e. typical for the north-south direction of a Magnocraft's flight (compare Figure M18 with Figure G36). It also extends exactly in the direction from south (exit) to north (the direction of the tunnel's path). It is unnaturally straight and always takes a course which suggests it was formed by a moving disc. The lower part of the tunnel is covered with solidified rock vapors and debris. Also on the walls of the tunnel there are regular, repetitive wave-like indentations which indicate the sawing action of a magnetic whirl (see item 10 in subsection G9.1.1).

A different pattern from those already mentioned, left on a wall of this type of tunnel, was presented in the TV documentary programme "Skydive to Autana" by RKO Programmes International (Producer: Adrian Warren). This programme showed the mysterious tunnels passing through the summit of Autana in Venezuela. They are also straight and geometrically (i.e. Magnocraft-like) shaped. In one cave, formed at an intersection of two tunnels, a perfect spiral pattern was shown indented in the rock. This pattern had the exact shape of the magnetic whirl of a Magnocraft - just like the one presented in Figure G30 (c).

Other technological tunnels, located under Mount Chester, USA, were presented in the American series, "More Real People", produced by George Schlatter Production, Los Angeles, California. The locals are quite serious in their claims that these tunnels are inhabited by some kind of telepathic beings. The unusual geometry of these passages and the arguments of the locals apparently did not induce any more extensive investigations.

If a spacecraft from a different civilization formed any of the tunnels described, it is logical to expect that such activity could also be repeated in many other areas. Therefore there is a chance for the accidental discovery of similar tunnels during underground engineering work (e.g. tunnelling, mining, building subways), during cave exploration or in deep-sea diving. (The author has come across information suggesting that tunnels have been found under Washington D.C., but there is difficulty regarding access to the source of this information.) It is possible that while reading this monograph, someone will be reminded of the details of similar discoveries. In such a situation the author would be extremely grateful for any information.

It is understandable that methodology, rationality and a sense of proportion are very important in science. Undoubtedly in the majority of typical cases, the natural origin of underground caves is the only correct explanation. However, there are occasions when such a general application of one explanation may cause some exceptions to be overlooked. These exceptions may represent evidence of extreme importance for the progress of our civilization. To avoid losing vital information, perhaps we should revise our approach to the causes of some phenomena and take the activity of extraterrestrials into consideration. The time now seems to be ripe to reinvestigate a number of facts. The tunnels described in this subsection provide an excellent opportunity for this because they cannot disappear, and anyone who does not believe in their technological origin may visit, see, touch and investigate them.

M3. UFO explosion sites

Any extensive use of Magnocraft-like spacecraft (UFOs), whose Oscillatory Chambers are heavily loaded with magnetic energy, should eventually lead to accidental damage of some of these vehicles, and consequently to their explosion. If we accept the possibility of the long term raiding of our planet by members of an advanced extraterrestrial

civilization who already have the Magnocraft at their disposal, then the natural consequence of this would be to expect that some of their vehicles exploded on Earth. As the sites where such vehicles have exploded must exhibit a number of unique attributes (described in subsection G11) that are absent in natural land formations, it should be easy to check if any catastrophe of a magnetically propelled vehicle in fact took place on Earth. The author has already completed such a check and has identified two catastrophic formations, all attributes of which exactly correspond to those of the Magnocraft explosion sites. These formations are the Tapanui Crater and the Tunguska Blast Site. They are discussed below.

M3.1. The Tapanui Crater

The Tapanui Crater (see Figure M19) is located on the west side of the Otago Province of the South Island of New Zealand in the centre of a triangle defined by the three following towns: Tapanui, Waipahi, and Mataura. (It should be noted here that the indigenous meaning in the Maori language for the words "Ta-pa-nui" is "The-big-explosion", for the words "Wai-pa-hi" it is "The-place-of-the-exploding-fire", whereas the words "Mata-ura" can be interpreted as "The-glowing-spacecraft".) Its geographical co-ordinates are: 46 04' S and 169 09' E. The shape of the Tapanui Crater is elliptical with its long axis declined at -37 (westward) from the geographic north direction. Such a declination angle coincided with the magnetic south-north direction around the year 1178. The size of the Tapanui Crater (i.e. length x width x depth) is about 900x600x130 [metres]. The owner of the Tapanui Crater and some surrounding fields is Mr Rex Hellier of Pukerau (notice that in the Maori language the words "Puke-ruau" can be interpreted as "The-hill-which-shook-the-Earth").

Detailed descriptions of the Tapanui Crater are the subject of a separate monograph [5F] by the author entitled: "Tapanui Cataclysm - an explanation for the Mysterious explosion in Otago, New Zealand, 1178 A.D.", ISBN 0-9597698-7-0, Dunedin 1989. But for consistency of presentation, the most important evidence concerning this Crater is summarized below.

Within a relatively small area surrounding the Tapanui Crater, a number of meaningful features appear which all seem to originate from the same event. Let us list the most important of these features. (1) The centre of this area contains a huge crater whose axis points in the magnetic north direction, whose inner topography suggests that it originated from a series of explosions, and whose floor is strewed with remains of burnt trees. (2) The entire area is magnetized. (3) There is a triangular spread (radiating from the Crater) of unusual baked rocks called "china stones" and artificial glassy sand called "trinitite". (4) Splinters of magnetized iron (in some cases, pieces of stainless steel) are scattered around. (5) There are remains of fallen trees scattered around, whose trunks point at the Crater, and which carbon dating gives results of around the year 1178 thus corresponding to the date of the Crater's formation. (6) In the indigenous (Maori) language, names of the surrounding settlements carry meanings that indicate explosions, fires, destruction, etc. (7) There are numerous Maori legends that directly refer to the explosion over Tapanui of a glowing, horn-shaped spacecraft.

The three following hypotheses try to explain the origin of the Tapanui Crater: (1) geological, (2) a meteorite impacting with Earth, and (3) an exploding extraterrestrial spacecraft. The geological hypothesis, disseminated through official publications, states that it is an erosion formation, namely a landslip (some maps even mark this crater as a "landslip crater"). The second hypothesis states that the Crater represents a meteor impact site. The third hypothesis, which is proposed by the author of this monograph, states that the Tapanui Crater is an explosion site of a Magnocraft-like spacecraft.

The evidence gathered so far eliminates the geological hypothesis, as this does not match most of the existing facts. This hypothesis deals separately with each single item of evidence present in the Crater area, overlooking the complexity of the interrelationship between the facts and their dating. For example, the geological hypothesis explains the

Crater itself as a landslip, the china stones spread from it as fossilized native rock millions of years old, the "trinitite" as volcanic glass, the magnetization of the area as magnetite deposits, the fallen trees as the result of local floods (the orientation of these trees toward the Crater is supposed to be pure coincidence), and so on. Thus the geological hypothesis runs against the guideline for scientific investigations which states that "what is apparent represents only a symbol of what is hidden underneath" (Freudian Theory). In order to comply with this guideline the complex evidence appearing in the Crater's area needs to be explained in a complex manner.

If we consider separately each single explanation of the geological hypothesis, it also displays numerous flaws. As an example let us list the most important facts that testify against the landslip explanation for the Tapanui Crater: (1) it is unsatisfactory as a justification for the Crater-like shape, especially for: (a) the presence of four clearly distinguishable craters nested one inside of the other, (b) the presence of a clearly distinguishable edge at the side towards which the land was supposed to have slipped, (c) the presence of perfectly elliptical corners at both ends of the Crater, (d) the presence of burnt trees at the bottom of the Crater, (e) the splashing of the sand from the bottom of the Crater up hill at its eastern edge (this splashing runs against the direction of the slip); (2) the ground is too stable to produce a landslip in this place (there are no other landslips in this area to suggest a tendency of the ground to produce these formations); and (3) the equilibrium of volumes is not fulfilled (i.e. the ground that "slipped" from the Crater should still be present below it). Notice that the erosive appearance of the north-west side of the Crater on which the geological hypothesis is based could be simply a result of violent rain falls that must have accompanied such a powerful explosion.

Out of the two remaining hypotheses, the facts presented in this subsection seem to confirm that of an exploding spacecraft. While discussing below the evidence that confirms this hypothesis, the author also highlights facts that negate the possibility of a meteor impacting with Earth.

At this initial stage of research, the Tapanui explosion is dated the morning of 19 June 1178 A.D. (Julian Calendar). This particular date is derived from reference to the record dated 1178 made by Brother Gervase, a Chronicler at Canterbury Cathedral (England). The record reports unusual visual distortions of the Moon's appearance that were witnessed by a group of monks from Canterbury Cathedral (i.e. the Moon was shaking and swinging, looking as if it was on fire, changing colour, etc.). Such distortions could have been caused by the shockwaves and dust spread into the upper atmosphere originating from the powerful explosion occurring in New Zealand. (During the Tunguska Explosion in 1908, the shockwaves circulated three times around our globe and the dust sprays caused unusual atmospheric phenomena that was noticeable in many countries.) Moreover the carbon dating of trees felled by the explosion points to the same date, given the margin for error in the technique itself. In addition, the inclination angle of the local magnetic field for the year 1178 (this can be determined from the circulation of the south magnetic pole around the south geographic pole) roughly corresponds to the orientation of the central axis of the Tapanui Crater - see #6.

In subsection G11 a list of attributes unique to the Magnocraft's explosion sites is provided. Below, each of these attributes will be matched to that manifested by the Tapanui Crater. Therefore, while reading this subsection, it should be easier to follow the logic of these deductions if a simultaneous reference to the appropriate attributes listed in subsection G11 is applied.

The body of evidence gathered so far indicates that the Tapanui Crater exhibits all the unique attributes that should be present in the Magnocraft's explosion sites, and which could not be caused by a natural catastrophe. Let us now review these attributes and the evidence that supports them:

#1. The energy yield for the Tapanui explosion is comparable to that of the most powerful blasts of thermonuclear bombs. This enormous yield is documented by the size and configuration of the Tapanui Crater. Its value can be determined by calculating the volume of the crater (from contemporary near-ground thermonuclear explosions it is known

that the removal of 1 [m3] of soil requires an explosion of over 1 tonne of TNT). Because this volume exceeds 60 million [m3], even a rough estimation gives the Tapanui blast an energy yield of over 60 megatons of TNT, i.e. an equivalent of about 4800 atomic bombs of the size comparable to those at Hiroshima. The explosion has spread huge lumps of baked native soil (china stones - see #9) as far as Mount Cook, a location in direct line from the Tapanui Crater which is about 350 kilometres away.

#2. The devastation caused around the Tapanui Crater is typical for a powerful explosion (not for the impact of a heavenly body). There are a number of facts already accumulated, all of which contradict the possibility that the Tapanui Crater was formed as the result of a heavenly body (e.g. a meteorite) impacting with Earth. The most important of these facts are as follows:

- All impact craters have the remains of a rim that the impact formed around their edge. But the Tapanui Crater has no rim at all. Its configuration simply represents a big hole created partially on flat ground and partially on the non-disturbed slope of a hill - see the distant view of this Crater shown in Figure M19.

- If a heavenly body impacts with Earth, its debris should be detectable around the impact area. There is no large space debris present around the Tapanui Crater.

- Impacting heavenly bodies usually create a shower of splinters that should cut, break and tear into small pieces the trees located in the vicinity of the Crater. Thus pieces of these trees should lie scattered around at random, or pointing in the direction opposite from where the splinters came from. But in Tapanui the remains of the huge trees that fell around the Crater display a concentric order in their orientation (some can still be found buried under the ground). They all lie parallel to one another with their trunks pointing to, and roots oriented towards the centre of this explosion - see Figure M20. Such an orientation of trees is distinctive of explosions, not of destruction caused by an impact. Moreover, locals describe these trees as complete trunks whose surface was impregnated with a fine sand. This also indicates that no splinters were formed, and that the only agents felling the trees were the powerful shockwaves and sand dust spread by the explosion.

- The object that exploded at Tapanui was witnessed by the Maori (indigenous people) living in that area, who recorded their sightings in numerous oral legends. In these legends the object descended above Stewart Island, and then continued in a horizontal flight at a very low height. Furthermore, the reported path of this object drastically contradicts the orientation of the central axis of the Crater and the devastation area - see the map from Figure M21 (notice that for impacting bodies this axis must be an extension of their paths). Therefore the Crater and the destruction must be caused by an explosion, not by the impact of an object.

#3. The Tapanui Crater was formed by a sequence of detonations, not by a single explosion. The internal configuration of the Crater, when examined thoroughly, indicates the presence of four subsequent craters clearly outlined (and three further ones which are not so clear), each of which is nestled within the boundaries of the other. The mutual positioning of these four craters is shown in Figure M22. The existence of subsequent craters located one inside the other clearly indicates that the Tapanui explosion had a serial character in which a number of subsequent vehicles were detonated in sequence. This in turn indicates that a cigar-shaped flying complex, containing about seven vehicles stacked one on top of the other, exploded over the Crater (such a complex is shown in Figure G8). Also it should be mentioned that if any records of the acoustic effects accompanying the Tapanui explosion have survived, a series of about seven loud "bangs" should be registered in a sequence.

From the inner configuration of the Tapanui Crater it is possible to reconstruct the course of the explosions which formed it. The evidence shows that these explosions were ignited from the top spacecraft and then spread down along the cigar-shaped stack of vehicles. Thus the pressure field created by the explosion of each subsequent vehicle formed a kind of cushion (or a deflecting screen) above the vehicles that had not yet exploded. In turn this expanding cushion of pressure deflected further downwards the shockwaves created by the explosion of the next vehicle from the remaining stack.

Therefore each subsequent explosion was more centrally directed and limited to a smaller area, forming another crater inside those already made.

#4. The explosion in Tapanui had a cumulative character which is unknown in natural explosions and which can only be caused by technological devices. The inner configuration of the Tapanui Crater and the spread of soil blasted from it both indicate the cumulative character of the explosion. The Crater is deeper and its edges steeper at the south end where the shockwaves entered the ground. Also the long-range post-explosion falls are spread onto one side only, i.e. towards the magnetic north (no long-range falls of trinitite or china stones were discovered at the south side of the Crater - see the map from Figure M21).

#5. The devastation area caused by the Tapanui explosion has a roughly triangular shape. The spread of the baked native soil blasted from the Crater (i.e. "trinitite" and "china stones" - see the descriptions from item #9) forms a triangle pointing geographic north-east, whose apex is based in the Crater. The apical angle of this triangle is about 100 degrees. This indicates that the shockwaves of the explosion were directed to the ground at exactly the same angle that the axis of a magnetically propelled vehicle would occupy. The shape and the extent of the direct devastation area caused by the Tapanui explosion is shown in Figure M21. It should be stressed that the range of the post-explosion falls was much greater than this direct devastation area and exceeded a radius of 350 kilometres. Extremely hot china stones spread by the explosion ignited bush fires as far away as the Canterbury Plains and Kaikoura. Over half of the South Island of New Zealand was totally devastated by the effects of the Tapanui explosion.

#6. The Tapanui Crater is oriented in the magnetic south/north direction. This orientation of the Crater is clearly illustrated by the aerial photographs shown in Figure M23. The long axis of the elliptical Tapanui Crater, as well as the central axis of the area of the post-explosion dust falls, is declined -37 degrees (westward) from the geographical north direction. Such an orientation of both axes corresponds to the magnetic south/north direction in the year 1178. The magnetic south-north orientation of the Crater confirms in two ways the Magnocraft origin of the Tapanui explosion, contradicting its possible meteorite origin. These are:

- the flight path of the vehicle as described by eye witnesses (see the evidence #10 and the path marked "P" in Figure M21) is perpendicular to the axis of the explosion, whereas for a meteorite impact this path should be an extension of the explosion axis.

- the general direction of meteorite falls lies roughly in an east/west vertical plane, thus the magnetic south-north orientation of the axis of the Tapanui explosion is contradictive to this general direction of meteorite flights.

The above evidence and deductions indicate that the Tapanui explosion is oriented exactly as the blasting Magnocraft would have been directed, and as an impacting heavenly body could not have been directed.

#7. The entire area of the Tapanui Crater is magnetized in a turbulent, disorganized manner. This magnetization manifests itself in the following manner:

- It can be detected by a sensitive compass, which, when carried in the hand, spins its needle in varying directions. The local pilots are known for their complaints that compasses in their aeroplanes react erratically above the Crater. It is also possible to find near the Crater two locations, only about a meter from each other, where a sensitive compass shows opposite directions.

- The china stones spread out from the crater are magnetized. The magnetic needle of a sensitive compass placed near a large stone is deflected from the right direction.

- Around the Crater unusual atmospheric phenomena frequently occur, the cause of which could only be as a result of the strong magnetization of the entire area. For example a local farmer, Mrs Diane Chittock of Waikoikoi, photographed a tornado which unexpectedly appeared above the Crater but quickly diminished when the air currents shifted it a few kilometres further - see Figure M24. This particular tornado was unusual for two reasons:

(1) it lasted only until its cloud drifted away from the Crater, and

(2) tornadoes are unknown in West Otago, and in areas away from the Crater even the very old people have never heard of them.

Therefore, a rational conclusion seems to be that this tornado had some connection with the magnetic properties of the Crater.

#8. There are some indications of a magnetic stimulation of the environment around the Tapanui Crater. Although to the author's best knowledge no formal research has been completed to detect such a stimulation and compare it with that from the Tunguska Blast site, the vicinity of the Crater is recognized for its selenium deficiency. Because selenium is known for its sensitivity to any environmental stimulations there is a probability that the deficiency of this element represents the first and the most easily noticeable sign of the magnetic stimulation of the Crater's environment.

The author believes that there could also be an indirect link between the Tapanui explosion and local instances of the illness called Tapanui Flu (Myalgic Encephalomyelitis or ME syndrome). The magnetic stimulation of the environment can cause slight changes in the proportions of vital micro-elements contained in the soil (i.e. selenium is one of these). Changes in these proportions, in turn, may have an indirect impact on people living in the area, creating conditions encouraging the development of the Tapanui Flu. Unfortunately the author doesn't have the medical expertise necessary for the investigation of such a link. The only reason he mentions Tapanui Flu here is that he hopes to inspire other scientists to investigate such a possibility (especially when a similar illness was reported amongst the local population around the Tunguska Blast site).

It could be interesting also to complete some specialized investigations to detect plant mutations in the Crater area, as this kind of mutation was observed around the Tunguska Blast site.

#9. Unusual metallic splinters can also be found in the vicinity of the Tapanui Crater. Research on their structure revealed that they consist of 60% silicon, 30% magnetized iron, and 10% aluminium. They look like pieces of a spacecraft torn apart by an explosion, melted, mixed with molten sand and soil, magnetized, and then deposited in the vicinity of the explosion site. A photograph of a sample of such a splinter is shown in Figure M25.

#10. Around the Tapanui Crater are present two unique minerals composed of the native soil blasted from the Crater. The soil was compressed, baked, and subsequently deposited in and around the triangular devastation area. These minerals take the forms of "trinitite" and "china stones".

The "trinitite" is composed of small globules of silicate glass, originating from the grains of local soil sucked into the air by the explosion, melted, hardened, and then deposited as part of the post-explosion dust falls. More information about this mineral is contained in the article [1M3.1] by Ron Ratkevich, "Trinitite: the origin of a rare atomic mineral", Lapidary Journal, January 1981, pp. 2276-2278. There seems to be large deposits of trinitite-like sands in the Waimea Plains, near the town of Mandeville in North Southland, an area located over 30 kilometres north-west from the Tapanui Crater and positioned at the western edge of the post-explosion falls - see Figure M21. The local geologists call these deposits "loess dunes". They take the form of dunes about 1.5 km long and 200 metres wide, of which the long axis coincides with a line drawn from the Tapanui explosion. The deposits were drilled and found to be up to 5.5 metres deep, with traces of more heavy glass droplets at the bottom. Their description is provided in a paper [2M3.1] by Peter McIntosh, "Aeolian Deposits in a Loess Source Area of Northern Southland", Geological Society of New Zealand NEWSLETTER, No. 71, March 1986, pages 40-41.

The present geological explanation for the Mandeville trinitite deposits is that they consist of traces of volcanic glass originating from the Kawakawa eruption. Of course this explanation does not take into account the exceptional circumstances of the Tapanui explosion, in particular: (1) that the soil from the Tapanui Crater could also contain some deposits of the Kawakawa glass, and (2) that shockwaves from the explosion would mix the trinitite originating from the Crater with other local deposits (i.e. also with Kawakawa glass). Therefore the present geological explanation for the Mandeville deposits is insufficient to rule out the possibility of their origin being from the Tapanui explosion.

The "china stones" are formed from big lumps of local soil, clay, native rock and other original materials which were blasted from the Crater by the power of the explosion, aerodynamically shaped during flight, baked (fired) by the heat, glazed on the surface, and then deposited as part of the post-explosion falls. Research on these stones completed by a West German impact specialist, Dr Johannes Fiebag, indicated that they are quartzites, i.e. metamorphic sandstones (sand) which were deformed by high temperature and pressure. Examples of china stones are shown in Figure M26. China stones display many unusual features, some of which directly point to their origin as being from an explosion. These distinct features are: (1) the detectable magnetization of the stones (see item #7 above), (2) smoke baked into the glaze of some stones, (3) the gradual change in the aerodynamic shape of the stones (i.e. stones spread in the vicinity of the crater are rough, but when the distance from the crater grows, their outlines become more smooth), (4) the formation of small impact craters where they were originally deposited (the topography of these impact craters indicate the airborne arrival of the stones from the direction of the crater), and (5) the presence of negative imprints of local leaves, trees, grass and other organic matter embedded inside the stones. These imprints found in china stones resemble the imprints found in Pompeii near Vesuvius volcano in Italy. They reflect the outer structure and shape of organic objects trapped inside the stone. In most cases the original organic matter has decayed since the explosion took place, thus only negative copies of the external shapes of objects remain. But there are still some china stones left which contain fresh (i.e. non-fossilized) organic matter trapped inside.

There is also a geological explanation for the china stones which claims that they have a non-explosive origin. It states that china stones are the fifteen million year-old remains of native rock that occasionally contains some prehistoric fossils from that period. But the formulation of this explanation seems to overlook the following factors which are of extreme importance: (1) the sampling methodology that helped to establish this explanation could be tendentious in the choice of material for research (e.g. by some coincidence, only samples of native rocks from the various rocks in the area were picked for research, whereas real china stones were ignored); (2) the research would have been completed without any consideration for the agents and conditions involved in an explosive formation of these stones; (3) some china stones could contain much older rocks deposited earlier in the soil which was blasted from the Crater; and (4) a sound explanation for the china stones should also account for: (a) their aerodynamic shape, (b) the smoke baked into their glaze, (c) their unnatural magnetization, and (d) the presence of non-fossilized (fresh) organic matter inside them. Because of the above reasons, the present geological explanation for the origin of these stones can not be taken as conclusive.

The evidence available at present seems to indicate that large china stones are grouped at the east edge of the post-explosion falls, whereas the fine trinitite deposits occupy the western edge of the falls area - see the map from Figure M21. In between these two edges the size of the pieces changes gradually. Such a gradation of post explosion falls probably results from the topography of the hill on the slopes of which the explosion occurred, and also from the constituents of materials that originally filled the present Crater.

#11. Eye witness descriptions (Maori legends) of a spacecraft that caused the Tapanui explosion are also recorded. A Maori tribe used to live near the present town of Mataura. Their legend directly refers to the horn-shaped glowing spacecraft "with the moon-like face" that descended to Earth above the present Stewart Island, took an eastward course, flew above Mataura, and then exploded at the Tapanui Site. The author has a VHS video-recording of the content of the Mataura legend as described by Mr Allan Chittock of Waikoikoi (5 R.D., Gore, New Zealand).

The Mataura legend is additionally supported by numerous other Maori stories describing a horn-shaped flying vehicle (a low flying cigar-shaped flying complex, seen from underneath, would resemble a horn - see Figure G8) glowing like the Moon, that split apart above the Tapanui site causing enormous disaster, fires, the extinction of Moa birds, etc. Even the Maori name for Stewart Island is connected with one of these legends. In the Maori language this name is "Raki-ura" which means "The-glowing-sky". The origin of this

name is explained by a romantic legend. Supposedly, once upon a time a chief of the "warriors from the sky" was in love with a beautiful Maori lady who lived on this Island, and he visited her regularly in his spaceship. But her husband was not impressed, and when the next visit was due he took his wife to the mainland and hid her in a cave. After the huge glowing spaceship of the chief descended on Stewart Island, local Maori people informed him about the escape of the couple. The angry chief began to chase them, and flew horizontally towards Tapanui scanning the ground. But when (at Tapanui) he realized that he could not find his lady love, he blushed with rage and mortification, burning with fire the whole sky.

Maori people have the custom of naming places after significant events that happened there. In this way a collection of another type of record of the Tapanui cataclysm also exists. These records take the form of the Maori names for local hills, rivers, settlements, etc. Most of the Maori names surrounding the Tapanui Crater refer to an explosion, fire, destruction, and a moon-like glowing spacecraft.

#12. The Tapanui Crater is the centre of intensive UFO activity. Around this Crater, especially along the lines of china stone and trinitite deposits (see lines C and T in Figure M21) there is a massive concentration of UFO landing sites. A photograph of one of these sites, whose unique shape, dimensions, and properties may NOT be explained by any other cause except by a UFO landing, is shown in Figure M12. The material marks left on the ground by landed UFOs are additionally supplemented by reports of numerous eye witnesses who frequently observe these vehicles in the Tapanui Crater area.

* * *

Each item of evidence presented above supports on its own the hypothesis that the Tapanui Crater was made by a powerful explosion of a magnetically propelled space vehicle. All of the above facts linked together stand for almost conclusive proof that the destruction occurring at the Tapanui Site was caused by the near ground explosion of a stack of Magnocraft-type flying vehicles. So far, no other explanation matches the existing facts so perfectly.

The almost exact correspondence between evidence present around the Tapanui Crater and the theoretical attributes of the Magnocraft UFO explosion sites (outlined in subsection G11) indicate that this crater represents an almost perfect illustration of the course and consequences of an explosion of magnetically propelled UFOs.

The existence of the Tapanui Crater is of significance to investigators from New Zealand and also from other countries. So far only two such places have been identified on Earth, and the second one (the Tunguska Blast site located in Central Siberia) is extremely difficult to gain access to. The main reasons for the importance of the Tapanui Crater are as follows:

1. The Tapanui Crater displays some unique features, and it holds a number of world records, namely:

- it is the youngest large crater so-far found on Earth (according to the research to date, the Tapanui Crater is only 810 years, whereas the next youngest Crater found so far is about 2,000 years old {see the Ilumetsy Crater, Estonia, USSR, 57 58'N, 25 25'E} and its diameter is only about 80 metres);

- it is the Earth's only crater of that shape (i.e. it has no central uplift, no rim, and it has not less than four inner craters nested one inside of the other);

- it is the only example investigated so far of a Crater made by an explosion of a Magnocraft-like flying vehicle (no crater has been left at the Tunguska site),

- it is the only large crater known so-far that was formed as the result of an aerial (but near the ground) explosion. (All other large craters were formed either by underground explosions or by explosions that occurred on the surface of the ground.)

2. The Tapanui explosion is responsible for an enormously wide range of geological, climatic, biological, and ecological changes in the South Island of New Zealand, the consequences of which are noticeable even today. The most important of these changes include:

- the postshock uplift of originally deep-seated materials (e.g. gold, deposits which were discovered in the range of the Tapanui shockwaves);

- the total burn-out of vast areas of forest along the East Coast of the South Island, extending as far as from Bluff in the south to Kaikoura in the north (i.e. over a half of the South Island); these forests never fully regerminated and even today the vast grasslands that replaced them have significantly altered the local climate;

- the contribution to the mass extinction of Moa birds;

- the significant changes in the micro-elements content of local soil (e.g. selenium deficiency).

3. It represents an easily accessible tourist attraction of world-wide significance which is as impressive as the famous Meteor Crater at Canyon Diablo in the Arizona desert near Winslow, USA (see Figure M28), but which in addition has more mystery attached to it,

4. It represents a natural scientific laboratory which would enable the long-term consequences of magnetic explosions to be investigated.

It seems that we have a treasure in New Zealand of which hardly anyone knows. The time is right for people to become aware of its existence and importance.

M3.2. <u>The Tunguska Explosion</u>

At 7:17 a.m. on the morning of June 30, 1908, a cylindrical object was observed by numerous eye witnesses blazing westward across the cloudless skies of the Central Siberian Plateau near the Stony Tunguska River. The object then exploded with cataclysmic force, 113 kilometres north of the small trade station Vanavara. The explosion devastated over 500 square kilometres of the native taiga forest, felling trees sometimes up to 75 kilometres distant from the centre of the explosion. All these felled trees were found lying parallel to each other - see Figure M27 - with their trunks pointing in one direction, i.e. the centre of the explosion. The whole devastation area formed a unique triangular pattern - pointing magnetic south, and similar to the pattern already described for the Tapanui explosion.

Descriptions of events and evidence from the Tunguska explosion are contained in numerous books devoted entirely to this catastrophe. To enable the deductions from this subsection to be furthered, the author would like to recommend the reading of some of these books, especially: [1M3.2] John Baxter & Thomas Atkins, "The Fire Came By", MacDonald and Jane's, London 1976, ISBN 0-354-04012-X; [2M3.2] Jack Stoneley, "Tunguska: Cauldron of Hell", A Star Book, London 1977, ISBN 0-352-39619-9.

A summary of the Tunguska explosion can also be found in books listed at the end of chapter J (see [2J] page 371 and [3J] page 78). The following quotation from the book [3J] page 78, gives a brief idea as to what actually happened: "It was just after dawn when the fireball was first spotted. Caravans winding their way across China's Gobi Desert stopped to watch it across the skies. Soon   people in southern Russia picked it up, a cylindrical tube shape, glowing   bluish-white, leaving a multicoloured vapor trail. It was getting lower all the time. Then at 7:17 a.m. came the explosion. To the peasants of the sparsely-   populated area of swamps and forests, it seemed like the end of the world."
Initially the Tunguska explosion was attributed to a gigantic meteorite plunging from the heavens. Neither the physical evidence available at the site, nor the testimony of eye witnesses matched the course of events expected for this cause. Then a number of other "natural" explanations were proposed (e.g. a comet, cluster of antimatter, black hole). But again, none of them matched the existing evidence. In 1961 Soviet scientist Dr A. Kazantsev and a group of his followers proved conclusively that the event previously called the Tunguska Meteorite was in fact the technological explosion of a powerful spaceship. The main facts which confirm the technological origin of the Tunguska Blast are as follows (compare the items listed below with corresponding items from subsection G11):

#1. The energy yield of the Tunguska Blast is estimated at about 30 megatons of TNT. In comparison, the atomic bomb exploded over Hiroshima had a yield of "only" 12.5 kilotons (see the book [3M3.2] by Dr. C. Phillips and Dr. I. Ross, "The Nuclear Casebook", ISBN 0-904919-83-8, page 10.) It means that over Tunguska the equivalent of 2,400 bombs similar to the one at Hiroshima was exploded. This total energy was released before the object hit the ground. No material object can produce such a vast amount of energy solely because of friction with the atmosphere. But if a release of the energy contained in the Oscillatory Chambers of the Magnocraft-like spaceship is considered to be the possible cause for the Tunguska Blast, then only about three of the K6 type vehicles, joined into a cigar-shaped flying complex, would be needed to produce a 30 megaton explosion (compare subsection G5.5).

#2. Whenever a large meteorite has hit Earth it has left a crater. In Arizona, a hole of 183 metres deep and about 1200 metres wide has been made by the largest meteorite known so far - see Figure M28. Experts claim that a blast caused by a black hole hitting from space must also leave a crater (apart from that the black hole must also cause a similar explosion to occur on the other side of Earth - no such explosion was registered at that time in the Atlantic Ocean). But in the Tunguska Blast there was no crater left at all. Moreover, in the exact centre of the explosion trees were still standing after losing their foliage and branches, though for miles around all the trees had been blown away - see Figure M29. Such trees left standing in the center is also characteristic of a mid-air nuclear explosion. At Hiroshima, for example, trees directly under the blast stayed intact, while those at an angle to it were flattened. This all proves that the impact of the Tunguska explosion originated from the explosive material carried on board the object, not from the kinetic energy of this object.

#3. Numerous witnesses reported hearing three series of detonations. Each of these series contained about 20 loud "bangs" similar to a sequence of artillery cannonade. Witnesses who had served in the artillery estimated the total number of individual bangs at about 60. It is worth stressing that exactly this type of sound effect would accompany the explosion of three UFOs type K6 stacked into a cigar-shaped configuration. Each of these vehicles contains 20 side propulsors (i.e. Oscillatory Chambers heavily loaded with energy) plus one main propulsor. Thus, an explosion of each such vehicle would produce a series of 21 loud bangs. This series would be repeated three times because three subsequent vehicles exploded (i.e. producing altogether 63 individual bangs - a number close to that provided by eye-witnesses).

One of the curiosities of the Tunguska explosion is that it created two separate series of sound effects. The first travelled in a straight line with the speed of light, whereas the second one accounted for the curvature of the Earth but travelled with the speed of sound. The first of these effects was extremely loud and regardless of the distance from the explosion was heard at the moment when flashes appeared. The second series of sound effects was much lower in intensity and arrived (depending on the distance) about 15 to 25 minutes after the flashes. The explanation for this unusual phenomenon lies in the magnetic character of the Tunguska explosion. Thus, the carrier of the first series of bangs was a magnetic field that shook the ionized air particles, whereas the second series was carried by ordinary sonic waves.

#4. The shape and topography of the devastated area certifies that the Tunguska explosion had a cumulative character. Only a cumulative explosion could produce the triangular-shaped devastation described in item #5.

#5. The area of destruction had a roughly triangular (or butterfly) shape - see Figure M30, whereas every natural phenomena must produce an oval-shaped site. The re-examination of the evidence by an aerodynamic expert, Prof. Felix Zigel, and a geophysicist, A.V. Zolotov, revealed that the area of destruction must be formed by a technological explosion with a directed impact. An explosion whose impact is directed can be produced in only two ways, i.e. by shielded detonation or by cumulative detonation - both impossible occurrences in nature. In the shielded detonation, explosive material must be blasted on one side of a larger, consistent and non-explosive object, so the impact of the

explosion is deflected into a selected direction. In Tunguska this could only happen when an exploding part (e.g. a nuclear reactor) was located at one end of a large cylindrical spaceship. In a cumulative detonation a number of explosive loads forming the shape of a parabolic mirror must be detonated. In Tunguska this could have happened when a number of Oscillatory Chambers, placed so that they form a shape similar to that of the mirror in a torch, would explode. (Propulsors in a UFO are located in exactly that way).

#6. The main axis of the Tunguska devastation area lies in the magnetic North to South direction, exactly as this direction was oriented in the year 1908 - see Figure M30. At this point it should be stressed that shortly before the explosion occurred numerous eye witnesses observed the westward course of the exploding object in its final flight. This means that for a heavenly body impacting with Earth the main axis of the devastation area should also be oriented westward, thus forming an extension of the object's flight path. Therefore the magnetic southward orientation of the devastation area eliminates all the existing hypotheses about Tunguska which claim that some kind of natural heavenly body impacted with Earth.

Vital evidence concerning the magnetic character of the Tunguska explosion was given by an eye witness named N.I. Inleszyn of Niepa. He saw the cylindrical object before the explosion, and reported that it flew slanted from its vertical orientation. (Cigar-shaped UFOs must fly with their central axis slanted so that they adjust to the local course of the Earth's magnetic field.) The report of this witness was reinforced by laboratory experiments which proved that the fallout of trees identical to that from Tunguska can only be obtained when a cigar-shaped explosive charge is blasted after being slanted from its vertical orientation.

#7. Evidence of turbulent magnetization can be found at the site of the Tunguska Blast. The most common evidence is a vast number of small "trinitite-like" grains, composed of similarly dimensioned spherical globules of silicate and magnetite (i.e. magnetized iron oxide). Because of the magnetization of these globules, it means that they must have been subjected to a powerful magnetic field. There is also additional evidence of the magnetic character of the Tunguska explosion. An example can be the sighting of Professor Fowler of South Kensington (England) made on the night of the explosion and published in [2M3.2] page 20 and [1M3.2] page 27. Here is a quotation from his statement: "There was a slight, but plainly marked disturbance of the magnets on Tuesday night ...". (Independently of his sighting, an identical geomagnetic effect was also observed in Irkuck, Russia.)

#8. At the moment of the explosion, a powerful "magnetic flash" was generated which magnetically stimulated the environment. This flash caused radiation exposure and eventual radiation sickness amongst local people, the appearance of small "magnetic burns" on the skin of local reindeers, the appearance of strange plant mutations, more intensive growth of trees and vegetation, etc. It also caused an inductive melting of metal kitchen utensils near the explosion site, an explosive mushroom growth amongst fallen trees (similar to the explosive mushroom growth on UFO landing sites - see subsection M1.5), an increase in background radioactivity without a change in the presence of radioactive isotopes in the soil, etc.

#9. In the vicinity of the explosion site some Tungus reported finding small pieces of shiny plate "brighter than the blade of a knife and resembling the colour of a silver coin" - see [3J] page 80. These pieces looked more like fragments of a vehicle's shell than debris from any heavenly body. Most probably the magnetite globules, of which large numbers are present in Tunguska (see item #10 that follows), also represent fragments of a space vehicle.

#10. Around the Tunguska Blast site artificial minerals are present which confirm the existence of a powerful, technological explosion. Close to the center of this site a vast number of small "trinitite-like" grains were found. These have the shape of similarly dimensioned spherical globules, some of which are made of silicate, whereas the others are of magnetite (i.e. magnetized iron oxide). The silicate globules appear to have originated from the local soil dust sucked into the air by the power of the explosion. But the magnetite globules must have originated from fragments of the vehicle's shell or metallic equipment,

liquidated and subjected additionally to a powerful magnetic field (debris of a large solid meteorite would vary significantly in dimension and shape). Also, in 1930 K. D. Jankowski (a member of Kulik's expedition) found and photographed the Tunguska equivalent to china stones from the Tapanui explosion.

#11. In Tunguska numerous eye-witnesses reported the technological appearance of the object before it exploded. The shape of this object resembled a cylindrical tube, glowing bluish-white and leaving a multicoloured vapour trail (see quotation from the beginning of this subsection). Similar trails are produced by modern UFOs. For example one was seen during an sighting of a UFO over Petrozavodsk, USSR (not far from the Tunguska site) on 20 September 1977. A description of this sighting is contained in the book by Hilary Evans, "The Evidence for UFOs" (The Aquarian Press, Wellingborough, Great Britain, 1983, ISBN 0-85030-350-8) page 134, and a photograph of the Petrozavodsk UFO is published in OMNI magazine, November 1980, Vol. 3, No 2, p. 32. Moreover, Professor Felix Zigel determined from the reports of eye-witnesses in Tunguska that in the last stage of flight (just before it exploded) the object slowed down to subsonic speed and carried out a manoeuvre in the sky, changing direction through an arc of 600 kilometres. This indicates that the object had intelligent control and that it was searching for a place to land.

#12. Around the Tunguska Blast site increased UFO activity has been observed. The most significant of such sightings occurred a few hours after the explosion took place. Sergei Bulantsev, the Moscow commentator on the television programme "UFO Cover-up", broadcasting live from Washington D.C. via satellite on 15 October 1988, said that:

"The most astonishing fact about the Tunguska explosion is that, actually, there were two objects, I would say two UFOs. The first one had been seen early in the morning. It exploded over the Tunguska forest. And the second one had been seen in the afternoon. One can get the impression that the second object was looking for the first one."

While all the above facts definitely confirm the origin of the Tunguska Blast as being an explosion of a Magnocraft-like spacecraft (UFO), there is no single item of evidence available which would contradict it and which would support a natural cause of the phenomenon. Each fact which the adherents of these natural causes quote to support their views (e.g. vapour trail, glowing sky, pre-impact orbit) also supports the spaceship origin of the blast. On the other hand, each natural cause contains some strongly contradictory facts. For example, a meteorite leaves a crater and debris, a comet should form an oval (not triangular) devastation area that would be an extension of its path and also it could not produce so much energy, etc. Summarizing the above, if there are still people who ignore the facts and persist in claiming that a natural object fell to Earth in Tunguska, the source of their claims lies in the irrationality of their philosophies (compare chapter E) and not in their evidence and logical deductions.

M3.3. What can be learned from both explosion sites (i.e. Tapanui and Tunguska)

The Tunguska explosion created a precedence that was previously unknown. When the evidence of a similar explosion in Tapanui was also discovered, a pattern began to emerge. An analysis of this pattern leads to findings that can contribute to many areas of our knowledge. Some of these findings are summarized below.

#1. Extraterrestrial vehicles are not perfect and can explode occasionally. Because such explosions seem to happen around every 730 years, about half a dozen should have already occurred since the first documented sightings of UFOs on Earth. This means that a number of sites similar to those at Tunguska and Tapanui are still waiting to be discovered. All these sites should display the attributes described in subsection G11.

#2. It seems that there is only one dangerous manoeuvre of the Magnocraft-type vehicles, which in both cases (i.e. Tunguska and Tapanui) turns out to be the cause of these explosions. This manoeuvre is the disconnection of the uppermost vehicles from the cigar-shaped configuration that flies in the magnetic whirl mode of operation (i.e. flies in an east/west or west/east direction). It is highly probable that the other such sites thought to

exist on Earth were also caused by a similar manoeuvre. This narrows down the possible differences in characteristics of such sites, allowing for easier identification of them.

#3. Both sites (in Tapanui and Tunguska) have revealed a repetitive pattern by which the explosion sites of the Magnocraft-type vehicles are characterized. This pattern makes the discovery of similar sites more easy. Below are listed various clues which should lead the potential discoverer to the sites of such explosions:

(a) Various legends (which originate from eye-witness reports) that describe conflagration and destruction initiated by a "bird of fire".

(b) The existence of grasslands and steppes in areas where the climatic conditions should encourage the growth of forests. With more recent explosions, these grasslands can be covered with the remains of burnt trees.

(c) The radial spread of minerals characteristic of magnetic explosions, i.e. trinitite and china stones.

(d) The uplift of gold and other heavy minerals to the surface of the ground.

(e) The appearance of unusual atmospheric phenomena, coinciding with the presence of local magnetic anomalies.

(f) The existence of a huge crater (in some cases only) having a meridian orientation of axis and whose topography reveals a number of smaller craters nested one inside the other.

The above clues suffice for the preparation of a list of sites "suspected" of concealing ancient UFO explosion sites. Apart from the commonly known candidates such as Ecuador (where there is an area of grassland surrounded by bush on all sides and scattered with remains of burnt trees), ancient Atlantis, and the biblical Sodom and Gomorah (Israel), the following two new areas are considered by the author to be most likely:

- Ukraine. There is a high probability that the famous Ukraine Steppes, in ancient times surrounded on all sides by forest, originate from an explosion of UFOs. This possibility is reinforced by the many legends of "birds of fire" recorded by all the nations surrounding the Ukraine. Such legends are known in old Russian traditions. Balkan nations speak of "birds of fire". Mesopotamia has its legends of Phoenix. Ancient Greece has its "Prometheus" and "Fires of Kolchida", etc.

Recently the author was contacted by A. V. Arkhipov'a from the Institute of Radio-Astronomy in Kharkov (Acad. of Scien. of the Ukr. SSR; 4, Krasnoznamennaya Str.; 310002, Kharkov, USSR). Mr Arkhipov reported on a "Kon'ksko-Jalynsk Crater" in the Ukraine located between towns: Donieck, Zhdanow i Pologi (co-ordinates: 47 20'N, 37 00'E), i.e. near the boundaries of an ancient Greek colony called "Kolchida". Research of this crater revealed minerals that are present in the Tunguska and Tapanui explosion sites. Some research of these minerals is published in the paper by G.K. Eremenko et al, "Kocmogennye mineraly v poltavskih otlozenijah Kon'ksko-Jalynskoj vpadiny" (Mineralogija ocadocnyh obrazovanij, Vol 1, Kijev, 1974, pp. 66-76). Extremely interesting are the Ukrainian names for some settlements from the vicinity of this crater, e.g. "Staroignat'yevka" (Place-ignited-in-ancient-times), or "Krasnaja Polana" (Glowing-area-of-forest). It would be interesting if someone could investigate as to whether this Ukrainian crater is in fact another site of a UFO explosion.

- Libya. In the book by Robin Collyns, "Did Spacemen Colonise the Earth?" (Mayflower Books Ltd., St. Albans, England, 1975, pp. 117) an ancient crater located in the Libyan desert is described. Its co-ordinates are: 22 18'N i 25 30'E. According to the descriptions from this book, this unusual crater has all the attributes of being technologically made. Also, in its vicinity are strange minerals called "tektites" containing about 75% of silicone with the traces of aluminium and iron (i.e. having a composition closely corresponding to metallic debris found in the vicinity of the Tapanui Crater - see Figure M25). Structural analysis of these tektites revealed that their chemical composition is identical to the composition of sand in the surrounding Libyan desert.

In 1870 the German amateur archaeologist, Heinrich Schliemann, went into the history books because of his successful search for Troy based on clues from Homer's Iliad and Odyssey. His success proved that the nuclei of every legend originates from a real

event. Now there is a chance to repeat this same procedure in the search for UFO explosion sites. For some of these sites (e.g. Ukraine) the number of clues available seems to exceed that for Troy.

#4. Any destruction of a UFO must be accompanied by a powerful explosion whose energy yield exceeds a minimum of one megaton (see subsection G5.5). After the effect of such an explosion no large debris of a UFO can remain, and also this catastrophe itself could not be kept secret. Therefore, all speculation about alleged catastrophes of UFOs in the USA and Norway should be dismissed. No such catastrophe could leave a vehicle intact if the Oscillatory Chambers were damaged. Of course theoretically it can be assumed that a catastrophe could kill the UFO's crew but leave the Oscillatory Chambers undamaged. But if this was the case, no rationally thinking person would stay in the vicinity while an alien's vehicle was being investigated. This would be like gathering around an armed hydrogen bomb which is being disassembled by people who have no idea of its construction and operation.

M4. Fragments of UFO vehicles found on Earth

From time to time debris alien to our technology are found on Earth. Investigators classify them as fragments of UFO vehicles. Although there are a number of such findings reported, only one piece can be definitely confirmed as being a fragment of a UFO vehicle. This positively identified fragment was found in 1976 near the Vashka River, USSR. Some results of its research are published in a number of Russian papers. English-speaking readers can learn about it from the [1M4] "Ancient Skies" magazine (published by the Ancient Astronaut Society, 1921 St. Johns Ave., Highland Park, Illinois 60035, USA), Vol. 16, no 5, November-December 1989.

The Vashka debris takes the form of a fragment from a metallic cylinder, about 1.2 meter in diameter. When subjected to the slightest coercion (e.g. cut by a saw or a file), its material emits a powerful stream of sparks.

Research on the Vashka fragment showed that it is an alloy consisting of the elements: 67.2% of cerium, 10.9% of lanthanum, 8.78% of neodymium. Small amounts of the following elements were also found: iron, magnesium, uranium, molybdenum (the last two in an amount less than 0.04%). X-ray structural and electrographic analyses indicated that the debris was made of a mixture of powders with various crystalline structures. Each particle of the finest powder contains only about several hundred atoms. The magnetic properties of the alloy differ in various directions by more than 15 times.

The Theory of the Magnocraft provides an unambiguous interpretation of what the Vashka debris actually is. According to this interpretation, it represents a fragment of the central cylinder (see cylinder 3 in Figure G5) from a K4 type of UFO. Because this cylinder houses the vehicle's main propulsor, its material must display the property called magnetoreflectiveness - see description in subsection G2.4.1. This property explains the unusual structure of the material, composed of very fine powders, its chemical composition, and also the surprising monotrophy in its magnetic properties. Because the magnetoreflective shell represents almost 80% of the total shell of the UFO, it also explains why on the site of the Tunguska Blast a noticeable increase in the concentration of lanthanum and cerium has occurred.

The Vashka debris bears a vital significance to the Theory of the Magnocraft. This is because it provides a sample of material to copy from during the production of a shell for the first Magnocraft. As well, it confirms that the theoretically deduced properties and composition of materials for the Magnocraft's shell are already implemented by civilizations which build UFOs.

Fig. M1. Photographs of two different imprints of vehicles' legs left on the ground by landed UFOs. In both cases the main edge of the imprints (clearly visible in the above photographs) had the same dimension of about 0.55 meter, thus probably being equal to one Cosmic Cubit - see the equation M2). The author found further imprints similar to the above within the boundaries of landing sites presented in Figures M6, and M8. Notice that although the type and size of landed vehicles in each case differed, both (top) and (bottom) imprints display the same shape (i.e. of a "duck foot") and dimensions. To reflect their dimensions and orientation towards a magnetic south-north direction, the reference circle of 1 meter in diameter is also photographed. The arrow of this reference circle points towards magnetic north. Both photos were taken on 24 October 1987.

(Upper) The imprint left at the Maitland landing site of the K5 type UFO (this site is shown in Figure M3). Four imprints were embedded symmetrically within the boundaries of this scorched ring, and a further two were formed outside of the site.

(Lower) One of four symmetrical leg imprints found within the boundaries of the Waikoikoi K6 type UFO landing site.

Fig. M2. A perfect example of a landing site formed by a UFO operating in the magnetic whirl mode with its magnetic circuits looped under the ground (see the situation illustrated in Figure G39). The above photograph presents one of three circles of scorched vegetation made by low hovering UFOs on the paddock of Mr Barry Badman, Wrights Bush, Invercargill, New Zealand, on 6 December 1978. Both photographs are of the same landing site. In the lower one, a group of children are standing on the perimeter to illustrate the size of the landed vehicle. All three circles contain a number of scorch marks uniformly spaced on the circumference of the thinner circular line - see also Figure G38 (b). These scorch marks correspond to the expected location of the outlets from the vehicles' side propulsors. On the other hand the circle of a thinner line that links these marks looked like the path followed by the whirling force lines of the main magnetic circuits of the UFOs. The single large mark left by the main propulsor in each site was displaced towards the direction of magnetic south and was almost touching the circular line. In the above photographs, this single main mark is visible on the right hand side. An inspection of these landing sites made by the author in December 1984 revealed that in intensively scorched areas located directly under the outlets from the propulsors, the vegetation has still not regenerated after six years.

Fig. M3. A UFO landing site formed during the throbbing mode of operation when the vehicle's magnetic field was entirely looped under the ground. This site was formed on a paddock of Mr Graham Harvie of Merino Downs near Maitland (South Island, New Zealand) by a UFO type K5. Its diameter is do=12.40 metres. The land owner claims that it was formed about 1979, this photograph was taken eight years later. Within the site four symmetrical imprints of telescopic legs were found. A further two legs were imprinted outside the site. One of these imprints is presented in Figure M1.

A close-up photograph of the site taken on November 29, 1987. Scorched marks left by individual side propulsors are clearly visible.

Fig. M4. UFO landing sites formed when the vehicles' magnetic circuits looped back along the surface of the ground.

(Upper) The landing site of a UFO formed in manuka scrub at Ngatea, New Zealand, on 6 October 1969. It consists of four linear trails directed towards one central mark (the sticks in the above photograph indicate the exact location of these particular marks). The configuration of marks from this site corresponds exactly to the situation when a vehicle that operates in the throbbing mode hovers with its magnetic circuits tangential to the surface of the ground. Such a situation is explained in Figure G40 "b". The diameter of the patch of scorched vegetation in this landing site was about 17 metres. The photograph shown here is published in the book by B. L. Cathie and P. N. Temm, "Harmonic 695", ISBN 0-589-01054-9, page 80.

(Lower) The landing site of a UFO found in a wheat field at Tooligie Hill, South Australia in 1971. The above photograph is published in the book, "Into the Unknown", edited by Reader's Digest Services Pty Limited, Sydney, Australia 1982, ISBN 0-909486-92-1, page 316. It shows the ring-like area of destruction left by the magnetic whirl of a vehicle which hovered in an upright position with its main magnetic circuits tangential to the surface of the ground (see also the situation from Figure G40 "c").
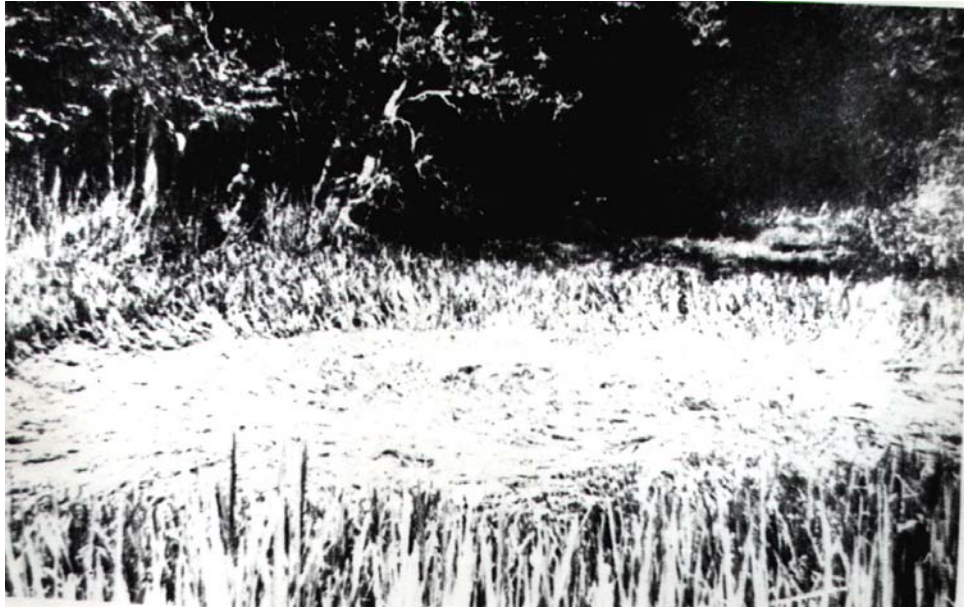
Fig. M5. Two examples of swirled patterns left in vegetation by UFOs hovering high above the ground so that their magnetic circuits looped entirely in the air. The vegetation was flattened by the whirlwinds formed from the vehicles' magnetic whirls. In both cases the UFO that formed these patterns was observed. The above photographs illustrate the case shown in Figure G41 and described in subsection G10.5.

(Upper) A landing site made on the farm of George Pedley, Tully, Queensland, Australia, on January 19, 1966, around 9 a.m. - see [2J] p.370. The UFO hovered at a height of about 18 metres and flattened reeds in a clockwise direction. Mr Pedley observed it departing to the south-west (see the "Rolling Sphere Rule" - subsection G6.3.3).

(Lower) A landing site made in Nourradons, France, on 29 March 1971. A UFO was seen hovering about 10 metres above the grass. It then flew horizontally.

Fig. M6. Examples of UFO landing sites with double scorched rings, the diameters of which support the correction methodology developed by the author. Such sites allow for the exact determination of the nominal diameter "d" of a landed UFO. The methodology can be used only at those landing sites which contain two scorched circles located concentrically one inside the other. (Such circles are formed according to the theory explained in subsection G10.3.1 and illustrated in Figure G38 "c"). This methodology involves the measurement of the outer diameter "do" in the outer circle and the inner diameter "di" in the inner circle. The nominal diameter "d" of the UFO that scorched them represents a sum of these diameters, i.e. d=do+di (see equation G32). Notice that a large percentage of UFO landing sites contain two such circles (in this monograph these are also presented in Figures M7 and M11).

(Upper) A landing site scorched by a UFO type K6 on the paddock of Graham Davie of Waikoikoi, New Zealand (taken on 1 November 1987). The diameters of both circles were: do=18.2 and di=6.6 metres. After applying the equation G32, this yields the nominal diameter of a landed UFO: d=24.8 metres (see also Table G1). The photograph shows members of the Invercargill Unexplained Phenomena Society walking around both circles to illustrate their dimensions. In the right corner of this photo another landing site is visible, and also a row of depressions left by UFO soil sampling devices.

(Lower) A landing site scorched by a K6 type UFO on the paddock of Mr Grant B. Aitchison of Palmerston, 2 R.D., New Zealand (taken on 30 July 1988). The site's dimensions are: do=16.1 and di=10.2 (the slight deformation of this site results from a slanting of the slope on which it is located).

Fig. M7. Landing sites of K3 type UFOs. The sites shown on the above photographs were left in a silage paddock of Mr Geoff Genmell, Horse Range Rd, No 2 R.D., Palmerston, New Zealand. To reflect their dimensions, both sites are photographed with the reference circle of 1 meter in diameter (whose arrow points in the magnetic north direction). The upper site consists of two concentric rings, whose diameters are do=2.1 [m] and di=1 [m]. Thus, according to the correction routine expressed by the equation (G32), the "d" diameter of this UFO was d=3.10 [m] (see also Table G1). The lower site was elliptical, having the axes: do(N-S)=4.06, and do(W-E)=3.1 metres.

Fig. M8. Examples of two K4 type landing sites which allowed a precise measurement of their dimensions. The diameters of these sites in both cases were identical, i.e. do=6.40 metres, and da=0.2 metre (see equation G33).

(Upper) The site found in the paddock of Mr Graham Davie of Waikoikoi (South Island, New Zealand), only 12 metres distant from the site where a K6 UFO landed. Inside this ring imprints of three legs symmetrically located were found. The edges of the scorched ring were so clear that they allowed for an exact measurement of the width of the columns of the magnetic field produced by the side propulsors. This width was a=0.30 of a meter. At the edge of the site a square soil sample was taken by a UFO. The indentation left by this sample is visible on the photograph.

(Lower) Three sites formed by K4 (top), K6 (middle) and K7 (bottom) types of UFOs, photographed by the author on 3 January 1988, shortly after they appeared. They were found in the Weka Pass (Frog Rock area) on the west side of State Highway 7: Christchurch to Hanmer Springs. On the K4 site the scorch mark formed by the main propulsor was displaced in the south direction. This photograph perfectly illustrates the major principle of sizing the UFOs, which states that the diameter of each larger type of these vehicles is equal to two diameters of the previous type. (This means that the nominal diameter "dK" of a landing ring produced by a UFO of a particular "K" type is always equal to two such diameters "2·dK-1" of a smaller type "K-1" UFO, or to half the diameter "0.5·dK+1" of the next larger type "K+1" of a UFO, i.e.: dK=2·dK-1=0.5·dK+1. The equation which describes the nominal diameter of any type of UFO landing site is: $dK=(0.5486·2^K)/\sqrt{2}$ [meters].)

Fig. M9. The landing site produced by a UFO type K5. This site was photographed by the author on 30 July 1988 in the Puketapu Road, paddock of Mr. Grant B. Aitchison of Palmerston (R.D., Palmerston, New Zealand). Its dimensions were do=13.6, da=1.2 and as=1.5 metres. Thus the nominal diameter "d" of this vehicle was d=12.4 metres - see equation (G33). (Compare the site in this photograph with the one shown in Figure M3 which was also made by a UFO type K5.)

Fig. M10. Examples of the landing sites left by UFOs type K7. The nominal diameter of this vehicle is d=49.65 metres.

(Upper) The site scorched in the paddock of Mr A.E. Herbert of "Shellrock Farm", Weka Pass (Frog Rock area), North Canterbury, New Zealand. It was photographed by the author on 2 September 1987. The reference circle of 1 meter in diameter was placed on the mark scorched by the main propulsor (this mark is displaced northward from the centre of the site). The dimensions of the site are: do=47.8 metres and di=1.8 meters. Note that on this photograph an extremely clear K5 type landing site is also visible. It has a diameter do=12.8 metres. This K5 site was scorched about 50 metres further up the hill from the K7 one.

(Lower) The landing site scorched in the paddock of Mr Allan Chapman, Goodwood, R.D.1, Palmerston. Its diameter is do=48.5 metres.

Fig. M11. A photo of the landing site left by a UFO type K8, taken on 30 May 1987. The person visible on this photo is the author (i.e. Dr Jan Pająk). The UFO landing site is visible above his head. This is the first photograph of two landing sites formed by (probably) the same K8 type UFO. Another photo is presented in Figure M16. The site shown here contains a pattern of two concentric rings of scorched soil, located one inside of the other. It was discovered on the north-west slope of Coromandel Peak in Glendhu Bay, Wanaka, New Zealand. The land owner of this site is Mr Don McRae. The outer and inner diameters of both scorched rings are do=77.5 [m] and di=22 [m] (thus, according to the equation G33, the nominal "d" diameter of the UFO that scorched this site was about d=99.5 metres). Various local farmers claim that the patterns appeared between the years 1900 (this year was given by Mr. A.S. Scaife, 81 Tenby St, Wanaka, Tel: 443-7166 - the earlier, retired owner of this land) and 1955 (this year was given by the present owner), so when photographed they were at least thirty years old. To the best knowledge of the author the above photograph presents the biggest UFO landing site that has been found to-date. The total diameter of the vehicle that formed it was D=140.44 metres (see Table G1). This photograph supplements additionally the one shown in Figure M6 in illustrating the principles of the correction methodology applied by the author and explained in subsection G10.3.1 (see also Figure G38 "c").

(a) **(b)**

(c) **(d)**
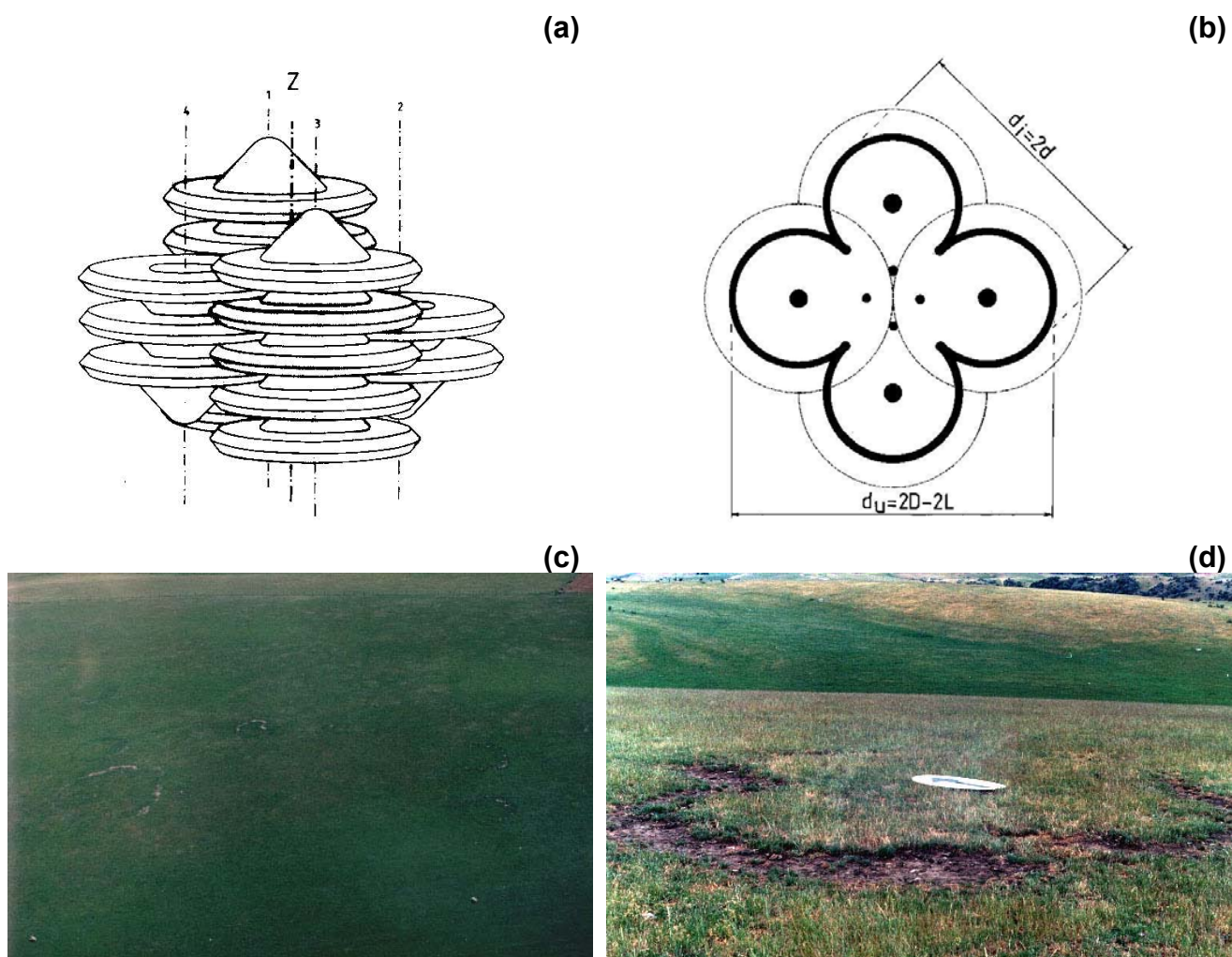
Fig. M12. A landing site left by a flying system of K3 type UFOs. Numerous such sites are caused by the effect of massive UFO landings occurring in the vicinity of the Tapanui Crater (especially along the lines of china stone and trinitite deposits - see lines C and T in Figure M21). Illustrated above is the landing site discovered in the paddock of Mr Gerrard Eckhoff of Coal Creek near Roxburgh (on the line of china stones). A characteristic attribute of such a system is that it scorches on the ground a unique "clover" shape which can not be formed in any natural manner. A field examination of the above site confirmed the presence of all the attributes predicted by the Theory of the Magnocraft.

(a) General appearance of a flying system. Notice that this configuration of UFOs and Magnocraft is obtained when four flying complexes shown in Figure G8 are coupled together by their flanges (see Figure G16).

(b) The shape and attributes of a scorched pattern left on the ground by a landed flying system. Notice that the equations G13 and G9 allow for an exact prediction of the expected dimensions "du" and "di" of this pattern for all subsequent types of UFOs (see Figure G42).

(c) An aerial photograph of this Roxburgh landing site taken by Mr Harry Latham of Invercargill on 15 November 1987. The measurement of the dimensions of the site yielded values: du=7.5 and di = 6.2 metres. Notice that apart from this site, the photograph also reveals a number of other UFO landing sites scattered around.

(d) A ground-level photograph of the same site taken by the author. Inside the scorched "clover" a white reference circle (1 meter in diameter) was placed with the arrow pointed towards magnetic north.
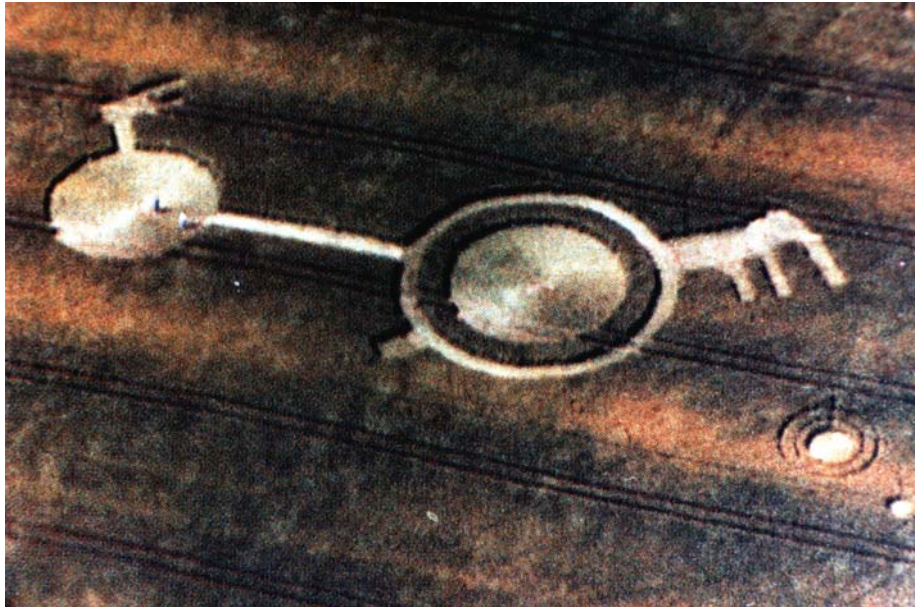
Fig. M13. An example of a landing site produced by a flying cluster. The site appeared in southern England. It was left by a cluster of UFOs whose 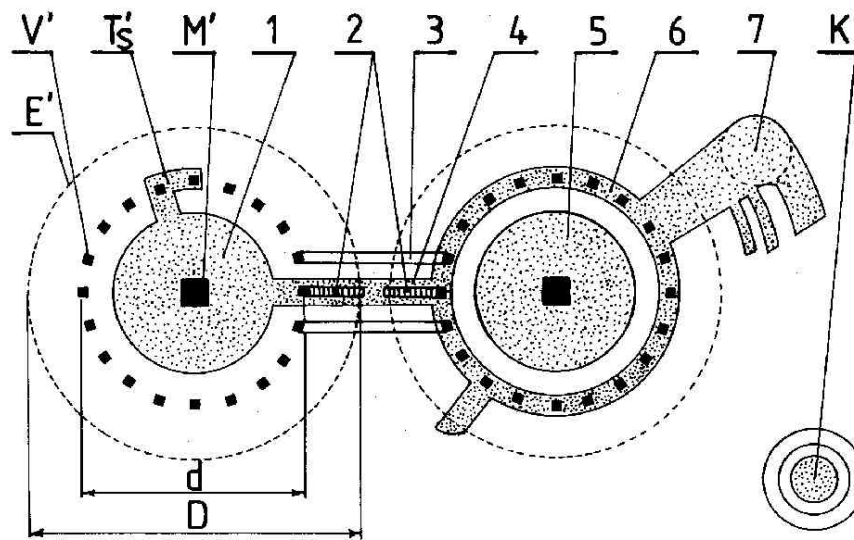main part formed two configurations of K6 type vehicles (i.e. a cluster very similar to the one illustrated in Figure G17). A site produced by a stable unit is shown on the left of the above photograph, whereas a site produced by an unstable unit is shown on the right. Two additional configurations of UFOs, i.e. a cigar-shaped complex of K5 type UFOs, and a single vehicle type K4, also participated in this cluster. In the interpretation (lower) drawing these are marked subsequently as (7) and (K).

(Upper) A photograph of the site published in the edition of "The Sun", on Thursday, 26 July 1990.

(Lower) The interpretation of the marks from this photograph. To explain the formation of the site, outlines (E') of two UFO vehicles type K6 are laid on top of the marks. The dimensions of these vehicles are D=35.11 and d=D/ 2=24.82 meters. Large black squares (e.g. M') indicate the position of the main propulsors in both these UFOs, whereas small black squares (e.g. V') show the position of the side propulsors. Labels (1) and (4) to (6) indicate marks produced by the subsequent magnetic circuits illustrated in Figure G17. Label (2) indicates separating circuits. Label (3) indicates the first of two symmetrical tuning circuits which have not produced their own marks in this landing. The line (4) that joins main sites together was produced by a holding circuit. Both K6 type arrangements clustered together had their compensating circuits (Ts') switched on, thus they formed additional side marks that look like they were produced by the tail propellers in helicopters (in the Magnocraft and UFOs these compensating circuits actually perform a function vary similar to that of tail propellers in helicopters). Mark (7) has been produced by a compensating circuit that was also used as the holding circuit for a cigar-shaped complex of K5 type UFOs.

Fig. M14. Examples of permanent UFO landing sites (which may last even up to 100 years) formed because of the biological destabilization of the soil and its subsequent population with mushrooms.

(Upper) The oldest UFO landing sites discovered so far. They were scorched near Wairoau Station which is owned by Mr John Lee of Cardrona, New Zealand. These rings were noticed for the first time around the year 1920 by the father of the present property owner. Thus, when photographed by the author (i.e. 31 May 1987) they were definitely over sixty years old. The paddock containing these circles has been ploughed twice since. The land owner confirms that the dimensions of these sites have not changed in sixty years. Also measurements by the author confirm that these dimensions correspond to those left by UFOs types K3, K4 and K5.

(Lower) Mushrooms that grow on a UFO landing site (taken by the author in April 1989). This photograph illustrates the theory explained in subsection G10.1 that the strong magnetic field of the landed UFO sterilizes the soil thus providing perfect conditions for the growth of mushrooms. The population of mushrooms once established in the soil takes then many years to get rid of.

Fig. M15. A pine tree broken by a hovering UFO type K5. This tree is located in the corner of a small pine forest owned by Mr Allan Chapman of Goodwood, R.D.1, Palmerston, New Zealand. The UFO broke off the top of this tree at a height of 6.8 metres and simultaneously left underneath it a ring of scorched vegetation. The dimensions of the ring were as follows: do(E-W)=12, do(N-S)=14.4 and a_S=0.65 metres. This evidence is extremely valuable as it allows us to determine the average height at which UFOs hover when scorching their landing marks. It seems that this height equals about a half of the vehicles' outer diameters.

(Upper) The UFO landing site (note the white reference circle of 1 meter in diameter in the centre of it, the arrow of which points north) located near the corner pine tree from a small forest. Another landing site from a UFO type K6 is located more uphill.

(Lower) The photo of the part of that pine tree broken by a UFO which landed on top of it. Also visible are scars made by the hulk of that UFO pushing down on that tree.

Fig. M16. The landing site which confirms that UFOs always fly with their bases perpendicular to the force lines of the Earth's magnetic field. The above photograph shows the second of two landing sites found on the slopes of Coromandel Peak, Glendhu Bay, Wanaka, New Zealand (the first site is shown in Figure M11). This site is located on the slope pointing exactly towards the magnetic westward direction. It has the shape of two half rings with circumferences touching each other. It was either scorched by a solo flying K8 type UFO while it descended twice at a low height, or perhaps by a flying system composed of four cigars stacked from UFOs type K8 (the shape of a complete mark scorched by such a flying system is illustrated in Figure M12). The peculiar half-circle shape of both marks was caused because the descending UFO needed to be slanted in relation to the ground. When the landing of this vehicle took place on the north-west side of Coromandel Peak - see photo from Figure M11 - it allowed the UFO to keep its base simultaneously: (1) perpendicular to the Earth's magnetic field force lines and (2) parallel to the ground. Thus the mark left on the north-west slope is circular in shape. But during landing approaches made by the same UFO on the slope directed exactly to the west (see photo from this Figure) the Earth's field force lines were parallel to the surface of the ground. Therefore the UFO was unable to land with its base parallel to the slope. Thus it needed to slant itself in relation to the ground, forming the above landing sites in the shape of half-circles.

<u>Fig. M17</u>. One of the long, glassy, geometrically shaped tunnels from Ecuador. A gigantic system of similar tunnels, thousands of miles in length, has been discovered in the Province of Morona - Santiago (Ecuador) by Mr. Juan Moricz in June 1965. The above photograph is reproduced with the permission of Erich von Däniken from his book "In Search of Ancient Gods" (Souvenir Press, England, 1973, ISBN 0-285-62134-3, page 341). The saucer-shaped tunnel presented here was probably formed by a spacecraft (type K6) flying in an east-west or west-east direction. Particles of melted rock fell down and subsequently hardened after the flight of the craft, causing the formation of a rough and craggy floor which hides the lower half of the tunnel, symmetrical to its ceiling - compare this diagram with Figure G36 (c).

Fig. M18. The Cocklebiddy Cave from the Nullarbor Plain in Western Australia displays all the attributes of a long, straight and geometrically shaped tunnel made technologically by the underground flight of a vehicle utilizing the principles of the Magnocraft. The shape of this cave is elliptical, typical for a north-south direction of flight of such a vehicle (this tunnel in fact is directed south-north). Its lower part is buried under a thick layer of debris and particles of hardened rock - see Figure G36 (b). The walls display the monotropic structure reflecting the direction of the expansion of vapours from melted rocks. The shallow indentations on the walls, perpendicular to the axis of the tunnel, correspond to the motion of the craft's magnetic whirl. (A description of this cave, illustrated by numerous photographs, is published in the Australian magazine "People", December 5, 1983, pages 8 to 10.)

(a) The photograph illustrating perfectly the technological attributes of the cave.

(b) The shape of the part of the Cocklebiddy Cave which has been explored so far. It should be stressed here that the geographic orientation of this part is exactly in the south-north direction, whereas its geometry reflects the motion of a disc travelling through the ground.

Fig. M19. Photographs of the Tapanui Crater showing its shape and inner configuration.

(Upper) A distant view of the Tapanui Crater. This photograph was taken by Alister Raymond of Invercargill on 1 November 1987 from the entry to McPhail Road that connects Waikoikoi with Pukerau. The entry to this Road is located in the geographic north-west direction from the centre of the Crater. The "crow's flight" distance between the photographer and the Crater was about five kilometres. The photograph clearly illustrates that the soil removed from the crater does not appear below it (this means that the crater could not have been formed by a landslip). Moreover, it shows that the Tapanui Crater displays a complete lack of an uplifted rim (therefore it also could not have been made by a heavenly body impacting with Earth, because in all cases of such an impact a clearly distinguishable rim must be created).

(Lower) A photograph of the Tapanui Crater taken from its eastern edge. Because of the shade caused by the Sun, the outlines of the subsequent inner craters can be easily distinguished. Notice that the front edge of each inner crater has a local depression caused by the shockwaves' turbulence.
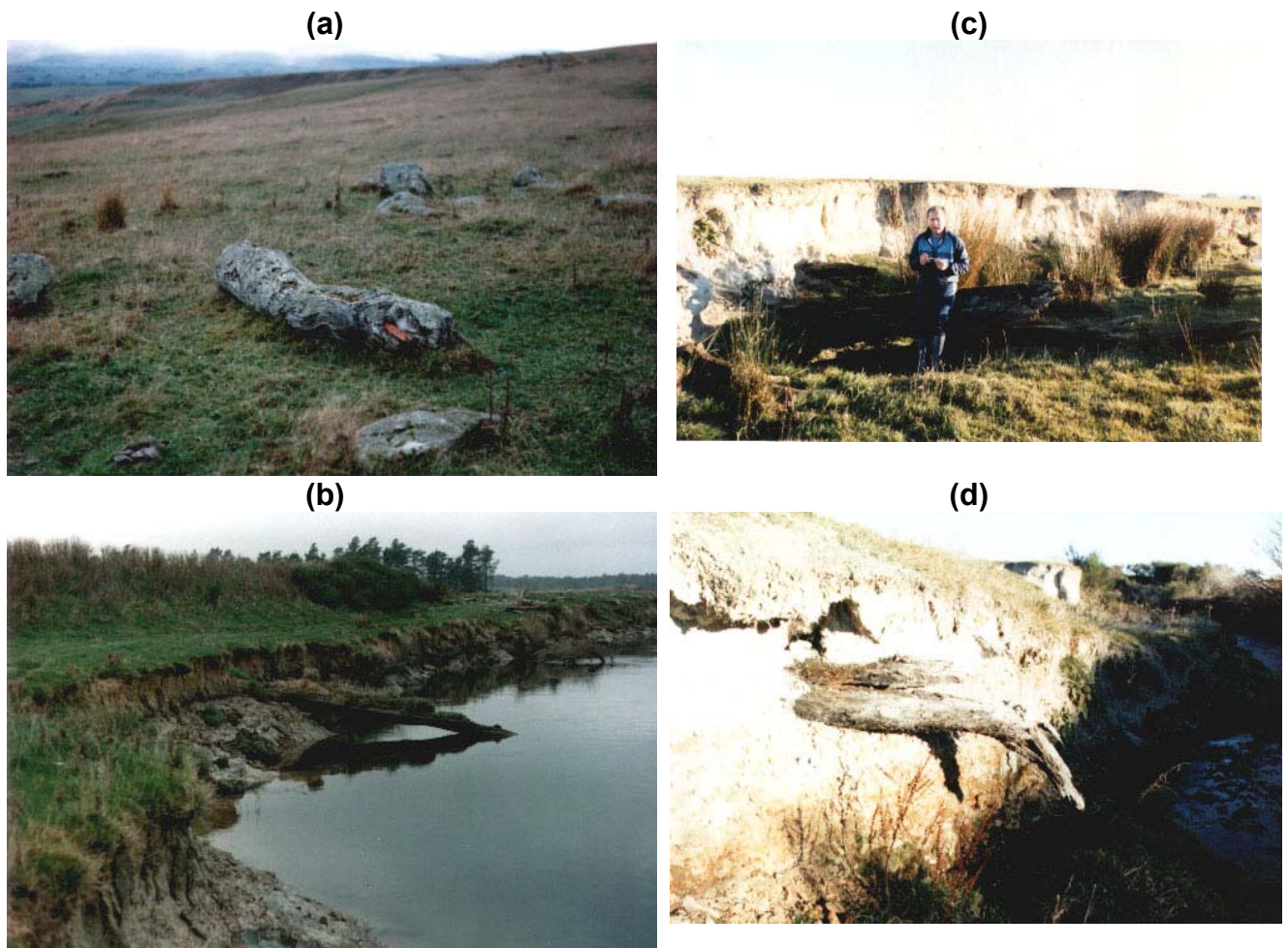
Fig. M20. Trees felled and scorched by the Tapanui explosion. At the turn of the last century, the vast area around the Tapanui Crater was literally covered with such uprooted trees, the trunks of which were pointing to the same spot, i.e. the centre of the Crater. The appearance of these fallen trees has been reported in old records as resembling that of the Tunguska explosion (see Figure M27). Early settlers in this area removed these trees, tidying up the land for livestock. The older locals still remember the amount of work this involved, as the surfaces of the trees were impregnated with grains of sand that blunted steel saws. At present only those trees buried underground or hidden in swamps remain.

(a) A trunk of a "totara" tree over eight hundred years old, saved only about 200 metres from the south edge of the Tapanui Crater. The crater is also visible in this photograph at the extension of the trunk's axis.

(b) Fallen and burnt trees at the mouth of the Mataura river, about 50 kilometres west from the Tapanui Crater. They partially stick out from the river bank, whereas their trunks point in the direction of the crater.

(c, d) Tree trunks partially sticking out from the banks of the Black Gully Creek, located between the towns of Tapanui and Heriot, about 20 kilometres north of the Tapanui Crater. A layer of the ground that contains these trees also contains charcoal and scorched stones. The orientation of the trees contradicts the direction of water flow and the slope of a local hill, but coincides with the direction of the Tapanui Crater.
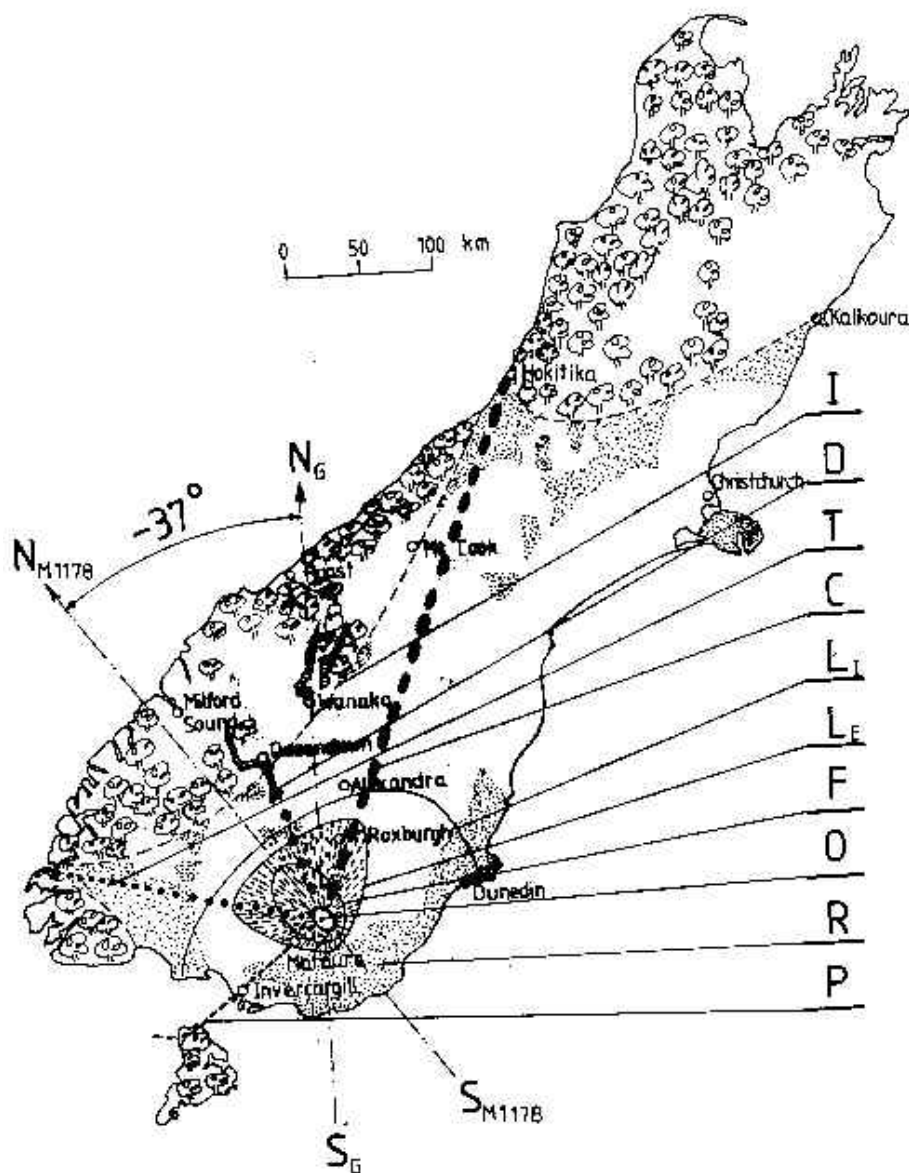
Fig. M21. A map of the South Island, New Zealand, showing the type and extent of damage caused by the Tapanui explosion. The approximate outlines from this map are based on the present sparse information available to the author and further research may be needed to increase their precision. The triangular area of devastation is highlighted. Symbols used in marking this map are as follows: I - the total range of the total bush fire ignited by the fall of red-hot china stones and spread by the reversed cyclone of implosion. Within this range no tree or seed survived. Beyond this broken line fires ignited by the china stones had only a local, limited spread, which left some trees untouched; D - the line along which unusual metallic debris (probably remains of the spaceships) have been found - see Figure M25; T - the major line of glassy "trinitite" deposits; C - the major line along which the heaviest fraction of "china stones" was deposited - see Figure M26; LI - the area of trees felled by the cyclone of implosion (their tops are oriented towards the Tapanui Crater); LE - the area of trees felled by the shockwaves from the explosion (the trunks of these trees lie along the lines that cross in the centre of the explosion, whereas their roots are directed towards the Tapanui Crater - see Figure M20); F - the range of bush fires ignited directly by the fireball from the explosion; O - the Tapanui Crater where the explosion occurred; R - forests that regerminated before the first white settlers arrived in New Zealand in the 19th century; P - the path followed by the vehicle prior to the explosion, as recorded in Maori legends. Notice that this path is contradictory to the orientation of the central axis of the explosion. This again confirms that the destruction could not have been caused by a heavenly body (e.g. a meteorite) impacting with Earth; SG/NG - the geographic south to north direction; SM1178/NM1178 - the central axis of the elliptical Tapanui Crater and the devastation area. This axis coincides with the magnetic south/north direction from the year 1178.
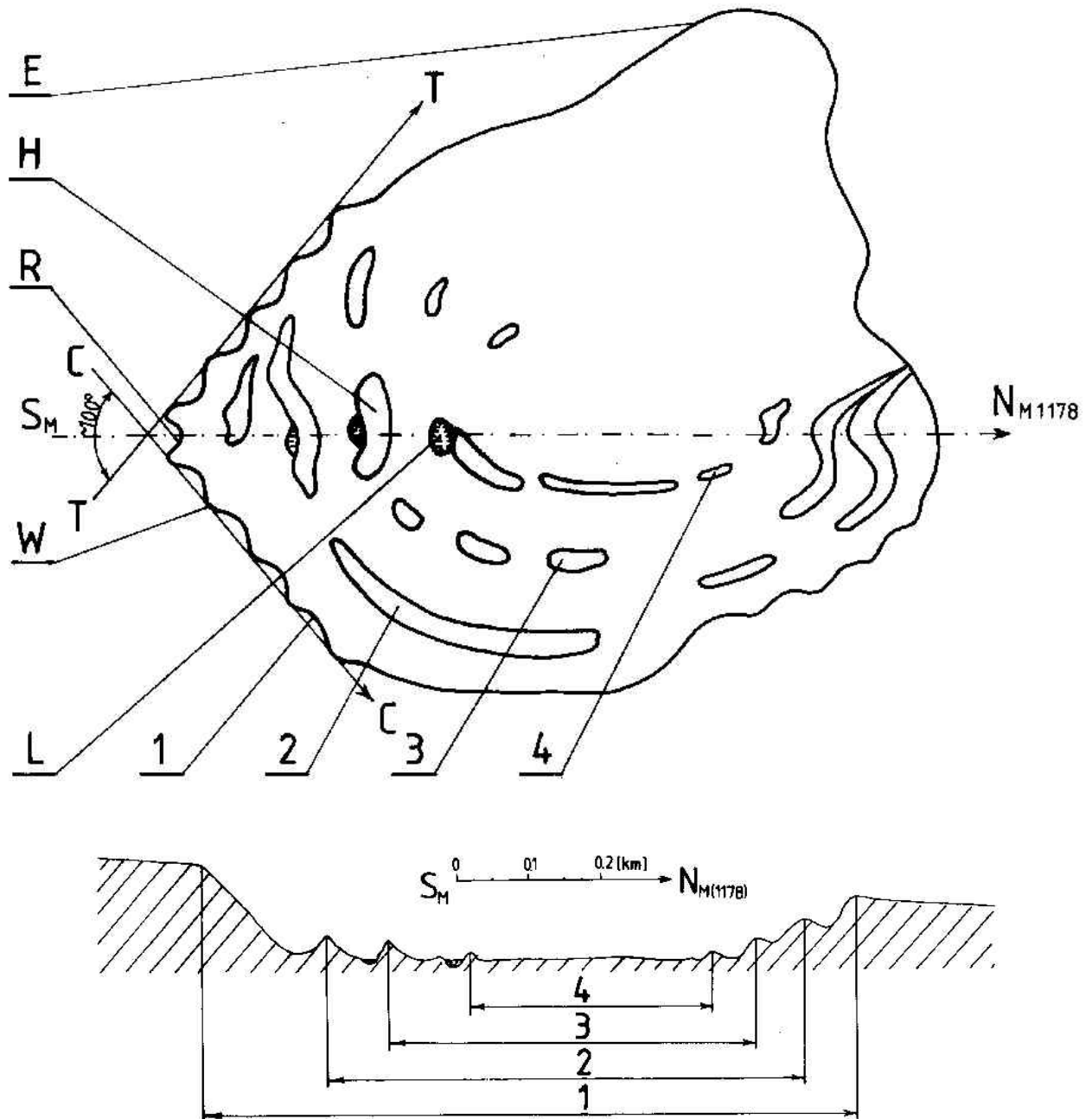
Fig. M22. The inner topography of the Tapanui Crater. The presence of at least four craters (marked by numbers 1 to 4), each one located inside the other, is visible. This shows that the Tapanui Crater was formed not by one, but by not less than four subsequent explosions occurring in a series. Each of these explosions created a further crater within the boundaries of the previous one. The existence of these four craters indicates that a cigar-shaped flying complex (see Figure G8) consisting of not less than four of the Magnocraft-like vehicles (UFOs) exploded top-down at Tapanui. Symbols: Sm/Nm - magnetic south/north direction for the year 1178; C/C - the main direction of heavy china stone deposits (see also the map from Figure M21); T/T - the main direction of the "trinitite" falls; E - the "tongue" of the eroded Crater's edge formed by the strong rain falls that followed the Tapanui explosion; H - the hummocks formed by the breaks in shockwaves; R - the cylindrical entry to the Crater that seems to reflect the shape and dimensions of the exploding spacecraft; W - five waves forming the triangular-shaped entry to the Crater (the number of these waves may have a connection with the number of spacecraft which exploded); L - small indentations, some are little lakes, formed as a forerunner to the breaks in the shockwaves.

(Upper) A sketch of the Crater's topography as seen from above (see also Figure M23). Notice that the shape of this Crater contains the same elements that are distinctive for the Tunguska devastation area - see Figure M30.

(Lower) The cross-section through the Crater along the axis of the explosion: SM/NM.
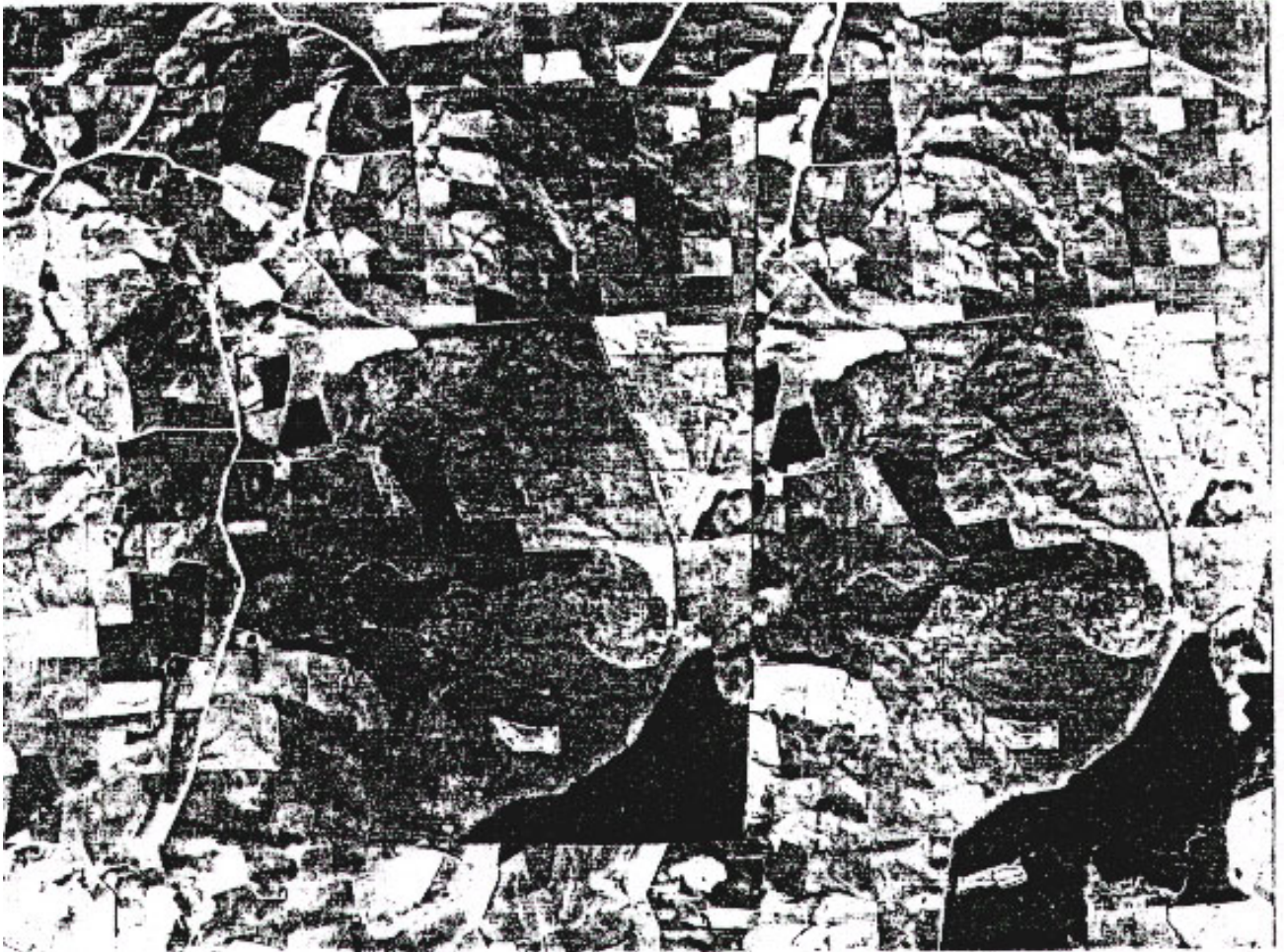
Fig. M23. Two aerial photographs of the Tapanui Crater, placed together to allow for stereoscopic vision of the area, if someone looks at them through stereoscopic glasses. (In the N.Z. Lands and Survey Department the aerial photographs of this area have the catalogue numbers S170/5/C and S170/6/A.) The Crater is positioned in the centre of a triangle defined by three towns in the South Island of New Zealand: Tapanui, Waipahi and Mataura. Its geographical co-ordinates are: 46 04' S and 169 09' E. The evidence accumulated to date indicates that this large elliptical depression with the dimensions of 900x600x130 metres was formed by the effect of an explosion of a magnetically propelled flying vehicle. It should be stressed that the indigenous meaning in the Maori language for the words "Ta-pa-nui" is "The-big-explosion", for the words "Wai-pa-hi" it is "The-place-of-the-exploding-fire", whereas the words "Mata-ura" mean "The-glowing-spacecraft". The Theory of the Magnocraft reveals that when a magnetically propelled vehicle explodes, the central axis of the destruction area must be oriented exactly in the magnetic south/north direction. Thus the long axis of the Tapanui Crater should be pointed in the direction where at the date of the explosion, magnetic north was located. As this axis is declined -37 (westward) from the geographic north direction, the orientation of the Crater's axis confirms that the explosion took place in 1178 (this date was also established from other sources).

<u>Fig. M24</u>. Two photographs of a tornado taken by Mrs Diane Chittock of Waikoikoi at 5:15 p.m. on 19 December 1969. This tornado appeared exactly above the Tapanui Crater (tornadoes are unknown in this area of New Zealand) and lasted for only a few kilometres before it diminished. The strong turbulent magnetization of the Tapanui Crater is directly responsible for numerous unusual weather phenomena occurring in the area.

(<u>Upper</u>) The tornado develops its embryo funnel exactly above the Tapanui Crater (note the forest right to the Crater's southern edge).

(<u>Lower</u>) The fully developed tornado drifting eastward.

Fig. M25. A piece of magnetized iron found in the close vicinity of the Tapanui Crater. It looks like a metallic splinter from a spacecraft, torn apart by the explosion, melted, mixed with grains of local sand, and smoothed on the surface by a flight in hot air. It is magnetized in a turbulent manner, and its surface is covered with a layer of molten silicone. Spectrographic analysis has shown its chemical composition to be about 60% of silicone, 30% of iron, and 10% of aluminium. To reflect its dimensions, a coin of 31 [mm] in diameter is also photographed. It should be stressed that four pieces of such material have so far been found. Except for the one from the author's collection presented above, another almost identical piece is held by Mr Ken Goldfinch (26 Lothian Street, Maori Hill, Dunedin). Two further pieces that look like they have been cut out from a gold nugget are in the possession of the Geology Department at Otago University, Dunedin, New Zealand.

Fig. M26. Examples of the so-called "china stones" spread out from the Tapanui Crater. These stones are large lumps of baked clay and soil originating from the Crater that have hardened during flight. They tend to be spread along the east edge of the post-explosion falls (the west edge tends to have far more fine "trinitite" falls - see Figure M21), probably because of the clay and soil configurations inside the Crater. The china stones display aerodynamic shapes and their properties correspond to those of china. The most representative of all china stones is that exhibited at the entry to the Roxburgh Town Hall (the Roxburgh exhibit is also accompanied by the description of a thought-provoking legend from the gold rush period). This stone was deposited near the town of Roxburgh, i.e. over 50 kilometres as the "crow flies" from the Tapanui Crater.

(Upper) A china stone deposited near Black Gully Creek (see also Figure M20). As is typical for many of these stones it is located inside a small impact crater. The presence of such a crater confirms the airborne arrival of the china stones. The asymmetrical shape of these impact craters indicates that the direction of their landing corresponds to the location of the Tapanui Crater.

(Lower) An example of a china stone from the township of Roxburgh.
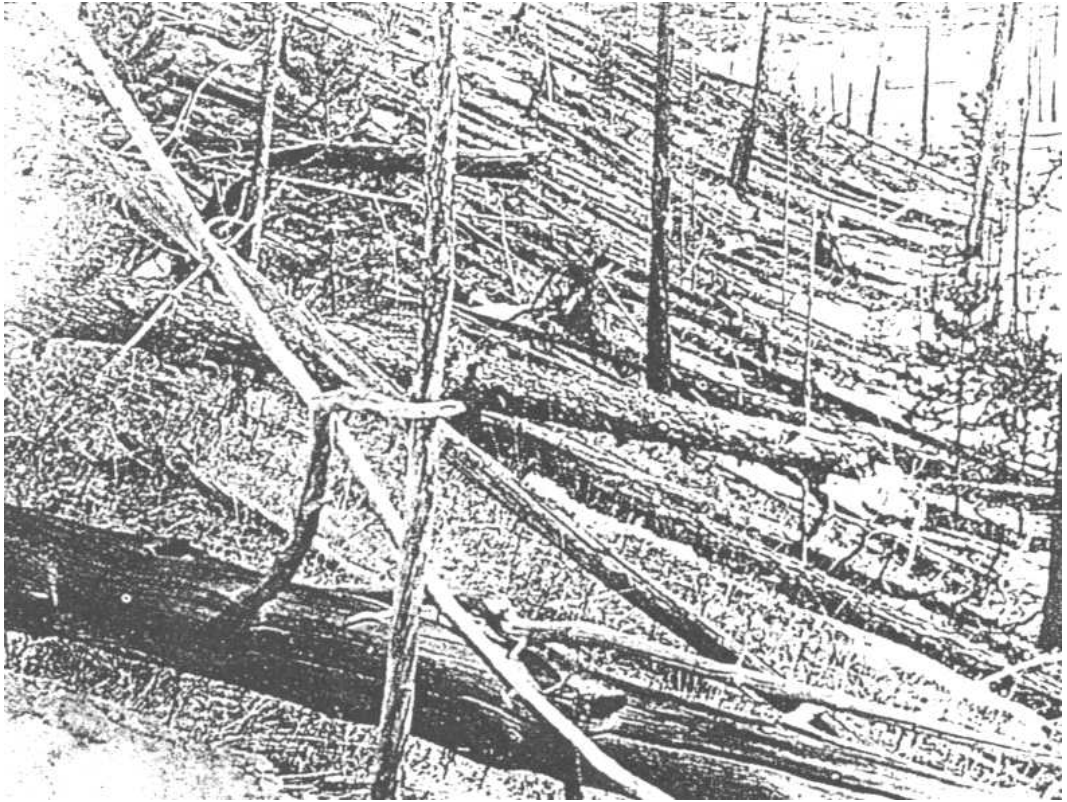
Fig. M27. The Siberian Taiga Forest felled by the Tunguska Explosion. All the uprooted trees are lying parallel and oriented in the same direction, with their roots positioned towards the blast and with their trunks pointing exactly to the centre of the explosion. Along the central axis of the explosion the range of felled trees extends up to 75 kilometres from its centre. A scene similar to the above was also reported around the Tapanui Crater by early New Zealand settlers (compare this photograph with Figure M20).

Fig. M28. Examples of impact craters.

(a) and (c) - aerial photographs which show the famous Meteor (Barringer) Crater at Canyon Diablo in the Arizona desert near Winslow, USA (35 02'N, 111 01'W). Its main dimensions (i.e. length x width x depth) are about 1200 x 1100 x 183 [metres]. The age of this Crater is estimated at 25,000 years. Notice the presence of features characteristic of impact craters, especially: (1) a distinctive, uplifted rim surrounding its edge, (2) fragments of a heavenly body occupying its centre, and (3) an east-west orientation (the photographs were taken from S to N). The crater is shown from various angles,

(b) - schematic cross section of the principal elements of the Crater formed in crystalline rocks (see the paper by Richard A.F. Grieve, "Terrestrial impact structures", Ann. Rev. Earth Planet. Sci., 1987, 15, page 247).

(d) Crater Schooner, USA, formed in 1968 through exploding a single, 35 kiloton nuclear charge burried 108 metres underground (voulanic tuf). It represents a perfect illustration of a parabolic crater formed artificially during an underground nuclear blasts. Both illustrations are adopted from the article by Milo D. Nordyke, "Nuclear cratering experiments: United States and Soviet Union", Roddy D.J., Pepin R.O., Merrill R.B., editors, (1977) Impact and explosion Cratering, Pergamon Press (New York, USA), pages 108-109.

(e) Vertical cross-sections (in directions E-W and N-S) of the Schooner crater.

Fig. M29. Shown above are two photographs that illustrate the similarities between the Tunguska Blast site and the centre of the mid-air nuclear explosion above Hiroshima in Japan. In both cases the trees located directly under the blast were still standing after loosing their foliage and branches, although everywhere around this area they had been blown over. Numerous photographs which document close similarities between these two explosions are published in the book [1M3.2] by J. Baxter and T. Atkins, "The Fire Came By", MacDonald and Jone's Publishers Ltd., London 1976, ISBN 0-354-04012-X (see Figures 31 and 30 in the book [1M3.2]).

(a - upper) The "telegraph pole" forest left standing exactly in the centre of the Tunguska Blast. About 5 km directly above this forest, a 30 megaton blast occurred on June 30, 1908. If this explosion took place near the ground, a crater similar to that at Tapanui (see Figure M19) would have been left.

(b - lower) The upright black and leafless trees surrounding Hiroshima Castle, photographed after a 12.5 kiloton atomic bomb exploded about 550 metres directly above the castle on August 6, 1945.

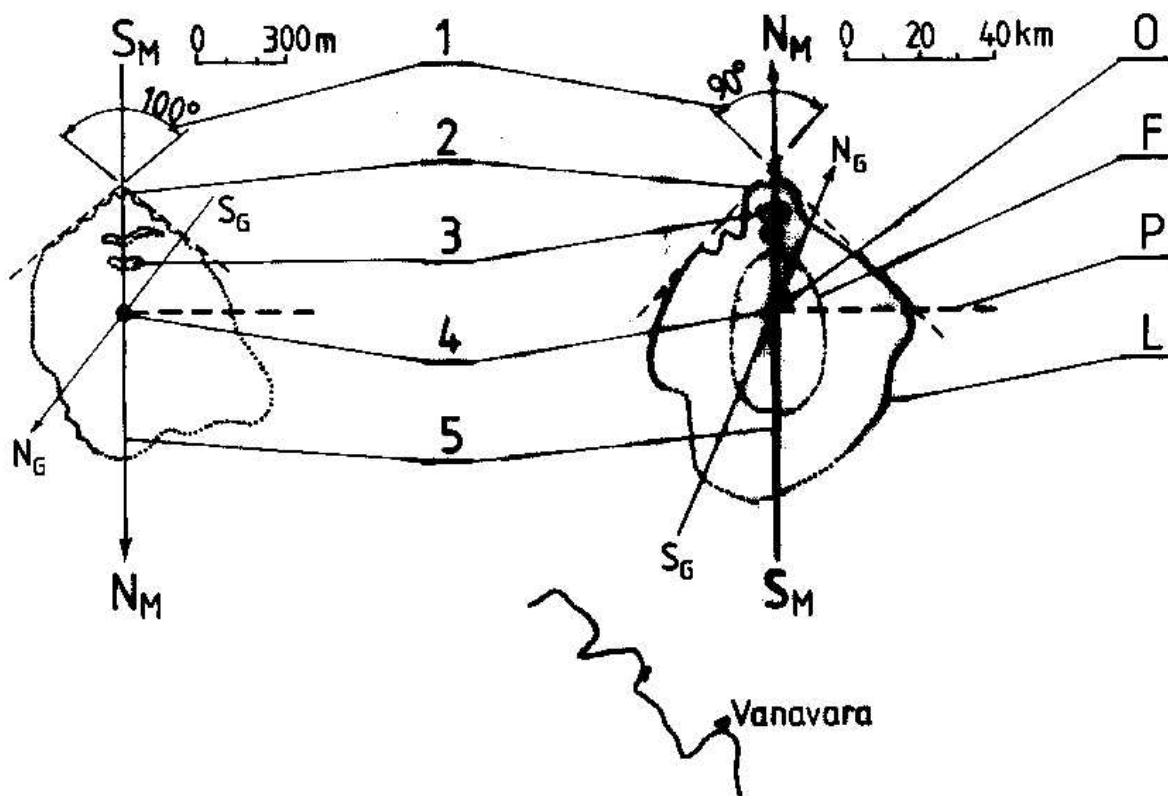Fig. M30. An illustration of the similarities between the configurations of the Tapanui Crater and that of the Tunguska Blast Site. Notice the apparent correspondences in: (1) the manner in which the explosion shockwaves entered the ground, (2) the relationship between the apical angle of the triangular entries to both sites and their distance from the nearest magnetic pole of the Earth (i.e. at the moment of the explosion the Tapanui Crater was located much closer to the magnetic pole then the Tunguska Site, thus its apical angle is also much wider), (3) the breaking points of the explosion shockwaves, (4) the location of the centre of the explosions, (5) the magnetic meridian orientation of the sites, etc. Symbols: SG/NG - geographic south-north direction, SM/NM - magnetic south-north direction.

     (a) The Tapanui Crater (co-ordinates: 46 04'S, 169 09'E).

     (b) The Tunguska Blast Site (co-ordinates: 60 55'N, 101 57'E). This chart is based on the 1958 Tunguska summary map, published in [1M3.2] page 124 and [2M3.2] page 102 (this map shows the outlines of the area of a complete fall of trees, whereas later maps also include areas where only part of the trees were felled). Symbols: O - centre of the explosion, F - range of scorched trees, P - path followed by the vehicle prior to the explosion as reported by numerous eye-witnesses, L - range of trees felled by the shockwaves of the explosion (the trunks of these trees point to the centre of the explosion).

Chapter N:

SIGHTINGS OF UFONAUTS WHO USE MAGNETIC PERSONAL PROPULSION

Recent sightings of UFOnauts provide strong evidence that these extraterrestrial beings already use the type of personal propulsion whose attributes correspond in every detail to those listed in subsection H5. The most representative of this evidence is presented in this chapter. Unfortunately, the need for consistency does not permit comment on all the many encounters in which the attributes of the aliens' personal propulsion were reported. But the analyses presented here formulate the rules of interpretation which can be extended easily to all other cases we have knowledge of.

The evidence that supports deductions from this chapter was chosen from classic cases of UFOlogy. Therefore, detailed descriptions of each of these cases is contained in numerous books. For each case discussed in this chapter the author has provided references to resource materials. Most of these references point to one of the books from the list contained in the last page of subsection J.

N1. The characteristic appearance of the wearers of personal propulsion

In all reports describing UFOnauts, the attributes of a personal propulsion garment are evidently present. The suits worn by aliens are designed as one-piece overalls (usually silver, gray, or green colour) that limit to a minimum the area of skin exposed to the action of a powerful magnetic field. Moreover, almost always these suits include a heavy belt, shoes with thick soles (or noticeable epaulets), and a hood or helmet. One of the better investigated encounters with UFOnauts wearing such belts and shoes was that of Stanislaw Maslowski of Wroclaw, Poland - see Figure N1 (details of Maslowski's encounter are presented in subsection L1.3.) Frequently the shoes and belt are of a different colour (e.g. red) from the rest of the garment. Also numerous witnesses confirm that during poor light conditions the belt and shoes (or epaulets) emit a glow. One of the many examples of such sightings is shown in Figure N2.

In order to use the personal propulsion garments containing the main propulsors in the shoes, the UFOnauts must adopt a very characteristic body stance. The first of two possible stances requires that both legs are permanently set apart - see subsection H4. The photograph from Figure N3 shows a UFOnaut in such a pose. This photograph is one of four flash pictures taken on the night of 17 October 1973 just after 10 p.m., by police chief Jeff Greenhaw of Falkville, Alabama, USA - see [3J] page 116. In spite of the fast motion of the photographed alien "faster than any human I ever saw", in all of the four photos the position of the UFOnaut's legs remain set apart. This can only be explained by the action of the forces "B" of reciprocal repulsion occurring between the main propulsors from the soles of the alien's shoes (see subsection H4).

The second possible stance to be used by the wearers of the personal propulsion garments containing the main propulsors in the shoes is when the legs are tucked up into a squat position. This stance is caused when the balance between the compressing forces "Q" and tensing forces "A" and "R" is disturbed by the wearer of this garment - see Figure H4. In such a case the attracting forces "Q" between the propulsors in the shoes and those in the belt become dominant, folding the wearer's legs. The upper UFOnaut in Figure N1 displays exactly this squat stance.

Use of the personal propulsion garments induces electric charges in the non-conductive materials from the vicinity. Thus the hair on heads and hands which are uncovered must stand erect. Carl Higdon met an UFOnaut at the northern edge of Medicine Bow National Forest (south of Rawlings), Wyoming, USA, on 25 October 1974, shortly after 4:15 p.m. - see [2J] page 171 and [5J] page 15. He noticed that the hair on the alien's scalp

was standing on end - see Figure N4. (More details of Higdon's encounter are contained in subsection K3 - item #2.) Also Stanisław Masłowski during his encounter, illustrated in Figure N1, was surprised and amused because the blood-red hair on the face and hands of the nearest alien was standing on end.

N2. The extraordinary abilities of UFOnauts wearing personal propulsion garments

The most distinctive characteristic of the UFOnauts wearing their personal propulsion garments is that they are able to fly noiselessly. This ability of aliens is confirmed by numerous witnesses who actually saw UFOnauts flying in the air.

A well-known case when the flights of aliens were observed is the Hopkinsville incident discussed further in this subsection. After one of the aliens was shot off the kitchen roof, he/she floated in the air to a distance of about 12 metres - see description in [2J] page 191.

There are also some encounters in which the flying alien is the main focus of the entire sighting. An example is the multiple sighting of the flying alien known locally as "mothman" who terrorized residents of Point Pleasant in West Virginia, USA, during 1966/67; or the sightings of "big bird" creatures in Rio Grande Valley, Texas, USA, in 1976 - see [2J] page 236 and [6J] page 117. Also the UFOnauts presented in Figure N1 were witnessed hovering (not standing) about a half meter above the ground. The grass under their feet was noticed to move vigorously (i.e. their personal propulsion must work in the "magnetic whirl" mode of operation).

The personal propulsion of UFOnauts also gives them the ability to perform various other movements which contradict our understanding of physical laws. For example, a UFOnaut who walks a vertical wall like an insect is shown in Figure N5 (see [5J] page 14).

The most extraordinary ability of UFOnauts is their resistance to bullets fired at them. The best account of this ability is contained in the reports from the Hopkinsville, Kentucky, USA (an area where people "shoot first, then ask questions"). The Hopkinsville encounter took place on August 21, 1965 - see [2J] page 190 and [3J] page 108. Here is a brief summary.

The family of Langfords from Sutton Farm (eight adults and three children) saw a brightly glowing object descending behind a barn. A creature in a glowing silver suit, about a meter tall, came towards them. Two men grabbed a 12-gauge shotgun and a 22-calibre pistol, and fired at close range. The being was knocked over - but to the amazement of the watchers, it then jumped up again and scurried away. The stunned family locked themselves inside their home. Then one of the women looked out of the dining room window and saw a face peering in at her, with wide slit eyes behind a helmet visor. The men rushed into the room and fired, but again the creature, although hit, ran away. A total of almost 50 rounds were fired at the five aliens over the next 20 minutes, but none of the bullets stopped them. Whenever one of the creatures was hit, it would float or fall over or run for cover. All the shots that struck them sounded as though they were hitting a tin bucket. The beings made no sound. The undergrowth would rustle as they went through it, but there was no sound of walking. The beings were seemingly weightless, as they would float down from trees rather than fall from them.

The entire Hopkinsville incident is a perfect confirmation of the formation of an inductive shield by the personal propulsion garments of UFOnauts.

The other important manifestation of the personal propulsion in operation is the induction of electric currents in the closed circuits of wiring, especially when these circuits contain a transformer at their entry. In this way television sets or radio receivers can malfunction or even burn out completely. An example which documents such effects caused by UFOnauts is the following chain of incidents, the first of which took place in Broadhaven, England, in the early hours of April 24, 1977 - see [3J] page 140.

Billy and Pauline Coombs were sitting in their front room at 1 a.m., when Pauline suddenly turned to look out the window. Blocking it was a towering, eerie figure wearing a

silver suit. Billy turned in his seat and also saw the monstrous outline. It was wearing a helmet with some sort of shiny visor. A pipe went from the mouth to the back of the head. The creature radiated a sort of luminous light and when it touched the window, the pane started to rattle as if all hell had broken loose - yet there was no wind. The family had two souvenirs of the incident - a burned out television set, and a rose bush near the window which was badly scorched. For a year after that, inexplicable happenings made the family's life a misery. The children frequently saw bright lights landing in the fields and found scorch marks next morning. On a trip to the coast at nearby St. Bride's Bay, they saw two silvery-suited figures and a flying disc which seemed to disappear into rock (refer to subsection K3!). Two of the children received strange burns. Five television sets and eight cars mysteriously burned out. Then, as suddenly as the incidents had begun, they stopped (i.e. a scientific expedition of UFOnauts returned to its planet).

There are also quite frequent sightings of UFOnauts during which the aliens' ability to become invisible is manifested. Classic examples of this ability are the cases of the LeBel family (taking place in New England, USA, during 1977 and 1978 - see [4J] page 157) and the Andreason family (described in the book [1N2] by R.E. Fowler, "The Andreasson Affair, Phase Two", Prentice Hall, Inc., 1982, ISBN 0-13-0366-2). This kind of evidence confirms that extremely efficient magnetic lenses can also be formed by the personal propulsion garments of UFOnauts.

N3. The scorched footprints left by personal propulsion of a UFOnaut

The magnetic propulsors mounted in the shoes of the UFOnauts are also capable of making scorch marks on some organic matter. The marks left by such personal propulsion display physical attributes similar to the ones caused by landings of UFO vehicles (compare subsections M1 and G10). The best evidence of the scorching abilities of personal propulsion of UFOnauts in the author's files concerns the case of Jerzy Wasilewski of Wroclaw, Poland, which description follows.

On 4 September 1979, around 9:30 a.m., the flat of Mr Jerzy Wasilewski (ul. Kruszwicka 53/9, Wroclaw, Poland), located on the 4th (highest) floor of the building, was visited by a UFOnaut. The alien entered the flat through an open window in the kitchen and investigated the dwelling as he/she flew around. Then the being descended into the corridor and walked back to the kitchen window from which he/she flew out. While walking along the tiles of PVC (PolyVinyl Chloride) that covered the floor, his/her propulsors from the shoes scorched 17 marks arranged into a "footprint trail". Each mark resembled a circle about 13 [mm] in diameter - see Figure N6. The mean distance between subsequent "steps" was about 0.4 meter.

The PVC tiles containing these marks were examined thoroughly by scientists from the Institute of Organic Chemistry at the Technical University of Wroclaw, Poland. Listed below are the properties of the marks on these tiles, which were established during this examination:

1. The substance of the PVC tiles remained in its original structure inside the marks.

2. The surface of the marks displayed no trace of any mechanical deformation or crushing.

3. Any unfamiliar substances (even a trace quantity) were absent in the native material in the marks.

4. There was no trace of burned Polyvinyl Chloride. This substance burns if the plates are exposed to a temperature greater than 130 C.

5. The monotrophic, wavy, black patterns were distinguishable on the surface of the marks. Their thickness is several microns. The chemical composition of the patterns indicates that their cause could only be the action of an active ozone attacking the Polyvinyl Chloride particles.

6. The tiles in the area surrounding the marks were strongly discoloured. This indicates that a high energy agent (i.e. a powerful magnetic field) acted upon the tiles.

The above properties of the marks led to establishing that the following causes must be excluded as a possible cause:
(a) Burning by contact with a hot, solid object.
(b) Burning by a stream of hot gases, plasma or electrons.
(c) Mechanical imprint or obliteration.
(d) Impact by a decompressing stream of a cold medium.
In conclusion of the research, the only cause for these marks must be the concentrated action of an extremely strong, pulsating magnetic field, accompanied by a simultaneous action of the air ionized by this field (especially highly active ozone) that was in contact with the surface of the tiles.

On the day of their appearance, the alien's footprints had a very intensive, chalk-white colour which contrasted with the bluish-gray background of the rest of the PVC tiles. On these white marks the black wavy pattern of the ozone action was clearly distinguishable. But, as time passed, the intensity of the whiteness of the marks gradually diminished. The restoration of the tiles' original colour resembled the curve of radioactive isotope disintegration, in which the period of half-life was equal to about 120 days. When in 1982, just before leaving Poland, the author last saw these tiles, the colour of the marks was indistinguishable from their background. But the black ozone pattern remained unchanged.

When the footprints were first reported, the Wroclaw UFO research organization "Wzgorze Partyzantów" was aware of their extreme importance as being material evidence of UFO activity. Therefore, an instant decision was made to exchange the PVC floor from Mr Wasilewski's flat to a parquet floor in order to collect and preserve the marked tiles. As the assigning of government finances (the "Wzgórze Partyzantów" was a government funded organization) required some time, Mr Eugeniusz Rolewski, then the organization's chairman, disbursed his own private funds for this operation. Until 1982 the PVC tiles with the UFOnaut footprints were carefully stored in Wroclaw amongst other UFO evidence. The author believes that they are still there.

At approximately the same time two other similar incidents took place in Wroclaw. Unfortunately the footprints from these other incidents were not preserved for research. In one case a woolen carpet in which holes caused by steps had been found was simply thrown out before the owners realized what the evidence represented. In the other case, occurring after the Wasilewski tiles became well known, the PVC tiles containing the next lot of footprints were quickly taken away by unknown private collectors before authorities reached them. All three cases showed that incidents of scorched marks left by the personal propulsion of UFOnauts are quite common, and that only a lack of knowledge or the fear of being ridiculed discourages the people involved in such incidents from officially reporting them.

N4. The consequences of the sighting of personal propulsion of UFOnauts

The evidence provided in this chapter represents only a small fraction of a huge ocean of similar facts which overflow the files of UFO investigating organizations and the collections of private researchers. If one analyses these facts it becomes evident that they all display a perfect correspondence to the expected properties of magnetic personal propulsion (see subsection H5). The logical determination of such a correspondence constitutes formal proof that UFOnauts already use magnetic personal propulsion garments. Completion of this proof introduces numerous consequences, the most important of which are listed below:

1. The proof confirms the correctness of this part of the theory of the Magnocraft which describes magnetic personal propulsion. This is because it indicates that the operational models of magnetic personal propulsion already exist.

2. It confirms again that UFOs have a strictly technological origin which results from the advancement of appropriate technical devices. It also reassures us that there is nothing

supernatural in the abilities of UFOnauts, and that all of their actions can be rationally explained with our present level of knowledge.

3. It testifies that UFO manifestations have an extraterrestrial origin, as human technology is yet unable to produce such propulsion devices. Also it provides the theoretical base for the piecing together of further secrets of the UFOnauts.

4. It creates a scientific foundation from which the future completion of magnetic personal propulsion can be launched.

The evidence accumulated in this chapter indicates also that the collection of empirical data concerning the personal propulsion of UFOnauts serves a very practical purpose. It facilitates and expedites our completion of these devices.
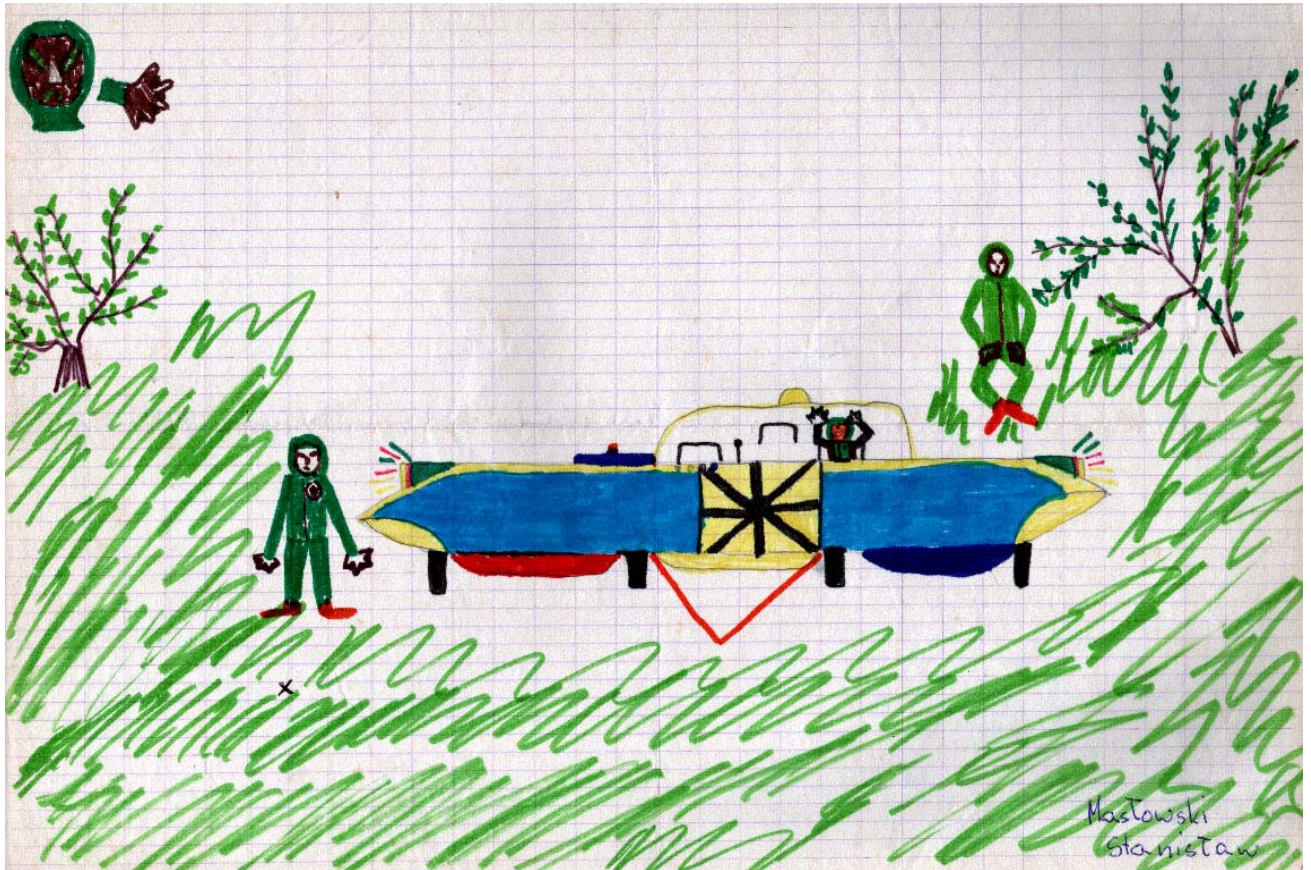
Fig. N1. An illustration of three UFOnauts and their vehicle drawn by 9 year-old Stanislaw Masłowski just after his close encounter in Popowice Park, Wroclaw, Poland, on 29 August 1979. In spite of his childish manner of drawing, the vehicle presented by Stanislaw very closely resembles the Magnocraft type K3 shown above his drawing in a frame (also shown in Figure G4). The four "black bars" of magnetic field from the UFO's side propulsors are indicated (the UFO apparently landed with a four-circuit mode of operation). The two glaring lamps of the SUB system are also visible on the upper edges of the flange (refer to Figure G35). The two UFOnauts, wearing tight green suits with hoods and red belts and shoes, left the spacecraft, whereas a third one remained in the crew cabin. The nearest alien hovering in a standing position only about 2 meters from Stanislaw has both legs spread apart. The one further back hovered in a squat position. Both these aliens were suspended in the air about 0.5 meter above grass level. The vegetation waved below the thick soles of their shoes. Stanislaw noticed that the blood-red hair on the nearest UFOnaut's face and hands stood erect. When the vehicle took off later, the sides of the discoidal UFO dissipated and from the entire base only outlines of the twin-chamber capsule from the main propulsor remained visible to the witness (see the explanation of this phenomenon in Figure G37). Stanislaw described this chamber as a device with diamond-shaped outlines (i.e. the effect of seeing a square from an angle), which emitted a strong, dark-yellow light (see also subsection L1.3).

Fig. N2. An artist's reconstruction of the appearance of a UFOnaut who was observed in Lindley, New York, USA, on July 23, 1977, just after 1 a.m., by two girls Janine (aged thirteen) and Monica (aged twenty-six) - both surnames are kept confidential. The alien wore a belt from which a green light glowed. He/she also seemed to have a flashlight. The UFOnaut made a tombstone levitate while shining a light on it. Throughout this incident both witnesses got severe headaches, ringing ears, dry throats, and a shortened sense of time (they thought that the three-hour experience had lasted only an hour). All these symptoms indicate that the girls were under the influence of a powerful field emitted by the personal propulsion of this alien.

This illustration is published in the book by Allan Hendry, "The UFO handbook", Sphere Books Limited, 1979, page 123.

Fig. N3. This photograph is one of four flash pictures of a very fast-moving UFOnaut, taken by police chief, Jeff Greenhaw, on the night of 17 October 1963, just after 10 p.m. in a remote field west of the town called Falkville, Alabama, USA. In all four photographs the alien keeps his/her legs apart in a motionless, standing position. Because all the photos were taken while the alien was moving extremely fast, this indicates that his/her motion was produced by personal propulsion, not by a physical movement of the legs (stepping). The characteristic stance of the legs spread apart indicates that the alien wore a version of the personal propulsion, having the main propulsors located in the soles of his/her shoes. The UFOnaut was about the size of a large human, and was clad in a silvery suit that looked like tin-foil. Antennae appeared to sprout from the head.

It is worth mentioning here that after taking these photographs, Mr Greenhaw lost his job because the authorities decided that a person who photographed a UFOnaut could not be trusted any more (he is not the only victim of an official anti-UFO inquisition).

The tall humanoid seen by Carl Higdon.

<u>Fig. N4</u>. This illustration presents Carl Higdon's recollection of the alien called "Ausso" who abducted him from the northern edge of the Medicine Bow National Forest (south of Rawlings), Wyoming, USA, on 25 October 1974. It is published in the book [5J] by Joshua Strickland, "There are aliens on earth! Encounters", ISBN 0-448-15078-6, page 16. The alien was about 1.88 meters tall and weighed approximately 82 kilograms. He wore black shoes and was clad in a black, tight-fitting overall that resembled a diver's wet suit, clasped by a heavy belt with a shining yellow six-pointed star and an emblem below the star. The "Ausso" was bow-legged with a slanted head, no chin, and one long appendage in place of each hand. His hair was thin and stood straight up on his head (electrified by the main propulsors in his epaulets).

From the point of view of the Theory of the Magnocraft, the "Ausso" wore a version of the personal propulsion garment with the main propulsors located in the epaulets (note the reinforcing braces joining the belt with the epaulets). At the ends of his arms (i.e. in the appendages) additional enhancement propulsors were located (for aiding heavy physical work) - see Figure H3 "b". From the description available it can be deduced that these enhancement propulsors utilized a technological version of telekinesis.

How M. Ivorde's little man climbed the back wall.
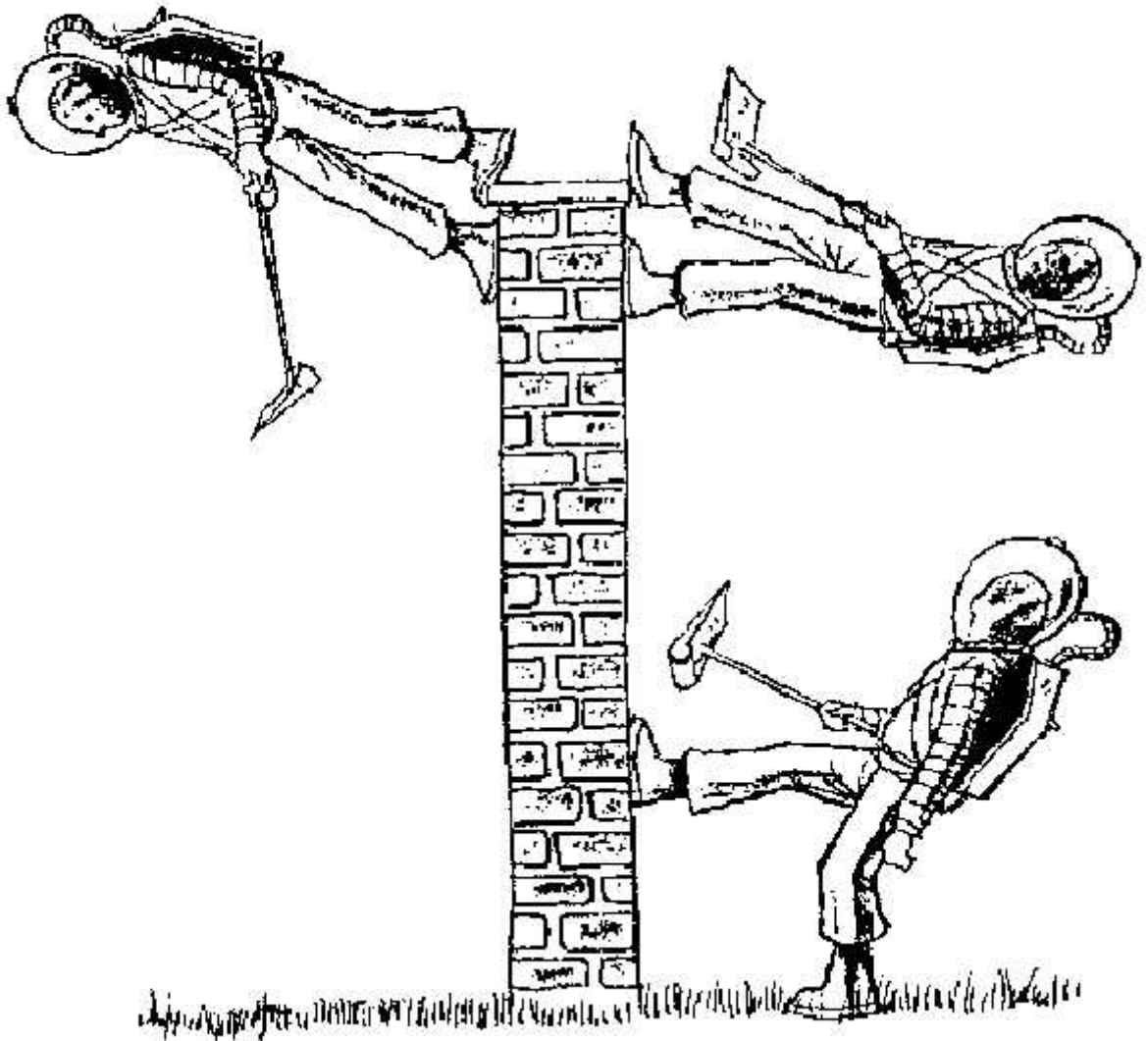
Fig. N5. This manner of climbing up (passing) a vertical wall is contrary to our understanding of physical laws, yet M. Ivorde of Belgium observed a UFOnaut doing precisely this. He reported a greenish man about 1 meter high in a helmet and space suit that was seen with what looked like a metal detector. The alien had pointed ears and large luminous yellow eyes surrounded by green rims. When the UFOnaut lowered his/her eyelids, the face, deprived of the glow from the eyes, became invisible (this luminescence confirms that the alien used a personal propulsion system whose powerful field was able to cause the eyes to glow). When M. Ivorde shone a flashlight at him/her, the UFOnaut walked up a wall in the manner presented in the above illustration (we tend to believe that only insects are able to climb up walls in this way).

This diagram is published in the book [5J] by Joshua Strickland, "There are aliens on earth! Encounters", ISBN 0-448-15078-6, page 14.

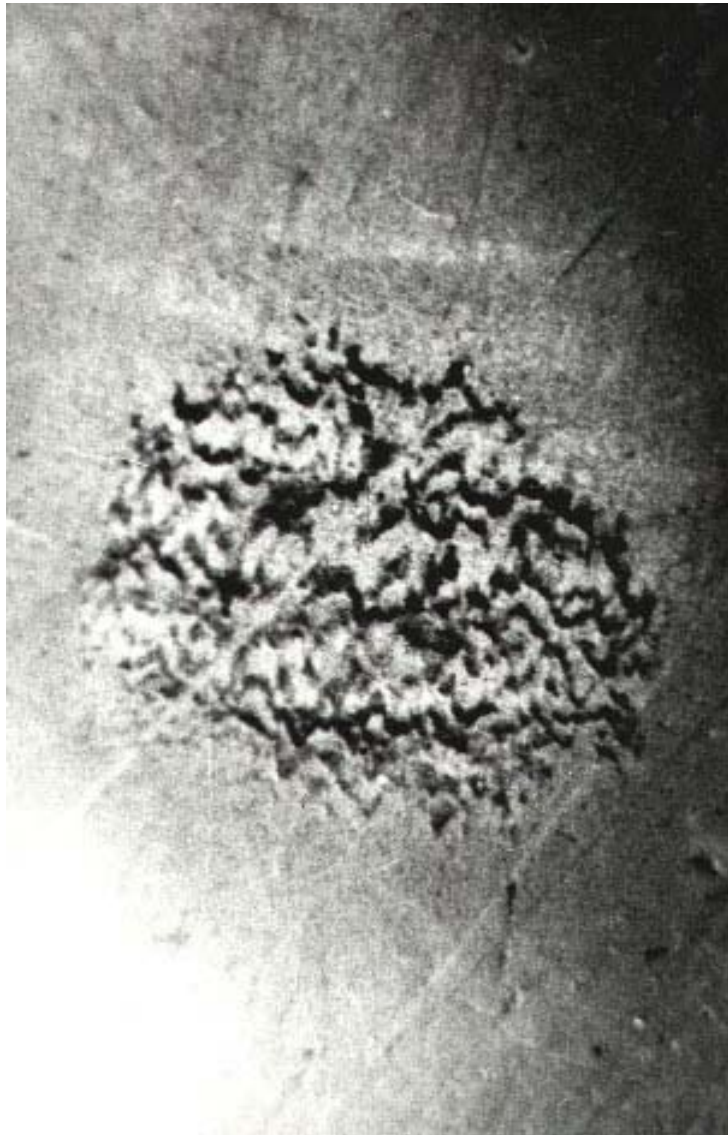Fig. N6. This photograph presents one of the seventeen scorched footprints left by the main propulsors of an UFOnaut that walked along a PVC floor in the flat of Jerzy Wasilewski (ul. Kruszwicka 53/5, Wroclaw, Poland) on 4 September 1979. Each of these marks looked like a chalk-white droplet left on a bluish-grey background of the floor. Marks were (on average) about 13 millimetres in diameter and had a black wavy pattern produced by an active ozone that attacked the PVC particles. All of the marks formed a "footprint trail" leading along a PVC (PolyVinyl Chloride) floor of the flat's inside hall. The relative distance between two successive footprints was about 40 cm. The research completed by a team from the Institute of Organic Chemistry of the Technical University of Wroclaw, Poland, revealed that the footprints were produced by a highly concentrated pulsating magnetic field acting upon the surface of the Polyvinyl Chloride tiles. Thus these footprints represent conclusive evidence that UFOnauts use magnetic personal propulsion. To the best of the author's knowledge, the PVC tiles containing these footprints are still held (together with other material evidence on UFOs) by a government sponsored UFO investigation group in Wroclaw, Poland.

Chapter O:

CONTEMPORARY SIGHTINGS OF FOUR-PROPULSOR UFOs

Since it is formally proven that UFOs are already operational Magnocraft (see the deductions from chapter J), the validity of all conclusions derived from the Theory of the Magnocraft became verifiable through the sighting of UFOs. So far, in chapters J to N, the feasibility of building the Magnocraft together with its miniaturized version called Magnetic Personal Propulsion was validated. The deductions that follow will check the validity of the theory behind the four-propulsor spacecraft, described in chapter I.

The magnetic propulsors used by the four-propulsor spacecraft are based on the so-called "spider configuration" (see subsection F6.2) and thus they drastically differ in appearance and properties from those used by the Magnocraft and Magnetic Personal Propulsion (the propulsors of the Magnocraft are based on the "twin-chamber capsule" - see subsections F6.1 and G1). Also the shape and general design of this vehicle is different - see chapter I. For these reasons the attributes of four-propulsor UFOs should easily be distinguishable from those of the discoidal UFOs. The author carefully examined evidence available on UFOs, and has selected a number of cases which confirm that four-propulsor UFOs have been observed. The most representative of this evidence is discussed below.

O1. Classic sightings of four-propulsor UFOs

Probably the most documented and investigated sighting of a four-propulsor UFO, is the case of abduction of a Polish farmer, late Jan Wolski from the small village of Emilcin near Opole Lubelskie, Poland, that took place on 10 May 1978. (His postal address was: Mr. Jan Wolski, Emilcin kolo Opola Lubelskiego, 24-325 Skoków, Poland.) Here is a brief description of this abduction together with details of the vehicle.

"On 10 May 1978 early in the morning Mr Wolski drove his horse wagon through a forestry road near his village. He noticed two small humanoids (about 1.10 metre high) walking along this road, dressed in tight grey overalls with hoods. They moved in a clumsy and strange way, keeping their legs apart (see the properties of Magnetic Personal Propulsion). When Wolski began overtaking them, they jumped from both sides into his wagon, surprising him with their nimbleness. Sitting either side of him, they impetuously discussed something between themselves, using "devil" kind of language, consisting of sharp, quick sounds - coo and chuckle like. This convinced him that they were not humans. When the wagon reached a small clearing, Wolski noticed an unusual vehicle hovering above the ground at a height of about 30 metres - see Figure O1.

The vehicle had the shape of a small rectangular hut with a gable roof. Its square body slightly resembled that of a twin-rotor helicopter. It had no windows, only an open doorway located in the centre of the facing wall. The doorway revealed the thickness of the walls estimated by Wolski to be about 0.2 metre. The UFO had no flanges, wings, legs or wheels. The only elements protruding from its body were four barrel-like devices (propulsors) located exactly at the corners of the main body. From each of these barrels a dark, spinning, vertical "drill" extended downward. The medium that constituted these "drills" looked like very dark smoke. Its appearance resembled that of a solid substance, but it permeated underground without causing any visible opening or disturbance of the soil. All four "drills" were spinning very rapidly, although there was no noticeable motion of the air. While spinning they emitted a faint humming noise, quite similar to the sound produced by a bumblebee.

From the door of the UFO a small platform attached to four plastic ropes descended. One of the humanoids stepped on it and invited Wolski to follow him. The platform was firm and surprisingly steady under foot, although it looked fragile and unstable. It lifted Wolski and one of the humanoids to the vehicle, where another two humanoids were already waiting. The fourth humanoid joined the rest in a second descent of the platform. Inside the vehicle there was a dark, right-angled room. The only source of light was the door opening. The door was rolled up near the doorway into a vertical tube. Floor, walls and the flat ceiling looked as though they were casted from a material similar to glass, which was hard to the touch. The room was empty, with no furniture, only a few chairs attached to the wall opposite the door, and two control levers that were near the door sticking out from the wall.

After a brief medical examination and an activity that looked like taking photographs, the humanoids released Wolski. When rushing his horses home he noticed that the vehicle departed. While flying at a low speed above Emilcin, the UFO was also seen by another witness who described it as a "flying bus". Shortly after passing above this village, the vehicle accelerated, produced a loud sonic bang and disappeared from the view. The examination of the site revealed material marks left by the UFO and its crew, including small imprints of the humanoids shoes, scorched vegetation at the cleaning, and a mysterious "devil stone" (shown in Figure K1c) which turned out to be the main subject of this UFO visit."

The events following Wolski's abduction took a course tragically similar to so many other encounters with UFOs. The initial investigation of evidence and events proved the validity of his description and his experience. This, however, was unbearable to many close minded "experts" whose narrow personal philosophies allow no room for extraterrestrials. They began a campaign of "debunking", using irrational arguments. Finally, to cut off the escalating arguments that seemed to be out of control, Polish authorities decided to intervene, and they officially announced that Wolski's abduction was a "joke" played to him by a group of students (this announcement was not accompanied by the reason and explanation behind such an enormously sophisticated and expensive "joke"). Although this announcement was unconvincing and contrary to the evidence, it invalidated any further investigations and publicity for this case, thus squandering the scientific value of this extremely informative UFO sighting. Mr Jan Wolski died on 8 January 1990, at the age of 83.

All properties of Wolski's UFO correspond exactly to those envisaged for a four-propulsor spacecraft. The appearance and operation of its barrel-like propulsors also match in every detail those unique to spider configurations. This makes Wolski's abduction one of the best documented sightings of a four-propulsor UFO.

A four-propulsor UFO was also observed in the Roseneath suburb of Dunedin, New Zealand, by a local resident who prepared a detailed report of his sighting but requested his name and address be kept confidential. The sighting took place during a clear autumn night, when strong moonlight increased visibility. It provided excellent confirmation for the expected configuration of UFO's magnetic circuits that ionize the air. Figure O2 illustrates what was seen. Here is the eye-witness report which describes this sighting:

"It was 2.56 a.m. on 23 March 1989. I was awoken by a loud sonic bang similar to that caused by a supersonic aeroplane crossing the sound barrier (I remembered that a similar bang also awoke me about 4 months earlier). I decided to glance through my window. It was a clear night with strong moonlight shinning on the landscape. I noticed a vehicle hovering above a patch of bush on the other side of the valley, about 1 kilometer away from my home. It was suspended motionless, about 10 metres above ground level on the non-populated slope of the hill known locally as "Blue Skin Hill", slightly to the right of the Sawyers Bay water reservoir. The position of this vehicle was approximately level with my house and located in the direction of NNW from my window, i.e. on the magnetic azimuth 330 . The UFO was clearly distinguishable against the background of the moonlight slope, because of the lines of bluish-white steady light that outlined its body. It had the shape of a transparent, cubical-type hut, covered by a gable roof. The side dimension of its square walls I estimate at about 9 metres. From the vehicle's corners four columns of

white-blue glitter light shone downwards. The glitter light grains of these columns resembled something like the flickering of 'white noise' visible on TV screens when working sets do not receive any station. Each side wall of the vehicle was crossed by strands of steady (i.e. non-glittering) bluish-white light. Also each edge of the vehicle was outlined by the layer of the same light. The lines of light appearing on the rear of the vehicle were also visible through its transparent body.

After observing the vehicle for a few minutes I stopped looking. But the strange view aroused my curiosity, so about 10 minutes later I had another look. The vehicle was still above the same spot. After a short watch I stopped looking. At about 3:15 I looked again and checked for the third time. The vehicle was gone. Four days later I prepared a drawing of what I saw, which I have enclosed with this report."

The field analysis of this sighting conducted by the author allowed a number of technical details to be established about this UFO. For example it revealed that the UFO represented a type T4 vehicle, whose design and day-time appearance is illustrated in Figure I1. Also it confirmed that the observed geometry and mutual relationship of dimensions of this vehicle correspond exactly to those described theoretically by the equations contained in chapter I. In addition the analysis revealed that this UFO was positioned so that its right rear wall was facing magnetic north. Moreover, the vehicle hovered slanted from the vertical position at the angle of about 20 so that the four columns of flickering light which extended down from its corners were parallel to the force lines of the local magnetic field. (The magnetic inclination for Dunedin is about I=70 .) Both these findings confirm that the vehicle's propulsion system utilized the Earth's magnetic field, and for this reason the UFO needed to remain aligned to the force lines of this field.

Another classic sighting of a four-propulsor UFO was the abduction of Carl Higdon on 25 October 1974, which has already been mentioned in subsection K3 (evidence #2) and with reference to Figure N4 ([2J] page 171, [5J] page 16). The UFO that abducted Mr. Higdon also had the shape of a "cubicle". Unfortunately the descriptions available to the author concentrate more on the events than on the vehicle, therefore it is impossible to determine at this stage whether Mr. Higdon noticed barrel-shaped propulsors protruding from the corners of this UFO.

O2. Photographs of four-propulsor UFOs

In some instances four-propulsor UFOs have been photographed. The best example is the photograph taken above Albiosc, France, in 1974 - see Figure O3. The four columns of spinning ionized air yield at the corners of this vehicle could only be produced by propulsors that utilize the spider configuration of Oscillatory Chambers. The number of these columns and their location in relation to the body of this vehicle indicate that the photographed spaceship represents a four-propulsor UFO.

O3. Concluding this chapter

Although this chapter, when compared with chapters L, M, and N, presents not so frequently appearing type of UFOs, it still adds a further contribution to the vast body of evidence that confirms the validity of the Theory of the Magnocraft elaborated in this monograph. This evidence constantly ascertains that various vehicles known under the general name of UFOs: (1) exist objectively, (2) are explainable on the basis of contemporary knowledge, (3) document the successful technical implementation of the propulsion systems whose construction on Earth is proposed by this monograph, and (4) should be thoroughly pursued and investigated as their copying may win to us precious time and save us a lot of research and expenses.
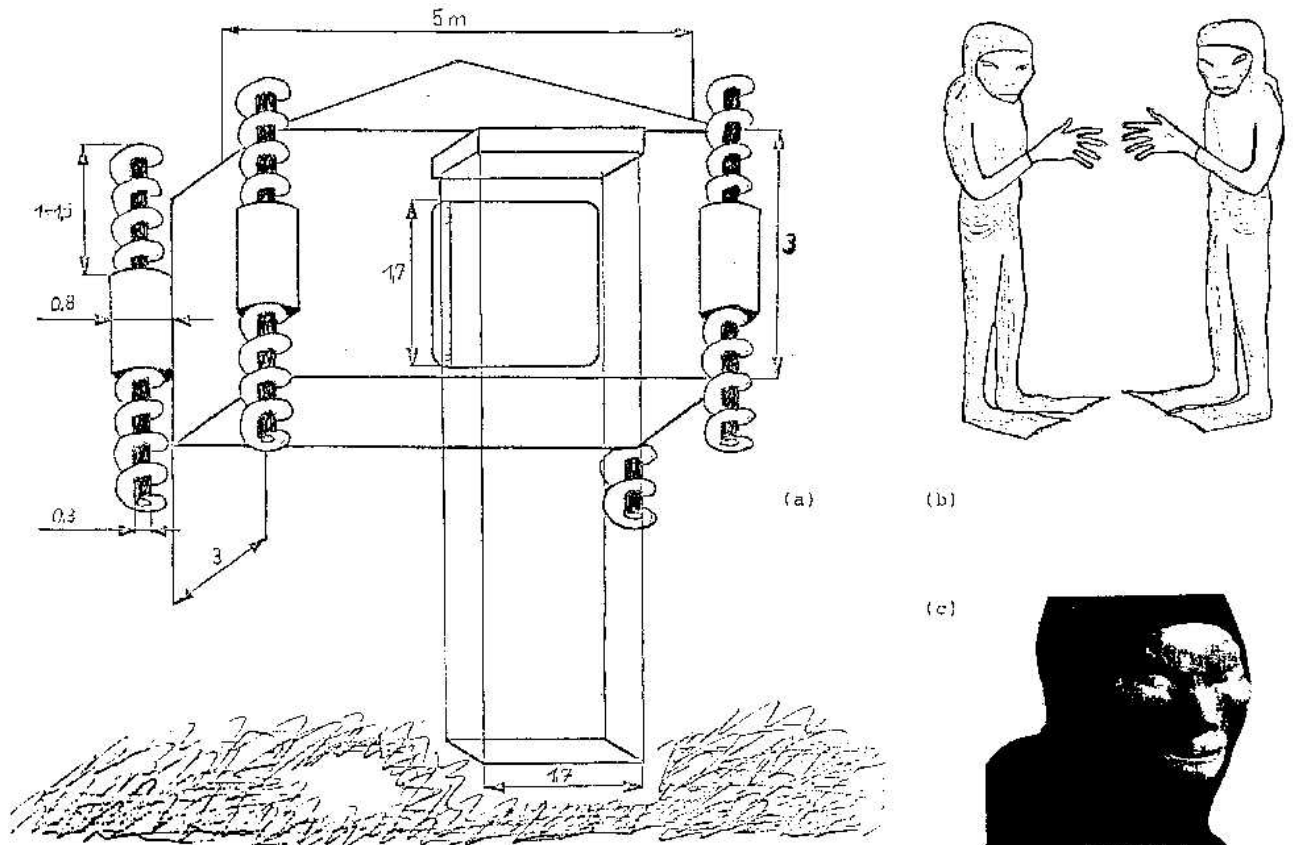
Fig. O1. A reconstruction (from descriptions) of the appearance of a four-propulsor UFO which abducted a Polish farmer Jan Wolski of Emilcin near Opole Lubelskie on 10 May 1978. The vehicle had the shape of a windowless hut, or "cubicle", with a pitched roof and a doorway. On the corners of the vehicle four vertical barrel-like propelling devices were located. These devices produced thin, long, and extremely fast spinning columns, which the witness described as looking like "black drills". The columns permeated under the ground, without opening or disturbing the soil. Also the rotation of these columns did not induce any motion to the stationary air. The UFO had a single square room inside, with a flat ceiling that did not correspond to the shape of the roof. The crew and abductee entered the UFO by a fragile (but stable) platform lifted to the doorway by four plastic ropes.

Fig. O2. The night appearance of a motionless four-propulsor UFO. The only visible features are strands of a white-blue light e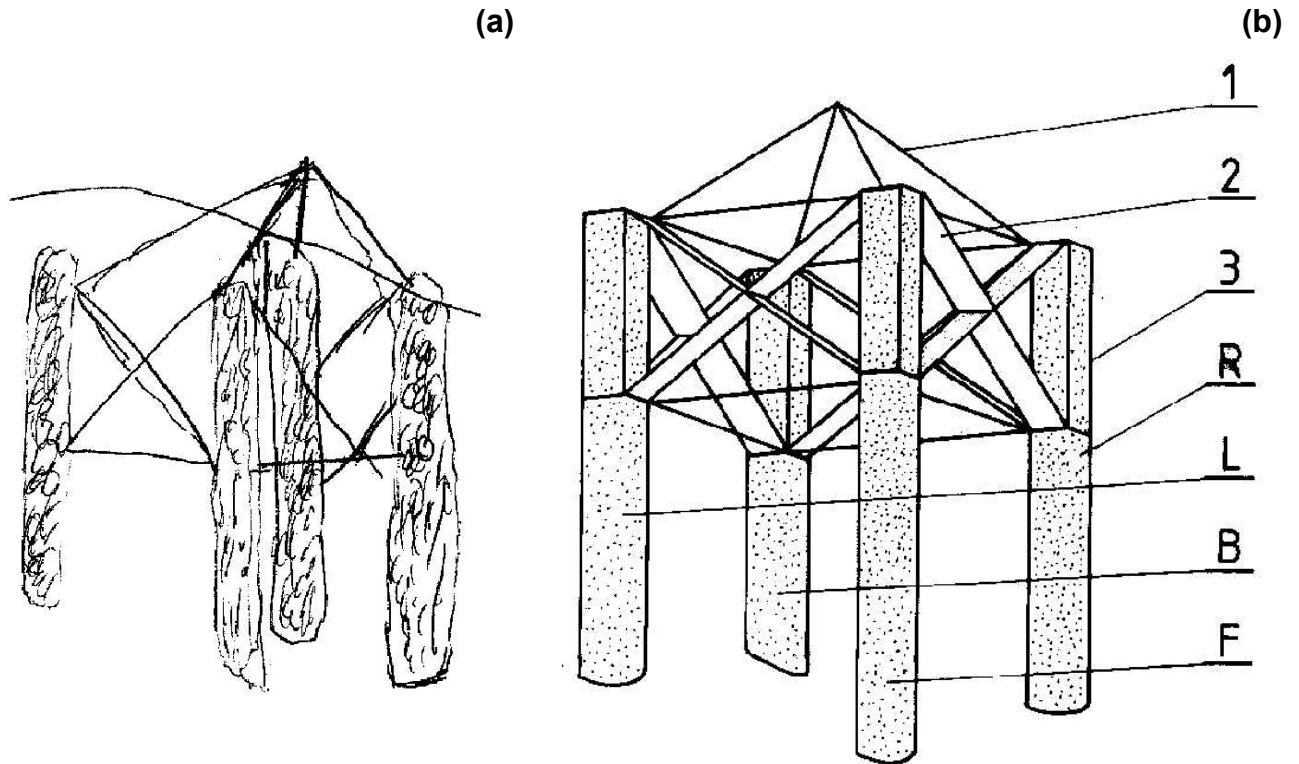mitted by the magnetically ionized air that outlines the magnetic circuits and edges of the spaceship (the day-time appearance of this vehicle is illustrated in Figure I1). The lights at the vehicle's rear are also seen through its transparent body. The illustrated UFO was observed in the Roseneath suburb of Dunedin, New Zealand, at 2.56 a.m. on 23 March 1989. It hovered about 10 metres above ground level on the non-populated slope of the hill locally known as "Blue Skin Hill". During the sighting the object was about 1 kilometre distant from the observer, and positioned in the NNW direction (at the magnetic azimuth 330).

(a) The witness's original drawing of this UFO prepared from memory 4 days after the sighting took place.

(b) The author's reconstruction of the exact appearance of this UFO, based on the theory behind the four-propulsor Magnocraft and the field research of the sighting. Shown are: R,L,B,F - right, left, back and forth columns of a "white noise" type glittering light that was emitted by the spinning magnetic circuits of the vehicle's propulsors; 1 - layers of the ionized air glowing blue-white that outlines all the sharp edges of the vehicle; 2 - the crossed strands of glowing air that was ionized along the paths of magnetic circuits passing from each magnetic pole of every propulsor to the opposite magnetic poles of the next propulsors; 3 - the transparent walls of the main Oscillatory Chamber from each propulsor.

Fig. O3. A photograph of a four-propulsor UFO taken near Albiosc in the Vosges mountains in France, at 11:30 pm on 23 March 1974, by a local doctor who insisted on remaining anonymous - see [1J] page 223. It presents a vehicle flying in the magnetic whirl mode of operation, whose crew cabin is surrounded by a red glow. Notice that in New Zealand (southern hemisphere) this red glow is replaced by a blue one - see Figure O2. This in turn corresponds perfectly to the expected colours of the air glow within the range of the propulsors' magnetic poles (i.e. red near N poles and blue near S poles). In the four corners of the UFO, white, glowing columns of a spinning magnetic field are clearly distinguishable. Such columns of a whirling magnetic field can be produced only by magnetic propulsors that contain spider configurations. The mutual orientation of these columns in the above photograph, and the relative proportion of their dimensions, indicate that the pictured vehicle represented a four-propulsor spacecraft, similar to the one shown in Figure O1.

HOW TO ORGANIZE EDUCATIONAL COURSES DEDICATED TO "EXPLAINING THE UNEXPLAINED"

It is unfortunate to say the least that unexplained phenomena are pushed into a deadlock. On one hand numerous manifestations of these phenomena are continually registered (e.g. UFO sightings, ESP manifestations, faith healings, etc.) and there are scientific theories available which rationally explain them. On the other hand there is a condemnation and discrimination of these phenomena. It is the author's believe that one of the major reasons for such a situation lies in the lack of easy access to factual knowledge about them. To eliminate this, an educational programme familiarizing the general public with the facts concerning these phenomena must urgently be initiated. Because of an institutional denial of the existence of these phenomena, the implementation of this educational programme must be carried out privately by individual people.

This leaflet is to assist in the development of non-profitable educational courses aimed at the dissemination of scientific explanations for all previously unexplained phenomena such as UFOs, ESP, dowsing, etc.

Anyone who is interested in extending their own and others knowledge about these phenomena is encouraged to organize such courses. Below are listed and explained the main activities required when organizing them.

1. Forming a "Curriculum Committee". The Curriculum Committee is a formal body that will be responsible for the organization and conducting of the mentioned educational courses. Initially a group of 5 to 10 friends interested in unexplained phenomena is sufficient to gather together and to form this Committee. So as to not overwhelm members by an over-formalized title, the Committee should adopt a less formal name, e.g. the "Unexplained Phenomena Research Club", "UFO Research Society", etc. Later, after courses begin to run, each person who completes them should be offered participation in this Committee. It helps if the Committee's meetings are run in a formal way, i.e. are lead by the elected chairman and according to protocol.

2. (OPTIONAL) Finding a sponsor (e.g. local newspaper, radio station, bank, etc.) which would be interested in demonstrating open minded support to modern ideas.

3. Planning the first course. At one of the Committee meetings the technical realization of the first course should be decided. Especially the following activities should be completed (the Committee should note which member is co-ordinating which activity):

(3A) Finding a teacher for the first course. The teaching in this course is a relatively easy task, as it mainly depends on the presentation and explanation of numerous diagrams and photographs provided. Therefore an articulate dedicated hobbyist should be able to carry out this task.

(3B) Finding a location (classroom) where the course will be held. This is usually connected with some kind of formalities, and with the registration of the course in some kind of formal institution (e.g. WEA, Polytechnic, etc.). While choosing the classroom for the course, the availability of a blackboard (or whiteboard) and an overhead projector (OHP) should be verified.

(3C) Determining the timetable for the first course, especially starting date (e.g. the first week of June), time (e.g. 7 PM to 9 PM, each Wednesday), and duration (e.g. 10 subsequent weeks).

(3D) Preparation of teaching materials for the course. A course should have organized beforehand the following materials: (1) Textbook for the teacher. As this textbook the monograph No [4] by the author of this leaflet, entitled "The Magnocraft - Earth's version of a UFO" (ISBN 0-9597698-6-2, Dunedin 1990) is recommended (in the reduced size it has a volume of about 250 A4 leaves). This monograph contains about 150 illustrations. (2) OHP transparencies of all diagrams to be presented during the course (these

transparencies are simply copies of diagrams presented in the teacher's textbook). (3) Wooden models of the vehicles used for demonstrations during the lectures (see Figures P1 and P2). (4) Course outline (i.e. objectives and general content of lectures). (5) Detailed lecture plans. (6) Videos on UFOs and ESP to be presented during lectures. (7) (OPTIONAL) Pendulums for practicing ESP skills.

(3E) Determining the manner of providing textbooks for students. Each course participant should have a copy of his/her own textbook. This textbook can be either ordered from the author of this leaflet or, perhaps even less expensively and quickly prepared on the spot. Notice that copying the author's monograph No [4] (recommended as a textbook for these courses) for teaching purposes is allowed without any special permission.

(3F) Establishing costs of the course.

4. Organizing a preview of the course. The course teacher should present to the Curriculum Committee the material that he/she is going to teach. This presentation should take the form of an informal session, in which all materials and presentations appearing in the actual course would be tested.

There is a possibility that the author of this leaflet would find mutually agreeable terms to come for a few days (minimum 3 days are necessary) and to hold such a preview. In such a case the author would NOT charge for giving the lectures. The only costs that would need to be met by the Curriculum Committee would be those of travel from Dunedin and back. Also accommodation and meals should be organized by the Committee (to decrease the costs these could be provided in private homes of the Committee members).

5. Advertising, enrolment and holding the course.

6. Post-course interest groups. It is recommended that the people who attended the course should automatically become members of an appropriate Society (e.g. Unexplained Phenomena Society). This Society should maintain regular meetings (e.g. once per month) and further develop the interests of its members in the area of unexplained phenomena.

Note: the author of this information is prepared to give all the assistance possible (in a non-profitable manner) in the establishment of such courses. On request the following leaflets can be provided free of charge: (1) a proposal for the structure of the Curriculum Committee, (2) a proposal for the course's outline, (3) detailed plans for 10 subsequent lectures, (4) drawings of demonstration models (i.e. Figures P1 and P2), (5) a proposal (and useful hints) for the course advertisement, (6) a copy of the Magnocraft's promoters directory which provides contacts with other people developing similar courses, and (7) a copy of this leaflet. To obtain any one of these, contact: Dr Jan Pajak, 116 Rolla Street, NEV, Dunedin, New Zealand (providing a self-addressed, stamped envelope would facilitate a reply). All remaining materials mentioned in this leaflet (e.g. textbooks, OHP transparencies, etc.) can also be obtained after the receipt of costs involved (the information on current costs can be obtained on request).
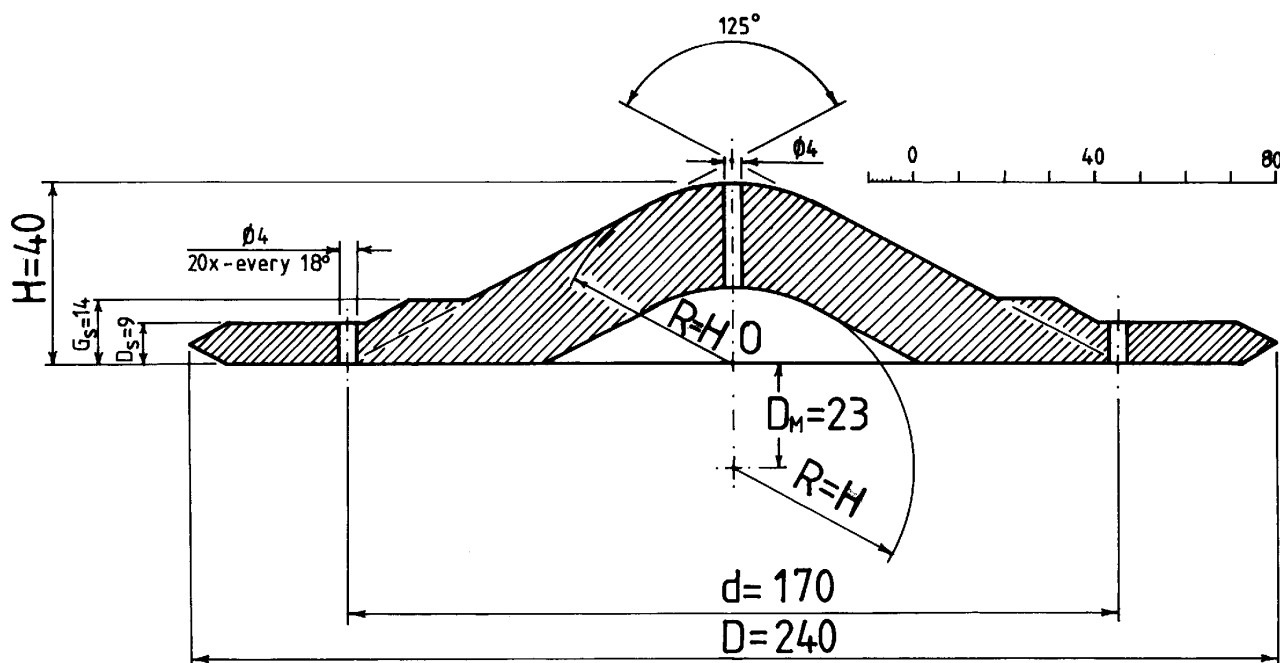
Fig. P1. The technical drawing of a reduced model of the K3 type Magnocraft. The original dimensions of this vehicle are reduced 18.29 times. This model should be used as a teaching aid. Its purpose is to visualize the Magnocraft's shape and coupling abilities. Eight identical such models are sufficient to demonstrate the principles of the Magnocraft coupling into various flying configurations shown in Figures G7 to G17. The model should be turned on a lathe from a cylinder of light material (e.g. aluminium or wood) of approximate dimensions 243x85. Notice that all the dimensions from the above diagram are obtained through appropriate reduction of the dimensions presented in Table G1. The equation applied for this reduction is as follows: Y=X/s (where "X" is any dimension of the original vehicle taken from Table G1, "Y" is the same dimension but expressed for a reduced model of this vehicle, and "s" is the scale of reduction applied in the model). For example, the diameter D which in Table G1 for a K3 type of Magnocraft equals to D=4.39 [m], to be expressed in the reduction scale of s=18.29 should be calculated as: Y=4390/18.29=240.

Fig. P2. The technical drawing of a geometrical model of the K6 type Magnocraft. The original dimensions of this vehicle are reduced s=146.29 times in comparison to those dimensions shown in Table G1. The above model contains all vital elements present in the shell of every type of the Magnocraft. Therefore it can be used as a teaching aid to demonstrate the Magnocraft's shape and coupling abilities. Two identical models are sufficient to demonstrate the principles of coupling into spherical and cigar-shaped flying configurations (see Figures G7 and G8). Note that in order to change the scale of reduction all dimensions from the above drawing need to be determined from the equation presented in the description to Figure P1.

Chapter Q:

ABOUT THE AUTHOR

Dr Jan Pajak was born in Wszewilki, near Milicz, Poland, on 25 May 1946. He spent the first 36 years of his life in Poland where he gained his education and scientific experience. He was also a member of Solidarity from the days when this organization was first established. In 1982 he left Poland and arrived in New Zealand. On 28 August 1985 he was granted New Zealand citizenship.

Dr Pajak began his education in Milicz, where he attended the Gymnasium of General Education. After matriculation in 1964 he shifted to Wroclaw, where he studied at the Mechanical Engineering Department of the Technical University of Wroclaw. He graduated in 1970, receiving the degree of "Master of Engineering and Engineer" and commenced work as a lecturer at the same university. His scientific specialization is Computer Assisted Design. In 1974 he defended his doctoral dissertation on this subject and obtained the degree of "Doctor of Technical Sciences". In this same year he was from the position of Senior lecturer to that of Adiunkt (i.e. Polish equivalent to a Reader). While holding his lecturing position at the Wroclaw University, he also worked part-time in Polish industry: since 1975 serving as scientific adviser in a computer-producing factory called MERA-ELWRO, and from 1978 as scientific consultant in a bus and truck producing factory called POLMO-JELCZ.

In 1982 he took up a one-year Post Doctoral Fellowship at the University of Canterbury in Christchurch, New Zealand. After completing this Fellowship in 1983, he was appointed as a tutor in Computer Programming at Southland Polytechnic in Invercargill. In 1988 he resigned from the College and took up the position of Senior Lecturer at the University of Otago in Dunedin, New Zealand, a position which he still held in 1990.

In 1972, while lecturing on selected aspects of propulsion systems to students of the Technical University of Wroclaw, Poland, he discovered the astonishing symmetrical pattern displayed by the subsequent inventions of propelling devices (see Table B1). This pattern, called later the "Periodic Principle", indicated that the commonly known electric motor built by Jacobie around the year 1836, must obtain before 2036 a follow up in the form of a space vehicle (i.e. the Magnocraft) also utilizing for flight the same principles of magnetic repulsion and attraction. The Magnocraft will be propelled by a kind of "magnet" (i.e. the Oscillatory Chamber) so powerful, that it will be able to lift itself and the mass of the spacecraft attached to it, as the effect of a repulsive interaction with the magnetic field of Earth, Sun or Galaxy.

While developing his ideas, he has paid special attention to their continuous verification both through confrontation with evidence available, as well as through worldwide discussion with experts in the relevant areas of expertise. For the purpose of this discussion he has published and forwarded to recognized investigators of the corresponding subjects, a number of papers and monographs which disclose the results of his research. For the first time his key discoveries and inventions were published and subjected to discussion in the following years: 1976 - the Periodic Principle, 1980 - the design and principles of operation of the Magnocraft, 1984 - the Oscillatory Chamber, and 1985 - the Concept of Dipolar Gravity. This monograph collects in one volume and accesses to interested readers all the key disclosures, previously spread amongst a number of separate publications.