

# ANTIGRAVITY

## &

# THE UNIFIED FIELD MECHANISM

This paper documents the *discovery* of antigravity and the associated *space dynamics* responsible for this phenomenon including a *qualitative* interpretation of this unified field mechanism, as *revealed* in The Urantia Book.

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# Antigravity & The Unified Field Mechanism

## I. INTRODUCTION

### 1. Once Upon a Time

I, Raymond Kelly Tippett, believe The Urantia Book. As a result of the study of this mighty revelation my perception of reality has forever been changed. I am dedicated to the pursuit of the truth, beauty, and goodness of the everlasting God... our living almighty and loving heavenly Father, whom I love and worship! I write this document as a humble man, inspired by the discovery of reality and motivated by trust in our Creator. Seldom in life opportunities so auspicious arise. Duty obliges me to create this statement. Let the record reflect; I hope this document will suffice.

In no way do I claim anything close to a *complete* understanding of antigravity, the unified field mechanism, or much less the vast subject matter in The Urantia Book. I do claim that I have developed a precise concept of what antigravity is through studying the revelation of The Urantia Book. This document records a detailed explanation of this idea because I **fully believe it to be true**. The Urantia Book is the key that unlocks the mystery of the mechanism of creation, opening a door of perception and insight, through which I have found truth and understanding. In applying this understanding, the idea of antigravity originated within me and I consider it my personal discovery.

I was born February 18, 1959 and have had a life favorable to the study of the truths revealed in The Urantia Book. I grew up interested in science and religion, yet I have no affiliations with organized institutions, religious or otherwise, but have worked and studied, for the most part, independently. In my professional life I have always worked with computers in various capacities; it's been my predilection, yet I have never been formally trained in any of the sciences. I have no credentials, nor have I been trained professionally qualifying me to present the ideas addressed in this document. After high school and one semester of college, I was working for only a short while before I knew about the book. And for the next several years I continued to earn a living working with computers while I studied The Urantia Book in my spare time.

I have had the book since 1978. And many times throughout my study, I have wondered how I, and indeed the whole world, will change as a result of this information. From the very beginning, I was well aware of the discussion of the idea of antigravity in The Urantia Book, but had no concept of exactly what it is or how to interpret what was meant by it, either in the context of The Urantia Book or in the context of modern science. I had only the most modest idea of what gravity meant. These were only vague, fuzzy impressions from the most basic understandings of these ideas. Obviously the philosophical and theological implications of the book are insuperable, yet it is a fact that all of the scientific or physical information in the book is also inescapably intriguing, and I early realized that many a great thesis in science could be based on this information. For years I've been assimilating *all* the information in the book and had long resigned myself to the more personal and spiritual nature of this epochal revelation of truth and how I would apply it in my own life. This is when the circumstances in life changed and the pivotal decisions culminating in the idea of antigravity followed.

My career with computers had gone well up to that time, but I knew I was working way too much. I was losing balance, burning out, and lacking enthusiasm for my job. I was ripe for change, but I was a bit too comfortable with my lifestyle and lacked the inspiration to correct, on my own initiative, the life path I was following. The single event that most redirected the course of my life was thrust upon me when my dad passed away. He developed cancer, it spread, and he struggled against it for a year before his death in March of 1990. He had just retired after working steadily for more than thirty years. He had no

opportunity to enjoy his hard-earned retirement. Everything he owned went to his children. The third I inherited was more than I ever imagined it would be and yet, I was disturbed by the way his life ended and I wanted to insure my escape from a similar fate. Through his death, he gave me the fortune to be able to afford a genuine refrain, an opportunity to renew my life. By 1991 I decided to take an extended vacation. At first I planned six months of relaxation. I had the resources to completely *relax* and *reflect*, at least for a season or two. It turned into a year at which point my soul was free and I had only one supreme desire... to consecrate my will to the will of our Creator.

Many years of study passed before I began to experience a greater synthesis of understanding and a more complete comprehension of *all* the material in the book. Before this, I had remained socially active, showing up at functions associated with the readership of the book and attending study groups regularly. I was interested in many different ways of interacting, for all kinds of different reasons, with as many people as I could possibly get to know personally. After completing the book in an excellent study group format, I reviewed how my understanding of the material in the book and how it has developed over the many years of my study. And in assessment of this, I noticed an immense increase in my overall comprehension. I recognized so many more meaningful details than I was previously aware of and this led to conclusions that included meanings that were heretofore missed and had not been previously recognized by anyone I knew.

On February 9, 1992, over eight years ago, a casual conversation with a friend about gyroscopes evolved into a culminating realization of comprehension and led to the discovery of what is meant by antigravity! Eventually I decided to refrain from further social exposure of these ideas from all but my most intimate friends. These ideas should not spread without regard for consequences. Only with carefully considered verification, even proof, do I plan to proceed in order not to become mercilessly and unjustly misconstrued. I am greatly concerned about how anything I do reflects on The Urantia Book. The idea of antigravity is radically potent and difficult to know how to manage properly. If correct, it is *most* important and overshadows all of my personal concerns, for the impact it will have on our planet, at some point, will undoubtedly avalanche!

Since then, I have maintained my focus on accomplishing the goals presented in this document and my life has been dedicated to the proof of this discovery. The reasons of evidence and the experiments outlined by this document are designed to frame only those things that can be *proven*, and only time will tell what is true. I am satisfied to leave the rest to faith and the insight of experience, which only the living of life shall determine.

I may not be the only one with this specific idea. Who knows? I know that there are others who have insights into the unified field mechanism that may appear to be valid, but these interpretations do not result in a machine designed to demonstrate antigravity! Should I find anyone else with this same idea, I would immediately redirect all my plans. I only proceed as I do because, for all I know, I actually **may be** the only one with this idea! But until I know for sure, I will persist as I have.

Now, I hope to capture a more mature expression of this idea. In the beginning, consecration to this task was slow to develop. It took the first year for me to take the idea as real and react to it seriously. I was reckless and careless and my inability to take it seriously caused me to regard the discussion of these ideas very casually. I really believed that only a brief amount of discussion with informed and educated individuals would dislodge them from my perception, relegating them to a period of apparent confusion. However, **this did not occur**. I knew of no one who was thinking or looking at these things in this way. After all, how could I really see what antigravity is? What do I know? Instead, I have become increasingly convinced that this is, in every sense of the word, **a very good idea!**

Therefore *and* as a tribute to my family and friends all of whom I dearly love, I write this document. It is they who have inspired me and helped me accomplish my goals. Thank God for them! From the beginning, when I wasn't sure about my attitude toward this proposition, they were there for me as trusted confidants. With a little help from my friends, the next critical steps of putting these ideas to the

real test of demonstration have been taken. Collectively, we have all the abilities to do what now needs to be done and hopefully we will all participate in the joy of this discovery to our fullest personal satisfaction. I dedicate this document to the brotherhood of man and pray for the continued cooperation and support of those precious few who, because they are inside my personal circle of influence, have become involved. *I am honored to know them* and I pray this document will assist us in the continued execution of these plans to fruition.

The discovery is supported by commonly understood, verifiable and accepted scientific knowledge, but more significantly, from The Urantia Book, as well as from my own observations and experiments. Though I do believe that this idea of antigravity can be proven mathematically, I do not possess sufficient mathematical skills to do this. Instead, I have designed a series of *experiments* in which the use of a machine will ultimately exhibit demonstrative mechanical evidence for empirical proof of this idea. This machine has been designed at my direction and is in the process of being created. It is an instrument that will create a *measurable* amount of the force that will be identified as the epitome of antigravity. I will show how it is a definitive concept.

I present the revelations of The Urantia Book as a fairly weighty proportion of this document because the largest quantity and the greatest quality of information on the subject is contained within it. I would have no understanding except for studying this book. In many ways this portion of the document will be somewhat like a book report. I have read it from the beginning through to the end several times and have perused various excerpts countless times. There is a plethora of subjects of interest in it. Having studied and cross-referenced it exhaustively, I believe it to be true. I have no reservations and no doubts about it. Yet antigravity, as I have come to understand it, remains **unique** in that I firmly believe I can prove its existence and do plan to demonstrate this with a mechanical prototype that is in development for this purpose!

I begin this paper with a description of my idea of antigravity as a straightforward portrayal of the basic idea. I then include all the quotations from The Urantia Book specifically referencing the word "*antigravity*" and the most pertinent references that I have found helpful in unravelling the mystery of antigravity. I consider it inevitable that to understand the cause of antigravity it is necessary to comprehend the greater idea of the unified field mechanism. One of the primary purposes of this document is to protect and preserve a clear and direct connection of the idea of the unified field mechanism with the revelation of The Urantia Book. After making my case from The Urantia Book, I will add knowledge that is independent of the book and conclude with a detailed discussion about the means of *proof* in which I am engaged.

## 2. The Idea of Antigravity

The unified field mechanism is the phrase I use to refer to the cause of all purely physical manifestations, including antigravity. Its foundation is in the real nature of space and the primordial force therein. And I believe that this mechanism is what modern physicists are trying to describe when they postulate the "*Grand Unified Field Theory*" of physics. An understanding of the unified field mechanism is the premise from which the cause of antigravity can begin to be understood and is a complementary basis for an explanation of how gravity works. This mechanism is at the root of **all** physical phenomena — force, energy, and matter. To completely explain the idea of the unified field mechanism and how it causes different kinds of force manifestations requires *The Urantia Book*, but the basic idea of antigravity is much easier to explain. The idea of the pattern of antigravity is so very simple that for it to not have been discovered by now indicates to me that it has been overlooked and has not been recognized because of its elusive nature. A shift in perception, an adjustment that includes the recognition of the real nature of space as revealed in *The Urantia Book*, allows one to see this idea. The basis of the mechanism of antigravity is a pattern of motion that uniquely affects space-force. This unique pattern of motion and its ramifications on space-force is a good beginning for understanding the grand unified mechanism of the universe of universes.

In my experience, the grasp of the idea of antigravity came from having a basic understanding of the unified field mechanism. It was from this vantage point that I made my discovery, but to simplify conveying this idea, I begin with the idea of antigravity.

For antigravity to be as natural and widespread of an effect throughout the universes, as it is in its usage in *The Urantia Book*, the patterns of its manifestation are apparently *definitive* and *finite*. The angular forces associated with a **gyro**, the associated effect of stability across the axis of rotation of a spinning wheel, is helpful as a starting point. As suggested in *The Urantia Book*, it is a "*fair illustration of the effect*" of antigravity.

The gyroscope is a measuring instrument consisting of a rotating wheel mounted so that its axis can turn freely in certain or all directions; therefore it is capable of maintaining the same **cosmic direction** in space in spite of the movements of the mountings and surrounding environment. Its motion is based upon the principle that a dense wheel rotating rapidly about an axis will tend to resist a disturbing change or torque by tumbling slowly in the direction perpendicular to that of the disturbance. As a measuring apparatus, it is used to feedback information to a monitoring system to determine direction or maintain equilibrium.

Gravitational torque on a gyro that is rotatably mounted at its center of gravity **tends to dispose its axis of rotation parallel to the earth's axis**. This is a fundamental observation that reveals how the **angular motions** in the cosmic environment affects the pattern of rotation of objects in association with the force of gravity. This tendency of gyros to find maximum equilibrium reflects the nature of the unified field mechanism of space and can be largely simplified as three basic influences which are identified as: gravity, the primary angular momentum of any rotating system, *and* the associated forces outside the system caused by the *angular* motions in the cosmic environment.

For the purposes of this discussion, the forces of angular momentum are intentionally *magnified*, as in the case of a **powerful gyro actuator**, where the precessional adjustments of the spinning wheel are not just used as a monitoring feedback system, but as the *primary* force of *action*! The angular aspect of motion phenomena is the primary issue and the associated physical forces of momentum and inertia are the points to consider.

In the basic theories of modern science, the forces of inertia and momentum, as well as gravity, are intrinsically connected to the properties of material matter in proportion to its mass; as it is expressed by mathematics, an apparent universal constant of gravity prevails ( $G = 6.67 \times 10^{-11} \text{ N}\cdot\text{m}^2/\text{kg}^2$ ). The

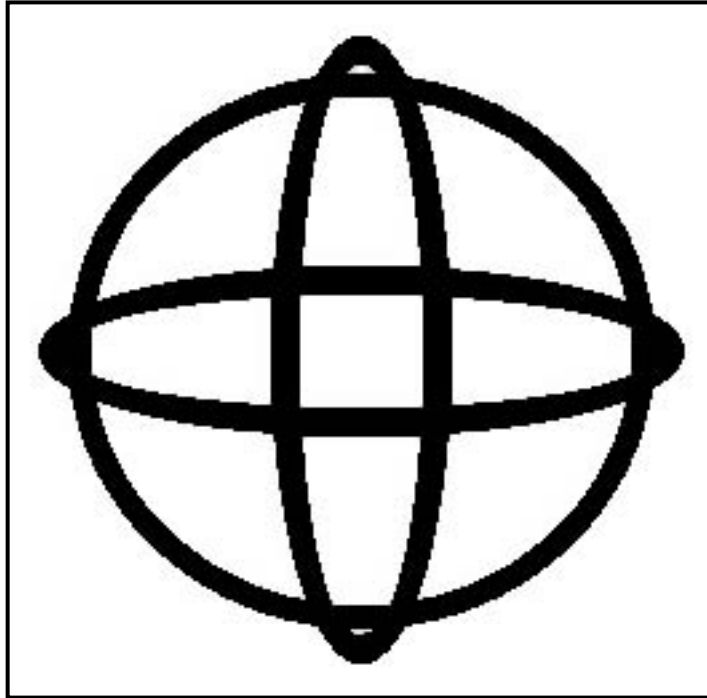
mathematical formulas of physics reveal the patterns of the potentials of motion, but they are **not sufficiently** refined to reveal the final unifying cause of these motion potentials nor do they unveil the most fundamental patterns of the *space-force* mechanism. Without exception, when mathematically described as a simple vector the motion caused by such a force does not precisely reflect all of the actual nuances of observed behavior. A strict constant is not sufficient to account for the many subtleties that only a variance in this force can explain. Many accepted laws of motion will need mathematical revision once this mechanism of antigravity is proven true, but I am not skilled enough in mathematics to make that the point of this document. Though I have many mathematical reasons for the understanding of antigravity, I can only reveal these insights in my own way, leaving the formal mathematical presentation to those with the skills to express these ideas in that manner.

For now I will propose that the motion pattern of the gyro actuator be taken into critical review. We begin by recognizing the distinction of angular momentum and rotational inertia from their linear counterparts. The important distinction of angular force is the **shape** of the rotating mass with respect to the axis of rotation. In linear force, the shape of the mass is of negligible consequence, all of the parts move, as does the whole. In angular and rotational force, the pattern of a rigid shape of the mass is added to the factor of mass for the calculation of the magnitude of force. In rotational forces all the parts move in concentric ratios with respect to the whole. All rotational motion undergoes continual accelerative force. In assessing the possibilities of shape with regard to these forces, a **rotating ring** or hoop is clearly the superior single shape for the desired effect of maximizing the ratio of angular force to its respective mass, as is represented by the formula for the rotational inertia of this shape ( $I = MR^2$ ). This shape, when acting as a rotating mass, exhibits a dynamic representation of the finite levels of relative perfection unlike any other shape. Rotational motion requires an axis, not an axle, and this distinction allows for a force pattern with inevitable implications.

The mass, shape, and speed of rotation are factors in the measurement of angular momentum, but shape and mass are the only factors in determining rotational inertia. This is true **except** in the special circumstance when the mass is spinning and angular momentum itself resists any secondary force of torque or tumble against the primary angle of rotation. Any secondary tumbling force is distributed about the periphery of the spinning object as precessional motion that will slow the primary velocity of rotation until a final balance of a single axis of rotation is achieved. This superadditive effect of increased rotational inertia of the mass in every direction except the one of primary rotation underscores the fact that an object rotating resists tumbling; there can be only one axis of rotation! The force relationship of rotational inertia and angular momentum is not observed between linear inertia and linear momentum. The formulas of physics exemplify this by the fact that vector mathematics can be used to determine the composite result of multiple linear forces, but this is not absolutely true of the rotational and angular corollaries. Large angular motions are not true vectors. This simple pattern of spinning, and the consequential angular force manifestations, can be augmented to a point of transformative transcendence by applying a motion pattern based on definitive finite patterns of relative perfection. This is a three-fold composite of the ring pattern, an inevitability of shape and motion relationship, which is repletely symmetrical.

A **powerful ring gyro actuator** is the single component from which a composite system of angular momentum can be built. The idea of a ring gyro actuator is for all practical intents and purposes the same as a regular gyro actuator except that there is no axle. All the forces of motion are distributed at the periphery of the component and the forces of rotation in proportion to its respective mass are maximized. It is unlike a regular gyro actuator in that, not only is there no axle, there is no structure of suspension that limits potential precessional motion or angular displacement except to the degree of the forces of inertia attributed to the mass required by a containment ring necessary to house the primary rotating ring. Therefore, the containment ring mass, the housing for the spinning ring rotor, should ideally be minimum.

Ring gyros can be made in different sizes. By *balancing* the density of the rotors, different sized ring gyros can exhibit the *same* angular momentum while revolving at the *same* angular velocity. Arranging **three concentric ring gyro actuators**, though different in size, equal in force, into a composite system in which each of inclined ninety degrees one another and joined by a containment system fundamental motion embodies the force of figure 1).



the rings are with respect to into this position is the pattern that antigravity (see

Figure 1 - Symbolic Concentric Ring Gyros

Each of the rings are contained and locked together into a composite super-structure so that the forces of the individual gyro rotors are forced to affect one another in an identical and symmetrical way. This pattern may look somewhat familiar and fairly simple, but when put into the proper circular motion will produce a very unique motion force consequence **yet to be created** by humanity. This resulting triune motion is apparently extremely elusive; otherwise, it would have been realized long ago. The precessional force of each individual ring gyro is pivoted against the stabilized forces of the other two associated ring gyros, so that a motion feedback loop is created. The composite system of combined angular momentum creates a roughly spherical superstructure. This is placed in a thin, light hollow sphere acting as a final containment vessel.

This composite superstructure of angular momentum **will exhibit** a resistance to any force of torque from any direction, making for what can be called *superadditive rotational inertia*. The rotational inertia of this composite superstructure is mechanically proportional to the angular momentum of the individual spinning rings. As long as the forces of the rotors are balanced against one another, a tremendous internal force of stabilization is accumulated. This internal force can exceed any angular influence of external force in the immediate surrounding environment. This includes even the force of gravity, which always requires torque as an integral component in achieving its result.

In the analysis of geometrical possibilities, I see no other pattern of motion that has the attributes of this pattern; no other pattern that is a motion feedback loop, and no other pattern that effectively produces rotational inertia far in excess of the mass of the composite superstructure with **no way to adjust, precess, or absorb** an outside force of torque.

Using a mathematical model, this composite superstructure of ring gyro actuators can be shown to resist any force of torque from any direction. I've used Rasna's Mechanica physics software to determine this is true. The resulting super-structure is a sphere that does not allow for angular displacement. I know that this superstructure will completely resist torque, turning, or rolling. **I know that everything that is carried along with gravity must change its angular displacement with respect to the cosmos in order to remain in place on the surface of the planet.** Therefore, not only is it reasonable to me, my research and experience give me every reason to believe that this superstructure **will not** stay in place, yet I don't know where it will go, but I know it won't roll, turn, or allow for torque to get there!

Since, I am not currently able to formulate a mathematical proof that indicates this system of motion to be antigravity, this leads to an experiment for the proof of the connection to antigravity. The construction of a prototype model of a machine that can be used to produce this pattern of motion for the demonstrative mechanical evidence of this conclusion will be required. In all further analysis, the consideration of the motion pattern given here should be kept in mind with regard to the information given in The Urantia Book and the following good reasons and strong evidence presented in this document for this proposition.



## II. The Urantia Book

### 1. Quotations and Comments

The Urantia Book is the greatest book ever written. Certainly, it is the greatest book I have ever read! I believe that it is *precisely* what it claims to be... the fifth epochal revelation of truth to this planet from the celestial authorities. I do not believe that it is perfect or infallible, but I do consider it to be the most pristine of any work of comparable volume, though there is no work comparable to it in content. It contains the most valuable thing that can be possessed... the knowledge and meaning of the life of Jesus and the way in which he lived it. Regardless of the outcome of the proposition of this document, this will continue to be the case as far as I am concerned. Nevertheless, there is the subject of antigravity that yet needs to be addressed.

I presume a familiarity with this book. If *you* have not read it thoroughly, I highly recommend that you *do!!!*

The following quotations present some of the most significant meanings associated with the unified field mechanism and how it relates to antigravity. The authors of The Urantia Book present the unified field mechanism in an indirect way. There is no reference to it specifically as the unified field mechanism. This is my phrase. Though the reference of the "time-space mechanism," is the same idea. There are twenty-one specific references that include the actual word antigravity. Additional quotations are included to support the idea of antigravity, the unified field mechanism, and how they relate to one another. The material of The Urantia Book contains many references to the physical structure of the universes. The description of material reality is consistent within the book from paper to paper, and taken collectively and as a whole, a comprehensive concept of the physical mechanism of creation is revealed. This mechanism makes perfect sense and is a **reality**, which inevitably will be increasingly discovered on progressive levels of human experience.

I have listed and number in sequence the references from The Urantia Book, followed by my comments. The comments are interpretations of what these quotations mean in reference to this document and the explanation of why they were selected. The revelation of The Urantia Book is a mighty revelation and included in the quotations is much that is beyond my means to address. My comments are not meant to interpret the entire meaning of these references, only to elucidate the connection to the idea of antigravity and its foundation in the unified field mechanism. Each reference is labeled with the paragraph and the page numbers that correspond to The Urantia Book. All references are presented in separate font in the same order as they are found in The Urantia Book. Bold font is my emphasis. Though I have gleaned only some of the most pertinent portions regarding the unified field mechanism, I have included entire paragraphs to maintain context, which can truly only be done in light of the entire book.

**FORWARD - Divine Counselor**  
**VI. ENERGY AND PATTERN**

**Page 10**

3 Pattern may configure energy, but it does not control it. Gravity is the sole control of energy-matter. Neither space nor pattern are gravity responsive, but there is no relationship between space and pattern; space is neither pattern nor potential pattern. Pattern is a configuration of reality which has already paid all gravity debt; the *reality* of any pattern consists of its energies, its mind, spirit, or material components.

I begin with this reference in order to address a basic viewpoint the authors will use throughout the book relating the concepts of space, pattern, gravity, and energy-matter. It may be helpful to review this entire section of the forward. Though this is not a passage that makes, in and of itself, the nature of the unified field mechanism clearly understandable, it does provide a basis that, in the process of revealing the real nature of space, remains consistent throughout The Urantia Book. And I will try to also remain consistent in my use of language referring to these concepts. If at any point I do not, it is not my intention to stray from this strict use of the language. Anything I suggest should always be superseded by what The Urantia Book states.

**PAPER 7 - Divine Counselor**  
**RELATION OF THE ETERNAL SON TO THE UNIVERSE**

**1. THE SPIRIT-GRAVITY CIRCUIT**

**Page 82 antigravity (1)**

1 This gravity control of spiritual things operates independently of time and space; therefore is spirit energy undiminished in transmission. Spirit gravity never suffers time delays, nor does it undergo space diminution. It does not decrease in accordance with the square of the distance of its transmission; the circuits of pure spirit power are not retarded by the mass of the material creation. **And this transcendence of time and space by pure spirit energies is inherent in the absoluteness of the Son; it is not due to the interposition of the antigravity, forces of the Third Source and Center.**

This is the first specific reference to the idea of antigravity. The distinction of spirit gravity from material gravity confirms some of the properties of both; material gravity is *dependent* on space and apparently not on time (see page 125 paragraph 6; "*it cannot delay it*"). That the properties of space affect material gravity is **key** to the insight that understanding these space properties is the secret to understanding antigravity. The knowledge that gravity diminishes by the square of the distance is well known; the fact that space is somehow the cause of this diminution is not recognized. Only by understanding the antigravity force of the Third Source and Center does the point of the last sentence have any value for providing the reader with a deeper understanding of the meaning of spirit energies. Antigravity is one of the attributes of the Infinite Spirit, known as the God of Action, and by distinguishing this from the transcendence of time and space by the spirit-gravity grasp, clearer meanings of both these ideas are only beginning to be established by the authors of The Urantia Book.

**PAPER 9 - Divine Counselor**  
**RELATION OF THE INFINITE SPIRIT TO THE UNIVERSE**

## 1. ATTRIBUTES OF THE THIRD SOURCE AND CENTER

Paper 9 should be reviewed for a fuller understanding of the relationship suggested by the title. The first reference to antigravity as well as many to follow all point to the Infinite Spirit and imply that understanding one helps the understanding of the other.

### Page 100

1 And herein is an infinite mystery: That the Infinite simultaneously revealed his infinity in the Son and as Paradise, and then there springs into existence a being equal to God in divinity, reflective of the Son's spiritual nature, and capable of activating the Paradise pattern, a being provisionally subordinate in sovereignty but in many ways apparently the most versatile in *action*. **And such apparent superiority in action is disclosed in an attribute of the Third Source and Center which is superior even to physical gravity — the universal manifestation of the Isle of Paradise.**

The attribute of the Third Source and Center referred to in this passage is antigravity and it is clearly connected to the superiority of action attributed to the Infinite Spirit. This, in connection to the previous reference on page 82 about space, evokes the question of what kind of action produces antigravity, and how it relates to space. The stage is now set to look for the clues that reveal this pattern of action and the part space plays in its behavior.

## 3. THE UNIVERSAL MANIPULATOR

### Page 101 antigravity (2-6)

1 **The Isle of Paradise is the source and substance of physical gravity; and that should be sufficient to inform you that gravity is one of the most *real* and eternally dependable things in the whole physical universe of universes. Gravity cannot be modified or annulled except by the forces and energies conjointly sponsored by the Father and the Son, which have been intrusted to, and are functionally associated with, the person of the Third Source and Center.**

2 **The Infinite Spirit possesses a unique and amazing power — antigravity<sub>2</sub>. This power is not functionally (observably) present in either the Father or the Son. This ability to withstand the pull of material gravity, inherent in the Third Source, is revealed in the personal reactions of the Conjoint Actor to certain phases of universe relationships. And this unique attribute is transmissible to certain of the higher personalities of the Infinite Spirit.**

3 **Antigravity<sub>3</sub> can annul gravity within a local frame; it does so by the exercise of equal force presence. It operates only with reference to material gravity, and it is not the action of mind. The gravity-resistant phenomenon of a gyroscope is a fair illustration of the *effect* of antigravity<sub>4</sub>, but of no value to illustrate the *cause* of antigravity<sub>5</sub>.**

4 Still further does the Conjoint Actor display powers which can transcend force and neutralize energy. Such powers operate by slowing down energy to the point of materialization and by other techniques unknown to you.

5 The Conjoint Creator is not energy nor the source of energy nor the destiny of energy; he is the *manipulator* of energy. **The Conjoint Creator is action — motion, change, modification, co-ordination, stabilization, and equilibrium.** The energies subject to the direct or indirect control of Paradise are by nature responsive to the acts of the Third Source and Center and his manifold agencies.

6 The universe of universes is permeated by the power-control creatures of the Third Source and Center: physical controllers, power directors, power centers, and other representatives of the God of Action who have to do with the regulation and stabilization of physical energies. **These unique creatures of physical function all possess varying attributes of power control, such as antigravity,<sup>6</sup> which they utilize in their efforts to establish the physical equilibrium of the matter and energies of the grand universe.**

Page 101 has some of the most persuasive references to the idea of antigravity; more so than on any other page, referring to it literally five times. Paragraph 1 underscores the realness of gravity and the consequential consideration of the realness of antigravity annulling or modifying gravity. In Paragraph 2 is the understanding that this force is the attribute of living beings, starting with the Infinite Spirit, yet transmissible to certain other beings. Paragraph 3 has possibly the **most insightful** description of what antigravity is. It defines the term as applying to a local space frame and that the key to its function is "*equal force presence*" which begins to address the kind of action that has been inferred. And this action is *not* the effect of telekinesis — the action of mind.

Yet the most demonstrative description is the reference to the gyroscope! This simple example of the gyroscope portrays in graphic clarity some of the details about the kind of action inferred, illustrating that an inanimate object, under these conditions, is gravity-resistant in a manner consistent with the idea of antigravity. Therefore, the action in question is motion... circular motion... and the associated forces of rotational inertia and angular momentum! The "*cause*" of antigravity is not revealed in The Urantia Book, this requires discovery! But the revelators are evidently interested in pointing out the clues necessary to the understanding of its cause.

In paragraph 5 the action of the Conjoint Actor is definitely tied to the idea of motion, co-ordination, stabilization, and equilibrium in space. The idea of equal force presence must connect **angular momentum** to some greater form of co-ordination, stabilization, and equilibrium. This unrevealed pattern or form of action is used by the creatures of the Infinite Spirit as a part of their natural endowments to do many of the tasks required to manage the universe of universes. But apparently this doesn't preclude the use of this pattern or form of action through artificial or mechanical means, as in the example of a simple gyroscope, yet implying something more than just a simple gyroscope for *the most excellent* illustration of this idea.

**PAPER 10 - *Universal Censor***  
**THE PARADISE TRINITY**

**3. THE THREE PERSONS OF DEITY**

**Page 112**

3 The Infinite Spirit is amazingly universal and unbelievably versatile in all his operations. He performs in the spheres of mind, matter, and spirit. The Conjoint Actor represents the Father-Son association, but he also functions as himself. He is not directly concerned with physical gravity, with spiritual gravity, or with the personality circuit, but he more or less participates in all other universe activities. **While apparently dependent on three existential and absolute gravity controls, the Infinite Spirit appears to exercise three supercontrols. This three-fold endowment is employed in many ways to transcend and seemingly to neutralize even the manifestations of primary forces and energies, right up to the super-ultimate borders of absoluteness. In certain situations these supercontrols absolutely transcend even the primal manifestations of cosmic reality.**

The three supercontrols are apparently mentioned in reference to three types of gravity controls. One of these supercontrols is over physical gravity, but as yet, I have recognized only this idea of material antigravity as a clear concept.

**PAPER 11 - *Perfector of Wisdom***  
**THE ETERNAL ISLE OF PARADISE**

**5. NETHER PARADISE**

It may be helpful to review Paper 11. The description of the Isle of Paradise and its relation to the space reservoirs, as well as the fundamentals of the basis of gravity, are all essential for developing a perspective of the cosmos, which is the playing field for finite potentials to actualize as finite time-space reality events.

**Page 123**

2 **All physical force, energy, and matter are one.** All force-energy originally proceeded from nether Paradise and will eventually return thereto following the completion of its space circuit. **But the energies and material organizations of the universe of universes did not all come from nether Paradise in their present phenomenal states; space is the womb of several forms of matter and prematter.** Though the outer zone of the Paradise force center is the source of space-energies, space does not originate there. **Space is not force, energy, or power.** Nor do the pulsations of this zone account for the respiration of space, but the incoming and outgoing phases of this zone are synchronized with the two-billion-year expansion-contraction cycles of space.

The first sentence of this paragraph is the basic idea of the unified field mechanism. Organized space is pervaded by the universal force-charge, which is fundamental to all physical force, energy, and matter. The basis of the force-charge is predicated on the realness of the space fabric and its ability to move. The connection of Paradise to space and the connection of the Infinite Spirit to motion reveal a pattern consistent with the connection of antigravity, as an attribute of the "*superiority in action*" of the Third Person of Deity, to motion and its response in space.

**7. SPACE FUNCTIONS OF PARADISE**

**Page 125 antigravity (7)**

3 This alternate zoning of the master universe, in association with the alternate clockwise and counterclockwise flow of the galaxies, is a factor in the stabilization of physical gravity designed to prevent the accentuation of gravity pressure to the point of disruptive and dispersive activities. **Such an arrangement exerts antigravity, influence and acts as a brake upon otherwise dangerous velocities.**

Though this paragraph reveals the basic principle of the idea on a macrocosmic level, it is beyond the scope of a local space frame and the purpose of this document. Yet, it connects the meaning of antigravity with the pattern of revolving motion on a gigantic scale. The circular motions of the space zones in alternate directions, resulting in an antigravity effect, further refine the kind of action associated with antigravity.

**8. PARADISE GRAVITY**

**Page 125 antigravity (8)**

6 **Space is nonresponsive to gravity, but it acts as an equilibrant on gravity.** Without the space cushion, explosive action would jerk surrounding space bodies. **Pervaded space also exerts an antigravity, influence upon physical or linear gravity; space can actually neutralize such gravity action even though it cannot delay it.** Absolute gravity is Paradise gravity. Local or linear gravity pertains to the electrical stage of energy or matter; it operates within the central, super-, and outer universes, wherever suitable materialization has taken place.

This paragraph gives us the idea that the cause of antigravity is in the behavior of pervaded space itself. The force-charge of pervaded space has motion potentials, and pervaded space is distinguished from non-pervaded space as capable of exerting an antigravity influence. This reaffirms that the force associated with the motion of space itself is the solution to understanding antigravity. I should qualify what I say here as referring to local or linear-gravity and not to Paradise gravity. And with due regard for the 2 billion year expansion and contractions cycles of the space reservoirs, the concept that antigravity cannot delay gravity implies that gravity is instantaneous and operates independent of time. This is also true of the motions of space within any local space frame. Space-force is the mechanism of gravity as well as antigravity and is the only aspect of material reality unconstrained by the time mechanism to which all energy and matter are subject.

**PAPER 12 - *Perfector of Wisdom***  
**THE UNIVERSE OF UNIVERSES**

Reviewing Paper 12 may also be helpful. This paper further describes the cosmos in greater depth completing the macro view, and therefore providing more details for a better grasp of space, gravity, and the Unqualified Absolute. Only with a good grasp of Paper 11 and 12 can the rest of the papers be put in the proper perspective of a cosmic field of activity.

**4. SPACE AND MOTION**

**Page 133**

4 The Unqualified Absolute is functionally limited to space, but we are not so sure about the relation of this Absolute to motion. Is motion inherent therein? We do not know. **We know that motion is not inherent in space; even the motions of space are not innate.** But we are not so sure about the relation of the Unqualified to motion. Who, or what, is really responsible for the gigantic activities of force-energy transmutations now in progress out beyond the borders of the present seven superuniverses? Concerning the origin of motion we have the following opinions:

**1. We think the Conjoint Actor initiates motion *in* space.**

**2. If the Conjoint Actor produces the motions *of* space, we cannot prove it.**

**3. The Universal Absolute does not originate initial motion but does equalize and control all of the tensions originated by motion.**

9 **Space is, from the human viewpoint, nothing — negative; it exists only as related to something positive and nonspatial. Space is, however, real. It contains and conditions motion. It even moves. Space motions may be roughly classified as follows:**

1. Primary motion — space respiration, the motion of space itself.

2. Secondary motion — the alternate directional swings of the successive space levels.

3. Relative motions — relative in the sense that they are not evaluated with Paradise as a base point. Primary and secondary motions are absolute, motion in relation to unmoving Paradise.

**4. Compensatory or correlating movement designed to co-ordinate all other motions.**

Their description of motion contributes to an understanding of how the authors of The Urantia Book view space activities. Insight is provided by the choice of words used to describe motion. The idea that space moves is reiterated and that these motions are both *in* space and *of* space, thereby containing and conditioning motion. They dismiss the human viewpoint of space as merely the absence of energy or matter, asserting positively that space is a real physical presence possessing force potentials. In light of this view of space motion, finite mathematical descriptions are the basis for understanding the unified field mechanism. The use of the word tension associated with motion along with the idea that space conditions motion leads me to believe that **the motion of space** in association with force is the fundamental missing piece of information about the material universe required by modern science and is the basis for the explanation of not only antigravity, but gravity, magnetism, and all of the purely physical forces. The Seven Absolutes cause the different aspects of manifestation of this mechanism. The Unqualified Absolute is the infinite source of resident force in space reaction.



#### 4. SPACE AND MOTION

Page 134

2 When the universes expand and contract, the material masses in pervaded space alternately move against and with the pull of Paradise gravity. **The work that is done in moving the material energy mass of creation is space work but not power-energy work.**

5 It is probable that these alternate directions of successive space processions of the universes have something to do with the intramaster universe gravity technique of the Universal Absolute, which consists of a co-ordination of forces and an equalization of space tensions. **Motion as well as space is a complement or equilibrant of gravity.**

These two paragraphs add to the concept that space moves and that as a result of this motion the concept of work, as is defined by the current mathematics of modern physics, is in need of revision. Traditionally, something requires work for it to be moved in relation to the force-energy relationships of its environment. But this idea is expanded in concept when space motion is included in the formula. The authors plainly stating that "*motion as well as space is a complement or equilibrant of gravity*" inextricably binds these concepts to antigravity.

#### 6. UNIVERSAL OVERCONTROL

Page 135

11 **The universe is nonstatic. Stability is not the result of inertia but rather the product of balanced energies, co-operative minds, co-ordinated morontias, spirit overcontrol, and personality unification.** Stability is wholly and always proportional to divinity.

Ponder Newton's first law: *The Law of Inertia.*

*Consider a body on which no net force acts. If the body is at rest, it will remain at rest. If the body is moving with constant velocity, it will continue to do so. If the net force acting on a body is zero, it is possible to find a set of reference frames in which that body has no acceleration.*

This was a beginning to the understanding of the mathematical relationships of motion phenomena. We now know, there is no such experience in human life or existence in physical reality that is non-moving or absolutely stationary in space; only the Isle of Paradise is truly stationary. And it is *exceedingly* important to recognize that the appearance of stationary things is the result of *balanced* forces, this includes stationary velocities.

Einstein qualified Newton's motion mechanics with the theory of relativity, which successfully expresses linear motions mathematically. Inertial frames of reference only apply to linear displacement. And in all cases it reveals finite limits to the velocity of energy and matter traversing through space. I suggest that further qualification is required regarding *angular* motions. Though the required mathematics has yet to be expressed.

Balance is the key. A fuller interpretation of "*equal force*" is the dynamic equilibrium of balanced forces.

## 8. MATTER, MIND, AND SPIRIT

### Page 139

5 The bestowal of cosmic force, the domain of cosmic gravity, is the function of the Isle of Paradise. **All original force-energy proceeds from Paradise, and the matter for the making of untold universes now circulates throughout the master universe in the form of a supergravity presence which constitutes the force-charge of pervaded space.**

This supergravity presence is the space potency of the force-charge of space itself. This is the very basis for the potential motion in, and of, space that is at the foundation of everything. This reference helps us to understand the unified field mechanism. Knowing that the force-charge of pervaded space is the motion potential that can be patterned in ways that will ultimately make matter and all physical realities, helps with the recognition of the unity of this force as it is expressed in so-called "empty" undifferentiated space, as energy traversing space, and as energy occupying space organized as matter.

### Page 140

5 Though it is hardly possible for the mortal mind to comprehend the seven levels of relative cosmic reality, the human intellect should be able to grasp much of the meaning of three functioning levels of finite reality:

**1. *Matter*. Organized energy which is subject to linear gravity except as it is modified by motion and conditioned by mind.**

2. *Mind*. Organized consciousness which is not wholly subject to material gravity, and which becomes truly liberated when modified by spirit.

3. *Spirit*. The highest personal reality. True spirit is not subject to physical gravity but eventually becomes the motivating influence of all evolving energy systems of personality dignity.

The above definition of matter stirs the imagination to look for a fuller understanding and explanation of this exception clause about gravity. The kind of motion suggested here must be compatible with all of the previous descriptions given. With reference to the mind clause in this statement, compare it with page 101 paragraph 3, "It (antigravity) operates only with reference to material gravity, and is not the action of mind." If this is not the action of mind itself, which is the subject of statement number 2, the pattern of motion created is controlled by the intelligence of mind and it is not observed as naturally occurring motion, but is motion patterned by intelligence. The language used in The Urantia Book is always fascinating.

## 9. PERSONAL REALITIES

### Page 141

4 **Mathematics, material science, is indispensable to the intelligent discussion of the material aspects of the universe, but such knowledge is not necessarily a part of the higher realization of truth or the personal appreciation of spiritual realities. Not only in the realms of life but even in the world of physical energy, the**

**sum of two or more things is very often something *more than*, or something *different from*, the predictable additive consequences of such unions.** The entire science of mathematics, the whole domain of philosophy, the highest physics or chemistry, could not predict or know that the union of two gaseous hydrogen atoms with one gaseous oxygen atom would result in a new and qualitatively superadditive substance — liquid water. The understanding knowledge of this one physiochemical phenomenon should have prevented the development of materialistic philosophy and mechanistic cosmology.

The basis of the motions of space and the consequential force effects of these motions require mathematics for their expression. The language of mathematics can be used to express these finite potentials of motion, but does not necessarily reveal unknown consequences of various combinations of motion and the composite result. The inference that sometimes these patterns produce surprising results when combined is the theme of the antigravity pattern. Once this is given as a physical manifestation of motion exhibiting antigravity, the mathematics of this motion may also be given, but the mathematical formulas of physics, as they exist now, do not reveal that antigravity is this, or any other, pattern of motion. I marvel at this passage and remember it whenever I think of water... yes, good old H<sub>2</sub>O.

**PAPER 14 - *Perfector of Wisdom***  
**THE CENTRAL AND DIVINE UNIVERSE**

**3. THE HAVONA WORLDS**

**Page 156 antigravity (9)**

3 The planetary construction of the Havona spheres is entirely unlike that of the evolutionary worlds and systems of space. Nowhere else in all the grand universe is it convenient to utilize such enormous spheres as inhabited worlds. Triata physical constitution, coupled with the balancing effect of the immense dark gravity bodies, makes it possible so perfectly to equalize the physical forces and so exquisitely to balance the various attractions of this tremendous creation. **Antigravity, is also employed in the organization of the material functions and the spiritual activities of these enormous worlds.**

Regarding the central universe, it is hard to imagine what is actually taking place, but I find the concept of balance (equal force presence) *very consistent* with the understanding of what is meant by antigravity. It is clear that the idea of antigravity is universally applied to the techniques of existence throughout creation, even in Havona. Though there can be no independent observational data concerning Havona, the description of its place in the cosmos is rich with insights about the nature of space.

**PAPER 15 - *Universal Censor*  
THE SEVEN SUPERUNIVERSES**

**8. ENERGY CONTROL AND REGULATION**

**Page 175 antigravity (10,11)**

6 **Evolving energy has substance; it has weight, although weight is always relative, depending on revolutionary velocity, mass and antigravity<sup>10</sup>.** Mass in matter tends to retard velocity in energy; and the anywhere-present velocity of energy represents: the initial endowment of velocity, minus retardation by mass encountered in transit, plus the regulatory function of the living energy controllers of the superuniverse and the physical influence of near-by highly heated or heavily charged bodies.

7 The universal plan for the maintenance of equilibrium between matter and energy necessitates the everlasting making and unmaking of the lesser material units. The Universe Power Directors have the ability to condense and detain, or to expand and liberate, varying quantities of energy.

8 **Given a sufficient duration of retarding influence, gravity would eventually convert all energy into matter were it not for two factors: First, because of the antigravity<sup>11</sup> influences of the energy controllers, and second because organized matter tends to disintegrate under certain conditions found in very hot stars and under certain peculiar conditions in space near highly energized cold bodies of condensed matter.**

This is an intriguing reference claiming that the weight of something, or its gravity response, is relative to, not only its mass, but its revolutionary velocity and *antigravity*. I recognize that the velocity of rotation and the mass of the body rotating are only two factors in determining the magnitude of angular force. The pattern of the geometry of the rotating structure is also a factor. The antigravity factor is the degree to which the pattern of the structure rotating approximates one of antigravity potential. This is a definitive pattern that can be mathematically expressed. This force of antigravity is used in the cosmos extensively to maintain equilibrium. This passage also implies that the velocity of light or other energies may vary depending on the quantity of mass in the space environment it traverses.

**Page 176 antigravity (12)**

5 The superuniverse of Orvonton is apparently now running down; the outer universes seem to be winding up for unparalleled future activities; the central Havona universe is eternally stabilized. **Gravity and absence of heat (cold) organize and hold matter together; heat and antigravity<sup>12</sup> disrupt matter and dissipate energy.** The living power directors and force organizers are the secret of the special control and intelligent direction of the endless metamorphoses of universe making, unmaking, and remaking. Nebulae may disperse, suns burn out, systems vanish, and planets perish, but the universes do not run down.

This statement is consistent with the idea that antigravity would involve motion that puts stress on the molecular structures of matter. In effecting a reasonable demonstration of antigravity, the amount of heat and the degree of disruption of matter will be determined. It will be interesting to discover how the force of antigravity disrupts matter and how closely it resembles the effects of heat. Observations of the universe that have led to the concept of entropy are refuted as only apparent; the theory of entropy is not actually true.

**PAPER 24 - *Divine Counselor***

## HIGHER PERSONALITIES OF THE INFINITE SPIRIT

### Page 264 antigravity (13)

10 **Solitary Messengers, Circuit Supervisors, Census Directors, and the Personal Aids are characterized by the possession of tremendous endowments of antigravity<sup>13</sup>.** The Solitary Messengers are without known general headquarters; they roam the universe of universes. The Universe Circuit Supervisors and the Census Directors maintain headquarters on the capitals of the superuniverses. The Personal Aids of the Infinite Spirit are stationed on the central Isle of Light. The Associate Inspectors and the Assigned Sentinels are respectively stationed on the capitals of the local universes and on the capitals of their component systems. The Graduate Guides are resident in the Havona universe and function on all its billion worlds. Most of these higher personalities have stations in the local universes, but they are not organically attached to the administrations of the evolutionary realms.

This is again relating the attribute of antigravity to living beings that take origin in the Infinite Spirit. I theorize that they must have the ability to move in a way like any of the things that are referred to as having antigravity as an attribute. Imagine how different these beings must be from our ordinary way of conceiving the concept of creatures. They must have a dynamic living endowment reflective of what is meant by antigravity.

### PAPER 29 - *Universal Censor*

## THE UNIVERSE POWER DIRECTORS

### 4. THE MASTER PHYSICAL CONTROLLERS

#### Page 326 antigravity (14)

1 Of all the Master Physical Controllers assigned to the inhabited worlds, the mechanical controllers are by far the most powerful. **Possessing the living endowment of antigravity<sup>14</sup> in excess of all other beings, each controller has a gravity resistance equaled only by enormous spheres revolving at tremendous velocity.** Ten of these controllers are now stationed on Urantia, and one of their most important planetary activities is to facilitate the departure of seraphic transports. **In so functioning, all ten of the mechanical controllers act in unison while a battery of one thousand energy transmitters provides the initial momentum for the seraphic departure.**

The reference of antigravity to revolving motion is the recurring theme. This use of the word "*revolving*", like the word revolution, could mean more than the word "*rotate*" or merely to spin, but could imply a turning in a more full and replete three dimensional sense of the idea. The connection to the fact that these beings are denominated as "*mechanical controllers*" and that they have a living endowment of antigravity equaled only by enormous revolving spheres, which would imply non-living antigravity, infers the postulation of a definitive mechanical connection to antigravity in general. And the momentum stated in the last sentence of this paragraph may refer to the angular force associated with the previously mentioned revolving motion.

#### Page 328 antigravity (15)

4 6. *Secondary Dissociators*. **Compared with the primary associators, these beings of enormous antigravity<sup>15</sup> endowment are the reverse workers.** There is never any danger that the special or modified forms of physical energy on the local worlds or in the local systems will be exhausted, for these living organizations are endowed with the unique power of evolving limitless supplies of energy. They are chiefly concerned with the evolution of a form of energy which is hardly known on Urantia from a form of matter which is recognized still less. They are truly the alchemists of space and the wonder-workers of time. But in all the wonders they work, they never transgress the mandates of Cosmic Supremacy.

I believe the author states this as an inference that the accepted laws involving the conservation of energy and matter, as we understand them need expanding, even transcendence, and all this is presented consistently with precise language in The Urantia Book. The concept of antigravity, and the implications of this idea on the understood laws of motion and its relationship to energy and matter, requires that the conservation of energy and matter be reconsidered to include the attributes of space, especially its motion and tension, as factors. Again, the notion of entropy, as inevitable, is refuted.

**PAPER 34 - *Mighty Messenger***  
**THE LOCAL UNIVERSE MOTHER SPIRIT**

**2. NATURE OF THE DIVINE MINISTER**

**Page 375 antigravity (16)**

5 **From the earliest association with the Creator Son the Universe Spirit possesses all the physical-control attributes of the Infinite Spirit, including the full endowment of antigravity<sup>16</sup>.** Upon the attainment of personal status the Universe Spirit exerts just as full and complete control of mind gravity, in the local universe, as would the Infinite Spirit if personally present.

The Mother Spirit also must be dynamic in action and able to perfectly pattern motion.

**PAPER 42 - *Mighty Messenger*  
ENERGY - MIND AND MATTER**

This paper should also be helpful if reviewed. It provides an overview of physics and reveals exquisite spiritual patterns that are behind the cause of these physical manifestations.

**2. UNIVERSAL NONSPIRITUAL ENERGY SYSTEMS (PHYSICAL ENERGIES)**

**Page 469**

1 It is indeed difficult to find suitable words in the English language whereby to designate and wherewith to describe the various levels of force and energy — physical, mindal, or spiritual. These narratives cannot altogether follow your accepted definitions of force, energy, and power. There is such paucity of language that we must use these terms in multiple meanings. **In this paper, for example, the word *energy* is used to denote all phases and forms of phenomenal motion, action, and potential, while *force* is applied to the pregravity, and *power* to the postgravity, stages of energy.**

This is confirmation that the accepted definitions of the words used to describe *motion* need some revision. I accept the distinctions of these definitions made here and use them likewise throughout all discussion of antigravity and the unified field mechanism. It is most important to keep in mind that, according to the definitions given, force precedes physical energy and matter. Force becomes energy and matter. Energy and matter do not create force; they reveal its presence.

**Page 470**

2 a. ***Puissant energy.* This is the powerful-directional, mass-movemented, mighty-tensioned, and forcible-reacting energy — gigantic energy systems set in motion by the activities of the primary force organizers. This primary or puissant energy is not at first definitely responsive to the Paradise-gravity pull though probably yielding an aggregate-mass or space-directional response to the collective group of absolute influences operative from the nether side of Paradise.** When energy emerges to the level of initial response to the circular and absolute-gravity grasp of Paradise, the primary force organizers give way to the functioning of their secondary associates.

This is the motion of space, in space, and among space, without involving energy or matter as participants. Force associated with the motions of the space fabric itself is superior to even gravity. Once this force has mobilized so that axial revolutions exist, the beginnings of energy-matter has emerged as particles referred to as ultimatons with the necessary pattern to differentiate them from within the force blanket of pervaded space.

**4. ENERGY AND MATTER TRANSMUTATIONS**

**Page 473 antigravity (17)**

2 Gravity acts positively on the power lanes and energy channels of the power centers and the physical controllers, but these beings have only a negative relation to gravity — the exercise of their antigravity<sup>17</sup> endowments.



Once more, the connection of the Infinite Spirit's subordinate beings to antigravity indicates that they must be able to *move* in a way that makes the effect of antigravity a natural endowment. The language used is consistent throughout the book.

#### Page 473 antigravity (18)

8 **Throughout all of this never-ending metamorphosis of energy and matter we must reckon with the influence of gravity pressure and with the antigravity<sup>18</sup> behavior of the ultimatonic energies under certain conditions of temperature, velocity, and revolution.** Temperature, energy currents, distance, and the presence of the living force organizers and the power directors also have a bearing on all transmutation phenomena of energy and matter.

Antigravity here is being associated with the behavior of inanimate energy-matter. I recognize that the term antigravity is a pattern of motion that applies to living and non-living things, to cosmically large scales, and to infinitesimal dimensions. The pattern of this motion is consistent with angular force patterns and can probably be recognized as an inevitability of relatively perfect *finite* motion potentials.

### 5. WAVE-ENERGY MANIFESTATIONS

#### Page 476

2 **Primordial-force behavior does give rise to phenomena which are in many ways analogous to your postulated ether. Space is not empty; the spheres of all space whirl and plunge on through a vast ocean of outspread force-energy; neither is the space content of an atom empty. Nevertheless there is no ether, and the very absence of this hypothetical ether enables the inhabited planet to escape falling into the sun and the encircling electron to resist falling into the nucleus.**

This primordial-force is the presence in space that becomes the substance of energy traversing through space and of energy occupying space as matter. This force is the underlying force behind the unified field mechanism. The difference between the ether and the unified field mechanism is the distinction of **motion**. In the case of the ether, it is theorized that objects move through quiescent, stationary ether. In the case of the unified field mechanism space is moving much faster than anything else, taking no time for the accomplishment of its reactions. Therefore, when spheres of mass are revolving around spheres of mass, the force association remains constant regardless of whether the orbit of one body is in the direction of the orbit of the other body or not. If these bodies were moving through the hypothetical ether there would be a differential of force association, depending on the relative directions of the orbiting bodies. This differential of force relationship would disrupt the continuity of systems in association causing the result suggested by the authors.

### 6. ULTIMATONS, ELECTRONS, AND ATOMS

#### Page 476 antigravity (19,20)

5 Ultimatons function by mutual attraction, responding only to the circular Paradise-gravity pull. Without linear-gravity response they are thus held in the universal space drift. **Ultimatons are capable of accelerating revolutionary velocity to the point of partial antigravity<sup>19</sup> behavior, but they cannot, independent of force organizers or power directors, attain the critical escape velocity of deindividuation, return to the puissant-**

**energy stage.** In nature, ultimatons escape the status of physical existence only when participating in the terminal disruption of a cooled-off and dying sun.

6 The ultimatons, unknown on Urantia, slow down through many phases of physical activity before they attain the revolutionary-energy prerequisites to electronic organization. **Ultimatons have three varieties of motion: mutual resistance to cosmic force, individual revolutions of antigravity<sub>20</sub> potential, and the intraelectronic positions of the one hundred mutually interassociated ultimatons.**

This reference connects the behavior of inanimate energy-matter to antigravity with *revolving motion*, again, as the basis of the effect. I know that this must seem redundant, but this is part of the remarkable nature of the hypothesis; The Urantia Book consistently presents this same case. This is a sincere attempt to interpret what the *authors* mean. The motions of space-force slow down as it emerges in levels of energy manifestation. And then progresses to even slower velocities on the levels where, as energy, it occupies space as matter. This concept reveals how the velocity of motion is related to the three basic physical manifestations of the unified field mechanism — space, energy, and matter.

## 8. ATOMIC COHESION

Page 478

5 **While gravity is one of several factors concerned in holding together a tiny atomic energy system, there is also present in and among these basic physical units a powerful and unknown energy, the secret of their basic constitution and ultimate behavior, a force which remains to be discovered on Urantia. This universal influence permeates all the space embraced within this tiny energy organization.**

6 **The interelectronic space of an atom is not empty. Throughout an atom this interelectronic space is activated by wavelike manifestations which are perfectly synchronized with electronic velocity and ultimatonic revolutions. This force is not wholly dominated by your recognized laws of positive and negative attraction; its behavior is therefore sometimes unpredictable. This unnamed influence seems to be a space-force reaction of the Unqualified Absolute.**

At the time of the writing of The Urantia Book, the principle that matter was equal to energy by the ratio of Einstein's formula  $E=mc^2$  was known, but not until after the explosion of the atomic bomb, was the tremendous force in matter fully realized. The age of atomic science then reached a new level of technical achievement providing an inner mechanism of the atom revealing many more particles than just the expected protons, neutrons, and electrons. But the entire inventory of parts has not satisfactorily answered the question of how the force mechanisms of these particles produce the integrity of motion in the atom. The strides made by physical science, in recognizing the order of the elements and their respective chemical reactions in various molecular combinations, has given us a glimpse of the mechanistic patterns of creation revealed in physical reality. But the patterns of motion associated with the sub-atomic level of the physical mechanism are not so evident. The sum of the parts doesn't appear to add up to the whole, apparently because of missing ingredients. The inner mechanism of atomic integrity may be what, in the year it was written, was "unknown", and is now known as the "weak" and "strong" forces of the atom. The "strong" force being the effect the forces in space have on the motion inside the space occupied by energy as matter. The "weak" force is the effect this space, with all of its internal energy of motion, has outside the immediate nucleus. And in certain cases, the relationship of the balance of this space-force with the surrounding space-force matrix is unable to contain all of the motion, releasing its internal energy in exhibitions of radioactivity. I admit that this interpretation is speculative, but it has been useful to me in recognizing the unity of the space-force mechanism.

## 11. UNIVERSE MECHANISMS

### Page 482 antigravity (21)

2 **Motion and universe gravitation are twin facets of the impersonal time-space mechanism of the universe of universes.** The levels of gravity response for spirit, mind, and matter are quite independent of time, but only true spirit levels of reality are independent of space (nonspatial). The higher mind levels of the universe — the spirit-mind levels — may also be nonspatial, but the levels of the material mind, such as human mind, are responsive to the interactions of universe gravitation, losing this response only in proportion to spirit identification. Spirit-reality levels are recognized by their spirit content, and spirituality in time and space is measured inversely to the linear-gravity response.

3 Linear-gravity response is a quantitative measure of nonspirit energy. **All mass — organized energy — is subject to this grasp except as motion and mind act on it.** Linear gravity is the short-range cohesive force of the macrocosmos somewhat as the forces of intra-atomic cohesion are the short-range forces of the microcosmos. **Physical materialized energy, organized as so-called matter, cannot traverse space without affecting linear-gravity response. Although such gravity response is directly proportional to mass, it is so modified by intervening space that the final result is no more than roughly approximated when expressed as inversely according to the square of the distance. Space eventually conquers linear gravitation because of the presence therein of the antigravity<sup>21</sup> influences of numerous supermaterial forces which operate to neutralize gravity action and all responses thereto.**

The first sentence of paragraph 2 on page 482, which states plainly that "*motion and universe gravitation are twin facets of the impersonal time-space mechanism*", is quite explicit! The second sentence of paragraph 3 is a reference to gravity's grasp of matter with a clear **exception clause** suggesting motion and mind may be employed to affect it. With a clear recognition of the relationship of mass to gravity, the last sentence confirms that space, and the force-presence therein, has an antigravity influence, which operates to "*neutralize gravity action and all responses thereto.*" The conclusion of a definitive pattern of manifestation is inevitable. The degree that the pattern of the motions of mass in space reflect the definitive antigravity pattern of motion, given in Figure 1, is the degree to which antigravity is a factor of influence in the composite force reactions of physical reality. These two paragraphs are strong examples of the consistency and the compatibility this interpretation of antigravity yields. The space dynamics associated with the phenomena of gravity and the space reactions caused by motion patterned as antigravity are complementary and together can control the balance of force tension within the fabric of the time-space continuum.

These paragraphs also reveal spiritual implications of the meaning and effect of linear-gravity in the material universes. The very concept of linear motion, as it is conceived naturally, is *only* a level of relative perfection as concepts apply to motion. Nothing in the vast physical universes of time and space *actually* moves in perfectly linear motion!

**PAPER 101 - Melchizedek**  
**THE REAL NATURE OF RELIGION**

**4. THE LIMITATIONS OF REVELATION**

Page 1109

2 **Because your world is generally ignorant of origins, even of physical origins, it has appeared to be wise from time to time to provide instruction in cosmology.** And always has this made trouble for the future. **The laws of revelation hamper us greatly by their proscription of the impartation of unearned or premature knowledge.** Any cosmology presented as a part of revealed religion is destined to be outgrown in a very short time. Accordingly, future students of such a revelation are tempted to discard any element of genuine religious truth it may contain because they discover errors on the face of the associated cosmologies therein presented.

3 Mankind should understand that we who participate in the revelation of truth are very rigorously limited by the instructions of our superiors. **We are not at liberty to anticipate the scientific discoveries of a thousand years.** Revelators must act in accordance with the instructions which form a part of the revelation mandate. We see no way of overcoming this difficulty, either now or at any future time. **We full well know that, while the historic facts and religious truths of this series of revelatory presentations will stand on the records of the ages to come, within a few short years many of our statements regarding the physical sciences will stand in need of revision in consequence of additional scientific developments and new discoveries. These new developments we even now foresee, but we are forbidden to include such humanly undiscovered facts in the revelatory records. Let it be made clear that revelations are not necessarily inspired. The cosmology of these papers is not inspired. It is limited by our permission for the co-ordination and sorting of present-day knowledge. While divine or spiritual insight is a gift, human wisdom must evolve.**

4 Truth is always a revelation: autorevelation when it emerges as a result of the work of the indwelling Adjuster; epochal revelation when it is presented by the function of some other celestial agency, group, or personality.

5 In the last analysis, religion is to be judged by its fruits, according to the manner and the extent to which it exhibits its own inherent and divine excellence.

6 Truth may be but relatively inspired, even though revelation is invariably a spiritual phenomenon. **While statements with reference to cosmology are never inspired, such revelations are of immense value in that they at least transiently clarify knowledge by:**

1. **The reduction of confusion by the authoritative elimination of error.**
2. **The co-ordination of known or about-to-be-known facts and observations.**
3. **The restoration of important bits of lost knowledge concerning epochal transactions in the distant past.**
4. **The supplying of information which will fill in vital missing gaps in otherwise earned knowledge.**
5. **Presenting cosmic data in such a manner as to illuminate the spiritual teachings contained in the accompanying revelation.**

This quote sheds light on the circumstance of having discovered antigravity in direct relation to The Urantia Book. The Urantia Book's authors clearly address the fact that the cosmologies in this revelation

are *not* inspired. The information about the facts of the physical mechanism are presented in a way that reveals the proper context and perspective under which these facts have the most spiritual meaning. I believe that, though the authors point out the facts necessary to understand the meanings of many of the ideas about the physical mechanism, they refrain from actually explaining any of the ideas that had not yet been discovered at the time of the revelation. In recognition that there will be discoveries, the purpose of the information is for the spiritual meanings of the ideas presented. These patterns of the physical mechanism are presented as repercussions of pre-existent spiritual patterns. Therefore, the work of proving anything discovered in The Urantia Book, such as antigravity as an empirical fact, or spiritual truths revealed and then personally experienced, require confirmation. And this is an evolutionary process.

This document insures that, though The Urantia Book does not present the idea of antigravity directly, the vital fact of the connection of the understanding of the unified field mechanism from the revelation of The Urantia Book be preserved. The revelation references ideas as yet to be discovered and unknown, thus dating it historically, but the spiritual implications revealed within these references can only be discovered by individual personal spiritual experience. The results of empirical proof of the existence of antigravity, defined as it is used consistently in the cosmology of The Urantia Book, will lend tremendous leverage and credibility to all of the material in the entire book!

I have difficulty fully distinguishing in my personal experience the results of revelation from the fruits of discovery. This document attests to a concerted effort to give and establish true and proper origins and sources of thought.

**PAPER 105 - Melchizedek  
DEITY AND REALITY**

**2. THE I AM AS TRIUNE AND AS SEVENFOLD**

**Page 1155**

3 6. *The Infinite Capacity*. I AM static-reactive. **This is the endless matrix, the possibility for all future cosmic expansion. This phase of the I AM is perhaps best conceived as the supergravity presence of the Unqualified Absolute.**

This description of the force resident within space uses the word "*matrix*" to describe it. This can infer a determinant as the result of any defined matrix. This is a literal mathematical relationship between the finite points of space and the force effects of action and reaction that any motion produces. The force matrix of the space environment determines the resulting motion in response to any initiated motion. This determinant is achieved by impersonal rules when the Unqualified Absolute reacts by moving space into definitive patterns of reassociation for the purpose of "*static-reactive*" balance and equilibrium.

Ordinarily, space moving, acting, reacting, and the rules thereof are recognized only when resulting in force that affects energy or matter. Kind of like we see the wind by observing the way the leaves in a tree move. Yet the motion of space and the primordial force presence itself is at the foundation of all actualization of finite potentials inherent in all material motion patterns.

**3. THE SEVEN ABSOLUTES OF INFINITY**

**Page 1156**

1 3. *The Paradise Source and Center*. Second nondeity pattern, the eternal Isle of Paradise; the basis for the realization-revelation of "I AM force" and the foundation for the establishment of gravity control throughout the universes. Regarding all actualized, nonspiritual, impersonal, and nonvolitional reality, Paradise is the absolute of patterns. Just as spirit energy is related to the Universal Father through the absolute personality of the Mother-Son, so is all cosmic energy grasped in the gravity control of the First Source and Center through the absolute pattern of the Paradise Isle. Paradise is not in space; space exists relative to Paradise, and the chronicity of motion is determined through Paradise relationship. **The eternal Isle is absolutely at rest; all other organized and organizing energy is in eternal motion; in all space, only the presence of the Unqualified Absolute is quiescent, and the Unqualified is co-ordinate with Paradise.** Paradise exists at the focus of space, the Unqualified pervades it, and all relative existence has its being within this domain.

Once again reality as described from a cosmic perspective cannot escape the idea that motion is an inherent attribute of all finite things. This is the fundamental idea required to appreciate the concept of **balance and equilibrium** as a basis for the appearance of the experience of what is called stationary. The observations of physical reality that are generally described as static and show continuity in the absence of any force are *more precisely* described as continuing because there is a continuing balance of force presence.

**PAPER 118 - Mighty Messenger  
SUPREME AND ULTIMATE — TIME AND SPACE**

### 3. TIME-SPACE RELATIONSHIPS

Page 1297

**2 Only by ubiquity could Deity unify time-space manifestations to the finite conception, for time is a succession of instants while space is a system of associated points. You do, after all, perceive time by analysis and space by synthesis.** You co-ordinate and associate these two dissimilar conceptions by the integrating insight of personality. Of all the animal world only man possesses this time-space perceptibility. **To an animal, motion has meaning, but motion exhibits value only to a creature of personality status.**

**6 Space comes the nearest of all nonabsolute things to being absolute. Space is apparently absolutely ultimate. The real difficulty we have in understanding space on the material level is due to the fact that, while material bodies exist in space, space also exists in these same material bodies. While there is much about space that is absolute, that does not mean that space is absolute.**

7 It may help to an understanding of space relationships if you would conjecture that, relatively speaking, space is after all a property of all material bodies. **Hence, when a body moves through space, it also takes all its properties with it, even the space which is in and of such a moving body.**

**8 All patterns of reality occupy space on the material levels, but spirit patterns only exist in relation to space; they do not occupy or displace space, neither do they contain it.** But to us the master riddle of space pertains to the pattern of an idea. When we enter the mind domain, we encounter many a puzzle. Does the pattern — the reality — of an idea occupy space? We really do not know, albeit we are sure that an idea pattern does not contain space. But it would hardly be safe to postulate that the immaterial is always nonspatial.

Furthering an understanding of the unified field mechanism, page 1297 reaffirms that space being a system of associated points established previously (see page 1155 paragraph 3; as a "*matrix*"). A magnet shows the fact that the space property of any moving body is carried with the body in its motion through space as it brings its surrounding field of magnetic flux with it as it moves. The motion of the *space*, as an attribute in any body, as well as the energy and matter of that body, instantaneously affects the surrounding space environment. It is force tension in the space environment that controls the potential motion of the things in that environment.

The tension of space-force is identified by different names because of the resulting effect this tension has on the motion of energy and matter. Gravity, magnetism, electrodynamics, and nuclear forces are all fundamentally the same force mechanism.

The force of antigravity is a space-force reaction to matter when made to move in the pattern of motion described by this document. Both gravity and antigravity are forces described by different names because of the opposite direction this space-force reaction causes energy and matter to move. Yet, it is important to reiterate that fundamentally they are both caused by the same space-force mechanism. Each is this mechanism's specific reaction to the specific motion patterns associated with the energy and matter in any local space frame. Only gravity is ordinarily associated with physical balance, but balance can also be achieved with angular motions. And a superior balance with respect to the balance of gravity is achieved with precise associations of angular motions of dense matter.

**PAPER 130 - *Midwayer Commission*  
ON THE WAY TO ROME**

**7. AT CARTHAGE — DISCOURSE ON TIME AND SPACE**

**Page 1439**

**4** There are seven different conceptions of space as it is conditioned by time. Space is measured by time, not time by space. The confusion of the scientist grows out of failure to recognize the reality of space. Space is not merely an intellectual concept of the variation in relatedness of universe objects. Space is not empty, and the only thing man knows which can even partially transcend space is mind. Mind can function independently of the concept of the space-relatedness of material objects. Space is relatively and comparatively finite to all beings of creature status. The nearer consciousness approaches the awareness of seven cosmic dimensions, the more does the concept of potential space approach ultimacy. But the space potential is truly ultimate only on the absolute level.

It is appropriate and gratifying that the Master himself should supply the last piece of information supporting all these selections from The Urantia Book. This passage of Jesus' explanation of time and space at Carthage is impressive in that the Master understood the unified field mechanism well and even beyond, and was able to recognize the seven dimensions of cosmic reality as Joshua ben Joseph the man! It is only natural to expect the Creator to possess the understanding of all things, including the mechanism of the material manifestation of his own making, but the beauty of the way the information is presented by the authors of the book leaves to Michael of Nebadon as Jesus, the man, like the icing on the cake, to present as the final piece to the cosmic puzzle of the unified field mechanism this magnificent discourse. The wording of this paragraph gives confirmation of the ideas previously presented and adds additional insights.

That time measures space, and not the other way around, is most important and was recognized by Einstein, hence the cosmic standard of distance is the light year. This enlightened teaching about the real nature of space and its connection to motion, as presented throughout the book, also illuminates the real nature of time. Paradise association to space-force determines how the velocities of motion control time frames.

Yet this passage is most beautiful because it states how the actual relatively finite mechanism of space is, in its potential, associated with the supernal and transcendent levels of reality that are described by the highest minded cosmic philosophy as the concepts of the Ultimate and the Absolute!



## 2. The Unified Field Mechanism

The reasons for the belief in, and understanding of, the unified field mechanism come from the revelation of The Urantia Book. The unified field mechanism is the inclusive phrase used in this document to refer to the mechanism of our finite physical creation in time and space. I have come to understand these ideas through studying the revelation of The Urantia Book and applying it to my knowledge of modern physics. The Urantia Book does not use this term, though it does reveal in detail what is meant by it, referring to it as the "*impersonal time-space mechanism*" (ref: page 482:2). Antigravity, as a relatively perfect finite pattern of physical motion in space, as I have described it in this document, is my idea. The explanation for why I see this to be true is predicated on the "*impersonal time-space mechanism*" as it is revealed in The Urantia Book. These ideas are based on my best interpretation of this concept.

This is the idea that all the forces of physical reality are caused by a single primal unified force. The four basic forces recognized by modern science are gravity, electro-magnetism, and the "weak" and "strong" forces within the atom. There is no clearly recognized connection among these four basic forces. The fields of magnetism and the pattern of motion of energy have been shown to be fundamentally related as electro-magnetism, but this is not true for the field of gravity or the "weak" and "strong" forces of the atom. Recognizing the relationship between electricity and magnetism and between energy and matter has, rightly, led scientists to theorize about how all the fundamental forces of nature are related to a single unifying cause, but they have not, thus far, found the connection. The idea of the single force that unifies all these forces and is also the explanation for the cause of antigravity is the unified field mechanism.

As the perusal of the revelation of The Urantia Book was slowly transforming my perception of reality in general, not only was I discovering previously unknown inner personal spiritual truths, I was also developing a decidedly different idea of the macro and micro cosmos of material reality as compared with how it is recognized by modern science. This paradigm shift in perception was gradual; yet now, I realize an entirely new concept of the foundation of physical existence. I am no longer in agreement with the generally accepted ideas of these things. The unified field mechanism is the technique that the Creator uses for manifesting finite reality.

This is a *qualitative* description of this idea and is not meant to be *quantitative*. Understanding the principles associated with this concept is the framework necessary for a premise explaining the cause of many different kinds of observed phenomena. The perception of the physical world with the unified field mechanism understood as a premise of the *cause* of these forces, not only satisfactorily explains antigravity and other as yet unexplained phenomena, it truly exemplifies the very concept of **unity**. The description in this document cannot hope to address all the details and various nuances of this *space mechanism*. This is a broad description identifying the unified field mechanism as the basis for how physical reality works, and is meant only to provide an introduction to this point of view as a foundation for understanding antigravity.

It was from this perspective the understanding of antigravity emerged. Since much of the detail of how this mechanism actually achieves existing physical manifestations is highly speculative, the primary consideration of its fundamental existence is predicated on the results of the primary experiment with antigravity. Many more experiments can be done to establish and embellish the actual details of how this mechanism functions and can progressively confirm or disprove what is now only qualified speculation. Any amount of consideration of the idea of this *space mechanism*, as a premise of physical reality, is an important beginning. Beyond the fundamental premise of the existence of the mechanism, the application of this mechanism as an explanation for various phenomena, other than antigravity, is my best effort to provide additional insights, even at the admitted increase in the risk of potential error of analysis. Explanation of the unified field mechanism from the initial level of space up through its progression into energy and then matter will help clarify the *three* primary distinctions of material reality.

1. *Space*. As revealed, the idea of the existence of something more to space than what is understood by modern science is at the heart of the unified field mechanism. The fundamental force of physical reality is space-force presence. Space is a thing that exists as a finite reality; it is not the mere absence of energy and matter existing only as a logical or hypothetical matrix used to measure the attributes and relationships of form, distance, and displacement of energy and matter. The differentiation of the physical qualities of all things is maintained by the underlying force presence of the composite motion in this unified space matrix. It exists as a finite continuum of discrete points which move in relation to each other in relationships that are beyond and liberated from the laws of motion which pertain to energy and matter, even pattern; time is not a factor, space operates instantaneously. These space units have varying degrees of tension and **force-presence**. The associated space-force is not recognized as such, but magnetism and gravity as well as momentum and inertia are the result of this space-force tension.

2. *Energy*. The very concept "*particle*" must first be reconsidered and redefined. Discrete and finite points of space are not particles; the motion involving the forces associated with space present no such distinction. Yet, "particles" of energy are evolved from the forces associated with the motion of these units of space. When the instantaneous motion of a single unit or point of space is slowed down and modified to rotate, it does so at extremely high angular velocities, yet this is still slower than the instantaneous motions of space liberated from time. The concept of velocity is with reference to time. The attribute of an axis differentiates these units and creates the necessary contrast that is required to identify them as the primary particles of energy-matter, though they have not yet been discovered as such. And this primary particle is nothing more than the force potential of movable space moving in a way that is distinguishable, from the existing force-charge of pervaded space by maximizing the angular aspect of its motion. These particles are called ultimatons and they affect the volume of the surrounding space matrix in a way that govern their collective motion, causing them to "*huddle*" into more complex particle arrangements of motion until one hundred associate definitively as the electron. Once the primary particles of energy manifest, they travel through space at a velocity that is metered by time at the finite maximum for the amount of relative motion that can occur in the space matrix in the least amount of time. This fundamental constant of the speed of light is one of the constants of quantum physics that is indicative of a finite time space continuum; it is space that controls the velocity and trajectory of light. Whether this velocity is an immutable constant is concealed within the very nature of space and this may vary with time and universal location (space). The path that energy or matter follow is the one of least resistance to motion and is thought of as linear, but as shown by astrophysics, is curved by gravity and other influences in space and is really not *perfectly* linear, not in the *absolute* sense. The arrangements of the ultimatons in the energy particle in addition to the initial force sponsoring its locomotion through space are responsible for the various types of energies in space. All wave manifestations represent the collective composite pattern of harmonic motion that the individual points within the space matrix exhibit when producing the locomotion of any particle or mass that traverses this continuum. Space-force controls, conditions, and qualifies the patterns of all of the various kinds of existing physical motions. When anything moves, space is displaced and must adjust. The force tension in space reflects the various kinds of motions causing displacement of space. This displacement is symmetrical and causes the alternating oscillations identified as wave manifestations.

3. *Matter*. Matter is formed when these patterns of energy are contained within an individual unit or point of space. When a single unit of space, being finite in its nature, is occupied by energy, force is captured as circular motion patterns with maximum angular velocities. When space occupied by energy as matter (as in atoms and molecules) moves through space a displacement of space is also required as with energy. But this displacement is different and includes the space that the energy as matter occupies; there are additional adjustments proportional to the quantity of motion within the mass. The force adjusting space for this motion retards the velocity of matter through space. The motions of the energies that occupy space as matter affects the space-force tension in the surrounding space matrix in a way that we call gravity. When the motions in matter manifest, so does this space tension, and there is a lessened

resistance to motion in the direction of the location of the mass. The magnitude of the force of gravity is proportional to the mass of matter, which is proportional to the amount of motion in the matter. The fact that there is a limit of quantity of motion that can occupy space as matter, shown by the maximum limit of the mass of the largest atoms, again reflects the finite nature of space. The effect of the **tension in the space matrix**, known as gravity, can be **balanced** by a sufficient amount of **motion** of space, not inside the atom, but *among* the individual units of space surrounding the atom, so that the resulting tension will **equilibrate** the force direction of the gravity tension. This is a rough understanding of how the force generated by this pattern of motion described as antigravity can **nullify gravity**.

The combination of the effect of the motions of energy and matter, in association with the reactions of the **space fabric** to this motion, accounts for all the wave manifestations that exist. When anything moves, the space the object moves into **must be displaced** by the space that the object brings with it. The pattern that this displacement takes determines the path of the moving body and wave occurrence *is* that displacement. When matter has motion through space the properties of momentum is the force tension of space. They are proportional to the mass of the matter, but the pattern of their respective manifestation is distinct. The force that is associated with the tensions in the fabric of space are responsible for the additional phenomena of magnetism and the tremendous force released in the splitting of the atom. These concepts I find difficult to describe and are at the mercy of my command of the English language. It will suffice to say that ultimately mass and all of its attributes of associated force equal the quantity of finite motion comprising mass qualified by the relative degree of the angular compared to the linear nature of these motion patterns with respect to the *absolute* center of the whole of creation which does not move or change and is not in any way relative.

The physical universe is a finite creation that is bound by the time-space force presence of the Absolutes. Everything physical is the of same force essence... the same stuff... the **only** difference in any physical thing of reality is the *pattern* of its motion... for all material reality is continually moving. The **pattern of motion** is the valuable meaning and defining feature of all physical things. All of the potential patterns of motion are revealed in the concepts of mathematics. But the advanced concepts of reality, found only in The Urantia Book, provide the required language to adequately and justly refine the description of the unified field mechanism. These required concepts of reality are revealed as:

1. *The Seven Absolutes of Infinity and Eternity (I AM).*

The Universal Father  
The Eternal Son  
The Infinite Spirit  
The Isle of Paradise  
The Deity Absolute  
The Universal Absolute  
The Unqualified Absolute

They are the seven prime relationships within the I AM eternalized. There is no way for a finite mortal being to fully and rightly explain, define, or express The Seven Absolutes of Infinity and Eternity.

Notwithstanding limitations, a familiarity with the terms referring to these concepts is a necessity. But it is only an introduction and a noble beginning to the endless and unfathomable mystery of these aspects of the I AM! I deem it indispensable in order to convey the description of the unified field mechanism and I intend to make it my point and purpose to illustrate how an understanding of this mechanism dovetails the mechanistic levels of our existential finite physical universe with its proper source and destination, as well as integrating the values of this understanding with the experience of the inevitable need for an associated high-minded cosmic philosophy of spiritual living. Only with the

knowledge of origins, histories, and destinies as well as current events and circumstances can perspectives hold true to reality and I assert and declare that science and religion will no longer remain separate and disjointed; it is truly the very nature of both that they require unity! The experience of proving the existence of antigravity is a religious experience as well as a scientific process! I have presented the facts of my experience as accurately as I know how and it would be incomplete not to include a fair and genuine effort to capture the outlook I hold in making this discovery. If I am correct in grasping an accurate understanding of the unified field mechanism of space and the subsequent idea of antigravity, it is from the recognition of the Infinite and Eternal, revealed in The Urantia Book as The Seven Absolutes, looking toward the finite inevitable ramifications of these ideas!

2. *The Universe of Universes.* This is the concept that all energy and matter occupy an incredibly large, all but infinite, volume of space that is, none the less, finite. Regardless of its unimaginably large dimensions, at its center and origin is the Paradise Isle which is the only truly stationary thing in all infinity. Paradise is the origin of all patterns from which all copies are made.

3. *The three basic levels of pervaded space.* 1) Beginning with the perfect and eternal universe of Havona, which surrounds the immediate location of the Paradise Isle and is hidden from the rest of creation by the enormous dark gravity bodies. 2) Next, the Seven Superuniverses associated with the experiential evolution of the Supreme Being, the level on which we currently exist. 3) And finally, exist the four outer space levels occupying the eventuation of the Ultimate levels of transcendental Deity and the myriad universes in the making.

I repeat... these foundations of reality are revealed in The Urantia Book and stand on their own. I take them on living faith knowing that many of my insights of perception are predicated upon them. I find all the concepts compatible and consistent with my experience and knowledge. The fact that these ideas are not currently accepted by mainstream science and are not compatible with some of the accepted theories (really fantasies) of science is not surprising. *These* ideas could not be discovered as fact, not understood as they are presented in The Urantia Book, and this naturally explains their existence as *revealed*. Once considered, their existence can be confirmed by experience and used by science. The human perception of reality is expanding. Along the paths of discovery humanity often discovers the patterns of the physical universe hidden by limitations of perception and self-made barriers to knowledge. The existence of revelation leads me to believe that divine help is a natural *lure* created by the deities to ever inspire mortal man to attain the fullness of the created purpose. Nevertheless, revelation is only a map for the journey of living, not the journey itself. The facts of existence must be discovered. In the age of discovery in which we live, I am truly humbled to have found The Urantia Book, a genuine revelation of epochal significance. That I can apply this knowledge in a way that may help humankind is truly inspiring.

An understanding of the foundation of reality, as I conceive it, is grounded in the concepts of *revelation*... The Urantia Book. In sorting out the discrepancies to accepted science, I find that many times the facts of knowledge remain the same, but the interpretations of their meanings and values expand. The absence of evidence for any specific thing is not the evidence of the absence of that thing! This fundamental truth is at the foundation of faith and supports my conviction and belief in God. The basis of modern cosmology, as it is accepted, has many arbitrary premises at its foundation. The idea of the "*Big Bang*" is only one example of accepted ideas that are only theories. Another is the idea of an infinite physical universe in scope and scale because of the lack of acknowledged evidence to the contrary. The fundamental physical explanation of everything according to the current *theories* of science is so completely inferior to The Urantia Book's enlightened cosmology that I don't hope to specifically address any of these fantasies. I am interested only in the *facts* of science! The success of proving, as fact, the mechanism of antigravity based upon the truths revealed in The Urantia Book should be sufficient to forever impact the course of science toward the **truth!**

Within this view of the universe, recognition of the patterns of the motion of antigravity have dawned on me. In The Urantia Book antigravity is associated with motion or the action of space itself.

When something moves, whether it is energy or matter, it is the space *force* presence that conditions and controls the pattern of its motion. This unlimited force potential, resident as the Unqualified Absolute, does inhabit the space domain; nevertheless the space itself is not absolute. The patterns for all motions are Paradise derivatives. The originators of motion are the Deities; the Universe of Universes is the result. Relative potentials of motion expressed in a three dimensional association within the finite space fabric, in which energy and matter are subject to the metering of time, is the arena of our present physical existence. Humankind will, undoubtedly, progressively discover the reality of the seven ultimate dimensions of cosmic reality, but the limited manifestations, which we perceive, though only relative and finite compared to the seven absolutes, is the place where we begin.

Within this level of creation, the three dimensional manifestation of space phenomena and the finite potentials of motion converge on certain inevitabilities. The patterns of motion, the *shape of things*, inherent within this potential, have finite ramifications. Limited levels of relative perfection are discernible in the consideration of certain mathematical concepts. In a geometrical sense, perfectly straight lines, perfectly round circles, or perfectly equilateral triangles, as well as many other patterns of fundamental mathematical expression are illustrative of relative levels of perfection as they relate to shape. At the heart of this discussion is a realization of the meanings and values of the inevitability of relative perfection within a finite three dimensional space fabric, as it relates to *shapes*, so well observed in the mathematics of geometry when these patterns are applied to the *physics of motion*.

The Urantia Book is correct when it points out the value of understanding divine origins. This helps immensely with recognizing the mechanism of physical existence. I cannot do justice to the Seven Absolutes and many of the high-minded concepts of Deity and creation by explaining them, only The Urantia Book itself can do that. I present, as best as I can, my discoveries of how these understandings can be applied in the case of antigravity.

Understanding the unified field mechanism allows me to see many explanations to some commonly, and not so commonly, observed phenomena. I don't have the mathematics nor do I see clearly the shuffling, sorting and rearranging of the space continuum, but I do have some basic axioms of its behavior. In some ways somewhat like a Rubic's cube, individual points of space move in combinations of re-association where no one point can move without causing another point to move. But unlike a Rubic's cube, there is no unit of space unlike any other unit. They are all alike, as if the all of the cube's surface was black; no colors to make a difference, contour, contrast, or pattern of for distinction upon re-association. The force-charge of space is what reacts when space moves and it is the underlying force that is key to understanding why various forces create the effects that they do. The adjustment of the forces in the space matrix is always toward balance of all composite force; it moves with as little overall motion in relation to Paradise as is possible, keeping the consequent force reactions within the smallest local space frame. I recognize that this is the intention and purpose of the space mechanism, yet I don't have an understanding of the rules that the Unqualified Absolute uses to govern the force presence in association with space motion. The motion of space itself is not limited by time. The entire volume of space adjusts instantaneously as a unified field. Recognizing this, **allows one to realize** that, even though space moves, it can't be observed moving; there is no pattern, therefore any change in appearance or presence. Only as movement of energy or matter can the individuality of the patterns of motion be observed. This does not mean that the force tension in space is not observed. This motion is observed all around us, but the language referring to it does not attribute the cause of these phenomena to the motion of space, but it should! Gravity, momentum, inertia, and electro-magnetism are better understood by recognizing that their respective force attributes are made manifest in the same way. The resulting energy patterns are different from one another, but the force controlling these patterns is the same. With this mechanism as a premise, many phenomena can be explained that otherwise defy explanation.

The "weak" and "strong" forces of the atom are the result of the way the force-charge of the individual space unit responds when occupied by energy as matter, creating patterns of motion inside this

individual space unit, organizing the energies that make up the various nuclear particles. The analysis of the sub-atomic particles of the atom should be considered in light of these respective motions.

Motion in the energy *occupying* space is the cause of the tension in the matrix of space that accumulate as the net effect of gravity. The space tension that surrounds the source of motion reflect the cumulative quantity of motion inherent within a mass by proportionally intensified concentric tensions. The warped nature of this concentric tension produces lessened resistance to motion in the inner direction of the curve. The shape of the force tension of the space matrix is curved, causing directions of lessened resistance, the resulting, apparently pure, linear patterns of motion include factors of angular adjustment due to the warped shape of the space-force tension. Gravity is **forcing a torque** on everything in its grasp. Unlike the "weak" and the "strong" forces in the atom, which is the behavior of the individual space point or unit when occupied by energy as matter, the effect we call gravity is the behavior of the "empty" space units in proximity to the units occupied by matter collectively producing a composite of concentric tension. The collective motions of the energy inside the individual space units cause concentric tension in the surrounding matrix of space-force. This has an influence on all occupied units and is mechanically proportional to this amount of collective motion occupying the individual space units as matter. These curved band of concentric tension that surround any aggregate of matter interact with the curve band of concentric tension from any other aggregate of matter, thus causing the space directly between the respective masses to have double the lessened resistance to motion. This lessened resistance depletes or displaces more *space* between the objects, which consequently brings the objects together. In order for space, acting as gravity, to move objects along the curved space tensions, keeping objects in relative place with respect to the gravitational mass, **requires** that a factor of torque be applied to all objects. This is **key** to antigravity: not allowing this torque to be the superior factor in the motion of mass and the normal shuffling of the force tensions of the space matrix.

Gravity creates the necessary warping of the space-force tension to allow for what could be called a format for what is recognized as linear motion. The relative linear value associated with any motion is with respect to local or *linear-gravity*. Ultimately, the apparent linear motions of energy all swing ever in the grasp of the Paradise Isle around the circuits of the various space levels. The relative quality of *apparent* linear and angular motions results from the force tension within the space matrix.

Once the motion of space is recognized as the controlling influence of the patterns of moving energy or matter, these patterns can be created and controlled for all kinds of, yet to be imagined, useful purposes. Intelligent mind, modifying matter and moving it in a way that causes the associated space motions to produce special effects, can reveal the presence of otherwise unseen space motions and associated force tension.

**Antigravity** balances the motions *in* space with the motions *of* space. It **prevents** the angular component of gravity from operating **by resisting all torque**. The only spatial environment that this composite motion can naturally exist in, and be in equilibrium with, is a place farthest from any gravitational source where the *tensions of force* in the space matrix are *least curved and most linear*.

The inevitabilities contingent upon the finite relative perfection of geometrical patterns as they are applied to motion are the key. From Michael Faraday's force lines in the space surrounding a magnet, to Einstein's warped space-time, many different theories in physics have space as the basis of explanation. The Urantia Book's presentation of the space mechanism is the definitive basis of my interpretation, but once having recognized this, the details of its properties may be embellished by any and all research that may shed light on its behavior. I predict that the consequence of space moving in non-ordinary ways will produce extraordinary results on energy and matter defying Newtonian and even Einsteinian explanations.

**Recognition** of the mechanism of the **force-charge of space** is recognition of **the unified field mechanism**. The pattern of force reaction inherent in the space matrix is independent of time; the entire

volume of space occupied by the universe of universes adjusts instantaneously as a unified event. This description of how the mechanism works in relation to antigravity, and other phenomena, on micro and macro cosmic levels of performance provides a viewpoint ready to be tested and tried in order to determine if it holds true. And if it this concept prevails, it is actually more *real* than current descriptions given by modern science. This space mechanism is at the foundation of material reality and is what scientists have been looking for in their efforts to find what they call the "*Unified Field Theory*". The idea of antigravity can be better understood when the unified field mechanism of space is taken into account. Ultimately, a comprehension of this mechanism and recognition of the underlying force manifestations of its performance, along with the mathematics expressing it, with calculating precision, will help to integrate material science with a high-minded cosmic philosophy of spiritual living.

### 3. Summary

Jesus stated plainly almost two thousand years ago that the scientist is confused, because of lacking the recognition of the reality of space. It has been over forty years since The Urantia Book was first published. And I have been trying, as I might, to impact the minds of my associates with this same idea for almost nine years. The manifold implications of this knowledge have led me to the awesome discovery of antigravity, which is only one of the many possible ramifications resulting from understanding the unified field mechanism. A fuller appreciation of the reality of space can truly transform not only our physical environment with more enlightened material technology, but also our philosophical and spiritual lives with the fruits of a more comprehensive view of truth, beauty, and goodness.

The Urantia Book suggests that antigravity is a force connected to revolving motion that is balanced and equal in its presence. This is a force that is attributed as a natural endowment of living beings related to the Infinite Spirit and is also attributed to inanimate objects of energy and matter. The scope of the influence of antigravity is given to be on macrocosmic and microcosmic levels of performance, from the circle of the Master Universe to the behavior of ultimatons. The Urantia Book refers to the idea of antigravity twenty-one times and implies associated concepts in numerous passages; yet not one time does it mention anti-matter. I completely dismiss the theory that assumes that antigravity is a natural attribute of anti-matter, this being only one example of "*the reduction of confusion by the authoritative elimination of error*". Although, in theory, some form of what may be called anti-matter may be able to exist in a limited and artificial manner, I believe that it has no place in the natural order of the cosmos and is in no way connected to the way the unified field mechanism, as revealed in The Urantia Book, manifests the force of antigravity.

I see that the application of the unified field mechanism, as it applies to the forces of antigravity in The Urantia Book, is utilized by various kinds of organizations of motion, some by living entities and some by non-living matter. However, I believe that the basic force created by the pattern of motion presented in this document can be denominated as antigravity with a total congruity of definition for the concept.

The unified field mechanism and the effect of antigravity as the motion pattern portrayed in this document is wholly consistent, compatible, and harmonious with the revelation of The Urantia Book. I love this revelation, and notwithstanding that the validity of my interpretation of these ideas are still in process and yet to be proven, this revelation has already been the most influential thing in my entire life.



### III. REASONS AND EVIDENCE

#### 1. Assimilation

I assert the following postulate about space without further qualification:

*Space is real and discrete. It exists as a matrix of finite points associated with force presence. It is not just the mere absence of energy and matter, but moves in and of itself and does so instantaneously, requiring no time. These motions do not obey our recognized rules of motion for energy and matter. This concept of space is not the previously postulated ether hypothesis. Material bodies exist in space, space also exists in material bodies. Hence, when a body moves through space, it takes all its properties with it, even the space which is in and of such a moving body.*

The world of motion is fascinating, a beautiful odyssey of contrast and contour, a myriad of finite changes in the force relationships of the otherwise uniform and undifferentiated space matrix. When looking outward with a telescope, we recognize that we exist in a vast realm of seemingly trackless space, filled with spiraling energy and matter forming galaxies upon galaxies with volumes of star systems staggering our imagination by the magnitude of the size of creation. The black void of fathomless space, apparently quiescent and without form, is the abundance of potential, dynamic beyond imagination; this is true in spite of all appearances. In this cosmic universe we exist on a single planet within a solar system wherein the motions of the cosmos can be more readily experienced. As we look nearer to our own place within the cosmos, we can recognize how the motions of the sun, moon, comets, and the planets, and especially the earth itself, are more easily observable. On the surface of the planet, the motions in the environment are rapid and inescapable, though the routines of living often distract us from the awe of it all. As we look closer at the details of our creation using a microscope we can recognize the incredible velocities of energy comprising the matter that constitutes the atoms and molecules, which look so stationary and inert in our everyday experience. This magnificent creation of motion is the reality of our existence and the arena wherein we begin our efforts to derive meaning and understanding as we assess values in living.

Having stated the motion pattern that is presented in this document as antigravity, a review of the basic motions of the world reveal a greater appreciation of the fundamental differences between the associated force relationships, which are denominated as attributes of linear and angular motion. All of the continuing motions in the cosmic environment have the component of angular motion due to the orbits and the revolution of the various celestial bodies involved, including the earth itself. On the surface of the earth the angular nature of the motions in the cosmic environment are detectable as force effects. Certain motion patterns magnify the effect of the cosmic environment and reveal its influence. Of all these motions, consider the following examples from which I have derived many meaningful clues to understanding the force mechanism of space which I profess is the cause of antigravity.

The magnetic field of the earth is an excellent example of a force in the cosmic environment that is detectable. Sir William Gilbert (1540-1603) discovered in 1600 that the earth is a huge magnet. This force exerts a certain torque in relation to the orientation of any magnetic material in the environment, such as a compass needle. Magnetic force is believed to be caused by the rotation of the planet's liquid core. The wide variation in the magnetic field of the earth at any specific place on the surface reveals a

dynamic force presence that is not satisfactorily attributed to the given, relatively constant, rotational cause.

The primary force attributed to causing pressure in the atmosphere is gravity. The thermal effects of the weather patterns explain the variations in the relative pressures around the globe. The influence motion has on pressure is displayed in the circular weather fronts known as low pressure. The use of pressure in the atmosphere to achieve flight is also reflective of angular patterns of motion. The curved path as air travels over an airplane wing lessens the pressure above the wing, providing lift.

The intense power and tremendous energies associated with tornadoes and hurricanes are good examples of how rotating motions develop from weather patterns. There is a considerable amount of unpredictability with these systems of rotation. Yet in spite of the variations in the overall pattern, these weather patterns always exhibit cyclonic motion and spin in the same direction depending on whether the weather is in the northern or southern hemisphere.

The changing tides of the oceans reflect a dynamic effect the earth-moon gravitational relationship creates. Though gravity in the cosmic environment does exhibit an influence on terrestrial events, when observed as an isolated force it doesn't reveal much about the mechanism causing it. With a **larger** perspective, there is evidence of torque on all matter in the presence of gravity. The non-linear nature of the earth is observed by the fact that a falling object does not fall straight down but veers slightly. For example, at latitude of 45 degrees, an object dropped from a height of 50 m. would (neglecting air resistance) land 5 mm. from the spot it would have hit if the earth were not rotating.

In 1835 Gaspard Gustave de Coriolis (d. 1843) described the laws of mechanics in a rotating reference frame; the earth itself is a rotating frame. The force attributed to this rotation is referred to as the Coriolis Effect.

The Foucault pendulum is named for the French physicist Jean Bernard Leon Foucault (pronounced "Foo-koh" 1819-1868), who first used it in 1851 to demonstrate the rotation of the earth. It was the first satisfactory demonstration of the earth's rotation using a mechanism instead of relying on astronomical observations. This is a fine example of how mechanical proof was used to finally and forever settle a question that, even though previously believed correct, and supported by reasonable evidence, was not, until then, an indisputable fact. As a young child, I remember seeing the giant pendulum in the planetarium swinging back and forth over a circular pattern that was marked off to represent a clock. I realize now the connection to momentum and I see that the separation of the patterns of motion caused by the forces of gravity and momentum are evident when the force of motion is sufficiently large. This is a beautiful demonstration of how the partial arc of circular motion is used as an actuator which, when the force is large enough, shows the same limit to gravitational control as gyroscopic stabilization.

The heavy pendulum swings with a sufficient angular momentum to keep its original path in space while the earth turns underneath. The pendulum will make a complete circuit of 360 degrees in a clockwise direction at the north pole in about 24 hours. At the equator the pendulum will not complete the circuit at all. And south of the equator the pendulum completes the circuit in a counterclockwise direction. This motion of the heavy pendulum exemplifies the fact that the forces of momentum mitigate gravity's control on motion. At least this is true with respect to the command gravity has on the pattern of the resulting motion.

There is a threshold of gravitational control that can be reached and overcome with a sufficiently large amount of momentum. In the case of the giant pendulum, the effect that the cosmic environment has in association with the motion of momentum is illustrated with high precision. In the case of an ordinary gyro or a giant pendulum the force of momentum does not change the *weight* of these objects, only the *pattern* of motion exhibited.

The force gravity exerts at different locations on the surface of the planet varies with respect to various factors. It varies as it is measured at sea level from the equator at  $9.78 \text{ m/s}^2$  to the poles at a little more than  $9.83 \text{ m/s}^2$ . About 65% of the effect is due to the mitigating centrifugal force of the rotation of the planet, the remaining 35% resulting from its shape as a flattened sphere. Because underlying geological structures are not uniform there are also significant local variations.

A review of the history of the study of motion provides the insights that allow for the discussion of these perceptions. As the details of motion have been studied throughout the last five hundred years the principles by which motion obeys have been revealed in pieces. Each piece is a reliable and predictable pattern of motion relationship that has become collectively known as the laws of physics. Within certain defined qualifications and limitations each piece is correct, but collectively they do not precisely describe the true composite nature of reality.

Nicolaus Copernicus (1473-1543) began to stir up the thinking process by the idea of a heliocentric system with planets, including the earth. Tycho Brahe (1546-1601), a great data gatherer and interpreter, and many others added to the information base by recording motion patterns and finding mathematical relationships. But Johann Kepler (1571-1630) formulated the first mathematically expressed laws of cosmic motion. His first law is that the planetary paths follow elliptic orbits with the Sun at one focus. His second law states that a line from the Sun to a body in orbit sweeps over equal areas in equal times.

Galileo, Newton, Einstein...

When Galileo Galilei (1564-1642) first began to define the science of motion, he discovered, what at the time seemed to be the naturally understood and common sense ideas about the way things move, were not true when put to critical inspection. He began, scientifically, by clearly defining the basis of motion; establishing the mathematical components of his observations and measuring them for various data. These components were named and identified to the extent of his insights at the time. He was inspired and I always find inspiration in his story.

He mapped the patterns of motion sufficiently to learn of parabolic trajectories, uniform circular or harmonic motion, and free fall acceleration, but did not yet develop a realization of the forces associated with the cause of these motions. It was presumed that an object only moves if a force keeps it moving. The fact that all objects fall at the same rate of acceleration was a new realization. It was presumed that heavier objects accelerate faster. The mitigating influence of atmospheric turbulence aided this misconception, but Galileo was the first to separate the different components of motion identifying some of the environmental influences causing them.

It was Sir Isaac Newton (1642-1727) who took the next major steps in further refining the rules of motion and giving them mathematical expression of a universal form that identifies the general nature of the forces involved. Newton defined the three basic laws of motion we use today and the law of gravity which, collectively, mathematically describe most naturally observed motion phenomena to a relatively high degree of accuracy. This was an amazing advance in the understanding of the physical world and is the foundation on which all modern science is set.

His first law is referred to as the law of inertia and states:

*Consider a body on which no net force acts. If the body is at rest, it will remain at rest. If the body is moving with constant velocity, it will continue to do so. If the net force on a body is zero, it is possible to find a set of reference frames in which that body has no acceleration.*

This corrects Galileo's misconception about the cause of any motion. Only change in the velocity of motion, known as acceleration, requires an out of balance net force presence. Balanced force produces no change in motion patterns and maintains what is observed as stationary. Any mitigating forces on motion, whether of friction, air resistance, or anything else, are more readily identified and easily separated out as individual components of the overall force presence.

The second law, referred to as the law of acceleration states:

*Force equals Mass times Acceleration ( $F=Ma$ ).*

This gave an ability to calculate the force of motion on any body in proportion to its mass. The mass of any body is recognized as an integral component and a primary factor in the magnitude of associated motions and forces.

The third law is the law of opposites or action-reaction and it states:

*To every action there is an equal and opposite reaction  
( $F_{AB} = -F_{BA}$ ).*

This is in acknowledgment of the effect any motion has on the environment of its action. The pattern of expression that motion exhibits never changes the net force in the cosmic environment and this is the basis for all the conservation laws. Only by creating force patterns that are divergent, equal and opposite, does symmetry manifest and is coordinating of all the potentials that the actualities of motion-force relationships may display in any given reference frame.

The law of gravity is as stated:

*Every particle of matter attracts every other particle of matter with a force whose magnitude is proportional to the mass of the particles and the distance between them.*

$$F=G(m_1m_2/r^2) \text{ where } G=6.67 \times 10^{-11} \text{ m}^3/\text{kg s}^2$$

This was the force relationship that, in association with the three previously stated laws of motion, can be used to describe and calculate with a high degree of accuracy the fundamental motions observed in the natural world, both in space and on earth. In identifying the basic forces that are responsible for the patterns of motion exhibited by matter and observed in nature was a tremendous step forward for science and has propelled us into the industrial age of mechanization.

Albert Einstein (1879-1955) qualified Newton's motion equations with the limitation of the velocity of energy and matter. Newton's formulas for motion were sufficient only for matter moving relatively slowly as compared with energy. When the velocity of light was studied it proved to exhibit a maximum limit in free space. These observations eventually led to the general theory of relativity. The concepts of relativity expand our concept of both time and the nature of the dimensions of space. The principle of equivalence establishes that linear acceleration of a frame of reference is indistinguishable from a gravitational field due to masses outside the frame.

When the **acceleration** due to **rotational systems** is used to create imitations of gravitational environments, the Coriolis effect is substantially large and creates a significantly different effect than that of natural gravity.

The way force acts on bodies to create acceleration and control motion is applied to all of the physical world by recognizing that all substances can be broken down into fundamental particles of matter known as molecules. The behavior of fluids are attributed to the composite performance of all of the

constituent motion of the particles making up a particular fluid. The rules of thermal dynamics are built up from the basic laws of motion governing particles in addition to the chemical properties of the atoms making the molecules.

Since the focus of these observations is to illuminate the idea of antigravity attention is given to rotational motions and associated forces. Structured and associated in stable patterns, rigid matter's ability to maintain shape is the indispensable factor in the motion potentials associated with rotation. The tenacity of any substance is the attribute that determines the tensile strength of that material and is the most important property that determines the ability of that material to hold and maintain shape. The electrochemical forces associating particles of matter in various substances allows shape to be used to amplify the force of momentum, a distinction of angular force in contrast to linear in which shape is of no consequence. The additional factor of *shape* qualifies angular forces of motion with respect to the forces of the particle association creating the pattern in rotation.

With the geometrical possibilities of rigid shape as a factor in conditioning the relationships of force and velocity, in association with motion, a mechanical principle arises. Most machines are built from six basic mechanisms: the pulley, the wheel-and-axle, the inclined plane, the wedge, the screw, and the lever.

The shape of a lever gives it a mechanical advantage for converting force distance relationships. Even though the lever is straight, in association with the fulcrum, the pattern of motion for achieving mechanical advantage is angular. The block and tackle is an example of how angular components of motion in association with linear components can produce tools with a mechanical advantage for doing work. The mechanical ratio of force and distance are always in balance with the laws of conservation of energy and momentum. The shape of the component parts of mechanical relationships take advantage of the fact that the shape of what is moving conditions angular motions and when translated from angular motion to linear, or visa versa, allows for all kinds of machines. A clockwork universe of a mechanical nature is revealed. Machines and mechanisms of countless varieties have been built based on principles that recognize the mechanical nature of the universe.

All of the motion laws that have been defined for linear motions are adapted to angular motions with the inclusion of one additional factor for consideration... the *shape* of the object rotating. In light of these formulas describing motion phenomena, I look at the world around me.

In scrutinizing the behavior of spinning objects, I notice the precessional adjustments attendant with attaining balance of rotation. The relationships of the mass, the velocity, and the shape of the mass with respect to the axis of rotation are the key factors that produce differing patterns of spinning motion. Friction, temperature, and the presence of strong magnetic fields also are factors that affect the pattern of rotation.

The motion of a top spinning on a level surface always attains balance of rotation perfectly perpendicular to the surface on which it is spinning, with its axis parallel to the force of gravity. It is the frictional contact with the surface that pivots the top so that its maximum balance is a composite result of the angular forces of rotation with the frictional force caused by gravity associated with surface contact. When the friction from contact with the surface overcomes angular momentum the top quickly loses balance and suddenly falls over. Yet it is impossible to balance the top on its end vertically if it is not spinning, even though there is no easily observable and mathematically defined out of balances. The motion of a spinning gyro is quite different in many ways that may seem subtle, but are most significant.

In the case of a gyro-top, where a non-spinning suspension structure makes contact with the surface and the spinning mass does not make direct contact, there is much less frictional force that causes the angle of the axis to the surface to be perpendicular or parallel with respect to the force of gravity. The gyro will precess until stabilization is attained and this can occur at angles that are

seemingly out of *balance* with gravity, yet clearly with no effect on the specific *weight* of the gyro. When the gyro loses sufficient angular momentum to maintain stabilization it begins to slowly precess until it gently falls to the surface with the axis of rotation parallel to the surface. There is no display of angular momentum in the direction of the motion of tumble or fall. This is evident upon reaching a point where the axis is approximately parallel to the surface, where the tumble stops, and the gyro slowly spins down until it loses the ability to maintain this position and then slowly begins to precess to its final place of rest. Apparently, the amount of angular momentum necessary to maintain stabilization with the gyro's axis approximately parallel to the surface is less than in any other position. The rapidly spinning gyro, when free to move, will show a propensity to spin with the angle of its orientation in space along the axis of rotation away from and not parallel to the force of gravity. Torque from the cosmic environment exerts force on a gyro which in order to obtain equilibrium tends to dispose its axis of rotation parallel to the earth's axis.

I know that I have not revealed any previously unobserved events or little known history and that it is not valuable to recount it here and bore the reader with redundant information, except to establish my awareness of these things. To complete the picture there are several reasons to revisit the observations of magnetism. The physics toys that are typically used to demonstrate Michael Faraday's (1791-1867) law of induction, such as the space wheel or the mystery top, which use two concentric coils, a transistor, and a battery to keep a magnet in motion are basic DC brushless motors. These simple motors are fine examples of how intelligently patterned motions in association with magnetism and precisely timed electric circuits can maintain motion with a minimum of energy expenditure. Examination of magnetism reveals an angular connection to this phenomenon. Consider the following:

1. It is a circular motion pattern electrons traverse that produce amplified magnetic fields. Current loops in a solenoid accumulate in mechanical ratios forming a composite magnetic field. The electromagnetic principle is well recognized and used in all manner of mechanical devices and motors.

2. The fields of force that occupy the space surrounding the magnetic source show a dynamic flux that varies over time and location and exhibits a dynamic nature more slight but still somewhat like the flicker of a candle's flame.

3. Magnetic suspension allows for rotation with no frictional resistance.

4. The forces of magnetism are oriented with respect to the direction of spin connected with its origin. There is always two poles, north and south, for any magnet.

There are two additional observations less understood that provide an opportunity for expanded understanding of how magnetic force relates to other forces of motion.

5. The instability that a gyro exhibits in a properly oriented strong magnetic field should be examined and studied further. The effect of a strong magnetic field on rotational stability is a very interesting phenomenon to observe. The stability of the gyro is reduced to behave as if it is not spinning. I have found no explanation for this known fact in any of the studies of the physics of rotational phenomena, but this seemingly under valued and apparently practically ignored fact is revealing of the truth about the nature of the mechanism that controls both forces and is attributed to the rotational motions of magnetism and gyroscopic stability. There is no known correlation of this effect on linear forces.

6. The association of magnetic force with angular momentum is best exemplified by another physics toy named the Levitron. This is a top made out of a strong magnet that, when weighted to be of the proper mass, can spin over a base magnet suspended and levitating above it in mid space. The magnetic field of the gyro-top and the base magnet are oriented to effect a repulsive magnetic force, and as long as the gyro-top has a sufficient magnitude of angular momentum it can not be tumbled. The force

of the magnetic repulsion tends to achieve equilibrium by applying a torque on the magnets turning them so that they are oriented with the force of attraction. This only occurs when the gyro-top slows down to the point where the magnetic force of torque is superior to the gyro-top's resistance to a secondary force of tumble or torque. As long as the angular momentum of the spinning rotor maintains a superior and primary resistance to the secondary torque of the magnetism, the force of gravity keeps the gyro-top in a magnetic pocket floating on a magnetic cushion of suspension. This is real permanent magnet levitation, but it is not true antigravity as defined in this document. Gravity plays an integral part in the dynamic equilibrium of the system.

The interesting detail with the observation of the Levitron is that balancing weights are needed to achieve perfect equilibrium. This relationship of the mass of the gyro-top to the magnetic field varies from location to location and also varies over time without changing longitude or latitude and must be periodically adjusted for the specific place and time where the Levitron is placed. Even when this balance has been achieved, the performance of levitation of this system of motion reveals a bobbing of nuances and nutation. This is the most fascinating point of the observation and I know of no pattern predicting or any known explanation for this variation in performance.

I have found these basic observations valuable in framing my perspective and they are mentioned as the factors of my experience that I find meaningful in light of the idea of antigravity. Modern scientific knowledge is too vast to include all of the points of interest and the many other observations that I muse over and speculate have a value in revealing the true nature of the physical mechanism, but I am satisfied that the observations presented here are sufficient to capture the basic awareness that is pertinent to support a space based explanation of physical causes. With an understanding of the basic details of physics, plus insights based on the nature of the reality of space, I have formed a hypothesis for a comprehensive explanation of various phenomena including antigravity.

## 2. Analysis

Only with the perspective of a cosmic viewpoint can the motions of reality be properly evaluated. In light of this, there are a couple of inevitable conclusions that are supported by the previously presented observations. These conclusions are also key to the concept of antigravity and the motion pattern that creates this effect.

The laws of motion, as currently defined, are only accurate to a limited degree of precision. Many conditions and qualifications are required to apply them to the physical world as it actually exists. This is far more true for angular motions than for linear motions. The motion laws given by Newton are built upon his first law of inertia and are held as the foundation of Einstein's relativity.

In the cosmos everything is moving and with an exquisite equilibrium, there is no such thing that is perfectly static and motionless. The very first law of physics involves concepts that are only illusions. Consider a body "at rest". The idea of "at rest" implies a lack of motion. It is only "at rest" with respect to the relative motion of the immediate environment. Matter "at rest" is moving in patterns of motion that create the appearance of static motionlessness, yet the accumulated energies within the matter in addition to the relative motion of the composite cosmic environment is well known and should be sufficient evidence that everything is moving and moving very fast indeed! Inertia, as it is referred to in physics, represents *relatively* balanced force relationships creating *relatively* constant and stable motion patterns.

The basic formulas for angular force are sufficient to explain only the most basic behavior of spinning masses. They are the accepted formulas of Newtonian physics for linear motion applied to rotation with the linear components exchanged for angular ones. Rotational inertia is defined with the appropriate embellishments necessary to include the shape of the mass about the axis of rotation as an additional factor in the magnitude of the inertia.

Newton's first law of motion dealing with inertia and the inertial reference frames used in the calculation of linear forces do not apply to rotational force associations! Inertial reference frames are always linear by qualification and rotating frames of reference are never inertial. This fact is not a significant factor to include in the calculations of most linear forces. In most cases of ordinary motion, the angular components in the inertial reference frame are negligible. For example, as air resistance is negligible in certain cases and is therefore ignored. Or as the limitations of the linear velocity of things is ignored unless sufficiently close to the recognized maximum. So are the non-linear components of most inertial reference frames ignored, and can be, for most ordinary kinds of motion. The additional factor of *shape* forever qualifies the angular motion aspects of particle associations with respect to the force of that association. This is the most meaningful and valuable factor separating the behavior of angular force from linear force.

Motion on a scale large enough with respect to the earth and the cosmic environment to be substantially non-linear can never be ignored. And this is not the case with most kinds of ordinary motion. In the fundamentals of physics, this fact is considered significant only for large-scale motions such as wind and ocean currents, yet "strictly speaking" the earth is not an inertial frame because of its rotation. The earth's non-linear character is observed in the case of the Foucault pendulum, the Coriolis Effect, and also in the case of a falling object which does not fall "*straight*" down but veers a little. All events are subject to this fact to a greater or lesser extent.

The mathematical purpose of inertial reference frames is to isolate a motion event in order to identify force components. Acceleration will only be observed in systems that have a net force in a given direction and is not balanced or zero. Since this is only valid for the linear components of motion, it works well for all kinds of motion phenomena that are primarily linear in nature; the associated angular component being either idealized or considered negligible. Only the linear force aspects of any of these



measurements hold precisely true to the formulas of mathematics describing them. To the degree that angular components of motion are associated with the reference frame used for measuring and calculating force relationships, and which are not included in the formulas for calculation, is to the degree these formulas are in error. The fact that angular reference frames cannot and do not represent inertial reference frames indicates that the effect of angular force is not so easily isolated in order to identify component effects.

Mathematical analysis of rotational forces reveal that the formulas describing rotational motion are also limited in additional respects. Motions that include anything more than ninety degrees of rotation can not be used as true vectors. The fundamental technique of vectors, used to determine the composite result of the effect of multiple forces, will not work for rotational motion! Individual angular displacements, unless they are very small, can't be treated as vectors, though magnitude and direction of rotational velocity can be given, which is necessary. But this alone is not sufficient, because the rules of vector mathematics do not hold with regard to the order of the addition of these forces. If the displacement of an object is given by a series of rotational motions, the resulting angular position of the object is different depending on the order of the sequence of angular motions. Vector mathematics require that addition be commutative ( $a + b + c = c + b + a$ ). To calculate the motion of the precessional adjustments which multiple disturbing torques have on a spinning mass in a dynamic environment requires extremely complex mathematical calculations. They are presently beyond my capabilities.

The fact that these precessional adjustments can be affected by a strong magnetic field, and that there are no mathematical formulas that include this phenomenon as a factor of calculation, causes me to conclude that angular momentum is not fully predictable by the current formulas of mathematics. I have experimented with how a magnetic field affects the stabilization of a non-magnetic gyro and this phenomenon is an impressive demonstration of the differences between linear and stabilization of angular force and provides one of the most important clues to a better comprehension linking both forces.

The simple systems of motion that involve a magnitude of angular momentum that is relatively large with respect to the mass of the rotating body all exhibit nuances or nutation of precessional adjustment not described by the force components given by the accepted formulas of physics for angular motion. I have noticed that most of the natural motions of the earth reveal a very complex pattern associated with spinning and rotating phenomena of all sorts. The Levitron is an excellent example, and I'm sure that there are many more examples of motions that reveal how the rotating systems of motion in our natural environment are much more complicated than is described by the formulas associated with these patterns. When these motions are recreated, using the accepted formulas for these patterns, the motion is not at all like naturally observed versions and is sterile and fixed lacking the nuances and nutation that really exist. I have recounted an adequate variety of them in order to illustrate the details of this. All of the nuances and nutation of spinning motions observed in nature are always complex composite angular effects of the local cosmic environment, down to and including the immediate angular motions of observation. This is why a gyro tends to dispose its axis parallel to the earth's in an effort to achieve overall dynamic equilibrium. All angular motion is affected by all other angular motions, at least to some degree. Yet a close examination reveals that everything moving is affected to a certain extent. But rotating systems of force generate a motion pattern that can be used to magnify this effect and, therefore, reveal the influence of the cosmic environment on these patterns of revolving motion.

When the cosmic influences are analyzed, any and all of the motions of anything and everything include a factor of angular displacement. A perfectly straight line is only a concept with respect to a mathematical idea. In reality nothing moves in absolutely linear displacements, always is there an angular component to all motions. Even the primarily linear trajectories associated with electromagnetic radiation are slightly curved and this is observed in the vast stretches of outer space. In many of the cases of ordinary experience the angular component of motion is negligible for all practical intents and purposes, in other cases, it is the primary force of action, but in no case is it non-existent.

Gravity is the reason: the closer an object is to a strong gravitational force, the greater the amount of angular displacement in the surrounding motions. Astrophysicists account for this influence on the light of far away galaxies and describe the effect as a gravitational lens. Gravity exerts a torque on all matter within its grasp. This is a factor that must be included in relativity's equivalence principle to further qualify otherwise pure linear acceleration. The angular paths of moving bodies create the inevitability of a cosmic torque in the spatial frame of any gravitational mass. The Coriolis effect is a composite result of the force of gravity in association with the rotating circular path of any given rotating system. As it is ordinarily viewed, the effect on large scale motions on the surface of any revolving sphere is with respect to linear latitude until reaching a minimum at the poles. A critical examination will show that the *angular* component of motion is the same everywhere on the planet. Only the *angle*, with respect to the direction of the force of gravity, changes from the equator to the poles. At the equator the radius, with respect to the axis of rotation, is greatest; this maximizes the effect on linear motions and is an advantage when launching rockets into orbit.

This bending of motion associated with gravity is the fundamental requirement to achieve a universe that behaves as if having purely linear forces on all but the largest scale of cosmic proportions. All straight lines of motion are ultimately elliptical curves.

In assessing the patterns of angular motion that best reveal the influence of the cosmic environment the following consideration is apparent. In the formulas defining rotational inertia, the formula for an ideal ring ( $I = MR^2$ ) is mathematically superior for the purpose of maximizing the ratio of angular momentum to the mass, more so than for any other single shape. This mathematical relationship is most ideal when the ring is as thin as possible, when all of the mass is equally far from the center of rotation. But the practical application of this principle requires that the ring have some thickness. The formula to accommodate the thickness factor of a ring is  $I = M/2 (R_1^2 + R_2^2)$ , where  $R_1$  is the inside radius and  $R_2$  is the outside radius.

To use this principle as a mechanism of action, a machine needs to be created. A brushless electric motor built to spin a magnetically patterned ring like the rotor of a gyro would provide this mechanism. Since the purpose of this electric component is to maximize angular momentum with respect to its mass, the suspension system housing and containing the ring rotor, and acting as an electric stator magnetically inducing the revolving motion of the rotor, should be as light as possible. The angular acceleration of the ring does not need to be more than the necessary amount to increase angular velocity and momentum. This can be very gradual, and time can be given for this force to accumulate. The electric energy put into the system is converted into the kinetic energy of rotation, minus any loss of energy as heat due to any frictional resistance of this component to angular motion.

Kinetic energy is stored in the system like a battery. The amount of energy that can be stored within the system without large losses due to the frictional resistances to rotation and precessional motion depends on the perfection of the gyro design and construction. If sufficiently perfect, the generation of tremendous amounts of kinetic energy can be accumulated in the form of angular momentum. The degree of the precision of the perfection of this component, thereby minimizing frictional resistance, is the critical factor in determining its efficiency and effectiveness as a powerful actuator. Once the primary ring gyro component is made, testing its performance can measure its effective force. The technical details of its design, manufacture, and construction are not taken into account here, only the basic concept of this component is to be considered at this point.

Mathematical prediction of its behavior would indicate that, if angular momentum is sufficient and the containment and suspension system is light and free to move, only being anchored at one point to prevent the backspin of this containment ring, the rotor ring will carry the containment ring with it, duplicating any of its secondary angular displacement. And like a heavy pendulum or a gyro compass, it will maintain its cosmic orientation in space adjusting to a point of maximum stability until harmony with the spinning earth and the cosmic environment is achieved. And the final orientation of a free and

unrestrained spinning ring gyro is predicted to be with its axis of rotation approximately parallel to the earth's axis except that it will be spinning in the opposite or complementary direction.

Once the point of gyroscopic stabilization with respect to gravity is achieved, the force affecting the motion of the gyro to the point of maximum stabilization can be measured. The velocity of rotation and the rotational inertia are the factors that determine the magnitude of the force of the angular momentum of the ring rotor and this can be calculated with a high degree of precision, but the friction and the inertia of the containment ring as retarding factors of force, are beyond my ability to calculate, and determining these factors will require measuring the performance of an actual specific component in an experiment.

The observation of the motion of the gyro leads me to think that the spin of a ring with minimum frictional resistance to rotation, once stabilized with respect to gravity, if free to move in any direction, will, at a rate proportional to its ratio of angular momentum with respect to mass, continue to adjust with respect to the environment until the point of maximum stabilization is reached. This position of maximum stabilization is predicted to be oriented so that the axis of the spinning gyro is approximately parallel to the axis of the spinning earth, yet spinning in the opposite or complementary direction. Thus, the action of a ring gyro actuator with sufficient magnitude of angular momentum will exhibit a predilection to orient itself into a definitive position with respect to the cosmic environment in order to attain optimum stabilization with a substantial force. And if this force is magnified and made strong enough, it has astonishing implications in the consideration of its affect on a composite superstructure of concentric ring gyros. I have denominated this concept the expected "*prime effect*" of a single ring gyro component making it valuable for the purpose of association.

Ring gyros of differing dimensions can be made equal in the amount of angular force each will produce at the same angular velocity. The basic force of angular momentum can be calculated for different sizes of rotating ring rotors. By measuring the forces of two different sized ring gyros, including their containment and stator masses, the technique of interpolation can be used to create three concentric ring gyros equal and identical in every respect, including the force of their respective angular momentums and kinetic energies. Except for the dimension from the center of rotation, these rings could have identical force attributes.

With the existence of ring gyro actuators, the primary component exists from which a concentric ring gyro superstructure can be built. The containment rings in the superstructure, at ninety degree angles to one another, are locked into place with respect to each other roughly forming a sphere shaped cage in which the forces of action on the containment rings are distributed around the periphery of the spherical cage equally and with completely symmetrical effects of the associated revolving forces. This superstructure cage can be placed in a final light, hollow, and thin yet strong sphere. This composite structure is predicted to resist torque from any and all directions equally, so long as the individual forces of each component ring are equal and balanced with respect to one another. There need be no external support or suspension structure outside this sphere, because in and of itself, stability is maintained completely from within. The increase in the force of angular momentum of each individual component increases the resistance of the superstructure to any outside torque, even that of gravity! This dynamic equilibrium is used to maximize internal stability that far exceeds any of the forces of motion in the cosmic environment outside the system, and this is predicted to include gravity. I believe that this pattern of motion I have described as a composite superstructure of concentric ring gyro actuators will exhibit the superadditive force of maximum rotational inertia, which will demonstratively prove equal to antigravity.

By creating a balanced angular motion system the influence of the angular motions of the cosmic environment can be magnified even to the point of being the superior and unique influence on the motion pattern of such a composite system. When the pattern of the motion is superior, perfected with intelligence, the effect the cosmic environment has on this system of motion will be magnified to the point

of affecting its weight, thus in the final analysis the *only* possible resulting motion of this composite pattern of motion is opposite to that of gravity!

I find it reasonable that this pattern of motion resists torque, but I can not find mathematical formulas that prove this fundamental premise, which is a prerequisite for the greater idea of antigravity. I did have the opportunity to plug this pattern of motion into a computer programmed using Rasna's Mechanica physics software running on a Silicon Graphics workstation designed to model and analyze the performance of machines and motors with Applied Structure, Motion, and Thermal applications. With any of the other existing machine or motor designs used with this software, performance of these machines or motors with respect to time can be accelerated. This allows for the study of long term operation and can reveal any inherent design flaws susceptible to friction and thermal overload, even calculating the point a component is likely to breakdown.

When the pattern of motion proposed by this document was programmed into this software, the Silicon Graphics workstation running the program would require four hours of processing to accomplish only four minutes of performance! This is the *only* machine design, to my knowledge, that took longer to calculate its performance than the real time performance itself! The program corroborated the premise that it resists torque from any direction, but the amount of calculations required to determine this, increased exponentially until the algorithm to determine the resulting motion reached a limit as to the extent of time that could be applied to the problem! This limitation prevented me from getting a more detailed analysis; I did not have more access time on this computing system. I did determine a couple of basic premises about the composite result of this motion super-structure. The resistance to torque is *very* strong and the mathematics used by the software to determine this were a series of calculations that increase in volume exponentially when the precessional adjustments due to torque are applied, all this for the purpose of showing that these very forces all mutually cancel each other out and are nullified in the final result. The software could show no gravitational effect associated with this system of motion. This is because of the way the gravity vector is mathematically applied in the software. I believe that the mechanism of space that truly results in the effect of gravity is mobilized by this composite motion in a way that does nullify this very effect which is recognized as gravity. Knowing that the composite superstructure will resist torque from any direction is only one consideration of the result of this composite motion.

The three individual gyros at ninety degrees to one another in a composite superstructure cannot all be simultaneously in maximum equilibrium with respect to any cosmic environment that is held by the force of gravity, in an angular revolution, as is the case on the surface of a planet like the earth. When in such an environment, the three individual gyros will continue to exert their individual influences of action toward maximum stabilization, but all the while the composite superstructure will not be able to absorb any precessional adjustments. Any one gyro adjusting to the force of torque by precessing will cause the other two gyros to require this same adjustment, doubling the problem within the composite system, thus creating a motion feedback loop that has no resolution within the system.

An arrangement of axle based gyro actuators discloses some significant differences from a ring based system and is inherently inferior and inadequate to achieve the desired force association. There is no way of arranging the three wheels of an axle based system in a manner so each of the three gyros affect one another in an identical and symmetrical manner. In addition to this critical limitation, the forces of action are focused on the pivot points of the suspension system where the axles ride. All of the ability to contain the force of each gyro would be up to the strength of the suspension system. The necessary strength of such a system would require it to be too massive to allow for the desired action of the gyros as actuators. If not, being that the forces of the gyros are unequal, it would breach the containment system tearing the suspension structure releasing the wheel of the superior gyro to freely destroy the immediate surroundings. Only by distributing the force of action to the maximum volume potential and utilizing the force of the gyros as actuators to complement the composite containment structure can the desired outcome be achieved. Comparing the differences between wheels and rings as powerful actuators

clearly underscores the superior potential of a ring based geometry and makes the suggested composite ring system possible, meaningful, and valuable in ways that any wheel based system could never accomplish.

I predict that the forces that will build up within the composite ring system will combine into a nullifying influence on gravity. Only by being insulated by space from the influence of gravity in the cosmic environment will this composite superstructure find equilibrium. The superior resistance to torque will direct this system of motion to the cosmic environment, which is the freest from torque. The degree of the magnitude of this composite force of resistance to torque is mechanically connected to, and dependent on, the individual force of each component gyro. Gravity loses its grasp when the resistance to torque reaches a threshold resulting in a force of displacement in the direction where least external force, manifesting as torque, exists. And this is always away from any and all gravitational sources.

In addition to the previously addressed insights based on the observations and analysis of the inevitabilities consequent on this superstructure of angular momentum, gravity, and the influence of the inherent torque in the cosmic environment, I have found an absence of contrary evidence to this conclusion.

I have reviewed the United States patent files on antigravity and I have found some interesting entries. Almost all of the entries involve the use of rotational forces. These machines usually have designs that accumulate a measure of angular force within and then, upon some kind of trigger in the system of the particular gizmo, throw the angular force out of balance into a linear thrust that in concept moves the entire device in a linear thrust toward the desired destination. Without exception these devices would only be able to move effectively through space where there was no substantial gravity. They are in no way connected to the idea of antigravity defined herein. I have found no entries resembling even the component of a ring gyro actuator as defined here, much less a composite superstructure of ring gyro actuators.

I have looked for studies on the motion of spinning objects and have yet to find any involving anything close to the pattern proposed by this document!

The lack of any meaningful studies or hypothesis as to why certain observed rotational phenomena occur has led me to the conviction that, though there are formulas with elements of magnitude and direction for the idea, which are necessary, they are not sufficient to explain gyro instability in a magnetic field, the Levitron, or the resulting motion of the proposed superstructure. The idea that there is a unique pattern of revolving motion that can exhibit rotational inertia that is of such magnitude with respect to its mass that it is incomparable and far exceeds any other thing known is in need of resolution! To have no known studies or explanations regarding this idea is a mystery well worth the fullest possible investigation!

### 3. Synthesis

In the final analysis the sum total of thought on the physical mechanism of creation leads to an expanded idea of the truth about space. The real nature of space is at the heart of the mechanism that controls the motions of all energy and matter and allows for antigravity. When these motions are observed and analyzed, the force relationships of the relatively linear components neatly fit into the formulas of physics describing them mathematically. These are known as the laws of motion which were originated by Newton and qualified by Einstein. In physics many descriptions of force have been presented throughout history and have presently been grouped into what are denominated "real" forces and "fictitious" or "pseudo" forces and are denied status as force, being relegated to the term "effect". All "real" forces are perceived as being rooted in the properties of matter or energy, and are the interactions of the various attributes of a litany of particles.

An indispensable concept associated with Einstein's general relativity is the equivalence principle and suggests that within an inertial frame of reference there is no way of discerning the difference between "real" and "fictional" forces. I suggest that *all* force is the *same* and that the denominations we use to describe different attributes of its manifestation are a matter of perspective and perception. The use of language and how it evolves leaves historical imprints on the thinking process that employs the symbols used to express concepts and this is true of the language of mathematics, and even more true in the case of English. The terms in mathematics referring to certain numbers as "real", "imaginary", or "irrational", do not mean what they seem to imply. "Imaginary" numbers are *real* and "irrational" numbers are not *irrational*. In the case of "real" and "fictitious" forces, it is the *angular* components of the compound motion associations inherent in the cosmic environment that most readily exhibits their distinction from one another. The equivalence principle presumes absolute linear acceleration within a perfect inertial frame of reference, neither of which actually exists absolutely. Gravity as well as all the forces of nature, "real" or "fictitious", are subject to the angular influences in the cosmic environment to some degree or extent.

All objects are moving and their motions are combinations of angular and relatively linear displacements. The force of linear inertia and linear momentum are proportional to gravity because the motions inherent in the matter control the space-force *patterns* that are recognized as gravity, as well as, momentum and inertia. But it is the difference in the tension in space that permits these forces to be described as separate.

The nature of space allows for the most immediate balance of the tension that controls relatively linear motion. This is why inertial reference frames are real and effective in calculating the forces of motion that are largely linear in nature. Angular force components have generally lesser control over the grosser motions of ordinary events on the human scale. The larger the scale of force or the smaller the reference frame in scope, as in subatomic observations, the larger the angular component's effect on the pattern of motion. In linear force the scope and scale of the particle/object/body with respect to the cosmic total is of no significance. This makes angular force unique with respect to the *scale* and the *scope* of the cosmos!

There are many different researchers who have found evidence of the space mechanism and have constructed theories that are space based explanations of various motion phenomena. Michael Faraday (1791-1867) described the fields of magnetism as force lines belonging to the properties of the space surrounding the magnet, and I believe he was right! The formulas of James Clerk Maxwell (1831-1879) and the experiments of Nikola Tesla (1856-1943) may also be useful. The theory presented by Harold Puthoff of zero-point or free energy and the experiments of Bruce DePalma include space as a factor in the explanation of various motion phenomena. There are others making claims involving machines that produce antigravity. They may or may not have any merit. I don't know. John R. R. Searle's Inverse G-Machine is one example, Eric Laithwaite has another. I can see how the force within space may be "tapped" by a variety of different mechanical motion events. And even though there may

be some experimenters that have produced machines and developed associated space based theories, I do not find any machine that defines antigravity as the one I present. These other researchers provide many meaningful insights about the true nature of space, but the experiment proposed in this document settles once and for all the question of antigravity, herein defined as based in an enlightened understanding of the mechanism of space.

This mechanism of motion, the unified field of the space matrix, exhibits all of the distinctions attended by all of the observations of energy and matter, as well as the force fields associated with these motions. The frequencies of the electromagnetic spectrum and the physical states of matter, gas, liquid, and solid, even plasma, are composites of finite motion in components of angular and linear displacements making up the very existence of what is recognized as particles. These patterns of motion may be magnificently balanced and circular, revealing an illusion of stasis or stability. Or there may be the linear expression which, when accelerating, is born as a result of an out of balance, or reshuffling of the force tension associated with the space matrix. Net force of any nature is a result of the tension of force within the space matrix in the process of re-associating. This reassociation is always in a manner that will achieve the most balance within the cosmic environment. And it continues without cessation.

Magnetism is a good example. The motion of space is again the key. An analogy that the magnet is a space pump is a way of describing magnetic fields. As the electrons in a crystal lattice of a magnet or in the coils of an electro-magnet move, the space-force in proximity to the electrons responds by circulation. This space-force is denominated as magnetism. As these moving electrons are patterned to move in coils or circular paths the composite tension in space is augmented. As the magnetic circuits of electron motion accumulate, the shifting of space requires larger volumes or quantities of space. In order to shift at all, the space must shift around the collective cylindrical structure of the coils of an electromagnet or the crystal lattice of a permanent magnet circulating as a magnetic field. The effect magnetism has on the stability of a gyro relates these two phenomenon to a common cause. This demonstrates that the physics of angular momentum and rotational inertia is not the same as linear momentum and inertia wherein a magnetic field has no measurable effect, unless it is an electric charge moving in a linear trajectory. This would indicate an angular component to the cause of electrical charges. Accepted mathematics is insufficient to account for this performance difference, yet the modern scientific approach is to use the angular version of linear mathematics with no explanation of the magnetic distinction. This is because the force of magnetism is recognized only to a limited degree. The tension force attribute of the motion in the space continuum control the pattern of the motion of energy and matter. As the magnetism of a coil reveals, this pattern accumulates as a result of mechanical ratios of motion, i.e. the number of turns in the coil and the quantity of electrons revolving. This is why magnetic fields modify the stability of gyros; the magnet causes angular motions in the spatial matrix disrupting and changing its force tensions. And it is the force tensions within the spatial matrix that determines the degree of stability and the orientation of any rotating system with respect to the cosmic motion within the space reservoir.

In recognizing that matter moves space, and in turn can manifest change on the motion of matter, is typified by magnetism. The force attributed to energy and matter is proportional to the quantity of mass inherent in them, but the pattern of motion they exhibit is conditioned by the nature of the motions of space itself and the result this has on its associated force tension. This force within space manifests as a unified field. The precession of any rotating system is the progressive adjustment of orientation in which the *minimum* amount of overall motion *in* space, and *of* space, with respect to the cosmic reference frame is accomplished. This is a key point. As the various motion patterns occur in the natural world the concentric force tension of space surrounding any mass, otherwise known as gravity, is the dominant cosmic influence determining the overall balance of the forces of motion in the cosmic space matrix. Always does the unified field mechanism of space adjust the tension of force presence so that the minimum amount of overall motion transpires. This observation in modern physics has been misconstrued as the sophistry of the notion of entropy, and has been equated to higher and lower states of energy.

A consideration of the possibilities of all motion patterns indicates that there exist many patterns of motion that do not naturally occur in nature. Only the pattern of motion presented in this document establishes a result of balance in relation to the cosmic environment that is superior even to the balance naturally secured by gravity. It is reflective of relatively perfect concepts characterized by mathematics as they are applied to the forces of motion. The composite superstructure of powerful concentric ring gyro actuators will equilibrate the patterns of the force tension surrounding any source of gravity, and the force of this space tension will relocate the composite system to the nearest frame of space where the least amount of angular influence exists, therefore requiring the least amount of overall motion of space in relation to the cosmic environment. This exemplifies the nature of a unified field mechanism and reveals its functional performance in association with the concept and idea of antigravity.



## IV. MECHANICAL PROOF (The Project)

### 1. Ideal Mechanical Proof

The purpose of creating this machine is to create a force of sufficient magnitude to demonstrate the measurable effect of antigravity. Any measurable amount of the demonstrable effect of antigravity is sufficient to prove its existence. The criteria for the design of ideal mechanical proof of antigravity is based on the premise of the unified field mechanism of space. The purpose of the ideal design is to illustrate the possible potentials of such a machine within the premises of the space mechanism and also to help determine the criteria for a practical prototype.

The fundamental pattern of the motion that is predicted to create antigravity is an ideal within the finite relative levels of potential motion. Real ingenuity is required to actualize and to create a machine that supports such an ideal of motion with only the relatively good ideas of mechanism design that are within the reach of the current existing potentials. The unified field mechanism, as I envision it, has helped me in my design of the machine, but lacking the skills of an engineer and only having modest training in the sciences, my design is one of an amateur, it is not presented as it would be had it been professionally engineered. Nevertheless, I am satisfied that, in spite of all of its flaws, if it is sufficient and adequate for its purpose, there will be plenty of room for additional design considerations for its improvement in the future. I present this design now for the record as a first attempt at finalizing the plans to create such a machine. I will first describe the ideal version as I imagine it. I illustrate the ideal design of this machine in order to define it as the pristine goal. This is only a description of the ideal relationships of the constituent parts of such a machine.

The idea of a powerful ring gyro actuator is the main component of this machine. The attributes of this component are based on the design concepts of a brushless motor. The ring gyro actuator's various features can be categorized. A category may have some of the same parts in common with other categories. Each of these part descriptions can be described from different view points depending on the category. These categories are given to establish language that will be used to refer to the way the various parts relate to each other based on the features of the category. The features of these functional categories are:

1. *The Rotor.* This is the main moving part designed with a ring geometry intended to rotate at high velocity for maximum angular momentum. The geometry of the rotor conditions all of the geometry of the other parts.

2. *The Suspension System.* These are the features required to insure the mechanical position and location of the rotor with respect to the containment system, only allowing for the desired rotational motion.

3. *The Containment System.* This is the housing surrounding and completely encapsulating the rotor and the suspension system. It is designed to contain all of the moving parts and is the support structure the electronic coils are wound around.

4. *The Stator.* This is all the electro-magnetic circuitry, including the coils, that provides the force of thrust, which overcomes the rotational inertia of the rotor thus initiating acceleration, then maintaining angular velocity.

Ideally, the rotating ring rotor is made out of some material that is as dense and heavy as possible. It is entirely encased by a containment ring made out of a very light, yet extremely strong and durable material, which is fitted precisely to allow the desired motion of the rotor's spin, but in which all other motion, due to any precessional adjustment, is passed on to, and exhibited as, the identical motion of the containment ring (as would be in an unrestrained actuator). An electro-magnetic force is used to

suspend, initiate, and maintain the rotational motion of the massive ring rotors. While the light, yet strong and durable, containment rings remain non-spinning thereby allowing all the forces of the precessional effects of the gyro's rotors to manifest at the periphery of the containment rings. That is, all motion except for the rotors' angular spin.

The three concentric ring rotors made out of heavy metal alloys should be balanced in their respective rotational inertias, in relation to their respective sizes, in order to maintain the maximum amount of rotational inertia to mass ratio, thus allowing for identical angular momentum *and* kinetic energy at the *same* angular velocity. The smaller ring establishes the maximum rotational inertia that the larger rings need to be in balance with (a platinum-iridium alloy is ideal). These rotors could be balanced by using metal alloys with precisely determined densities, tooled with precisely cut shapes, so that the resulting volumes of mass have identical attributes of rotational inertia, despite their varying dimensions in size *and* mass.

These rings would be patterned with the proper magnetic patterns to provide for both the suspension of the rings in their containment rings and also for the rotational thrust required to control angular velocity with an electrically induced stator. These rotor rings, being magnetically suspended in light, yet durable and strong as possible, containment rings, are housed at ninety degree angles to each other in a light, durable, and strong as possible containment sphere. The resulting rotor rings should rotate with minimum frictional resistance and minimal electrical induction needed to induce rotation. The force of magnetic suspension must be strong enough to prevent any of the forces of action on the composite system preventing the ring rotors from making contact with the containment rings. The experiments that I have done with magnetic suspension reveal that there is minimal frictional resistance to rotation.

The containment rings could be tooled so that they fit with a minimal amount of clearance from the rotors, being as thin as can be, yet still maintaining structural integrity for containment purposes. A vacuum within the containment rings would eliminate any residual drag by eliminating all physical contact of matter. This would also silence the effect of the motion of the rotor rings. The material of the containment rings may need to be different from the containment sphere to accommodate the necessity for magnetic suspension of the rotor rings. This may need to be some kind of very light magnetic material.

The electrical circuit should be designed to maximize the transfer of electrical energy into kinetic energy of rotation. This would minimize the need for electro-magnetic torque being applied to the rotor rings thus also minimizing thermal overload. The wire in the circuit, including the coils used to induce rotation, and may also be used to facilitate magnetic suspension, and should be minimally dense to keep the overall mass of the containment ring stator at a minimum. The combination of minimum frictional resistance to rotation with maximum rotational inertia allows for the minimum amount of electrical induction to slowly initiate rotational motion. This can accumulate in the system as kinetic energy in the form of angular momentum with maximum electrical efficiency; it is fundamentally a brushless electric motor which stores energy like a mechanical battery.

The fixed association of the stator containment rings within a thin, light, hollow sphere will insure that the electrically induced force of rotational thrust will be applied to the rotors and will not create any backspin effect on the containment structures. This spherical container of the composite superstructure could contain the source of electrical energy in the form of a chemical battery. The power supply and the associated electrical circuitry used to control motion can be placed at the center of the structure and be totally encapsulated in the containment sphere.

As a final product, this sphere is another relatively ideal shape. It would be relatively heavy when not in revolving motion, but, when revolving, the dramatic increase in composite rotational inertia would

liberate it from the grasp of material gravity making for, ideally, an excellent demonstration of the force of antigravity!

## 2. The Machine (A Prototype)

For a variety of reasons the previously described version of ideal mechanical proof is not possible to approach in even a remotely practical version by me at this time. The need to largely compromise the ideal parameters that guide the concept of the mechanism with ideas that are practical enough to be accomplished within the financial and manufacturing limits that exist, yet sufficiently good enough to demonstrate the principle of antigravity, is the requirement of a prototype design. I am not trained as a scientist nor physicist much less a mechanical engineer, so this attempt at compromise is my best effort to achieve the desired goal. There are probably many ways to build a mechanism based on this pattern of motion that would suffice to demonstrate the principle of antigravity, but the one I have selected is the one that seems most reasonable for me to try and achieve.

In determining the design of a practical prototype, many considerations of optimization have been taken into account. I had to decide what features of the ideal mechanism could be achieved with a moderate degree of compromise and which features needed to be completely reconsidered. Some features needed complete reconsideration because I could find no adequate compromise for them, others are not indispensable in order to achieve the primary purpose of the completed component. I struggled with this idea for more than a year before I settled on the machine of the basic design presented here.

In the process of the development of a practical prototype, I let friends, who knew of my idea, participate in the invention of the machine I was aspiring to build. Early on, I thought that all I needed to do was to present the ideal goal for the machine as the criteria for the practical prototype, and that in recognizing the value of such a pursuit, they would decide on a sufficiently good model that could be designed and constructed by them or by others. But I was mistaken, and, after a year or more of patiently waiting for some kind of rudimentary results, I realized that I needed to do something more to get the desired results. Realizing how difficult the task may be, I wasn't sure of my own abilities to second guess the assessment of others. And in light of the spiritual implications of this proposition, I thought it wise to allow for a sufficient amount of time for a reasonable effort to be engaged in for the accomplishment of this goal. Subsequently, it was pretty much left up to me, alone with my ideal, to decide the practical idea for approaching the construction of a prototype model.

I knew that if I were to accomplish my goal, I must find the help necessary to do the things that I myself could not do. But ultimately, I must decide the details of the plan that will be executed for this purpose. Considering the attempts made by others, I decided to make the model presented in this document.

The basic categories of compromise include these five areas of consideration:

1. My personal economic limitations
2. Practical yet sufficient component design
3. Existing available raw materials
4. Practical yet sufficient component manufacture
5. Experts who are willing and able to cooperate

In compromising the ideal design, the dilemma of magnetically suspending the rotor rings inside the stator containment rings is the most difficult problem to solve. This was the insurmountable stumbling block in designs involving this feature. I have worked with magnetism in multitude ways, observing how it is used in the control of motion in a variety of devices. I reviewed its use in AC electric motors, DC servomotors, DC brushless motors, and in its use with active electro-magnetic suspension novelties, such

as floating globes. These devices all use magnetism and electricity to move (or prevent motion) in many combinations of differing kinds of geometric designs. I worked with strong permanent Neodymium Ferrous Boron and Samarium Cobalt magnets trying to discover how the geometry of this force can be used to achieve the desired suspension, but without success. After exhaustive research and endless crude trial and error experiments, I concluded that this problem was the single feature of the ideal design that was beyond my current ability to solve. However, I still believe that this will be the correct approach to use someday in a more sophisticated future design. But for now, I realized that this is a feature of the design that will require the greatest compromise.

In considering the compromise of the feature of magnetically suspended ring rotors, I have concluded that rotor ring contact with the stator containment ring must ride on ball bearings. I thought about this aspect of the design very carefully and I was able to achieve an adequate compromise in only one way. The bearings must ride on the inside radius of the ring system. Only on the inside radius will the direction of the rotation of the bearings be in harmony and conducive to the purpose of maximizing gyroscopic stability. This is because the bearings in this arrangement rotate in the same direction as the rotor ring. Four sets of two bearings each, making for a total of eight bearings per rotor ring, is the pattern that will maintain the necessary balance, providing symmetry and harmony with the arrangement of the associated magnets. The need for a vacuum inside the containment rings can be deferred to a later, more sophisticated model. This version will not be silent, but will exhibit a modest noise, because of the frictional contact made by the bearings in an air filled gap. I was able to reach this conclusion only with due apprehension, but have since resigned myself to this choice as a *good idea*.

Once the decision of using bearings to achieve the suspension of the rotor rings inside the containment rings had been made, the decisions of the details of this arrangement needed to be determined. I consulted a variety of machine shops in my local area and received advice as to the techniques that can be used to create different kinds of parts. The degree of precision needed is a factor that is required to determine the optimum technique of manufacture. I had no ability to calculate the degree of tolerance that this design could allow and after a series of experiments I have come to realize that the highest degree of precision that I can achieve is the only tolerance that is practical. *Precision* is the key to the efficiency and effectiveness of this machine's ability to demonstrate its purpose. This is the factor that determines the tools required to make each of the parts of the component. I now had an idea of the design goal and only needed to determine the actual parameters.

This machine has three ring gyro actuators as the main components. Each component is designed to spin a rotor ring at velocities that are sufficiently large enough to achieve gyroscopic stability. In concept, this component is designed to perform like a DC electric motor and each of the parts of this component have a direct correlation to the parts that make up this kind of an electric motor. In concept, the parts that make a DC brushless motor are the same parts that make up the ring gyro actuator except that the criteria for each part is a different design to reflect the different purpose of its function. The ring gyro actuator is an ordinary DC brushless motor with special geometry. This difference reflects the difference from the usual purpose of an electric motor. The design of a brushless DC motor best accommodates the purpose of this component. Brushless DC motors are not used for most common functions in today's world because they do not provide for a powerful electrically induced torque on the rotor which is used to do the kinds of work for which electric motors are most often used. This is not a concern for the application of the purpose of a ring gyro. I want to achieve a large velocity of rotational motion doing as little work as possible!

Having decided on the means that the ring rotor will be mechanically associated to the stator containment ring, the functional relationship between the electrically stimulated stator and the magnetically responsive rotor needs to be established. The concept used by a linear accelerator is appropriate. By wrapping the coils of the stator around the containment ring and passing strong permanent magnets attached to the ring rotor through these coils, electrical induction can produce the necessary thrust.

With this as the goal, establishing definitive dimensions to the idea with all of the details of all of its individual features can be done. I had no idea as to what the criteria for these decisions needed to be; through a process of establishing the attributes to be decided, I established limits predicated on a variety of considerations.

All of the details of all the features, and how they relate, are needed in order to know if any one feature passes all of the functional specifications for its purpose. Once deciding what materials may be sufficient for the purpose of the parts I had in mind, I had to be able to afford and be able to obtain the raw materials, and I had to be able to afford and obtain the necessary expertise to make the raw materials into the desired parts. And these parts had to be available from within existing industries to which I had access. In reviewing a breakdown of the machine concept, I began to access the known limitations of these various component parts. As I began to investigate all of the details of the various parts of the components of the machine, I created a computer program to track the accumulation of these parameters. In the process of doing the investigation of these various features, the finite limits within my personal reach determined certain parameters which, in turn, determined others, and so on, until the design of the machine more or less determined itself. I wrote another computer program to calculate all of the remaining variables, until I came up with the design I am presenting here. It represents my best effort at maintaining the proposed effect of the ideal mechanism yet practical enough to be made by me.

There are some aspects to this design that fall short of my hopes for a practical design. I consider it sufficient for its purpose, but far short of the best idea. I address these shortcomings as I describe the resulting machine.

I have designed this version of the machine around the requirements of the ring rotors. I learned that the only way for me to create a ring rotor sufficient for its intended purpose, making it perfect enough to be balanced with the proper mass, is to have it cut out of a flat piece of material by a high precision computer guided lathe. To create a ring that is round in every respect is not obtainable. The parts I have designed are to be cut with perfectly straight lines in combinations with perfectly circular curves. Each cut required to make the final shape of each part is an additional cost and adds to the complication of insuring that the final shape is balanced, as perfect as possible, and of the proper mass.

The features of this version of a brushless motor can be given specific part descriptions associated with their respective functional categories. Once identifying the specific parts of the functional categories of this component, the specific attributes of each part can be defined. The following is a qualitative short list of parts in each functional category:

1. *The Rotor.* A precisely cut ring embedded on the inside radial surface with four equally distributed strong rare earth magnets; attached are four sets of two bearings each and an axle associated with the suspension system. The bearings and magnets are symmetrically placed in a way that maintains maximum balance.

2. *The Suspension System.* This is made of eight high speed precision bearings and four axles on the rotor, placed within the containment ring so that they ride in a step track, notched out of the inside radius on the inside of the containment structure; this design will maintain the rotor's position within the containment structure.

3. *The Containment System.* This is a Delrin plastic shell cut out of two separate flat pieces that when brought together is shaped like a hollow donut used to house the rotor and is tooled with cuts for the step track on the inside radius where the rotor's suspension system rides. Delrin is a very tough, durable, and strong yet light and stable material that can be tooled to a high degree of precision without warping or deforming over time, therefore making it a very suitable material for the containment structure.

4. *The Stator.* This is the electronic drive circuit that controls the ignition of magnetic flux within the drive coils that are wound around the containment ring. The electronics in the circuit also provide rotor performance feedback.

The smallest ring determines the maximum amount of rotational inertia for the other rings. This constraint requires that the smallest ring be as dense as possible. I have elected to use a Tungsten alloy for this ring because it is reasonably dense (not as dense as platinum-iridium!) and is available from Specialty Metals out of New Jersey. It is composed of 90% Tungsten, 6% Nickel, and 4% Copper with a composite density of 17.4355 g./cm<sup>2</sup>. This is the alloy that is supplied to the government for the purpose of making tooled parts that require maximum density as a prime attribute. The largest piece I can procure is a disk seven inches in diameter. This limitation is the main criterion that determined the scale of the design. The fact that the larger the scale the easier (within limits) it is to cut and balance, and that I am limited in my ability to procure more of it, makes it my main constraint. Once the dimensions of this ring are determined, the requirements of the other two rings are also determined. I was able to use Stainless-Steel 304 for the middle ring and a Titanium alloy for the outer ring. Stainless-Steel 304 has been tempered so that it is not magnetically sympathetic and has a density of 7.9 g./cm<sup>2</sup>. The Titanium alloy is 90% Titanium, 6% Aluminum, and 4% Vanadium with a density of 4.4281 g./cm<sup>2</sup>. With some additional cuts on the middle and outer rings, these metals can be used to create three concentric rings equal in rotational inertia while also having approximately equal properties of strength, durability, and stability.

Once the ring rotors are determined, the factors of the containment rings are determined by the resulting shape of the rings after being fitted with the bearings and magnets. I had to decide how the various components could all fit together in the most efficient way. Delrin was the material that best fit the criteria of the containment system. It is a very strong and durable plastic that is reasonably light. It can be tooled to the shapes necessary for the parts of the containment rings. By making the containment ring out of two pieces of flat stock, the separate tooled sections can be brought together around the rotor ring sealing and containing it. Though this material is tooled to be fairly thin, it is still tough enough to function as a sufficient containment housing that will not rupture. Once the coils of the stator are wrapped around the two containment ring pieces the rotor ring is securely contained.

The bearings were very difficult to decide on, because of a limited supply of the various available choices. I could not find any bearings that were made of non-magnetically sympathetic material. This limitation complicates the ring-gyro component to the degree that the magnetically sympathetic bearings adversely affect the performance of the stator electronics, but I am hoping that the orientation of their rotation will minimize functional debilitation due to any sympathetic magnetic response. Bearings with as large a difference between the outside diameter and the inside diameter, being as thin as can be, are required. The outside diameter needs to be as large as will fit inside the containment ring in order to allow for a maximum amount of rotational velocity for the rotor ring, and yet keeping the velocity of the bearings to a minimum. The track that the bearings ride in can be designed as a feature of the containment rings. This track is a step on each of the edges of the inside radius. This track allows the ring rotor to rotate without allowing it to move in any other way. This step is not an ideal feature in that it allows for the bearings to scrape the edges of the track, therefore being the largest factor of friction in the design, but it can be restricted to the minimum size that is necessary to be effective.

Four magnets arranged to maintain balance, symmetry, and harmony with the associated bearings are imbedded in each of the rotor rings so that they are placed at the center of the containment ring space at the center of the stator coils. The orientation of the polarity of the magnetic fields are placed so that they alternate. This is to provide for the maximum amount of magnetic flux for the thrust of force associated with the stator coils. The repulsive thrust of one magnet is in harmony with the attractive thrust of the other magnet with respect to the change of position of the rotating rotor to the driving coil. The magnets are made of strong rare earth materials with masses that have been included in the balance considerations of the three rotor rings. Samarium Cobalt was selected to be used in the smallest ring to

maintain maximum density, while Neodymium Ferrous Boron has been selected to be used in the middle and outer rings.

The electric circuit is intended to be designed to drive the stator coils. This circuit should saturate the magnetic potential of the drive coils without creating any thermal overload. This process of timing the ignition of the coils is controlled by the back electro-magnetic flux produced by the magnets on the rotor ring entering the coil. These coils, once triggered by the magnets on the rotor rings, use a repulsive pulse to accelerate the triggering magnet while simultaneously attracting the next magnet on the ring rotor in the trigger sequence. Once the rotor begins to rotate, passing the magnets through the stator coils, the triggering sequence generates a self timing pulse chain provided by the stator circuit. These timed pulses of electro-magnetic flux are intended to provide just enough thrust to cause acceleration of the magnets on the rotor. Similar to the pushes required to make a merry-go-round rotate, well timed, gentle thrusts, with very short duration accumulate in angular momentum making large electrical forces of torque unnecessary.

When the composite system is in motion, the magnetic fluxes of the rings come in close proximity to each other at the joints of the stators. This is not a problem if the rotors are revolving at the same angular velocity, because the alternating magnetic flux polarities are in harmony with each other, acting like magnetic spokes that allow for the three-dimensional motion of the revolving sphere. The electrical nature of the circuits for the three rings can be identical, therefore minimizing and practically eliminating the need for electrically balancing the individual velocities of the individual rotors of the composite superstructure.

This is the description of the original machine I designed in 1994. Engineering attachments associated with this document detail this version of the machine and the enhancements implemented since. Ganid LLC formed in 1997 and has developed a more robust version of the prototype which is currently being manufactured.



## V. CONCLUSIONS

### 1. A Philosophical Note

"The argumentative defense of any proposition is inversely proportional to the truth contained."  
([The Urantia Book](#) Page 557)

I am overwhelmed by the prospects proposed by this document. I have given everything I am and have that I might live to know the answer to the question of the proof of antigravity. I can only work, as I am, with the skills and talents I possess for the implementation of a plan of action. I have asked for help from any and all the available sources within my personal influence. I do not know any reason this idea should not be pursued by any and all who know about it and can do anything to help, and who can equally work to this very same end. I will continue to make my case, work my plan, and plan my work, but short of proof, I will labor on! Join me in my pursuit! Inspired by the implications of this idea, I can only live trying to find out the answer... YES or NO, but I can't accept not knowing. All the ramifications that hinge upon this idea are too compelling to not be enthralling. Has the wheel been reinvented? While all this unfolds and is being confirmed, one way or the other, until it is finished, it is extremely difficult to have to wait, for so very long, to be certain of the reality of this proposition. Yet, it is important to note that in spite of this, all progress that is made positively affirms the soundness of the idea!

I have given everything I have and all that I am in order to accomplish this goal and I will continue to do so until this idea of antigravity has been finally proven true or perhaps false, though I consider this unlikely and even a remote possibility. Fortunately, the financial considerations involved in the accomplishment of this design for an adequate practical prototype are modest, especially in light of the value of the pursuit. I am grateful I was able to create a design that is within the reach of a moderate financial investment.

If the efforts at proving the reality of antigravity succeeds, the effect on civilization is incalculable. It is my sincere desire that this discovery and its demonstrative presentation will be the leverage that will catapult [The Urantia Book](#) into mainstream critical review and hopefully all of the possibilities of undiscovered knowledge intimated by [The Urantia Book](#) will be explored vigorously and openly by all of civilization. This single demonstration of antigravity is a fitting example of why the unified field mechanism, as it is detailed in [The Urantia Book](#), should be given the attention it deserves by the scientific community. I pray that the existing readership will cooperate to this end, and that someday this planet will search for the evidence of the Creator with the same energetic strategic seriousness that it now foolishly expends, in the disguise of security, on the barbaric destructive forces of war.

This world is on the brink of dramatic changes. Technological progress has accelerated to the point where social adjustment cannot keep pace. Current technological techniques affect the biology of the planet in incredibly negative ways, polluting and robbing us of our humanly sacred natural environment. We are ignorant and retarded, only knowing these backward ways of doing things. The possibilities proposed in this document can change this. The prospect for a world with a technology that is clean and balanced with all the forces of nature is very exciting. It should be obvious that the understanding of antigravity will provide one of the most important pieces in the solution of the world's material problems.

The concept of antigravity, though based on physical motion, is reflective of higher spiritual patterns of creation. The concepts of balance and equilibrium are ideal and enlightened as compared with the less ideal concepts of action-reaction explosions and any other conditions lacking balance as means of locomotion. Stable patterns of force, energy, and matter are desirable, not explosive radioactive instabilities. Breaking atoms is destructive and backwards. Revolving force, to allow maximum mobility with minimum work, is progressive, even transcendently revolutionary!

This is the record of these ideas and a good reflection of why I have initiated the actions for this effort resulting in the current developments. As the experiments continue to unfold, additional documentation will be ongoing. A graceful reception of this idea would be ideal and is my heart's desire. "Imagine... yes, I know I'm a dreamer, but I'm not the only one!" The *crystal blue persuasion* of genuine revelation is embodied in The Urantia Book. Yet, is this idea of antigravity also true, or is it only just a *vision in my mind*?

With an understanding of the idea of ideals, the choices of living are all based on our *perception* of life's circumstances. I pray for strength that we may all yield to the right, true, and good in all of our decisions and not merely the easy, pleasant, and convenient. Have mercy on us all God, for you are our Lord! Talk is cheap; I am willing to walk the walk! Yet still more, come sing and dance with me!

***Nevertheless and Always... May our Paradise Father's will be done!***