"OUTSIDE THE BOX" SPACE AND TERRESTRIAL TRANSPORTATION AND ENERGY TECHNOLOGIES FOR THE 21ST CENTURY

Theodore C. Loder, III¹
Institute for the Study of Earth, Oceans and Space
University of New Hampshire
Durham, NH 03824

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 20th century view of physics and technology and must be considered in planning for both energy and transportation needs in the 21st century.

Historical Background

Townsend Brown's Technology of Electrogravitics¹

In the mid 1920's Townsend Brown² discovered that electric charge and gravitational mass are coupled. He found that when he charged a capacitor to a high voltage, it had a tendency to move toward its positive pole. This became known as the Biefeld-Brown effect. His findings 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 1954:³

"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 charge (the K-number) is the yardstick of performance. With air as 1, current dielectrical materials can yield 6

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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."⁴

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." 5

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 a 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. report⁸ 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)¹⁰.

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).¹²

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 Evans¹³ and Anastasozki et al.¹⁴

Earlier in a breakthrough paper in 1994, Alcubierre showed that superluminal space travel is, in principle, physically possible and will not violate the tenants of the theory of relativity¹⁵. Puthoff¹⁶ 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 effect, 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 Puthoff¹⁷ starting during the late 1980s. A detailed bibliography on this and similar topics is available on the WWWeb. 18 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 by Bearden will soon be available.²¹ 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. Puthoff²³ 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 paper²⁵ 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 document²⁹ for members of the press and Congress and a book³⁰ 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.

<u>Dan Morris³¹</u> 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 extraterrestrial-connected 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?"

"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..."

<u>Captain Bill Uhouse³³</u> 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."

"A.H."³⁴ 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>³⁵ 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 McCandlish³⁶ 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.

A close friend, 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 bellshaped. 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 Point³⁷

Although this very recent book (August, 2001) is not yet available in the US, it 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 it in the open literature and on the WWWeb. For example, Davenport³⁸ published the results of his work in 1995 supporting the findings of T. Brown. More recently, Transdimensional Technologies³⁹ in the USA and J. Naudin⁴⁰ 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. 41

<u>Implications of This Research</u>

- 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 20th 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 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.
- \bullet In conclusion, we might consider the observation made by Halton Arp⁴²:
 - "We are certainly not at the end of science.

 Most probably we are just at the beginning!"

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References Cited

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

³ Oberth, Hermann: "Flying Saucers Come from a Distant World," *The American Weekly*, October 24, 1954.

⁴ 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. ⁵ Ibid. p. 27.

⁶ Ibid. p. 19.

⁷ 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.

⁹ Ibid. p. 34.

¹⁰ Ibid p. 41.

¹¹ 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.

¹³ 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. 2nd ed., Advances in Chemical Physics 19:469-494.

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. (In Press). Anti

gravity effects in the Sachs theory of electrodynamics Foundations of Physics Letters.

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

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

¹⁷ 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.

¹⁸ www.motionsciences.com

¹⁹ See the Tom Bearden web site for an extensive listing and copies of his papers at: www.cheniere.org.

²⁰ 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.

Bearden, T. 2002. Energy from the Vacuum: Concepts and Principles. World Scientific (In Press).

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 The U.S. Senate Crisis. Report prepared for Environment and Public Works Comm. www.senate.gov/~epw/loder.htm.

²³ Puthoff, H. 1990. Everything for Nothing. New Scientist, 28 July 1990, pp. 52-55.
²⁴ Haisch, B., Rueda, A. and Puthoff, H. 1994. Beyond

E =mc2; 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.

²⁵ LaViolette, P. 1993. The U.S. Antigravity Squadron. p. 82-101. In Valone, T. (ed.), 1994. Electrogravitics Systems: Reports on a new propulsion methodology.

Research Institute, Washington, DC Integrity 20005.p.82-101.

²⁶ 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

²⁷ 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.

²⁸ Information available at: www.disclosureproject.org. ²⁹ 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. Available from: www.amazon.co.uk.

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)

³⁹ Transdimensional Technologies, 906-E Bob Wallace, Ave., Huntsville, AL 35801.

40 http://jnaudin.free.fr

⁴¹ 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.

⁴² Arp, H. 1998. Seeing Red: Redshifts, Cosmology and Academic Science. Montreal, Aperion. (p. 249).