#### THE ORION PROJECT

#### **MEMORANDUM**

To: President Barack Obama and Members of Congress

From: Steven M. Greer MD, Director, The Orion Project

Re: Urgent appeal for support of New Energy Solutions

The Orion Project (<u>www.TheOrionProject.org</u>) has identified ground breaking new energy solutions that require your immediate investigation and support.

Since 1902, advances in electromagnetic energy generating systems have allowed for the extraction of limitless free energy from the space around us. This energy field, termed Zero Point Energy and Quantum Vacuum Space energy, allows for the extraction of vast amounts of electromagnetic energy that can run our homes, cars, factories and businesses at very little cost and with absolutely NO pollution, emissions, greenhouse gases or ionizing radiation.

The attached "Summary of Breakthrough Energy Technologies" is a brief overview of these new energy solutions.

We need to refocus the national discussion on energy away from the zero sum game of 'clean coal', solar, wind, biofuels and nuclear power and towards these truly advanced systems that involve an entirely new area of physics. These new sciences hold the key to beginning a new energy economy, solving the global warming problem, eliminating poverty around the world and creating a sustainable and just civilization on earth.

Unfortunately, many of the greatest advances in this area of science and technology have been illegally classified through abuses of the National Security Act, the Patent Law and other mechanisms. This needs to be corrected immediately. We have also identified brilliant scientists who wish to work with us to build these new energy technologies but they are being actively and aggressively prevented from doing so by illegal use of various national security provisions. One such scientist can create a prototype within 3-6 months that would permit every home and business in America to run on free, clean power.

This situation requires intervention by The President and by key Congressional Oversight Committees.

#### We ask that you:

- Investigate these new technologies
- Provide immediate financial support for the research and development of practical energy solutions based on these new scientific advances
- Issue an Executive Order freeing these scientists from the illegal national security restrictions that have been placed upon them
- Issue an Executive Order to secure the cooperation of the DOE and other agencies in the funding and release of these technologies

We have also identified a number of key government and government-funded corporate projects that possess these technologies. These operations are illegally withholding these earth-saving technologies from the public. Only the direct intervention by the President and by members of Congress can correct this situation.

Beginning a new energy economy based on these scientific breakthroughs is the most pressing national security priority facing our nation. We stand ready to provide in-depth materials and access to these scientists so that, at long last, we may be freed from the shackles of oil and coal dependence and move forward as a free and transformed civilization on earth.

Respectfully,

Steven M. Greer MD

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Founder and Director

The Orion Project

www.TheOrionProject.org

# **Summary of Breakthrough Energy Technologies**

#### PREPARED FOR:

# The President of the United States and Members of the US Congress

#### PREPARED BY:

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# **Table of Contents**

1.0	Introduction and Background	3
	1.1 Background to this Briefing Document	3
	1.2 Technology Categories and Background	3
	1.3 Development of Supportive Policies and Strategies	4
	1.4 History of Overunity Technologies	4
	1.5 Categories of Suppression	5
2.0	Strategic Plan Components to Safeguard Development	6
3.0	Organizational Needs to Develop Breakthrough Energy Tech 3.1 Important Restrictions for Anyone Developing These	7
	Technologies	8
4.0	Example List of Technologies	8
	4.1 Solid-State Electromagnetic Free Energy Generator	
	4.2 Rotary Electromagnetic Free Energy Generator	9
	4.3 Oscillated Power or Energy Resonance	
	4.4 Electromagnetic Lifter Technology	9
	4.5 Water-Enhanced Combustion Technology	10
	4.6 Electrostatic Combustion Technology	10
	4.7 Electromagnetic Free Energy Motor	10
	4.8 Plasma Arc Reactor	10
	4.9 Stubblefield Earth Battery and Communication Tech	11
	4.10 Precursor Engineering Physics	11
	4.11 Kowsky-Frost Antigravity Technology	11
	4.12 Other Potential Energy Producing Technologies	11
5.0	Example Budget Summary	12
6.0	Appendix A. General References on Energy Technologies	14
6.0	Appendix B. Precursor Engineering - Review of Issues	15
6.0	Appendix C. Description of the Kowsky-Frost Experiment	17
6.0	Appendix D. "Outside the Box" Space and Terrestrial Transportation and Energy Technologies for the 21st Century	19

# **Summary of Breakthrough Energy Technologies**

# 1.0 Introduction and Background

#### 1.1 Background to this Briefing Document

This summary document was prepared for the purpose of providing general background information about energy-producing technologies that are outside the usual mainstream consideration or awareness. This document is based on nearly 17 years of research by Dr. Greer, Dr. Loder and other members of The Orion Project, who have been studying energy generation and propulsion technologies. We have identified a number of new energy technologies that within 6 months to several years, given proper funding, may be ready for marketing. A number of these technologies were presented at a briefing for the US Senate EPW in 2001 at the request of the Chair of the EPW, Senator Bob Smith (R-NH) (Loder, 2001).

Because many of these technologies are at the design or prototype stage, they will need funding for the necessary research to bring them out to the public. To do this, it will be necessary to bring these candidate technologies to a stage of real commercial potential by developing what has been termed the "robust demonstrator". This demonstrator would be a reproducible, self-powered, reliable device producing useable amounts of power and causing no pollution.

#### 1.2 Technology Categories and Background

We have identified a number of advanced technologies to replace the need for oil, gas, coal, and nuclear power, thus eliminating pollution and the geopolitical instability resulting from the existing systems.

These technologies fall into three broad categories (examples are listed in Section 4.0):

- 1. <u>Transitional technologies</u>. These are devices or processes that enable existing energy sources to be much more efficient, reduce pollution or clean up existing environmental hazards. For example, add-on devices to retrofit cars and trucks with a technology that significantly increases fuel economy.
- 2. <u>Electromagnetic energy devices</u> that are overunity. These include generators, solid-state devices and magnetic plasma devices that perturb the zero point energy field (or quantum vacuum flux field) to tap electromagnetic energy and create usable power, without a net external fuel source or pollution.
- 3. Advanced propulsion systems that use electromagnetic fields to alter the mass and space around an object to allow for lift and drive. These "electrogravitic" systems will enable travel to be pollution free, rapid and without the use of fossil fuels of any type or use of surface roads.

Heretofore, most efforts focusing on these technologies have been classified projects that have refused to allow widespread application and use due to various corrupt special financial and energy interests. Engineers, scientists, and inventors have either been absorbed into these so-called 'black' projects or worked alone, without adequate R and D funding, support, strategic security or a professionalized process.

#### 1.3 Development of Supportive Policies and Strategies

In addition to the science and engineering aspects of developing these technologies, there will need to be active development of commensurate <u>policies and strategies</u> in the following areas:

- Application of these technologies in the developing world and the granting of such technologies to abate widespread poverty and environmental decay in those regions;
- Understanding the financial, economic and industrial implications of these technologies and determining how to best transition from a carbon-based industrial society to a clean, so called 'free energy' society, with minimal disruption;
- Determination of the national security and international security implications of these technologies and how to best empower existing governmental and international institutions to ensure a smooth transition to a new economy and geopolitical order;
- Development of higher order applications of these technologies such as combining new energy generators with advanced desalination processes for fresh water production;
- Determination of the long-term social, cultural, and geopolitical implications of these technologies as they help eliminate poverty, empower economies at the local/village level, and alter the zero-sum game of limited resources such as fossil fuels;
- Determination of medical, telecommunications and space travel applications of these technologies;
- Determination of methods to avoid and if necessary, contain the weaponization of such energy and propulsion technologies;
- Determination of the implications of these technologies for social justice, peace and the creation of a long-term sustainable civilization on Earth, among others.

To accomplish the development of these policies and strategies is a tall order, but one that has to be carried out if we as a society plan to get off the "fossil fuel" economy and move to a more global sustainable life style. These policies and strategies must be developed simultaneously with the development of the actual technologies to assure acceptance and integration of the new technologies into our global society.

#### 1.4 History of Overunity Technologies

Overunity is a term often used to describe technologies, which use a closed system that produces more energy than it consumes. Technologically, the hurdles to achieve what is called overunity energy generation or "energy from the vacuum", by accessing the teeming energy in the space around us, are not insurmountable and have been well documented in the open literature. For example, Bearden (2002, 2007) lists well over a dozen potential overunity technologies.

Research shows that over the past 75 years a number of significant breakthroughs in energy generation and propulsion have occurred that have been systematically suppressed. Since the time of N. Stubblefield, N. Tesla, T. Townsend Brown and others in the early and mid-twentieth century, we have had the technological ability to replace fossil fuel, internal combustion and nuclear power generating systems with advanced non-polluting electromagnetic and electrogravitic systems. Many of these breakthroughs are documented in recent books by Bearden (2002), Valone (2007), and Manning and Garbon (2008).

What has been insurmountable are the barriers created through the collusion of vast financial, industrial, oil and rogue governmental interests. In short, the strategic barriers to the widespread adoption of these new electromagnetic energy-generating systems far exceed the technological ones.

# 1.5 Categories of Suppression

Our review of past and now-obscure technological breakthroughs shows that these inventions have been suppressed or seized by the following broad categories of actions

- 1.5.1 Acquisition of the technology by 'front' companies whose intent has been to 'shelve' the invention and prevent the device from coming to market.
- 1.5.2 Denial of patents and intellectual property protection by systematic action by the US and other patent offices.
- 1.5.3 Seizure or suppression of the technology by the illegal application of section 181 of the US Patent law or other illegal applications of national security provisions that result in the technology being classified or deemed "of significance to the national security". Note that these applications are illegal actions taken by rogue, unsupervised individuals and entities who are working in collusion with interests to suppress these technologies.
- 1.5.4 Abuses by other regulatory or licensing entities, including but not limited to rogue elements within the Department of Defense, CIA, NSA, Federal Trade Commission, Department of Energy and others.
- 1.5.5 Targeting the inventor or company with financial scams, illegal financial arrangements that lead to the demise of the company, and similar traps.
- 1.5.6 Systematic interception of funds and essential financial support needed to develop and commercialize such fundamental new energy sources.

- 1.5.7 A pattern of harassment, bomb threats, theft and other shadowy actions that frighten, intimidate and demoralize those inventing, holding or developing such technologies; significant bodily harm and murder have also apparently occurred.
- 1.5.8 Inducements through significant financial buyouts, offers of positions of power and prestige and other benefits to the owner of such technologies to secure their cooperation in suppressing such technologies.
- 1.5.9 Scientific establishment prejudice and rejection of the technology in light of unconventional electromagnetic effects thought to be not possible by current scientific conventional wisdom.
- 1.5.10 Corruption of scientific entities and leaders through clandestine liaisons with rogue classified or shadowy private projects that intend to suppress such devices.
- 1.5.11 Corruption of major media entities and key figures through clandestine liaisons with rogue classified or private shadowy projects that intend to suppress such devices.

Considering the multiplicity of suppression techniques described above, a lone inventor or conventional R and D company can in no way overcome such obstacles. Therefore, a strategic plan and capability commensurate with these barriers must be devised and executed in order for these new technologies to succeed.

# 2.0 Strategic Plan Components to Safeguard Development

This brief overview illustrates the depth and breadth of the minimum strategy needed to move these technologies forward - and overcome the significant hurdles that exist in the status quo. The various components listed below must be carried out at the same time as the research and development phase in order to help ensure its success.

- 2.1 Use of intellectual property protection and patenting programs in the US and overseas that avoid triggering section 181 of the Patent Law and similar actions by rogue national security interests.
- 2.2 Scientific community education activities to create a core of mainstream and respected scientific and institutional support for this new science.
- 2.3 Political and governmental education activities to create firm support among political leaders, friendly government agencies, regulatory entities and others; an associated PAC (Political Action Committee) will need to provide support to those political leaders and groups that can in turn create real political currency in favor of these new energy systems.
- 2.4 Offshore (non-US) redundancy of technologies, resources and structural systems to ensure longevity in the event of catastrophic actions against the company or technology in the US.
- 2.5 Mass media and public support creation by professional disclosure of the technology as soon as it is secured; such mass communications disclosure of the

technology entails enlisting a top five PR firm and mass media release of scientific and government laboratory findings in support of the claims of the technology. This plan also requires the ability to complete a massive media buy of ad space in the event that the media refuses to carry the story (we have sources inside the media and the rogue national security structures that have confirmed that the media has been and is controlled on these and related issues and that it is prudent to plan for some degree of media obstruction). Some 70% of Americans are concerned with the future of the environment and sustainability issues and this majority of the population can become a powerful force of support should attempts to suppress the technologies occur.

- 2.6 Careful liaison to existing mass movement groups and institutions that would naturally support the release and widespread adoption of such new energy systems; these include environmental organizations and agencies, anti-poverty groups and agencies, conservation and energy groups, international development groups and agencies, etc.
- 2.7 Outreach to oil producing countries and interests to negotiate performance-based inclusion of their interests in the dissemination of these new technologies, thus 'hedging' the negative long-term economic impact of these technologies on their core economic foundation. The concept here is to make potential adversaries interested allies but with specific performance criteria that would preclude the obstruction or 'shelving' of the technology.
- 2.8 Education and development of further support within specific national security, military and intelligence arenas already friendly to the release of these technologies; a substantial level of support has been identified and can be further cultured in support of the safe and orderly release of these energy systems.
- 2.9 The inventors of these technologies will be specifically insulated from such threats and pressures, legal or otherwise, since the technology will be assigned to the company via a professional licensing agreement that protects the inventor; the inventor is further assured that the device will be massively disclosed and disseminated by a clause that allows the technology to revert back to the inventor should the development company not perform under specific criteria within a specified time.

# 3.0 Organizational Needs to Develop Breakthrough Energy Technologies (Example: The Orion Project)

An historical overview of overunity electric generators and other unconventional energy innovations shows that for at least 75 years, human society could have had a replacement for fossil fuels and the internal combustion engine. The fact that such energy breakthroughs are not in use today is ample evidence that the hurdles to the widespread use of such technologies is less about inventing such a system - or even about adequate funding - and primarily about 'something else'.

Developing such a device - assuming it is robust, commercially viable and putting out real usable power - is less than 10% of the solution to this problem. The other 80-90% lies in this 'something else'. This deals with the special interests, cartels, power centers and the like that do not want a replacement for oil, coal, centralized public utilities and the internal combustion engine. These groups have enormous power to block the release of such a new energy technology and have used many of the suppression activities listed above.

A company and its core leadership must have a track record of taking on very controversial, suppressed areas of knowledge, and credibly moving them into the public arena of support and disclosure. For example, The Orion Project has a deep and wide area of expertise in dealing with so-called black and suppressed technology and information (see <a href="www.DisclosureProject.org">www.DisclosureProject.org</a>). The Orion Project has a vast network of consultants, advisors, supporters and contacts from a wide range of disciplines, including the most senior levels of the scientific, financial, governmental, military, international, media and diplomatic communities.

The average - even the exceptional - inventor simply cannot marshal the enormous power, public support, political support, clout and protective services needed to successfully move an overunity system from prototype to the world market. The Orion Project can do this.

This combination - bold, courageous leadership along with a vast network of powerful financial, public and government support - makes The Orion Project unique in the world today and the only really effective means of bringing these new energy technologies to the world.

This is that other 80% - that 'something else' - that has been missing for the past 75 years.

# 3.1 Important Restrictions for Anyone Developing These Technologies

- 3.1.1 They must not allow these technologies to be used for weapons development or weaponization and no technology should be licensed for any weapon applications.
- 3.1.2 The involvement of any funding source must be limited to 49% or less controlling interest in the technology for security reasons. In the past, financial and business interests have predictably 'sold out' to special interests in order to suppress such important and revolutionary energy developments. The developing entity must be firmly committed to fully disclosing and making widely available these earth-saving technologies. No amount of funding should result in the reversal of this policy.

# 4.0 Example List of Technologies

The following list of candidate technologies is presented here includes *examples* of technologies that could be developed over a several-year period with the proper funding (note that several

may take longer). Not all these technologies would need to be supported initially as there will have to be a very rigorous vetting of each technology during the initial stages to determine which ones have the best possibility of success. Estimated costs for simultaneous work on 6 of the projects are listed in the Example Budget section below (Section 5.0).

#### 4.1 <u>Solid-State Electromagnetic Free Energy Generator</u>

This technology is truly revolutionary and extracts electromagnetic energy from the quantum vacuum field. The device is solid state, has no moving parts. The engineering team, with adequate funding support, will be able to create a multi-kilowatt freestanding free energy device within 12-18 months, ready for commercial application. The initial project objective will be the creation of portable power units, electronic power supply and internal units to use in power equipments and cabinets. These initial applications will be worldwide in scope. Later, home and business power units will be available. An example of this technology is described by Bearden (2002, Chapter 7).

#### 4.2 Rotary Electromagnetic Free Energy Generators

These devices use a rotating electromagnetic field to extract energy from the quantum vacuum field (Bearden, 1995-1996). We have identified a number of inventors and companies working on their own variations of this technology. It is estimated that within one to two years with proper funding, one or several of these systems could be scaled to multiple kilowatts of usable output, adequate to run homes and small businesses.

# 4.3 Oscillated Power or Energy Resonance

Several inventors have developed Tesla's concept of oscillated power so that a standard alternating current (AC), which has alternating current and voltage, has, in addition, alternating power. This reduces the amount of power the utilities must "push" down the lines to do work, allowing the present utilities to increase available power to customers without the huge cost of new power plants. This technology would permit large electric power users to reduce consumption by up to 50%, and could be adapted for integration into consumer products to make them extremely efficient.

# 4.4 <u>Electromagnetic Lifter Technology</u>

This technology has been developed by a brilliant mathematician and physicist who has elucidated the fundamental relationship between electromagnetism, magnetic fields and mass and gravity. Essentially, this technology, already developed to the level of a proof of principle system, allows for a reduction in mass, allowing for lift. The principles involved allow for creating free energy generation systems as well as advanced aerospace applications. Examples and scientific background of this technology have been described by Valone (1994, 2004), Cameron (2001), LaViolette (2008), and Loder (2002, included in Section 6.0 Appendix D).

#### 4.5 <u>Water-Enhanced Combustion Technology</u>

There are numerous technologies using electrolysis to dissociate water into a mixture of hydrogen and oxygen (often termed Brown's gas) that when added to the fuel stream in internal combustion engines reduces pollutants and "increases mileage". The main problem with most of these technologies is that the amount of energy necessary to dissociate the water is approximately equal to the amount of energy obtained during the combustion process, so there is no "energy gain". However, several inventors have investigated the physics of water dissociation and are able to break down water to Brown's gas using much less energy than physics predicts by using natural resonance frequencies of water dissociation. Both Dr. Andrija Puharich (1993) and Stanley Meyer (multiple patents, examples: 1986, 1989, 1992) developed ways to break water apart using these technologies.

#### 4.6 <u>Electrostatic Combustion Technology</u>

This technology allows for a simple retrofit on existing internal combustion engines that reduces emissions by approximately 40% and increases fuel mileage by up to 20%. This inexpensive technology is applicable to diesel engines and large coal-fired industrial and electrical utilities, dramatically reducing acid rain and other pollution from existing power plants. (Note: more than 50% of US electricity is still produced by burning coal.) EPA labs and the Department of Transportation have evaluated this technology, and its efficacy has been proven.

# 4.7 <u>Electromagnetic Free Energy Motor</u>

We have acquired an expired patent, with complete drawings and specifications, for a free energy electromagnetic motor. This device was acquired over 20 years ago by financial and industrial interests that 'black – shelved' the technology.

# 4.8 Plasma Arc Reactor

We have identified an emerging company with proven plasma arc technology that completely reduces any organic, liquid waste material to a usable, clean-burning gas fuel. These reactors are already built and operating. This technology, if widely promoted and applied, would clean up and neutralize toxic waste sites, 'Super-fund' sites, treat radioactive waste material and other hazardous materials. This dual function – environmental cleanup and clean fuel generation-makes this technology an important part of the portfolio of emerging new energy systems.

#### 4.9 <u>Stubblefield Earth Battery and Communication Technologies</u>

From the 1880s to the early 20th century, Nathan Stubblefield experimented with an electromagnetic induction wireless telephone that in his later research used natural conduction through the earth. He later (May 30, 1902), demonstrated this in Belmont Park, Philadelphia that has been memorialized in photograph of the attendees, which included Nicola Tesla. As Stubblefield continued his research he was able to power his system from the ground needing no external sources of power. The ground both provided the power and acted as the conductor of his signals. Unlike other researchers of the day, his system did not use spark gaps and it is suggested that the medium of the signal was not the normal electromagnetic waves (Hertzian waves) of today's radio, but used either capacitance and later "earth magnetic waves". Reports on his continued research into earth-powered technologies indicates that he was able to obtain both light and heat using the earth as a power source in addition to his communication technologies. This summary has been extracted from John Bedini's website (Bedini, 2009) based in part on Vassilatos (1997). Note that recently concepts using non-electromagnetic fields for communication have been patented by Puthoff (1998).

#### 4.10 Precursor Engineering Physics

Recently Thomas Bearden described some of the physics mechanisms that will allow the extraction of energy from the vacuum. He has written an easy-to-read briefing (Bearden 2009) entitled "Precursor Engineering and the Falsification of Modern Physics" which describes some history of energy physics and why energy science is at a stalemate today. A brief summary of this article is in Section 6.0, Appendix B of this briefing. It makes for very interesting reading and provides a clue as to why our energy sector is in such a mess and how we may get out of the dilemma. Included are a few of the far-reaching ideas and scientific references Bearden presents to get you intrigued. See the original article (Bearden 2009) to understand more fully the implications of what he is telling us.

He suggests that nothing less than "directly engineering physical reality at will" is possible using the Nobel laureate physicist Paul Dirac's concept of "local vacuum tickling" (Dirac, 1928). This is obviously a potentially powerful use of physics that can be used to help in the extraction of zero point energy, but will require significant research to fulfill its promise.

# 4.11 Kowsky-Frost Antigravity Technology

In 1927 an article was published in the German journal, Radio Umschau (Anonymous, 1927a) describing research experiments by Prof. Kowsky and his engineer Mr. Frost. They discovered that if they placed a quartz crystal inside a metal box and treated it with high-powered radio waves the crystal expanded and caused the whole apparatus weighing 55 pounds to rise in the air. Later that year these results were published in a US magazine (Anonymous, 1927b) that is included in Section 6.0, Appendix C of this briefing. Research into these effects may lead to commercial anti-gravity or counter-gravity technologies that would revolutionize transportation throughout the world and need to developed.

#### 4.12 Other Potential Energy Producing Technologies

In addition to the above listed technologies, we at The Orion Project are working with over a dozen other technologies (some listed below) that with proper funding could be developed to the robust demonstration stage. Furthermore, we expect that once The Orion Project or any other company has announced that they will be supporting Research and Development of overunity type of energy technologies, there will be a flood of inventors coming forth with other technologies not listed. We also expect that when these inventors realize that they have a safe place to continue their work, we may rapidly have access to already-developed "robust demonstrator" devices speeding up their commercial development. All technologies will need to be reviewed, to find those that appear to offer the best opportunity for success.

#### Some examples of these other possible technologies include:

- 1. A simple oscillating electronic circuit that puts out more energy as resistance heat than required to drive the device (nominally 1 watt in and greater than 10 watts out).
- 2. A solid state-switching device to pulse batteries with high voltage spikes to charge them to levels not normally obtainable by ordinary commercial charging technology (now commercially available).
- 3. A diode array solid-state chip, which refrigerates as it produces electrical power.
- 4. Several solid-state devices that extract energy from the quantum vacuum using either copper sheet/tube collectors or ceramic/metal materials on which are imposed very high frequency oscillations.
- 5. There are at least 6 different technologies that can be used to increase mileage (reduce fuel consumption) for gas burning generators and vehicles in addition to the ones described in the main section above.
- 6. Several different inventors have offered us overunity rotary motor energy producing systems that need verification, further testing and development.
- 7. Commercialization of the scientifically proven phenomenon, the Bohren effect. This effect involves the use of low powered laser light input to a solution to which an optically scattering medium has been added.
- 8. A low powered solid-state battery using quantum crystal energy cells treated with high frequency plasma fields. Example prototypes presently exist.
- 9. Solid-state quantum cooling devices that require no energy input for long periods of time once they are charged, that can be applied to home or commercial refrigeration needs.
- 10. Commercialization of increased efficiency solar cells coupled with decreased fabrication costs to bring solar cell technology more in line with conventional technologies.

# 5.0 Example Budget Summary

This example budget summary is based on projections for an 18 month period with a full time team. It is for example purposes only.

# **Estimated Budget - 18 Month Duration:**

Grand Total	\$3,138,740
10% contingency	\$285,340
Total estimated budget	\$2,853,400
Office supplies, furnishings and misc.	\$50,000
Legal/other professional services estimated	\$50,000
Out-sourced fabrications and materials	\$200,000
Research Equipment, laboratory supplies, electronic analyzers, fabrication equipment	\$350,000
Utilities, phones etc estimated \$800/month	\$14,400
Facility build-out to meet needs of project	\$75,000
Facility Rental @ \$4000/month for 18 months	\$72,000
Travel, meetings	\$150,000
Outside Engineering and Consulting	\$200,000
Clerical / Accounting support staff	\$72,000
Scientific Research and Project Management - three full-time personnel	\$324,000
Engineering/Inventor Team - 12 full-time personnel	\$1,296,000

# 6.0 Appendix A. General References on Energy Technologies

This list is not meant to be thorough, but to guide the reader to books and articles of a broad general nature in the field of "zero point energy" or "free energy". Some of the references include 100s of their own citations, while a search on Google results in millions of results.

- Allan, S.D. (2007). PES Network Inc. Available at: http://www.pureenergysystems.com/: Major source for alternate energy news with many contributors. Many technology details found at: www.PESWiki.com.
- Anonymous (1927a). Ueberwindung der Schwerkraft? Ein neuer Erfolg der Quarzkristallforschung. Radio Umschau. pp. 218-220. April 1, 1927. Article at: www.theorionproject.org/en/research.html
- Anonymous (1927b). Quartz Crystals Charged by High Frequency Current Lose their Weight. *Science and Invention*, (September Issue) p. 398. Article with original figures at: www.theorionproject.org/en/research.html
- Bearden, T.E. (1995-1996). "The master principle of EM overunity and the Japanese overunity engines." Infinite Energy 1(5&6): 38-55.
- Bearden, T.E. (1996). "Use of asymmetrical regauging and multivalued potentials to achieve overunity electromagnetic engines." Journal of New Energy 1(2): 60-78.
- Bearden, T.E. (2002). Energy from the vacuum: Concepts and principles (inc. over 700 citations and end notes). Santa Barbara, CA, Cheniere Press. 952pp.
- Bearden, T.E. (2007). Tom Bearden Web Site (http://www.cheniere.org): (many papers and articles on energy from the vacuum).
- Bearden, T.E. (2009). Precursor Engineering. <a href="www.Cheniere.org">www.Cheniere.org</a>, or <a href="http://peswiki.com/index.php/Site:LRP:Precursor Engineering And The Falsification of Modern Physics">http://peswiki.com/index.php/Site:LRP:Precursor Engineering And The Falsification of Modern Physics</a>
- Bedini, J. and T. Bearden (2006). Free Energy Generation: Circuits & Schematics. Santa Barbara, CA, Cheniere Press. 182pp.
- Bedini, J. (2009). Website: <a href="http://www.icehouse.net/john34">http://www.icehouse.net/john34</a>. "20 Bedini-Bearden years Free Energy Generation". Stubblefield section.
- Cameron, J. (2001). "An Asymmetric Gravitational Wave Propulsion System," AIAA Paper No. 2001-3913, Joint Propulsion Conference, Salt Lake City, Utah, July 8-11, 2001.
- Cook, N. (2001). The Hunt for Zero Point: Inside the classified world of antigravity technology. London, Century (Also published in the US). 281pp.
- Cook, N. (2002). Anti-gravity propulsion comes 'out of the closet' (Abstract at: http://www.janes.com/aerospace/civil/news/jdw/jdw020729\_1\_n.shtml). Jane's Defence Weekly (29July2002).
- Craddock, A. J., P. LaViolette, et al. (2001). A summary review of energy and gravity (Chapter 7). Disclosure Briefing Document. S. M. Greer and T. C. Loder, The Disclosure Project (available on CD from: www.disclosureproject.org).
- Craddock, A. (2006). Energy From the Vacuum Documentary Series (Parts 1-7). Santa Barbara, CA, Energetic Productions LLC: DVDs available at www.cheniere.org.
- Craddock, A. (2007). Trailer for: Energy From the Vacuum Documentary Series (Part 2). Santa Barbara, CA, Energetic Productions LLC: Full DVD available at <a href="https://www.cheniere.org">www.cheniere.org</a>.
- Dirac, P. (1928) The Quantum Theory of the Electron, Proc. of the Royal Society Series A, Containing Papers of a Mathematical and Physical Character Vol. 117 (778), p. 610-624.
- King, M.B. (1989). Tapping the zero-point energy. Provo, UT, Paraclete Publishing. 173pp.
- King, M.B. (2001). Quest for zero-point energy. Kempton, IL, Adventures Unlimited Press. 215pp.
- LaViolette, P. (2008). Secrets of Antigravity Propulsion: Tesla, UFOs, and Classified Aerospace Technology. Bear & Company. 512 pp.

- Lindemann, P.A. (2007). Electric motor secrets. (DVD Lecture, Available at: <a href="www.free-energy.ws/products.html">www.free-energy.ws/products.html</a>), 2½ hr.
- Loder, T.C. III (2000). "Outside-the-Box" technologies, their critical role concerning environmental trends, and the unnecessary energy crisis. Briefing Requested by: Former Senator Bob Smith (R-NH) for the U.S. Senate Environment and Public Works Committee (Oct. 18, 2000). Available at: http://www.disclosureproject.org/writings.htm. Washington DC.
- Loder, T.C. III (2002). "Outside-the-box" space and terrestrial transportation and energy technologies for the 21st century. Presented at the 40th AIAA Aerospace Sciences Meeting, Reno, NV Jan. 2002.
   Paper AIAA-2002-1131. Available on the Web at: <a href="http://www.disclosureproject.org/writings.htm">http://www.disclosureproject.org/writings.htm</a>.
   Copy is included in this briefing: Section 6.0, Appendix D.
- Loder, T.C. III (2001). "Outside-the-Box" Technologies, Their Critical Role Concerning Environmental Trends, and the Unnecessary Energy Crisis. A Compilation of Briefing Papers Prepared For: The U.S. Senate Environment and Public Works Committee (October 18, 2000). Available at: www.theorionproject.org/en/research.html
- Manning, J. (1996). The coming energy revolution The search for free energy. Garden City Park, NY, Avery Publishing Group. 230pp.
- Manning, J. and J. Garbon (2008). Breakthrough Power. Amber Bridge Books, Vancouver, BC, Canada 272 pp.
- Meyer, S. (1986). US Patent: #4,613,779. "Electrical Pulse Generator".
- Meyer, S. (1989). US Patent: #4,798,661. "Gas generator voltage control circuit".
- Meyer, S. (1992). US Patent: #5,149,407. "Process and apparatus for the production of fuel gas and the enhanced release of thermal energy from such gas".
- Puharich, A. (1993). US Patent: #4,394,230. "Method and apparatus for splitting water molecules".
- Puthoff, H. (1989). "Source of vacuum electromagnetic zero-point energy." Physical Review A 40(9): 4857-4862.
- Puthoff, H. (1998). US Patent #5,845,220. "Communication Method and Apparatus With Signals Comprising Scalar and Vector Potentials Without Electromagnetic Fields"
- Scott, W.B. (2004). To the Stars: Zero point energy emerges from realm of science fiction, may be key to deep space travel. Aviation Week & Space Technology, March 1, 2004
- Valone, T., (Ed.) (1994). Electrogravitics Systems: Reports on a new propulsion methodology. Beltsville, MD, Integrity Research Institute. 121pp.
- Valone, T. (2004). Electrogravitics II: Validating reports on a new propulsion methodology. Beltsville, MD, Integrity Research Institute. 159pp.
- Valone, T. (2007). Zero point energy: The fuel of the future. Beltsville, MD, Integrity Research Institute. 228pp.
- Vassilatos, G. (1997). Lost Science. Adventures Unlimited Press. 347 pp.

# 6.0 Appendix B. Precursor Engineering - Review of Issues

Recently Thomas Bearden described some of the physics mechanisms that will allow the extraction of energy from the vacuum. He has written an easy-to-read briefing (Bearden 2009) entitled "Precursor Engineering and the Falsification of Modern Physics" which describes some of the history of energy physics and why energy science is at a stalemate today. It makes for very interesting reading and provides a clue as to why our energy sector is in such a mess and how we may get out of the dilemma. Below are a few of the far-reaching ideas and scientific references Bearden presents to get you intrigued. Please see the original article (Bearden 2009) to understand more fully the implications of what he is telling us.

He suggests that nothing less than "directly engineering physical reality at will." is possible using the Nobel laureate physicist Paul Dirac's concept of "local vacuum tickling" (Dirac, 1928 Royal Society Series A, Vol. 117 (778), p. 610-624).

How might this happen? Well, in the classical concept of the "probabilities" vacuum, there are positive energy/positive probabilities of ever-higher energy interactions that ultimately result in the creation of every "observable" in the universe. Basically, the observable universe is "continually being created and 'happening' at an incredible rate" by these positive energy/positive probabilities.

Now, what if there was a way to produce some sort of negative energy/negative probabilities (negative E)?

Dirac describes the removal of the negative energy from physics: "One gets over the difficulty on the classical theory by arbitrarily excluding those solutions that have a negative E. One cannot do this in the quantum theory, since in general a perturbation will cause transitions from states with E positive to states with E negative." [Dirac, Proc. of the Royal Society A, Vol. 117, p. 610-624]. Here he suggests that tiny perturbations will produce negative energy in the affected region of the vacuum. In other words, tiny-energy sharp-gradient pulses will add "negative probabilities" into a specific region so that highest "positive probabilities" that create and hold together a physical structure start to "unhappen".

For example, if the correct sharp-gradient pulse were applied to water, the OH-bond positive-probability that holds water together would start to "unhappen" and the water molecules would just come apart as their OH bonds start to vanish statistically.

As our aware readers of The Orion Project (www.theorionproject.org) may quickly realize, this suggests a powerful tool in the breaking apart of water to produce a combustible mixture of H and O or hydroxy (Brown's) gas. This is what might have been done by Stan Meyer, Dr. John Kanzius and other researchers, who used various pulsed electromagnetic energies to break apart water. They probably did this without an understanding of this potential mechanism. This mechanism of negative energy "unhappening", as Bearden describes it, can also be used in the "unhappening" of some diseases, another area of present research.

Finally, it is interesting to note that the concepts of "negative energy occur in the Schrödinger equation and in Dirac's relativistic electron theory, and so there it is in the very foundations of physics." Yet during the 1930's some physicists, afraid of the implications of this negative energy, removed as much of this knowledge as possible from classical physics. As noted by Hotson, "I think if one had to point to a single place where science went profoundly and permanently off the track, it would be 1934 and the emasculation of Dirac's equation." [D. L. Hotson, "Dirac's Equation and the Sea of Negative Energy," Part I, New Energy, Issue 43, 2002, pp. 1-20. Quote is from p. 1.]

Bearden calls the application of these processes "**precursor engineering**, since one is directly engineering the ongoing creative bubble set of an observable entity, by not only "happening" the statistical processes involved in it, but also by selectively "unhappening" the entire set or selected parts of it."

The ultimate application of such technology will allow "humankind to enter into the "final physics" and allow direct engineering of physical reality itself", hopefully for the overall betterment of mankind.

# 6.0 Appendix C. Description of the Kowsky-Frost Experiment

The following article was reprinted from the September, 1927 issue of *Science and Invention* (page 398) and copied from the following website with permission: <a href="http://www.keelynet.com/gravity/KFrost.htm">http://www.keelynet.com/gravity/KFrost.htm</a> . A version of this paper with the original figures can be found at: <a href="http://www.theorionproject.org/en/research.html">www.theorionproject.org/en/research.html</a> .

#### Quartz Crystals Charged by High Frequency Current Lose their Weight

Although some remarkable achievements have been made with shortwave low power transmitters, radio experts and amateurs have recently decided that shortwave transmission had reached its ultimate and that no vital improvement would be made in this line. A short time ago, however, two young European experimenters working with ultra short waves, have made a discovery that promises to be of primary importance to the scientific world.

The discovery was made about six weeks ago in a newly established central laboratory of the Nessartsadding-Werke in Darredein, Poland, by Dr. Kowsky and Engineer Frost. While experimenting with the constants of very short waves, carried on by means of quartz resonators, a piece of quartz which was used, suddenly showed a clearly altered appearance. It was easily seen that in the center of the crystal, especially when a constant temperature not exceeding ten degrees C. (50 degrees F.) was maintained, milky cloudiness appeared which gradually developed to complete opacity.

The experiments of Dr. Meissner, of the Telefunken Co., along similar lines, according to which quartz crystals, subjected to high frequency currents clearly showed air currents that led to the construction of a little motor based on this principle. A week of eager experimenting finally led Dr. Kowsky and Engineer Frost to the explanation of the phenomenon, and further experiments showed the unexpected possibilities for technical uses for the discovery.

Some statements must precede the explanation. It is known at least in part, that quartz and some other crystals of similar atomic nature, have the property when exposed to potential excitation in a definite direction, of stretching and contracting; and if one uses rapidly changing potentials, the crystals will change the electric waves into mechanical oscillations.

This piezoelectric effect, shown in Rochelle salt crystals by which they may be made in sound producing devices such as loudspeakers, or reversely into microphones, also shows the results in this direction. This effect was clearly explained in August, 1925 Radio News and December, 1919 Electrical Experimenter. These oscillations are extremely small, but have nevertheless their technical use in a quartz crystal wave meter and in maintaining a constant wavelength in radio

transmitters. By a special arrangement of the excitation of the crystal in various directions, it may be made to stretch or increase in length and will not return to its original size.

It seems as if a dispersal of electrons from a molecule resulted, which, as it is irreversible, changes the entire structure of the crystal, so that it cannot be restored to its former condition.

The stretching out, as we may term this strange property of the crystal, explains the impairment of its transparency. At the same time a change takes place in its specific gravity. Testing it on the balance showed that after connecting the crystal to the high tension current, the arm of the balance on which the crystal with the electrical connections rests, rose into the air.

This pointed the way for further investigation and the determination of how far the reduction of the specific gravity could be carried out. By the use of greater power, finally to the extent of several kilowatts and longer exposure to the action, it was found eventually that from a little crystal, 5 by 2 by 1.5 millimeters, a non-transparent white body measuring about ten centimeters on the side resulted, or increased about 20 times in length on any side.

The transformed crystal was so light that it carried the whole apparatus with itself upwards, along with the weight of twenty-five kilograms (55 lbs.) suspended from it and floating free in the air. On exact measurement and calculations, which on account of the excellent apparatus in the Darredein laboratory, could be readily carried out, it was found that the specific gravity was reduced to a greater amount than the change in volume would indicate. Its weight had become practically negative.

There can be no doubt that a beginning has been made toward overcoming gravitation. It is to be noted, however, that the law of conservation of energy is absolutely unchanged. The energy employed in treating the crystal, appears as the counter effect of gravitation. Thus the riddle of gravitation is not fully solved as yet, and the progress of experiments will be followed further.

It is, however, the first time that experimentation with gravitation, which hitherto has been beyond the pale of all such research, has become possible, and it seems as if there were a way discovered at last to explain the interrelations of gravity with electric and magnetic forces, which connection, long sought for, has never been demonstrated. This report appears in a reliable German journal\*, "Radio Umschau."

\*NOTE: The reference for the Radio Umschau article referred to above is: Ueberwindung der Schwerkraft? Ein neuer Erfolg der Quarzkristallforschung. Radio Umschau. pp. 218-220. April 1, 1927.

# 6.0 Appendix D. "Outside the Box" Space and Terrestrial Transportation and Energy Technologies for the 21<sup>st</sup> Century

(PDF version available on the Web at: <a href="http://www.theorionproject.org/en/research.html">http://www.theorionproject.org/en/research.html</a>)

# "OUTSIDE THE BOX" SPACE AND TERRESTRIAL TRANSPORTATION AND ENERGY TECHNOLOGIES FOR THE 21<sup>ST</sup> CENTURY

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#### Abstract

This paper reviews the development of antigravity research in the US and notes how research activity seemed to disappear by the mid 1950s. It then addresses recently reported scientific findings and witness testimonies - that show us that this research and technology is alive and well and very advanced. The revelations of findings in this area will alter dramatically our 20<sup>th</sup> century view of physics and technology and must be considered in planning for both energy and transportation needs in the 21<sup>st</sup> century.

#### Historical Background

#### Townsend Brown's Technology of Electrogravitics<sup>1</sup>

In the mid 1920's Townsend Brown<sup>2</sup> discovered that electric charge and gravitational mass are coupled. He found that when a capacitor is charged to a high voltage, it has a tendency to move toward its positive pole. His findings, which became known as the Biefeld-Brown effect, were opposed by conventional minded physicists of his time.

The Pearl Harbor Demonstration. Around 1953, Brown conducted a demonstration for military top brass. He flew a pair of 3-foot diameter discs around a 50-foot course tethered to a central pole. Energized with 150,000 volts and emitting ions from their leading edge, they attained speeds of several hundred miles per hour. The subject was thereafter classified.

Project Winterhaven. Brown submitted a proposal to the Pentagon for the development of a Mach 3 disc shaped electrogravitic fighter craft. Drawings of its basic design are shown in one of his patents. They are essentially large-scale versions of his tethered test discs.

#### Review of Issues From the 1950s

Once Brown's findings became well known, some scientists began to openly speak about the flying technology of UFOs, which had been observed extensively since the 1940s. None other than Professor Hermann Oberth, considered by some to be one of the fathers of the space age, who later worked in the US with Wernher von Braun, the Army Ballistic Missile Agency and NASA, stated the following in 1954.<sup>3</sup>

"It is my thesis that flying saucers are real and that they are space ships from another solar system." Perhaps of more interest to our present discussion on propulsion, he then stated that: "They are flying by the means of artificial fields of gravity... They produce high-tension electric charges in order to push the air out of their paths, so it does not start glowing, and strong magnetic fields to influence the ionized air at higher altitudes. First, this would explain their luminosity... Secondly, it would explain the noiselessness of UFO flight..." We now know that he was fundamentally correct in his assessment.

In 1956, a British research company, Aviation Studies (International) Ltd. published a classified report on Electrogravitics Systems examining various aspects of gravity control. They summarized the pioneering work of Townsend Brown and then described the use of electrogravitic thrust as follows:

"The essence of electrogravitics thrust is the use of a very strong positive charge on one side of the vehicle and a negative on the other. The core of the motor is a condenser and the ability of the condenser to hold its

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charge (the K-number) is the yardstick of performance. With air as 1, current dielectrical materials can yield 6 and use of barium aluminate can raise this considerably, barium titanium oxide (a baked ceramic) can offer 6,000 and there is a promise of 30,000, which would be sufficient for supersonic speed."

In one of their conclusions, based on Brown's work, they suggested that: "Electrostatic energy sufficient to produce a Mach 3 fighter is possible with megavolt energies and a k of over 10,000."

In spite of Brown's solid research, they later stated that, "One of the difficulties in 1954 and 1955 was to get aviation to take electrogravitics seriously. The name alone was enough to put people off." It seems that is as true today as it was in the 1950s.

A report by another British company, Gravity Rand, Ltd. in 1956, agrees with this assessment and states: "To assert electrogravitics is nonsense is as unreal as to say it is practically extant. Management should be careful of men in their employ with a closed mind or even partially closed mind on the subject."

However, a trade press magazine, The Aviation Report, made numerous references to antigravity projects and listed many of the companies pursuing research in this area. Quotes from The Aviation Report listed in the Aviation Studies (International) Ltd. report<sup>8</sup> are suggestive of what was going on behind the scenes.

In 1954 they predicted that: "... progress has been slow. But indications are now that the Pentagon is ready to sponsor a range of devices to help further knowledge."... "Tentative targets now being set anticipate that the first disk should be complete before 1960 and it would take the whole of the 'sixties to develop it properly, even though some combat things might be available ten years from now." (Aviation Report, 12 October 1954)

During this time period many of the major defense and technology companies were cited as either having research projects or activities in this new field. For example: "Companies studying the implications of gravitics are said, in a new statement, to include Glenn Martin, Convair, Sperry-Rand, and Sikorsky, Bell, Lear Inc. and Clark Electronics. Other companies who have previously evinced interest include Lockheed, Douglas and Hiller." (Aviation Report, 9 December 1955)<sup>10</sup>

Others of these reports mention: AT&T, General Electric, as well as Curtiss-Wright, Boeing and North American as having groups studying electrogravitics.

During the same time period, the Gravity Rand report notes that: "Already companies are specializing in evolution of particular components of an electogravitics disk."

However, in the area of predictions, the Aviation Report stated the following based on an extrapolation of technology development: "Thus this century will be divided into two parts – almost to the day. The first half belonged to the Wright Brothers who foresaw nearly all the basic issues in which gravity was the bitter foe. In part of the second half, gravity will be the great provider. Electrical energy, rather irrelevant for propulsion in the first half becomes a kind of catalyst to motion in the second half of the century." (Aviation Report, 7 September 1954)<sup>12</sup>

Looking back it is easy to say that they missed the mark. Did they really miss it by a half a century? Reading through these reports it is quite obvious that there was much interest in antigravity among a number of very high profile companies, as well as in the Department of Defense. What happened to this interest and why was it all downplayed during the following four plus decades? After all, T. Brown had shown that there is a demonstrable connection between high voltage fields and gravity. Why has it taken until the 1990s for more than just a few scientists to look at these results and publish on them in the open literature? A review of recent statements by former military personnel and civilians connected to covert projects begins to shed light on research activity in these areas over the last half century. And it appears that there had been significant breakthroughs during this time period, well shielded from both the scientific and public eye.

#### Recent Scientific Developments

In this section we consider developments in the antigravity field since the late 1980s and why the confluence of scientific findings and the testimony of witnesses associated with the military and covert groups indicates that a gravity solution with technological implications has been found.

Although general relativity has not been able to explain Brown's electrogravitic observations, or any other antigravity phenomenon, the recent physics methodology of quantum electrodynamics (QED), appears to offer the theoretical framework to explain electrogravitic coupling. Recent papers by members of the Institute for Advanced Study Alpha Foundation are putting a solid theoretical foundation onto the antigravity effects within the theory of electrodynamics and include papers by Evans<sup>13</sup> and Anastasozki et al.<sup>14</sup>

Earlier in a 1994 breakthrough paper, Alcubierre showed that superluminal space travel is, in principle, physically possible and will not violate the tenants of the theory of relativity<sup>15</sup>. Puthoff<sup>16</sup> later analyzed these findings in light of the present SETI (Search for Extraterrestrial Intelligence) paradigms that insist that we could not be visited by extraterrestrial civilizations because of the speed-of-light limitations dictated by the general relativity theory. He suggests that superluminal travel is indeed possible. This leads to reduced-time interstellar travel and the possibility of extraterrestrial visitation, which our limited understanding of physics and scientific arrogance has "forbidden" in some sectors for most of the 20th century.

The second aspect of these physics findings deals with the zero point or vacuum state energy shown by the Casimir effect17, which predicts that two metal plates close together attract each other due to imbalance in the quantum fluctuations. The implications of this zero point or vacuum state energy are tremendous and are described in several papers by Puthoff18 starting during the late 1980s. Bearden 19 and colleagues have also written extensively on the theoretical physics of zero point energy and additionally have described various technological means of extracting this energy (for example see the recent paper by Anastasozki et al.20). A theoretical book on zero point energy (and antigravity) was published by Bearden in 200221. There is significant evidence that scientists since Tesla have known about this energy, but that its existence and potential use has been discouraged and indeed suppressed over the past half century or more 22

The coupling of the electrogravitic phenomena observations and the zero point energy findings are leading to a new understanding of both the nature of matter and of gravity. This is just now being discussed in scientific journals (though some evidence suggests that it has been understood for decades within the black project covert community). The question that is being addressed is: what keeps the universe running? Or more specifically, where do electrons get their energy to keep spinning around atoms? As electrons change state they absorb or release energy, and where does it come from? The simplistic answer is that it is coming from the vacuum state. Puthoff<sup>23</sup> describes the process as follows: "I discovered that you can consider the electron as continually radiating away its energy as predicted by classical theory, but SIMUL-TANEOUSLY ABSORBING a COMPENSATING AMOUNT of energy from the ever-present sea of zeropoint energy in which the atom is immersed. An equilibrium between these two processes leads to the correct values for the parameters that define the lowest energy, or ground-state orbit (see "Why atoms don't collapse," NEW SCIENTIST, July 1987). Thus there is a DYNAMIC EQUILIBRIUM in which the zero-point energy stabilizes the electron in a set ground-state orbit. It seems that the very stability of matter itself appears to depend on an underlying sea of electromagnetic zeropoint energy."

Furthermore, it appears that it is the spinning of electrons that provides inertia and mass to atoms. These theories, linking electron spin, zero point energy, mass, and inertia have been presented in a number of recent papers, such as those by Haisch24 and colleagues and provide us with a possible explanation of the Biefield-Brown effect. It appears that an intense voltage field creates an electromagnetic barrier that blocks the atomic structure of an atom from interacting with the zero point field. This slows down the electrons, reducing their gyroscopic effect, and thus

reducing atomic mass and inertia, making them easier to move around.

#### Evidence of Extensive Antigravity Technology

The B-2 Advanced Technology Bomber
In 1993, LaViolette wrote a paper<sup>25</sup> discussing the B-2 bomber and speculating on its probable antigravity propulsion system, based on a solid understanding of electrogravitics, 26 the aircraft's design and the materials used in its manufacture. It appears that the craft is using a sophisticated form of the antigravity principles first described by T. Brown. Support for this thesis came from the Aviation Week and Space Technology (March 9, 1992), which reported that the B-2 bomber electrostatically charges its leading edge and its exhaust stream. Their information had come from a small group of former black project research scientists and engineers suggesting the B-2 utilizes antigravity technology. This information was supported by Bob Oechsler, an ex-NASA mission specialist who had publicly made a similar claim in 1990. These findings support the contention that there have been major developments in the area of antigravity propulsion which are presently being applied in advanced aircraft.

LaViolette later states the obvious that "the commercial airline industry could dramatically benefit with this technology which would not only substantially increase the miles per gallon fuel efficiency of jet airliners, but would also permit high-speed flight that would dramatically cut flight time."

#### The Disclosure Project Witnesses

On May 9, 2001 a private organization, "The Disclosure Project"28 held a press conference at the National Press Club in Washington DC. presented nearly two dozen witnesses including retired Army, Navy and Air Force personnel, a top FAA official, members of various intelligence organizations including the CIA and NRO, and industry personnel, all of whom who had witnessed UFO events or had inside knowledge of government or industrial activities in this area. They also produced a briefing document<sup>29</sup> for members of the press and Congress and a book 30 which includes the testimony of nearly 70 such witnesses from a pool of hundreds. Although they all spoke of the reality of the UFO phenomena, many also spoke of covert projects dealing with antigravity, zero point energy technologies and development of alien reproduction vehicles (ARVs) by US black project and covert interests. The following excerpted quotes from these witnesses support the above contentions.

Dan Morris<sup>31</sup> is a retired Air Force career Master Sergeant who was involved in the extraterrestrial projects for many years. After leaving the Air Force, he was recruited into the super-secret National Reconnaissance Organization (NRO), during which

time he worked specifically on extraterrestrialconnected operations. He had a cosmic top-secret clearance (38 levels above top secret) which, he states, no U.S. president, to his knowledge, has ever held.

"UFOs are both extraterrestrial and man made. Well, the guys that were doing the UFOs, they weren't sleeping, and Townsend Brown was one of our guys who was almost up with the Germans. So we had a problem. We had to keep Townsend Brown - what he was doing on anti-gravity electromagnetic propulsion secret." He then describes a type of zero point energy device.

"Well, if you have one of these units that's about sixteen inches long and about eight inches high and about ten inches wide, then you don't need to plug into the local electric company. These devices burn nothing. No pollution. It never wears out, because there are no moving parts. What moves are electrons, in the gravity field, in the electronic field, and they turn in opposite directions okay?"

in opposite directions, okay?"

"Dr. B."32 (name withheld since he still works in this area) is a scientist and engineer who has worked on top-secret projects almost all his life. Over the years he has directly worked on or had involvement with such projects involving anti-gravity, chemical warfare, secure telemetry and communications, extremely high-energy space based laser systems, and electromagnetic pulse technology.

"Anti-gravity. As a matter of fact, I used to go out to the Hughes in Malibu. They had a big think tank up there. Big anti-gravity projects; I used to talk to them out there. I'd give them ideas, because they bought all my equipment. But the American public will never, never hear about that." . . "This flying disc has a little plutonium reactor in it, which creates electricity, which drives these anti-gravity plates. We also have the next level of propulsion, it is called virtual field, which are called hydrodynamic waves..."

Captain Bill Uhouse<sup>33</sup> served 10 years in the Marine Corps as a fighter pilot, and four years with the Air Force at Wright-Patterson AFB as a civilian doing flight-testing of exotic experimental aircraft. Later, for the next 30 years, he worked for defense contractors as an engineer of antigravity propulsion systems: on flight simulators for exotic aircraft - and on actual flying discs.

"I don't think any flying disc simulators went into operation until the early 1960s - around 1962 or 1963. The reason why I am saying this is because the simulator wasn't actually functional until around 1958. The simulator that they used was for the extraterrestrial craft they had, which is a 30-meter one that crashed in Kingman, Arizona, back in 1953 or 1952."

"We operated it with six large capacitors that were charged with a million volts each, so there were six million volts in those capacitors." . . . "There weren't any windows. The only way we had any visibility at all was done with cameras or video-type devices." . . "Over the last 40 years or so, not counting the simulators - I'm talking about actual craft - there are probably two or three-dozen, and various sizes that we built."

<u>"A.H."<sup>34</sup></u> formally of Boeing Aerospace, is a person who has gained significant information from inside the UFO extraterrestrial groups within our government, military, and civilian companies. He has friends at the NSA, CIA, NASA, JPL, ONI, NRO, Area 51, the Air Force, Northrup, Boeing, and others.

"Most of the craft operate on antigravity and electrogravitic propulsion. We are just about at the conclusion state right now regarding antigravity. I would give it maybe about 15 years and we will have cars that will levitate using this type of technology. We're doing it up at Area 51 right now. That's some of the stuff that my buddy worked on up at Area 51 with Northrup, who lives now in Pahrump, Nevada. We're flying anti-gravity vehicles up there and in Utah right now..."

<u>Lieutenant Colonel Williams</u><sup>35</sup> entered the Air Force in 1964 and became a rescue helicopter pilot in Vietnam. He has an electrical engineering degree and was in charge of all the construction projects for the Military Air Command. During his time in the military he knew that there was a facility inside of Norton Air Force Base in California that no one was to know about.

"There was one facility at Norton Air Force Base that was close hold - not even the wing commander there could know what was going on. During that time period it was always rumored by the pilots that that was a cover for in fact the location of one UFO craft."

Note that all he knew was of the rumor, however, it is confirmed by the next testimony, which also confirms some of the comments made by Captain Uhouse

Mark McCandlish<sup>36</sup> is an accomplished aerospace illustrator and has worked for many of the top aerospace corporations in the United States. A colleague, with whom he studied, has been inside a facility at Norton Air Force Base, where he witnessed alien reproduction vehicles, or ARVs, that were fully operational and hovering. He states that the US not only has operational antigravity propulsion devices, but we have had them for many, many years, and they have been developed through the study, in part, of extraterrestrial vehicles over the past fifty years.

The colleague, Brad Sorensen, told him of visiting The Big Hangar, during an air show at Norton Air Force Base on November 12, 1988 and how he had seen flying saucers in this hangar. "There were three flying saucers floating off the floor—no cables suspended from the ceiling holding them up, no landing gear underneath—just floating, hovering above the floor. He said that the smallest was somewhat bell-

shaped. They were all identical in shape and proportion, except that there were three different sizes. They had little exhibits with a videotape running, showing the smallest of the three vehicles sitting out in the desert, presumably over a dry lakebed, some place like Area 51. It showed this vehicle making three little quick, hopping motions; then [it] accelerated straight up and out of sight, completely disappearing from view in just a couple of seconds—no sound, no sonic boom—nothing."

"Well, this craft was what they called the Alien Reproduction Vehicle; it was also nicknamed the Flux Liner. This antigravity propulsion system—this flying saucer-was one of three that were in this hangar at Norton Air Force Base. [Its] synthetic vision system [used] the same kind of technology as the gun slaving system they have in the Apache helicopter: if [the pilot] wants to look behind him, he can pick a view in that direction, and the cameras slew in pairs. [The pilot] has a little screen in front of his helmet, and it gives him an alternating view. He [also] has a little set of glasses that he wears-in fact, you can actually buy a 3-D viewing system for your video camera now that does this same thing—so when he looks around, he has a perfect 3-D view of the outside, but no windows. So, why do they have no windows? Well, it's probably because the voltages that we're talking about [being] used in this system were probably something between, say, half a million and a million volts of electricity." Brad Sorensen stated that at the ARV display, "a three star general said that these vehicles were capable of doing light speed or better."

All of these witness testimonies do not prove the existence of a successful US covert program in antigravity technologies. Only the demonstration of such craft coupled with the accompanying government and technical specification documents would 'prove' this. However, these testimonies coupled with information from other substantial sources such as Nick Cook's new book mentioned below, strongly supports this contention.

#### The Hunt for Zero Point<sup>37</sup>

This recent book, contains some of the strongest evidence yet for major efforts and success in the field of antigravity technology. The author, Nick Cook, who for the past 15 years has been the Aviation Editor and Aerospace Consultant for Jane's Defense Weekly, spent the last 10 years collecting information for the book. This included archival research on Nazi Germany's antigravity technology and interviews with top officials at NASA, the Pentagon and secret defense installations. He shows that America has cracked the gravity code and classified the information at the highest security levels. Because antigravity and its allied zero point energy technologies potentially offer the world a future of unlimited, non-polluting energy it has been

suppressed because of the "huge economic threat". His findings support those reported by many of the Disclosure Project witnesses cited above.

#### Antigravity Technology Demonstrations

Although T. Brown reported many of his findings nearly a half century ago, other experimenters have just recently begun to reproduce his work and report on it in the open literature and on the WWWeb. For example, Davenport<sup>38</sup> published the results of his work in 1995 supporting the findings of T. Brown, while Bahder and Fazi<sup>39</sup> in 2002 described their assessment of the forces associated with an asymmetric Transdimensional Technologies 40 in the USA and J. Naudin<sup>41</sup> labs in France have posted on the WWWeb: diagrams, web videos, and data on their versions of antigravity "Lifters" based on an extension of Brown's work. It is a sad commentary on this whole area of research to see that public science is requiring us to demonstrate principles that were demonstrated nearly fifty years ago.

There have also been a number of other demonstrations of "antigravity" phenomena by researchers throughout the world. This includes the work of Brazilian physics professor, Fran De Aquino, and such devices as: the Searl Electrogravity Disc, the Podkletnov Gravity Shield and Project Greenglow, the Zinsser Kineto-baric Field Propulsion and the Woodward Field Thrust Experiments on Piezoelectrics. All of these are described in more detail by Greer and Loder. 42

#### Implications of This Research

- Antigravity and zero point energy research and their applications are finally being addressed by some of the open scientific community. This means there will have to be a rewriting of textbooks in this area so our new generation of students can apply this "new knowledge." Its application will lead to major breakthroughs in transportation technologies both earthside and in outer space. The implications are that we have the potential for human exploration of our solar system and beyond, if we have the will, within our lifetimes. It also means that the majority of 20<sup>th</sup> century space technology will be obsolete and in fact may already be so.
- The zero point or vacuum state energy source is seen as a totally non-polluting energy source, which has the potential to replace all the fossil fuels on this planet.
   It also will provide the energy needed for long range space flights. This means that fuel cells and solar cells in common use today for space flight energy applications will only be needed until we transition to these new energy technologies.
- Based on an analysis of trends in antigravity research over the last half-century and the information provided by numerous witnesses, it appears that there is

both good and bad news. The good news is that it appears that we (at least covert projects) have already developed the theories of antigravity, and additionally have developed working spacecraft based on these principles. The bad news is that these technologies have been developed for at least several decades, at the public's expense and that human kind has been deprived of these technologies, while continuing to waste energy using less efficient and pollution enhancing technologies.

Supporting this contention is the following quote from Ben Rich, former head of the Lockheed Skunkworks. Just prior to his death, he stated to a small group after a lecture<sup>43</sup> that: "We already have the means to travel among the stars, but these technologies are locked up in black projects and it would take an act of God to ever get them out to benefit humanity..." He further went on to say that, 'anything you can imagine we already know how to do.' Strong words from a knowledgeable deep insider and words that support what a number of the witnesses stated as well.

- As the reality of this knowledge begins to be understood, there will be an outcry among space scientists not on the inside for release of these technologies to allow all of us to explore space. There will be major changes in the way that NASA does its business, though predicting these changes is difficult.
- Not only has space exploration in the public sector suffered, but our planet's environment has suffered as well. Thus as this knowledge begins to sink in there will be an outcry among all concerned citizens on this planet for release of these technologies to allow all of us to reduce and ultimately eliminate global warming and environmental pollution that so threatens our way of life. These technologies will not only affect space travel technologies, but will also have a profound effect on transportation and energy production on the earth's surface.
- In conclusion, we might consider the observation made by Halton Arp<sup>44</sup>:
  - "We are certainly not at the end of science.

    Most probably we are just at the beginning!"

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#### References Cited

Report prepared for The U.S. Senate Environment and Public Works Comm. www.senate.gov/~epw/loder.htm. <sup>2</sup> Brown, T. T. 1929. How I control gravity. Science and Information Magazine, Aug. 1929. Reprinted in Psychic Observer 37 (1): 66-67.

Oberth, Hermann: "Flying Saucers Come from a Distant World," The American Weekly, October 24, 1954

Aviation Studies (International) Ltd. 1956. Electrogravitics Systems: An examination of electrostatic motion, dynamic counterbary and barycentric control. p. 14. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005.

<sup>5</sup> Ibid. p. 27.

6 Ibid. p. 19.

Gravity Rand Ltd. 1956. The Gravitics Situation. p. 54. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005.

8 Aviation Studies (International) Ltd. 1956. Electrogravitics Systems: An examination of electrostatic motion, dynamic counterbary and barycentric control. p. 11. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005.

<sup>9</sup> Ibid. p. 34.

10 Ibid p. 41.

<sup>11</sup> Gravity Rand Ltd. 1956. The Gravitics Situation. p. 47. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005.

Aviation Studies (International) Ltd. 1956. Electrogravitics Systems: An examination of electrostatic motion, dynamic counterbary and barycentric control. p. 32. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005.

<sup>13</sup> Evans, M. W. 2002. The link between the Sachs and O(3) theories of electrodynamics. In Evans, M.W. (ed.), Modern Nonlinear Physics, Pun 2. 2<sup>nd</sup> ed., Advances in Chemical Physics 19:469-494.

<sup>14</sup> Anastasovski, P.K., T.E. Bearden, C. Ciubotariu, W.T. Coffey, L.B. Crowell, G.J. Evans, M.W. Evans, R. Flower, A. Labounsky, B. Lehnert, M. Mészáros, P.R. Molnár, S. Roy, and J.-P. Vigier. 2001. Anti gravity effects in the Sachs theory of electrodynamics Foundations of Physics Letters. 14(6):601-605

<sup>15</sup> Alcubierre, M. 1994. The Warp Drive: Hyper-fast travel within general relativity. Classical and Quantum Gravity, 11, L73.

<sup>16</sup> Puthoff, H. E. 1996. SETI, The Velocity-of-Light Limitation, and the Alcubierre Warp Drive: An Integrating Overview, Physics Essays 9:156.

<sup>&</sup>lt;sup>1</sup> Quoted from: LaViolette, P. A. 2000. Moving Beyond the First Law and Advanced Field Propulsion Technologies. In T. Loder (ed.), "Outside-the-Box" Technologies, Their Critical Role Concerning Environmental Trends, and the Unnecessary Energy Crisis.

<sup>17</sup> Lamoreaux, S.K. 1997. Demonstration of the Casmir force in the 0.6 to 6 µm range. Physics Review Letters. 78:5.

<sup>18</sup> Puthoff, H. 1989. Gravity as a Zero-Point Fluctuation Force." Phys. Rev A., 39(5):2333-2342.

Puthoff, H. 1989. Source of Electromagnetic Zero-Point Energy." Phys. Rev A, 40(9):4597-4862.

See the Tom Bearden web site for an extensive listing and copies of his papers at: www.cheniere.org.

Anastasovski, P.K., T.E. Bearden, C. Ciubotariu, W.T. Coffey, L.B. Crowell, G.J. Evans, M.W. Evans, R. Flower, A. Labounsky, B. Lehnert, M. Mészáros, P.R. Molnár, J.K. Moscicki, S. Roy, and J.P. Vigier. 2001. Explanation of the motionless electromagnetic generator with 0(3) Electrodynamics. Foundations of Physics Letters, 14(1):87-93.

<sup>21</sup> Bearden, T. 2002. Energy from the Vacuum: Concepts and Principles. Cheniere Press, Santa

Barbara, CA.
<sup>22</sup> Valone, T. 2000. The Right Time to Develop Future Energy Technologies. in T. Loder (ed.). "Outside-the-Box" Technologies, Their Critical Role Concerning Environmental Trends, and the Unnecessary Energy Crisis. Report prepared for The U.S. Senate and Environment Public Works Comm. www.senate.gov/~epw/loder.htm.

Puthoff, H. 1990. Everything for Nothing. New Scientist, 28 July 1990, pp. 52-55.

<sup>24</sup> Haisch, B., Rueda, A. and Puthoff, H. 1994. Beyond E =mc<sup>2</sup>; A First Glimpse of a Postmodern Physics, in which Mass, Inertia and Gravity Arise from Underlying Electromagnetic Processes. The Sciences, 34:26.

Haisch, B., Rueda, A., and Puthoff, H. 1997. Physics of the Zero-Point Field: Implications for Inertia, Gravitation and Mass. Speculations in Science and Technology, 20:99.

Haisch, B. and Rueda, A. 1998. An Electromagnetic Basis for Inertia and Gravitation: What Are the Implications for 21st Century Physics and Technology? in El-Genk, M.S. (ed.), Space Technology and Applications International Forum-1998, DOE CNF-980103, CP420, p. 1443.

Haisch, B. and Rueda, A. 1999. The Zero-Point Field and the NASA Challenge to Create the Space Drive. Proc. NASA Breakthrough Propulsion Physics Workshop, NASA/CP-1999-208694, p. 55.

LaViolette, P. 1993. The U.S. Antigravity Squadron. p. 82-101. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, 20005.p.82-101.

<sup>26</sup> LaViolette, P. A. 1992. Electrogravitics: Back to the

future. Electric Spacecraft, Issue 4, pp. 23-28.

LaViolette, P. A. 1993. A theory of electrogravitics. Electric Spacecraft, Issue 8, pp. 33-36

LaViolette, P. A. 2000. Moving Beyond the First Law and Advanced Field Propulsion Technologies. in T. Loder (ed.). "Outside-the-Box" Technologies, Their Critical Role Concerning Environmental Trends, and the Unnecessary Energy Crisis. Report prepared for The U.S. Senate Environment and Public Works Comm. www.senate.gov/~epw/loder.htm.

<sup>28</sup> Information available at: www.disclosureproject.org. <sup>29</sup> Greer, S.M. and T.C. Loder III. 2001. Disclosure Project Briefing Document, 492 pp. Available on CD from: The Disclosure Project, P.O. Box 2365, Charlottesville, VA 22902. Also available from:

www.disclosureproject.org.

Greer, S. M. 2001. Disclosure: Military and government witnesses reveal the greatest secrets in modern history. Crossing Point, Inc. Crozet, VA, 573

pp. 31 Ibid. pp. 357-366.

32 Ibid. pp. 262-270.

33 Ibid. pp. 384-387.

34 Ibid. pp. 391-403. 35 Ibid. pp. 388-389.

36 Ibid. pp. 497-510.

37 Cook, N. 2001. The Hunt for Zero Point: Inside the World of Antigravity. Broadway Books, NY. 256pp.

38 Deavenport, L. 1995. "T.T. Brown Experiment replicated. Electric Spacecraft Journal. Issue 16. Oct. 1995. (Reprinted in: Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology. Integrity Research Institute, Washington, DC 20005)

30 Bahder, T.B. and Fazi, C., "Force on an Asymmetric Capacitor," Army Research Laboratory, v51 ARL-TR.nb. Avail. at: http://xxx.lanl.gov/abs/physics/02110.

40 Transdimensional Technologies, 906-E Bob Wallace Ave., Huntsville, AL 35801.

41 http://jnaudin.free.fr

42 Greer, S.M. and T.C. Loder III. 2001. Disclosure Project Briefing Document, 492 pp. Available on CD from: The Disclosure Project, P.O. Box 2365, Charlottesville, VA 22902. Also available from:

www.disclosureproject.org.

43 Lecture given at UCLA Engineering Department on March 23, 1993

44 Arp, H. 1998. Seeing Red: Redshifts, Cosmology and Academic Science. Montreal, Aperion. (p. 249).