



GRAVITY WARP DRIVE



www.gravitywarpdrive.com

“Making Star Trek a Reality!”

Supporting Documents



For the Development of the Nuclear Gravitation Field Theory and Gravity Field Propulsion

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I. Introduction

The purpose of the Gravity Warp Drive Website is to provide the “Real Physics” involved with developing “Warp Drive” and “making Star Trek a reality.” Gravity manipulation and amplification is the key that unlocks the Milky Way galaxy and the rest of the universe. By navigating the heavens on a Starship using an Amplified Gravity Field Propulsion System, man will no longer be bound to a portion of our Sun’s Solar System. The first step to making Star Trek a reality is to determine just what Gravity is. Albert Einstein dedicated his life to developing the Unified Theory which would have included Gravity. Although Albert Einstein became famous for developing his Special and General Relativity Theories (General Relativity deals with Gravity and accelerated reference frames) he was never able to come to a complete understanding of what Gravity was before his death on April 15, 1955 (at least that is what the “official record” states). My Nuclear Gravitation Field Theory is the first step to making Star Trek a reality because I demonstrate just exactly what Gravity is. My Nuclear Gravitation Field Theory is provided in a separate e-Book that can be downloaded from my Website.

What led me to continue on my quest to make Star Trek a reality? I learned of a bizarre event that took place in New England in September of 1961. I will discuss this event in greater detail a bit later.

Albert Einstein claimed the speed of light was the ultimate speed and stated that no object with rest mass could even reach the speed of light. Relative to Earthbound objects, the speed of light, at 299,750 kilometers per second (equal to 186,300 miles per second), seems extremely swift. However, when one considers that it takes light 4.28 years to travel from Proxima Centauri, our Solar System’s nearest neighboring star, to reach us, the speed of light is a relative snail pace with respect to the interstellar medium. It takes light 80,000 years to cross our Milky Way Galaxy. If the speed of light is the limiting speed, it appears that interstellar space travel is impossible. The snail pace for the speed of light is still virtually an instantaneous speed compared to the nominal speed for man’s current space travel technology. The Voyager 2 space probe has left our solar system at

an approximate speed of 36,000 miles per hour. At that speed, it would take Voyager 2 over 80,000 years to reach Proxima Centauri.

However, that bizarre event I mentioned earlier may provide just the evidence needed to prove the speed of light is not the ultimate speed. Gravity may propagate much faster than light and may provide a means for interstellar space travel. Chapter II, “History of My Research and Development of the Nuclear Gravitation Field Theory,” shares with you the history and the background information, including the details of that bizarre event, which led me to develop the Nuclear Gravitation Field Theory.

I originally developed my Nuclear Gravitation Field Theory in a rough collection of notes and information. I stumbled upon a couple of articles that led me to organize my ideas and formalize the theory. Chapter III, “Supporting Information for the Nuclear Gravitation Field Theory,” shares with you the information I came upon that gave me the confidence that my Nuclear Gravitation Field Theory was absolutely correct. I have provided a summary of the physics of gravity field propulsion for interstellar space travel in Chapter IV “The Physics of Star Trek and Subspace Communication: Science Fiction or Science Fact?”

KEN WRIGHT



Star Wars: Millennium Falcon Going to Hyperdrive

Star Wars® is a Trademark of Lucasfilm Ltd.

II. History of My Research and Development of the Nuclear Gravitation Field Theory

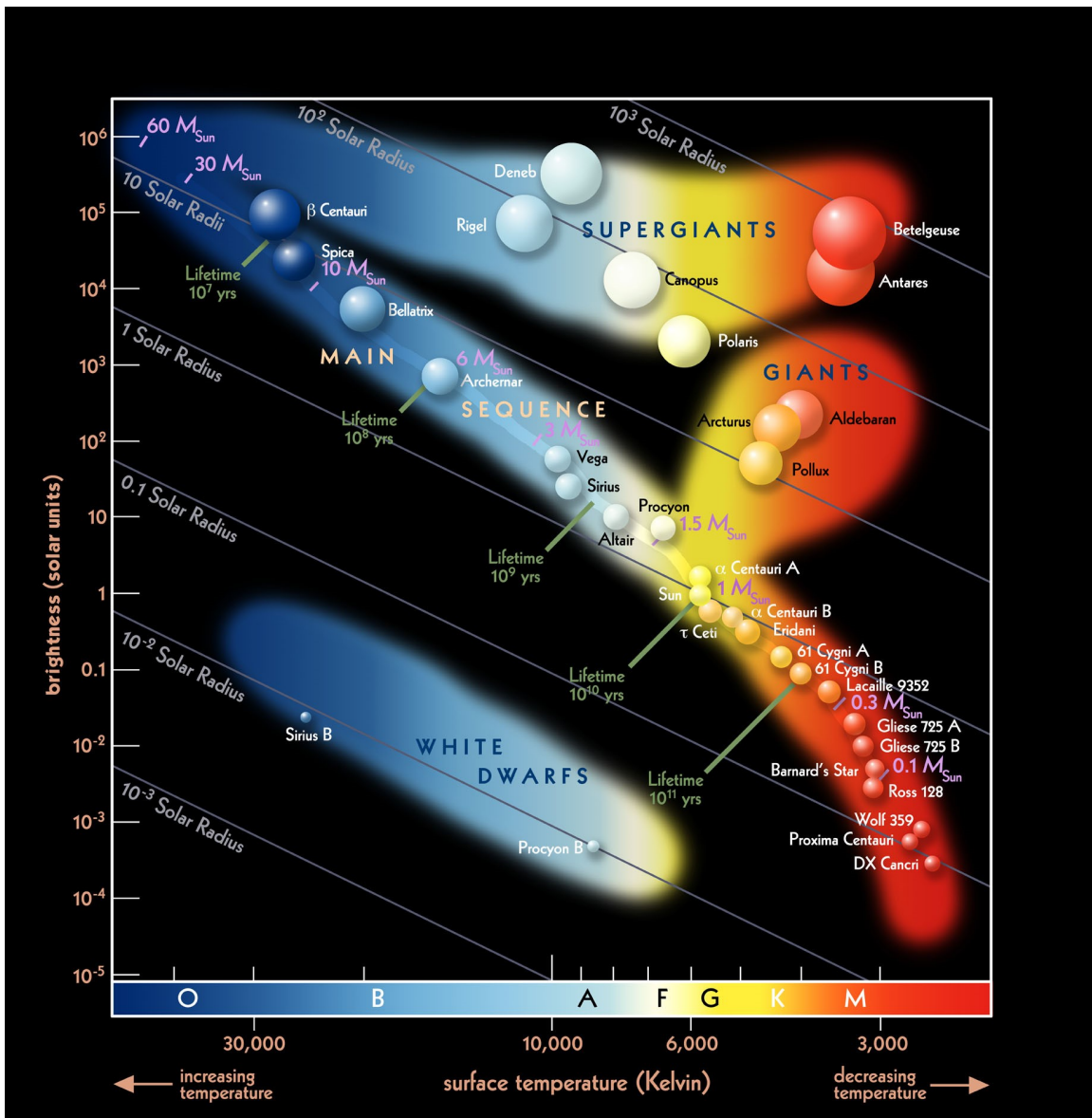
I have been committed to making Star Trek a reality from the time I was a young boy. The original Star Trek series starring William Shatner as Captain James T. Kirk, Leonard Nimoy as First Officer Spock (his father was the Vulcan Ambassador Sarek and his mother was human), and DeForest Kelley as Dr. McCoy, ship's doctor, first aired on NBC-TV in the Autumn of 1966. This series came into the homes of many on Thursday nights to take us "on a Five-Year Mission to explore strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before." I was just starting 6th grade at that time. I was fascinated with the stars in the sky and learned the names of the constellations and the brighter stars. I dreamed of having command of my own starship and traveling to the stars myself, someday. I hoped that mankind would find a way to accomplish such a feat in my lifetime so my dream could become reality.



*KENNETH FRANK WRIGHT
"KEN"*

After leaving his hometown of Milwaukee, Wisconsin, Ken, alias Rocket "flew" to USNA with hopes of becoming the world's first nuclear qualified interstellar astronaut. Actually, his zeal and explosive approach to situations deemed him the nickname "Rocket." Aside from his love for music and weekend liberty, Ken's only love is Adm Rickover's Nuclear Power Program. Ken will always be remembered for his energy, intelligence, and leadership by example that won him the respect of all those who worked for him. Ken will leave Mother B for the sunny skies of Orlando, Florida, where he will attend Nuclear Power School to prepare him for submarine duty.

I graduated from Alexander Hamilton Senior High School in Milwaukee, Wisconsin, in June of 1973, and started my Plebe Year as a Midshipman at the United States Naval Academy on July 23, 1973. I chose to major in Physics. During my Midshipman Third Class Year (Sophomore Year for you civilians), I was enrolled in Astronomy I and II. In the second semester, the course dealt with the study of the stars, the Hertzsprung-Russell Diagram, neutron stars, black holes, galaxies, and cosmology. During my Midshipman



Hertzsprung-Russell Diagram

Second Class Year (Junior Year for you civilians), I was enrolled in Physics of the Atom I which dealt with Einstein's Special Relativity Theory and Quantum Mechanics (the study of the particle and wave characteristics of matter and the Schrodinger Wave Equation). My professor for each of those courses was Dr. Gerald P. Calame, PhD, Physics. I graduated from the U.S. Naval Academy on June 8, 1977, with a Bachelor of Science in Physics and went on to serve in the Nuclear Submarine Fleet.

During my Astronomy II class, Dr. Calame brought up an article that was published in the December 1974 issue of Astronomy Magazine. The title of the article was "The Zeta Reticuli Incident" by Terence Dickinson. The article began discussing a very bizarre story ... the abduction of Betty and Barney Hill by extraterrestrials. This event supposedly took place near Exeter, New Hampshire, one night in September of 1961, while Betty and Barney Hill were driving home from a vacation in Canada.

They were taken aboard an extraterrestrial spacecraft and were medically examined by the extraterrestrials. The extraterrestrials, somehow, erased Betty and Barney Hill's memories of their ordeal with them. In 1966, Betty and Barney Hill obtained therapy after they had suffered from countless sleepless nights of bad dreams. They were



Betty and Barney Hill

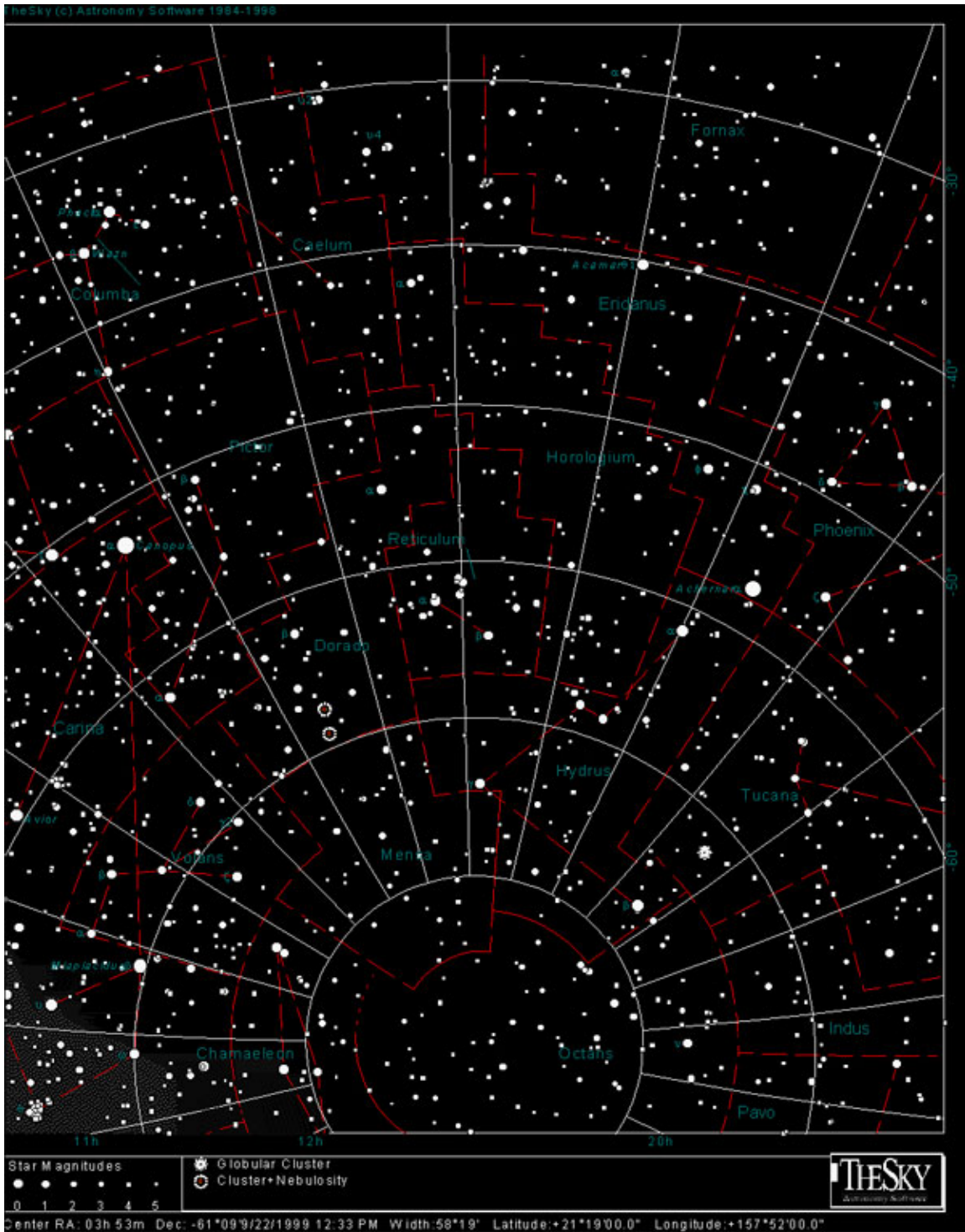
continuously bothered by their inability to account for two hours of their time during their trip home in 1961. Under hypnosis during their therapy sessions, Betty and Barney Hill were able to recall their bizarre experience with the extraterrestrials. Under hypnosis, Betty Hill drew a star map that she had seen aboard the extraterrestrial spacecraft. In 1969, after the Gliese Catalog of solar type stars was developed, Ms. Marjorie Fish, a schoolteacher from Ohio, determined the hub of the star map to be Zeta 2 Reticuli, one of a wide double star system 37 light-years from our Earth, located in the Constellation Reticulum. Zeta 2 Reticuli is only visible to observers located south of 23° North Latitude. Zeta 2 Reticuli is visible from Mexico City. The bulk of the Astronomy Magazine article focused on the astronomy involved with determining the hub of the Betty Hill star map.



The Betty Hill Star Map as Interpreted by Ms. Marjorie Fish

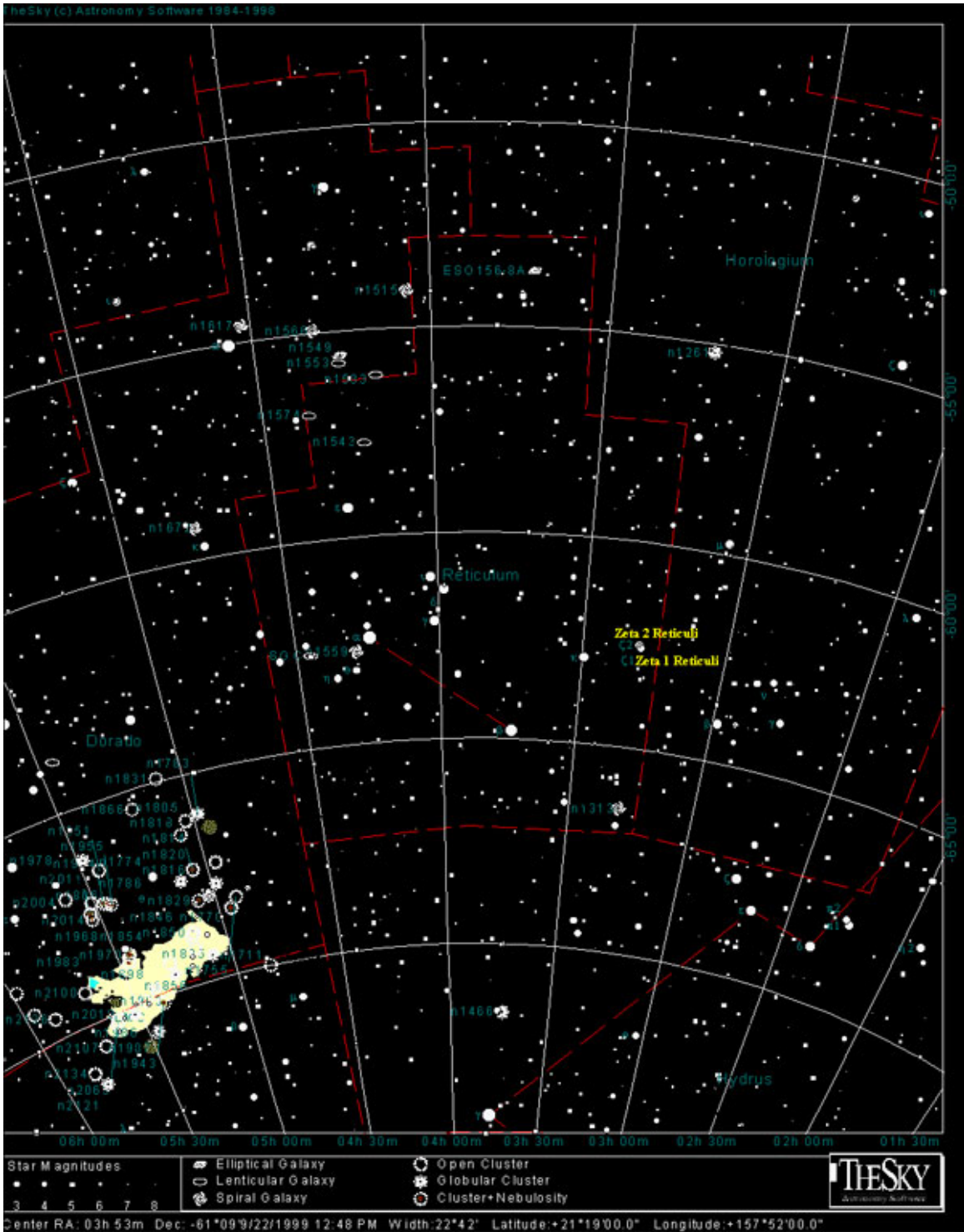
Professor Calame debunked the idea that anyone had ever been abducted by extraterrestrials because the distances between even the nearest stars to our Sun are so immense that a spacecraft traveling at near light-speed would take several years to travel such distances. The required logistics such as food, oxygen, and fuel would make such a trip impossible by any current method of propulsion in space. Albert Einstein claimed that the speed of light was the ultimate speed. If the speed of light is the ultimate speed, traversing the interstellar medium seems to be a virtual impossibility because the speed of light is a relative snail pace when dealing with interstellar distances. I was initially led to believe, with great disappointment, that interstellar space travel for mankind would never happen.

Let's go back to that bizarre story about Betty and Barney Hill. I wasn't one to claim that I believe in the existence of UFOs and extraterrestrials. However, the story of Betty and Barney Hill always bothered me. Betty Hill had a Master's Degree in Social Work. Barney Hill was a leader of the NAACP in New England. Neither Betty Hill nor Barney Hill had any background in astronomy. Betty Hill was a white woman while her husband Barney Hill was a black man. Inter-racial marriages in the 1960s were not looked upon favorably. I suspect they were shunned by many because of their marriage. Why would Betty and Barney Hill want to generate any more "negative publicity" by claiming they were victims of such a bizarre event? What could they possibly gain by telling such a story ... especially if their story was a hoax? How could Betty Hill, without any astronomy background, generate a star map so accurately fitting a pattern of neighboring Solar Type stars? How could she generate that star map from the viewpoint of another solar system which included stars in the Southern Skies that cannot even be seen by New Englanders? How could she have known about those stars in 1961 and draw the map in 1966 when they were not cataloged until 1969? Could this bizarre event actually have happened? If, in fact, Betty and Barney Hill were actually taken aboard an extraterrestrial spacecraft in September of 1961, how did those extraterrestrials travel 220 trillion miles (37 light-years) from Zeta 2 Reticuli to get to Earth? They certainly could not have accomplished such a feat using any propulsion system we are familiar with here on Earth. I remembered Professor Calame discussing neutron stars and black holes in Astronomy class. He mentioned Albert Einstein's General Relativity Theory and



Star Map of Southern Skies in the Vicinity of Constellation Reticulum

Constellation Reticulum (English Name = “the Net”) is located in the center of the Star Chart. Constellation Reticulum is located about halfway along an imaginary line drawn between the First Magnitude Stars Canopus, located in the Constellation Carina (English Name = “Keel of the Ship of Argo”), and Achernar, located in the Constellation Eridanus (the Eridanus River). The South Celestial Pole (SCP) is located along the star chart vertical centerline near the bottom of the star chart.



Constellation Reticulum

Zeta 1 Reticuli and Zeta 2 Reticuli are located at the right center of the Star Chart above near the imaginary boundary (designated by the red dashed line) along the right side of Constellation Reticulum. Zeta 1 Reticuli and Zeta 2 Reticuli are designated ζ_1 and ζ_2 , respectively, and are identified by the yellow text on the Star Chart above.

described how the intense gravitational fields in the vicinity of such stars will significantly warp Space-Time.

What if an extraterrestrial race of “intelligent humanlike beings” actually reside somewhere in another solar system in the neighborhood of our Sun? What if that very extraterrestrial humanoid race had developed a propulsion technology beyond the current comprehension of mankind? What if that very extraterrestrial humanoid race developed the capability to manipulate and amplify Gravity to “warp or compress Space-Time?” What if the extraterrestrial spacecraft has a means for amplifying Gravity to produce “Space-Time Compression” (known as “Warp Drive” on Star Trek) which allows the extraterrestrial astronauts to significantly shorten the distance of travel between their solar system and ours so they can travel that distance in a very short time? If this extraterrestrial race of beings is capable of manipulating Gravity and using it for a propulsion system for interstellar space travel, then, certainly, it can be within the capability of mankind from Earth to do the same. The Laws of Physics are the same throughout the universe. If mankind can learn what Gravity is and learn how to manipulate it, then mankind could travel to the stars in a short time also. My hope is to see mankind traveling to the stars early in the 21st Century and I have every intention to be part of it.

The “million dollar question” I had to answer was, “What is Gravity?” If mankind ever expects to manipulate Gravity to compress Space-Time, mankind must determine just what Gravity is. Isaac Newton found out that gravitational fields were directly related to mass and he developed his famous law known as “Newton’s Law of Gravity.”

$$F = \frac{G \times M_1 \times M_2}{r^2}$$

You can see why I have such a fascination with Gravity and why I set out to determine just what Gravity is. I want to make Star Trek real and travel to the stars in my lifetime.

Let’s look at the structure of the atom. Where does most of the mass of the atom exist? I believe you will agree that virtually all the mass of the atom resides in the nucleus of the atom. The mass of a given element is based upon the number of protons and number of

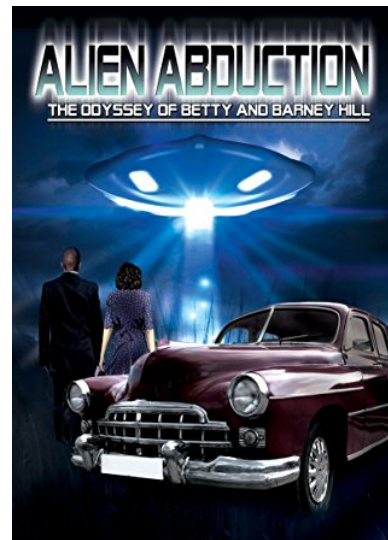
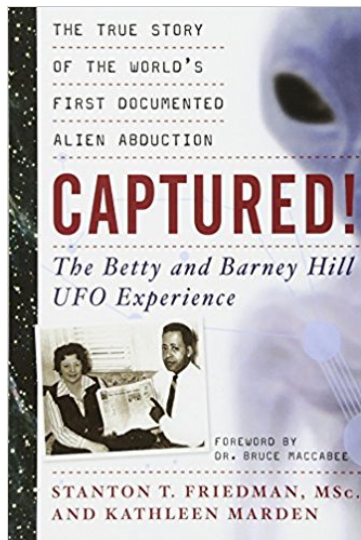
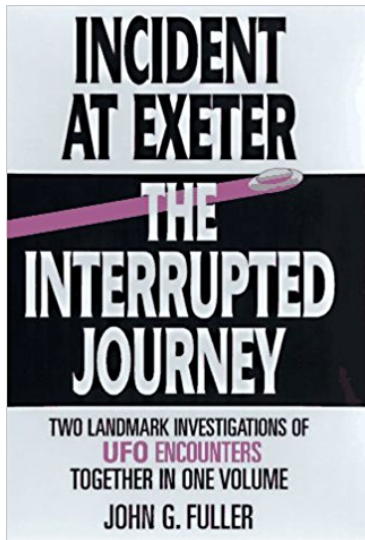
neutrons contained in its nucleus. The subatomic particles that make up the atom are the building blocks of all matter. All forces must originate somewhere within the atom. Could there be a connection between the force that holds the nucleus of the atom together and the force of Gravity?

For the next 20 plus years after graduating from USNA, I studied Newton's Law of Gravity, Einstein's General Relativity Theory, and Quantum Mechanics in my spare time. I now believe that I have found the answer to that "million-dollar question." I have developed a theory that demonstrates the Strong Nuclear Force that holds the protons and neutrons together in the nucleus of the atom and Gravity are one and the same force. I have appropriately named my theory the "Nuclear Gravitation Field Theory" and have provided it within a separate e-Book that you can obtain through my Gravity Warp Drive Website.

During that 20-year period I also accumulated a significant amount of information and physics data. Some of the information is accepted by mainstream Scientific Community. Much of the information and physics data is outside the current paradigms of the Scientific Community and will absolutely astound you. My Nuclear Gravitation Field Theory provides the physics bases for explaining this information. I provide that information in Chapter III, "Supporting Information for the Nuclear Gravitation Field Theory."

KEN WRIGHT

The abduction of Betty and Barney Hill by extraterrestrials is well documented in John G. Fuller's books, "The Incident at Exeter" and "The Interrupted Journey: Two Lost Hours Aboard a Flying Saucer." This story is one of the strangest stories of our generation - the abduction of an American couple aboard a UFO - as revealed by them under therapeutic hypnosis. What a story! These books are out of print by the publisher, but can be obtained through Amazon.com in a single volume along with "Captured! – The Betty and Barney Hill UFO Experience" and the video "Alien Abduction – the Odyssey of Betty and Barney Hill" to find out more about this bizarre event. You can use hyperlinks on my Gravity Warp Drive Website to order from Amazon.com.



Another, equally intriguing story, “Fire in the Sky,” is the true story of the abduction of Travis Walton by extraterrestrials from a logging camp in northeastern Arizona:

On November 5, 1975, a group of loggers in the mountains of northeastern Arizona observed a strange, unusually bright light in the sky. One of those men, Travis Walton, recklessly left the safety of their truck to take a closer look at the large UFO it turned out to be. Suddenly, as he walked toward the UFO, Walton was blasted back by a bolt of mysterious energy.

His companions fled in fear. When they reported an encounter with a UFO - something they would have considered impossible if they had not witnessed it themselves - the men were suspected of murder. For five days authorities mounted a massive manhunt in search of Walton - or his body. Then Walton reappeared, disoriented and initially unable to tell the whole story of his terrifying encounter.

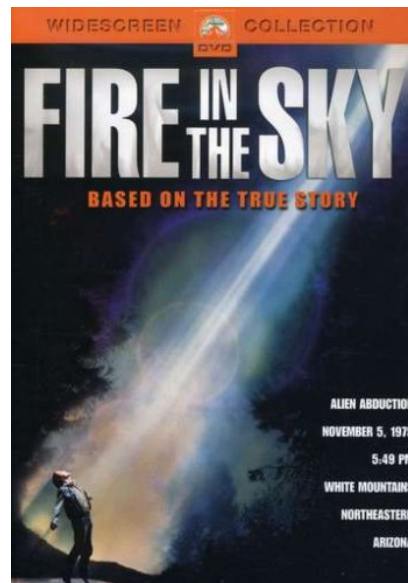
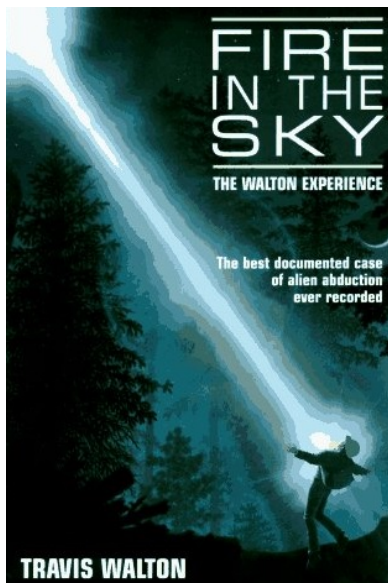
In “Fire in the Sky” Travis Walton relates in his own words the best documented account of alien-UFO abduction yet recorded, the story of his harrowing ordeal at the hands of silent captors and his return to a disbelieving world of hostile interrogators, exploitative press and self-styled “debunkers.” Travis Walton recounts the struggle to get a fair hearing, and confronts his detractors with a stinging rebuttal.

The real story behind the hit movie from Paramount - a detailed exposé of the campaign to suppress Walton's story, and first-time revelations of startling new developments is provided in the book, "Fire in the Sky."

"It was many years ago that I got out of a crew truck in the national forest and ran toward a large glowing UFO hovering in the darkening Arizona sky. But when I made that fateful choice to leave the truck, I was leaving behind more than just my six fellow workmen. I was leaving behind forever all semblance of a normal life, running headlong toward an experience so overwhelmingly mind-rending in its effects, so devastating in its aftermath, that my life would never - could never - be the same again."

-- Travis Walton

More details regarding Travis Walton's abduction can be obtained by either going to the "www.travis-walton.com, "The Travis Walton Official Web Site" or by ordering the book "Fire in the Sky" and / or the movie "Fire in the Sky" from Amazon.com by clicking the Amazon.com hyperlink(s) on the Gravity Warp Drive Website.



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III. Supporting Information for the Nuclear Gravitation Field Theory

I had developed my Nuclear Gravitation Field Theory in a rough, rag-tag, collection of notes over a time period of about 14 years from 1983 through 1997. I believed that I would have to find the money and time to go back to graduate school and get my Master's and Doctorate Degrees in Physics. I would focus on my Nuclear Gravitation Field Theory as the center of my research while in graduate school to determine, if, in fact, there was physical evidence to support my theory. In December of 1998, I was surfing the Internet, as I do regularly, to see what new information was available regarding General Relativity. I still believed that gravitational fields and Einstein's General Relativity Theory were the keys to developing interstellar space travel.

One day, I stumbled upon what I considered the "mother lode in a Gold Mine." I came across an Internet Website with this article: "Government Scientist Goes Public: A Former Department of Naval Intelligence Scientist Discusses our Government's Most Highly Classified Subject." This article revealed one of those suspected Black Projects that our government and military has been working on that was not supposed to exist. According to this article, Robert Lazar, a former Government Scientist working for the U.S. Department of Naval Intelligence, had come forward to let the American people know the U.S. Government had been secretly reverse engineering extraterrestrial spacecraft (UFOs) at dried up Papoose Lake, designated as S4, located about 15 miles Southwest of dried up Groom Lake, designated as Area 51, on Nellis Air Force Base, in Nevada, for several years. The original Website containing this article is no longer available on the Internet. I included a Web Page on my Gravity Warp Drive Website with the original article titled: "Government Scientist Goes Public." I added editorial comments to that Webpage in *bold italic*. I have included this article in Chapter IV of this e-Book. An image of the "Sport Model Flying Disc" Bob Lazar worked on is provided below.



Sport Model Flying Disc

There were three major points that really got me fired up after reading the Robert Lazar article. The first point was the fact that Robert Lazar reported the nine discs the government had in its possession travel by warping Space-Time around the craft. The discs fly by amplifying the “Strong Nuclear Force” of a super heavy trans-Uranic Element, Element 115 (UnUnPentium or UUP – currently named Moscovium), to establish gravitational fields for propulsion. Although a stable isotope of Element 115 has not yet been produced by any nuclear reaction on Earth, the fact that the “Strong Nuclear Force” was being amplified to produce macroscopic “Space-Time Compression” was consistent with my “Nuclear Gravitation Field Theory.” I had independently determined that the “Strong Nuclear Force” and Gravity were the same force. The second point was the fact that Robert Lazar reported the government documents stated the nine discs in the government’s possession were constructed in the Zeta Reticuli Star System, specifically, on the fourth planet orbiting Zeta 2 Reticuli. Zeta 2 Reticuli is the same star system that Ms. Marjorie Fish determined to be the hub of Betty Hill’s famous star map discussed in the article, “The Zeta Reticuli Incident.” I found another interesting Internet Website article stating that scientists, using the Hubble Space telescope, initially reported finding a Jupiter sized planet (27% Jupiter’s mass) orbiting Zeta 2 Reticuli at a distance of 0.14 Astronomical Units (AU). 1.0 AU is the Earth-Sun

distance. Four days later, the scientists reported they had made a mistake. Did the scientists really make a mistake ... or did the U.S. Government want to cover up any information indicating that Zeta 2 Reticuli actually had planets? Based upon the distance the “discovered planet” orbits about its parent star, Zeta 2 Reticuli, the fourth planet would orbit Zeta 2 Reticuli at about 1.12 AU assuming Bodes’ Law. The estimated position of the fourth planet, at 1.12 AU, is in the “life zone” of the star, Zeta 2 Reticuli, and could support life as we know it. The orbital position of the discovered planet is consistent with the information provided in the U.S. Government documents seen by Robert Lazar. The third point was the fact that Robert Lazar reported the U.S. Government documents stated gravity propagates instantaneously. I always believed gravity had to propagate much faster than light for Black Holes to exist. Albert Einstein believed that the speed of light was the ultimate speed. I came across a very interesting article, “Rethinking Relativity,” and have provided that provided as a Web Page on this Website. The article stated:

1. Einstein had provided a correction factor in his General Relativity calculations because his assumption of gravity propagating at the speed of light didn’t quite give the result he expected, and
2. Tom Van Flandern, a research associate in the Physics Department at the University of Maryland, published an article in “Physics Letters A,” dated December 21, 1998, which claims that the speed with which the force of gravity propagates must be at least 20 billion times faster than the speed of light and may very well be instantaneous.

The title of the Tom Van Flandern article is “The Speed of Gravity - What the Experiments Say” and is provided as a Web Page on the Gravity Warp Drive Website. If a Black Hole is to exist, a Gravity Wave must propagate faster than a light wave to “catch” the light wave and “trap” it. If a wavefront of light is propagating at the speed of light (as expected) and a wavefront of gravity is propagating at the speed of light is following the wavefront of light, the interval between the two wavefronts will never change. The wavefront of Gravity will never “catch” the wavefront of light. In addition, if gravity propagated at the speed of light, then there should be no gravitational field from a Black Hole outside the event horizon. This is inconsistent with observed data of orbital motion in binary stars where one star is a known Black Hole such as is the case with

Cygnus X-1. Although the Robert Lazar article was quite intriguing to me, it deals with UFOs and has no credibility with the Physics Community. I could not use it as an official reference for my theory. I needed an “Earthbound,” credible, accepted source of information that could provide confirmation of my Nuclear Gravitation Field Theory.

I stumbled upon the Internet Website article, “Possible ‘Roswell UFO’ Crash Debris Received by Talk Show Host Art Bell,” which discussed the unusual gravitational characteristics of Bismuth, Element 83, and provided the source references for that information. Bismuth is a unique element having a nucleus containing completely filled neutron ground state energy levels and one lone proton in its outer proton ground state energy level. Bismuth’s nuclear configuration is strikingly similar to Bob Lazar’s elusive Element 115. 82 and 114 are “nuclear magic numbers” for protons. A “magic number” for protons or a “magic number” for neutrons represents a total number of either protons or neutrons that will completely fill a given ground state energy level in the nucleus. 82 protons, which define Element 82 or Lead, completely fill six ground state proton energy levels and 126 neutrons completely fill seven ground state neutron energy levels. 114 protons, which define Element 114, currently named Flerovium (Fl), completely fill seven ground state proton energy levels and 184 neutrons completely fill eight ground state neutron energy levels. Bismuth, Element 83, has 82 protons filling six proton energy levels, 1 lone proton in the seventh proton energy level, and 126 neutrons filling seven neutron energy levels. This nuclear configuration for Bismuth is the only stable (non-radioactive) isotope of Bismuth in existence. The stable isotope of Element 115, assuming it does exist, would have 114 protons filling seven proton energy levels, 1 lone proton in the eighth proton energy level, and 184 neutrons filling eight neutron energy levels. Robert Lazar claimed that Element 115 was a stable element. It is believed that an “island of stability” may exist around Element 114 Flerovium because 114 is a “magic number” for protons. Current nuclear physics evidence seems to indicate that a “double magic” isotope of Element 114 Flerovium, containing 184 neutrons filling eight neutron energy levels, may be a stable isotope. Nuclear reactions performed at particle accelerator laboratories throughout the world in the late 1990’s have produced three identified isotopes of Element 114 Flerovium. The three isotopes of Element 114 Flerovium identified were as follows.

1. ${}_{114}\text{Fl}^{285}$, shy of the 184 neutron “magic number” count by 13, existed for 0.58 milliseconds;
2. ${}_{114}\text{Fl}^{288}$, shy of the 184 neutron “magic number” count by 10, had a half-life of 2 seconds; and
3. ${}_{114}\text{Fl}^{289}$, shy of the 184 neutron “magic number” count by 9, had a half-life of 30 seconds.

The trend indicates that as the number of neutrons contained in the various isotopes of Element 114 Flerovium approaches 184, the stability of the Element 114 Flerovium isotopes rises dramatically. This trend seems to indicate that the Element 114 Flerovium isotope ${}_{114}\text{Fl}^{298}$, containing 184 neutrons, should be a stable isotope. If ${}_{114}\text{Fl}^{298}$ is stable, a stable isotope of Element 115 Moscovium with a “magic number” of 184 neutrons, ${}_{115}\text{UUP}^{299}$ (${}_{115}\text{Mc}^{299}$), could exist, also, validating Robert Lazar’s claims about the stability of the Element 115 Moscovium used for fuel and source of amplified gravity aboard the extraterrestrial spacecrafts located at S4. The reference providing the information about Element 114, Flerovium (UnUnQuadium), comes from the Internet Website “[WebElements](#).” A discussion regarding the discovery of Element 114 Flerovium is provided in the article, “Pushing the Limits of the Periodic Table” which is provided on a Web Page on my Website. An isotope of Element 115 with a “magic number” of 184 neutrons would have a nuclear configuration identical to the Bismuth isotope containing 126 neutrons, with the exception that the protons and neutrons each fill an additional energy level. The nuclear energy levels for protons and neutrons for Lead-208, Bismuth-209, Flerovium-298, and Element 115 (Moscovium-299) are provided in table format at the Web is provided in the article, “Pushing the Limits of the Periodic Table” which is provided on a Web Page on the Gravity Warp Drive Website. An isotope of Element 115 with a “magic number” of 184 neutrons would have a nuclear configuration identical to the Bismuth isotope containing 126 neutrons, with the exception that the protons and neutrons each fill an additional energy level. The nuclear energy levels for protons and neutrons for Lead-208, Bismuth-209, Element 114, and Element 115 are provided in table format at the Web Page “The Physics of Star Trek and Subspace Communication: Science Fiction or Science Fact?” on my Website. That Art Bell Website led me to the credible, undisputable “Earthbound,” references I had been

looking for to support my Nuclear Gravitation Field Theory. These references were United States Patent Number 3,626,605, “Method and Apparatus for Generating a Secondary Gravitational Force Field” and United States Patent Number 3,626,606, “Method and Apparatus for Generating a Dynamic Force Field,” both dated December 14, 1971, by Henry William Wallace, an Engineer for the General Electric Corporation at the time of issue of both patents. Each reference is provided as a Web Page on the Gravity Warp Drive Website.

NOTE: *I provided the Henry William Wallace U.S. Patents on the Gravity Warp Drive Website because the Website where these references were originally found provided all the text portions of the patents in scanned images of copied pages from a printed document, therefore, were rather difficult to read. However, recently, it was brought to my attention that the specific Henry William Wallace Patents are now available from the U.S. Patent Office in “Adobe Acrobat pdf” format. My Website provides both Henry William Wallace Patents in HTML text format with “gif” image files for the drawings and the original documents in Adobe Acrobat pdf format for easy reading. My Website also provides the Internet Website links where the original information was obtained as references.*

Henry William Wallace speculated that there was a direct connection between the “Strong Nuclear Force” that binds the nucleus of the atom together and the forces involved with creating a gravitational field:

1. Henry William Wallace stated in both U.S. Patent Number 3,626,605 and U.S. Patent Number 3,626,606:

“Since the dynamic interaction field arising through gravitational coupling is a function of both the mass and proximity of two relatively moving bodies, then the resultant force field is predictably maximized within the nucleus of an atom due to the relatively high densities of the nucleons plus the fact that the nucleons possess both intrinsic and orbital components of angular momentum. Such force fields may, in fact, account for a significant portion of the nuclear binding force found in all of nature.”

2. Henry William Wallace stated in U.S. Patent Number 3,626,605:

“Also indicated in the embodiment of FIGURES 7A* and 7B* is the orientation of the flux within the mass circuit, the latter being constructed preferredly of BISMUTH.”

NOTE: *FIGURES 7A* and 7B* mentioned in the text are illustrations included with Henry William Wallace's description of his invention - the machine designed to generate a secondary gravitational force field - within the U.S. Patent Number 3,626,605 document.*

REFERENCES: United States Patent Number 3,626,605, "Method and Apparatus for Generating a Secondary Gravitational Force Field"

United States Patent Number 3,626,606, "Method and Apparatus for Generating a Dynamic Force Field"

Henry William Wallace's invention included a rotating disc made up of Bismuth within the mass circuit of his machine. Henry William Wallace's implication of the connection between the "Strong Nuclear Force" and gravitational fields and the fact that Henry William Wallace used Bismuth to generate the secondary gravitational field is quite significant. Henry William Wallace's patent and invention provides substantial physical evidence supporting the Nuclear Gravitation Field Theory.

Let's go back to the Robert Lazar claims. Robert Lazar claimed to have the following degrees:

- 1978: Bachelor of Science Degree in Physics and Electronic Technology, Pacifica University (correspondence university).
- 1982: Masters of Science in Physics, MIT, Cambridge, Massachusetts.
- 1985: Masters of Science in Electronic Technology, Cal Tech, California.

However, there seems to be little or no evidence to support his education claims. Perhaps he made false claims regarding his credentials. Perhaps he didn't want to reveal his actual scholastic background for current employment, contracting, or security reasons. Perhaps the U.S. Government has the capability to destroy personal history and actually destroyed any records of his attending those schools. Perhaps Operation Majestic 12, at S-4, could have erased part of his memory and reprogrammed him to believe something else. The U.S. Government has been suspected of doing such things in the past. There could be several reasons for discrepancies in Robert Lazar's claimed scholastic record. I cannot make a judgment one way or another without the facts in hand. Assuming he did make false claims, I believe he would have made those claims in order to get attention from the media regarding the activity at S4. If a person is an unknown, it is difficult to

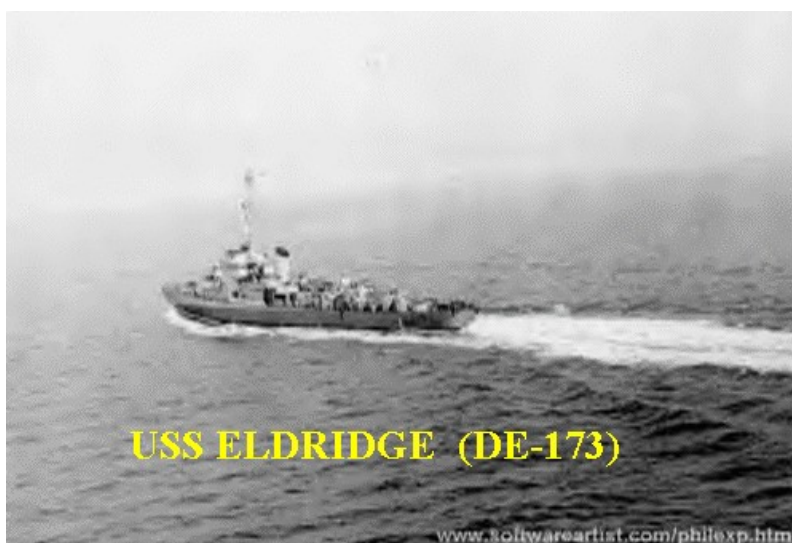
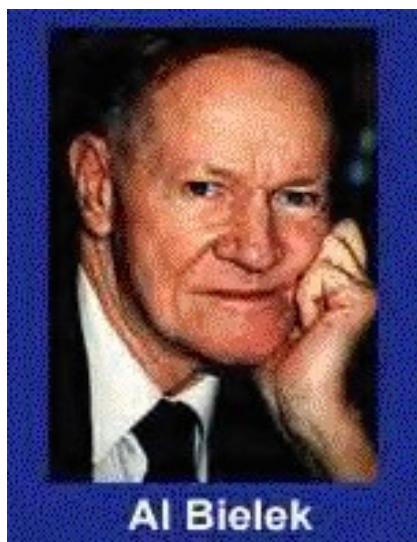
get anyone with connections to the public via the media to listen. Had he stated credentials that are less than impressive, he may not have been able to get the media attention he desired. Personally, I don't believe his credentials have any bearing on this issue. There is too much other evidence that supports what Robert Lazar claims regarding the U.S. Government's activities in reverse engineering UFOs. Robert Lazar's testimony regarding the operation of the flying discs, his description of amplification of the "Strong Nuclear Force" (Gravity on the atomic scale), and comparison of that gravitational field to Earth's Gravity is in line of what I would expect as a description from either a technician or Physicist. The current Physics Community paradigm indicates these forces cannot be the same because the "Strong Nuclear Force" is stronger than the Electrostatic Repulsion of the protons in the nucleus and Gravity is an extremely weak force. Therefore, obviously, Gravity cannot have anything to do with the "Strong Nuclear Force." I read the Lazar Critique by Dr. David L. Morgan, PhD., Physics (Reference: <http://www.dreamlandresort.com/area51/lazar/critiq.htm>). Dr. Morgan accepts the current paradigm of Physics because he states the "Strong Nuclear Force" is a strong, short ranged, force that has nothing to do with Gravity. This current paradigm of Physics states there are two separate and distinct nuclear forces:

- The "Strong Nuclear Force" is the force that holds the protons and neutrons in the nucleus together. This force is a very strong, short ranged, force that overcomes the "Electrostatic Repulsion Force" of the positive charged protons tending to break the nucleus apart.
- The "Weak Nuclear Force" is the "Force of Gravity."

I don't recall anyone ever positively proving the "Strong Nuclear Force" and the "Weak Nuclear Force" as two separate and distinct forces. If the effects of General Relativity are considered, it becomes obvious as to why the "Strong Nuclear Force" appears to vanish outside the nucleus due to significant Space-Time Compression. The "Weak Nuclear Force" or "Gravity" then propagates outward from the nucleus with an intensity tens of decades weaker than the "Strong Nuclear Force." The General Relativistic effect of Space-Time Compression connects the "Strong Nuclear Force" to the "Weak Nuclear Force" or "Gravity." As far as I am concerned, *Dr. Morgan's description of the "Strong Nuclear Force" is merely a theory just as my Nuclear Gravitation Field Theory is a theory.* Neither theory has been definitively validated to be fact. Since Dr. Morgan is so

avid about the “Strong Nuclear Force” being a “short ranged force” that just vanishes outside the nucleus, perhaps he should provide an explanation for why the “Strong Nuclear Force” does vanish so we can give him the Nobel Prize for Physics. Personally, I believe physical laws and the physical evidence indicate my theory as being much closer to the absolute truth. Based upon the official record and as far as the general public and the Mainstream Physics Community are concerned, Albert Einstein never fully accepted Quantum Mechanics, therefore, was never able to see the connection between the “Strong Nuclear Force” and Gravity. Most Physics PhDs accept the official record of Einstein’s analysis as “gospel,” therefore, remain blind to that connection. Refer to my Nuclear Gravitation Field Theory.

NOTE 1: *I had the opportunity to spend several days with Al Bielek in mid July 2000. Al Bielek claims to be a survivor of the legendary “Philadelphia Experiment.” He told me that Dr. Albert Einstein had actually completed his Unified Theory which includes the relationship of Gravity with Electricity and Magnetism and Matter. The remaining portions of the Unified Theory to make it a complete theory were classified "Above Top Secret" because of the extreme sensitivity of the information and the ramifications of the application of the theory. Dr. Albert Einstein and Dr. John Von Neumann personally oversaw the U.S. Navy experiment to attempt warship invisibility during World War II. This experiment, that took place in Philadelphia Harbor on August 12, 1943, was intended to make the Destroyer Escort, USS Eldridge (DE-173), visually and RADAR invisible. The experiment involved establishing rotating magnetic fields on board the ship. During the experiment, the USS Eldridge disappeared from the Philadelphia Harbor for 4 hours. When it returned to view, men were walking topside in an apparent daze. Some men spontaneously combusted. Some men’s bodies were imbedded in the hull of the ship. This experiment gone awry became known as the “Philadelphia Experiment.” Al Bielek claims to have been on board the USS Eldridge during the experiment and had traveled in time during the 4 hours the USS Eldridge was missing. Al Bielek claims to have traveled to the years 2137, 2749, and 1983, before returning to 1943. For more details on the “Philadelphia Experiment,” here is the link to Al Bielek’s Website, “The Philadelphia Experiment and the Secrets of Montauk,” the account of the events that occurred during this experiment with a U.S. Navy Warship in the Philadelphia Harbor in 1943 seems quite similar to several accounts of strange events experienced by individuals who have traveled through the Bermuda Triangle and survived to tell about them. Ship’s crews and aircraft pilots traveling through the Bermuda Triangle have reported strange clouds or fog and have reported their compasses going into a*



spin. The spinning compasses would indicate movement through an intense rotating magnetic field. Three theories about the Bermuda Triangle indicating the presence of a Space-Time Warp in the Bermuda Triangle are provided on the Bermuda Triangle: Space-Time Warps Web Page.

Did the U.S. Navy develop some sort of "Gravity amplification" in an attempt to bend light around the ship and make it invisible? Did this U.S. Navy warship end up in a "Space-Time wormhole that connected several positions in Space-Time together allowing movement through time?" Recall that Gravity amplification results in "Space-Time Compression." Space and Time are equivalent dimensions and both Space and Time are compressed by Gravity amplification. A gravitational field will affect the time measurement of an atomic clock. The time elapsed on an atomic clock will be slower in a stronger gravitational field than the time elapsed on an atomic clock in a weaker gravitational field.

NOTE 2: *V. V. Roschin and S. M. Godin: "Verification of the Searl Effect" provides a study of the "Searl Effect," which is the physics of generating and/or amplifying a gravity field by use of rotating magnetic fields. In "Government Scientist Goes Public," Robert Lazar reported that he had hands-on experience with an alien craft at S4 (Nellis Air Force Base, Nevada) he dubbed the "Sport Model" Flying Disc because of its sleek appearance. The disc was about 52 feet in diameter. Before he worked on it, he was given a short demonstration of its ascending about 30 feet, moving to the left, then to the right, and then rapidly ascending from there. Before initially lifting off the ground, the disc briefly gave off a corona discharge, a sound similar to that of high-voltage electricity, and then it was completely silent, its bottom glowing blue. The hissing and glowing are by-products of the tremendous electromagnetic pulses generated in the gravity amplifiers of the craft. The intense currents flowing through the core plates of the "Sport Model" Flying Disc's gravity amplifiers generate the intense magnetic fields to amplify the gravity field produced by the craft's Anti-Matter Reactor. Robert Lazar's observance of this phenomenon is consistent with the physics of the "Searl Effect." Likewise, it appears that the "Searl Effect" physics was being employed by the U.S. Navy to produce the distortion in Space-Time required to render a U.S. Navy Warship visually and radar invisible during the Philadelphia Experiment.*

NOTE 3: *I found an interesting article from the "Alien Abduction Experience and Research" Website which hints at the relationship between amplified gravity used for "Space-Time Compression" and time travel. The story is about two women who experienced moving back two hours in time after having an encounter with a "UFO." "UFOs" use gravity field propulsion systems. The title of this story is "UFO Encounter and Time Backs Up" and is provided on the Gravity Warp Drive Website.*

I believe that it is possible to amplify Gravity in a linear focused beam in like manner to the LASER or an electric field. A linear "Gravity Beam" would only provide an attractive force to objects within the "Gravity Beam" established by the "Gravity Amplifier." Objects outside the "Gravity Beam" would remain unaffected. Gravity is only an "omni-directionally attractive force" to other masses in the vicinity of the gravitational field if the field is propagating in an omni-directional manner with equal intensity as it does from a planet or star.

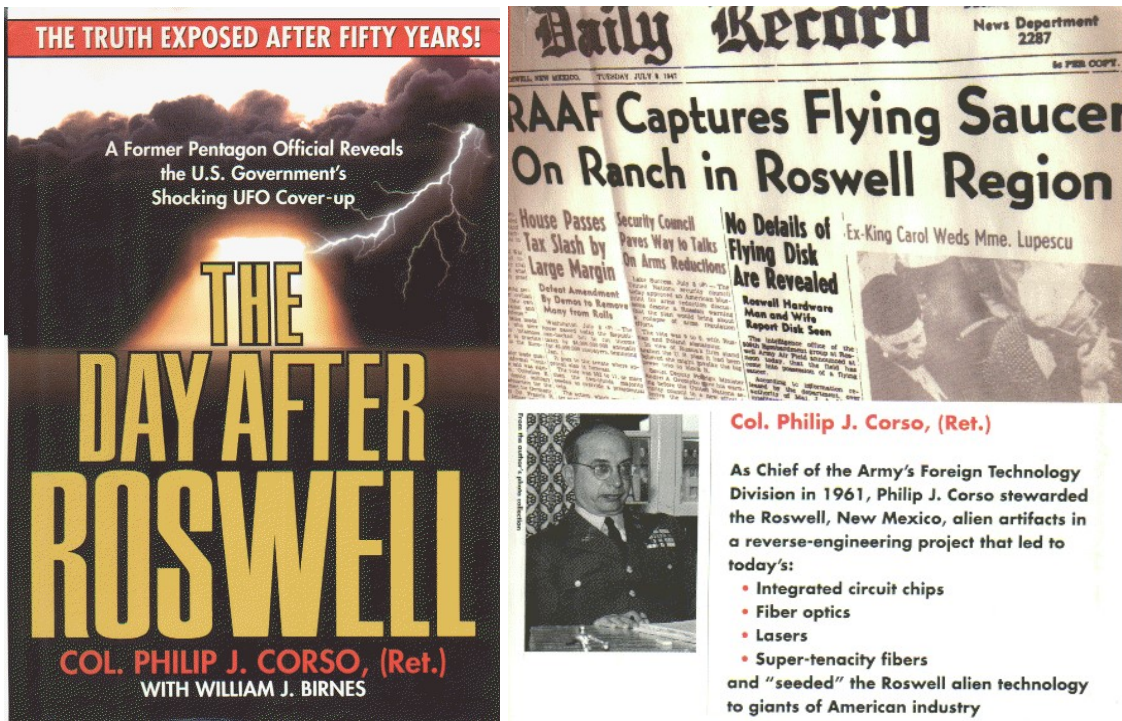
Although Robert Lazar discusses two different Gravity waves, the information that he provided is quite consistent with my Nuclear Gravitation Field Theory if you interpret what he said in the correct manner. The Strong Nuclear Force extends outward beyond

the electron clouds of all atoms, not just Robert Lazar's claimed Element 115. The Strong Nuclear Force (the Nuclear Gravitation Field or Quantized Gravity) outside the electron cloud of the atom is very feeble, but is still present. The Strong Nuclear Force (the Nuclear Gravitation Field or Quantized Gravity) at the surface of the nucleus is 8 to 9 decades more intense than the classical physics calculation for the gravity field next to a Neutron Star. Because of the intensity of the Strong Nuclear Force, the General Relativistic effect of Space-Time Compression takes place resulting in the intensity of the Strong Nuclear Force (Nuclear Gravitation Field) appearing to drop off over 19 decades before it begins to propagate away from the nuclear surface. Refer to my Nuclear Gravitation Field Theory. I use "Strong Nuclear Force" and "Nuclear Gravitation Field" interchangeably because they are the same force. The Nuclear Gravitation Field has become quite weak by the time the electron cloud of significant density is reached. However, since Bismuth and Element 115 each have a lone proton in the outer proton energy level, the Nuclear Gravitation Field at the surface of the nucleus for these elements is weaker than the average nucleus. The weaker Nuclear Gravitation Field next to the nucleus reduces the amount of Space-Time Compression that takes place, therefore, the Nuclear Gravitation Field drops off more gradually. The intensity of the Nuclear Gravitation Field (Strong Nuclear Force) outside the electron cloud for Bismuth and Element 115 is significantly stronger relative to their respective masses than for any other atoms. This fact provides the evidence that the "Universal Gravitation Constant," "G," in Newton's Law of Gravitation is not actually a universal constant, but is unique to every isotope of every element in nature. The "Universal Gravitation Constant," "G," is an average gravitation constant with the specific gravitation constants for Bismuth and Element 115 deviating significantly from that average value. Refer to the discussion regarding the Cavendish Experiment and of performing a separate test for Lead-208 and Bismuth-209 in my Nuclear Gravitation Field Theory.

During the Memorial Day Weekend, 2000, I had the opportunity to discuss with Bob Lazar the design and operation of the Matter/Anti-Matter Reactor installed in the "Sport Model" Flying Disc that he worked on while employed at S4. The following Web Page on my Website, "Design and Operation of the "Sport Model" Flying Disc Anti-Matter

Reactor,” provides a detailed description of the design and operation of the Reticulan Anti-Matter Reactor and includes photographs of Bob Lazar’s model of the Anti-Matter Reactor.

In 1998, (the late) Colonel Philip Corso, United States Army, Retired, went public with his book, “Day After Roswell,” which reveals the 50 years of U.S. Government coverup of the UFO phenomenon, the formation of Operation Majestic 12, and the reverse engineering of crashed UFOs. I believe that you will find this book very interesting reading without being too technical for the layperson to understand. This book gives much credibility to Robert Lazar’s claims regarding the activity taking place at S4, Nellis Air Force Base, Nevada.



In his book, “Day After Roswell,” Colonel Corso describes how Extraterrestrial Technology from the Roswell crash sites was secretly integrated into U.S. corporations for both military applications and civilian spinoffs. The technologies provided to American Industry included LASERs, Infrared Vision, Fiber Optic Cables, Transistors, Microchips, and much more.

The Website “Serpo.org - The Zeta Reticuli Exchange Program” discusses in great detail a Top Secret exchange program of twelve US military personnel to the planet Serpo orbiting the star Zeta 2 Reticuli, between the years 1965 and 1978. The following two quotes are from the www.serpo.org Website Home Page:

“We already have the means to travel among the stars, but these technologies are locked up in black projects and it would take an act of God to ever get them out to benefit humanity Anything you can imagine, we already know how to do.”

-- Ben Rich, former Head of the Lockheed Skunk Works, in a lecture shortly before he died

“I printed all the information ... and provided [the retired USAF Colonel] a copy ... I watched his eyes and facial expressions. After he was finished, he stated, ‘Oh my God, who on this Earth would release such classified material?’ I then asked him if all this information was real. His simple answer was, ‘Yes, all real.’”

-- Air Force Lieutenant Colonel, currently assigned to the Pentagon

One individual’s testimony included within the “www.serpo.org” Website indicates that the trip from our solar system to the Zeta Reticuli double star system 37 light-years away only requires 91 earth days travel time. That is what I would call faster-than-light-speed travel ... warp drive is a reality.

The Los Angeles Air Raid on February 24/25, 1942, opened an unprecedented chapter in the evolution of the U.S. Navy. In response to this incident, a covert research program to investigate the feasibility of exotic antigravity propulsion technologies was developed. In addition, Navy operatives were embedded in Nazi occupied Europe to learn about the German’s advanced flying saucer programs, and they discovered the Nazis were receiving assistance from two extraterrestrial groups with very different agendas. The debriefing of the operatives took place at Naval Air Station, San Diego, led by Rear Admiral Rico Botta. He instructed a “Disseminator of Naval Research and Information,” William Tompkins, to take confidential briefing packets to select think tanks, corporations and university departments around the country. Later, Tompkins worked

with a number of leading aerospace companies to design massive spacecraft for a secret U.S. Navy space program, and was fatefully assisted by extraterrestrial visitors described as “Nordics.”

The Nordics are a humanoid alien race that look very human. They have blonde hair and blue eyes. They communicate telepathically. They come from a solar system in the Pleiades Open Star Cluster in the Constellation Taurus 1,500 light-years from our Solar System. Travis Walton (“Fire in the Sky”) was originally abducted by grey alien beings. He was taken to a mother ship and was introduced to Nordic alien beings.

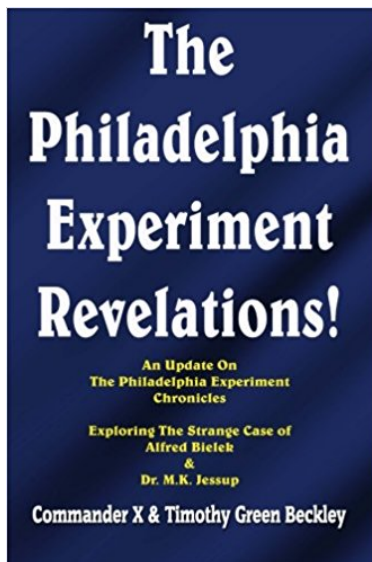
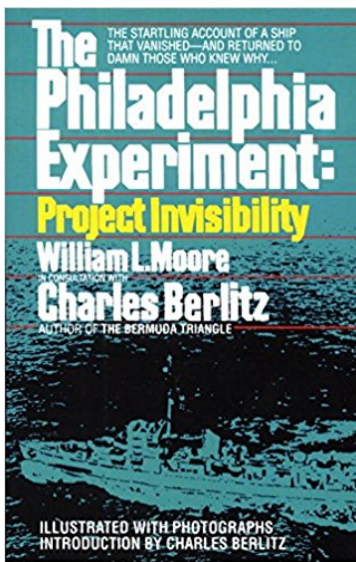
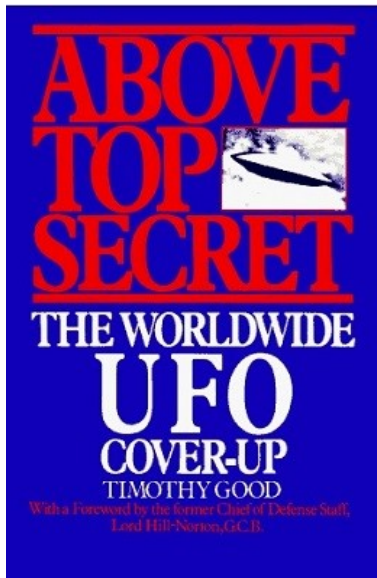
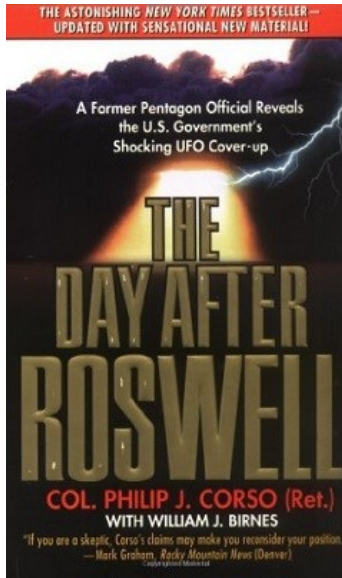
An extensive number of documents substantiate Tompkins’ claims of the existence of a covert Navy program created to study, design and build deep space battle groups. They became operational in the 1980’s. Now the Navy has a new goal to enact a plan to level the universal playing field, and the election of President Donald Trump may just be the wild card they needed to reveal ... everything!

Perhaps our technology boom was more of the result of an extraterrestrial race of beings visiting our planet than it was our own ingenuity. Just some food for thought.

KEN WRIGHT

“Day After Roswell” can be purchased from Amazon.com along with many other books about UFOs, Government Conspiracies, Alien Abductions, Interstellar Space Travel, Time Travel, Nuclear Physics and other sciences. I have provided hyperlinks to Amazon.com for “Day After Roswell,” “Above Top Secret - The Worldwide UFO Cover-Up,” “The U.S. Navy’s Secret Space Program & Nordic Extraterrestrial Alliance,” “The Philadelphia Experiment: Project Invisibility,” “The Philadelphia Experiment Revelations!,” and “The Montauk Project – Experiments in Time.”

You can use hyperlinks on my Gravity Warp Drive Website to get to Amazon.com to purchase these books.



IV. Government Scientist Goes Public

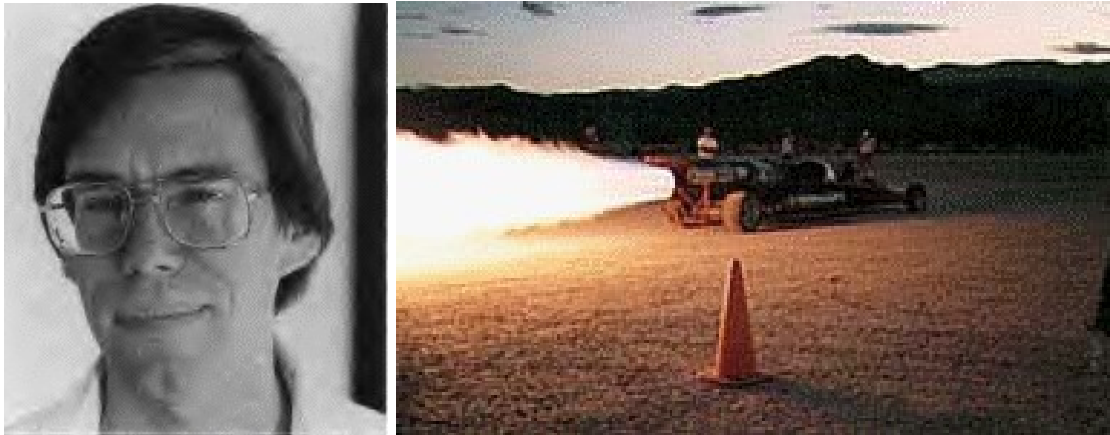
Former Department of Naval Intelligence Discusses Our Government's Most Highly Classified Subject

Considerable Evidence Supporting His Claims

Evidence supporting his claims is considerable. In addition to his claiming Naval Intelligence work at S4 (*15 miles southwest of Area 51*) from late 1988 to early 1989, Robert Lazar claimed to have worked at the Meson Physics lab, a part of the Los Alamos National Laboratories. The FBI is still dragging its feet in investigating his employment there, even though former Nevada Congressman James Bilbray asked it to investigate over four years ago. Evidently, FBI agents are still scratching their heads, wondering how to both deny his employment at Los Alamos and explain why his name is in an old telephone directory of Los Alamos scientists. An article by staff writer Terry England in the June 27, 1982 edition of the Los Alamos Monitor, which shows a picture of Lazar standing next to a jet car and refers to his employment as a scientist with Los Alamos, is also hard to explain. Two-dozen odd Los Alamos employees told former KLAS-TV anchor George Knapp that they remembered Lazar. Some of them said that they had been warned not to talk about Lazar and that they were afraid to talk about him. Four of them, though, confirmed for Knapp that Lazar had been working on classified projects there. After denying Lazar's employment there since 1989, Los Alamos in April 1994 finally changed its story and said that he had been employed there. Knapp also talked to former employees of the super-secret Groom Lake base, who corroborated Lazar's description of such details as how one gets to the base dining room, what the dining room looks like, and how one pays for meals there. It's extremely unlikely that an outsider would know such information.

A respected, no-nonsense reporter, Knapp has a master's degree in communications and has won AP and UPI awards for his quality UFO journalism. He accepts Lazar's story because too much of it checks out. In 1989, Lazar passed a lie-detector test arranged by Knapp. At MUFON's 1992 Midwest Conference in Springfield, Missouri, Knapp

presented further strong evidence of Lazar's credibility. Lazar had mentioned that a man by the name of Mike Thigpen had visited his house and interviewed him in connection with his S4 employment. Kristen Merck and Mrs. Wayne Higdon, two witnesses who happened to be at Lazar's house, confirmed Thigpen's visit. Knapp rhetorically asks, "How did Bob Lazar know the name Mike Thigpen?"



Bob Lazar and His Jet Car

The Department of Energy confirmed for Knapp that the Office of Federal Investigations (OFI ... whose phone number is not even listed in Las Vegas phone books) performs background checks on people who get clearances to work at the Nevada Test Site or at Nellis AFB. An employee of OFI called Knapp and confirmed that Thigpen worked for OFI. How did Lazar know that Thigpen did background checks? It took Knapp phone calls, friendly insider governmental contacts, and all his award-winning investigative skills before he found out who Thigpen was. The W-2 form Naval Intelligence mailed Lazar is hard to explain away as well. Knapp has examined this W-2 form, and copies of it have been seen on TV. Further boosting Lazar's credibility, John Andrews, plastic kit division manager of the Testor Corporation, found out that the U.S. Postal Service sends mail with the zip code NIC-01, the code on Lazar's W-2 form, to Naval Intelligence command in Maryland.

Also hard to explain away is the unusual response the State of Nevada received when it requested documents about Lazar from the federal government. The reply said that

information on Bob Lazar was on a need-to-know basis, and you don't need to know. This kind of reply is consistent with Lazar's having had a high security clearance.

1 Control number		OMB No. 1545-0048		E-6722MAJ	
2 Employer's name, address, and ZIP code			3 Employer's identification number	4 Employer's state I.D. number	
United States Department of Naval Intelligence Washington, DC. 20038			46-1007639	N/A	
8 Employee's social security number		9 Federal income tax withheld	10 Wages, tips, other compensation	11 Social security tax withheld	
[REDACTED]		168.24	958.11	71.94	
12 Employee's name, address, and ZIP code			13 Social security wages	14 Social security tips	
Robert S. Lazar 1029 James Lovell Las Vegas, NV. 89128			16	16a Fringe benefits incl. in Box 10	
17 State income tax		18 State wages, tips, etc.	19 Name of state		
			Nevada		
20 Local income tax		21 Local wages, tips, etc.	22 Name of locality		

Form **W-2 Wage and Tax Statement 1989**
Employee's and employer's copy compared

Copy 2 To be filed with employee's State, City, or Local income tax return.

Bob Lazar's W-2 Form From the United States Department of Naval Intelligence

Further Supporting Evidence

On October 17, 1993 Knapp, after recently returning from his trip to Russia, gave some news on Art Bell's Area 2000 radio show. Knapp's contact in Russia was a general who reported directly to the Russian counterpart of the Pentagon's chairman of the joint chiefs of staff. Knapp said that in the Summer of 1988, a Soviet spy satellite took pictures of the Papoose Lake area. One of the photos shows roads that lead into nearby hills where Lazar said the discs were stored. Parked busses with blacked-out windows are shown near the hanger area (In early interviews, Lazar had specifically mentioned being transported from Groom Lake to S4 in busses with blacked-out windows). Before May, 1989 (the date of Lazar's first appearance on KLAS-TV), Soviet satellites took only one or two photos of S4 a month, but after that date they took them daily. For sale at sky-high prices, the photos are cataloged according to date, time, and satellite.



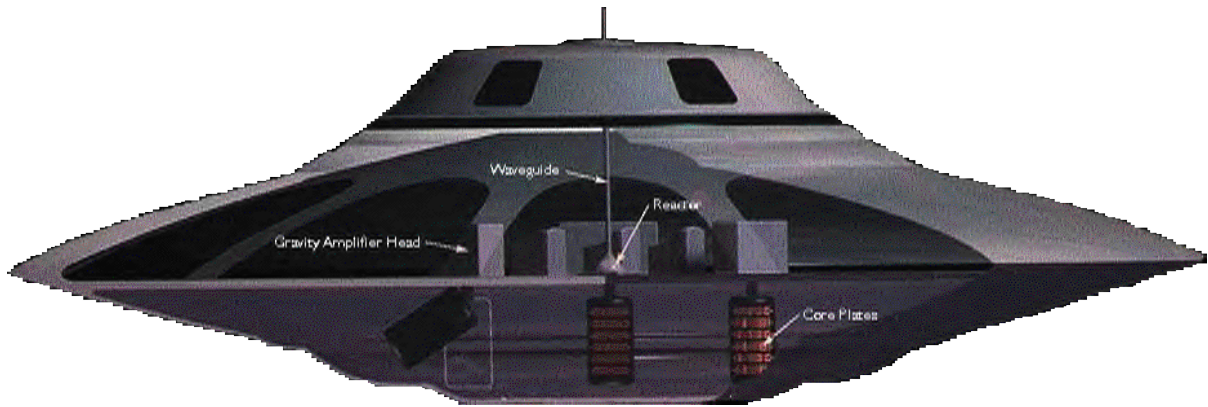
**Satellite Photo
of Flying Disc
at S4**

**Blowup of Satellite Photo
of Flying Disc at S4**

**Soviet Satellite Photo of “Sport Model” Flying Disc
Coordinates of Area S4: N 37° 01' 40", W 115° 46' 35"**



Image of the “Sport Model” Flying Disc



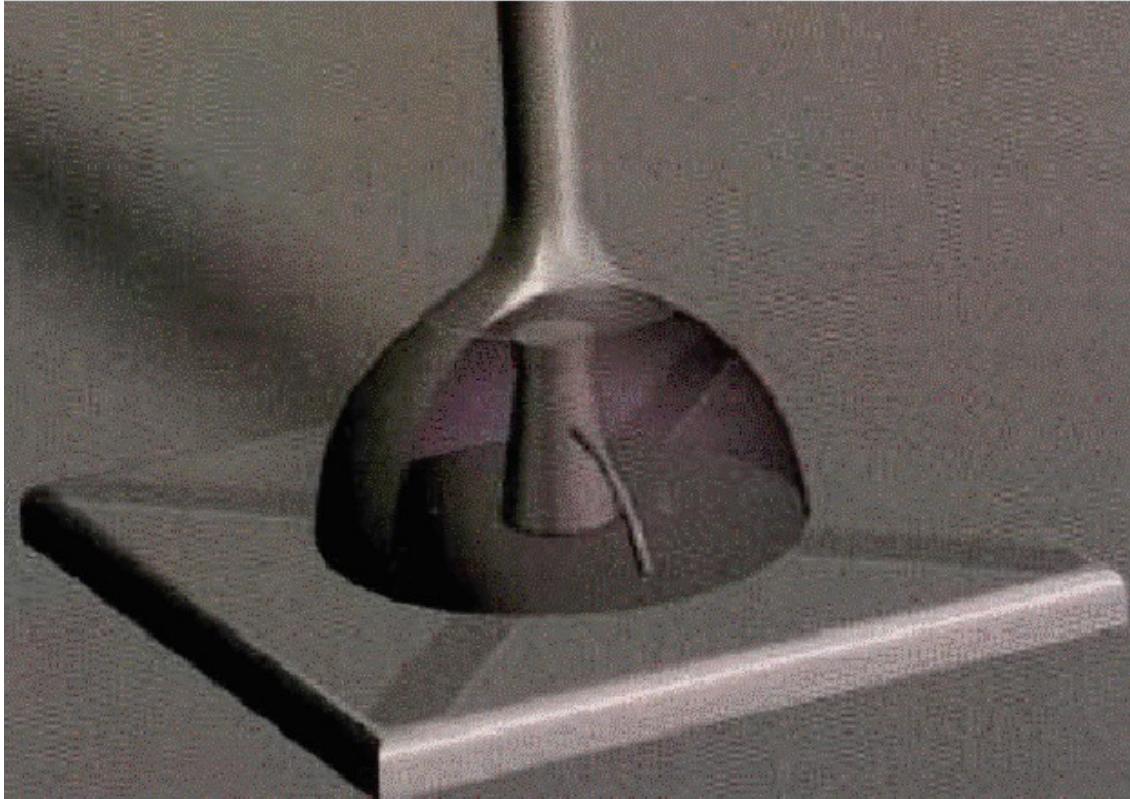
Cutaway View of the “Sport Model” Flying Disc

Antimatter Reaction and Gravity Amplification

On several local Las Vegas radio shows and on Chuck Harder’s national For the People radio show, Lazar has answered questions on the propulsion system of flying saucers, or “discs” as our government calls them. According to documents Lazar read at S4, discs fly by amplifying gravitational waves. Gravity is actually two waves, identified as gravity A and gravity B. Gravity A is at the atomic level. That is, the wave does not extend beyond the molecular bond except in Element 115 (*super-heavy trans-Uranic element with 115 protons*). This slight extension allows the wave to be accessed and amplified. Gravity A is currently called the strong nuclear force. The propulsion system is an antimatter reactor. In the disc Lazar crawled inside, the reactor was a sphere, about the size of a medicine ball. The top half of it was visible in the middle of the floor. Fuel for the reactor is Element 115, UnUnPentium. On a Periodic Table, UnUnPentium, a super-heavy metal, would be listed as UUP. It has a melting point of 1,740 degrees Celsius. When it is bombarded with protons, it becomes Element 116, an element that gives off anti-matter. In the reactor, there is an annihilation reaction between matter and anti-matter.

The copper-orange colored fuel pellet aliens use is about the size of a fifty-cent piece, and it weighs about 223 grams. Supporting the claim that UnUnPentium is a stable element, Lazar notes, “... in that heavy ion research facility [GSI] in Germany, they just discovered

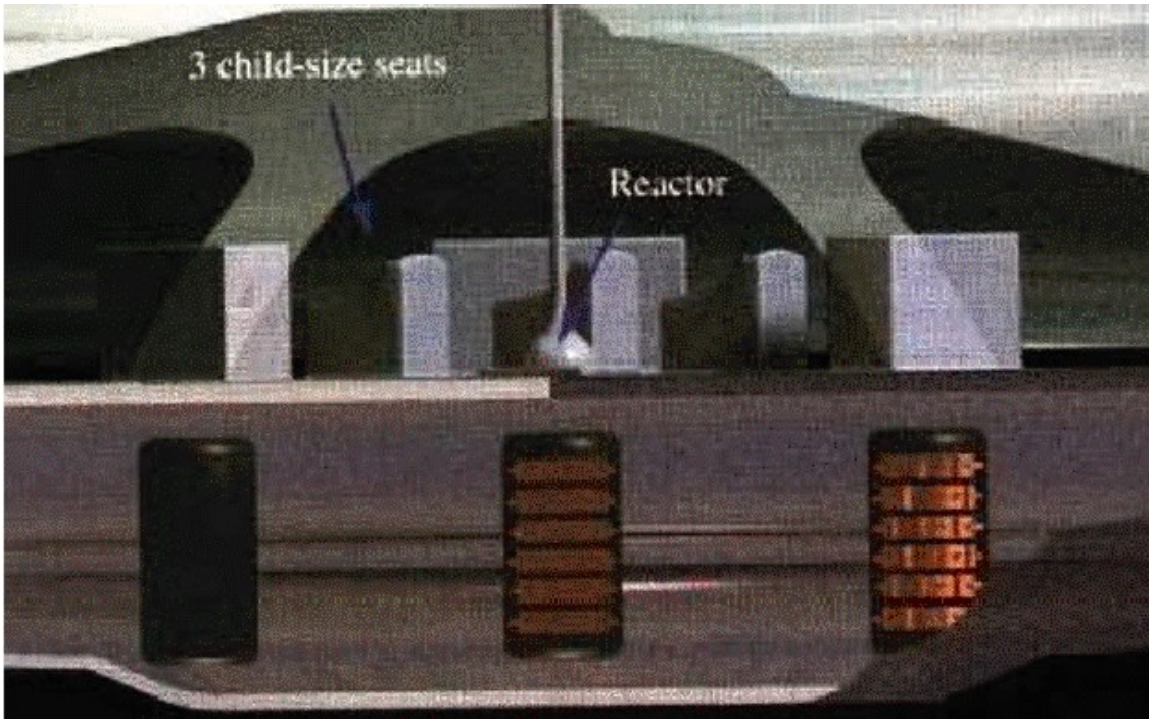
that in their dabbling in transmuting elements, and as we got higher up on the periodic chart their half lives got shorter and shorter. Well, for the first time they came up with Element 109, I think, and the half life became longer, and they are seriously considering that this may be a trend and that it may lead up to a stable element. And they theorize that it would be in the Element 115 area. And, in fact, this is true, and this is what this element is; it is essentially stable.”



The Matter Anti-Matter Reactor Aboard the “Sport Model” Flying Disc

The wave that is produced from the matter-antimatter reaction is present on the spherical reactor. Attached to the reactor is a transparent wave guide, which is tuned in such a manner that it provides an easy path for the wave to take. It takes less effort for the wave to travel up the wave guide than go elsewhere. The bottom of the tapered wave guide touches the top of the reactor, while the top of the wave guide extends to the ceiling. Electric power is produced in thermoelectric generators located at the bottom of the reactor. The generators are virtually 100% efficient.

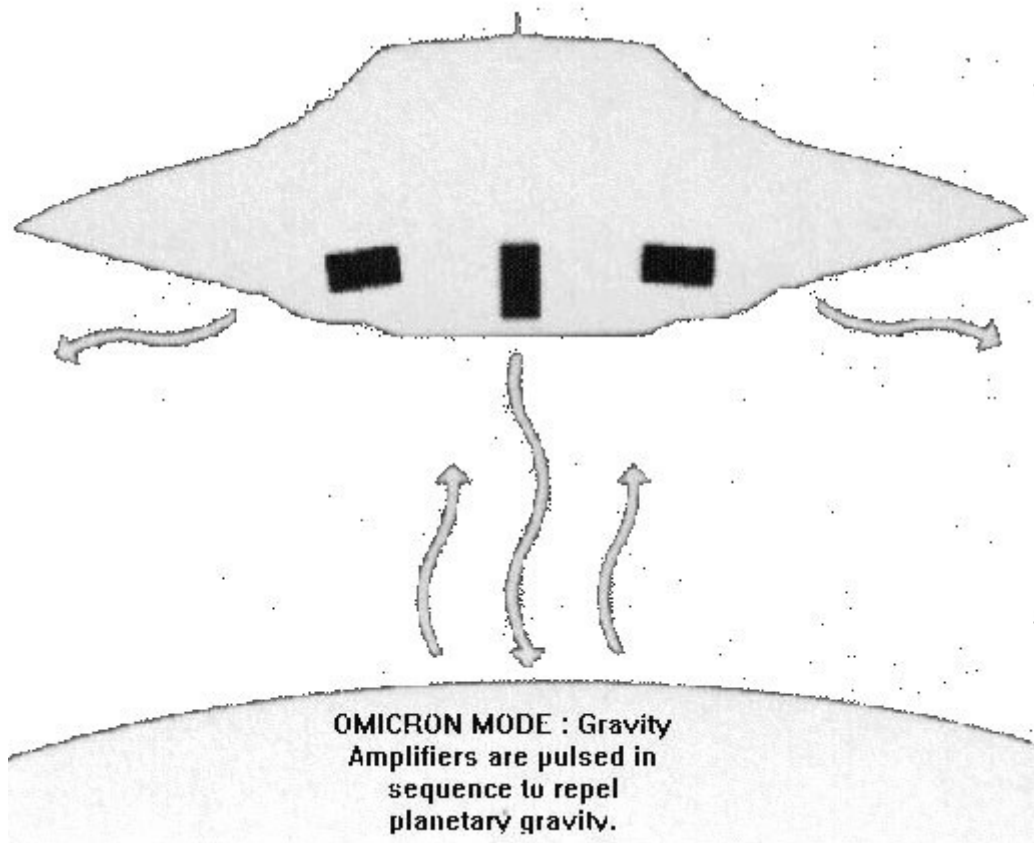
NOTE 1: *In late 1988, Gesellschaft für Schwerionenforschung mbH (GSI) facility in Germany isolated Element 113. In early 1999, Lawrence-Berkeley Laboratories isolated Elements 114, 116, and 118. The isotope of Element 114 isolated contained 175 neutrons and had a half-life of 30 seconds. This isotope of Element 114 was short of being “a double magic nucleus” by 9 neutrons. 114 is a magic number for protons and 184 is a magic number for neutrons. A 30 second half-life represents a relative eternity compared to the half-lives of Elements 100 through 109. Refer to the information provided about Element 114, UnUnQuadium, in WebElements. A discussion regarding the discovery of Element 114 is provided in the article, “Pushing the Limits of the Periodic Table.” Robert Lazar’s interview was in early 1989. I believe a “double magic” isotope of Element 114 containing 184 neutrons may be a stable or relatively stable isotope. For this isotope of Element 114, both the seventh energy level of protons would be filled to capacity and the eighth energy level of neutrons would be filled to capacity. A stable or relatively stable isotope of Element 115 may also exist containing 184 neutrons. Element 115 would have 114 protons filling the first seven energy levels for protons to capacity and have one lone proton, the 115th proton, in the eighth energy level for protons and have 184 neutrons filling the first eight neutron energy levels to capacity. Element 115 has a very similar nuclear configuration to the stable isotope of Bismuth. Bismuth, or ${}_{83}\text{Bi}^{209}$, has 82 protons filling the first six proton energy levels to capacity and one lone proton, the 83rd proton, in the seventh energy level for protons and has 126 neutrons filling the first seven energy levels for neutrons to capacity.*



Blowup Cutaway of “Sport Model” Flying Disc

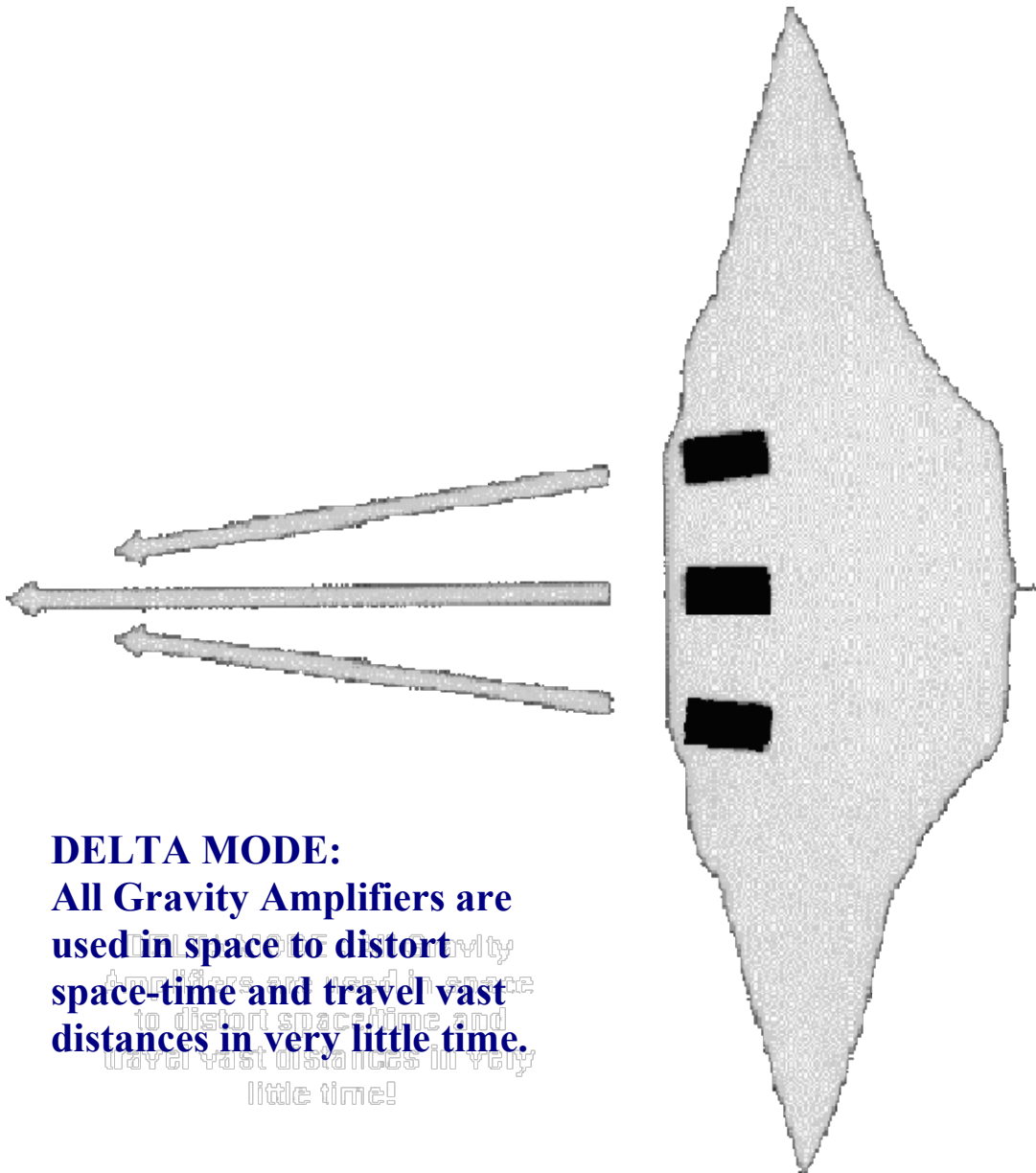
NOTE 2: *I had the opportunity to talk to Bob Lazar about the design and operation of the Matter/Anti-Matter Reactor aboard the "Sport Model" Flying Disc during the Memorial Day Weekend, May 2000. The following Web Page on my Website, "Design and Operation of the "Sport Model" Flying Disc Anti-Matter Reactor," provides a detailed description of the design and operation of the Reticulan Anti-Matter Reactor and includes photographs of Bob Lazar's model of the Anti-Matter Reactor.*

The gravity amplifiers themselves are three tubes about two feet in diameter and four feet long. They are arranged in a triangular configuration below a false floor and above the bottom of the craft. The reactor is centered between the three amplifiers because the wave is also present at the bottom of the reactor. The reactor acts as a transmitter, similar to a Tesla Coil, in that it produces its own gravitational wave, and, depending on how the amplifiers are oriented, gravity waves can be focused on a point or spread out. On gimbals, each Gravity Wave amplifier can operate independently. The waves are phase shifted, which changes the wave's orientation and plane from 0 degrees to 180 degrees, thereby changing the attraction or repulsion of the wave. When a disc operates on only one amplifier, standing on a pedestal of gravity, it is said to operate in an Omicron Configuration. In this configuration, the other two amplifiers are freed for other uses -- such as picking up cattle.



Omicron Configuration

NOTE: *The Omicron Configuration for operation of the Sport Model Flying Disc is essentially the establishment of a “repulsive gravitational field” which allows the spacecraft to hover over a planet or moon. A news article from the April 3, 2001, issue of the New York Times indicates that photos of a distant Supernova taken by the Hubble Space Telescope may provide the evidence that “Negative Gravity,” that is, a repulsive gravitational field, can exist. This article is titled, “Photo Gives Weight to Einstein’s Thesis of Negative Gravity.”*



DELTA MODE:
All Gravity Amplifiers are used in space to distort space-time and travel vast distances in very little time.

Delta Configuration

In the Delta Configuration, discs operate on all three amplifiers. This configuration is used in space for long-distance travel. In space, a disc tilts over on its back so that the gravitational amplifiers focus on where the disc is going, and the propulsion system is powered up, amplifying gravitational waves that are out of phase with Earth's gravity. The amplified gravitational waves distort space and time or "Space-Time" as it is referred

to in the documents. That gravity distorts or warps space is currently known in mainstream physics. That is why astronomers, at certain positions during an eclipse, can see stars that are directly behind the sun (the sun's gravity causes the star's light to bend around the sun). That gravity distorts time is also known. For example, if you and a friend have atomic clocks synchronized to each other and your friend climbs a mountain or goes up in an airplane, the clocks will be out of sync when your friend returns (your clock is in a stronger gravitational field). In short, the disc warps space-time, attaches itself to the warp and snaps back. Imagine a thin sheet of rubber stretched out (this represents space). Now, put a ball bearing on the sheet (this represents the disc). Now, with your fingers under the sheet, pinch the rubber at a point some distance from the ball bearing. Keeping the rubber pinched, move the pinch to the ball bearing. As you bring the pinch back to its original position, the ball bearing will follow. This is an analogy of what happens.



Gravity Amplifier

Of the nine discs, each different, kept in interconnecting hangers, Lazar had hands-on experience with one he dubbed the “Sport Model” because of its sleek appearance. It was about 52 feet in diameter. Before he worked on it, he was given a short demonstration of its ascending about 30 feet, moving to the left, then to the right, and then rapidly ascending from there. Before initially lifting off the ground, the disc briefly gave off a corona discharge, a sound similar to that of high-voltage electricity, and then it was completely silent, its bottom glowing blue. The hissing and glowing are by-products of

the tremendous electromagnetic pulses generated from the craft. Inside the “Sport Model,” Lazar saw a console and children-sized chairs. There were no 90 degree angles inside, and everything appeared softly rounded.

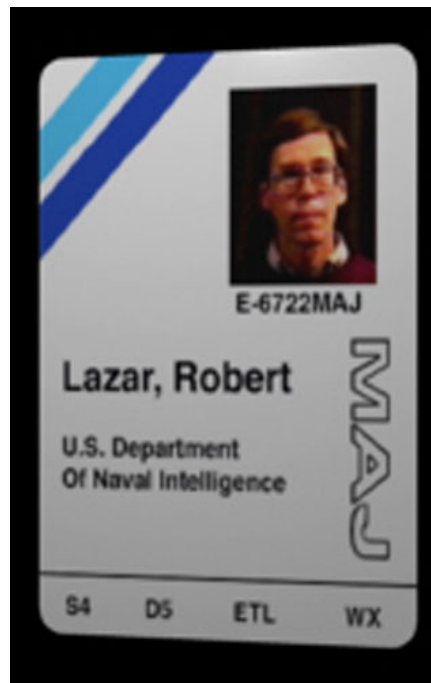
NOTE: *V. V. Roschin and S. M. Godin: “Verification of the Searl Effect” provides a study of the “Searl Effect,” which is the physics of generating and/or amplifying a gravity field by use of rotating magnetic fields. The intense currents flowing through the core plates of the gravity amplifiers of the “Sport Model” Flying Disc generating the intense magnetic fields are amplifying the gravity field produced by the Element 115 in the Anti-Matter Reactor. Robert Lazar's observance of this phenomenon is consistent with the physics of the “Searl Effect.”*

According to the documents, the aliens are identified as being from Zeta 2 Reticuli, the second star of a binary system in the Constellation Reticulum. They come from the fourth planet out. A day on their planet is about 90 hours long. Although it is about 37 light-years from Zeta 2 Reticuli to Earth, discs take very little time to cover the distance because discs do not travel in a linear mode. Speed is defined as distance divided by time. Since discs operate by warping time itself and space itself, a more complicated formula than “speed equals distance divided by time ($s = d/t$)” is needed to describe what happens. It is not so much that discs break Einstein’s famous rule that nothing can travel faster than the speed of light; it’s more accurate that discs get around the rule altogether. Recall that Einstein died trying to understand gravity. According to Lazar, gravity propagates instantly.

NOTE 1: *Zeta 2 Reticuli is the same star system that Ms. Marjorie Fish determined was the hub of a holographic star map that Betty Hill remembered seeing aboard an extra-terrestrial spacecraft and was able to draw while under hypnosis. Betty and Barney Hill were the victims of a documented alien abduction that took place near Exeter, New Hampshire, in 1961. While under hypnosis, Betty Hill described the extra-terrestrials as 3 ½ foot to 4 foot tall grey beings. Refer to the article, “The Zeta Reticuli Incident” by Terence Dickinson. The children-sized seats Robert Lazar described inside the “Sport Model” Flying Disc would be ideal size for beings 3 ½ foot to 4 foot tall to pilot such a craft, consistent with the height of the beings described by Betty Hill.*

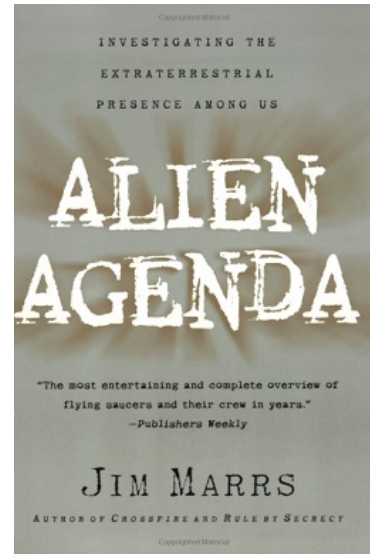
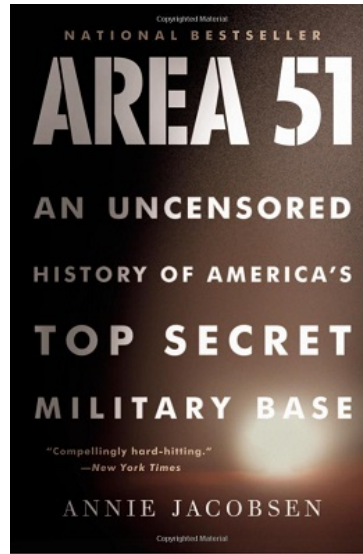
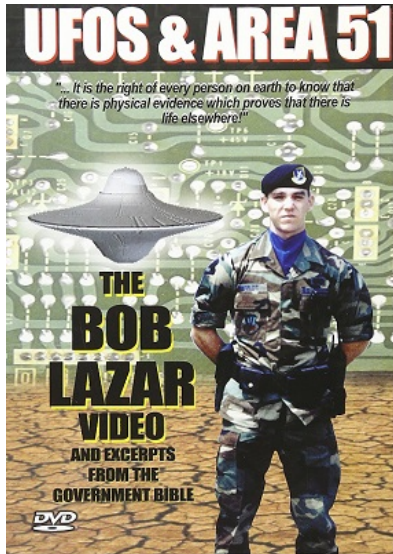
NOTE 2: *Robert Lazar claimed that gravity propagates instantaneously. If one thinks about that, it actually makes perfect sense logically. Gravity warps or bends space and time. We measure the speed or velocity of an object by observing the distance that the object travels in a given time interval. If the very parameters that we use to measure distance and time are significantly affected by strong gravitational fields, then it would be impossible to actually define a finite speed to the propagation of gravity. A recent article, "Rethinking Relativity," had stated that Associate Professor Tom Van Flandern from the University of Maryland issued a document, "The Speed of Gravity – What the Experiments Say," demonstrating that gravity propagated at least 20 billion times faster than light and may very well propagate instantaneously.*

When traveling at relatively slow speeds near a planet, discs again use gravity, but in a different way. This time discs balance on gravity waves and "fall" in the direction they want to go. Gravitational waves from the disc are phase shifted into the planet's gravity. Although discs are more unstable in this mode, they can still perform maneuvers that are beyond the capabilities of conventional aircraft – such as making 90 degree turns on a dime or accelerating rapidly. Those inside the discs experience no G forces during these maneuvers.

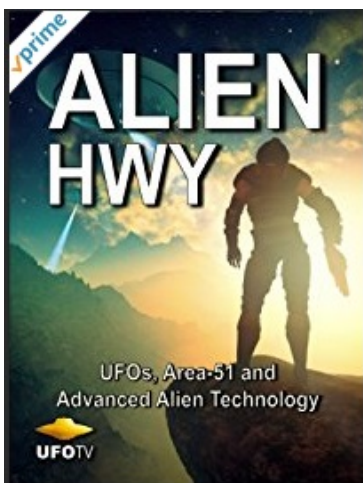


Bob Lazar's Identification Badge for Access to Work at S4

“UFOs and Area 51” “Area 51 – An Uncensored History of America’s Top Secret Military Base,” and “Alien Agenda” can be purchased from Amazon.com You can use hyperlinks on my Gravity Warp Drive Website to get to Amazon.com to purchase these books.



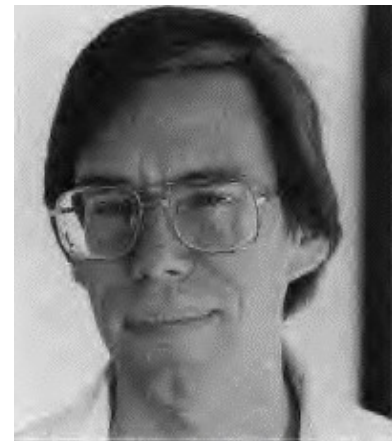
If you are interested in streaming the UFO Technology related videos from Amazon Prime, you can use hyperlinks on my Gravity Warp Drive Website to access Amazon.com Prime to stream the “Alien Hwy” and “UFOs & Area 51 – Secrets of the Black World” videos.



V. The Physics of Star Trek and Subspace Communication – Science Fiction or Science Fact?

Introduction

In 1989 Bob Lazar went public with an incredible story. He claimed to be the senior physicist working for the United States Government on a highly classified project ... the reverse engineering of extraterrestrial spacecraft at S4 located in a remote portion of the Nevada desert approximately 15 miles southwest of Area 51 (Reference: “Government Scientist Goes Public”). He had been assigned to work on one of nine flying discs in the U.S. Government’s possession. The flying disc Bob worked on was a very sleek looking machine about 52 feet in diameter. Hence, Bob nicknamed the disc the “Sport Model.” Bob reviewed several U.S. Government documents discussing the discs, their origin, and the alien race that built them during his stay at S4. The documents stated the Sport Model Flying Disc and the other eight discs were built about 37 light years from our solar system ... on the fourth planet orbiting Zeta 2 Reticuli, a fifth magnitude star very similar to our Sun located in the southern skies. How did such a craft travel 37 light years to reach our solar system and Earth? The Sport Model most certainly did not get here by any propulsion system known to the current Physics or Engineering Communities ... at least not by any propulsion system the U.S. Government has disclosed to the general public thus far. The late Colonel Phillip Corso, in his book, “Day After Roswell,” stated the engineers examining the crashed discs at Roswell in July of 1947 were completely puzzled as to how the discs could even fly. The discs had no discernible engine of any kind.



Bob Lazar



“Sport Model” Flying Disc

The Real Physics of Star Trek

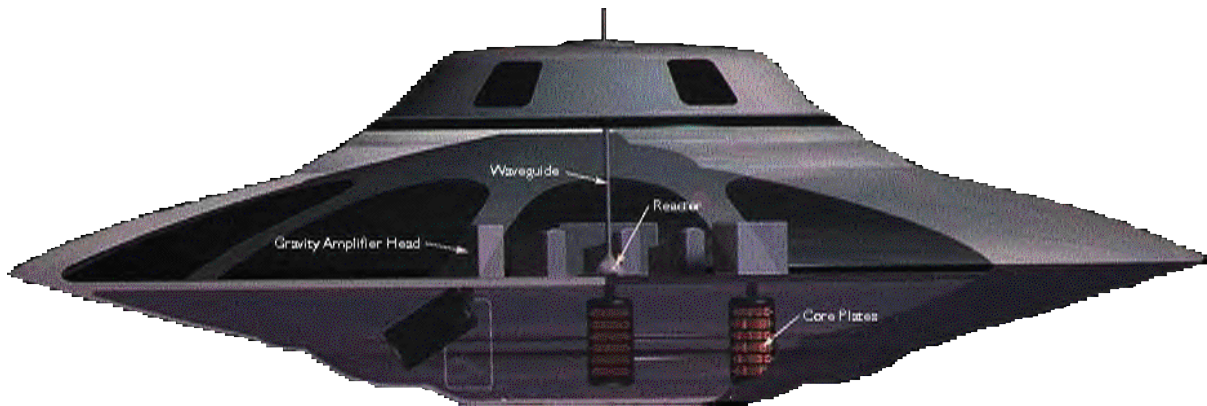
The current Physics paradigm states that the speed of light = 186,300 miles/second is the ultimate or limiting speed. The nearest star system to our own solar system is the Alpha Centauri (Rigel Kentaurus) triple star system located about 4.37 light years distant. The light that we see from Alpha Centauri left that star system about 4 years, 4.5 months ago. Therefore, if light is the limiting speed, it would take mankind nearly 9 years to travel to Alpha Centauri and return to Earth, assuming a craft could be built to travel at near the speed of light. It is hard to believe that an extraterrestrial race of beings spent over 37 years traveling in such a small craft as the Sport Model Flying Disc from Zeta 2 Reticuli Planet 4 to our Earth. Perhaps the “Sport Model” is a shuttle craft for a much larger “mother ship” stationed somewhere within our solar system. But even if the “Sport Model” is “merely” a “shuttle craft” associated with a much larger “mother ship,” the “mother ship” still had to travel the 37 light years to get here. 37 years or greater is a long time to be cooped up aboard a ship, even a starship. When the original Star Trek

aired on NBC television in the fall of 1966, the mission of the U.S.S. Enterprise (NCC-1701) was only to be “5-year mission.” I don’t think any of you could even imagine being at sea aboard a ship for 37 years. The Biblical account of the Isrealite people wandering about the Sinai Desert for 40 years, under the leadership of Moses, is the closest event of mankind that could relate to traveling through the emptiness of space for such a long period of time. The Isrealites were not at all happy about having to wander in the desert for 40 years. Therefore, the alien race must have developed a propulsion system that either was capable of “breaking the light barrier” or was capable of “warping” or “compressing Space-Time” and effectively shortening the distance of travel.

Bob Lazar claimed that the Sport Model flying disc used gravity amplification for either hovering over a planet’s or moon’s surface or for “compressing Space-Time” for interstellar space travel. Bob Lazar stated that the discs didn’t actually violate the ultimate speed limit of light; the discs “changed the rules” and circumvented that speed limit altogether by using amplified gravity to compress the distance traveled and time required for making the trip. Is this really possible? What is gravity? How does one amplify gravity? Obviously, there is more to gravity than what our Physics books currently say about it.

What do Physicists and Engineers currently know about gravity?

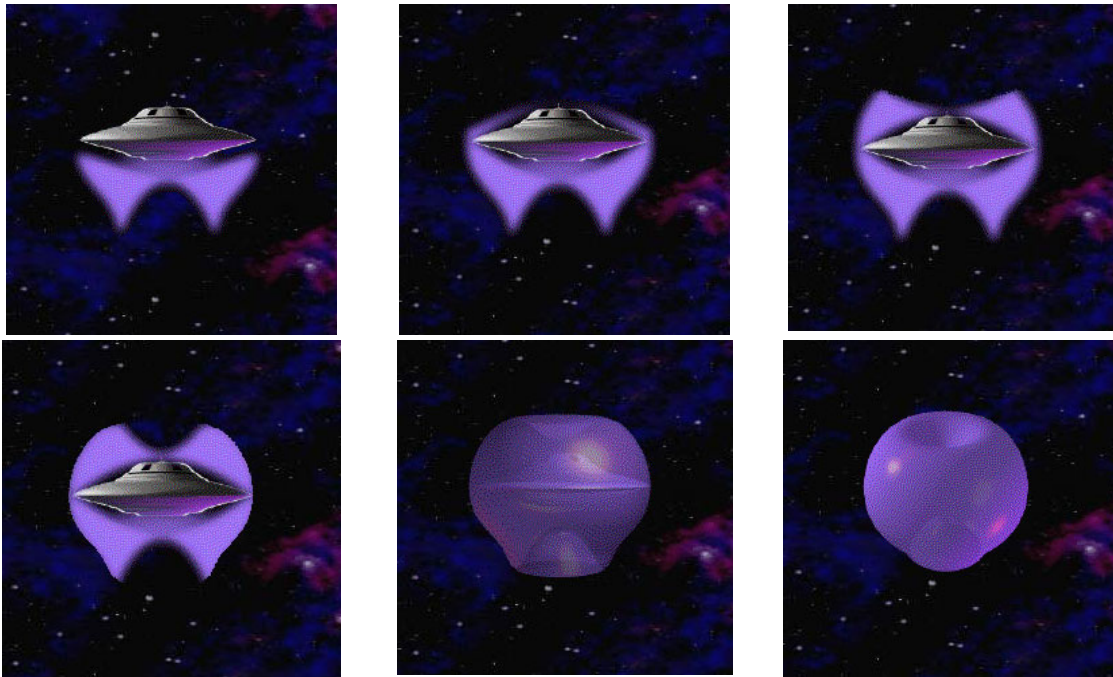
1. Isaac Newton stated that the force of gravity propagating from an object is directly proportional to the mass of that object.
2. Albert Einstein had postulated in his General Relativity Theory that intense gravitational fields can bend light and curve Space-Time.
3. General Electric Engineer Henry William Wallace designed a mechanical device that generates a secondary gravitational force field and obtained U.S. Patent Number 3,626,605 for his design on December 14, 1971. Henry Wallace used a rapidly rotating Bismuth disc to generate the secondary gravity field. The element Bismuth has unusual gravitational properties.
4. Associate Professor Tom Van Flandern performed a calculation and published it in “Physics Letters A,” titled “The Speed of Gravity – What the Experiments Say,” which demonstrated that gravity propagated at least 20 billion times faster than light and may actually propagate instantaneously.



Cutaway of “Sport Model” Flying Disc

Bob Lazar claimed that all nine discs contained the same power and propulsion system made up of a Matter/Anti-Matter Reactor containing Element 115, thermoelectric generators below the reactor, a waveguide attached to the top of the reactor, and three gravity amplifier heads and their associated gravity amplifiers. Element 115 served a dual purpose because it provided the fuel for the reactor and the source of gravity for the gravity field propulsion system. Bob Lazar claimed that the reactor amplified the “Strong Nuclear Force” (the force that holds the protons and neutrons together in the nucleus of the atom) of Element 115 to produce the “1g-force” gravity field onboard the Sport Model Flying Disc. Therefore, during space flight, astronauts on board the Flying Disc would feel as if they are standing on the Earth’s surface. They would neither experience any significant “g-forces” during rapid acceleration nor “zero-gravity” as our astronauts currently experience in conventional spacecrafts during a launch from a launch pad or while orbiting the Earth, respectively. That same ship’s internal gravity field is, then, amplified and focused by the gravity amplifiers for either hovering and propulsion above a planet surface or for “compressing Space-Time” to perform interstellar space travel. The Flying Disc hover and propulsion mode above a planet is identified as the “Omicron Mode” of operation. The Flying Disc mode for “Space-Time Compression” supporting interstellar space travel is identified as the “Delta Mode” of operation. When the Sport Model Flying Disc gravity field is at maximum distortion in either Omicron Mode or Delta Mode, the gravity field is so intense that the Flying Disc becomes invisible to any external observer. The intense gravity field is bending light around the disc in such a

manner that the observer is only able to see the sky of blue or the blackness of space around the disc. If one could visually see the gravity field generated around the Sport Model Flying Disc, it would appear to be doughnut shaped as indicated by the “Disc Gravity Field” image series provided below:

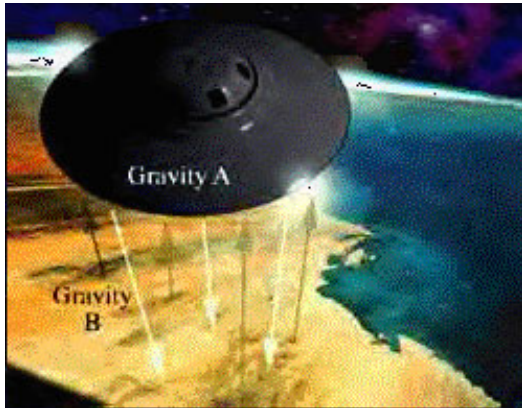


Disc Gravity Field

Maximum Distortion

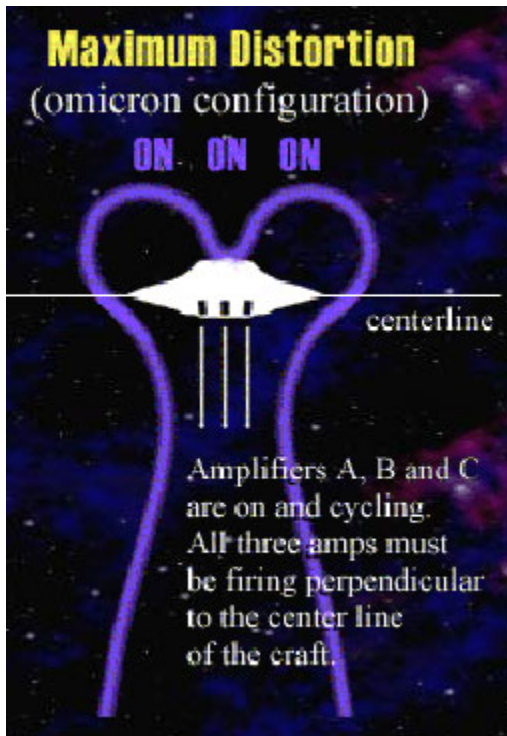


Omicron Mode



Hovering Over a Planet

One gravity amplifier is used to hover over the planet, the other two gravity amplifiers are used for lateral movement or to pick up items from the planet's surface such as cattle or people.

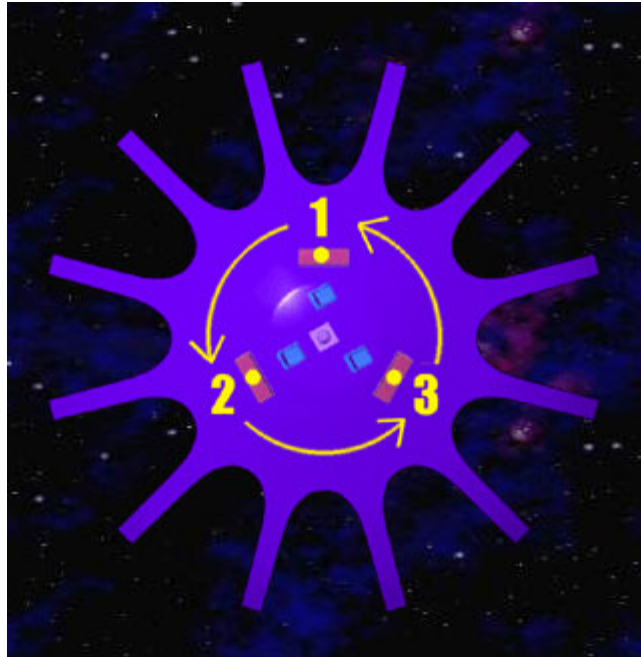


The gravity amplifiers of the disc can be focused independently. The gravity amplifiers are pulsed in a rotational pattern and do not stay on continuously.



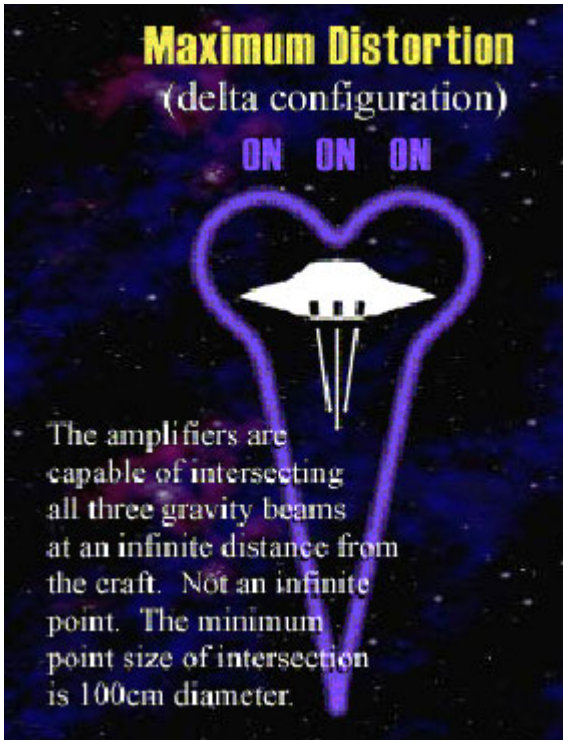
The amplifiers pulse individually at 7.46 Hz in a continuous cycle around the disc.

Omicron Mode of Operation for Hovering and Navigating Over a Planet

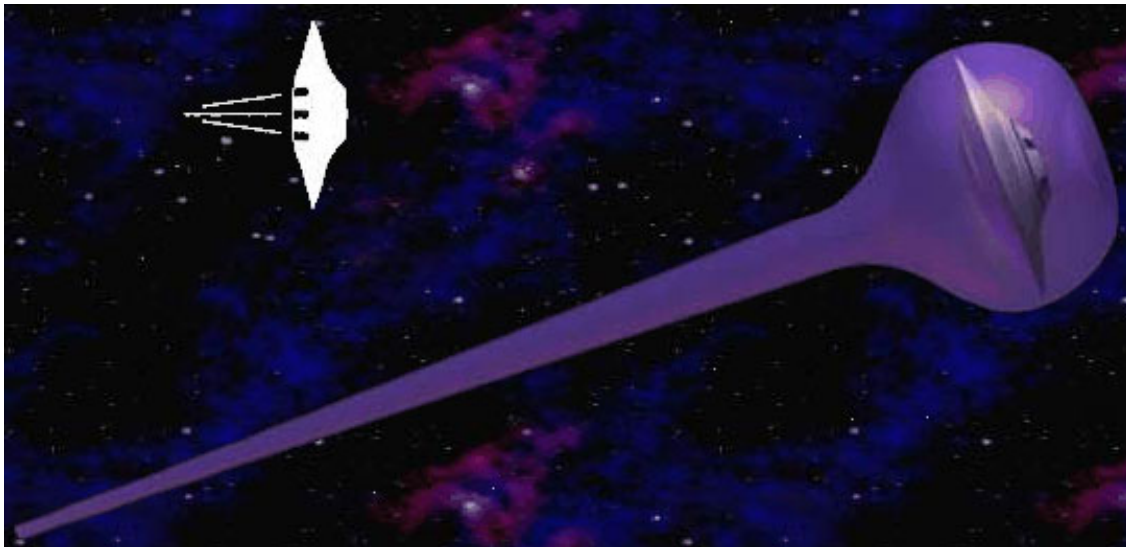


Delta Mode

When operating in Delta Mode, the disc travels at “sub-light speed” within a “wormhole” or “black tunnel” generated by the “Compressed Space-Time” gravity beam. I call it a “black tunnel” because light cannot escape the tunnel formed by the intense gravity beam. Relative to an observer outside the “Compressed Space-Time” gravity beam, the disc is invisible and is effectively traveling thousands of times faster than light. The disc is only traveling “sub-light speed” relative to the “Compressed Space-Time” distance it must travel. In fact, if the disc was to turn on a spotlight and point it in the direction of travel, the resulting beam of light would propagate from the disc at the speed of light relative to the disc. If the disc was 93,000,000 miles (Earth-Sun distance) from its destination in “Compressed Space-Time,” the light beam would reach the destination in 8 minutes 19 seconds.



All three gravity amplifiers of the disc are focused on the same point in space and operated at maximum power to generate an intense linear gravity beam. This gravity beam is analogous to the intense coherent light beam of a LASER. The intense linear gravity beam produces maximum “Space-Time Compression” reducing the travel distance between star systems from several light-years (several tens to hundreds of trillions of miles) to only several million miles, a very short distance to travel, relatively. Once the disc reaches its final destination, the intense linear gravity field is removed and Space-Time returns to its normal configuration. The disc is now several light-years from its previous location, the trip only taking minutes, hours, or days, instead of hundreds of thousands of years.



Delta Mode of Operation for Space-Time Compression and Interstellar Space Travel

NOTE: *In my “Nuclear Gravitation Field Theory,” I discussed how the propagation of the Nuclear Electric Field wave established by the protons in the nucleus of the atom is determined by the virtual “Compressed Space-Time” distance from the nucleus. Light, or electromagnetic radiation, includes both an electric field and magnetic field as it propagates through space. Light propagates in “Compressed Space-Time” in the same way the Nuclear Electric Field propagates in Compressed Space-Time in the vicinity of the nucleus of the atom. The Nuclear Gravitation Field (Strong Nuclear Force) propagates based upon Uncompressed Space-Time, therefore, appears to vanish at the surface of the nucleus because it drops over 19 decades in intensity before having any apparent propagation outward from the nucleus as we see in Compressed Space-Time.*

An intense gravitational field is not the only way to produce “Space-Time Compression.” Albert Einstein’s General Relativity Theory deals with relativity associated with any assumed accelerated reference frame. Any accelerated reference frame can experience the effect of “Space-Time Compression” as long as the acceleration rate is significant enough. The effect of “Space-Time Compression” can be experienced by a spacecraft undergoing acceleration by the thrust of a rocket engine or experienced by a charged particle accelerated in an intense electric field as well as any mass subjected to an acceleration produced by an intense gravity field. Why is a gravity field propulsion system the only feasible propulsion system for interstellar space travel? A gravity field acts upon all objects of mass and accelerates them at the same acceleration rate. An electric field only acts upon charged particles to accelerate them. A rocket engine only acts upon the rocket it is installed within and the payload spacecraft the rocket is connected to. Let’s assume there are astronauts aboard a spacecraft accelerating through interstellar space with an acceleration rate of 10,000 g. If that acceleration rate is produced by a rocket engine connected to the spacecraft, the astronauts are not directly accelerated by the rocket engine. The astronauts will be accelerated by the normal force of 10,000 g applied to them by the seats connected to the spacecraft they are strapped into. Such an intense acceleration rate will flatten the astronauts like pancakes. Additionally, the fuel consumption required for such a rocket propulsion system is extremely large and storage of the fuel for interstellar space travel would be virtually impossible. If it were possible to make the spacecraft positive charged and accelerate it at 10,000 g in an electric field established between two large charged plates, the positive

plate in the solar system the spacecraft is coming from and the negative plate in the solar system the spacecraft is going to, the astronauts would still be flattened like pancakes within their seats because the astronauts are neutral in charge and the electric field does not act directly upon the astronauts. Such a propulsion system with electric plates would be extremely impractical to build and maintain. How does one build the negative plate in the solar system one wants to go to without being to travel there in the first place? A gravity field propulsion system is the only practical propulsion system for interstellar space travel. Since a gravity field acts upon the astronauts' bodies in the same manner that gravity field acts upon the spacecraft, both the spacecraft and the astronauts are accelerated by the same gravity field at the same rate. The astronauts and their spacecraft are both in "free-fall" within the gravity field no matter what acceleration rate the gravity field produces. Therefore, the astronauts and their spacecraft could be accelerated at any g force without any personnel discomfort. Assuming the spacecraft power system provides a normal 1 g gravity field within the spacecraft to give the astronauts the same sensation as standing on Earth's surface, the astronauts would have no sensation of any other acceleration no matter how intense a gravity field is produced by the spacecraft propulsion system. This is exactly why any Earth built aircraft or spacecraft is completely outmaneuvered by a flying disc utilizing a gravity field propulsion system.

Let's assume that an observer on Earth watched the disc or spacecraft take off from the Earth's surface, ascend into space, and enter its gravity field propulsion system generated "black tunnel." The observer would see the spacecraft come to a virtual stop just short of the location where the spacecraft entered its self-generated "black tunnel" or "wormhole." The disc would appear to "Doppler red-shift" and shrink in size out of visible existence. The visible image of the disc is only a virtual image at the entrance to the "black tunnel" once the disc has entered the "black tunnel." The effect the observer sees would be similar to what an observer outside the Schwarzschild Radius, or Event Horizon, of a Black Hole would see as he or she watches a spacecraft passing through the Black Hole Event Horizon toward the Black Hole. The observer sees the spacecraft come to a stop just short of the Black Hole Event Horizon and then "doppler red-shift" out of visible existence. In actuality, the ship crosses the Event Horizon and is "vacuumed" into the Black Hole to end its fateful trip.

As stated previously, Bob Lazar claimed that the Sport Model Flying Disc amplified the “Strong Nuclear Force” of Element 115 Moscovium (Mc) to generate the gravity field for “Space-Time Compression.” Physicists who have critiqued Bob Lazar’s claims say he is talking meaningless “Star Trek” techno-babble science fiction which has nothing to do with reality. Physicists state that the “Strong Nuclear Force” and the force of gravity have nothing to do with each other because gravity is a weak force and cannot overcome the much stronger electrostatic repulsion of the protons in the nucleus. All the protons in the nucleus are of positive (+) charge and repel each other electrostatically. When a calculation is performed to determine the minimum gravitational acceleration field to overcome the Coulombic Repulsion of Protons in the Nucleus, the result indicates the gravitational acceleration must be at least $2.441 \times 10^{27}g$, a field that rivals a Neutron Star or Black Hole. The resultant intense Space-Time Compression Next to the Nuclear Surface results in the Nuclear Gravitational Field dropping at least 19 decades in intensity before turning outward to leave the atom. Neutrons are also required in the nucleus when multiple protons are present to provide additional gravitational attraction and fill available nuclear energy level quantum numbers because the Space-Time Compression within the Nucleus results in the apparent “saturation” of the “Strong Nuclear Force.” Quantum Mechanics and General Relativity describes the observed effects associated with the Nucleus if the “Strong Nuclear Force” is Gravity. My “Nuclear Gravitation Field Theory” discusses the effects of Gravity and Space-Time Compression if the “Strong Nuclear Force” is assumed to be gravity.

Since the “Strong Nuclear Force” and gravity are the same force, Bob Lazar’s claim that the “Strong Nuclear Force” of a stable isotope of Element 115 Moscovium was used to provide the Sport Model Flying Disc gravity field propulsion system may very well be true. One problem! There are no known stable Elements above Element 83, Bismuth. Physicists have only recently produced two isotopes of Element 115 Moscovium in a nuclear reaction on Earth and Element 115 Moscovium has never been found in nature. On February 2, 2004, scientists at the Lawrence Livermore National Laboratory, in collaboration with researchers from the Joint Institute for Nuclear Research in Russia (JINR), announced that they discovered two new super-heavy elements, Element 113 Nihonium (Nh) and Element 115 Moscovium. The isotopes of Element 115 Moscovium,

produced by bombarding an Americium-243 (${}_{95}\text{Am}^{243}$) nucleus with a Calcium-48 (${}_{20}\text{Ca}^{48}$) nucleus, ${}_{115}\text{Mc}^{287}$ and ${}_{115}\text{Mc}^{288}$, rapidly decayed to Element 113 Nihonium, then continued to decay until a meta-stable isotope was obtained. Neither of the isotopes of Element 115 Moscovium produced in the nuclear reactions were, obviously, the stable isotope of Element 115 Moscovium used as the fuel in the “Sport Model Flying Disc.” Hold on now! Before you discredit Bob Lazar’s claims, consider the following. In addition to the isotopes of Element 115 Moscovium produced on Earth, Physicists have produced three identified isotopes of Element 114 Flerovium (Fl) in various nuclear reactions. Element 114 Flerovium contains 114 protons, by definition, and the number, 114, is a “magic number” for protons. Magic numbers represent the required number of nucleons to completely fill the energy levels of the nucleus. The magic numbers for protons are 2 (Helium), 8 (Oxygen), 20 (Calcium), 28 (Nickel), 50 (Tin), 82 (Lead), and 114 (Flerovium). The applicable Elements containing proton magic numbers are indicated in the excerpt from the Periodic Table of the Elements, below, with a red box around them. The magic numbers for neutrons are 2, 8, 20, 28, 50, 82, 126, and 184. The three Element 114 Flerovium isotopes produced contained 171 neutrons which lasted 58 milliseconds, 174 neutrons which had a half-life of 2 seconds, and 175 neutrons which had a half-life of 30 seconds. For Element 114 Flerovium to be “double magic” it would have to contain 184 neutrons. The isotope of Element 114 Flerovium with 175 neutrons, short 9 neutrons from being a “double magic” nucleus, had a half-life of 30 seconds. A 30 second half-life is a relatively long half-life for such a superheavy element. Based upon this observed data, it is very likely that the “double magic” isotope of Element 114 Flerovium with 184 neutrons would be a stable nucleus. So what? What does that have to do with Element 115 and its stability? Let’s look at Element 83, Bismuth – specifically, the only stable isotope of Bismuth – Bismuth-209 (${}_{83}\text{Bi}^{209}$). Recall that Henry William Wallace patented a device that generates a secondary gravitational force field which used a rapidly rotating Bismuth disc. The nuclear configuration of Bismuth-209 is very unique. The only stable isotope of Bismuth has 126 neutrons. Lead is Element 82. 82 is the magic number for protons filling 6 proton energy levels. 126 neutrons is a magic number for neutrons filling 7 neutron energy levels. The isotope of Lead that contains 126 neutrons, ${}_{82}\text{Pb}^{208}$ is a “double magic” nucleus. Since Bismuth is

Element 83, it has one extra proton that must go into the 7th energy level for protons, because 82 protons completely fill 6 proton energy levels. Bismuth has 126 neutrons, the magic number for neutrons, which, as previously noted, completely fills 7 neutron energy levels.

Periodic Table of the Elements - p-Orbitals					
13	14	15	16	17	18
p-Orbitals					
				1	2
				H	He
5	6	7	8	9	10
B	C	N	O	F	Ne
13	14	15	16	17	18
Al	Si	P	S	Cl	Ar
31	32	33	34	35	36
Ga	Ge	As	Se	Br	Kr
49	50	51	52	53	54
In	Sn	Sb	Te	I	Xe
81	82	83	84	85	86
Tl	Pb	Bi	Po	At	Rn
113	114	115	116	117	118
Nh	Fl	Mc	Lv	Ts	Og

Reference: <http://www.webelements.com/index.html>

Table of the Nuclides - Lead and Bismuth

85 At	At208	At209	At210	At211	At212	At213	At214
84 Po	Po207	Po208	Po209	Po210	Po211	Po212	Po213
83 Bi	Bi206	Bi207	Bi208	Bi209	Bi210	Bi211	Bi212
82 Pb	Pb205	Pb206	Pb207	Pb208	Pb209	Pb210	Pb211
81 Tl	Tl204	Tl205	Tl206	Tl207	Tl208	Tl209	Tl210
80 Hg	Hg203	Hg204	Hg205				
Z ↑ N →	123	124	125	126	127	128	129

Reference: <http://www.nndc.bnl.gov/chart/>

A “double magic” isotope of Element 114 Flerovium would have 114 protons filling 7 proton energy levels and 184 neutrons filling 8 neutron energy levels. Element 115 Moscovium has one extra proton that must go into the 8th proton energy level because 114 protons completely fill 7 proton energy levels. The potentially stable isotope of Element 115 Moscovium will have 184 neutrons, the “magic number” for neutrons filling

8 neutron energy levels. The nuclear configuration for Element 83 Bismuth (${}_{83}\text{Bi}^{209}$) and Element 115 Moscovium (${}_{115}\text{Mc}^{299}$) are identical with the exception that Element 115 Moscovium has one more energy level filled with protons and neutrons. Element 83 Bismuth is the highest number element that is “officially identified” to be stable. All known elements above Element 83 are radioactive and undergo decay to other elements. If the “double magic” isotope of Element 114 Flerovium with 184 neutrons is a stable element, then Element 115 Moscovium with a “magic number” of 184 neutrons and only one lone proton in its outer proton energy level could very well be a stable element, just as Bismuth-209. The two isotopes of Element 115 Moscovium recently produced in nuclear reactions, ${}_{115}\text{Mc}^{287}$ with 172 neutrons and ${}_{115}\text{Mc}^{288}$ with 173 neutrons, are shy 12 neutrons and 11 neutrons, respectively, of the magic number of 184 neutrons. There are no other identified stable isotopes of any elements with a nuclear configuration similar to Element 83 Bismuth or Element 115 Moscovium. If Bismuth has unique gravitational characteristics, it would be very reasonable to expect Element 115 Moscovium to have those same unique gravitational characteristics. Because Element 115 Moscovium is 1.43 times more massive than Element 83 Bismuth, its gravitational field should be even stronger than Bismuth’s. The following table provides the fill of the various energy levels within the nucleus for protons and neutrons for Lead, Bismuth, Element 114 Flerovium, and Element 115 Moscovium.

My “Nuclear Gravitation Field Theory” states that the “Strong Nuclear Force” and gravity are the same force. The unique nuclear configurations of Bismuth and Element 115 Moscovium result in the unique gravitational properties of these two elements. The one lone proton in the outer energy level results in the “Strong Nuclear Force,” or “Nuclear Gravitation Field,” next to the nucleus being significantly weaker than for the nuclei of other stable atoms. The weaker “Nuclear Gravitation Field” reduces the amount of “Space-Time Compression” that occurs next to the nucleus than for the nuclei of other stable atoms. The electrons positions in their “orbitals” around the nucleus are based upon the electric field strength and wavelength. The electron “orbitals” around the nucleus are determined by the “Compressed Space-Time” distance from the nucleus. Therefore, the electron “orbitals” will not be positioned farther away from the nucleus if the “Compressed Space-Time” from the nucleus is less significant. This phenomenon

Nucleon Energy Levels for Lead, Bismuth, Element 114, and Element 115

Energy Level	1 (He)	2 (O)	3 (Ca)	4 (Ni)	5 (Sn)	6 (Pb)	7 (Fl)	8 (E164)	Total Protons and Neutrons
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“Double Magic” Lead (Element 82)

Protons Lead (⁸² Pb ²⁰⁸)	2p	6p	12p	8p	22p	32p			82p
Neutrons	2n	6n	12n	8n	22n	32n	44n		126n

Bismuth (Element 83) With a “Magic Number” of Neutrons

Protons Bismuth (⁸³ Bi ²⁰⁹)	2p	6p	12p	8p	22p	32p	1p		83p
Neutrons	2n	6n	12n	8n	22n	32n	44n		126n

Theoretical “Double Magic” Element 114 Flerovium

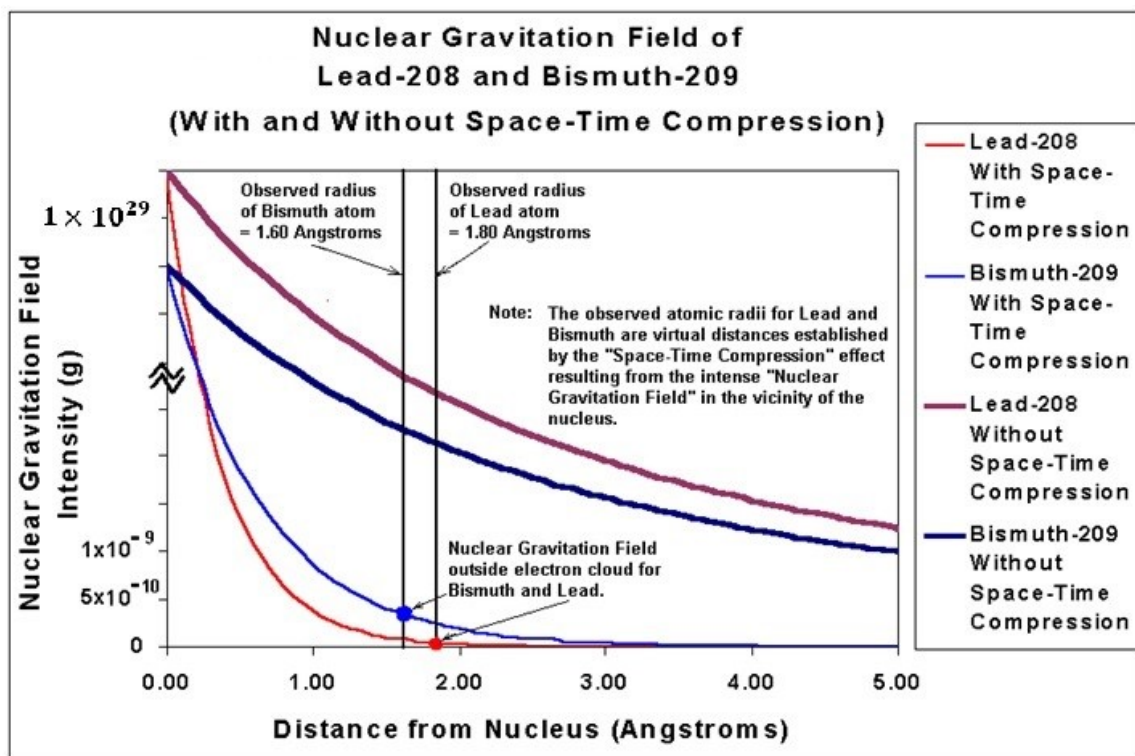
Protons E114 Flerovium (¹¹⁴ Fl ²⁹⁸)	2p	6p	12p	8p	22p	32p	32p		114p
Neutrons	2n	6n	12n	8n	22n	32n	44n	58n	184n

“Sport Model” Flying Disc Element 115 Moscovium With a “Magic Number” of Neutrons

Protons E115 Moscovium (¹¹⁵ Mc ²⁹⁹)	2p	6p	12p	8p	22p	32p	32p	1p	115p
Neutrons	2n	6n	12n	8n	22n	32n	44n	58n	184n

Reference: <http://www.nndc.bnl.gov/chart/>

results in a higher intensity “Strong Nuclear Force,” or gravity field, outside the electron cloud. The following image from my “Nuclear Gravitation Field Theory” provides a graphical comparison of the Nuclear Gravitation Fields of Lead-208 and Bismuth-209 as a function of distance from the nucleus in Angstroms. The graphs illustrate the virtual radii of each of the atoms based upon “Space-Time Compression” and the effective radii of the atoms if “Space-Time Compression” effects were not present. My “Nuclear Gravitation Field Theory” discusses the gravitational characteristics of Bismuth in greater detail.



Nuclear Gravitation Field of Lead-208 and Bismuth-209 (With and Without Space-Time Compression)

NOTE 1: *The figure, above, only provide “ballpark” values for the “Nuclear Gravitation Field Intensity” of Lead-208 and Bismuth-209 in units of “g-force” as a function of distance from the nucleus. In order to calculate exact values for the Nuclear Gravitation Field intensity, a very sophisticated computer program must be used to perform the iterative calculation required with the Schrodinger Wave Equation to include the effects of General Relativity (i.e., “Space-Time Compression”) with*

Quantum Mechanics. The intent of the graphs is only to provide a relative visual representation of the Nuclear Gravitation Field as a function of distance from the nucleus. The Nuclear Gravitation Field intensity curves for Lead-208 and Bismuth-209 “without Space-Time Compression” are proportional to a $1/r^2$ function where r is the radial distance from the nucleus. The curves accounting for “Space-Time Compression” have a correction factor for the Nuclear Gravitation Field intensity as a function of distance, which is a function of the Nuclear Gravitation Field intensity. The distance from the nucleus is, therefore, compressed. The Nuclear Gravitation Field intensity at the nuclear surface is on the order of 10^{27} times to 10^{29} times greater than the Nuclear Gravitation Field intensity in the proximity of the end of the electron cloud, which represents the atomic radius. Neither a purely logarithmic nor a purely linear scale would be practical for indicating the relative Nuclear Gravitation Field strength as a function of distance from the nucleus of the atom. The vertical scale depicting “Nuclear Gravitation Field Intensity” is quasi-linear at the bottom the graph near the origin, becomes logarithmic as it moves away from the origin, then becomes quasi-linear at the top of the graph.

NOTE 2: *The difference in the Nuclear Gravitation Field Intensity between ${}_{82}\text{Pb}^{208}$ and ${}_{83}\text{Bi}^{209}$ is grossly exaggerated in order to illustrate how reducing the intensity of the Nuclear Gravitation Field in the vicinity of the nucleus of an atom will produce a greater intensity gravity field at the outside of the electron cloud of that atom. If Bismuth had such a large gravitational attraction outside its electron cloud relative to Lead, spheres of Bismuth would fall about 10 times faster than Lead. In actuality, the gravitational field of Bismuth outside its electron cloud is only a small percentage greater than the gravitational field of Lead outside its electron cloud.*

Since the “Strong Nuclear Force” of Bismuth-209 or Element 115 (Moscovium-299) is significantly weaker next to the nucleus than for the nuclei of other stable atoms where mass has already been considered, the residual “Strong Nuclear Force” of Bismuth-209 or Element 115 (Moscovium-299) propagating out of the electron cloud of the atom is stronger than for other stable atoms. That stronger gravity field outside the electron cloud of the atom can be more easily accessed and amplified. Therefore, Bismuth-209 and Element 115 (Moscovium-299) are the best candidate elements to be used as a source of gravity for a gravity field propulsion system. The Reticulan Greys obviously knew their nuclear physics when they designed the power and propulsion system for the Sport Model Flying Disc.

Cavendish Experiments can be performed to demonstrate that Bismuth-209 has a stronger gravitational field beyond that associated with its mass than the gravitational field of Lead-208. The Cavendish Experiment was used to determine G in Newton's Law of Gravity equation:

$$F = \frac{G \times M_1 \times M_2}{r^2}$$

Refer to my discussion on the measurement of the "Universal Gravitation Constant, G," by performing the Cavendish Experiment for Lead-208 and Bismuth-209 in my Nuclear Gravitation Field Theory.

Bob Lazar claimed to have observed the Sport Model Flying Disc in flight. Before ascending, the Sport Model briefly gave off a corona discharge, a sound similar to that of high-voltage electricity, and then it became completely silent, its bottom glowing blue. The hissing and glowing are by-products of the tremendous electromagnetic pulses generated from the craft. He was given a short demonstration of its maneuvering capability. The disc ascended about 30 feet off the ground, moved to the left, then to the right, and then ascended rapidly. The intense electromagnetic field generated by the gravity amplifiers amplify the gravity field produced by the Element 115 Moscovium in the Sport Model Matter/Anti-Matter Reactor. As indicated by the "Cutaway View of the Sport Model Flying Disc" image above and the "Gravity Amplifier" image below, the current conducting "core plates" on the gravity amplifiers for the Sport Model Flying Disc have a very large current carrying capacity based upon their significant size.



Gravity Amplifier

Although many Physicists try to debunk Bob Lazar's story, there is certainly plenty of scientifically accepted physical evidence that supports his claims. Quantum Physics, Nuclear Physics, and General Relativity provide the justification for the physics behind the propulsion system and interstellar travel of the Sport Model Flying Disc. If mankind were to focus energy and resources on developing a similar designed spacecraft, I believe the "Science Fiction" of Star Trek can become "Science Fact" in the very near future. By some of the information I have heard through the years, mankind may already be traveling through interstellar space via craft built by the U.S. Government under one of those Top Secret Black Projects that is not supposed to even exist. There is certainly enough evidence to indicate the U.S. Government has the technology in hand, anyway.

The following referenced information discusses the observed scientific evidence supporting the Nuclear Gravitation Field Theory. The observed gravitational characteristics of Bismuth demonstrate the "Strong Nuclear Force" and Gravity are one and the same.

RS Electrogravitic References: Part 7 of 19

When individual molecules are not permanently magnetized, it is possible in some cases to have a relative magnetic permeability, μ , which is less than one. Such a material, like hydrogen or BISMUTH, is called diamagnetic. It tends to expel magnetic field, and is repelled from regions of stronger magnetic field. The names paramagnetic and diamagnetic are sometimes confused. Paramagnetic is analogous to a dielectric in an electric field, while diamagnetic is quite the opposite. It is not possible to give a simple argument of why diamagnetism can occur. It is strictly speaking a quantum effect. However, one can see that there might be diamagnetic tendencies if electric currents can flow within molecules. An increasing magnetic field always tends to induce currents to flow in such a way as to tend to prevent the increase in the field. This is (at least temporarily) a diamagnetic kind of effect. Thus the case where the relative magnetic permeability, $\mu < 1$, is connected with the flow of electric charges in a magnetic field. There is no analogous case with electric fields since isolated magnetic poles do not, so far as is known, exist.

-- "The New Physics" edited by Paul Davies

GE engineer Henry William Wallace found unusual gravitational affects in spinning odd atomic nuclide metals. Odd atomic nuclide metals are those in which the sum of the

protons are not equal to the number of neutrons, i.e., more neutrons. See U.S. Patents 3,626,605 and 3,626,606.

-- Ron Kita

Reference: http://www.padrak.com/ine/RS_REF7.html

“Since the dynamic interaction field arising through gravitational coupling is a function of both the mass and proximity of two relatively moving bodies, then the resultant force field is predictably maximized within the nucleus of an atom due to the relatively high densities of the nucleons plus the fact that the nucleons possess both intrinsic and orbital components of angular momentum. Such force fields may, in fact, account for a significant portion of the nuclear binding force found in all of nature.”

References: United States Patent Number 3,626,605, “Method and Apparatus for Generating a Secondary Gravitational Force Field”

United States Patent Number 3,626,606, “Method and Apparatus for Generating a Dynamic Force Field”

“Also indicated in the embodiment of FIGURES 7A* and 7B* is the orientation of the flux within the mass circuit, the latter being constructed preferredly of BISMUTH.”

Reference: United States Patent Number 3,626,605, “Method and Apparatus for Generating a Secondary Gravitational Force Field”

NOTE: *FIGURES 7A* and 7B* mentioned in the text are illustrations included with Henry William Wallace's description of his invention - the machine designed to generate a secondary gravitational force field - within the U.S. Patent Number 3,626,605 document.*

-- Henry William Wallace

Reference: United States Patent Number 3,626,605, “Method and Apparatus for Generating a Secondary Gravitational Force Field”

Bismuth is also mentioned in the literature as being electrogravitic. Spinning discs of Bismuth (patented by GE Engineer Henry William Wallace: U.S. Patent #3,626,605, U.S. Patent #3,626,606, and U.S. Patent #3,823,570) have apparently been shown to **DEFY GRAVITY**. Bismuth, with a strong positive electrostatic charge applied to it, has

also been shown to actually lose weight, right down to **ZERO**. Spheres of Bismuth, when dropped, have reportedly fallen faster than they are supposed to (according to Newton's Law of Gravity).

Bismuth spheres falling faster than predicted by Newton's Law of Gravity, Henry William Wallace's speculation of a possible connection between the force of Gravity and the “Strong Nuclear Force,” and rotating Bismuth discs generating secondary gravitational force fields provide the evidence the “Strong Nuclear Force” and Gravity are one and the same. Since the “Strong Nuclear Force” is weaker in Bismuth because of the “lone 83rd proton” in the 7th nuclear proton energy level, less “Space-Time Compression” takes place in the vicinity of the ${}_{83}\text{Bi}^{209}$ nucleus. The intensity of the “Strong Nuclear Force” extending outside the Bismuth atom is significant enough to provide a measurable gravitational attraction with greater intensity than predicted by Newton's Law of Gravitation. Two separate gravitation constants exist that are associated with the nucleus. The first gravitation constant is directly related to the Nuclear Gravitation Field at the surface of the nucleus. This constant is directly related to the “Binding Energy per Nucleon” for the nucleons in the outermost ground state nuclear energy levels and the “Strong Nuclear Force” intensity at the surface of the nucleus. The second gravitation constant, which has been the assumed “Universal Gravitation Constant,” “G,” is the constant associated with the gravitational field propagating outside the atom. This second constant actually varies from isotope and element to isotope and element based upon the “Binding Energy per Nucleon” for the outermost ground state energy levels in the nucleus. The first and second gravitation constants are quasi-inversely proportional because of the General Relativistic effects of “Space-Time Compression” in the vicinity of the nucleus.

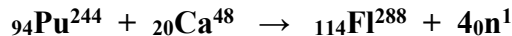
Physicists have believed that there may be an island of stability in the vicinity of Element 114 (UnUnquadium or UUQ), currently named Flerovium (Fl), in a sea of instability for the “superheavy elements” in the Table of the Nuclides. 114 protons is a proton magic number. It is very possible that an isotope of Element 114 Flerovium containing a neutron magic number of 184 neutrons could exist as a stable isotope. This Element 114,

Flerovium (Fl), isotope would be “double magic” in like manner to ${}_{82}\text{Pb}^{208}$. An isotope of Element 114 Flerovium with 175 neutrons (${}_{114}\text{Fl}^{289}$) has been identified by the Lawrence-Berkeley Laboratories having a half-life of 30 seconds (Reference: “Pushing the Limits of the Periodic Table,” Gina Stafford, The Knoxville News-Sentinel). A 30-second half-life doesn't seem to be a significant period of time. However, 30 seconds is a relative eternity compared to the half-lives of the elements between Element 100 and Element 109, which are on the order of milliseconds to microseconds.

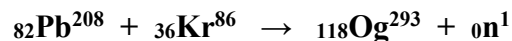
The nuclear reaction producing the Element 114 isotope ${}_{114}\text{Fl}^{289}$ containing 175 neutrons with a 30 second half-life is provided below:



The nuclear reaction producing the Element 114 isotope ${}_{114}\text{Fl}^{288}$ containing 174 neutrons with a half-life of 2 seconds is provided below:



The Element 114 Flevorium isotope ${}_{114}\text{Fl}^{285}$ containing 171 neutrons was identified as one of the intermediate product elements in a decay chain after an isotope of Element 118 (UnUnOctium or Uuo), currently named Oganesson, ${}_{118}\text{Og}^{293}$, was produced by the following nuclear reaction:



This Element 118 Oganesson isotope, ${}_{118}\text{Og}^{293}$, alpha decayed (alpha decay is a nuclear decay process that liberates a Helium nucleus, ${}_{2}\text{He}^4$, from the parent nucleus) to become Element 116 (UnUnHexium or Uuh), currently named Livermorium (Lv), isotope ${}_{116}\text{Lv}^{289}$ in 12 milliseconds. The Element 116 Livermorium isotope, ${}_{116}\text{Lv}^{289}$, alpha decayed to become the Element 114 Flevorium isotope, ${}_{114}\text{Fl}^{285}$ in 0.60 milliseconds.

This Element 114 Flerovium isotope, ${}_{114}\text{Fl}^{285}$, existed for only 0.58 milliseconds before alpha decaying to become Element 112 (UnUnBium or UUB), currently named Copernicium, isotope ${}_{112}\text{Cn}^{281}$. The alpha decay process continued until “the final product of the decay chain,” an isotope of an element that was “relatively stable,” was obtained.

Reference: <http://www.webelements.com/webelements/elements/text/Uuq/key.html>

The next neutron magic number beyond 126 is 184. The Element 114 Flerovium isotope containing 175 neutrons has a relatively long half-life for a nucleus short of 9 neutrons in its 8th neutron energy level. Assuming 184 is the next magic number for neutrons, a stable isotope of Element 114 Flerovium containing 184 neutrons, designated ${}_{114}\text{Fl}^{298}$, could exist and would be expected to have an atomic mass of approximately 298 Atomic Mass Units (AMU). The probability of a stable “double magic” isotope of Element 114 Flerovium, ${}_{114}\text{Fl}^{298}$, appears to be quite high considering the 0.58 millisecond life of the isotope ${}_{114}\text{Fl}^{285}$, which is short 13 neutrons from the “double magic” nuclear configuration, the 2 second half-life of isotope ${}_{114}\text{Fl}^{288}$, which is short 10 neutrons from the “double magic” nuclear configuration, and the 30 second half-life of the isotope ${}_{114}\text{Fl}^{289}$, which is short 9 neutrons from the “double magic” nuclear configuration. The half-lives of the Element 114 isotopes are rising very significantly as the number of neutrons in the Element 114 Flerovium isotopes approaches the neutron magic number of 184.

Likewise, there may be a stable isotope of Element 115 Moscovium (UnUnPentium or UUP), a “proton magic number plus one” element, containing a neutron magic number of 184 similar in nuclear configuration to ${}_{83}\text{Bi}^{209}$. This isotope of Element 115 Moscovium would have an atomic mass of approximately 299 AMU and would be designated ${}_{115}\text{Mc}^{299}$. Element 115 Moscovium is expected to be approximately 1.43 times more massive than Bismuth and would have a smaller “Binding Energy per Nucleon” for the nucleons in the outer ground state energy levels than Bismuth. Therefore, Element 115 Moscovium should have a greater gravitational field outside the atom than Bismuth. This

Nucleon Energy Levels for Other Nuclei of Interest

Energy Level	1 (He)	2 (O)	3 (Ca)	4 (Ni)	5 (Sn)	6 (Pb)	Total Protons and Neutrons
protons	2p						2p
Helium (${}^4_2\text{He}$)							
neutrons	2n						2n
protons	2p	1p					3p
Lithium (${}^{7(6)}_3\text{Li}$)							
neutrons	2n	2n (1n)					(3n) 4n
protons	2p	6p					8p
Oxygen (${}^{16}_8\text{O}$)							
neutrons	2n	6n					8n
protons	2p	6p	1p				9p
Fluorine (${}^{19}_9\text{F}$)							
neutrons	2n	6n	2n				10n

Nucleon Energy Levels for Other Nuclei of Interest (continued)

Energy Level	1 (He)	2 (O)	3 (Ca)	4 (Ni)	5 (Sn)	6 (Pb)	Total Protons and Neutrons
protons	2p	6p	12p				20p
Calcium (${}_{20}\text{Ca}^{40}$)							
neutrons	2n	6n	12n				20n
protons	2p	6p	12p	1p			21p
Scandium (${}_{21}\text{Sc}^{45}$)							
neutrons	2n	6n	12n	4n			24n
protons	2p	6p	12p				28p
Nickel (${}_{28}\text{Ni}^{58(60)}$)							
neutrons	2n	6n	12n	(12n) 10n			(32n) 30n
protons	2p	6p	12p	8p	1p		29p
Copper (${}_{29}\text{Cu}^{63(65)}$)							
neutrons	2n	6n	12n	8n	(8n) 6n		(36n) 34n

Nucleon Energy Levels for Other Nuclei of Interest (continued)

Energy Level	1 (He)	2 (O)	3 (Ca)	4 (Ni)	5 (Sn)	6 (Pb)	Total Protons and Neutrons
protons	2p	6p	12p	8p	22p		50p
Tin ($_{50}\text{Sn}^{120(118)}$ $_{50}\text{Sn}^{(116)}$)							
neutrons	2n	6n	12n	8n	22n	((16n) (18n) 20n	((66n) (68n) 70n
protons	2p	6p	12p	8p	22p	1p	51p
Antimony ($_{51}\text{Sb}^{121(123)}$)							
neutrons	2n	6n	12n	8n	22n	(22n) 20n	(72n) 70n

Reference: <http://www.nndc.bnl.gov/chart/>

isotope of Element 115 Moscovium, if it is either discovered or synthesized, should provide gravitational properties exceeding that of $_{83}\text{Bi}^{209}$. Table “Nucleon Energy Levels for Lead, Bismuth, Element 114, and Element 115”, above, provides the numbers of protons and neutrons that fill each energy level of the nucleus for $_{114}\text{Fl}^{298}$ and $_{115}\text{Mc}^{299}$.

The proton magic numbers and their associated elements, as indicated in Table “Nucleon Energy Levels for Lead, Bismuth, Element 114, and Element 115”, above, and Table “Nucleon Energy Levels for Other Nuclei of Interest”, above, are 2 for Helium, 8 for Oxygen, 20 for Calcium, 28 for Nickel, 50 for Tin, 82 for Lead, and 114 for Flerovium.

The most abundant isotopes of Helium, Oxygen, and Calcium are ${}^4_2\text{He}$, ${}^{16}_8\text{O}$, and ${}^{40}_{20}\text{Ca}$. All these isotopes are “double magic.” Could other stable isotopes of elements containing a “proton magic number plus one” and containing a neutron magic number similar to Bismuth exist? The other elements that are “proton magic number plus one” are Lithium (Element 3), Fluorine (Element 9), Scandium (Element 21), Copper (Element 29), and Antimony (Element 51). Table “Nucleon Energy Levels for Other Nuclei of Interest”, above, provides the logic of nuclear energy level fill for both the “proton magic number” elements and the “proton magic number plus one” elements. The most stable isotopes of Lithium, Fluorine, Scandium, Copper, and Antimony do not contain neutron magic numbers. 93% of Lithium is ${}^7_3\text{Li}$, which contains 2 neutrons in the 3rd (outer ground state) neutron energy level. 7% of Lithium is ${}^6_3\text{Li}$, which contains only one extra neutron in the 3rd neutron energy level. Lithium has a rather small atomic mass so its overall contribution to a gravitational field would be small. Lithium is a very reactive alkali metal and is rather hazardous to work with for performing gravitational anomaly measurements. Fluorine, ${}^{19}_9\text{F}$, contains 2 neutrons in the 3rd (outer ground state) neutron energy level. Fluorine has a rather small atomic mass so its overall contribution to a gravitational field would be small. Fluorine is a halogen gas at room temperature and is difficult and hazardous to work with for performing gravitational anomaly measurements. Scandium, ${}^{45}_{21}\text{Sc}$, contains 4 neutrons in the 4th (outer ground state) neutron energy level. The two most abundant isotopes of Copper, ${}^{63}_{29}\text{Cu}$ and ${}^{65}_{29}\text{Cu}$, contain 6 or 8 neutrons, respectively, in the 5th (outer ground state) neutron energy level. The two most abundant isotopes of Antimony, ${}^{121}_{51}\text{Sb}$ and ${}^{123}_{51}\text{Sb}$, contain 20 or 22 neutrons, respectively, in the 6th (outer ground state) neutron energy level. Antimony's 6th neutron energy level contains about 2/3 full capacity of neutrons because the 6th neutron energy level holds 32 neutrons. Each of these “proton magic number plus one” element isotopes have additional neutrons in unfilled outer ground state energy levels. The nuclear binding of the lone proton in the outer ground state proton energy level is expected to be stronger than ${}^{209}_{83}\text{Bi}$ (Bismuth) because of the additional neutrons in unfilled energy levels. A “Strong Nuclear Force” (Nuclear Gravitation Field) with a very intense field at the surface of the nucleus will result in a greater amount of Space-Time Compression in the vicinity of the nucleus. The intensity of the “Strong Nuclear Force”

propagating outside the atom of these elements would not be expected to be as significant as Bismuth (${}_{83}\text{Bi}^{209}$). However, these “proton magic number plus one” elements require further study to determine if they display any unusual gravitational characteristics.

It appears that ${}_{83}\text{Bi}^{209}$ is a very unique element isotope. ${}_{83}\text{Bi}^{209}$ has a relatively large atomic mass and is the only stable isotope of Bismuth, the highest number element currently officially known to man to be stable. ${}_{83}\text{Bi}^{209}$ is a “proton magic number plus one” element that contains a neutron magic number. ${}_{83}\text{Bi}^{209}$ displays gravitational characteristics unlike any other known element. Should a stable or long half-life isotope of Element 115 Moscovium, ${}_{115}\text{Mc}^{299}$, a “would be” “proton magic number plus one” element containing a “neutron magic number” of 184 ever be discovered or synthesized, it should be interesting to study the gravitational characteristics of that isotope of Element 115 Moscovium (${}_{115}\text{Mc}^{299}$) and compare it to Bismuth (${}_{83}\text{Bi}^{209}$).

The General Relativistic characteristics of the nucleus and “Space-Time Compression” altering the Nuclear Gravitation Field intensity applies to another observed phenomenon associated with the nucleus. When physicists attempt to “pull” a nucleus apart, they have reported that the Strong Nuclear Force seems to get much stronger. In actuality, the “Strong Nuclear Force” (Nuclear Gravitation Field) at the surface of the nucleus becomes much weaker, therefore, the Space-Time Compression associated with the Nuclear Gravitation Field is reduced as the nucleus is stretched. The measured “Strong Nuclear Force” outside the atom becomes much more intense in like manner to the isotope of Bismuth, ${}_{83}\text{Bi}^{209}$, because of the more gradual “drop off” of the intensity of the “Strong Nuclear Force” within the atom.

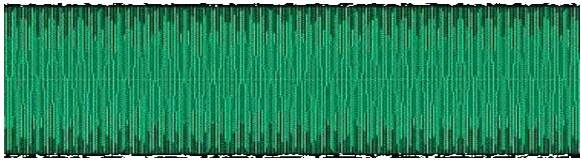


Subspace Communication

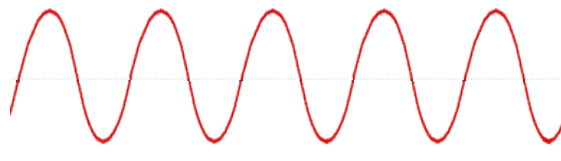
Recall my earlier discussion regarding the Sport Model Flying Disc traveling through the “wormhole” or “black tunnel” generated by the “Compressed Space-Time” gravity beam. I mentioned the disc travels at “sub-light speed” within a “black tunnel” based upon the “Compressed Space-Time” distance it must travel. If a spotlight on the disc was turned on and pointed in the direction of travel, the beam of light would propagate from the disc at the speed of light relative to the disc. The time it takes the light beam to reach its destination is based upon the “Compressed Space-Time” distance. Radio waves are a form of light, which, is electromagnetic radiation. Radio waves have wavelengths much longer than visible light, however, they still propagate at the speed of light. Therefore, if a disc was traveling in a “Compressed Space-Time” gravity beam, the crew of the disc could communicate with beings from a star system several light-years distant in regular Space-Time and be able to communicate with them within a few minutes rather than several years because the “Compressed Space-Time” distance is on the order of several million miles rather than several light-years. The crew of the disc is using the equivalent of Star Trek “Subspace Communication” because the radio waves are effectively traveling millions of times faster than light in the “Compressed Space-Time” beam.

There is a Government Sponsored Program known by the acronym, SETI, which stands for “Search for Extraterrestrial Intelligence.” The SETI program involves listening for radio broadcasts from nearby stars. Receipt of certain radio signals from a particular star may indicate intelligent life living on a planet orbiting that star. SETI is tuned to radio frequencies that are consistent with the frequency range we Earthlings use for broadcasting. The truth is: SETI is listening in the wrong frequency bands. If an extraterrestrial intelligence were to communicate by radio, they would, most likely, use the same radio frequency bands that we use. However, they would broadcast their radio signals in “Compressed Space-Time” because they can broadcast signals across interstellar space from one star to another in a matter of minutes. Radio signals propagating through “Normal Space-Time” take several years to go from one star system to another. The compression factor of “Compressed Space-Time” distance is usually tens

to hundreds of millions to that of “Normal Space-Time.” If an extraterrestrial intelligence broadcasts a radio signal at 100 MegaHertz in “Compressed Space-Time” where the distance compression ratio is 100 million to 1, then the observed radio broadcast in “Normal Space-Time” would appear to be 1 Hertz because its wavelength is 100 million times larger. Wavelength and frequency are inversely proportional. Therefore, if SETI expects to find any broadcasts from an intelligent extraterrestrial race, then SETI must listen in the very low frequency bands for radio ... on the order of 10^{-3} Hertz to 100 Hertz instead of the KiloHertz and MegaHertz ranges for normal radio broadcasting.



Radio Wave in Compressed Space-Time



Radio Wave in Normal Space-Time

Searching for radio waves in the 10^{-3} Hertz to 100 Hertz range is very difficult because low frequency radio waves will have extremely long wavelengths. A very large antenna array would be required to receive radio waves of such low frequencies. The wavelength of a radio wave is defined by the following equation:

$$(\text{Frequency of Light})(\text{Wavelength of Light}) = \text{Speed of Light} \quad \lambda\nu = c$$

$$(\text{Speed of Light})/(\text{Frequency of Light}) = \text{Wavelength of Light} \quad c/\nu = \lambda$$

Frequency, ν , is in Hertz = cycles/second Wavelength, λ , is in meters

The Speed of Light is = 299,973,000 meters/second

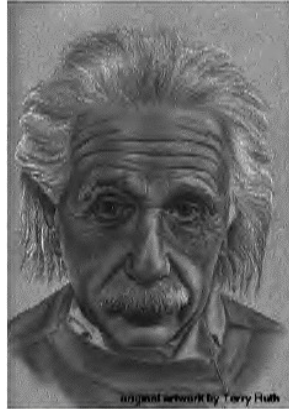
The Wavelength of a 1 Hertz radio wave = (299,973,000 meters/second)/(1 second⁻¹)

Wavelength = 299,973,000 meters = 299,973 kilometers = 186,300 miles

A wavelength of 186,300 miles is about 24 times greater than the diameter of the Earth or about $\frac{3}{4}$ the Earth-Moon distance. As one can see, a very large diameter antenna array would be required to detect such a low frequency radio wave. The detection of subspace communications is certainly not an easy task, unless we have the proper equipment to communicate in "Compressed Space-Time."

Regarding the work of SETI, it is my perception that the elite organization within the U.S. Government, fully aware of the existence of extraterrestrial races with advanced technology and involved with the reverse engineering of extraterrestrial spacecraft, is also fully aware of the broadcasts originating from extraterrestrial races and the frequency bands where those broadcasts may be found. That organization has no desire to let the general public in on the truth. The SETI program gives the appearance of a concerted effort to search for extraterrestrial intelligence to the public, when in fact, it is a farce and a waste of time and money. SETI is nothing more than a U.S. Government "Smoke Screen" designed to appease the masses.

VI. General Relativity – A Very Weird World



This is the English translation of a Web Page originally written in French, by Nymbus, who also provided the translation. I have posted it here at my own Website, www.gravitywarpdrive.com, and provided it in the following document with some minor personal additional comments. The content has been left untouched. Any comments or questions regarding the content prior to the “Space-Time Compression” discussion should be addressed to nimbus@wanadoo.fr. At times, his Web Page alludes to concepts from Einstein’s Special Relativity Theory.

Minor editing, the Space-Time Compression description, and the Conclusions were provided by Ken Wright.

Reference: <http://www.svsu.edu/~slaven/gr/>

NOTE: *The above reference link appears to be no longer active.*

General Relativity: A Brief Explanation of the Fundamental Ideas

Before beginning this brief article, dealing with the essential features of General Relativity, we have to postulate one thing: Special Relativity is supposed to be true. Hence, General Relativity lies on Special Relativity. If the latter were proved to be false, the whole edifice would collapse.

In order to understand General Relativity, we have to define how mass is defined in classical mechanics.

The Two Different Manifestations of Mass:

First, let's consider what represents mass in everyday life: "It's weight." In fact, we think of mass as something we can weigh, as that's how we measure it: We put the object whose mass is to be measured on a balance. What's the property of mass we use by doing this? The fact that the object and Earth attract each other. To be convinced of it, just go in your garage and try to raise your car! This kind of mass is called "gravitational mass." We call it "gravitational" because it determines the motion of every planet or of every star in the universe: Earth's and Sun's gravitational mass compels Earth to have a nearly circular motion around the latter.

Now, try to push your car on a plane surface. You cannot deny that your car resists very strongly to the acceleration you try to give it. It is because the car has a very large mass. It is easier to move a light object than a heavy one. Mass can also be defined in another way: "It resists acceleration." This kind of mass is called "inertial mass."

We thus arrive at this conclusion: We can measure mass in two different ways. Either we weigh it (very easy...) or we measure its resistance to acceleration (using Newton's law).

Many experiments have been done to measure the inertial and gravitational mass of the same object. All lead to the same conclusion: The inertial mass equals the gravitational mass.

Newton himself realized that the equality of the two masses was something his theory couldn't explain. But he considered this result as a simple coincidence. On the contrary, Einstein found that there lay in this equality a way to supplant Newton's theory.

Everyday experimentation verifies this equality: Two objects (one heavy and the other one light) "fall" at the same speed. Yet, the heavy object is more attracted by Earth than the light one. So, why doesn't it fall "faster?" Because its resistance to acceleration is stronger. From this, we conclude that the acceleration of an object in a gravitational field doesn't depend upon its mass. Galileo Galilei was the first one to notice this fact. It is important that you should understand that the fact that all objects "fall at the same speed" in a gravitational field is a direct consequence of the equality of inertial and gravitational masses (in classical mechanics).

Now, I would like to focus on the expression "to fall." The object "falls" because of Earth's gravitational field generated by Earth's gravitational mass. The motion of the two objects would be the same in every gravitational field, be it Moon's or Sun's. They accelerate at the same rate.

It means that their speeds increase by the same value in every second (Acceleration is the value by which speeds increases in one second).

The Equality of Gravitational and Inertial Masses as an Argument for Einstein's Third Postulate

Einstein was looking for something which could explain this: “Gravitational mass equals inertial mass.”

Aiming at this, he stated his third postulate, known as the principle of equivalence. It says that if a frame is uniformly accelerated relative to a Galilean one, then we can consider it to be at rest by introducing the presence of uniform gravitational field *relative to it*.

Let's consider a frame K', which has a uniformly accelerated motion relative to K, a Galilean frame. There are many objects around K and K'. These objects are at rest, relative to K. So, these objects, relative to K', have a uniformly accelerated motion. This acceleration is the same for all objects, and it is opposed to the acceleration of K' relative to K. We have just said that all objects accelerate at the same rate in a gravitational field. So, the effect is the same as if K' is at rest and that a uniform gravitational field is present.

Thus, if we state the principle of equivalence, the equality of the two masses is a simple consequence of it. That's why this equality is a powerful argument in favor of the principle of equivalence.

By supposing K' is at rest and a gravitational field is present, we make of K' a Galilean frame, where we can study the laws of mechanics. That's why Einstein stated his fourth principle:

Einstein's Fourth Postulate:

Einstein's fourth postulate is a generalization of the first one. It can be expressed in the following way: “The laws of nature are the same in every frame.” It cannot be denied that it is more “natural” to say that the laws of nature are the same in every frame than in Galilean ones. Moreover, we don't really know if a Galilean frame really exists.

This principle is called the “Principle of General Relativity.”

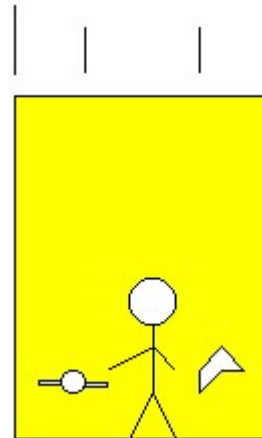
The Deadly Lift:

Let's consider a lift in free fall, falling within a very high skyscraper with a foolish man inside it. Refer to Figures 1, 2, and 3 to the right.

In Figure 1, the man lets his watch and his handkerchief fall. What happens? For someone watching the fall from outside the lift, whose frame is Earth's, the watch, the handkerchief, the man and the lift fall at exactly the same speed (Let's remember that the motion of a body in a gravitational field doesn't depend upon its mass, according to the equivalence principle). Thus, the distance between the watch and the floor, or between the handkerchief and the floor, or between the man and the watch, or between the man and the floor... doesn't vary. Therefore, for the man inside the lift, the watch and the handkerchief will stay where he left them.

Now, if the man gives his watch or his handkerchief a certain speed, they will follow a straight line at a constant speed. This leads to the following conclusion: The man inside the lift can ignore Earth's gravitational field. The lift behaves like a Galilean frame. However, it will not last forever. Sooner or later, the lift will crash, and the observer outside the lift will attend to a great slaughter!

Now, let's do a second idealized experiment: In Figure 2, our lift is far away from any great mass, in deep space for example. Our foolish man has survived his accident, and, after several years in a hospital (years, with respect to what?...), he decides to go back in the lift. Suddenly, a being (what kind of being, we don't know, ask Mulder for the answer) begins to pull the lift:



**Figure 1:
Elevator**

Classical mechanics tells us something: a constant force provokes a constant acceleration (This is not true at very high speeds, as the mass of an object increases with its velocity; however, we will consider it as true for our experiment). Hence, the lift will have an accelerated motion in any Galilean frame.

Our guinea pig inside the lift lets his handkerchief and his watch fall. Someone outside the lift in a Galilean frame thinks that the watch and the handkerchief will hit the floor, as the latter will catch up with them because of its acceleration. In fact, the observer outside the lift will see the distance between the watch and the floor and the distance between the handkerchief and the floor diminish at the same rate. On the other hand, the man inside the lift will notice that his watch and his handkerchief have the same acceleration. He will attribute it to a gravitational field.

These two interpretations seem equally true: On the one side, an accelerated motion, on the other side, a uniform motion and the presence of a gravitational field.

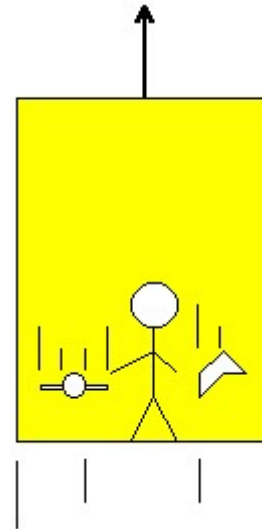
Let's do another test to justify the presence of a gravitational field. In Figure 3, a ray of light gets into the lift through a window and hits the wall facing it. Here are the two interpretations of our observers:

The one outside the lift tells us: "Light gets into the lift through the window horizontally in a straight line and at a constant speed

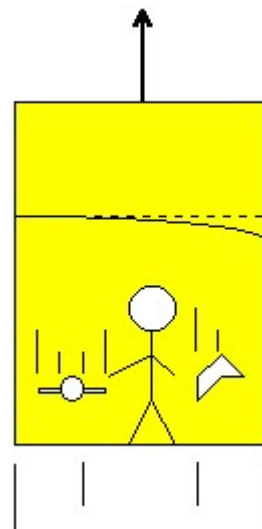
(of course!) toward the opposite wall. But the lift is going upward: thus, the light will hit the wall not exactly in front of its entry point, but a little bit lower."

The man inside the lift says: "I am in presence of a gravitational field. As light has no mass, it will be spared the field's effects, and it will hit the wall exactly in front of its point."

Oops! A problem! The two observers don't agree. However, the man inside the lift has made a mistake. He said that light has no mass. But light carries energy, which has a mass (remember



**Figure 2:
Elevator**



**Figure 3:
Elevator**

that $E = Mc^2$, therefore, the mass of a Joule of Energy is: $M = E/c^2$...). Hence, light will have a curved trajectory towards the floor, as the observer outside the lift said. As the mass of energy is very small ($c^2 = \{299,750,000 \text{ meters/sec}\}^2$!), the phenomenon can only be detected in the presence of VERY strong gravitational fields. It has been verified thanks to the Sun's great mass: rays of light are curved when they approach it. This experiment was the first confirmation of Einstein's theory.

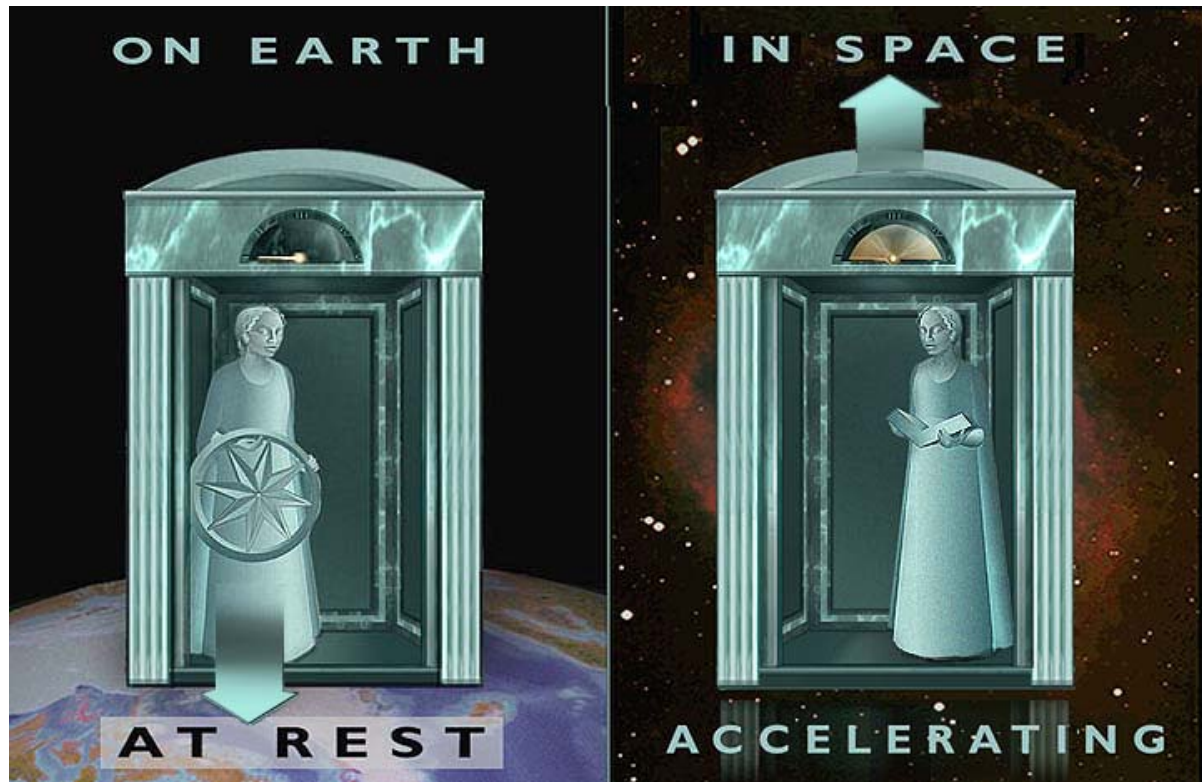


Figure 4:
The Equivalence of Acceleration and a Gravity Field
Elevators in Acceleration

All these experiments allow us to conclude: We can consider that an accelerated frame is a Galilean one by introducing the presence of a gravitational field. Furthermore, it is true for all kinds of motions, be they rotations (the gravitational field explains the presence of centrifugal forces) or not uniformly accelerated motions (which is translated mathematically by the fact that the field doesn't satisfy Riemann's condition). As you see, the principle of General Relativity is fully in accordance with experience!

NB: *This example is drawn from “L’évolution des idées en Physique” (Champs Flammarion 1982) written by Albert Einstein and Leopold Infeld. A marvelous book! Read it if you have any interest in physics in general. Fascinating!*

Universe’s Geometry:

Now, things are going to be very very weird. I’m sure you were astonished when you discovered time dilation. But Einstein also discovered another strange consequence of his postulates: The world in which we live is not Euclidean (in most cases). This means that circles are not round, that parallel lines can cross or diverge and that the angles of a triangle may not add up to 180° !

But be careful! I don’t say that what you learned at school is false! Euclidean geometry, as a mathematical abstraction, is always true. But when it comes to describing the real world, nothing is sure. Before Einstein discovered that Euclidean geometry was not the one which described the world, Gauss and later Riemann developed another kind of geometry. It is sometimes called “Gaussian geometry.” When they developed this new branch of math, they couldn’t even imagine that it was to be the proper description of the world. In fact, Einstein, helped by his friend Grossman (a good mathematician) developed his General Theory of Relativity on the basis of Gaussian geometry. What I want to show is that math is developed without any reference to the world. It’s an “abstraction.”

Let’s take another example: $1 + 1 = 2$. Is it true? As a mathematical abstraction, always true. But when you want to give this expression a physical meaning, it is sometimes false. For instance, you cannot add the speed of light to another speed (remember the experience with the train, we couldn’t add the speed of photons to the speed of the train): “ $v + c = c$.” If you add one liter of milk to one liter of water, you will not obtain 2 liters of liquid. Do you see what I mean? Math is certain as long as they don’t refer to reality. It is very important that you should understand this. Now, let’s go back to General Relativity.

Let’s consider a huge disk above which are drawn two concentric circles, one very small and the other one as huge as the disk as displayed in Figure 5, below:

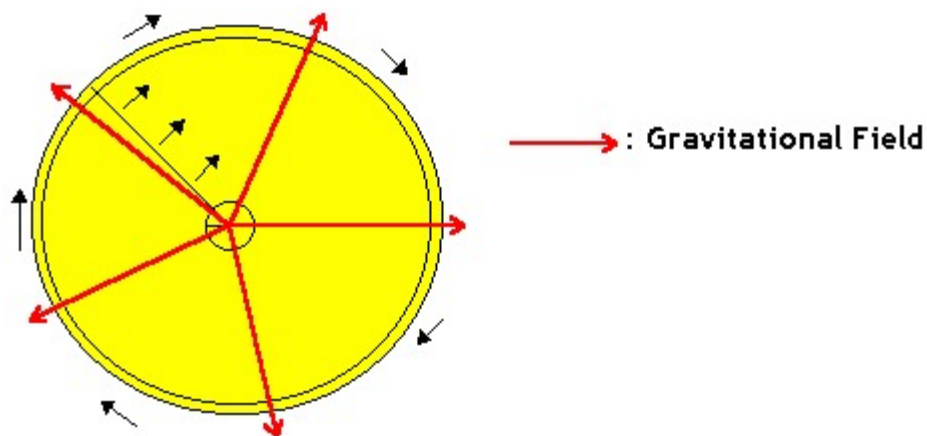


Figure 5: Rotating Discs in a Gravitational Field

Our observer is on the disk, which rotates at a very high speed. Another man, in a Galilean frame, measures the circumferences (P) of the two circles, and their diameters (d) with a ruler. This man then does the following calculus: P/d . He finds: $P/d = \pi$. For him, Euclidean geometry is true (true means here that it describes reality).

The observer on the disk measures the circumferences and the diameters WITH THE SAME RULER. For the measurement of the diameters, the ruler is not contracted (from the point of view of the man in the Galilean frame) in its length (see Special Relativity for this). Thus, the observer on the disks will find the same results as the man in the Galilean frame.

Now, the observer measures the circumference of the small circle. For the man outside the disk, the ruler is not contracted in its length because it goes very slowly (it's close to the center of the disk). Therefore, the observer finds again the same result.

However, things are going to be different for the fourth measurement. When the observer on the disk measures the circumference of the big circle, he goes very fast compared to the man outside the disk. Hence, from the point of view of this man, the ruler is contracted in its length and the observer won't find the same result. For him: P/d does not equal π . Euclidean geometry doesn't describe reality in this case.

What can account for this strange result? The observer on the disk, when measuring the circumference of the big circle, experienced a strange force. You would call it a "centrifugal force." It's due to the presence of a gravitational field (symbolized on the diagram by arrows).

The same experiment could be done to measure time by using a clock in the three different frames: In the Galilean frame, on the disk close to its center and far from it. It would lead us to the same conclusion: When the observer on the disk is far from its center, his measurement of time is different from the man's outside the disk. The presence of a gravitational field could account for the difference.

This leads us to the following conclusion: a gravitational field influences time and space.

Time dilation due the presence of a gravitational field has been measured. In fact, the value of this field at the top of a high mountain is slightly less than its value at the bottom of the mountain as indicated by Figure 6, below. Two atomic clocks initially synchronized gave two different results after having spent a while in these two different places:

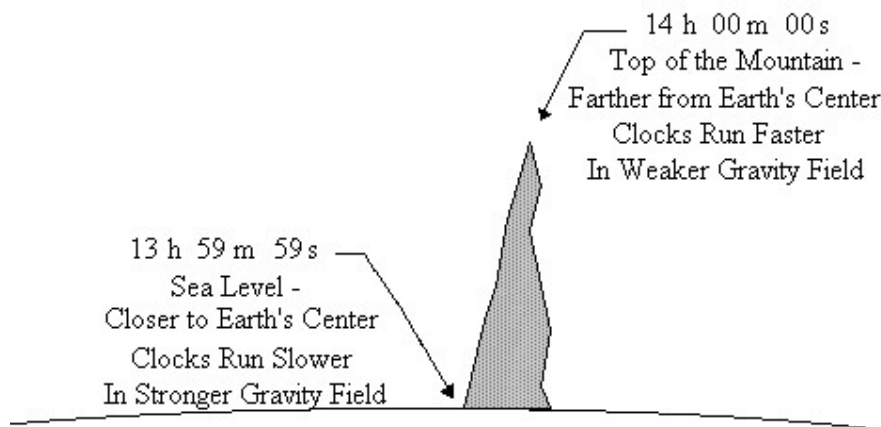


Figure 6: Gravity Field and Clock Speed

Space-Time Compression:

What is Space-Time Compression and how is it related to Special Relativity and General Relativity? Space-Time Compression is the relativistic effect of reducing the measured distance and light travel-time between two points in space as a result of the presence of either:

1. Two or more inertial reference frames where relativistic velocities (velocities of a significant fraction of the velocity of light) between the reference frames are involved – Special Relativity. A spacecraft traveling at $0.98c$ (98% of the velocity of light) relative to Earth is an example of two relativistic inertial reference frames.

2. Accelerated reference frames defined by either the physical acceleration, or change in velocity, of an object of interest relative to a point of reference in Space-Time in the presence of an acceleration field – General Relativity. An example of an accelerated reference frame is that of the Sun’s gravitational field, equal to 27.8g, near the Solar surface.

Space-Time Compression occurs because of the invariance of the measured, or observed, velocity of light independent what inertial or accelerated reference frame the observer exists within or externally observes.

Inertial Reference Frames:

One way to quantitatively observe the Space-Time compression effect is to look at the blue right triangle within a quarter circle of unity radius (radius, $r = 1$) displayed in Figure 7, below. The hypotenuse of the triangle is the side of the blue triangle starting from the center of the circle moving diagonally upward and to the right with a length unity, or 1, and equal to the radius of the quarter circle. The hypotenuse of the blue right triangle represents the velocity of light, c , as a fraction of the velocity of light, c , which, of course, is $c/c = 1$. The vertical side of the blue right triangle is the ratio of the velocity of the spacecraft to that of the velocity of light, or v/c . The vertical side of the blue right triangle is the “opposite side” from the angle formed by the hypotenuse of the blue right triangle, or the radius of the quarter circle, and the horizontal side of the blue right triangle. That angle is represented by the Greek letter θ (Theta). The angle θ spans from 0° to 90° . The length of the vertical side of the blue right triangle is equal to $\sin\theta$, therefore, $v/c = \sin\theta$. The horizontal side of the blue right triangle represents the amount of Space-Time Compression that reduces the distance between two points in Space-Time (length contraction) and reduces the time it takes light to travel between the two points (time dilation) based on the velocity of the spacecraft relative to the velocity of light. The length of the horizontal side of the blue right triangle is equal to $\cos\theta$. The “Space-Time Compression Factor” is the multiplicative inverse of the value of length of the horizontal side of the blue right triangle equal to $1/\cos\theta$, or $\sec\theta$, and is designated by the Greek Letter γ (Gamma). The length contraction and time dilation can be determined by solving for the length of the horizontal side of the triangle using the Pythagorean Theorem.

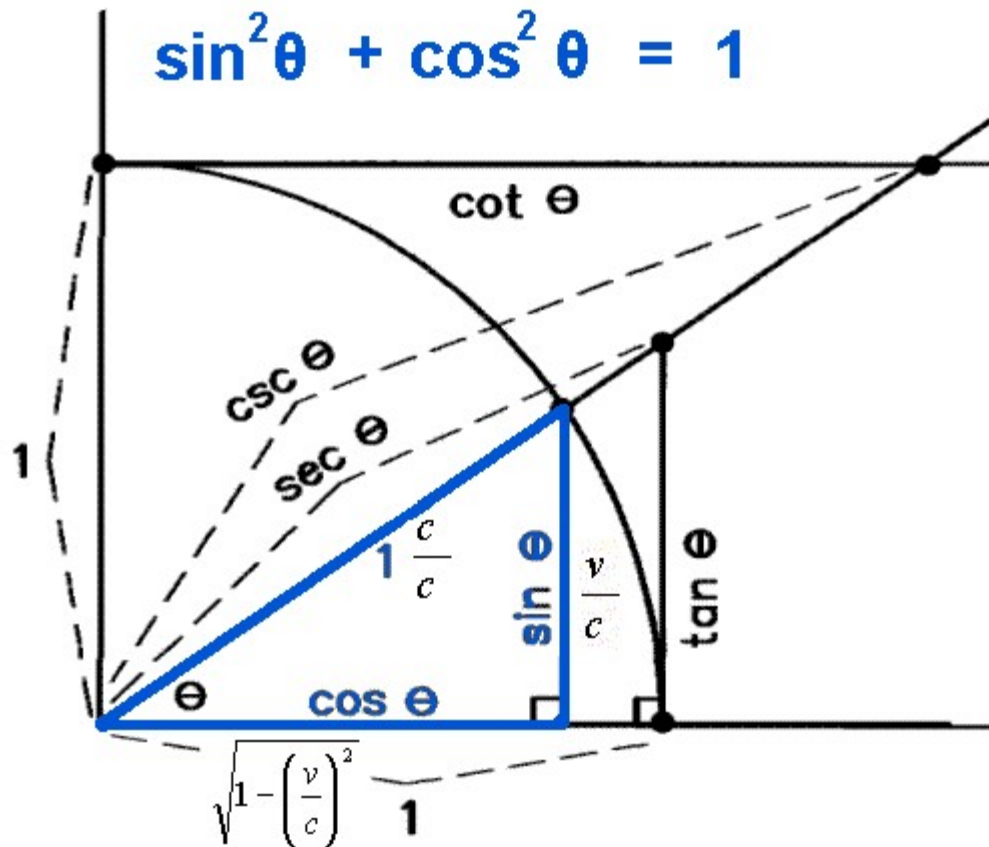


Figure 7: Application of Pythagorean Theory to Special Relativity

$$\sin^2\theta + \cos^2\theta = 1$$

$$v/c = \sin\theta$$

Substitute v/c for $\sin\theta$, then solve for $\cos\theta$

$$(v/c)^2 + \cos^2\theta = 1$$

$$\cos^2\theta = 1 - (v/c)^2$$

$$\cos\theta = [1 - (v/c)^2]^{1/2}$$

$$1/\cos\theta = \sec\theta = 1/[1 - (v/c)^2]^{1/2} = \text{“Space-Time Compression Factor”}$$

Therefore, the distance between the Earth and the star of interest 10 light-years away as measured by the observer in the spacecraft moving at a velocity, v , is defined as follows:

$$d = d_0 [1 - (v/c)^2]^{1/2}$$

Where d_0 is the measured distance to the star of interest in “Normal Space-Time” or “Uncompressed Space-Time” as measured by the observer on the Earth and d is the “Compressed Space-Time” distance (or length contracted distance) as measured by the observer in the spacecraft moving at a velocity, v . The reduction of time for light to travel the distance between the star of interest and spacecraft in the vicinity of Earth is affected in the same manner by “Space-Time Compression.” Einstein noted the equivalence of space and time, hence the term Space-Time is used. The relationship of space and time is as follows:

$$d = ct$$

d represents distance, c represents the velocity of light, and t represents elapsed time. Substituting ct for d and ct_0 for d_0 , the distance compression equation can become a time dilation equation.

$$ct = ct_0 [1 - (v/c)^2]^{1/2}$$

$$\text{Therefore: } t = t_0 [1 - (v/c)^2]^{1/2}$$

The following table provides the values for length contraction and “Space-Time Compression Factor” as a function of velocity relative to the velocity of light, $c = 299,755 \text{ km/sec} = 186,300 \text{ miles/sec}$.

Table 1: Velocity and Space-Time Compression				
Angle θ Degrees	Measured Velocity = v = $(c)(\sin\theta)$ = $(v/c) = \sin\theta$	Distance (Length) Contraction or Time Dilation Factor = $\cos\theta$ = $[1 - (v/c)^2]^{1/2}$	Space-Time Compression Factor = $\gamma = 1/\cos\theta = \sec\theta$ = $1/[1 - (v/c)^2]^{1/2}$	Effective Velocity = v_{eff} = $(c)(\sin\theta/\cos\theta)$ = $(c)(\tan\theta)$ = $(v_{\text{eff}}/c) = \tan\theta$
0.000	0.000	1.000	1.000	0.000
2.866	0.050	0.999	1.001	0.050
5.739	0.100	0.995	1.005	0.101
8.627	0.150	0.989	1.011	0.152
11.537	0.200	0.980	1.021	0.204
14.478	0.250	0.968	1.033	0.258

Angle θ Degrees	Measured Velocity = v = (c)(sinθ) (v/c) = sinθ	Distance (Length) Contraction or Time Dilation Factor = cosθ = [1 - (v/c)²]^{1/2}	Space-Time Compression Factor = γ = 1/cosθ = secθ = 1/ [1 - (v/c)²]^{1/2}	Effective Velocity = v_{eff} = (c)(sinθ/cosθ) = (c)(tanθ) (v_{eff}/c) = tanθ
17.458	0.300	0.954	1.048	0.314
20.487	0.350	0.937	1.068	0.374
23.578	0.400	0.917	1.091	0.436
26.744	0.450	0.893	1.120	0.504
30.000	0.500	0.866	1.155	0.577
33.367	0.550	0.835	1.197	0.659
36.870	0.600	0.800	1.250	0.750
40.542	0.650	0.760	1.316	0.855
44.427	0.700	0.714	1.400	0.980
45.000	0.707	0.707	1.414	1.000
48.590	0.750	0.661	1.512	1.134
53.130	0.800	0.600	1.667	1.333
58.212	0.850	0.527	1.898	1.614
60.000	0.866	0.500	2.000	1.732
64.158	0.900	0.436	2.294	2.065
71.805	0.950	0.312	3.203	3.042
73.739	0.960	0.280	3.571	3.428
75.930	0.970	0.243	4.113	3.990
78.522	0.980	0.199	5.025	4.925
81.890	0.990	0.141	7.470	7.018
84.268	0.995	0.100	10.013	9.962
85.000	0.996	0.087	11.474	11.430
85.561	0.997	0.077	12.920	12.882
86.376	0.998	0.063	15.819	15.789
87.437	0.999	0.045	22.366	22.340

As indicated in Table 1, above, measured velocities do not contribute significantly to the “Space-Time Compression” effect unless the measured velocity is a significant fraction of the velocity of light, c. At a measured velocity of 0.995c, the “Space-Time Compression Factor” is just above

10 and at a measured velocity of $0.999c$, the “Space-Time Compression Factor” is just under 22.4.

Table 1 introduces the concept of effective velocity. When the spacecraft is traveling at a measured velocity of $0.707c$, the effective velocity, v_{eff} , of the spacecraft is $1.000c$ or the speed of light, c . Although the spacecraft only has a measured velocity as $0.707c$, the length contraction along the line of travel is reduced to 0.707 (or 70.7%) of the original distance (which represents a “Space-Time Compression Factor” equal to 1.414), therefore, the time to travel the uncompressed distance (which is a known quantity) is equal to the time it would take light to travel the uncompressed distance.

Example:

Let's assume our astronaut is traveling from the Earth to a star system 10 light-years distant. The astronaut is traveling at a measured velocity of $0.707c$. The astronaut measures the distance to the star system as only 7.07 light-years rather than 10 light-years because of the relativistic length contraction in the direction of motion. The astronaut's travel time to the star system is 10 years as measured by the astronaut. The observer on Earth watching the astronaut accomplish the trip disagrees on the time elapsed. The observer on earth agrees with the astronaut that the astronaut's measured velocity is $0.707c$. However, the observer on Earth measures the distance the astronaut must travel as 10 light-years, which is the Uncompressed Space-Time distance. The observer on Earth measures the time elapsed for the astronaut to accomplish the trip from Earth to the star system as 14.1 years. Realize that it takes time for the light to travel from our astronaut's position back to earth resulting in the disagreement on the time required for the astronaut to make the trip.

If a person could, theoretically, accelerate to the actual measured velocity of light, c , then the distance required to be traveled would be compressed to zero length. In this case, the effective velocity, v_{eff} would be infinity and zero time would be required to travel the distance because the distance is now zero. With measured velocities very close to that of the speed of light, c , the effective velocity, v_{eff} approaches the Space-Time Compression Factor. Therefore, because of

the “Space-Time Compression” phenomenon, one could effectively travel much faster than the speed of light. The relationship between measured velocity, v , effective velocity, v_{eff} , and “Space-Time Compression Factor” is defined by the relationship of the various trigonometric functions.

If angle θ is very small (i.e., angle $\theta \approx 0^\circ$),

then $\tan\theta \approx \sin\theta$

because $\cos\theta \approx 1.000$

Likewise, if $v \ll c$

(i.e., measured velocity is insignificant relative to the speed of light),

then $v_{\text{eff}} \approx v$

If angle $\theta \rightarrow 90^\circ$ (i.e., angle θ is approaching 90°)

then $\tan\theta \approx 1/\cos\theta = \sec\theta \rightarrow \infty$

because $\sin\theta \approx 1.000$ and $\cos\theta \rightarrow 0.000$

Likewise, if $v \rightarrow c$

(i.e., measured velocity is approaching the speed of light)

then effective velocity, $v_{\text{eff}} \approx \text{Space-Time Compression Factor} \rightarrow \infty$

Analysis of Two Hypothetical Inertial Reference Frames:

Let’s look at Space-Time Compression in two hypothetical relativistic inertial reference frames. Consider an observer on Earth looking at a star 10 light-years distant and an observer on a spacecraft traveling at a velocity, $v = 0.98c$, which is a significant fraction of the velocity of light, c . The light propagating from the star is measured to be moving at a velocity of c by both the observer on Earth and the observer in the spacecraft traveling at $0.98c$. Recall that the velocity of light will always be measured the same in a vacuum, no matter what inertial reference frame the observer is in. We cannot add the velocity of our spacecraft to the velocity of light and get a result for the velocity of light other than c because the speed of photon propagation in a vacuum will always be measured as c no matter what reference frame one exists in when measuring the speed of light. Therefore, “ $v + c = c$.” This “strange math” works out because we are adding velocities. A velocity is defined as a change in position of an object or particle with

respect to some measured elapsed time. The “strange math” occurs because the measured elapsed time is different for observers in different inertial reference frames. We will compare what each observer sees at the instant the observer in the spacecraft passes by the Earth and the observer on the Earth. The observer in the spacecraft and the observer on Earth disagree on the distance to the star and the amount of time it takes light to travel from the star to each of them. The observer on Earth measures the distance as 10 light-years. The observer in the spacecraft, however, measures the distance to the star to be about 2 light-years because the Space-Time Compression factor for traveling at $0.98c$ is equal to 5.025 resulting in his/her observed length contraction. In addition, because of the shorter measured distance, the time it takes the light to travel from the star to the observer on the spacecraft is only about 2 years because of the length contraction. To the observer on Earth, it appears to take the spacecraft over 10 years to arrive at the star. The disagreement between the observer in the spacecraft and the Earth observer for the time it takes the spacecraft to travel the distance to the star occurs because of the delay time for the light from the spacecraft to return back to Earth. If the spacecraft is 10 light-years away, it will take 10 years for the light from the spacecraft to reach Earth. This hypothetical scenario demonstrates the equivalence of space (distance) and time.

One other concept that is observed here is that of “effective velocity.” The “effective velocity” represents the velocity of the spacecraft relative to Normal Space-Time rather than Compressed Space-Time. This would be the case if the velocity of light was infinite. The observer in the spacecraft realizes that the normal space-time distance to the star is 10 light-years even though, with the spacecraft measured velocity of $0.98c$ relative to Earth, the Compressed Space-Time distance measured to the star is 2 light-years. Therefore, the effective velocity of the spacecraft is about 5 times the speed of light because it takes the observer 2 years, as measured by spacecraft onboard clock, to travel the Normal Space-Time distance of 10 light-years to the star. If the spacecraft was traveling at $0.7071c$ to the star 10 light-years away, the measured Compressed Space-Time distance to the star would be 7.071 light-years. The time it would take the spacecraft to travel the Compressed Space-Time distance of 7.071 light-years would be 10 years, as measured by the spacecraft onboard clock. Therefore, the effective velocity of the spacecraft is equal to the speed of light. The observer on Earth, however, would measure the time elapsed for the spacecraft to travel the actual 10 light-year distance to the star as 14.142 years. That time is consistent with the measured velocity of the spacecraft relative to the Earth

observer of $0.7071c$. The additional 4.142 years that elapses for the spacecraft trip, as measured by the observer on Earth, results from the fact that it takes time for the light to return to Earth from the spacecraft, as the spacecraft travels to the star. From the right triangle and Pythagorean Theorem, one can see that $\sin\theta$ represents the measured velocity of the spacecraft and $\tan\theta$ represents the effective velocity of the spacecraft. If the spacecraft could have an actual velocity of the speed of light ($\sin\theta = 1$), then the effective velocity would be infinity ($\tan\theta = \text{infinity}$). Space-time would be compressed to zero length based upon traveling at the speed of light.

Let's look at the Flying Disc Spacecraft traveling at $0.98c$ relative to Earth as it passes over an Aircraft Hanger on the Earth from left to right. We will examine what an observer in front of the Aircraft Hanger on Earth at rest relative to the Aircraft Hanger would see as the Flying Disc Spacecraft passes above the Aircraft Hanger. We will compare that observation to what an observer in a second spacecraft flying in the same direction as the Flying Disc Spacecraft at a velocity of $0.98c$ such that the Flying Disc Spacecraft appears to be at rest relative to this second

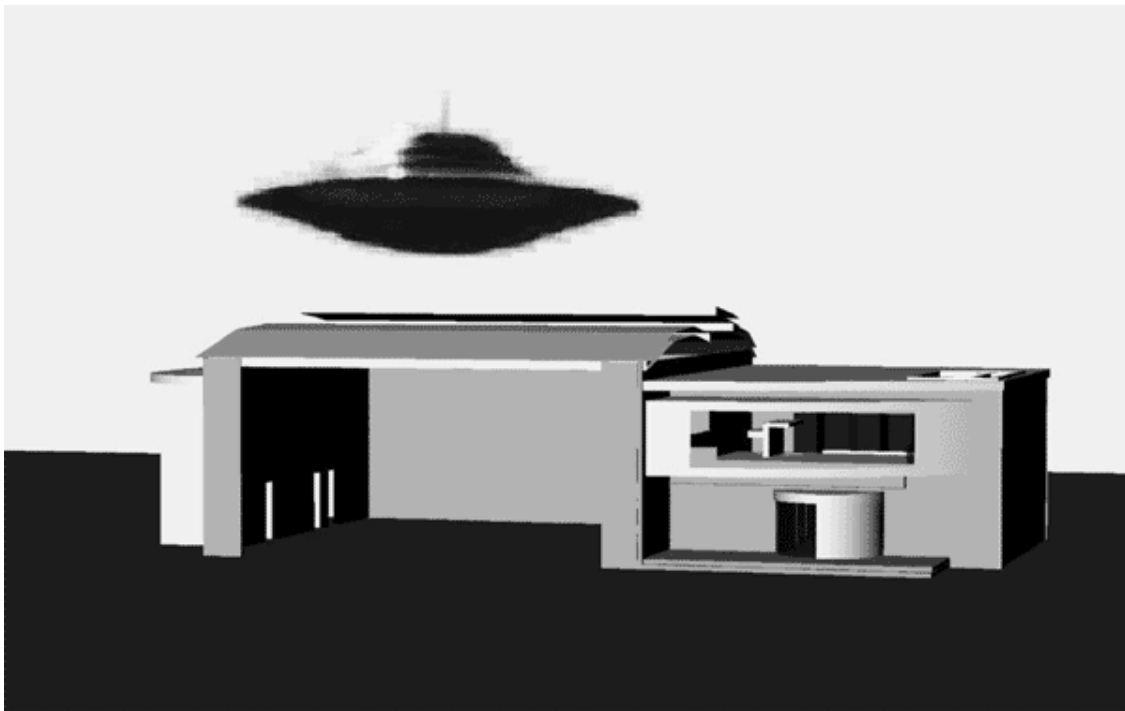
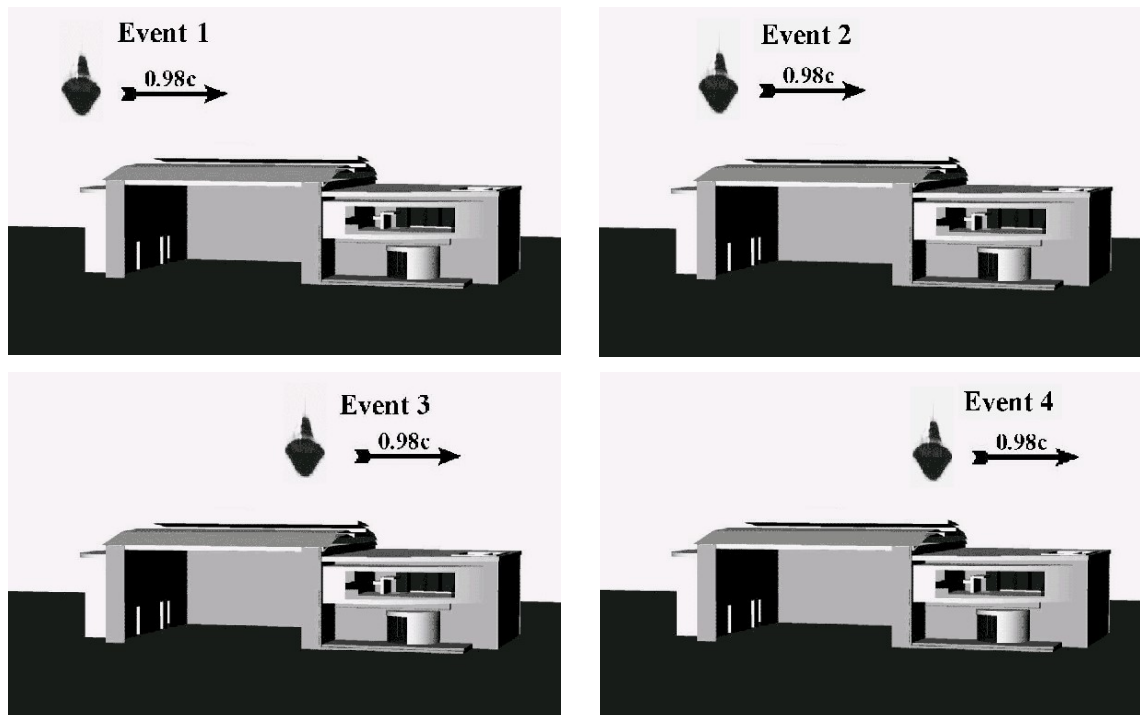


Figure 8:
Aircraft Hanger 300 Feet Wide and
Flying Disc Spacecraft 300 Feet in Diameter
Both At Rest in the Same Reference Frame

observer. Figure 8, above, displays the Flying Disc Spacecraft hovering over the Aircraft Hanger such that the Flying Disc Spacecraft is “at rest” relative to the Aircraft Hanger. The Flying Disc Spacecraft is 300 feet in diameter and the Aircraft Hanger is 300 feet in width from left to right. Therefore, when both the Flying Disc Spacecraft and the Aircraft Hanger are at rest relative to each other, they appear to be the same width.

First we will analyze what the observer on Earth in front of the Aircraft Hanger sees as the Flying Disc Spacecraft passes over the Aircraft Hanger. As the Flying Disc Spacecraft passes over the Aircraft Hanger, we will focus on four specific events noted by the observer on Earth. Refer to Figure 9 set, below:



**Figure 9:
Flying Disc Spacecraft Moving from Left to Right
at 98% Velocity of Light Over Aircraft Hanger
Observer At Rest Relative to Aircraft Hanger**

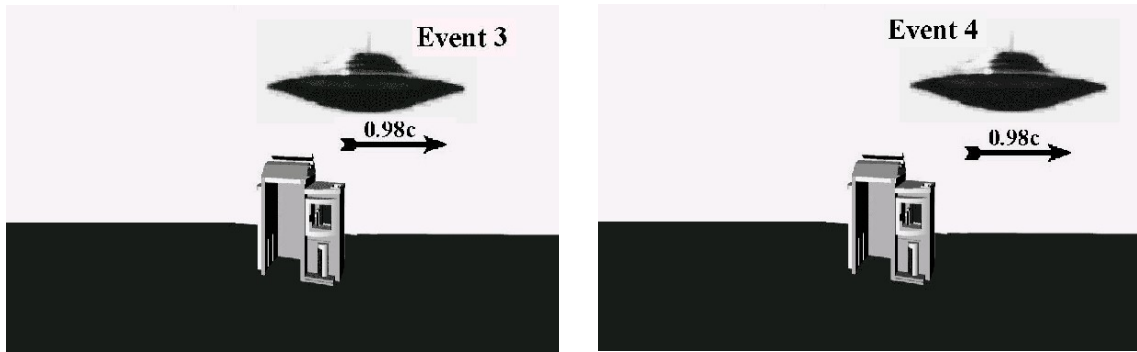
Note in Figure 9, above, that the Flying Disc Spacecraft is “compressed” by a factor of 5 in width along its direction of motion. This represents the “Space-Time Compression” in the direction of motion of the Flying Disc Spacecraft as seen by the observer on Earth because its

velocity relative to the observer on Earth is $0.98c$ (See [Table 1](#), above). The events of interest as seen by the observer on Earth in front of the Aircraft Hanger as the Flying Disc Spacecraft passes over the Aircraft Hanger from left to right are as follows in order of the occurrence of each of those events.

- Event 1: The leading edge of the Flying Disc Spacecraft aligns with the left side of the Aircraft Hanger.
- Event 2: The lagging edge of the Flying Disc Spacecraft aligns with the left side of the Aircraft Hanger.
- Event 3: The leading edge of the Flying Disc Spacecraft aligns with the right side of the Aircraft Hanger.
- Event 4: The lagging edge of the Flying Disc Spacecraft aligns with the right side of the Aircraft Hanger.

Now we will analyze what the observer on the second spacecraft flying with the Flying Disc Spacecraft at $0.98c$ relative to Earth and the Aircraft Hanger sees as the Flying Disc Spacecraft passes over the Aircraft Hanger. Just as with the observer at rest on Earth in front of the Aircraft Hanger, above, we will focus on four specific events as the Flying Disc Spacecraft passes over the Aircraft Hanger. However, the events will be noted as seen by the observer in the second spacecraft. Refer to Figure 10 series, below:





**Figure 10:
Flying Disc Spacecraft Moving from Left to Right
at 98% Velocity of Light Over Aircraft Hanger
Observer At Rest Relative to Flying Disc Spacecraft**

Now note in Figure 10, above, that the Aircraft Hanger, rather than the Flying Disc Spacecraft, has a “compressed” width along the direction of motion of the Flying Disc Spacecraft. The Flying Disc Spacecraft appears to have full width. This represents the “Space-Time Compression” in the direction of motion of the Flying Disc Spacecraft as seen by the second observer in the observing from the second spacecraft. Because the second spacecraft is flying with the Flying Disc Spacecraft, the Flying Disc Spacecraft appears to be at rest relative to the second spacecraft, hence, appears to be of full width in the direction of motion. The Earth and the Aircraft Hanger appear to be moving at a velocity of $0.98c$ from right to left relative to both the spacecraft in motion resulting in the Aircraft Hanger appearing to be “compressed” in width by a factor of 5 along the direction of motion of the Flying Disc Spacecraft (see [Table 1](#), above). The events of interest as seen by the observer in the second spacecraft as the Flying Disc Spacecraft passes over the Aircraft Hanger from left to right are as follows in order of the occurrence of each of those events.

- Event 1: The leading edge of the Flying Disc Spacecraft aligns with the left side of the Aircraft Hanger.
- Event 2: The leading edge of the Flying Disc Spacecraft aligns with the right side of the Aircraft Hanger.
- Event 3: The lagging edge of the Flying Disc Spacecraft aligns with the left side of the Aircraft Hanger.

Event 4: The lagging edge of the Flying Disc Spacecraft aligns with the right side of the Aircraft Hanger.

There is an obvious disparity between the observations of the two observers. The first observer is on Earth at rest relative to the aircraft hanger and the second observer is onboard a second spacecraft moving at a velocity of $0.98c$ in parallel with the Flying Disc Spacecraft, therefore, at rest relative to the Flying Disc Spacecraft. The two observers disagree with the order of the events taking place as the Flying Disc Spacecraft flies over the aircraft hanger. The event the Earth observer identifies as “Event 2” is identified as “Event 3” by the observer on the second spacecraft. Likewise, the event the Earth observer identifies as “Event 3” is identified as “Event 2” by the observer on the second spacecraft. Although the time interval between “Event 2” and “Event 3” is on the order of only 300 nanoseconds (300×10^{-9} seconds), there is a reversal of the order of the events in Space-Time. This hypothetical situation demonstrates that the times of occurrence of events are relative to the specific reference frames of the observers and are not absolutes. Observers in different reference frames will not agree on the order of events, nor will they agree on the simultaneity of events. This disagreement in the order of events in time provides the evidence that time-travel is, theoretically, possible. If the Space-Time Compression factor is large enough, then events that are years apart could be reversed relative to observers in different reference frames. Large Space-Time Compression factors could, theoretically, be generated by amplifying gravity in a local area to generate separate accelerated reference frames (see the following discussion on accelerated reference frames). The “The Philadelphia Experiment and the Secrets of Montauk” Website:

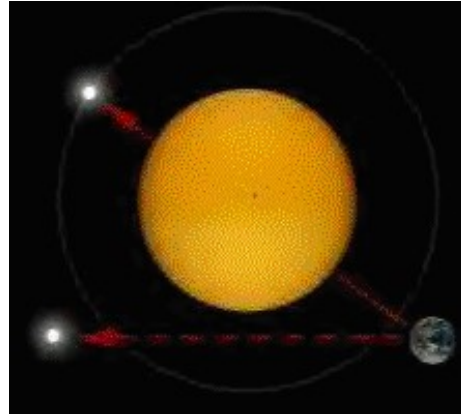
<http://www.gravitywarpedrive.com/Philadelphia-Experiment-and-Montauk/index.htm>

provides testimony from several individuals regarding their involvement with the U.S. Government’s Top Secret time-travel experiments. It has been speculated that Albert Einstein and John Von Neumann were both involved with the Philadelphia Experiment. It has been speculated that John Von Neumann was intimately involved with the Phoenix Project, also known as the Montauk Project.

Accelerated Reference Frames:

When “generalized” to include the effects of gravity, the equations of relativity predict that gravity, or the curvature of Space-Time by matter, not only stretches or shrinks distances (depending on their direction with respect to the gravitational field) but also will appear to slow down or “dilate” the flow of time – the very definition of Space-Time

Compression. The equations used to represent the curvature of Space-Time in gravitational fields are multi-dimensional, rather complicated, and dependent upon the geometry of the system of interest. In most circumstances throughout the universe the intensity of the local gravitational field at a point in Space-Time is relatively small, hence, any Space-Time Compression taking place in that locality is miniscule. However, Space-Time Compression can become significant at a locality when Space-Time is curved by a strong gravitational field produced by a massive object such as a star like our Sun as indicated by Figure 11 and Figure 12.



**Figure 11:
Sun's Gravity Bending
Light Rays**

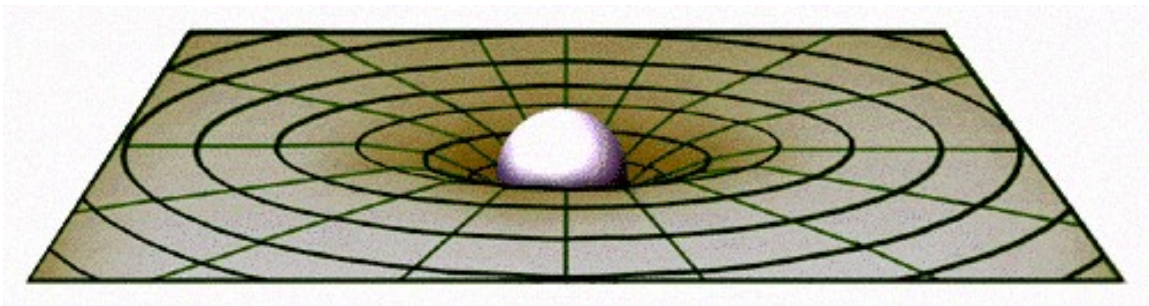
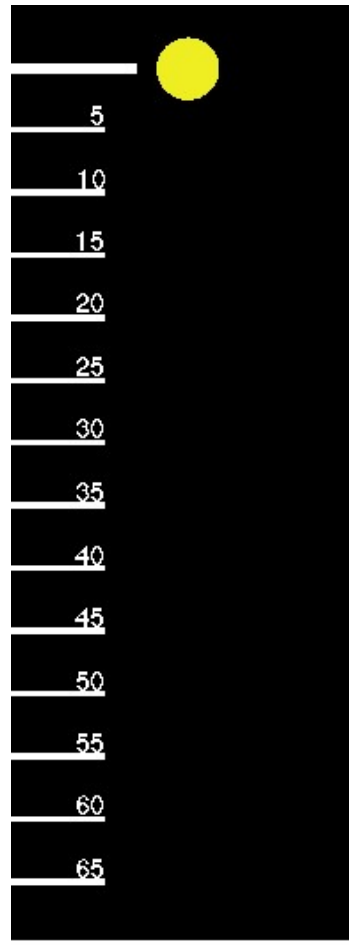


Figure 12: Sun's Gravity Distorting Space-Time

Just as the velocity of light in a vacuum will always be measured as c no matter what velocity of travel of the observer, the velocity of light will always be measured as c in an accelerated reference frame, no matter how great the acceleration or gravitational field. Einstein's General Relativity Theory states that light is accelerated by a gravitational field, which results in the

observed “bending of light” around our Sun as indicated by Figure 11, above. This appears to be a paradox. How can light be accelerated, yet remain at a velocity of c ? Lets take a look at a rubber ball that is dropped in Earth’s gravitational field as displayed in Figure 13. The ball is initially at rest. When released, the ball begins to fall and its velocity of fall rises as it is accelerated by the local gravitational field of Earth until the rubber ball finally hits the floor. Graphs of the ball fall distance and ball velocity as a function of time are provided in Figure 14 and Figure 15, respectively, below. The graphs assume continual free-fall. A photon of light is accelerated by a gravitational field in like manner to our ball falling in Earth’s gravitational field. However, instead of the photon of light traveling faster and faster relative to an external observer as our falling ball does, the distance the photon of light travels (and the time it takes the photon of light to travel that distance) compresses in a manner to offset the acceleration by gravity so that the velocity of the photon of light always remains the same, equal to c , relative to the external observer. This Space-Time Compression effect is miniscule in Earth’s gravitational



**Figure 13:
Falling Ball in
Earth Gravitational
Field**

field because the gravitational field is relatively weak and the Earth’s average diameter, 7,918 miles, is relatively small compared to the distance light can travel in one second, 186,300 miles or 299,975 kilometers. A photon of light energy will travel a distance of about 7.5 Earth circumferences in one second (Earth’s circumference is about 25,000 miles). When at or above the Earth’s surface, the Earth’s gravitational field intensity drops off proportional to $1/r^2$ where r represents the distance from the Earth’s center (Newton’s Law of Gravity). Earth’s gravitational field is equal to $1g = 32.2 \text{ feet/second}^2 \text{ acceleration} = 0.00610 \text{ miles/second}^2 \text{ acceleration}$ at the Earth’s surface, which is just under 4,000 miles from the Earth’s center. At about 4,000 miles above the Earth’s surface, the gravitational field is only $0.25g = 8.05 \text{ feet/second}^2 \text{ acceleration} =$

0.00152 miles/second² acceleration. The change in velocity – actually the amount of Space-Time Compression (photon of light velocity will always be measured at 186,300 miles/second) – resulting from a photon of light traveling at 186,300 miles/second spending 1 second in Earth’s gravitational field is very miniscule. A photon of light spends very little time in the Earth’s gravitational field, therefore, is not significantly affected by the Earth’s gravitational field. What

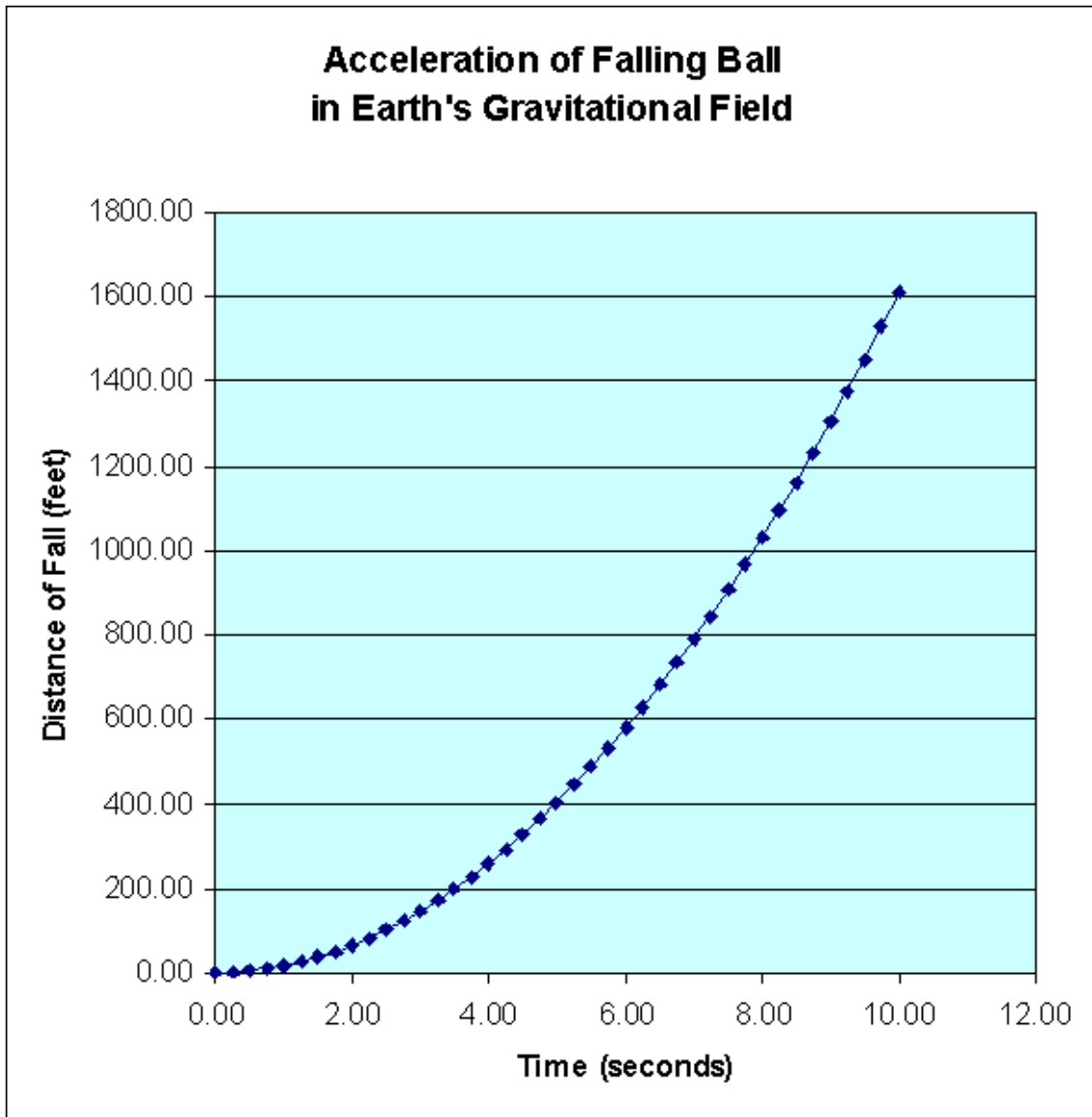
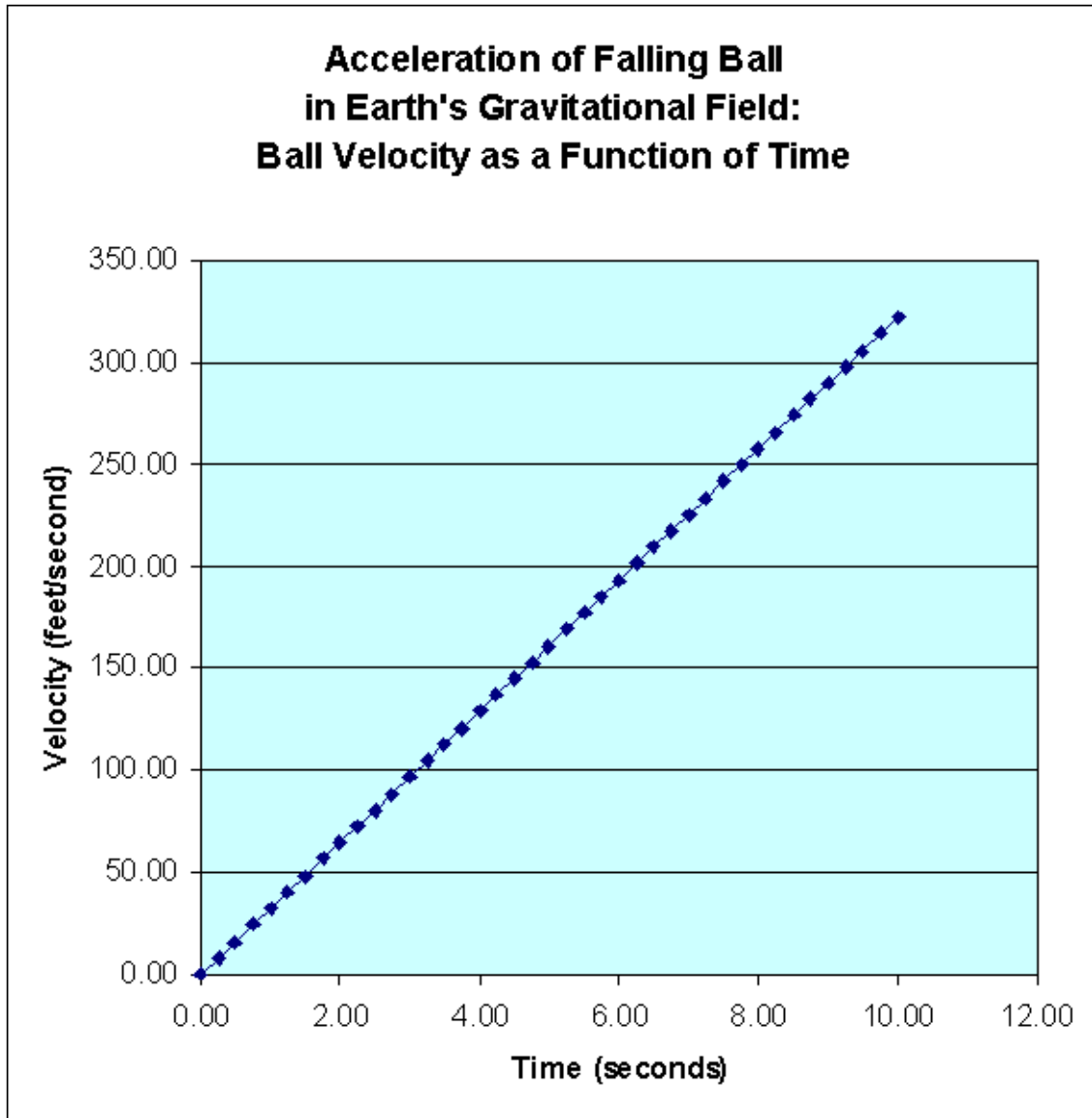


Figure 14:
Distance Traveled of Ball Falling
in Earth’s Gravitational Field Versus Time



**Figure 15:
Velocity of Ball Falling
in Earth's Gravitational Field Versus Time**

we conclude here is the amount of Space-Time Compression that occurs due to a gravitational field is a function of both the intensity of the gravitational field and the amount of time that a photon of light remains within the gravitational field. Gravitational fields are acceleration fields. The final velocity of an object in an acceleration field is a function of the rate of acceleration in that field and the time that acceleration is applied to an object in the field. An acceleration is a rate of change of velocity as a function of time.

Let's consider a photon of light traveling in the vicinity of the Sun's gravitational field. The Sun's diameter is 864,000 miles. The Sun's gravitational field is about $27.8g = 895 \text{ feet/second}^2$ acceleration = $0.169 \text{ miles/second}^2$ acceleration at the Sun's surface. A photon of light will travel the Sun's diameter in 4.64 seconds. A photon of light will be accelerated an additional 0.786 miles/second and Space-Time will be compressed accordingly to keep the measured velocity of light at 186,300 miles/second. Note that this is a gross calculation because the Sun's gravitational field is only 27.8g at its surface. The Sun's gravitational field as measured by an observer moving away from the Sun's is proportional to $1/r^2$ where r represents the distance of the observer from the center of the Sun. At 432,000 miles above the Sun's surface, the gravitational field would be $6.95g = 224 \text{ feet/second}^2$ acceleration = $0.0424 \text{ miles/second}^2$ acceleration. The Sun's gravitational field is significant enough and large enough to result in measurable bending of the path of a photon of light.

Space-Time Compression can become extremely significant when a massive object is compressed into a small volume making the massive object extremely dense such as is the case with a Neutron Star or Black Hole. The gravitational field near the surface of a Neutron Star is on the order of $2.10 \times 10^{11}g = 6.76 \times 10^{11} \text{ feet/second}^2 = 1.28 \times 10^8 \text{ miles/second}^2 = 128,000,000 \text{ miles/second}^2$ acceleration. This rate of acceleration is huge compared to the velocity of light at 186,300 miles/second. Such an intense field will very rapidly accelerate a photon, hence, Space-Time Compression occurs very rapidly.

Consider a situation where an observer far from a black hole is watching an astronaut in a spacecraft approach the black hole. The observer would witness time passing extremely slowly for an astronaut falling through the black hole's Schwarzschild radius or event horizon. The distant observer would never actually see the hapless astronaut fall into the black hole. The astronaut's time, as measured by the observer, would appear to stand still.

Therefore, if a relatively intense gravitational field exists in a localized position in Space-Time relative to an external observer, Space-Time Compression can be measured without objects traveling at velocities very close to the velocity of light relative to the external observer "at rest."

My Nuclear Gravitation Field Theory determined that the minimum gravitational acceleration field required to overcome the Coulombic Repulsion to be at least $2.441 \times 10^{27}g$, therefore, the effects of General Relativity must be considered in the vicinity of the nucleus of the atom if the Strong Nuclear Force and gravity are one. Gravity fields propagate based upon Uncompressed Space-Time. In order to “see” or “measure” the Nuclear Gravitation Field propagating outward from the Nucleus omnidirectional in spherical symmetry dropping in intensity $1/r^2$ consistent with Newton’s Law of Gravity, we would have to measure the field intensity in Uncompressed Space-Time. However, we live in the Compressed Space-Time reference frame, therefore, we see events in Compressed Space-Time. As previously discussed, gravity fields generate the Compressed Space-Time due to the acceleration of light, electric fields, and magnetic fields. Light, Electric Fields, and Magnetic Fields propagate based upon Compressed Space-Time.

Table 2, “Accelerated Reference Frame Space-Time Compression Due to Gravity Field,” below, determines the Uncompressed Space-Time acceleration of light as a function of the intensity of various gravity fields, determines the reduction in the distance traveled by light as observed in Compressed Space-Time, and the resulting Space-Time Compression Factors. Let’s assume the gravitational field next to the nucleus of the atom was equal to 2.9975×10^8 meters/sec². If light was subjected to this acceleration field, in one second the speed of light would be doubled to 5.9950×10^8 meters/sec equal to the speed of light in Uncompressed Space-Time. Since the speed of light in free space is invariant with respect to the reference frame of the observer, the speed of light remains at 2.9975×10^8 meters/sec. Therefore, the distance traveled by light in Compressed Space-Time must be reduced to half the Uncompressed Space-Time distance as indicated by the first entry highlighted in red in Table 2, “Accelerated Reference Frame Space-Time Compression Due to Gravity Field,” below:

From Table 2, “Accelerated Reference Frame Space-Time Compression Due to Gravity Field,” above, we find that the Space-Time Compressed distance that light travels is essentially a zero distance (at five significant digits) for any gravity field acceleration field greater than or equal to $1.00 \times 10^{13}g$. The minimum gravitational acceleration field required to overcome the Coulombic Repulsion of two protons in a nucleus at $2.441 \times 10^{27}g$ results in Space-Time Compression to a distance of zero because the Space-Time Compression Factor equals 7.99873×10^{19} as indicated

Accelerated Reference Frame Space-Time Compression Due to Gravity Field

Gravity Acceleration in g	Gravity Acceleration (meters/sec ²)	Final Speed of Light in Uncompressed Space-Time After 1 Second (meters/sec)	Length Reduction Due to Space-Time Compression = cos θ	arccos θ Radians	arccos θ Degrees	Space-Time Compression Factor = 1/cos θ = sec θ
0	0.00	2.99750E+08	1.00000	0.000000	0.00000	1.00000
1	9.81	2.99750E+08	1.00000	0.000256	0.01466	1.00000
2	19.62	2.99750E+08	1.00000	0.000362	0.02073	1.00000
3	29.43	2.99750E+08	1.00000	0.000443	0.02539	1.00000
4	39.24	2.99750E+08	1.00000	0.000512	0.02932	1.00000
5	49.05	2.99750E+08	1.00000	0.000572	0.03278	1.00000
6	58.86	2.99750E+08	1.00000	0.000627	0.03591	1.00000
7	68.67	2.99750E+08	1.00000	0.000677	0.03878	1.00000
8	78.48	2.99750E+08	1.00000	0.000724	0.04146	1.00000
9	88.29	2.99750E+08	1.00000	0.000768	0.04398	1.00000
10	98.10	2.99750E+08	1.00000	0.000809	0.04635	1.00000
20	196.20	2.99750E+08	1.00000	0.001144	0.06556	1.00000
50	490.50	2.99750E+08	1.00000	0.001809	0.10365	1.00000
100	981	2.99751E+08	1.00000	0.002558	0.14659	1.00000
200	1962	2.99752E+08	0.99999	0.003618	0.20730	1.00001
500	4905	2.99755E+08	0.99998	0.005721	0.32777	1.00002
1000	9810	2.99760E+08	0.99997	0.008090	0.46354	1.00003
2000	19620	2.99770E+08	0.99993	0.011441	0.65553	1.00007
5000	49050	2.99799E+08	0.99984	0.018089	1.03645	1.00016
10000	98100	2.99848E+08	0.99967	0.025581	1.46566	1.00033
20000	196200	2.99946E+08	0.99935	0.036171	2.07247	1.00065
50000	490500	3.00241E+08	0.99837	0.057169	3.27553	1.00164
100000	981000	3.00731E+08	0.99674	0.080794	4.62915	1.00327
200000	1.96200E+06	3.01712E+08	0.99350	0.114105	6.53772	1.00655
500000	4.90500E+06	3.04655E+08	0.98390	0.179686	10.29526	1.01636
1.000E+06	9.81000E+06	3.09560E+08	0.96831	0.252424	14.46283	1.03273

Accelerated Reference Frame Space-Time Compression Due to Gravity Field

Gravity Acceleration in g	Gravity Acceleration (meters/sec ²)	Final Speed of Light in Uncompressed Space-Time After 1 Second (meters/sec)	Length Reduction Due to Space-Time Compression = cosθ	arccosθ Radians	arccosθ Degrees	Space-Time Compression Factor = 1/cosθ = secθ
2.000E+06	1.96200E+07	3.19370E+08	0.93857	0.352344	20.18780	1.06545
5.000E+06	4.90500E+07	3.48800E+08	0.85938	0.536750	30.75352	1.16364
1.000E+07	9.81000E+07	3.97850E+08	0.75342	0.717541	41.11209	1.32727
2.000E+07	1.96200E+08	4.95950E+08	0.60440	0.921789	52.81464	1.65455
3.056E+07	2.99750E+08	5.99500E+08	0.50000	1.047198	60.00000	2.00000
5.000E+07	4.90500E+08	7.90250E+08	0.37931	1.181746	67.70903	2.63636
1.000E+08	9.81000E+08	1.28075E+09	0.23404	1.334563	76.46481	4.27273
2.000E+08	1.96200E+09	2.26175E+09	0.13253	1.437875	82.38418	7.54545
5.000E+08	4.90500E+09	5.20475E+09	0.05759	1.513173	86.69842	17.36364
1.000E+09	9.81000E+09	1.01098E+10	0.02965	1.541142	88.30095	33.72727
2.000E+09	1.96200E+10	1.99198E+10	0.01505	1.555748	89.13779	66.45455
5.000E+09	4.90500E+10	4.93498E+10	0.00607	1.564722	89.65198	164.63636
1.000E+10	9.81000E+10	9.83998E+10	0.00305	1.567750	89.82546	328.27273
2.000E+10	1.96200E+11	1.96500E+11	0.00153	1.569271	89.91260	655.54545
5.000E+10	4.90500E+11	4.90800E+11	0.00061	1.570186	89.96501	1637.36364
1.000E+11	9.81000E+11	9.81300E+11	0.00031	1.570491	89.98250	3273.72727
2.000E+11	1.96200E+12	1.96230E+12	0.00015	1.570644	89.99125	6546.45455
5.000E+11	4.90500E+12	4.90530E+12	0.00006	1.570735	89.99650	16364.63636
1.000E+12	9.81000E+12	9.81030E+12	0.00003	1.570766	89.99825	32728.27273
2.000E+12	1.96200E+13	1.96203E+13	0.00002	1.570781	89.99912	65455.54545
5.000E+12	4.90500E+13	4.90503E+13	0.00001	1.570790	89.99965	1.63637E+05
1.000E+13	9.81000E+13	9.81003E+13	0.00000	1.570793	89.99982	3.27274E+05
2.000E+13	1.96200E+14	1.96200E+14	0.00000	1.570795	89.99991	6.54546E+05
5.000E+13	4.90500E+14	4.90500E+14	0.00000	1.570796	89.99996	1.63636E+06
1.000E+14	9.81000E+14	9.81000E+14	0.00000	1.570796	89.99998	3.27273E+06
2.000E+14	1.96200E+15	1.96200E+15	0.00000	1.570796	89.99999	6.54546E+06

Accelerated Reference Frame Space-Time Compression Due to Gravity Field

Gravity Acceleration in g	Gravity Acceleration (meters/sec ²)	Final Speed of Light in Uncompressed Space-Time After 1 Second (meters/sec)	Length Reduction Due to Space-Time Compression = $\cos\theta$	$\arccos\theta$ Radians	$\arccos\theta$ Degrees	Space-Time Compression Factor = $1/\cos\theta = \sec\theta$
5.000E+14	4.90500E+15	4.90500E+15	0.00000	1.570796	90.00000	1.63636E+07
1.000E+15	9.81000E+15	9.81000E+15	0.00000	1.570796	90.00000	3.27273E+07
2.000E+15	1.96200E+16	1.96200E+16	0.00000	1.570796	90.00000	6.54545E+07
5.000E+15	4.90500E+16	4.90500E+16	0.00000	1.570796	90.00000	1.63636E+08
1.000E+16	9.81000E+16	9.81000E+16	0.00000	1.570796	90.00000	3.27273E+08
2.000E+16	1.96200E+17	1.96200E+17	0.00000	1.570796	90.00000	6.54545E+08
5.000E+16	4.90500E+17	4.90500E+17	0.00000	1.570796	90.00000	1.63636E+09
1.000E+17	9.81000E+17	9.81000E+17	0.00000	1.570796	90.00000	3.27273E+09
2.000E+17	1.96200E+18	1.96200E+18	0.00000	1.570796	90.00000	6.54545E+09
5.000E+17	4.90500E+18	4.90500E+18	0.00000	1.570796	90.00000	1.63636E+10
1.000E+18	9.81000E+18	9.81000E+18	0.00000	1.570796	90.00000	3.27273E+10
2.000E+18	1.96200E+19	1.96200E+19	0.00000	1.570796	90.00000	6.54545E+10
5.000E+18	4.90500E+19	4.90500E+19	0.00000	1.570796	90.00000	1.63636E+11
1.000E+19	9.81000E+19	9.81000E+19	0.00000	1.570796	90.00000	3.27273E+11
2.000E+19	1.96200E+20	1.96200E+20	0.00000	1.570796	90.00000	6.54545E+11
5.000E+19	4.90500E+20	4.90500E+20	0.00000	1.570796	90.00000	1.63636E+12
1.000E+20	9.81000E+20	9.81000E+20	0.00000	1.570796	90.00000	3.27273E+12
2.000E+20	1.96200E+21	1.96200E+21	0.00000	1.570796	90.00000	6.54545E+12
5.000E+20	4.90500E+21	4.90500E+21	0.00000	1.570796	90.00000	1.63636E+13
1.000E+21	9.81000E+21	9.81000E+21	0.00000	1.570796	90.00000	3.27273E+13
2.000E+21	1.96200E+22	1.96200E+22	0.00000	1.570796	90.00000	6.54545E+13
5.000E+21	4.90500E+22	4.90500E+22	0.00000	1.570796	90.00000	1.63636E+14
1.000E+22	9.81000E+22	9.81000E+22	0.00000	1.570796	90.00000	3.27273E+14
2.000E+22	1.96200E+23	1.96200E+23	0.00000	1.570796	90.00000	6.54545E+14
5.000E+22	4.90500E+23	4.90500E+23	0.00000	1.570796	90.00000	1.63636E+15
1.000E+23	9.81000E+23	9.81000E+23	0.00000	1.570796	90.00000	3.27273E+15

Accelerated Reference Frame Space-Time Compression Due to Gravity Field

Gravity Acceleration in g	Gravity Acceleration (meters/sec ²)	Final Speed of Light in Uncompressed Space-Time After 1 Second (meters/sec)	Length Reduction Due to Space-Time Compression = cosθ	arccosθ Radians	arccosθ Degrees	Space-Time Compression Factor = 1/cosθ = secθ
2.000E+23	1.96200E+24	1.96200E+24	0.00000	1.570796	90.00000	6.54545E+15
5.000E+23	4.90500E+24	4.90500E+24	0.00000	1.570796	90.00000	1.63636E+16
1.000E+24	9.81000E+24	9.81000E+24	0.00000	1.570796	90.00000	3.27273E+16
2.000E+24	1.96200E+25	1.96200E+25	0.00000	1.570796	90.00000	6.54545E+16
5.000E+24	4.90500E+25	4.90500E+25	0.00000	1.570796	90.00000	1.63636E+17
1.000E+25	9.81000E+25	9.81000E+25	0.00000	1.570796	90.00000	3.27273E+17
2.000E+25	1.96200E+26	1.96200E+26	0.00000	1.570796	90.00000	6.54545E+17
5.000E+25	4.90500E+26	4.90500E+26	0.00000	1.570796	90.00000	1.63636E+18
1.000E+26	9.81000E+26	9.81000E+26	0.00000	1.570796	90.00000	3.27273E+18
2.000E+26	1.96200E+27	1.96200E+27	0.00000	1.570796	90.00000	6.54545E+18
5.000E+26	4.90500E+27	4.90500E+27	0.00000	1.570796	90.00000	1.63636E+19
1.000E+27	9.81000E+27	9.81000E+27	0.00000	1.570796	90.00000	3.27273E+19
2.000E+27	1.96200E+28	1.96200E+28	0.00000	1.570796	90.00000	6.54545E+19
2.441E+27	2.39462E+28	2.39462E+28	0.00000	1.570796	90.00000	7.98873E+19
5.000E+27	4.90500E+28	4.90500E+28	0.00000	1.570796	90.00000	1.63636E+20
1.000E+28	9.81000E+28	9.81000E+28	0.00000	1.570796	90.00000	3.27273E+20
2.000E+28	1.96200E+29	1.96200E+29	0.00000	1.570796	90.00000	6.54545E+20
5.000E+28	4.90500E+29	4.90500E+29	0.00000	1.570796	90.00000	1.63636E+21
1.000E+29	9.81000E+29	9.81000E+29	0.00000	1.570796	90.00000	3.27273E+21
2.000E+29	1.96200E+30	1.96200E+30	0.00000	1.570796	90.00000	6.54545E+21
5.000E+29	4.90500E+30	4.90500E+30	0.00000	1.570796	90.00000	1.63636E+22
1.000E+30	9.81000E+30	9.81000E+30	0.00000	1.570796	90.00000	3.27273E+22

by the second entry highlighted in red in Table 2, “Accelerated Reference Frame Space-Time Compression Due to Gravity Field,” above. This is the very reason the Strong Nuclear Force is observed to vanish immediately outside the surface of nucleus of the atom. This observed characteristic of the Strong Nuclear Force can only exist if the Strong Nuclear Force provides an acceleration field to accelerate light. Therefore, the Strong Nuclear Force must be Gravity.

What if intense gravitational fields are not limited to massive stars, neutron stars, and black holes? What if we could amplify a gravitational field locally such that we could develop a Space-Time Compression Factor of 100,000,000 or greater? Recall that a velocity of 0.98c yields a Space-Time Compression Factor of 5.025 and a velocity of 0.999c yields a Space-Time Compression Factor of 22.366 (See Table 1, above). Such compression factors result in reversing the order of events that are only several nanoseconds apart. In addition, it is very impractical to shift from one reference frame to another when one is moving at a velocity close to that of light in one reference frame relative to the other reference frame. With sufficient gravity amplification to obtain a Space-Time Compression Factor of greater than 10^{17} , we could potentially reverse the order of events that occur years apart. It appears that gravity amplification could make interstellar space travel possible and time travel possible.

Conclusion:

General Relativity does make our world and universe seem very strange. Consider two stop watches which are calibrated to operate identically. The first stopwatch is placed in a very strong gravitational field and the second stopwatch is placed in a much weaker gravitational field. Both stopwatches are started at precisely the same instant. The first stopwatch will measure time at a slower rate than the second stopwatch. When both stopwatches are stopped at precisely the same instant, the first stopwatch reading is compared to the second stopwatch reading. The first stopwatch indicates that a shorter interval of time has elapsed between the start and stop of the stopwatches than the interval of time that has elapsed as indicated by the second stopwatch. How can two

different time intervals be equal (or the same)? Or, how can the same interval of time be different as measured by two identical clocks? General Relativity!

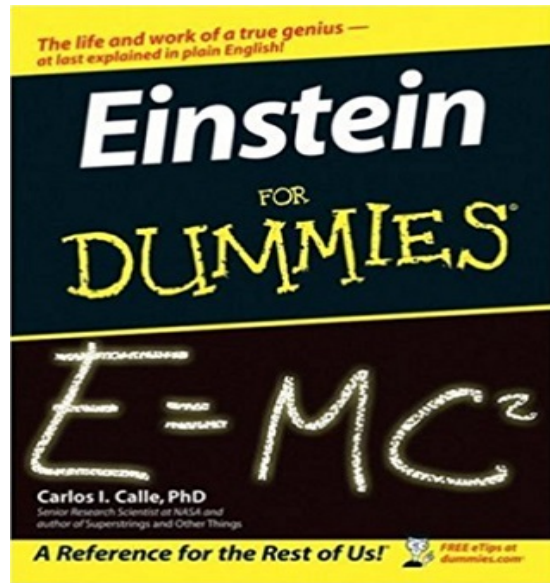
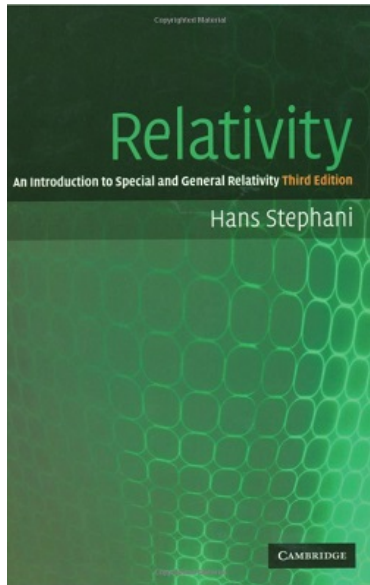
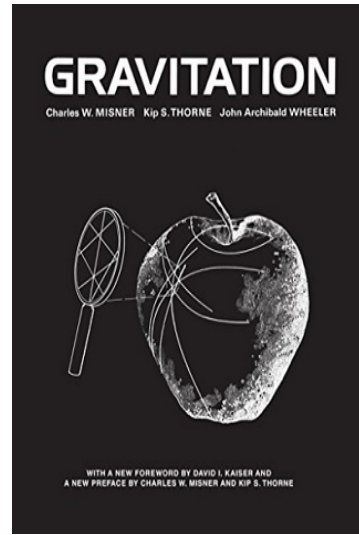
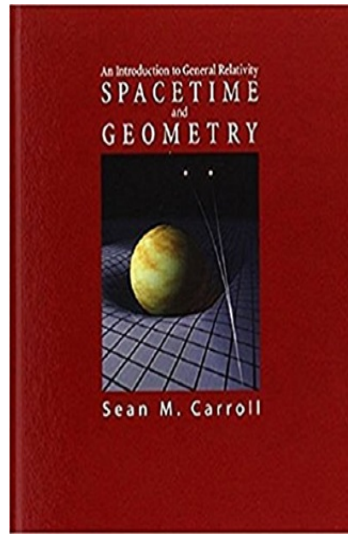
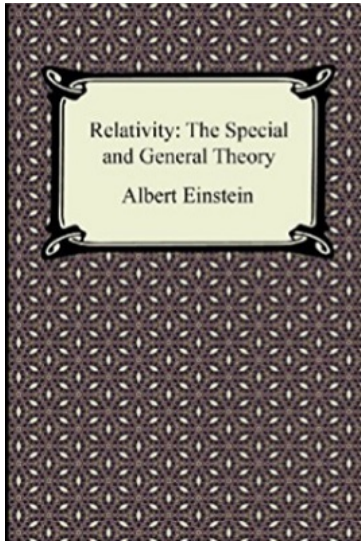
Space-Time is not linear, it is curved. What appears to be a straight line in space or time may not be because a gravity field is bending the path of light. To an observer, the light path appears to be a straight line. Time appears to be a logical sequence of events. We know that gravity bends or distorts “Space-Time” and light by virtue of the fact that we’re able to see stars which we know should be blocked from our view by our Sun as indicated by Figure 8, above. We’ve used radio and optical telescopes to map stars and other celestial bodies during the course of our yearly orbit around the Sun, so we know where these celestial bodies should be. When the Sun is between us and a background star, many times we can still see that star as though it were in a different position.

Therefore, the apparent location that one observes an object to be may not be its actual location. Don’t trust your eyes, they may deceive you! Likewise, the order of events in Space-Time are dependent upon your reference frame. What may be in your past in one reference frame could, very well, be in your future in an alternate reference frame.

I hope you have appreciated this brief introduction to General Relativity. If you have any comments, please E-Mail the original author, Nymbus, at nimbus@wanadoo.fr or me, Ken Wright, at Info@gravitywarpdrive.com.



If you are interested in obtaining more information about General Relativity, Space-Time, and Gravitation, you can purchase several books from Amazon.com. You can use hyperlinks on my Gravity Warp Drive Website to get to Amazon.com to purchase “Relativity: The Special and General Theory” by Albert Einstein, “An Introduction to General Relativity – Spacetime and Geometry” by Sean M. Carroll, “Gravitation” by Charles W. Misner, Kip S. Thorne, and John Archibald Wheeler, “Relativity – An Introduction to Special and General Relativity” by Hans Stephani, and “Einstein for Dummies” by Carlos I. Calle, PhD.



VII. Details of “Sport Model Flying Disc” Operational Specifications



By Bob Lazar

The S4 “Sport Model” Flying Disc

Perhaps the most researched and well-known “flying saucer” known to the world of Ufology is the so-called “Sport Model,” which, physicist Bob Lazar came into contact with while working at the S-4 facility in Area 51 in Nevada. These are not “models” but the real thing.

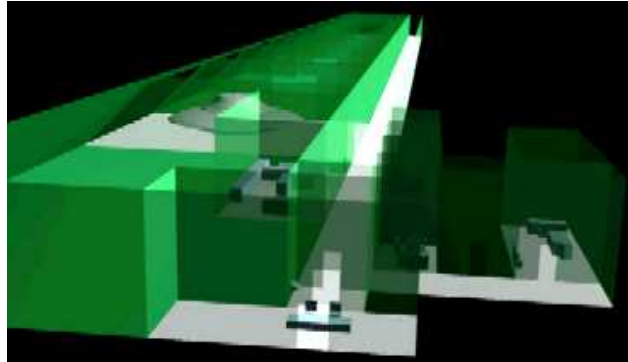
The dimensions of the “Sport Model” are 16 feet tall and 52 feet, nine inches in diameter. The exterior skin of the disc is metal and coloring similar to unpolished stainless steel. The craft sits on its belly when its not energized. The entry hatch is located on the upper half of the disc with just the bottom portion of the door wrapping around the center lip of the disc.

The “Sport Model” is one of nine flying discs, given to the American government in an “exchange” program in the early 1970’s. The makers of the craft and providers of the

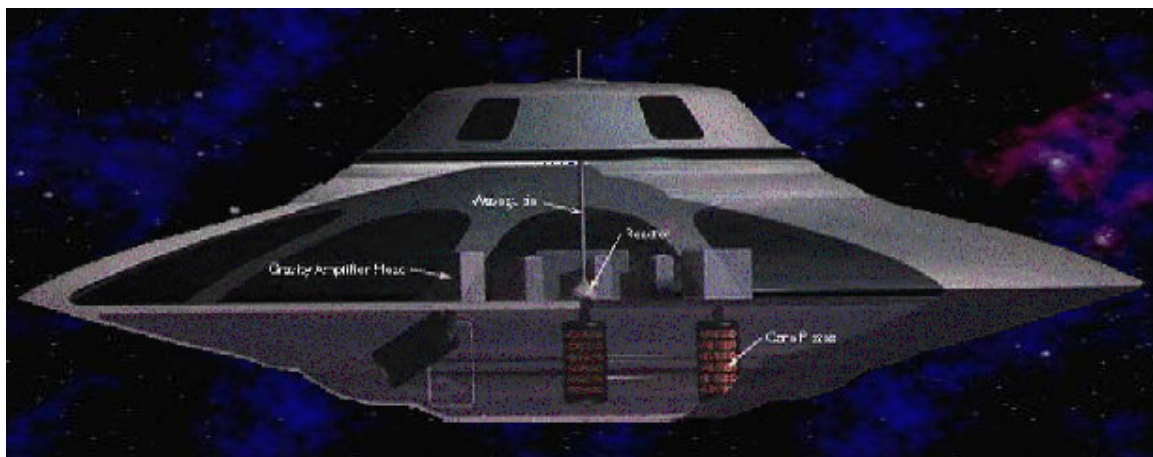
fuel, Element 115, were from the Zeta Reticuli Star System. What we exchanged for the technology is not known. A back engineering program began in 1979 of the remaining hardware and technology.



Sport Model in Flight



S4 Laboratory Where the Sport Model is Stored



Sport Model Flying Disc Cutaway

Inside the Space Craft

The interior of the disc is divided into three levels. The lower level is where the three gravity amplifiers and their wave guides are located. These are the integral components of the propulsion system that are used to amplify and focus the gravity A wave.

The Reactor is located directly above the three gravity amplifiers on the center level and is, in fact, centered between them. The reactor is a closed system which uses Element

115 as its fuel. Element 115 is also the source of the gravity A wave which is amplified for space-time distortion and travel.

The Center level of the disc also houses the control consoles and seats, both of which were too small and too low to the floor to be functional for adult human beings. The walls of the center level are all divided into archways. At one point in time, when the disc was energized, one of the archways became transparent and you could see the area outside of it just as if the archway was a window.

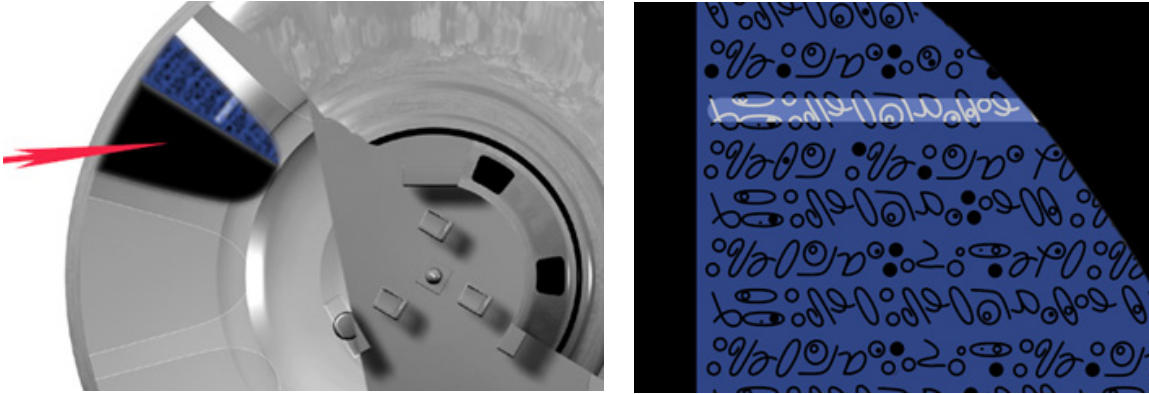
When the operation of the disc was being demonstrated to Lazar, something incredible happened, of which, current technology could not produce. A form of writing, which was unlike any alphabetic, scientific, or mathematical symbols Lazar had ever seen, began to appear on the one side of the transparent archway. Lazar was never given access to the upper level of the disc. Therefore, Lazar was unable to provide any specifics as to what the porthole-like areas at the top of the disc actually were, but, most definitely, they are not portholes.



The Archway



At a certain point when the disc was energized, a form of writing appeared on the right side of the archway directly in front of the seats. The remainder of the metallic archway face became transparent, exposing the exterior view from that angle.

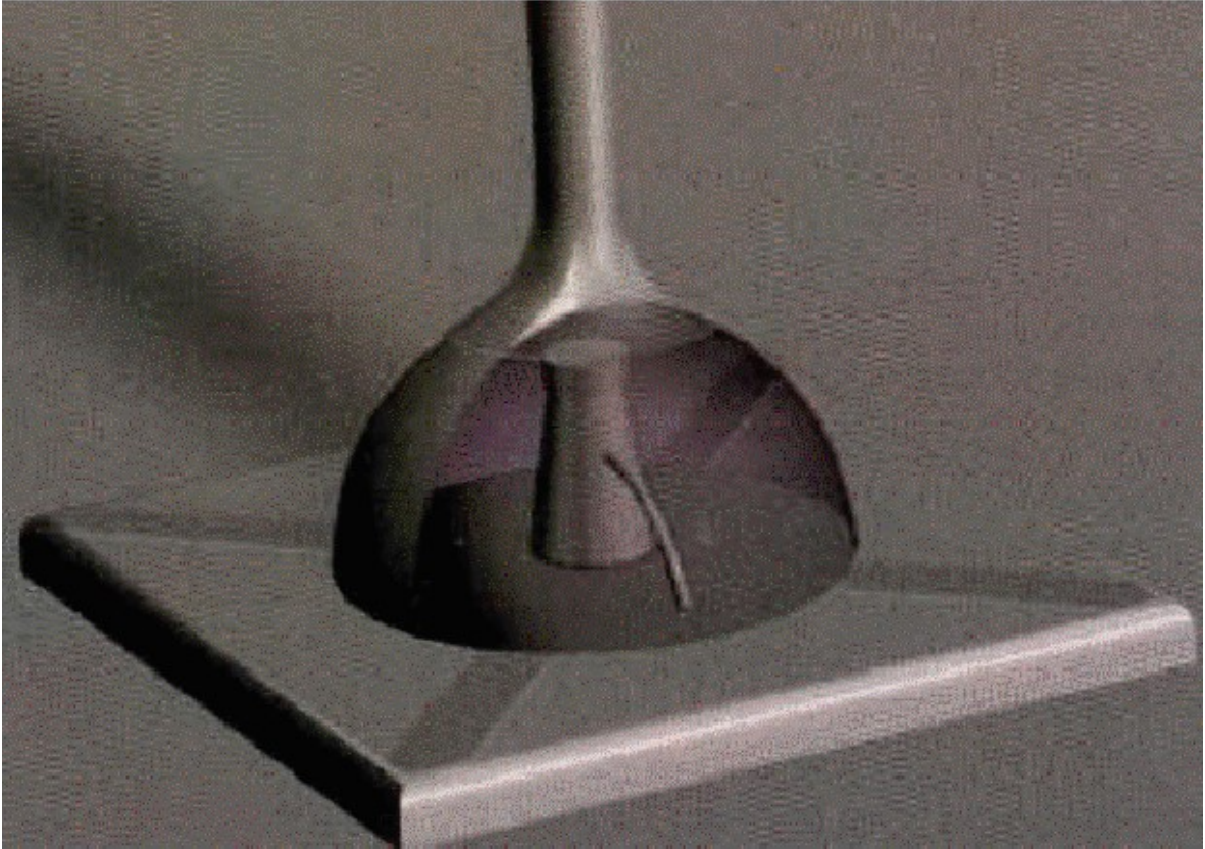


Note the seating pattern in the illustration above. The black area would indicate the area outside the disc which became transparent to the occupants of the seats. The blue sidebar would remain and a light horizontal bar would scroll up or down the lines of text, illuminating the pattern as illustrated. Take special note to the alternating slant of every other line. The writing were forms like these with “eyes” or subcircles within the circles and ellipses. It was not explained to Lazar how this interface was actuated, except for seeing technicians switching it on from a hole in the floor of the center level main deck ... a hole where one of the gravity amplifier heads was cut out.



The Reactor

The power source is a reactor which uses Element 115 as its fuel. In this reactor Element 115 is used as a target and is bombarded with protons in a small, highly sophisticated, particle accelerator. When a proton fuses into the nucleus of an atom of Element 115, it is transmuted and becomes an atom of Element 116. Although we too can transmute elements here on earth, it is typically not done in this fashion, or at anywhere near this level of efficiency. As soon as each atom of Element 115 is transmuted into Element 116, Element 116 immediately decays and produces a radiation unlike that which we normally observe in nuclear decay. Each atom of Element 116 decays and releases two antiprotons (anti-hydrogen), a form of antimatter. Antimatter can be produced in particle accelerators here on earth, but only in minute quantities and only stored for short periods of time.



The Matter Anti-Matter Reactor Aboard the “Sport Model” Flying Disc

The flux of antimatter particles produced in the reactor are channeled down an evacuated, tuned tube (which keeps it from contacting with the matter that surrounds it) and reacted with a gaseous matter target. This Total Annihilation reaction is the most efficient and energetic nuclear reaction there is. The more familiar nuclear reactions are Fission, producing energy from the splitting of atoms as used in nuclear reactors and atomic bombs, and Fusion, the fusing or combining of atoms, typically fusing hydrogen nuclei to form helium and release even more energy. Fusion is the reaction that powers the sun and other stars and is what gives hydrogen bombs their “punch.” These two more common nuclear reactions are dwarfed by the power and efficiency of the annihilation reaction used in the alien reactor.

The reaction between the gaseous matter target and the antimatter particles produces a continuous release of tremendous amounts of heat. This heat is converted directly into

electricity by the use of a thermionic Generator. The thermionic generator used in this reactor is so efficient, that there is no detectable waste heat produced. This is an apparent violation of one of the basic laws of thermodynamics. Similar, but not nearly as efficient or powerful, thermionic generators are used as power sources in our satellites and space probes.

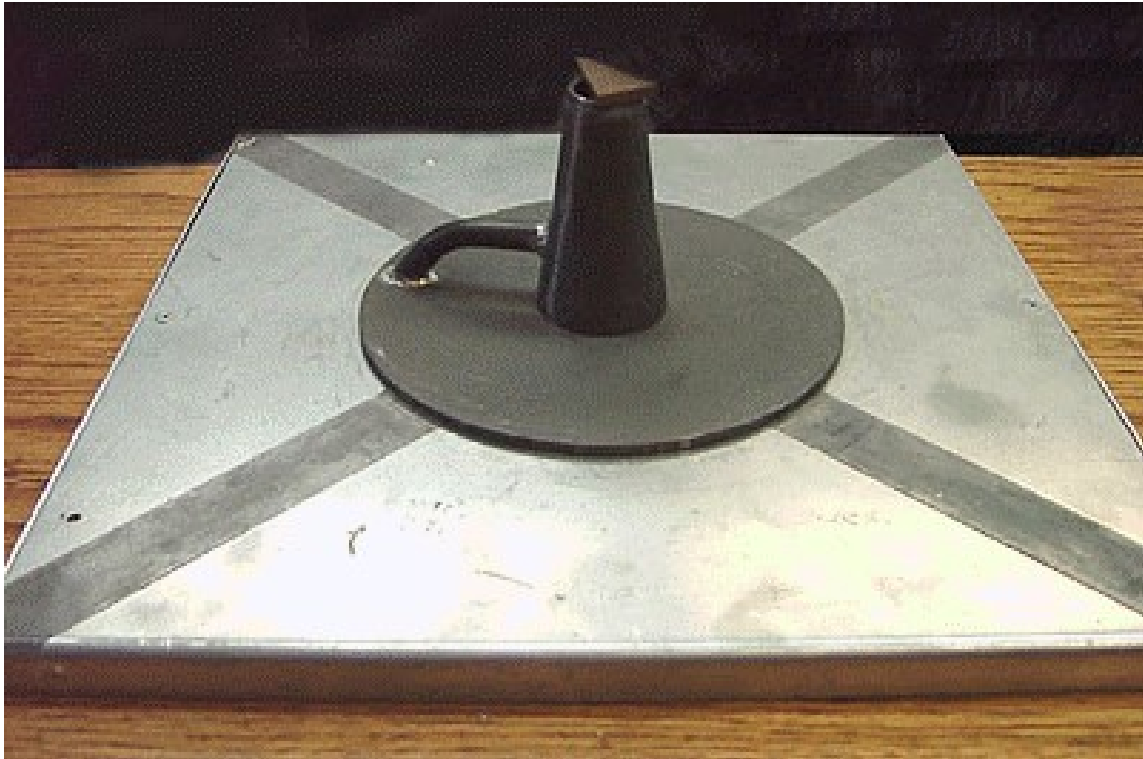
As amazing and efficient as all this seems, it is only secondary to the primary function of the reactor. The antiparticle flux emitted from the transmuting Element 115 is not the only energy radiated during operation. This is the point at which the gravity A wave is first produced. The gravity wave emitted by the Element 115 reaction appears on the hemisphere of the reactor, propagating up the tuned waveguide in a fashion very similar to the way microwaves behave.

All of the actions and reactions inside the reactor are orchestrated perfectly like a tiny little ballet, and in this manner, the reactor provides an enormous amount of power used to amplify the gravity A wave so it can cause the requisite space-time distortion for space travel.



VIII. Design and Operation of the “Sport Model” Flying Disc Anti-Matter Reactor

I had the opportunity to talk to with Bob Lazar during the Memorial Day Weekend, 2000. Bob showed me a scale model of the Matter Anti-Matter Reactor aboard the “Sport Model” Flying Disc. He stated that the same reactor design was installed in each of the nine discs that were located at S4 at the time of his employment there. It appeared that this design was a standard design for all craft utilizing gravity amplification for propulsion. Photos of the model of the reactor are provided below.



**Figure 1: Element 115 Wedge On Top of
Anti-Matter Reactor Model**



Figure 2: Close-up of Element 115 Wedge On Top of Anti-Matter Reactor Model

The Figure 1 and Figure 2 photographs, above, show the model of the Matter Anti-Matter Reactor opened up with the Element 115 fuel sitting on top of the conical shaped fuel housing. The Element 115 fuel is machined into a long isosceles triangle shaped wedge with a conical point at the angle adjacent to the two equal length sides of the wedge for use as fuel in the reactor. Recall that in the “Government Scientist Goes Public” article, it was mentioned that the fuel pellets were about the size of a 50 cent piece and weighed about 223 grams. Several pellets are stacked one on top of the other in like manner to stacking the 50 cent pieces in a column just prior to wrapping them in paper. They are fused together in a manner to create a vertical cylinder. That cylinder is cut into a conical shape. The conical shape is sliced vertically at the center of the cone to form the wedged Element 115 fuel element that is installed into the Matter Anti-Matter Reactor. The detailed machining process to produce the Element 115 fuel wedge is provided in

Chapter IX, "Element 115," on the "Element 115" Web Page of the Gravity Warp Drive Website and on Jon Farhat's BobLazar.com Website.



Figure 3: Element 115 Wedge Installed in Anti-Matter Reactor Model

The fuel element is installed into the conical housing of the reactor with the conical pointed top of the isosceles triangle oriented downward into the conical housing as demonstrated in the Figure 3 photograph, above. At this point, the reactor is still shut down.

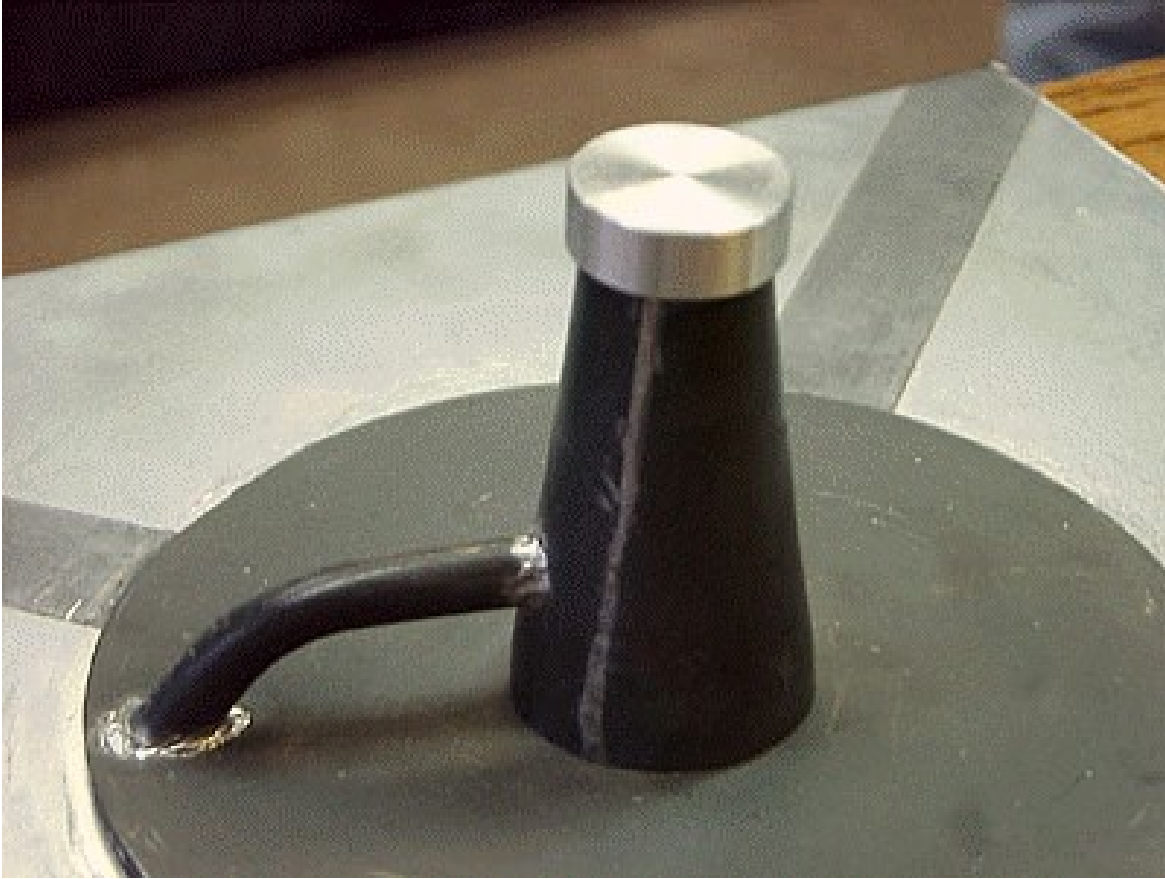


Figure 4: Capped Anti-Matter Reactor Model

A cylindrical cap is installed onto the top of the conical shaped housing, analogous to installing a bottle cap onto a bottle as indicated by the Figure 4 photograph, above. At this point the reactor energizes. According to Bob Lazar, the reactor provides energy to the ship and to the gravity amplifiers by a matter anti-matter reaction. The square shaped housing below was a type of particle cyclotron accelerator that provides the protons for reacting with Element 115. A detailed physical description of the Matter Anti-Matter Reactor operation is provided in Jon Farhat's BobLazar.com Website (this Website is a pay site). The protons are directed into the fuel housing through the guide tube shown on the left side of the reactor housing seen in the Figure 4 photo. When Element 115 is bombarded with protons, it becomes Element 116. Element 116 is unstable and gives up anti-protons. The anti-protons are directed downward from the wedge and annihilate when they come in contact with protons and produce energy. Each proton/anti-proton annihilation reaction generates 1,862 Million Electron Volts (MeV) of energy. One

Uranium-235 fissioning (splitting) in a Nuclear Reactor generates about 200 MeV of energy for comparison purposes. That energy is directly converted into electrical energy through thermo-electric generators that are also located below the reactor in the square housing. There is no measurable gamma, neutron, alpha, or beta radiation emitted from this reactor. It poses no danger to the occupants of the craft.

NOTE: *I will admit that I did not initially understand how an anti-proton is generated from the bombardment of the Element 115 nucleus with a proton. This nuclear reaction was unlike any nuclear reaction that I was familiar with at the time. However, there is Earthly evidence that such a reaction could take place when a super-heavy element such as Element 115 is bombarded with other nuclei (including a proton). Dr. Walter Greiner, Professor of Physics, Institut für Theoretical Physics, Johann Wolfgang Goethe-Universität, Frankfurt am Main, has been deeply involved with research in the generation of anti-matter from nuclear collisions with super-heavy elements:*

WALTER GREINER

*Institut für Theoretische Physik
J. W. Goethe-Universität
D-60054 Frankfurt, Germany*

The extension of the periodic system into various new areas is investigated. Experiments for the synthesis of superheavy elements and the predictions of magic numbers are reviewed. Further on, investigations on hypernuclei and the possible production of antimatter-clusters in heavy-ion collisions are reported. Various versions of the meson field theory serve as effective field theories at the basis of modern nuclear structure and suggest structure in the vacuum which might be important for the production of hypermatter and antimatter.

A tremendously rich scenario of new nuclear structure emerges, with new magic numbers in the strangeness domain and new forms of nuclear clusters combined of p, n, Λ , Σ , Ξ , etc. The production mechanisms for these objects and for antinuclei rest in high energetic heavy ion collisions.

Reference: *<http://flux.aps.org/meetings/YR97/BAPSSES97/abs/S100002.html>:
On the Extension of the Periodic System into the Sectors of
Superheavy Elements, Strangeness and Antimatter*

Bob Lazar mentioned that the thermoelectric generators appear to violate the known laws of thermodynamics. There was no indication that any heat was being produced by the reactor. However, we discussed the possibility that the reactor is operating in the strong gravitational field that it produces. Space-Time is being warped within the reactor, itself, because of the generation of the strong gravitational fields. Can we actually trust what we see? It is very possible that the gravitational field prevents radiation from leaving the reactor in like manner to a black hole. Once the hemispherical dome is installed onto the reactor, as indicated in the Figure 5 photograph, below, one can no longer “see” what is happening in the reactor.



**Figure 5: Anti-Matter Reactor
With Hemispherical Dome Installed**

When the hemispherical dome is installed over the reactor, the gravitational field can be felt. Bob Lazar described it as if he became a human magnet and he had the same magnetic polarity as the dome of the reactor. Recall that “like poles” of two magnets, either North Pole to North Pole or South Pole to South Pole, repel one another. As he moved toward the dome, he could feel a force attempting to push him away from the reactor. This was the repulsive gravitational field established by the reactor which was amplifying the Strong Nuclear Force of Element 115. Bob Lazar mentioned that he tried to hit the reactor hemispherical shell with a golf ball. When he threw the golf ball at the

shell, it would bounce off before even physically striking the surface of the dome. The golf ball appeared to be striking a repulsive force field. Bob Lazar's description of the observation reminded me of the scene from the movie "Independence Day" where Jeff Goldblum places a coke can on the alien space craft in the underground hanger at Area 51 and has an Air Force Major attempt to shoot the coke can with his pistol and knock it off the craft. In that scene, the protective force field established by the alien craft repelled the bullet and kept it from hitting the coke can.

NOTE: *After I had initially seen the "Government Scientist Goes Public" article, I had thought I understood basically how the Reticulan Anti-Matter Reactor amplified the "Strong Nuclear Force" (gravitational field) of the Element 115 wedge. I had assumed an electric coil existed around the housing containing the Element 115 wedge to establish the magnetic field. Upon discussing the operation of the Anti-Matter Reactor with Bob Lazar and personally observing the assembly of the model of the Anti-Matter Reactor, I became somewhat baffled by the actual physics involved in amplifying the gravitational field of the Element 115 wedge. Bob Lazar and the team he worked with at S4 were never actually able to come up with a full explanation as to how the Anti-Matter Reactor amplified the "Strong Nuclear Force" of Element 115. While at S4, Bob Lazar observed that an actual wedge of Element 115 bent light around it, indicating it was "radiating" a strong gravitational field. As one can see from Figures 6 and 7, below, there is no observable coil or core plates around the Anti-Matter Reactor as there are for the gravity amplifiers used for "Space-Time Compression." I had the opportunity to talk to Al Bielek in Mid July 2000. Al Bielek claims to have been involved with both the "Philadelphia Experiment" and the "Montauk Project." Al Bielek told me of his experience working with Dr. Edward Teller, the father of the Hydrogen Bomb. He mentioned that during one of the United States underground nuclear bomb tests, detectors were used to measure the time of propagation of the electromagnetic field pulse produced by the blast. The pulse was expected to propagate at the speed of light. The electromagnetic field was measured to propagate instantaneously, apparently violating Dr. Einstein's Special Relativity theory. He also mentioned to me that a major reason for the Soviets stopping their thermonuclear bomb testing was because they had actually "opened a door to another dimension" after having detonated a 100 Megaton Warhead. It appears that a nuclear reaction, that is, the energy liberated from a nuclear reaction, can amplify a gravitational field and compress "Space-Time." Therefore, the proton/anti-proton annihilation reaction that takes place within the Reticulan Anti-Matter Reactor provides the electromagnetic field and power to amplify the gravitational field from the Element 115 wedge. A current carrying conductor coil wrapped around the housing for the Element 115 wedge is not necessary. It should be*

noted that the number of UFO sightings rose dramatically in the mid to late 1940s and afterward when man started detonating nuclear weapons on Earth. Perhaps the reason for the significant increase in UFO sightings was because the nuclear detonations resulted in significant distortions in Space-Time. These Space-Time distortions may have been detected by alien races dwelling several light-years to several hundred light-years from our solar system.

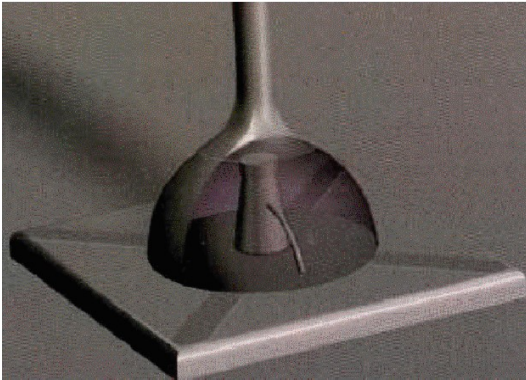


Figure 6: Anti-Matter Reactor With Waveguide

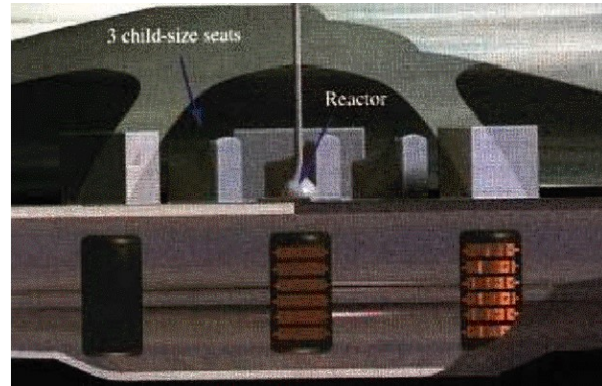


Figure 7: Cutaway of “Sport Model” Flying Disc With Anti-Matter Reactor and Gravity Amplifiers

A waveguide is, then, installed at the top of the hemispherical dome and extends upward through the inside of the craft to the top of the sport model and extends a bit beyond the top of the hull as if it were an antenna. When the waveguide is installed, the repulsive gravitational field disappears in the vicinity of the dome. The waveguide directs the gravity waves upward. The actual Reactor is about three times the size of this model. Bob Lazar stated the hemispherical dome was about the size of a basketball or medicine ball.

All structures and supports aboard the craft are rounded. The only “sharp corner” on the craft is the horizontal edge of the disc on the outside. The design of the crafts structural archways are all rounded and appear to be installed as gravity waveguides as well as for structural support. All equipment in the craft was installed simplistically and for its specific function. There appeared to be no superfluous equipment or items installed for aesthetics. The craft was a perfectly designed machine. Essentially everything installed

in the craft was one color, the metallic silver color, with the exception of the core plates and the core plate insulating material in the gravity amplifiers.

Unfortunately for we Earthlings, Element 115 is not readily available here and it does not appear that we will be able to develop a manufacturing process, that is, some nuclear reaction, that will be able to produce Element 115 in any appreciable quantities.

Currently, the only apparent way to get this exotic fuel is by contact with extraterrestrials or obtaining it from a downed alien spacecraft. If we are to succeed in developing interstellar space travel, we will have to find a means to produce gravitational field propulsion using elements readily available here on Earth for us. It will be a significant challenge, but I believe we can succeed in this endeavor.

There may very well be a material on Earth that can produce the gravity field in like manner to Element 115. That material is the Element Bismuth ($_{83}\text{Bi}^{209}$) which is usually found mixed with Lead ore. Bismuth is currently used as the replacement for Lead shot in shotgun shells because it is non-toxic. Bismuth has a very similar nuclear configuration as the elusive Element 115. Element 115 has one lone proton in the 8th Energy Level and Bismuth has one lone proton in the 7th Energy Level. The lone proton in the outer energy level for Element 115 and Bismuth make it easier to access the “Strong Nuclear Force” of those elements for amplification. Refer to my “Nuclear Gravitation Field Theory” Chapter XI, “Properties of the Strong Nuclear Force, Nuclear Properties of Bismuth, and the Nuclear Gravitation Field Theory” for the explanation of the physics of the “Strong Nuclear Force” of Bismuth and Element 115. Element 115 has a full complement of neutrons filling 8 Energy Levels. Bismuth has a full complement of neutrons filling 7 Energy Levels. Henry William Wallace patented a mechanical device that can generate a secondary gravitational force field using a rotating Bismuth disc on December 14, 1971. The U.S. Patent Number is 3,626,605 and the title is “Method and Apparatus for Generating a Secondary Gravitational Force Field.” Henry William Wallace’s Patent provides the physical evidence that Earthbound materials are available to support development of a spacecraft used for interstellar space travel. Henry William Wallace’s Patent provides the physical evidence giving credibility to Bob Lazar’s claims about Element 115 being used as the gravity source aboard extraterrestrial spacecraft. If we can provide a power source that can generate the power equivalent to the Reticulan

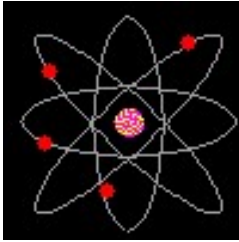
Anti-Matter Reactor and provide the electro-magnetic field required to amplify the “Strong Nuclear Force” of Bismuth, we may be able to generate a linear gravitational field just as the “Sport Model” Flying Disc and perform macroscopic “Space-Time Compression” to travel to the stars just as the Reticulan race currently does.



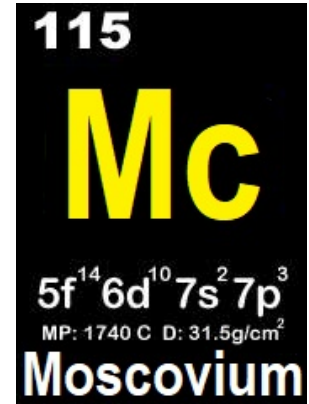
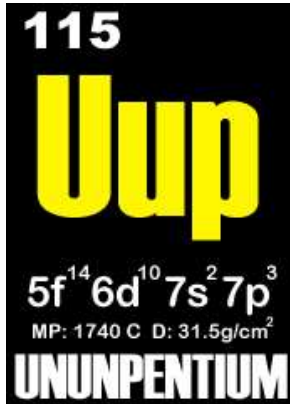
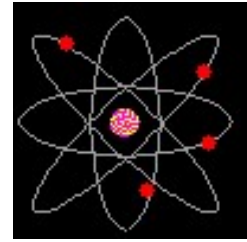
Figure 8: Bob Lazar and Ken Wright Displaying “Sport Model” Flying Disc Anti-Matter Reactor Model

I thank Bob Lazar for taking the time to explain the design and operation of the Anti-Matter Reactor aboard the Sport Model Flying Disc to me and I appreciate the photographs of his model of the Anti-Matter Reactor he provided for my Website.

KEN WRIGHT



IX. Element 115 Moscovium



Bob Lazar stated that the “Sport Model” Flying Disc amplified the “Strong Nuclear Force” of Element 115 (UnUnPentium or UUP) to generate the gravity field for “Space-Time Compression.” Bob also stated that the U.S. Government had 500 pounds of Element 115 in their possession. The raw Element 115 was given to the U.S. Government at S4 by the Reticulan EBEs in the form of discs. The scientists at S4 sent the Element 115 discs through Groom Lake to Los Alamos National Laboratory in New Mexico, to be milled for use in the Anti-Matter Reactor. The Los Alamos personnel were told it was a new form of armor. They simply followed orders, milled it in accordance with the following steps, and sent it back to Groom Lake. It was during this process that some of the Element 115 turned up missing. As you’ll see below, the machining process to form the Element 115 wedge produces a tremendous amount of waste.

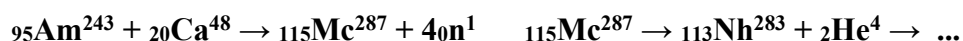
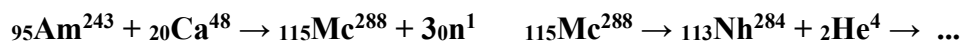
Bob Lazar stated that the Element 115 used as the fuel and gravity source in the “Sport Model” Flying Disc was stable. On February 2, 2004, scientists at the Lawrence Livermore National Laboratory, in collaboration with researchers from the Joint Institute for Nuclear Research in Russia (JINR), announced that they discovered two new super-heavy elements, Element 113 and Element 115. The Isotope of Element 115, produced

by bombarding an Americium-243 (${}_{95}\text{Am}^{243}$) nucleus with a Calcium-48 (${}_{20}\text{Ca}^{48}$) nucleus, rapidly decayed to Element 113. then continued to decay until a meta-stable isotope was obtained.

The following hypothetical reaction displays the maximum theoretical atomic mass of an Element 115 Isotope that could be produced from combining an Americium-243 nucleus with a Calcium-48 nucleus. The following reaction assumes no neutrons were liberated during the process of the reaction:



The following reactions are the actual reactions that took place in the laboratory by bombarding Americium-243 with Calcium-48, which resulted in the two Isotopes of Element 115, indicated below, being identified.



REFERENCES: Webelements.com Element 113: Nh Nihonium
Webelements.com Element 115: Mc Moscovium

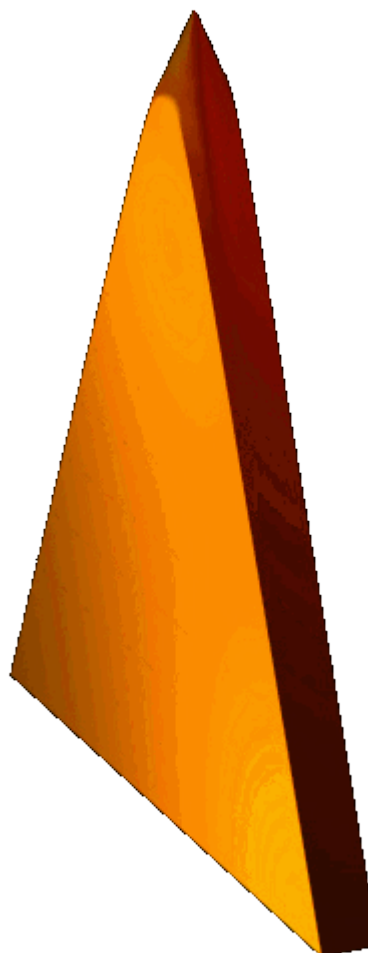
The maximum theoretical atomic mass isotope of Element 115 Moscovium that could be produced in the reaction, above, ${}_{115}\text{Mc}^{291}$, would only have 176 neutrons in its nucleus. This isotope of Element 115 is shy 8 neutrons from containing the magic number of 184 neutrons. The two actual isotopes of Element 115 produced by this reaction, ${}_{115}\text{UUP}^{288}$ and ${}_{115}\text{Mc}^{287}$ contain 173 neutrons, shy 11 neutrons from the magic number of 184, and 172 neutrons, shy 12 neutrons from the magic number of 184, respectively.

This latest scientific breakthrough, however, provides significant credibility to Bob Lazar's claims rather than discrediting his claims. Bob Lazar's Element 115 discs used to make the wedge for the "Sport Model" Flying Disc Anti-Matter Reactor would have to have been the isotope of Element 115 containing the magic number of 184 neutrons, therefore, having an atomic mass of 299. The nuclear configuration of this isotope of Element 115 would be identical to the nuclear configuration of the only known stable isotope of Element 83, Bismuth, ${}_{83}\text{Bi}^{209}$, containing the magic number of 126 neutrons, except that the Element 115 isotope would have one more energy level completely filled

with protons and neutrons. 82 protons and 114 protons are magic numbers for protons because 82 protons completely fill 6 proton energy levels and 114 protons completely fill 7 proton energy levels. The 83rd proton for Bismuth is a lone proton in the 7th proton energy level and the 115th proton for Element 115 is the lone proton in the 8th proton energy level. 126 neutrons completely fill 7 neutron energy levels and 184 neutrons completely fill 8 neutron energy levels. Refer to the Nucleon Energy Level Table for Bismuth and Element 115, below, for the nuclear configurations of Bismuth and Element 115. This stable isotope of Bismuth, Element 83, has very unique gravitational characteristics. Refer to the Henry William Wallace Patent: U.S. Patent 3,626,605, "Method and Apparatus for Generating a Secondary Gravitational Force Field."

NOTE: *Producing the theoretically stable super-heavy elements is very difficult because the reactant nuclei of these nuclear reactions do not have enough neutrons to result in a product nucleus with enough neutrons to obtain theoretical stability.*

On 8 June 2016 the International Union of Pure and Applied Chemistry (IUPAC) announced the new name Moscovium (symbol Mc) for Element 115 in place of the temporary systematic name UnUnpentium (UUP). A five-month review period expired on 8 November 2016 to review this name prior to formal approval by IUPAC.



Element 115 Wedge

Nucleon Energy Levels for Bismuth and Element 115

Energy Level	1 (He)	2 (O)	3 (Ca)	4 (Ni)	5 (Sn)	6 (Pb)	7 (Fl)	8 (E164)	Total Protons and Neutrons
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Only Known Stable Isotope of Bismuth:

Protons Bismuth (⁸³ Bi ²⁰⁹)	2p	6p	12p	8p	22p	32p	1p		83p
Neutrons	2n	6n	12n	8n	22n	32n	44n		126n

Only Theoretically Stable Isotope of Element 115 - "Sport Model" Flying Disc Element 115:

Protons Moscovium (¹¹⁵ Mc ²⁹⁹)	2p	6p	12p	8p	22p	32p	32p	1p	115p
Neutrons	2n	6n	12n	8n	22n	32n	44n	58n	184n

Element 115 Maximum Theoretical Atomic Mass Isotope Created at Lawrence Livermore:

Protons Moscovium (¹¹⁵ Mc ²⁹¹)	2p	6p	12p	8p	22p	32p	32p	1p	115p
Neutrons	2n	6n	12n	8n	22n	32n	44n	50n	176n

Atomic Mass of 1st Element 115 Isotope Created at Lawrence Livermore:

Protons Moscovium (¹¹⁵ Mc ²⁸⁸)	2p	6p	12p	8p	22p	32p	32p	1p	115p
Neutrons	2n	6n	12n	8n	22n	32n	44n	47n	173n

Atomic Mass of 2nd Element 115 Isotope Created at Lawrence Livermore:

Protons Moscovium (¹¹⁵ Mc ²⁸⁷)	2p	6p	12p	8p	22p	32p	32p	1p	115p
Neutrons	2n	6n	12n	8n	22n	32n	44n	46n	172n

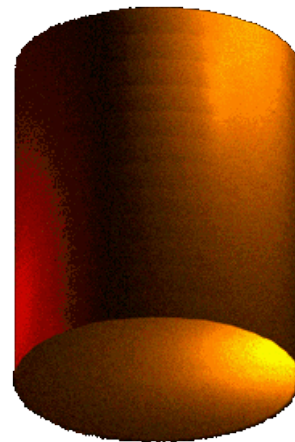
STEP #1 (LEFT)

The Element 115 was provided to the scientists at S4 in the form of discs.



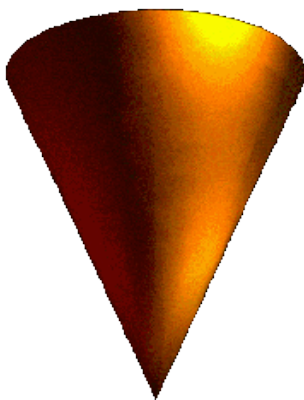
STEP #2 (RIGHT)

The Element 115 discs were fused to form a single cylinder.



STEP #3 (LEFT)

The Element 115 cylinder is then turned on a mill to form a cone.



STEP #4 (RIGHT)

**The Element 115 cone
is sliced to extract a
wedge out of its center.**



Referenece: <http://www.boblazar.com>

X. Reticulan Extraterrestrial Biological Entity

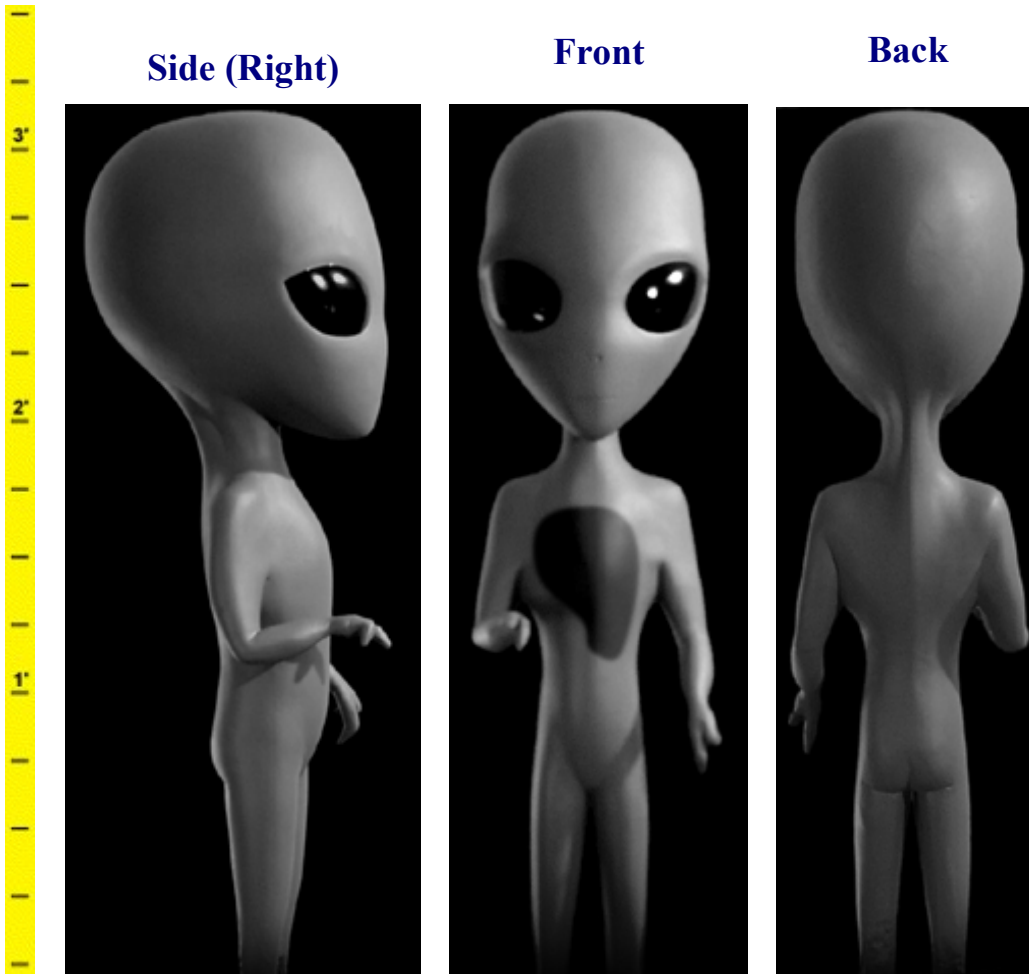
According to Bob Lazar, the Government documents he reviewed stated that the aliens or Extraterrestrial Biological Entities (EBEs) were from the fourth planet orbiting Zeta 2 Reticuli, the second star of a binary system in the Constellation Reticulum. A day on Zeta 2 Reticuli Planet 4 is about 90 hours long.

The Reticulan EBEs are three to four feet tall and weigh twenty-five to fifty pounds. Their bodies vaguely resemble a human toddler's torso if emaciated from hunger. They have grayish skin and large heads with almond shaped wrap-around eyes. They have very slight nose, mouth, and ear positions and are hairless. Bob Lazar was not able to give any detail from the lower abdomen down, and to date, any other information corroborating this description only refers to the EBE's head.



Reticulan Extraterrestrial Biological Entity

Also Known As:	Grey Aliens	Greys	Kids
	Reticulans	Little Grey Bastards	



Reticulan Extraterrestrial Biological Entity

Reference: <http://www.boblazar.com>

XI. Zeta 2 Reticuli: Home System of the Greys?

By Joe LeSearne
Edited by Ken Wright

Since the 6th of October, 1995, several new planets orbiting other suns have been discovered and officially announced. However, in what may be a breakthrough for ufology, on the 20th of September, 1996, a planet was discovered orbiting the star Zeta 2 Reticuli.

In 1961, Betty and Barney Hill were abducted by aliens and taken aboard their spacecraft. During her abduction, Betty was shown a star map. She was asked by an alien to point out the Earth, but since Betty had no knowledge of astronomy, she couldn't reply. After her abduction, and under hypnotic regression Betty Hill drew the star map as accurately as possible. A few years later, Marjorie Fish built a few models of star systems using plastic balls and wire ... one of these models matched Betty Hill's diagram. The star system from which Betty had been told the aliens originated from was Zeta 2 Reticuli!

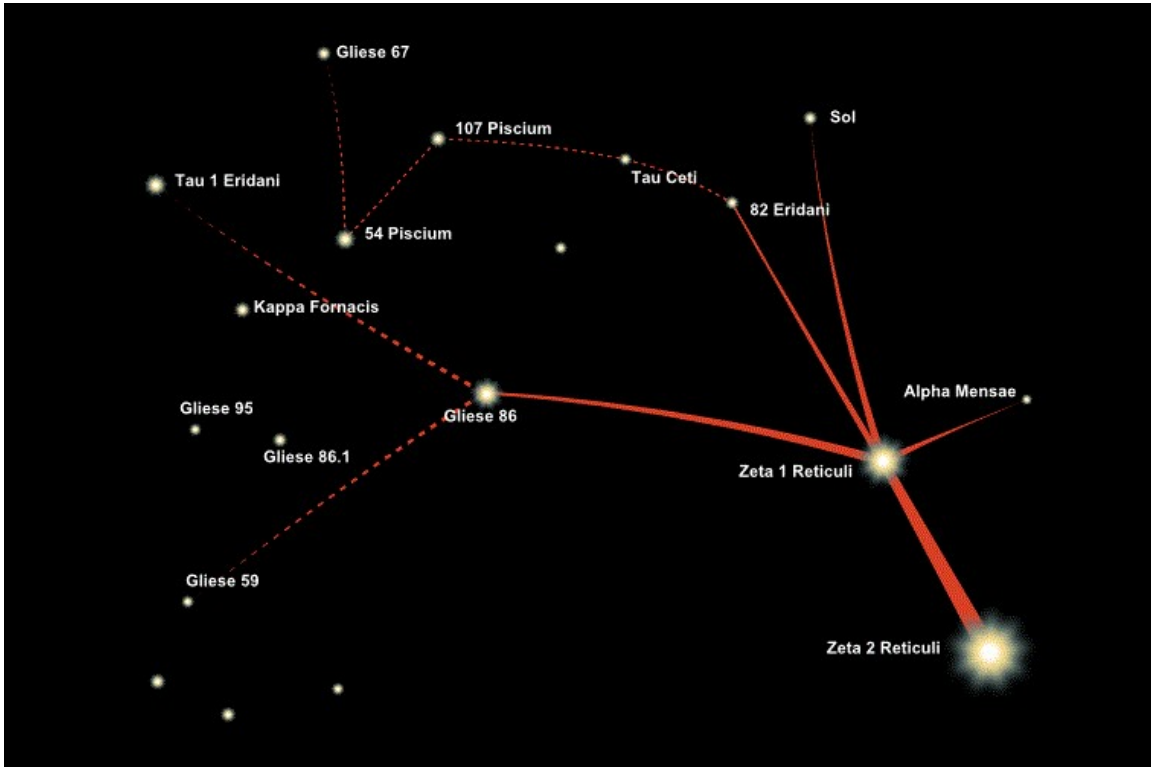
In 1988, Bob Lazar came forward with an incredible story. Bob Lazar claimed he had worked at Area 51 (S4) in Nevada to reverse engineer alien spacecraft that had been captured by the US Government. During his stay at S4 he was given briefing papers to read and some of them described the alien's home solar system .. and yes, you've guessed it ... Zeta 2 Reticuli, and specifically the 4th planet in that solar system!

I have provided some interesting information below I found on several mailing lists:

From the Extra Solar Planets Encyclopedia:

Star Name	Distance (Parsecs)	Spectral Class	Visual Magnitude	M[.sin/] Jupiter mass: (J) Earth mass: (E)	Semi-Major Axis (AU)	Period years (y) days (d)	Eccentricity	Inclination (degrees)	Radius (Earth Radius)
Zeta 2 Reticuli	11 pc	G1V	5.24	0.27(J)	0.14 AU	18.9 d	0	--	--

The Betty Hill Star Map as Interpreted by Ms. Marjorie Fish:



REFERENCE: The Zeta Reticuli Incident by Terence Dickinson

This highly recommended publication is available in hard copy from Stanton Friedman at <http://www.v-j-enterprises.com/sfpage.html>

In a rather strange “about face,” the above information was removed from the Extra Solar Planets Encyclopedia site after 4 days. The official reason for removal was that “*the data may have been misinterpreted and there probably is no planet.*”

Now this big quarter of a Jupiter mass planet is in an orbit about Zeta 2 Reticuli which lasts 18.9 days and has a Semi-Major Axis of 0.14 Astronomical Unit (AU). For comparison Mercury has a Semi-Major Axis of 0.387 AU equal to 36 million miles and Earth has a Semi-Major Axis of 1.00 AU equal to 92.9 million miles. Now if we assume that this newly discovered planet, which we will name Reticulum 1 in accordance with Bob Lazar’s convention, is the closest one to Zeta 2 Reticuli (it’s hard to imagine a closer one), then following Bode’s Law (the law which states each planet is about twice the distance from it’s sun as its inner neighbor) Reticulum 2 should be at 0.28 AU, Reticulum 3 should be at 0.56 AU and, INTERESTINGLY, Reticulum 4 would be at

1.12 AU in between the Earth's 1.00 AU and Mars's 1.52 AU, well within the "life-zone" of a G class star!

I just found another possible way that this recent discovery could confirm part of Lazar and Jarod 2's story. I found the length of the Zeta 2 Reticulum 4's year. How did I do this you might ask? Simple, with calculator in hand I used two elementary laws of Astronomy. Bode's Law and Kepler's 3rd Law.

The numbers I used were from that data on the Extrasolar Planets Encyclopedia Website are these:

- The Semi-Major Axis of a planetary orbit is measured in Astronomical Units (AU).
- The Period of an orbit is measured in Earth days or years. The newly discovered planet has a Semi-Major Axis of 0.14 AU and a Period of 18.9 days.
- Some Definitions:
 1. 1 Astronomical Unit (AU) = 92.9 million miles = the distance between the Earth and Sun.
 2. The "Semi-Major Axis" is the measurement of the planets orbit, an ellipse, in relation to it's star in Astronomical Units. The Earth's Semi-Major axis is 1.00 AU. The "Semi-Major Axis" of a perfectly circular orbit would be the radius of that orbit.
 3. The "Period" is the amount of time it takes to complete one orbit. A planet's period is it's year. The Earth's Period is 365.25 days.

First, Bode's Law:

As I stated before if you apply Bode's law which states: The semi-major axis of each planet is double that of it's neighbor nearer to the star. Or simply each planet is about twice as far from its star as its inner neighbor (i.e. Jupiter is 5.2 AU from the Sun, Saturn is 9.5 AU). Now if you apply this to the new discovery of a planet around Zeta 2 Reticuli and you assume this planet is the closest to its star this making it the closest planet to Zeta Reticuli 2 (Reticulum 1 we will call it in keeping with Lazar's naming convention, which, I should add differs from the IAU convention which would name it Zeta 2 Reticulum A - so far). At 0.14 AU it's hard to imagine a closer planet to Zeta 2 Reticuli. For comparison, Mercury is located at 0.387 AU from the Sun so this newly found planet is

Reticulum 1 in all likelihood. Using Bodes law we can extrapolate where the other planets of Zeta 2 Reticuli should be.

Kepler’s 3rd law relates the planet’s period or year to it’s Semi-Major Axis of it’s orbit. Mathematically this is expressed as $P^2 = a^3$. “P” is the Period measured in earth years and “a” is the Semi-Major Axis measured in Astronomical units (AU). Using both of these we can find out the length of the year on each hypothetical planet in the Zeta 2 Reticuli system, INCLUDING Reticulum 4, Bob Lazar’s home of the Greys.

Now let’s apply Bodes Law and Kepler’s 3rd Law:

Planets of the Zeta 2 Reticuli System			
Planet	Semi-Major Axis	Period In Days	Period In Years
Reticulum 1	0.14 AU	18.9 days	0.052 years
Reticulum 2	0.28 AU	54.0 days	0.1481 years
Reticulum 3	0.56 AU	152.9 days	0.4196 years
Reticulum 4	1.12 AU	432.6 days	1.12 years

So one Reticulum 4 year is equal to roughly 1.12 earth years OR 432 days. And Reticulum 4 is in roughly the same position in Zeta 2 Reticuli’s “life-zone” as the Earth is in the Sun’s “life-zone.” Zeta 2 Reticuli is a G1V spectral class star, the Sun is a G2V. They are both “G” class main sequence stars, the difference between the “2” and the “1” indicates that Zeta 2 Reticuli is a little hotter than the Sun. The higher the middle number the lower the temperature. The “V” means they are both main sequence (middle age) stars but given Zeta 2 Reticuli’s higher temperature, and lower metallicity, it is probably older than the Sun by a couple billion years. So basically the Sun is a little cooler and younger than Zeta 2 Reticuli.

For comparison here is a breakdown of the inner planets of our own solar system.

Inner Planets of Our Solar System			
Planet	Semi-Major Axis	Period In Days	Period In Years
Mercury	0.387 AU	87.97 days	0.2409 years
Venus	0.723 AU	224.7 days	0.6152 years
Earth	1.000 AU	365.25 days	1.0000 years
Mars	1.524 AU	686.98 days	1.8809 years

So this brings me to my conclusion. We can check part of Lazar and Jarod 2's story by asking the simple question: "How long is a year on Reticulum 4?" If the answer is anywhere in the neighborhood of 410 to 445 days (I'm allowing a lot for error), then their stock will have gone up even more. Keep me posted as to what you find out.