

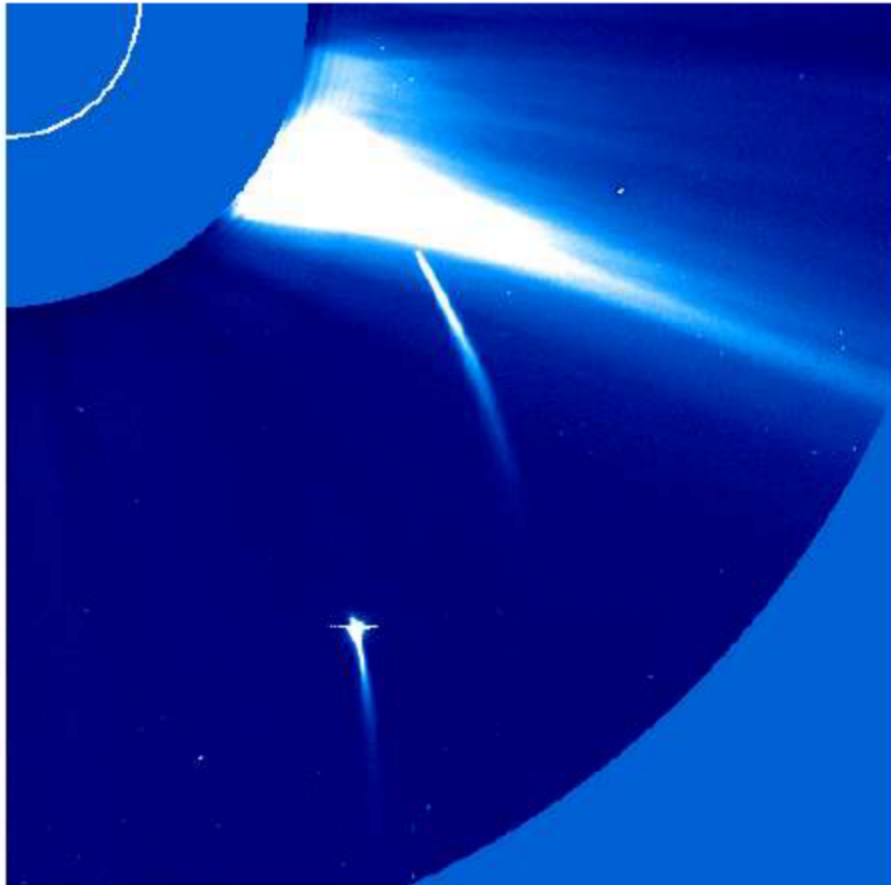
James M. McCanney

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# ATLANTIS TO TESLA THE KOLBRIN CONNECTION

THE SCIENCE OF ATLANTIS AND TESLA ARE  
REDISCOVERED, GIVING A UNIQUE UNTOLD VIEW OF  
LIFE ON THE LOST CONTINENT, ANCIENT SPACE CRAFT  
DESIGN, UNLIMITED ELECTRICAL POWER  
AND  
THE SECRET SOCIETIES



# ATLANTIS TO TESLA

## THE KOLBRIN CONNECTION

By James M. McCanney, M.S.

ΑΒΧΔΕΦΓΗΘΚΛΜΝΟΠΡΣΤΥΩΞΨΖ

There are many texts, treatises and legends referring to the Lost Continent of Atlantis and to the modern electrical marvels of the man Nickola Tesla. None however have given the fascinated public what they have always really wanted. That is the true scientific explanation of what Atlantis was all about and the Physics explaining the fundamental nature of Tesla's inventions.

At long last, due to the ongoing researches and discoveries of Plasma Physicist James M. McCanney, the explanations of the ancient sciences have been re-discovered and are presented in this book.

There is a further connection that has always been missing that is presented here ... the historical connection of long lost Secret Societies that link Tesla to the ancient past, and explains where this single man gained his introduction to the scientific principles that he developed into devices so powerful that they have been confiscated by the world's power elite from use by the masses. It also shows that the Secret Societies have existed throughout the ages and have in fact lost use of the ancient technologies, and are at present scouring the world for archaeological treasures in hopes of regaining the lost science.

Many of the world's most treasured archaeological artifacts are in private hands. This book will reveal that the Lost Continent was rediscovered by the US Navy in the late 1990's. They have since been excavating these sites for the private societies that control the US government. The quest for this knowledge far outweighs even the desire for control of oil, and is the basis for ultimate power and wealth.

This may be one of the most powerful and revealing books you may ever read. Its compelling science and insight will give you a detailed view into the heart of ancient Atlantis as you have never imagined seeing it before. Unlimited electrical power derived from sources of nature are now explained including how they can be used today, and the connection to the man we call "Tesla".

ΑΒΧΔΕΦΓΗΘΚΛΜΝΟΠΡΣΤΥΩΞΨΖ

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**The South China Sea**  
**Where Atlantis lies just a few feet under**

**James M. McCanney, M.S.**

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### About the author and this text:

James M. McCanney, M.S. received a sound classical physics training at St. Mary's University, receiving a Bachelor of Arts degree with a double major in physics and mathematics in 1970. He was offered full scholarship awards to three major US physics graduate schools to pursue his graduate physics studies. However, he chose instead to postpone graduate studies for a period of three years while he traveled and taught Physics and Mathematics in Spanish in Latin America.

During this time he spent a good deal of time traveling to ruins of ancient cities and archeological sites, studying firsthand many times as the ruins were dug from under dirt that had not been moved for thousands of years. Also during this time he developed the basis for his theoretical work that would, at a later date, deal with the celestial mechanics of N-bodies and plasma physics. It was here also that he learned to appreciate the fact that the ruins and devastation he was witnessing had to have come from celestial events that were so devastating that they left the Earth and these stone cities in ruins, in some cases, leaving no trace of the inhabitants.

With this new understanding of archeology, astronomy of the ancients, physics and the world around him, Mr. McCanney returned to graduate school in 1973 and earned a master's degree in nuclear and solid-state physics from Tulane University, New Orleans, LA. He was again offered a full fellowship to continue on with Ph.D. studies, but once again he declined and returned to Latin America to study archeology and teach physics, mathematics and computer science in Spanish. He continued his work to explore the mysteries of celestial mechanics and its relationship to the planets, moons and other celestial bodies.

In 1979 he joined the faculty of Cornell University, Ithaca N.Y. as an introductory instructor in physics. It was during this time that he had access to NASA data returning daily from the Voyager I and II spacecraft as they traveled by the planets Jupiter, Saturn and beyond (as well as data from many other space craft). It was here he recognized that his theoretical work regarding the electro-dynamic nature of the solar system and universe had its signatures in the new data that was streaming in from the edges of the solar system. All standard science continued to look at gravitational explanations for the working of the planets, moons and other objects of the solar system, while Mr. McCanney was applying his electro-dynamic scientific theories, and ventured to say for the first time that comets were not dirty snowballs. His papers were published at first in the standard astrophysical journals, but soon he began to receive resistance from the standard astronomical community and within a short period of time, the journals would no longer publish his theoretical work. Mr. McCanney was removed from his teaching position because of his beliefs regarding the electro-dynamic nature of the solar system.

Contrary to the traditional belief that the solar system formed all at one time 4.5 billion years ago and has not changed significantly since, Mr. McCanney's theoretical work essentially stated that the solar system was dynamic and adopting new members on an ongoing basis. He pointed to the planet Venus, the Jovian moon Io, the Saturnian moon Titan and the small planet Pluto (which supports an atmosphere even though it is so distant from the warmth of the Sun and has insufficient gravity to hold an atmosphere

for long) as being obvious new members of our solar system. He stated that all this was proof that the way this occurred was by “planetary capture”.

His theoretical work additionally stated that comets were not dirty snowballs, but were large electrical “vacuum cleaners” in outer space. The comets were drawing in vast amounts of material by way of powerful electrical forces and there was potential for very large comets capable of disrupting the planetary structure that was already in place. His innovative theories on plasma physics and a new model for fusion in the solar atmosphere provided the basis for the electric fields and plasma discharge phenomena that have become the core elements of his theoretical models of the true nature of the solar system in which we live.

Upon being fired from the physics department for his radical beliefs, Mr. McCanney was rehired shortly thereafter by the mathematics department also at Cornell University, where he taught for another year and a half and continued to publish his papers in astrophysical journals. Once again astronomers forced his removal and he was once again blackballed from publishing in the astrophysics journals in 1981.

During this time Mr. McCanney established himself as the originator of the theoretical work regarding the electrical nature of the cosmos for which he coined the term “THE ELECTRIC UNIVERSE”, which today is being proven correct on an ongoing basis by space-probes returning data from outer space. Many of his predictions such as x-rays to the sunward side of comet nuclei, that comet nuclei would be found to have no ice or water frozen on their surfaces and that comets interact electrically with the Sun to affect Earth weather, have now been confirmed by direct measurements in 1986, 1996, 2001 and 2002 respectively. Many other more abstract concepts have also been verified.

There exists a rare combination of factors that makes Mr. McCanney a unique person who stands alone in the development of the scientific principles and historical perspectives summarized in this book. Some have tried to borrow and copy this work, but when observers consider the factors involved they too will agree that the extensive rewriting of standard scientific structures had to be accomplished by someone with a rare set of characteristics and circumstances.

He was always at the top of his classes in Mathematics and Physics and was always creating his own formulas and proofs. His education was soundly based in classical and modern physics. He was able to recognize that when the basic new aspects of the functioning of the solar system were understood and then verified in space probe data, he had the ability to extend this information and take it to all its logical conclusions. This all occurred while working in and around the top rated scientists of the day at Cornell University who were still at least 2 decades behind what Mr. McCanney was discovering and writing.

Another unique condition was that Cornell University offered a rare location since it was not only a Library of Congress (if it was in print it was there), but also it was a repository of data for NASA. Armed with his existing theoretical work and this incredible source of information, and with the timing that coincided with the daily arrival of new data from the Voyager and other space craft from the far reaches of the solar system, he was in a totally unique position to do what he has done.

An essential requirement of anyone who attempts to alter the fundamental propositions of a subject as complex as astronomy and astrophysics, is an in depth knowledge of the history of that and all related sciences. Mr. McCanney has studied the

history of science extensively and understands where the theories came from that currently make up the structures of science. He studied archaeology and geology and was in the field in remote areas to witness ancient civilizations unearthed from a previous devastation.,

He has the rare ability to speak at many levels. He has taken a topic as complex as plasma physics and celestial mechanics (the study of rarified gasses and the motion of the celestial bodies) and simplified it in terms that the general public can understand. That is why his university classes always grew rapidly. He does not make an ego trip out of trying to impress his audiences with big words and unusual terms as do many university professors or the recent influx of internet hoaxsters.

There are few people who would have the tenacity to pursue and uphold their beliefs for as long as he has had to do in facing the odds pitted against him over the past decades, and to emerge in tact with as full a commitment as when he started that long ago. His personal philosophy states that he will not accept government funding on the principle that it has corrupted the scientific process.

These numerous and individually rare characteristics make the record clear that the important contributions made here combine both personal traits and a situation of “being in the right place at the right time” as the space craft data poured into Cornell University as Mr. McCanney’s theoretical ideas were solidifying.

In 1981 the Interdisciplinary Journal KRONOS agreed to publish what has since become known in inner circles as the “3 Part comet paper”, which is republished in it’s entirety at the end of the first book of this series Planet X, Comets and Earth Changes, along with other historically significant publications of Mr. McCanney. His work today includes many new significant insights into the connection between the Sun, comets, earth weather, The Sun-Earth Connection and Earth Changes. The results of that knowledge will become obvious when you read these books.

Mr. McCanney has also remained active and well known within the space science - astronomy community and within professional societies, and although standard astronomers still resist accepting his theoretical work, he is generally well respected amongst his peers in these communities when attending professional conferences. He is what some have called “the last of the independent scientists” who were able to work “on the inside” and still remain active to talk about it on the “outside”.

In the mid-1990s Mr. McCanney’s work was recognized by a group of high-level Russian scientists who had measured but did not understand electro-dynamic effects around Earth and in the solar system. They translated all of his papers to date into Russian. These are being taught at the university level as the leading edge of research in this field. It is only due to the ongoing and intentional efforts of NASA that his work has received such little attention in the western scientific community and press.

It should be pointed out also that no new or bizarre fundamental laws of physics are needed to understand the electro-dynamic nature of the universe. This entire textbook is based on standard physics and simply introduces the principles of the working of our solar system based on a new understanding of how the Sun produces fusion and therefore electric fields (and magnetic fields) in the solar system. Once these fundamental principles are put in place, the rest is simply the logical conclusion of standard laws of physics being applied to the situation.

It is very interesting to note that historical records of the major disasters witnessed by the ancients are now understood in light of this new understanding of how our solar system works. A scientific basis and the “theoretical key” has now been introduced to give fundamental understanding of the Biblical references regarding the End Days, The accounts of the Exodus from the Legends of the Jews, the Mayan accounts of Quetzalcoatl (the plumed serpent god of the night sky whose heart became the planet Venus), the accounts of the Egyptian mythological planet Nibiru, the accounts and historical records and writings of the destruction of Atlantis as well as the writings of such world renowned authors as Casey, Sitchin, Velikovsky, Blavatsky, Donnelly and others who could see beyond the standard and incorrect explanations of where we came from and the true history of man and our planet.

This book is a summary of information that spans over 25 years of serious research and is needed on the international market to inform the public of the true nature of our past relative to celestial events, and additionally, of the dangers that stand before us as we deal with the possibility of new planetary members being adopted into the solar system.

The books in this series do not make any specific predictions of dates on the arrival of a new celestial object nor does it make any predictions or analysis regarding any particular planetary object(s) that might come into the solar system. Additionally, regarding the historical events, these books do not state definitive dates for past events ... but only indicate the most plausible dating based on current information. Dating of events is a difficult area of study and many times taken too lightly by people who have done insufficient study to know what they are really talking about. The study of ancient calendars, for example, is probably one of the most complicated areas of study known to man.

The current text is the third in a series of books. The first book Planet X, Comets and Earth Changes defines the science behind the true electrical workings of the solar system and relates it to historical studies and modern space probe data. It is a treatise written for the layman on the 25 years of Mr. McCanney’s theoretical work. ***It is essential that the reader understand at minimum the basic contents of that book to put the current book into perspective. The reader will not understand the current book and the science of the ancients without having a basic understanding of the true electrical nature of the workings of the solar system.***

The second book of the series Surviving Planet X Passage (a 60 page pamphlet), although not essential, covers an aspect of history that the avid reader may well wish to understand. This is the re-calendaring of our celestial clock after the Earth’s orbital elements have been affected by a close encounter with a near passage of a massive celestial object as we know has happened in the past. This book outlines what the ancients performed to rebuild their calendars for survival so they would know the correct planting seasons.

The present book Atlantis to Tesla – The Kolbrin Connection is meant to take the readers knowledge to a new level and for the first time, define for the general public the Physics of the ancient advanced cultures such as Atlantis. It links the past with the present, giving also a glimpse of the direction we must take to assure our species a place amongst the stars. At present there are two more books destined to become part of this series that will be released at later dates. a.s.

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# **PREFACE**

## **Putting this book into perspective**

### **Introductory note by a friend of the author**

There are many texts, treatises and legends referring to the Lost Continent of Atlantis and to the modern electrical marvels of the man Nikola Tesla. None however have given the fascinated public what they have always really wanted. That is the true scientific explanation of what Atlantis was all about and the Physics explaining the fundamental nature of Tesla's inventions.

At long last, due to the ongoing researches and discoveries of Plasma Physicist James M. McCanney, the explanations of the ancient sciences have been re-discovered and are presented in this book.

There is a further connection that has always been missing that is presented here ... the historical connection of long lost Secret Societies that link Tesla to the ancient past, and explains where this single man gained his introduction to the scientific principles that he developed into devices so powerful that they have been confiscated by the world's power elite from use by the masses. It also shows that the Secret Societies have existed throughout the ages and have in fact lost use of the ancient technologies, and are at present scouring the world for archaeological treasures in hopes of regaining the lost science.

Many of the world's most treasured archaeological artifacts are in private hands. And this book will reveal that the Lost Continent was rediscovered by the US Navy in the late 1990's. They have since been excavating these sites for the private societies that control the US government. The quest for this knowledge far outweighs even the desire for control of oil, and is the basis for ultimate power and wealth.

This may be one of the most powerful and revealing books you may ever read. Its compelling science and insight will give you a detailed view into the heart of ancient Atlantis as you have never imagined seeing it before. Unlimited electrical power derived from sources of nature are now explained including how they can be used today, and the connection to the man we call "Tesla".

a.s.



## Preface by the Author

When the land mass that is now called the United States of America was first explored in the 1800's, every naturalist that passed through this new land talked of the evidence ... the entire land had been ravaged by a Great Flood. Alaska was no exception. This led scholars such as Ignatious Donnelly (then Lieutenant Governor of the territory of Minnesota) to write his book "Atlantis the Antediluvian World". Raised in the coal fields of Pennsylvania, Donnelly was keenly aware of the geophysical evidence that Earth had seen many radical changes that shaped its morphology.

It has been noted by many, that in the quest to tame this rugged land, man had destroyed most if not all of the remnants of the Great Flood by the year 1900. So today it is easy for some to ignore the words of those forefathers who saw the massive destruction with their own eyes, and to claim now that the Great Flood and these remnants never existed, or to minimize it as some smaller localized event.

When Aristotle's uncle Solon traveled to Egypt, his intention was to research for the young Greek nation the history of the human race. Still in existence were the ancient priest cults who explained to him that there was a great worldwide cataclysm that devastated the entire Earth. They told of a massive war that was ongoing between the pre-catastrophe Greek ancestors and a powerful technologically advanced nation called Atlantis, whose population spanned the globe. They stated that the Greeks were beginning to actually win in this war when the catastrophe hit *all of Earth* and the mighty nation of Atlantis sunk under the ocean in a single night. It was clearly more than just a localized flood or a few days of heavy rain. The entire Earth was shaken to its knees.

They additionally noted that the survivors that generated the new Greek nation were but simple sheep herders who survived the devastation and Great Flood, living in caves in the mountains of what we now call Greece. The Egyptian priest cults explained that their records went back 10,000 years and that every time their society got up and running, they were crushed anew by one of these major events. These were not an average pestilence or famine, but a worldwide devastation that sent them back to the cave ages.

Today we are finding the remnants of these ancient societies. There were huge cities in what we now call South America long before the so-called Ice Age or the alleged crossing of the Bering Strait by early hunting tribes. What we are learning is that the history that is being taught as "standard knowledge" is totally wrong. There is a tremendous effort in numerous sectors of modern society to keep the truth of our real past from being told. The seats of knowledge in our universities, certain religious centers and the governments of western society are doing their very best to prevent this information from reaching the general public. They fear that this knowledge will set people free from the domination they are currently under.

If this is your first introduction to this subject, I can only tell you with certitude that this is one of the most complicated and far-reaching topics that you will ever

encounter. Thousands of extremely talented scholars have spent their entire careers researching in and around the subjects that are affected by the topics covered in this book. It affects every aspect of every discipline from astronomy and planetary geology to paleontology and biological evolution, from the history of man and politics to the origins of religion.

The “key” that this book offers is a sound scientific framework that gives a firm direction to understand our past, present and future. This is what has always been lacking in the traditional halls of academia as they struggled to make explanations of the unexplainable facts that we see all around us on this and other planets, but which painfully do not fit within the standard framework of “knowledge”. So scientists who tend to lead the academic mill continue to attempt to place square pegs into round holes while the perceptive public sets by and scratches their heads at the façade that they have been given to look at.

Just the topic of “the origin of the races of man” cannot possibly fit into the time frame or scope of “evolution” as it is being presented today. To imagine that all the races of man developed and differentiated around the globe in the past 7000 years is beyond preposterous. Nor to imagine that a few lonely pre-homo sapiens crawling around in the African dirt (and leaving scant traces other than a few skull bones) could have heralded the many races of man and the distribution of people upon this planet is also an unworkable scenario.

Far too many other factors need to be explained at the same time. This is where the vast majority of scholars fall down today as they are so compartmentalized and narrow in their perspectives that they could never ascertain the global view that is needed to fully and completely understand our complex past from the few riddles we have unearthed in our studies. One simple example is that the dirt that comes from on top of archaeological sites many times tells far more about the ancients and their demise than all the treasures found below, yet consistently the dirt is removed and carried away and discarded in heaps with no concern for the information that it would bring.

There is a constant influx of *ME TOO* catastrophe books, articles and theories that come and go almost daily. 99% of these show the same pattern ... that the author had an idea and developed it completely and unwittingly devoid of any knowledge of all the factors that need to be explained to give a complete picture. Such is the status of explaining to the public why there are tropical mastodons with undigested tropical plants in their throats ***standing on all four legs*** (they died standing up!) and buried under 20 feet of tundra ice. There is not just one of these ... but millions. Not only that, but the species died off at the same time in South America and the rest of the known world along with 75% of all other species on this planet.

One theory trying to accommodate “traditional standards” recently stated the mastodon area moved by “plate tectonics”, a process that takes millions of years to move a few miles at best. Are we to believe that the critters stood there while the plates migrated over these vast periods of time? Yet this received publication. Another theory claimed that the mastodons ate a tundra grass to survive the ice age. This ignores the fact that they were found with tropical plants in their throats (not

tundra grasses). Yet this concept also received a respectable publication spot. Neither paper or author ever acknowledged that the mastodon had been a highly successful species the world over and went extinct the world over at the same time as most other large land mammals.

I have given lectures on what I now call “First Level Thinking”. This involves someone who cannot see beyond a first level cursory view (or has an agenda to not see ... such as a pay check or desire to maintain one’s research funding or possibly peer pressure). Going out of the “mold” is nearly impossible for people in academia.

In my travels and lecturing over the years I repeatedly find a public that has never believed what they have been told by the standard scientific community about the true history on man, but have had no recourse since they are the “consumer” and have little if any say in what is fed to them from the lofty towers of modern academia via the popular press. It is clear that there is a lot of scrambling going on within these circles as the public becomes more aware and better advised regarding these issues. The scientific community no longer holds the attention or respect of the public simply because they have lines of people with Ph.D.s.

The true story of man’s past that is emerging on all fronts was spearheaded by great people throughout the past 2 centuries, most of whom were not associated with academic standard institutions. They were people who many times were highly criticized and whose work was actively censored and rejected.

Fortunately there is a method today to reach directly to the public without having to be blocked at every turn within the traditional bindings of publication and distribution of information. It is there for those who are willing to sustain and endure. It does leave the public with the problem of knowing who to believe.

One last word of advise regarding those who will attempt to defray the impact of this book. It is already known that the established scientific community is positioning itself to counter this book and the success I have had in communicating these concepts to the public through international radio and other media. Each person will have to decide for themselves who is telling the truth (and who has an ulterior motive for attacking this work). Once again it is best to take heed from the greatest source of all. My response to them is taken from the same great man who spoke on a mound regarding the “End Day Prophecies”, ... he said, “the learned and recognized scholars of the time will attempt to lead you astray”. And when asked how the common person will know who to believe, that man answered simply, ... “you will know the truth when you hear it, for the truth is written in every man’s heart”.

jim mccanney

# **I. Planet X, Comets and Earth Changes**

**News Flash! Comets are not Dirty Snowballs!**

## **And an Introduction to: The Plasma Discharge Comet Model**

If there were any phrase that must ring out loud and clear and dominate the pages of this book it is the above statement that “comets are not dirty snowballs”! With this basic realization, the standard theories for how the solar system came to be and how it works undergo the domino principle (one topples, then the next and the next until all have fallen).

In their place will go an entirely new set of principles and concepts that are essential to understanding how the solar system formed, but more importantly, that new objects (including some that are large and will become new planets and moons) may be adopted at any time.

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The above two paragraphs are the first statements of Chapter I of the first book of this series Planet X, Comets and Earth Changes. The entire concept that traditional astronomical theories have been wrong, and that there is a deeper underlying mechanism that powers our universe, was the key to unlocking the true nature of the ancient world of Atlantis and the modern discoveries and inventions of Nicola Tesla. Without that basic understanding of the Physics of the Electric Universe we live in, the view into the ancient advanced cultures would not have been possible.

One can readily understand why very little if anything from the past did make any sense at all since the basic scientific framework was missing. With the Plasma Discharge Comet Model and the new reality of the electrical “Solar Capacitor” provided by our Sun, there is now a clear understanding of the source of electrical energy and the mechanisms by which it travels and provides our planet Earth with essentially an unlimited constantly renewed source of electrical power.

It is not clear whether the ancients knew about all of this, and to do what they did they may have only had an empirical knowledge, that is, like the early crop farmers, they did not understand why seeds grew or the concepts of modern genetics, but they knew how to save seeds and choose the right ones to improve crop size and performance year after year. A good example of this is the development of grains the world over. So too with the ancients, they did not need to know why things worked, they only needed to know that if you did such and such, the end result would always be the same. Much of ancient knowledge was of an empirical nature.

With regard to Tesla, we know he had no knowledge of the solar wind, the ionosphere, the Earth’s shielding magnetic field or the van Allen Belts (high energy radiation belts that surround Earth). He did know about the vertical electric field in the Earth’s atmosphere and how to tap into it. Where he got his initial information is revealed in a later chapter and with this, the significance of his discoveries will become obvious.

Today, however, we have far more information regarding the solar interaction with Earth and considerable data from space probes that give us detailed information on what is moving around out there. The thing traditional astronomers, space scientists and astrophysicists have been lacking is the understanding of the electrical nature of our solar system ... in fact they openly denied that such electrical conditions could exist, let alone have any effect on our daily lives (only recently have they begun studies along these lines and some have begun to plagiarize this work piece by piece hoping no one will notice ... it is what I talk about in the first book as “the creeping crud”). The “magnetic” explanations given by traditional space scientists lack a first level understanding that is given in the first book of this series and which is essential to the understanding of the sciences of the ancients and Tesla.

I often tell people who have had astronomy courses that they have to unlearn what they were taught before relearning the concepts taught in the Plasma Discharge Comet Model and related theories, since the two avenues of thought are not compatible. Unlike many cases of science where a new theory modifies an older theory, this set of concepts replaces and shows the incorrectness of the other set of theories. Of course, the more astronomical education one has, the more difficult it will be to change the person’s thinking patterns and someone with a Ph.D. usually becomes so defensive that they will not break down the mental barriers necessary to make the switch.

It has been interesting over the past 25 years since the Plasma Discharge Comet Model was first introduced that the “traditional” theoretical structures have “migrated” towards my theories every time a “new discovery” was made by space probes, while my theories have remained the same. This is why I reprinted in their entirety and in original form (in the first book of this series) the scientific journal papers that laid the foundation for my ongoing work that were published in 1979, ‘80 and ‘81.

I will now give a summary of the important concepts detailed for the layman in book #1 of this series Planet X, Comets and Earth Changes that are most relevant to the current book.

First the term “Planet X” has had a good deal of misuse in past years and was the cause of a large scale government sponsored internet misinformation program to make the topic of “Planet X” sound crazy to the general public ... so that when the REAL Planet X shows up and the public gets wind of it they would hopefully say “oh, don’t mind that ... it’s just those crazy Planet X people again”. Luckily and thanks much to my constant vigilance and guiding of the public, the effect never came to pass. The true use of the term “Planet X” is that it has been used historically in the astronomical community since the middle ages to designate either observed or conjectured unknown or new planetary members of our solar system that have not been named.

In terms of my personal ongoing studies that I have been engaged in for over 3 decades is my “Search for Extra-Solar System Objects” ... that is, my ongoing search for objects that come into the solar system from beyond. These typically erupt into comets as they break the solar capacitor. Examples of such objects are occurring at all times and some are very large. Examples are the huge comets Hale-Bopp and the 2003 comet that has become known as Comet Neat V1.

Another part of the study is for example noticing patterns as with the spring of 2003 when we were (and continue to be as this book goes to print) barraged by comets coming in from the southern region of the sky. This can only mean that these are the beginning

of a large entourage of comets that we will see in upcoming years as a new huge object enters the solar system from the south. Could this be the infamous Nibiru spoken of by the ancients? It is too early to tell as this book goes to print, but it is interesting to note that the US government (and also the Vatican) has placed many huge astronomical telescopes at the south polar region in Antarctica and oddly have placed NONE at the north polar region. Clearly there is a great deal of interest in the southern sky.

I wish at this point to be emphatic about a few topics relative to this point. First I do not project “dates of passage” and would not unless I had specific information that was concrete. The second is that even with specific data, it is impossible to tell exact orbits and “dates of arrival” since the big comets have their paths altered daily and many times a great deal because of the comet tail drag (as explained in the first book of this series). So even with supercomputers the erratic movement of big comets is unpredictable. That is why the ancients called them “The Lawless Ones”, they knew that they did not follow the known patterns of celestial mechanics.

Also I wish to point out that you should avoid internet CHAT pages and other disinformation hubs spun out by the government and other people who have no training or knowledge of such things. These only tend to confuse the public and many times that is their entire purpose.

The last point I wish to make is that there is not just one Planet X, there are many ... far more than we will know about with our best telescopes and equipment. And additionally we now know that the government has in place a program to keep this type of information from the people. It is a layer of filtering of data and space related information that comes from the very top of national and international security. Any scientist who works for these organizations is subject to such “gag orders” and cannot tell anyone or they will be immediately arrested and imprisoned. The scientists that work for the government have all been forced to sign non-disclosure agreements and this is not going to change.

So we may see at any time a large new object coming into the solar system and we know from history that it has sometimes been the companions to the big comets that have caused the damage to Earth by the process I call “action at a distance” ... meaning they do not have to collide with Earth to cause damage. In fact many times they would be nowhere near Earth as they would interact electrically with the Sun and cause flaring that would drastically affect Earth. This is all explained in detail in books #1 and #2 of this series.

More importantly for the current book is not the topic of a “Planet X” type of object, but the ongoing daily activity of the Sun. The ancients knew about what Tesla termed “the vertical electric field”. That is, the Earth is constantly surrounded by solar wind passing by and this drives our outer magnetic field but also does something else ... as the solar wind separates as it passes around earth, the positively charged protons go one way and the negatively charged electrons pass around Earth in the opposite direction. This causes a battery to form and is just one of the many batteries that form around Earth as described by the Plasma Discharge Comet Model.

Yes, Earth is discharging the solar capacitor and this capacitor harbors more energy than you could imagine. This is the source of energy used to constantly replenish our “Local Environmental Batteries” which I will now call “LEBs” throughout this book for short. From this point on you will start to see information that comes directly from my

personal science diaries and which has brought me to the state of writing this book to disclose the science of the ancients and Tesla to the general public.

There are many LEBs but I will describe the primary ones that are needed to understand the sources of energy being tapped into by the ancients and by Tesla, and also those needed to understand the sources of power that drive the electrical currents (and resulting magnetic fields) that the ancients used to drive their magnetic propulsion system spacecraft. These craft were used for shuttle craft from orbit to the surface of the Earth and also for at least interplanetary flight. It is my belief that there were ancient civilizations that learned the principles of space flight and were allowed access to space and ultimately left Earth to live amongst the stars. These are the beings that sometimes return to check on our progress, and also the ones who will terminate our progress if we do not stop the military powers of the world from attempting to take their wars and warfare equipment into space.

The following is the core on which the rest of the book is based. It is an extension of the first book of this series and you will not understand what this is saying without having at least a rudimentary understanding of the first book Planet X, Comets and Earth Changes. Themes from that book are woven throughout this book and is required reading for anyone who attempts to understand the current book or future books in this series.

The LEBs are constantly around the Earth and are the result of the solar electrical power system. The Sun on a daily basis pours out far more electrical power than it does in the form of visible light (the light energy that reaches us at the surface of the Earth). It is amazing that after watching the solar data for decades that traditional astronomers, space scientists and astro-physicists have no clue that this exists. Additionally it is amazing that the weather service we call NOAA (the National Weather Service) has no clue of how this affects our weather and there is no use of it in the weather prediction software that is used to predict our weather.

The reason I mention this is because one of the primary visible effects of the LEBs is the severe weather systems that are directly powered by electrical currents that arise out of the changing conditions of our Local Electric Fields or Local Electric Batteries (LEBs) and these are directly the result of solar storm activity which arrives at Earth sometimes days after the storms occur on the Sun (many times the result of interactions with passing comets).

One of the beneficial side effects of tapping into the world-wide system of LEBs is that we would reduce severe storm activity. There is enough electrical energy in an average summer thunderstorm to power a state for a month. Yet we continue to ignore this source of free energy and burn fossil fuels, oil and even worse nuclear fuel that then can be a bio-hazard for millenniums to come. Much of the history and significance of these topics will be described later in this book.

The primary LEB that was used by the ancient culture of Atlantis and Tesla was what Tesla called the vertical electric field and is the result of the charged capacitor that exists between the surface of the Earth and our ionosphere. The structure of this LEB is quite complicated and depends on what latitude you are located. Additionally the field is constantly changing at the mid northern and southern latitudes due to the snaking of the jet streams.

The more stable of the ionospheric jet streams is the westerly flowing equatorial jet stream which remains fairly steady. I have discovered that it migrates to the north of the



equator slightly during the northern hemisphere's summer months and migrates to the south during the summer months of the southern hemisphere. This is due to the interaction of the Earth as the northern and southern magnetic poles interact with the solar wind and an incoming electron current sheet as the Earth moves around the Sun in its orbit.

Figure #1 attempts to draw a picture of the Earth and its jet stream systems. These are driven by the many layers of outer magnetic fields that are in turn driven by the passing solar wind and other electrical current sheets that occur as Earth discharges the solar capacitor. Additionally the movement of these "ion belts" is the source for one of the layers of Earth's magnetic field and is the source for the vertical electric field that is shown in Figure #2 that was tapped by the Atlantians and Tesla for an unlimited source of electrical power. A detailed description of the mechanisms involved are beyond the scope of this book. I have enough detailed descriptions of these to offer a two year advanced graduate level Astrophysics course in just the topic of near Earth electric fields alone.

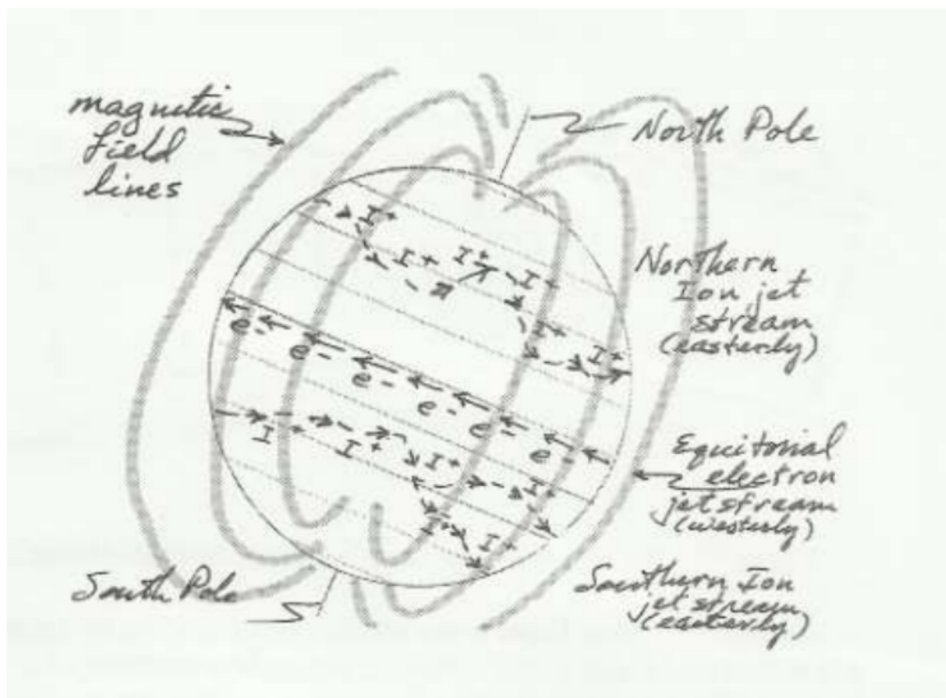


Figure #1. Earth's jet streams and local magnetic field.



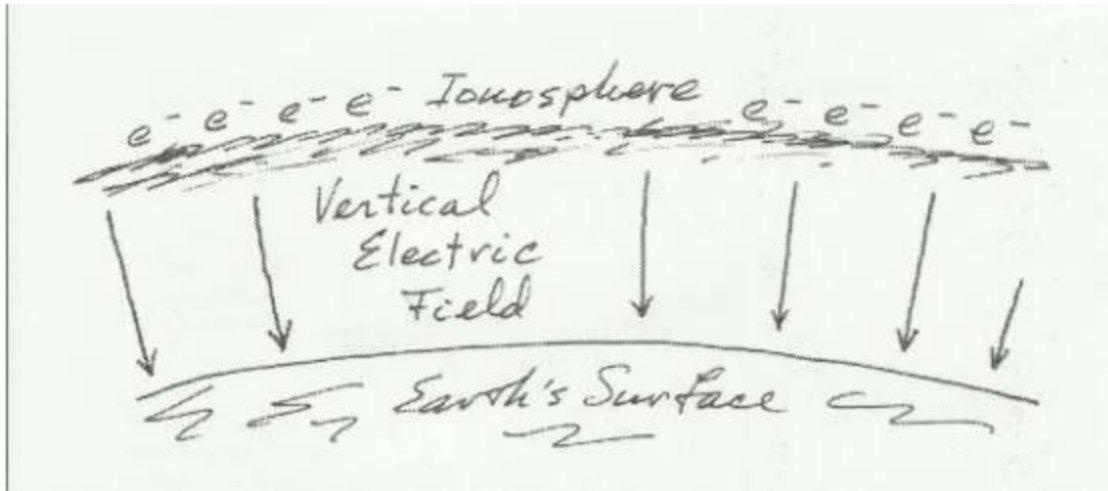


Figure #2. The ionosphere to Earth's surface vertical electric field.

Another important factor in the use and understanding of tapping into the vertical electric field is that the atmosphere contains what is known in Physics as a dielectric. These are molecules that contain a small charge pair that enhance and increase the amount of energy that can be stored electrically in the ionosphere without it discharging to the Earth's surface and dissipating as would occur if we had no atmosphere (or an inert atmosphere with just a gas such as helium for example which would not create a dielectric effect). It is this dielectric effect that increases the "capacitance" or capacity to hold electrical charge that is the key to drawing on this unlimited power source.

As the ancients and Tesla discovered, if you induce a condition into the atmosphere to reduce the dielectric in a vertical path to the ionosphere, you then induce a "path of lesser resistance" to ground (the Earth's surface) and current naturally begins to flow. Once this flow begins, it will maintain until the dielectric condition returns to "normal" or until the entire capacitor or battery has been drained. This is the source of unlimited electrical power and there are good examples that we see every day to prove this.

Electrical storms are powered by this energy source. The way this works is that clouds begin to form (clouds in fact would not form if it were not for the vertical electric field) and they act as a "finger" pointing upwards towards the ionosphere. This initiates the electrical current flow and the power we see unleashed in a thunder storm is being powered by this energy source. Additionally the cyclonic storms are directly powered when electrical current sheets go all the way to the ground or in the case of hurricanes, to the surface. What happens in this case is that the ground air becomes ionized and rushes inwards to the current sheet and UP the vertical electrical column forming a vortex (the reverse of water running down a drain causing a vortex motion).

This is the power source for cyclonic storms from tornadoes to hurricanes. My weather work has also shown that the low pressure cells that exist to the lower regions of these storm cells are in fact connected electrically to regions in the ionosphere that are in fact connected out into outer space and form comet-like tail structures attaching to Earth

as giant invisible serpents. It is through these regions that water enters the ionosphere on a regular basis during the ongoing development of large storm systems on Earth. Hurricanes and typhoons (Pacific hurricanes) likewise are formed in this manner and move westerly with the westerly moving equatorial jet stream.

The purpose of this discussion of weather is to 1) show a source of proof of this incredible source of energy known to the ancients and rediscovered by Tesla, and 2) to show that we are wasting this free energy and using numerous polluting energy sources in its place. Not only are we paying a huge monetary price but we are destroying the planet we live on in the process. This entire topic will be treated at length later in this book.

So the first source of electrical power and the specific LEB essential to understanding the free source of energy is the ionosphere to Earth surface “vertical electric field”. Additionally it should be noted that when Tesla built his first tower it was in a northern latitude. He did not understand the spatial distribution of the ion belts or he would have chosen an equatorial location for reasons to be given later in this book. The primary reason, however, is that in the central equatorial jet stream the electrons are in the ionosphere whereas in the temperate regions the ions are the charged particles in the ionosphere. The equatorial region is more stable (it does not snake around as do the mid-latitude current sheets), it provides a greater source of energy and the electrons flow from above whereas the electrons (the primary charge carrier in the free energy system) come from the ground (a much less efficient process from an engineering design standpoint).

The second LEB that is essential to understanding the technologies of the ancients is outside the planet and in the solar system environment itself. It is the source of electrical fields that cause the inter-planetary electrical currents to flow, and these are the “rivers of electrical current” that the ancients used to move between Earth and Mars and possibly beyond.

This is the first hint to the fact that the ancients had spacecraft capable of interplanetary flight. It is interesting to note that they did not have computers however, and did not need them for anything that they performed (this is one of the modern myths of space travel ... that it is not possible without computers). The designs for the spacecraft of the ancients are given later in this book, but the essential principle is that they were electro-magnetic propulsion systems and used systems of glass tubes to contain electrical currents that pushed against the local magnetic fields. As Mars would move around in its orbit and eventually align with Earth and the Sun, the solar electrical current sheets of Earth and Mars would combine giving them a brief “hi-way” to move between the planets. Since Mars was a vibrant water planet just like Earth at the time, they needed no provisions when they arrived. It is also of legend that Mars came much closer to Earth in its orbit back then making what I will discuss later as being only a few days trip with their electro-magnetically propelled spacecraft.

As mentioned earlier in this book, one of the great thefts that has occurred in modern history is that of the archaeological past ... and there has been no greater theft than with the artifacts of the Planet Mars. The secret missions to Mars to photograph and possibly return some to Earth and to keep this heritage from the public is one of the great crimes

of modern man. As noted, the search for this lost science is valued by the world elite far more than oil, money or earthly power. It might be noted that one of the hidden missions of the Iraqi “war” of 2003 was to secure the new archaeological fields in Iraq that harbored some of the ancient cities ... one being rumored to be Babylon and one that was far older of completely unknown origin. Another theft was accomplished directly from the museums and involved “certain ancient documents” relative to technologies of the ancients. Whoever performed this theft knew exactly what they were looking for.

The electrical currents that flow in the solar system are a direct result of the planets discharging the solar capacitor. Although comets in their highly elliptical orbits discharge the solar capacitor to a greater degree, all of the planets are doing this also. This creates an electrical current sheet connecting each planet to the Sun and it extends outward in the anti-Sun direction for millions of miles. As I generally say, the electrical size of the planets is far larger than their physical sizes.

This is further enhanced by a region of the solar system through which we pass every August ... what I have termed the “return current sheet from the solar capacitor” that is required to keep the solar system in electrical balance. The reason this is in the August direction is related to the larger electrical formations of the solar system. There are most certainly other return current sheets near the poles of the Sun but which do not affect us directly as does the August return current sheet.

The August sheet is where the current returns to the Sun on an ongoing basis from the outer solar system and the far reaches of the solar capacitor which I now estimate is many “Pluto distances” from the Sun. When the planets align, these electrical current sheets become aligned and attached and augmented, and this is when increased solar activity occurs as the planetary currents feed back into the Sun’s surface to cause increased solar fusion and flaring. When many planets align at one time this greatly enhances the solar flaring and this in turn increases the electrical flow to the planets. This is why we have the greatest hurricanes, tornadoes and auroras centered around the month of August. There are other factors of course but this is one of the main sources of energy.

The ancients knew this and used it to enhance their power usage, and formed the basis of their knowledge of astrology (the precursor to the modern science of measurement we call astronomy). As already noted, the ancients did not necessarily need to know everything about the sources and Physics of the processes. All they needed was the thousands of years of development and they were far more capable of utilizing this free unlimited energy source than we are today.

The Atlantians also knew about a simple conversion of water into its component parts (hydrogen and oxygen) and in their quest for use of unlimited electrical energy, discovered the principles of fusion containment which became the “batteries” and energy sources for their spacecraft. This essentially amounted to putting what we call “ball lightning” (what I have defined as a super atom state of the hydrogen atom) in a vacated glass “bottle” with electrodes and tapping into the Sun’s power brought to Earth.

One last note fore-shadows the details to come ... it was also their technology that ultimately brought the demise and downfall of possibly the greatest civilization that the

Earth has ever known. The Atlantians were war like and the legends are clear that they were destroyed because of the evil they would not leave behind as they became space faring. The final chapters of this book point to the similarities between the ancient culture of Atlantis and our modern situation. We are in the process of dooming our future to the same fate.

## II. SURVIVING PLANET X PASSAGE

The second book of this series (a 60 page pamphlet) Surviving Planet X Passage speaks directly of the Earth-Changes events that we know from the historical record occurred in the past and would occur again if a large new comet would come into the solar system. Of importance to the current book is the portion on re-calendaring the Earth, that is, rebuilding the calendar after a pole shift or other changes in our orbital elements. The reason this is important here is because after the destruction of Atlantis and the ancient world, the mathematical systems and knowledge of the stars and calendar were passed on and became essential for the survival of those that remained once the aftermath of the cataclysm had cleared.

The middle chapters of this book are dedicated to that time when the Earth struggled for survival and the races of man ascended from the ashes and tried to rebuild a new existence. Every race that survived did so because it was able to quickly rebuild the growing seasons. There were many that survived the initial devastation but were unable to cope with the long term rebuilding.

Much of the archaeology that we are uncovering today is from post cataclysm civilizations, and one of the great mysteries is the source of their myths, writing and mathematical systems and the links between them and to the pre-cataclysm civilizations. Many of the words used to name places (such as the word Mu) are clearly remnants of the past civilizations that went down during past events of celestial origin (and had nothing to do with anything colliding with Earth). These events were all caused by what I have termed “action at a distance” as the severe events were caused by close encounters with large comets and their massive nuclei as described in the first two books of this series.

The main point I wish to make here is that we do not know and are unable to sort out at this point how many catastrophes there were in relatively recent history, and which ones caused which civilizations to go under. There is evidence that Atlantis went under during the Venus event which some place as little as 3650 years ago, while there is other evidence suggesting that Atlantis went down much earlier. It is not the purpose of this book to sort out this dilemma, only to show the ancient technologies and how they found their way into our modern era and The Secret Societies that seek to regain their splendor today.

### **III. ABOUT THE COVER PHOTO**

The stunningly beautiful cover photo came to us in the year 1998 from the SOHO satellite that monitors the sun on a daily basis. Unexpectedly the two streaking comets came directly into the solar vicinity and flew directly through the intense solar flare to the lower right of the sun. The first comet apparently missed by just a small amount whereas the second made a direct hit through the flare. This photo along with the resulting flare are contained in the last chapter of this book with the write up about a discovery I made at approximately that same time showing that cosmic rays were originating from our sun, something that had previously never been considered by astrophysicists.

The cover figure has far more meaning than that of just a few comets passing by the sun. Along with the immense solar which “the experts” said was mere coincidence, came a buzz out of the high levels of the national and international security agencies who monitor space for any intruders. The word from these sources was that this was a “shot over the bow” or also saying “look what we can do ... look how accurately we can aim these puppies”. This is not me talking, but as I said, this was the buzz out of the security agencies.

These are the same people who sponsor secret missions to Mars and who are in charge of absconding with priceless archaeological treasures from around the world in search of the ancient technologies such as were reported to have been used by civilizations such as Atlantis.

This photo also proves the Plasma Discharge Comet Model and its prediction that comets would interact electrically with the sun and cause huge flares that could affect earth. The flare from these comets did not affect earth significantly, but someday we could be the subject of such a huge oncoming flare and it could have devastating effects on life as we know it.

The final reason it is an important picture is because of the ongoing hiding of data by the people in charge of this solar observatory and the fact that its most recent measurements have shown huge comets (many coming from the southern hemisphere) that may be the precursor to something very large coming into the solar system ... what I call “extra-solar system objects” ... one of my ongoing areas of study.

## IV. THE WORLD THAT WAS

Today the legends abound about the ancient culture of Atlantis. The one thing that the public has always wanted but has never been able to put their hands on is the true science known to what you will soon learn was a civilization far advanced from our own.

Over the past 30 years the true electrical nature of the solar system and the universe we live in has developed as I worked out problem after problem based on the Plasma Discharge Comet Model and the new Solar Fusion model. But before describing the legendary lost continent and the Physics it used, it is important to see the world as it was during the time that Atlantis was developing. The world was a very different place.

The biggest difference was that there was only one vast ocean and it was called the Atlantic Ocean. Remember that it was Magellan the explorer that named the vast expanse of ocean the "Pacific" in the 1500's. Prior to that it lay un-accessed except by primitive Polynesians who crossed it in small outrigger canoes to populate the pacific islands. But in the days of Atlantis the worldwide water passages were quite different due to the location of the polar caps which were in quite different locations than the ones we know today.

The old north pole was somewhere just north of the current states of Michigan or New York. I had been working on this problem (the location of the old pre-pole shift north pole) for many years and then a series of experiments and archaeological trips made the final discovery patently clear. The many clues involved the location of the Laurentian Ice Shield that covered much of North America during the last "Ice Age". It was always clear from the writings of the eminent scholar Immanuel Velikovsky that there was no ice cap where we now see the north polar cap or in the area we now call Russian Siberia. Russian Siberia was a tropical plane with roaming herds of tropical mastodons and related animals.

Another clue was the map that Columbus used as he charted westward. He expected to see the coastline noted on his map at higher latitudes (that is, closer to the equator) as he searched for the East Indies. He of course had no idea that the continents of the Americas were between him and the far east, and he did not know that the coast line he was searching for was now in the Antarctic and under two miles of solid ice. The so called Piri Reis map was later shown to provide a perfect outline of the coastline of Antarctica using satellite imagery although this coastline had never been seen by modern man. Columbus, as with all explorers, was a map hound and one's secret information was guarded as tightly as any secret of today.

The map apparently was held elsewhere and had been handed down from Phoenician traders. The copy that Columbus had apparently was a second generation map but was equally accurate regarding the coastline of the continent of Antarctica.

In the late 1950's the Russians established a base in Antarctica for the purpose of studying the fresh water Lake Vostok that lay two miles under the Antarctic Icecap and was covered by a dome of air that had been trapped for untold time. Their goal was to understand the history of such a formation. As people explored this area other anomalies became apparent. The ice shields that covered the continent were moving at a rapid rate towards the ocean ... the ice was literally sliding off the continental shelf. When they researched further it became apparent that the surface of the continent was warm. How



could a continent that had been under deep freeze with no sun or energy from outside have a warm SURFACE???? Further studies put the age of the Antarctic Ice cap at no more than 4000 years old.

It had been known since the early 1900's in Siberia of the frozen mastodons in the tundra and that they had been quick frozen so fast that they were standing on all four legs with undigested tropical plants (including delicate flowers) in their throats and stomachs. These of course in the presence of the digestive juices of these huge mammoths would not have lasted more than a few minutes. The meat was still so untainted and fresh that the workers ate the meat and ended up shipping it to France where it was consumed as a delicacy.

I have often thought as a good response to anyone of the nay sayers who claim some other slow long term process for the demise of the mastodons. I would invite them to come to Canada on a hot summer day and we'll locate a one day old road-kill deer that has laid on a hot pavement for just 24 hours and we will cut off a big steak and have them cook it up and watch them enjoy their meal of putrefied meat.

The reality is that the world wide population of mastodons expired within a few short hours and this was the immediate result of the passage of a huge celestial object which passed a gravitational wave into the Earth's mantle and caused a polar shift with related Earth Changes as described in the first two books of this series. Within hours the old north and south poles were shifted by about 30 to 40 (estimated) degrees.

All of these factors contributed to my original estimate that the pre-pole shift north pole was in the region of Ontario just north of the state of Michigan. However there were certain enigmas. The glacier had to extend far to the east and north. It was then that I discovered two principles of polar caps. The first was that the polar caps extend farther from the celestial poles (the region with the least amount of sun on average over the course of the year) *when they are on a land base*. A polar cap in the middle of an ocean such as our current north polar cap is necessarily much smaller than the south polar cap which is on a land base. This allowed me to move my estimated location to the east and north and still encompass the lower southerly regions of the ancient Laurentian Ice Shield which extended into Nebraska.

The final clue came as I renewed an old project of surveying archaeological sites in central and meso-America. What I began to notice was that certain major ancient cities were based on a grid system that did not correspond with the modern coordinates. It was finally at Chichen Itza that it all began to come together, as I realized that the entire theme of the city was to the god Quetzalcoatl, the plumed serpent god of the night sky that represented Venus in their mythology. All of the indications were that the city was dedicated to the time when the world was crushed by Venus the massive comet and they measured the orbit and feared Venus would come and destroy their city again.

The true layout of the city pointed to the northeast and to exactly my updated estimated location of the old north pole. The post cataclysm city had been built on the pre-cataclysm city foundation and layout. Additionally, it was interesting to note that with this new orientation, the old true west direction now pointed at the heart of the now known location of the old lost continent of Atlantis in the South China Sea. And the character known as "Chac Mul" (actually a French name) sat at his post looking also to old Atlantis. Interestingly Chac Mul is a very Scandinavian tall thin looking character (looking nothing like the ancient Mayans). Is his posture and view looking to the old



west awaiting the return of the masters from Atlantis? There are other archaeological sites that I am still studying but the other results are not conclusive at this time.

The end result however is a reconstruction of the ancient world in which the old continent of Atlantis existed. Another aid which was presented by a Physicist from Brazil Dr. Arysio Nunes Dos Santos in 1997 gave a detailed study placing for the first time the location of the main continent of Atlantis in the South China Sea. There are many factors here but he identified a number of key points including the fact that the ancients only had one ocean (the Atlantic) and that when the Greeks (as related by Solon who got his information from the ancient Egyptian priest cults) spoke of the pillars of Hercules they once again gave it a modern interpretation. The Atlantic Ocean encompassed the entire Earth and the pillars of Hercules actually did not refer to the modern Greek interpretation (the Rock of Gibraltar), but instead referred to the ancient interpretation of the twin volcanoes of Krakatoa and its companion volcano located in what we now call the Strait of Sunda between the islands of Sumatra and Java. This was the old mariners entrance to the continent of Atlantis and the central city ... the glorious five ringed city that had each inner tier elevated above the previous ring and in the very center was a huge colossal statue in solid gold of the horse drawn chariot of Poseidon. It was noted that from anywhere on the distant plains one could see the marveled statue.

The mariners could see the plumes of the two giant volcanoes far out to sea and at night the glowing calderas lit up the columns to guide their way for hundreds of miles out to sea. It was also noted that the entrance to Atlantis was through shallow thick vegetation beds and there was limited passage. It was well protected naturally and it was said that any unwanted intruders would be burnt out of the water by light beams that came from huge lenses and mirrors that guarded the approaches to the main continent.

Atlantis of course had many colonies and it is speculated that Egypt at one time was a colony of Atlantis. The old legend ends with a massive war taking place between the rival world powers (the precursors to the ancient Greeks) and according to legend the tide of the war was swinging in favor of the Greeks when the shoe dropped. The world was taken asunder in a single night of devastation and Atlantis went down under the sea. The Greeks that survived were the simple sheep herders who survived the cataclysm in caves high in the mountains. The Egyptian priest cults told Solon that they had recorded no fewer than five such events in their known 10,000 year history.

The pre-cataclysm world had the old north pole in the region just north of the states of the current states of Michigan and New York somewhere in Canada. It apparently resided in that location for a very long time prior to that. Such indications are the fauna (and lack of even small animals) preceding the "ice age" in that area of the world whereas areas such as Siberia were teeming with huge mastodons and related animals. This would then open up our current north pole area to be open sea and the continent of Antarctica would have been habitable by huge populations. The old south pole then was a floating ice sheet located somewhere in the South Indian Ocean. With this view one could navigate the entire globe in the single ocean "The Atlantic" or otherwise called the Ocean of the Atlantians.

The case for this scenario became much stronger for me one night as I was surfing the internet in rather obscure government sites for information on submarine and underwater automated video technologies. I arrived at a link and as I backed off of the URL prefixes I found myself in what I did not realize at the time was a secure US Navy site for remote

video operations in the South China Sea. It soon became obvious that this is not a normal place to have submarine activity as much of it is impassible due to the thick vegetation and shallow regions. What became clear is that they were there for a reason and the reason was that they were in the process of searching out the remains of the lost continent of Atlantis.

In talking with some people I found out that there were daily flights out of that region (from a main base located in northern Australia) taking unknown findings to unknown locations. It is unclear what they have found. Clearly the search for the lost ancient technologies is top on the list of objectives. My personal search for the lost continent has ended as there is no doubt that it lies under massive amounts of ash from the Java volcanoes. The last reports from the ancients who tried to approach the old passage ways to the entrance of Atlantis was that there were eternal floating bogs of vegetation floating in the thick muddy muck of volcanic ash. The region was impassible. I will talk more about the last days of Atlantis in a future chapter.

## V. ATLANTIS BEFORE THE FALL

Chapter I described the basic principles of two of the many “Local Electric Batteries” or LEBs. These are naturally occurring electric fields that occur as a result of our presence in the solar electric fields. How all of this originates is quite complex and do not feel bad if you are somewhat confused about their nature at this point (few well trained plasma physicists understand them either). The point is however that the ancients did not need to know all about the Physics of these fields to learn about them and use them.

I speculate myself that the colossal spectacle of the statue of Poseidon and his chariot of golden steeds in the central high plateau of the center of the urban metropolis of Atlantis was more than just a statue. It was also the highest point that reached electrically to the sky to draw on the unlimited power available from the ionosphere.

Another point that I have come to discover is that there is an electrical property to the region in the area of the South China Sea and is more than mere coincidence. This is an area that I learned early in my studies of space and space flight was an area where NASA did not like to fly over and if they did they hunkered down for elevated electrical conditions and ceased all communications. This always intrigued me but why should a specific place on land have anything to do with a spacecraft hundreds of miles over head?

This of course was in the late 1960’s and early 1970’s, before I had solidified ideas about the electrical nature of the solar system. Now it has become obvious after studying this area for many years and especially the weather that develops there. Before discussing this area and its special electrical properties, a look at other similar places on Earth will shed some light on what is going on in the South China Sea and what made it such an ideal home for Atlantis.

One such area is the east coast of Florida, the most lightning prone place on Earth. The sand and saltwater shallow basin offshore gives it an ideal “ground” for storms moving in off the Atlantic Ocean that have been building with no outlet or ground since leaving the coast of Africa. The ocean itself is a poor electrical “ground” and this in fact is one factor for the cause of hurricanes (a subject beyond the scope of this book). As the storms (that are electrically attached to currents arriving from the ionosphere) approach and become grounded off the shallow Florida coast they unleash with huge amounts of pent up electrical energy. I have many times watched this after dark while flying down the coast of Florida and the lightning is constant for hours and many times OUT OF A CLEAR UNCLOUDED SKY!!

Another such place is the Great Salt Lake in Utah. I have talked to many people who watch the lightning over the lake and many times also out of a clear blue sky.

Eighteenth century Russian explorers used to comment that the auroras always followed the coastlines. This was the same effect and as I now know this is a direct link from the ionosphere to the most accessible electrical connections on the ground. These of course can occur without any cloud cover ... as the old expression goes ... when you gotta go you gotta go! So too it is with the LEBs around the ionosphere ... when they are built up over capacity they will unload to the nearest electrical sink or ground.

One more worldwide observable phenomena involving ionosphere discharges is the active volcanoes that dot the Earth. Figure 3 below is a photo of a lightning connection

to the top of an active volcano in the South China sea area taken at night. The volcano of course is a tall “finger” spewing hot ionized material skyward and this makes it a perfect attachment location for electrical currents coming from the sky.

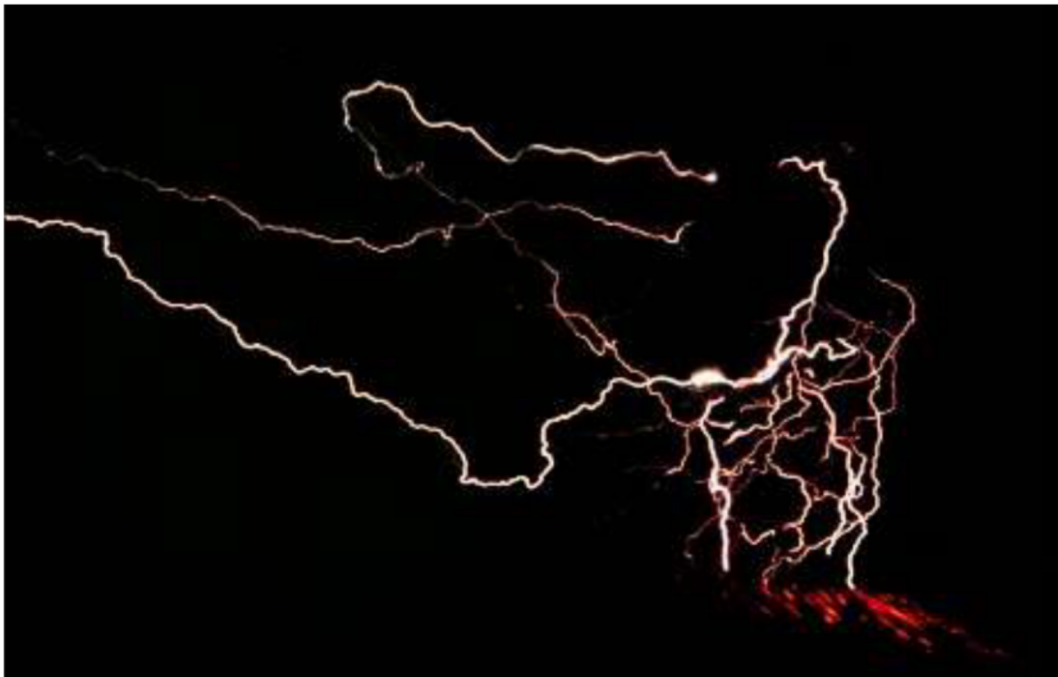


Figure #3. Lightning above a volcano in the South China Sea.

A later discussion will talk about the possibility that some Earth volcanoes either erupted or were actually burnt into the ground by immense electrical discharges from outer space. My original comet papers of 1981 identified one moon of Jupiter called Callisto that had an obvious electrical discharge crater burnt into its surface. Other researchers have since found other possible locations where enormous electrical discharges have left their marks.

With this in mind one must understand that the old Atlantis before the pole shift was about 15 degrees south latitude and, as with that area now, it had a clear easterly path for storms to come in directly from the open ocean with no interruption all the way from what we now call South America ... OVER HALF WAY AROUND THE GLOBE.

Add to this the fact that this area harbors one of the most intense connections to outer space electrically and the fact that it is a continent sized shallow basin ideal for grounding out the storms that have been building for weeks over open ocean ... and this was the old home of Atlantis. They had more free electrical power than any other place on Earth and in amounts that stagger me still after years of realizing the factors they had in their favor. Is it small wonder that they became adept at wielding huge amounts of power and learned the many uses that you are about to learn about in these pages. They were essentially immersed in an endless river of electrical energy coming out of the sky.

With 10,000 years to develop I can only imagine that the lost continent was a spectacle that would dwarf our modern image of advanced civilization. I also reaffirm that the colossal statue of Poseidon was an energy collector and at night would be seen

for hundreds of miles as a never ending light show with dazzling arcs and discharges into the sky.

In addition to being an energy collector it also was the first stage of launching or receiving the voyagers from the interplanetary flights to Mars and possibly beyond. The electro-magnetic propulsion systems would use the vertical beam (actually its associated magnetic field) to accelerate upwards and out as well as braking on the way in. The spectacle with its millions of inhabitants would rival any modern city and airport.

Energy collection and distribution by such a system is a complex electrical engineering problem but is not unlike the electrical grid system we use today in the United States which of course uses the components still today that were designed by Tesla at the beginning of the 20<sup>th</sup> Century. We will later see that Tesla got at least his initial ideas from historical documents that had been passed down through secret societies and very possibly (in fact most probably) originated in Atlantis. If he arrived at some of his more advanced ideas independently (which is entirely possible), as with any principle in physics, once you have the idea and the basic theory ... the rest is simple physics and mathematical analysis.

This by the way historically is what constitutes the great scientific discoveries of history. Many times it is the key that redirects the future that is historically seen as the great discovery (although most if not all of these huge altering discoveries are rejected by the scientific communities of their day).

The collection from the ionosphere involves the initial breakdown of the first LEB that was discussed earlier. Controlling the electrical flow from a natural and changing source to match the needs of the user community would be difficult but, as mentioned, not unlike the diode sharing concept utilized in our electrical grid system today.

Producing electrical energy today is done by power generation and this then is converted usually into steam which drives generators which in turn generate the electrical power. There is another trick learned long ago in power distribution ... that it is easier and takes less power to distribute high voltages than low voltages for the same amount of power distributed by the system. This is because the power dissipation is related to the "current" in the line and the same amount of power can be distributed in a high voltage-low current system as with a low voltage-high current system but with much less power loss because the high voltage system moves the same amount of power with less electrical current.

So this gives the first option for power distribution. Now looking to the more interesting part of the "circuit", the collector, and with a basic statement already made about what has to happen to the electricity once it is collected, attention can be turned to the collector itself and how it works. As already mentioned the Earth harbors a huge vertical electric field and this is sustained ultimately by the Sun's electrical power distribution system.

The trick to tapping into the vertical field and controlling the flow of electricity once it has started involves the concept of the "dielectric" properties of our atmosphere. To illustrate this imagine two metal plates separated by a few inches. We connect a battery with one battery terminal to one plate and the other battery terminal to the other plate. The current will flow from the battery to the plates and they will move electrons from one plate to the other creating what we call a capacitor. If you move the plates closer together they will draw more charge out of the battery. These are all simple concepts of the

capacitor that you would learn about in a basic Physics course. The dimensions of the plates and distance between the plates are combined into a simple formula to give the “capacitance” or electrical charge holding ability of the capacitor. If you all of a sudden placed a wire between the plates they would rapidly discharge and then draw on the power of the battery to replenish the plates with charge. This would happen until the battery and the capacitor charge were depleted and this would be the end of your power source.

From this simple example you can see a number of principles. The first is that of the simple capacitor. The second and very important is that without a sustaining battery, once you begin to drain the capacitor, the system will be drained of electricity and will no longer power anything. So you need a sustaining power source. This by the way is where most “inventions” for free energy do not cut the mustard ... they do not have a sustaining source of energy. The ongoing flood of such imposter “inventions” on the market has given “free energy” a bad name. They are offered by people who do not understand this simple principle which in Physics is simply called “conservation of energy” ... you do not get something for nothing.

In the Atlantian and Tesla scenarios there is a constant power source to back up the system and it is enormous and is ultimately powered by the electrical output of the Sun. In fact if you do not use this energy it will come at you in the form of tremendous storms. The pent up energy will go somewhere whether you use it or not. So you can either use it to light your houses across the land or let it rip up a few peoples houses and trees by way of powerful storm systems.

Back to the capacitor example. Let’s start the capacitor with a fresh battery and not short it out, but leave it sit for a time with just the battery attached. We would see what we call “leakage current”. Thus, a small amount of the charge would “leak” off the plates and very slowly and continually discharge the capacitor. If we increased the battery voltage by adding another battery next to the first, the leakage current would not double but would increase more than double. Now let’s continue to add batteries which would increase the voltage between the plates (and therefore the amount of charge each plate is holding) and eventually there would be a “breakdown” and electrical current would flow from one plate to the other until much of the electrical charge was gone from both the plates and batteries.

We are almost done so stay with me. Now we are going to add a material to the area between the capacitor plates. This is a material that has a dielectric property that allows the plates to hold more charge than without it and therefore we can add more batteries to the plates before the total discharge occurs. So all of the above experiments would be performed but we would now get less leakage current and the capacitor would hold more charge and we could put a higher voltage across it without it discharging. By adding the dielectric we have enhanced the ability of the capacitor to hold charge and resist breakdown.

The final step is to drill a hole into the dielectric material and put it back in place between the capacitor plates with the small hole where there used to be dielectric material. The capacitor will have more leakage current and breakdown sooner in the area where you drilled the hole in the dielectric ... in fact you will never reach the conditions of breakdown anywhere else since all the charge will flow and dissipate from the plates in the region where the dielectric value is less.

You now have the basic Physics to understand what the Atlantians and Tesla were doing when they tapped into the vertical electric field. The first thing to understand is that the air in our atmosphere is a dielectric material and increases the amount of charge one can hold in the atmosphere. If you can devise a way to reduce that dielectric value along a vertical column then you have the ability to unleash the current stored in the ionosphere and it will come to you. Now the next trick is to control it.

There are numerous ways to break down the atmospheric dielectric and therefore the vertical electric field. I will only talk here about the primary way used by the Atlantians and later about the method used by Tesla.

I might mention here that in the my studies of weather and the causes of cyclonic storms sometime in the 1990's, I realized first that the tremendous storms we see are in fact created and sustained by the same vertical electric field. Secondly, if you know what causes the severe storms, then it would become possible to reduce their energy before they did the damage by dissipating the current flow (this topic is beyond the scope of this book).

I showed a picture earlier in this book of a lightning discharge display above an active volcano in the South China Sea. Since this area is very electrically active the conditions for electrical breakdown are far less than other places on Earth. In fact it is apparent that you could witness and therefore begin to learn about these principles just by walking around and looking up. It is little wonder that this area harbored the Atlantians with their incredible sense for the use of naturally occurring electricity.

So it may have been enough to raise the huge golden statue of Poseidon in the central plateau of the city and this would have initiated the flow of current from the sky. More likely however this would only have created a limited and "partial breakdown" and discharge of the vertical electric field and would have needed to be enhanced by some other method. The method that is easiest is to build what is known as a many ground system. In other words you would run a wire distribution system outwards from the central collecting point and ground (attach to metal stakes pounded in the ground) the many distribution lines. This would bring about an increase in the amount of current being drawn from above. In the middle of the wire distribution system one would then place the "load" or items to be powered.

Another method would be to wait for a time of increased electrical activity as with a storm, and draw the electricity primarily at that time. There are more complicated methods and certainly the Atlantis engineers would have learned new and better methods.

A more complex but reliable method would involve the use of complex alternating current technology as was eventually used by Tesla. The Tesla Tower as it is called, is basically a complex high-voltage transformer. This will be described in greater detail later in the chapter on Tesla. There is the possibility that the Atlantians used stored energy and batteries and then transmitted a light beam vertically to alter the dielectric properties of the atmosphere, which would then induce the desired current flow.

The entire topic of batteries at this point is a mystery, however it would be hard to imagine Atlantis with all its advanced engineering and electrical know-how not having the use of something as simple as a battery. There have been rumors that the ancients knew how to construct huge batteries using seawater. There are many indications that come to us from ancient texts that describe different forms of batteries.



It has become apparent to me at least that Atlantian engineers knew how to separate the components of water (hydrogen and oxygen). There are three ways to use this as fuel to generate a battery. The first is the common way we hear about today with the hydrogen cell that has been used in the space programs. The second is to recombine hydrogen and oxygen to form a highly volatile chemical reaction (used as rocket fuel in our most advanced rockets). The third and least commonly known method of using hydrogen is that of the contained fusion battery which must have been the form of power that they used in their electro magnetic propulsion systems.

At any rate, with the ability to store energy in large quantities, Atlantis' ability to redirect this energy upwards to breakdown the vertical electric field would have been guaranteed. Once the vertical electric field was broken down, that is, a breakdown of the dielectric in the vertical direction was accomplished, then the current flow would have occurred continually and naturally for use in the five-ringed city.

This leads into the topic of manufacturing and using the electrical power to build devices and items needed to distribute the power to the city and beyond. There is one last consideration that we have learned from the work of Tesla, that is Tesla was always of the opinion that we should distribute our electric power without a grid system. Alternating current power distribution can be accomplished without wire as is demonstrated in simple laboratory experiments. A central distribution high-voltage electrical source sets in the middle of the distribution system.

The devices to be powered such as light-bulbs, motors and other devices need to be situated such that the input and output electrical connections are on the near and far side and aligned in the direction of the power source. With the high-voltage source on, the voltage is literally transmitted through open air and the devices light and operate as if they were connected by a wire. This was Tesla's concept of our distribution even though he invented and created all of the devices that we now use in our current grid system.

I have never quite understood this concept, but possibly from the viewpoint of Tesla at the beginning of the 20<sup>th</sup> century when there was little development throughout the countryside, that idea would possibly have been feasible. But with the level of power that is being moved around the country today it would be inconceivable to imagine this much power moving through our environment. This is especially true as we now know about the hazards of EMF and related health afflictions associated with concentrated power distribution. There is little doubt anymore that a universal distribution system on a large-scale would soon be recognized for the hazards it was creating.

The power that is derived from the vertical electric field however, would be no more than that which would normally flow to the surface of the Earth through powerful storms and therefore would create no more hazard than already exists. One would have to balance in a modern world the side effects of such a system with the pollution hazards that exists in the systems that we currently use today.

Whatever the method that was used in Atlantis, it is clear that they had such an enormous source of unlimited power, that collection of power from the vertical electric field would not have posed that great a problem for these masters of free electricity.

The most immediate use of the unlimited power would be in manufacturing ... what I call "of glass, metal and fire". The most immediate need in any distribution system for electricity would be a device called the diode. This is a device that has very interesting electrical properties. If you attempt to push current through it in one direction, current



will flow freely and unobstructed to almost an infinite value. However, if you attempt to push electrical current through this device in the opposite direction no current will flow at all. Diodes are used in many sorts of controlling circuits. They are used to convert alternating voltages or currents into direct or non-alternating voltages or currents.

More importantly in the case of power distribution, they are used to control the flow of electricity between elements of what we call the grid system. "The grid" as it is commonly called today, is a system of nodes or regions that each independently produce and use electrical energy. The primary problem with any electrical distribution system is that the producer never knows exactly how much electrical energy will be used by the consumer. So there are two types of problems, the first is not producing enough electrical power which will cause the voltage to drop and electrical devices will not function properly. The second is when too much electrical power is produced for the use or demand.

The engineers that manage our modern electrical power distribution system follow past patterns of usage for various times of year and times of day. On a hot summer day the grid is usually taxed to the limit as people are using air-conditioning, which is a great consumer of electrical power. If each individual element of the grid system operated totally independently, then each region would have to be very attentive to the needs and requirements of their local area. However thanks to the use of a special type of diode, the distribution system between the grid system helps balance the load. This diode has a property that when you attempt to push current in the reverse direction, it will block it only up to a certain point and then will allow unlimited current to pass as in the forward direction.

So the grid systems are connected with diodes facing each other which allow current to flow from one grid that has too much power through to an adjacent grid element that is not generating enough for its end users. The system works quite well under normal conditions. It is only when huge electrical storms arrive from the sun that the grid system is affected due to the fact that unanticipated currents are induced into the system by the passing electrical storm.

In 1997 I was monitoring the grid system of the western United States and a power outage began in the remote small town of Roswell, New Mexico. This is normally not that unusual for such a small remote town. It was unusual that in the hours that ensued, the grid system began to go down piece by piece and state-by-state until seven of the western states including California and into Canada were completely shut down. The joke of course was that this was due to aliens since it began in Roswell, NM. I never did get a firm explanation for what caused this power outage but I also wondered if someone there was doing some sort of Tesla experiment.

Returning to Atlantis and manufacturing, it is certain that the manufacture of glass and evacuated or vacuum glass tubes would have been an important aspect of the entire culture. These would have been used in the manufacturing of diodes (which of course were manufactured in the form of glass tubes before our transistor age), and also in the manufacturing of glass tubes for the hydrogen fusion batteries as well as a hardened glass tubes required for their electro magnetic propulsion systems.

We know from legend that Atlantis had extensive use of mirrors and lenses. This would imply that they knew about the telescope and therefore had significant programs in astronomy. They also knew how to direct sunlight which is by itself an extremely

powerful source of energy. Even a small lens will generate a tremendous amount of concentrated power. A lens or reflecting mirror gathering sunlight of say a ten foot diameter would be sufficient to melt steel or anything else for that matter.

So the manufacturing of glass certainly had to be an essential part of life in Atlantis. This leads to the likely possibility that they learned of the use of neon and other inert gases in sealed glass tubes to produce light. This of course would be exactly what they would need to develop the tube systems needed for the electro magnetic propulsion systems described below. This leads to the further possibility that in fact they had developed the use of gas tube lasers.

With the use of simple electrical devices such as the diode it is clear that it would be just a matter of time until they developed directed energy devices such as were developed by Tesla once he understood the principles of high-voltage – high-energy devices. Now we are well within the realm of the activities likely to have been in place during the height of development of Atlantis.

The reader now has a clear concept for the great interest in ancient archeology exhibited by modern military experts. It is highly likely that the civilizations that existed prior to the great cataclysm were far in advance of our own with respect to use of these powerful energy devices. But what I find amazing is that they did all of this without the use of computers and in a country where we know they were still using horses, chariots and with mastodons roaming the vast plains of Atlantis and its countryside.

It is known from the historical record that Atlantis was a colonial empire that spanned the globe, thus the term “Ocean of the Atlantian’s” or what we call today the Atlantic Ocean. Recall that at that time there was only one Ocean that spanned the entire globe. It is clear that Atlantis and its armies were scouring the globe for resources and this is why eventually there became a great conflict with the other superpower, the precursors to the Greeks. After the estimated 10,000 years that Atlantis had to develop, they must have used a considerable amount of the world’s resources, and at a certain point they would certainly have had to live within an almost purely recycling mode as we are learning we must do today.

But as with any warring nation, eventually there would be only room for one superpower at the top. It was at this time that the legendary fall of Atlantis occurred by means of a worldwide event that took Atlantis under in a single night of devastation. We also know that concurrently with the existence of Atlantis was the vast empire known as Lemuria or to some it is known simply as Mu. Mu was reported to have been a peace loving country whose citizens lived in harmony with the earth. They developed mental capacities and telepathy. Scholars have said that these were the precursors to the civilizations of Japan, the Far East, China and Tibet.

There have been many theories over the centuries regarding the true location of Atlantis, however, none met all the requirements needed to be the central principle city of the continent that housed the five ringed capital city. What is more likely the case is that the many other locations were in fact worldwide Atlantian colonies and therefore reflected many of the qualities of Atlantis itself. I wish to reiterate that in the archeological digs that we find around the world, much of what we are unearthing today is from the post cataclysm time. It is difficult to differentiate between the pre and post cataclysm epochs.

The most telltale characteristic however is when we see definitive reference to the cataclysm in the archeological site such as in the case with the Mayan, Aztec and Inca civilizations as well as the civilizations they gave rise to ... the more modern Meso-American civilizations, or what we now call the pre-Columbian Civilizations of Central and South America.

I began with a discussion of glass and its uses. By far this would be the first thing required of an advanced nation to develop as a critical element to all of these high level technologies. Next would be metals. With the intense temperatures that could be achieved with unlimited electrical power and with lenses already in existence, the manufacturing and knowledge of metalwork would come naturally and in short order. Some of the finer aspects of metalworking would be incorporated into the glass manufacturing such as in the production of vacuum tubes, pressurized sealed glass filled tubes, and tubes projecting electrodes. The coating of glass with metal is another important aspect of producing important products such as the diode, mirrors of high-quality and other forms of glass products that might be used in laser and other high-energy beam devices.

Other uses of metal are in the manufacture of wire, strong but lightweight materials for spacecraft design, as well as all the other uses one might imagine from a highly developed technological society. With the use of mirrors, one could redirect incoming sunlight into a vertical beam that could be used to breakdown the vertical electric field to initiate the flow of electricity from the atmosphere.

At this point the reader is probably wondering why, if these things are so simple and can be accomplished by a relatively primitive society, why are we not using this amazing technology to advance and why are we burning fossil fuels and nuclear fuel with all the related pollution side effects. This topic will be discussed in a later chapter.

The construction of the ancient spacecraft required hardened glass and highly purified metals. The following diagrams give the basic ancient spacecraft designs. These are the same designs that I presented in the 1982 to 1986 timeframe in a series of talks that I gave to the inside corporations and to the international community of scientists as an invited speaker. The one condition that I consistently gave to anyone who received these designs was that they could not be used for military purposes. The result of those efforts and what happened to the designs are beyond the scope of this book. Suffice it to say that I learned the hard way that there are many dishonest people in the military industrial complex, in fact, after all my experiences I would say I would be hard pressed to find anyone that I would trust.

The designs given below are rudimentary and the complete designs including the physics and construction details are too voluminous to include in this book. However, anyone with an engineering background could eventually build these devices from the plans given. The velocity obtainable by these vehicles is nearly unlimited, as they do not carry any propellants, but use internal hydrogen fusion batteries to push electrical currents through glass tubes, with the electric current being contained within the tubes (glass is an insulator) and pushing against the local environment magnetic fields.

Therefore it is called an "electro magnetic propulsion system", or what I have generally abbreviated as MPS. The fusion battery is modeled after my theoretical work on the surface fusion that we now know must exist on the sun, that is a form of super atom state. The battery is constructed by placing pressurized hydrogen in a sealed glass

tube with electrodes on opposite sides of the tube. The super-atom state is induced by first running a very high electrical current through the pressurized hydrogen tube. This creates a form of ball lightning within the tube which is a separated condition of all of the hydrogen atoms in the vessel. The nuclei form a loosely bound super nucleus with the electrons moving around the super nucleus to form a super atom. Specially formed electrodes are then used as the terminals of the battery that drive the current through glass tubes that ultimately pushes against the local environment magnetic fields.

The construction is such that the current flows through the glass tubes in a single direction relative to the local environment magnetic field, and return current sheet flows around the outside skin of the spacecraft. The glass tube propulsion system can be attached to the myriad of spacecraft designs ... from small shuttlecraft with gyro stabilizing wheels to large interplanetary buses which ride the magnetic fields generated by the interplanetary electrical currents described earlier.

There is little doubt that the Atlantians had reached the planet Mars. Recall that Mars prior to the cataclysm had an orbit which passed much closer to earth than the current orbit of Mars. It was in fact the passage of the large comet that caused the devastation to earth that had also shifted Mars into the much farther orbit than we witness today. So the passage from Earth to Mars at the time of Earth's inferior conjunction to Mars (that is, when Mars and Earth were in line with the sun) would have been only a few day trip for the space faring citizens of Atlantis. As already noted, Mars at that time was as the planet Earth, that is, it was a thriving vibrant water planet.

The legends tell us from every corner of the world, that the ancients stood in horror as they watched the atmosphere and oceans sucked from the planet Mars as a huge comet passed with its serpent like electrical extension connecting the huge comet to the neighboring planet. There is no doubt that one of the great secrets of NASA and its controlling security agencies is that they have found the ruins of the lost civilization on our neighboring planet. When word reached the Japanese, they quickly built a spacecraft and sent it to Mars to observe what they knew had already been discovered. Word has it that the U.S. military sabotaged the Japanese spacecraft which never made it to the planet Mars.

There has been a good deal of hype about the so-called "Face on Mars" but this is nothing more than a shield volcano which has breached the gap of the caldera's rim with lava as we see on many Earth volcanoes (a good example is the rim of the Hawaiian volcano Haleakala on the island of Maui). What I have seen however, is a clear evidence of walls that surrounded cities that once existed on Mars where the geometric forms had been etched out of the satellite photographs, but they forgot to remove the shadows of the walls in their effort to hide this information from the public.

There is sufficient evidence today to indicate two results. The first is that there was ancient space travel from Earth to the planet Mars when Mars was a vibrant water planet just like earth. This also tells us that the so-called modern missions to locate the lost water on Mars are a farce and cover up of the real purpose of the missions which is to explore the ancient ruins. It is clear that the secret societies that now control our military and our space program have no intention of letting us see any of this information which is in fact our heritage and birthright. Once again, we are paying for the toys of the rich and being thrown a bone for payback.

With this in mind, I will present the designs of the ancient spacecraft. Designs are contained in the form of the publication of both the original theoretical work and practical designs that were published in 1987 following the presentation of this topic at the AIAA/DGLR/JSASS 19<sup>th</sup> International Electric Propulsion Conference held in Colorado Springs in May of that year. I also presented the same technology as an invited Faculty speaker at the Air/Space America '88 Air Show and conference sponsored by the U.S. military and American military manufacturers (to be in direct competition with the very large international French air show).

In both these presentations I have presented myself as an Independent Scientist as I did throughout my career at these types of conferences. The paper will take 28 pages of text so the reader may wish to read briefly to pass on to the rest of the book. It should be mentioned that the designs given in this paper lack the fusion batteries that are essential to its correct operation. I never included these in the presentations or designs that I gave to people in military as it was the one key element they would need to make it work properly and I did not trust them to not use these devices for military purposes which was one of my requirements that came in the non-disclosure and usage agreements that were always included to anyone who had access to the designs. This paper holds a 1987 copyright with a 1982 design copyright that preceded it.

CP / MPS  
- CONTAINED PLASMA MAGNETIC PROPULSION SYSTEM -  
AN ADVANCED PROPULSION CONCEPT

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Abstract

A new concept for an electric propulsion system is presented which combines small physical size with high current densities to produce usable propulsion for satellite docking, remote manipulation of satellites and sensitive payloads, station keeping, space tug or orbital transfer (OTV) and for a transatmospheric vehicle (TAV) which is gyro-stabilized. The design has evolved over the past five years to its present state. The concept is described and placed into perspective with state of the art MPD and electric propulsion devices.

Nomenclature

	(all parameters in MKS units)
$B_{ex}$	external magnetic field
$l_{pt}$	length of plasma containment tube
$i_{pt}$	current in plasma tube
$F_{pt}$	force on plasma tube
$t$	time
$P_{I/F}$	ohmic power loss in electrical interface
$P_b$	ohmic power loss in batteries
$P_{pt}$	ohmic power loss in plasma tubes
$P_{tot}$	total power dissipated in system



$F_{pt}/W$	thrust to weight ratio (lift)
$I_{sp}$	specific impulse
$V_{pt}$	voltage drop across plasma tube
$n$	number of electrons in plasma tube
$N$	number of ion charges (not ions) in tube
$q_e$	basic electric charge
$v_e$	average velocity of electrons in tubes
$E_{ff}$	efficiency
$P_r$	pressure (in torrs) inside tubes
$R_{pt}$	resistance of plasma tubes
$R_{I/F}$	resistance of electrical interface
$R_b$	resistance of batteries
$R_s$	resistance due to space charge sheathing

### Introduction

The concept is based on a contained current of electrons and/or ions pushing against a naturally occurring or artificial magnetic field. Currents are contained within evacuated glass tubes and are generated by essentially providing a short circuit between two high current/low voltage DC power sources. The system is self contained, that is, there is no mass transfer to the environment (it is not an inertial propulsion system).

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Typical currents range from 10,000 to in excess of 1 million amperes, depending on the physical extent of the plasma containment tubes, the local magnetic field vector and the force required. Although current densities are very high, total power consumption is low due to the high conductivity of the evacuated glass tubes and associated electrical interfaces.

The applications of the CP / MPS are divided into two categories: low current density devices (docking, remote manipulation and station keeping) and high current density devices (OTV and TAV). There may be overlap depending on a specific use or depending on the level of force required (e.g. high impulse or low force applied over a long period of time).

Low current density applications such as station keeping or docking may use presently existing electrical power sources such as thermonuclear, solar cell panels or solar/thermal conversion. These all require an electrical interface between the power source and glass containment tubes, utilizing metals with glass-like thermal coefficients of expansion. The design of this interface is critical to optimal system performance (heat dissipation is a critical factor in this design). In the low current applications, electrons are the only particles passing inside the containment tubes.

High current density applications such as the space tug and TAV use a newly designed "free plasma fusion" reactor which provides very high currents which are injected directly into the plasma tubes, eliminating the need for an electrical interface with its associated cooling problems. In the high current devices, both electrons and ions are injected into the plasma tubes (in opposite directions), although ions contribute a negligible component of the overall current.



Figure 1 illustrates the basic MPS concept as used on a testbed, the magnetic field  $B_{ex}$  supplied by helmholtz coils (arrows indicate movement of electrons, not current flow). Use of a large

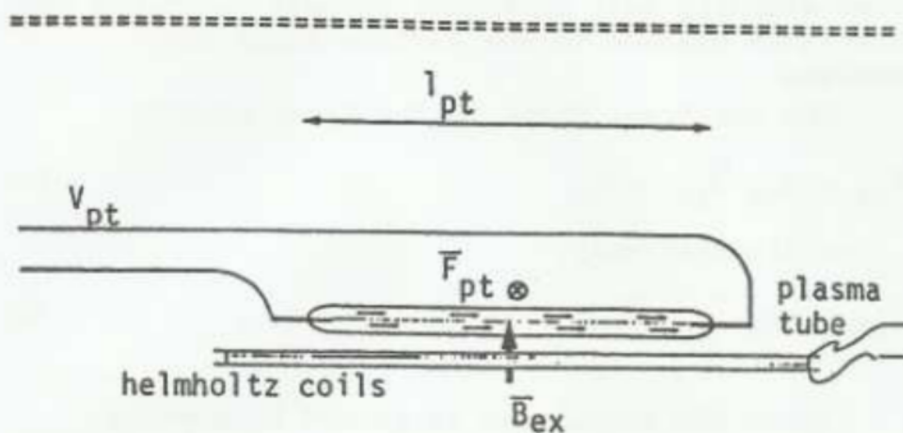


Fig. 1 Containment plasma tube of length  $l_{pt}$  on a test bed with helmholtz coils producing an external magnetic field  $B_{ex}$ , resulting in force  $F_{pt}$ .

artificial magnetic field greatly reduces the plasma tube current requirement in the laboratory. Later figures will show how two containment tubes and two batteries can be combined to produce a free standing self contained propulsion system and how it is adapted to the various space craft designs.

The resultant force is the cross product

$$\vec{F}_{pt} = i_{pt} \vec{l}_{pt} \times \vec{B}_{ex} \quad (1)$$

or alternatively,

$$\vec{F}_{pt} = nq_e \vec{v}_e \times \vec{B}_{ex} \quad (2)$$

Since the propulsion is gained by pushing against the local magnetic field, unusual orbits can be maintained which are not achievable with chemical thrusters. These orbits are possible due to the magnetic coupling combined with keplerian orbital dynamics.

An additional feature is that, since no matter leaves the system, there is no pollution. This may be of value in applications where optical or other equipment must be maintained free from contaminants. One negative side affect is the production of electromagnetic interference (EMI), although the use of fiber optics cabling, inboard power regulation and double Faraday shielding around sensitive electronics will cure most interference problems.

A number of engineering difficulties exist in the design and construction of the power source - plasma tube system. In the low current density devices using standard power sources, heat dissipation and thermal expansion of the metal to

glass interface remain a problem. In the high current density devices using the free plasma fusion reactor, more research is needed in the containment and control of the fusion plasma. In spite of these difficulties, station keeping, docking and remote manipulation of satellites are all feasible with existing technologies. With properly directed R&D efforts, the transatmospheric vehicle could become a reality within the next 15 years.

### Theory

The configuration of two batteries and two semi-circular tempered glass plasma containment tubes permits forces to be generated with the maximum number of degrees of freedom, given a space craft with random orientation in an external magnetic field. Glass is used because 1) it is an insulator and will contain the electron current and 2) the external magnetic field will permeate the glass tube, allowing the electrons to interact freely with the magnetic field. Without containment tubes, currents insufficient to produce the pinch effect will be difficult to contain for usefull propulsion (it will not be possible to maintain a closed circuit over the range of operating conditions). Since this may be the case for many situations with all MPS designs, it is clear that the plasma tubes are required for proper operation. Also, without tubes, the space craft would always have to be prepositioned with respect to the magnetic field before firing (requiring other forms of thrusters).

Figure 2 shows the battery and tube arrangement as used on all space craft (equations

1 and 2 hold for this configuration where  $i_{pt}$  is the combined current of the two tubes and  $l_{pt}$  is the diameter of the tubes. Gyro-stabilization and an aerodynamic disk are utilized in the trans-atmospheric vehicle design. For many reasons, two semi-circular tubes form the optimal arrangement.

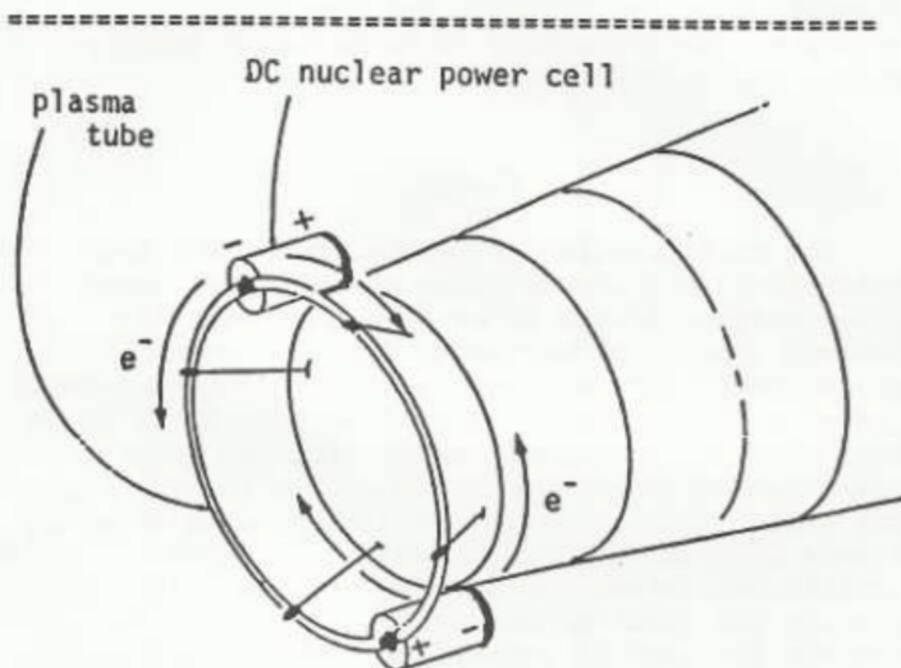


Fig. 2 Plasma tubes and DC power cells attached to a cylendritic hull.

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The free standing self contained propulsion system is made possible due to the return current passing around the shell of the satellite (it does not contribute to the net force). Very thin wires are embedded in the skin of the satellite,



providing an initial electrical path (during operation, the current flows around the satellite skin). Only electrons are shown to pass inside the tubes in Figure 2, indicating the use of standard thermo-nuclear DC power cells. The arrows indicate the direction of electron movement (not current flow).

The following presents a hypothetical MPS system with the equations and parameters which affect its performance. A 450 kg satellite in orbit with a local magnetic field strength of  $1.5 \times 10^{-5}$  weber/m<sup>2</sup> uses a pair of semi-circular glass containment tubes which are powered by two nuclear power cells each capable of generating  $10^5$  amps of continuous DC current at a maximum voltage level of less than 0.1 volt (two 5kW generators will be sufficient). The linear distance between the points of attachment of the batteries is 4m (1<sub>pt</sub>).

Assuming the electrical interfaces between the power cells and glass tubes have dimensions of 6cm in diameter and 1 cm thick tungsten (giving a total resistance of  $3.5 \times 10^{-7}$  ohms), the total power loss ( $P_{I/F} + P_{pt}$ ) will be approximately 1.8 kW for each tungsten interface with a current of  $10^5$  amps. This also indicates the cooling requirement for each interface. Approximately 2 lbs of force are generated (sufficient for station keeping or orbital transfer) requiring an applied voltage of only 0.035 volts. This result does not include the ohmic power loss in the batteries  $P_b$  or effects due to space charge sheathing of the electrodes. The thrust to weight ratio  $F_{pt}/W$  is  $6 \times 10^{-4}$  with a near infinite specific impulse  $I_{sp}$ .

The dynamics of the plasma flow require use of a shielding term to determine the correct voltage necessary to drive the current at the level specified above. The circuit equation is given by:

$$V_{pt} = i_{pt} (R_{pt} + R_{I/F} + R_b + R_s). \quad (3)$$

The plasma tube resistance  $R_{pt}$  results from electron/ion collisions and depends linearly on  $1/P_r$ , the inverse of the pressure in the tube. It also depends on the friction between the contained electron beam and glass tube (which depends on the force generated, which in turn depends on  $B_{ex}$ ).

The electrode shielding term  $R_s$  depends on the number of electrons "n" and the number of ion charges "N" in the plasma tube current, using the approximate relation

$$R_s = f_s (n + N) \quad (4)$$

where  $f_s$  is an empirically measured quantity ( $f_s$  depends also on the level of thermionically emitted electrons at the interface electrodes). It is therefore beneficial to produce higher energy electrons, requiring proportionately fewer to generate the needed current.

The efficiency  $E_{ff}$  of the propulsion system is difficult to define when compared to other electrical devices. For example, the resultant force for an MPS device depends directly on the external magnetic field. If the field is very small, then the resultant force will be small, reducing the overall efficiency. The following expression is used to define  $E_{ff}$ :

$$E_{ff} = \frac{P_{tot} - P_b - P_{I/F} - P_{pt}}{P_{tot}} (k \cdot B_{ex}) \quad (5)$$

where  $k$  is set to  $1/B_{max}$ . This gives an efficiency of 1.0 for the ideal case where

$$P_b = P_{I/F} = P_{pt} = 0 \quad (6)$$

and  $B_{\max}$  is the maximum expected magnetic field in the operating environment. The point at which this efficiency curve crosses that of an arc-jet, for example, defines a point for comparison, although there are numerous other performance criteria to be considered. A more useful quantity for comparison might be a thrust to power ratio  $F_{\text{pt}}/P_{\text{tot}}$  in addition to specific impulse  $I_{\text{sp}}$ .

The DC power cells must be designed as current power sources as opposed to voltage regulated power sources, that is, they begin with a relatively high voltage drop, but as the current rises rapidly upon discharge, the voltage drops to a minimal value while maintaining a given current level.

An interesting aspect of the glass containment tube concept is the great increase in electron drift velocity over metal or other conductors. The typical drift velocity of electrons in a metal interface is generally a few centimeters per minute, whereas the average drift velocity  $v_e$  in the evacuated plasma tube reaches  $2.75 \times 10^5$  m/sec per applied volt. This gives approximately  $10^8$  times as much current per electron than is achievable with metals or other solid conductors.

Of greatest importance in the design and construction of an MPS system is the reduction or elimination of the electrical interface and internal battery resistances. Later it will be shown that both can be eliminated by using the newly developed free plasma fusion reactor.

An important design feature of the plasma tube is the thin tungsten wire running lengthwise within the tube. Since the applied voltage across the plasma tube is insufficient to initiate the



discharge, the thin wire is needed to provide an initial current path. As the current density rises rapidly, the current emerges from the wire to flow as a plasma within the containment tube. Rise time of the current density must be short to allow multiple uses of the plasma tube and tungsten filament.

Factors affecting the lifetime of a tube depend on the pressure within the tube (e.g. the level of oxidation), pitting caused by sputtering during the emergence of the plasma from the wire, as well as electrode and glass erosion caused by prolonged discharges. Figure 3 illustrates a typical plasma tube arrangement. Surface layer activation (SLA) methods developed for measuring erosion rates of MPD thrusters would equally apply to MPS component testing.

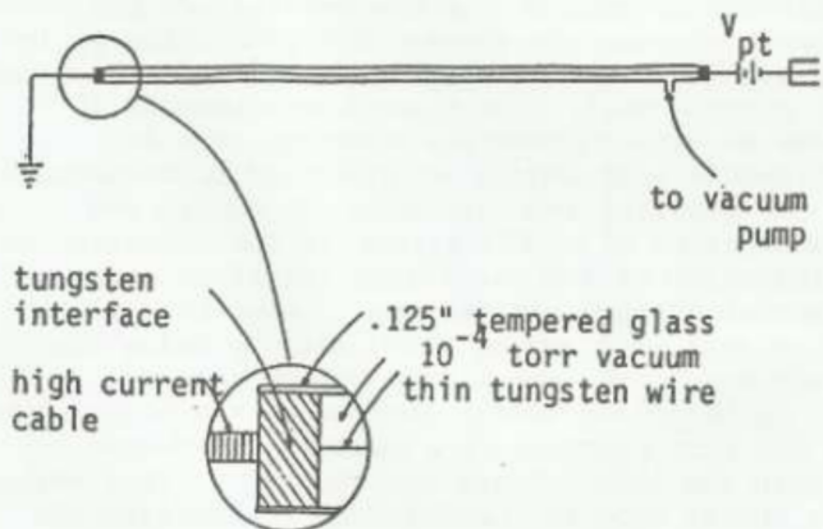


Fig. 3 A typical plasma tube including thin tungsten wire running lengthwise within tube.

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### Space Craft Specific Devices

Each device is described below in order of the current level required for useful operation. Initially it appears that the short term development should center on the lowest current density devices, however, there are inherent advantages in pursuing the very high current density devices using the free plasma fusion reactor.

### Satellite Docking and Remote Manipulation

The control of satellites from a distance is of considerable importance due to the delicate nature of components and vehicles used in outer space. The ability to approach a satellite, maneuver with it and tow or push it without making physical contact may be of value in certain applications. Achieving the goal of compatibility between all space craft will allow a common system for all craft to function in close proximity with all others.

Two semi-circular plasma tubes form an ideal magnetic coupling device for satellite docking or remote manipulation of sensitive payloads. Figure 4 shows two satellites in a docking maneuver. The attractive or repulsive forces on the two craft are governed by the relation (assuming the plasma tubes are 0.7m in diameter)

$$F_{pt} = (4 \times 10^{-7} i_{pt}^2) / d \quad (7)$$

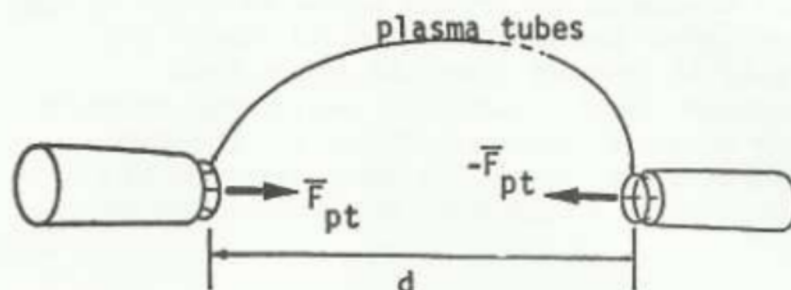


Fig. 4 Two satellites in position for docking or momentum transfer.

where  $d$  is the separation between the space craft  
At a separation of 10m, 36Nt (about 8 lbs) of force are generated by 30,000 amps in the plasma tubes.

It is a desirable feature for all MPS devices to approach and dock with all others in addition to providing the primary thrust. This gives further rational for using the dual semi-circular tube configuration. Also, for a free standing device which is gyro-stabilized, this provides the maximum number of degrees of freedom of movement without relying on other types of thrusters.

#### Station Keeping

Normally, for a typical 1500 kg satellite, station keeping can be accomplished by forces of less than a few Newtons. A 5Nt force at GEO is produced by a plasma tube (semi-circular pair) 2m in diameter with a current of 30,000 amps. For this reason, the docking/remote manipulation and station keeping MPS devices require currents of the same order of magnitude, and are designated as

"Phase I" devices (low current density devices). Additionally, since they require only the adaptation of the plasma tubes to pre-existing satellite designs, they are the simplest to implement.

A practical technique for enhancing the force is to extend the radius of the plasma tubes to as much as 10 to 15 meters. Distances greater than this introduce conflicting effects such as inability to maintain a closed circuit as the current passes around the shell of the craft, increases in tube resistivity, etc.

Another benefit is gained by increasing the specific impulse  $I_{sp}$  while lowering the applied current (e.g. reducing the thrust to weight ratio  $F_{pt}/W$ ).

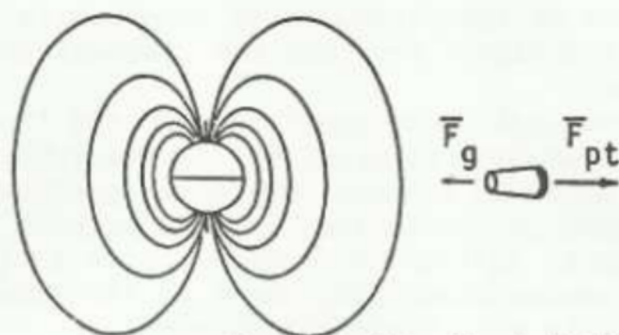
The combination of keplerian dynamics and MPS coupling with the geo-magnetic field allows the alteration of orbits as shown in Figure 5. Equatorial orbital radii can be extended or decreased, permitting geosynchronous orbits outside or inside the Clark Belt. The theoretical limits range from the upper ionosphere to approximately 100,000 miles where the earth's magnetic field is reduced below the threshold for MPS propulsion.

Also, unusual orbits are possible as shown in the second half of Figure 5. This may be useful in optical imagery, or other applications where it is desirable to remain above a non-equatorial location for extended periods of time (e.g. a pseudo-synchronous orbit).

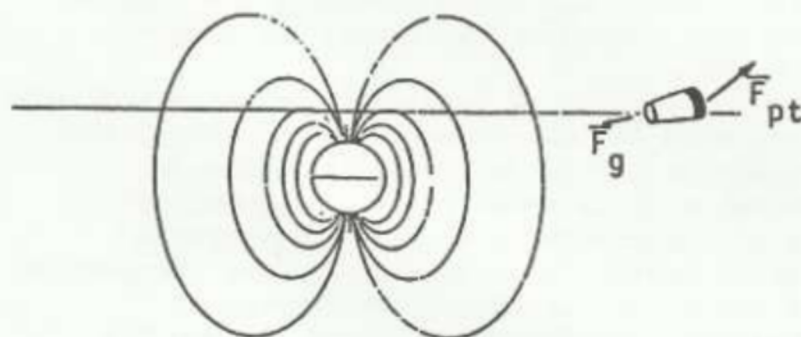
One exciting application of an MPS system would be in the exploration of the giant gas planets which support extensive magnetic fields.



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extending the Clark Belt



non-equatorial GEO

Fig. 5 New orbital possibilities using an MPS station keeping device.

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The inability of Pioneers 10 and 11, and the two Voyager space craft to stop at each planet, explore for extended periods of time and continue to the next planet was due to an inherent limitation of inertial rockets (the deliverable quantity of ejection material). Although a great deal of valuable data was gathered, each encounter only lasted a few hours.

A planetary exploration scenario has been modelled which would include the use of an MPS system to eject from earth orbit and rendezvous with both Jupiter and Saturn using both 3 body orbital capture and MPS breaking. Since many of the associated moons orbit within the magnetic fields and are of relatively low mass, multiple lunar landings and close approaches are also feasible.

The current levels and force requirements of station keeping suggest that these applications are within the limits of present technologies, and that CP / MPS devices using solar panels are a reasonable solution to extending the life of satellites which would otherwise become useless upon depletion of hydrazine propellant.

#### Space Tug (OTV)

Both standard power sources (fission reactors, solar thermal conversion and solar panels) or the free plasma fusion reactor can be used to drive the OTV plasma tubes. Typical transfer masses in present day applications (communications satellites) are less than 2000 kg and therefore an effective OTV could use as little as 30,000 to 50,000 amp currents in the plasma tubes. MPS thrusters depend on high specific impulse values to accomplish what is done in a few tens of seconds with chemical thrusters. A thirty second chemical burn of force  $F$  is equivalent to a 3 day MPS thrust period using force  $F_{pt} = F/8640$ . Also, since the geo-magnetic field crosses the equatorial plane at nearly  $90^\circ$ , this provides the optimal situation for MPS propulsion.

Gyro-stabilization of the OTV would give added