Association of Distinguished American Scientists

Subject: Technical Summary for CY 2008

To: ADAS Board of Directors Date: April 20, 2009

From: T. E. Bearden. President and Director of Research

1. <u>Preliminary Remarks</u>: Again, 2008 was a difficult year for the Director personally. My beloved wife Doris continued quite ill, and almost an invalid. In addition, my own deteriorated physical condition continued due to the biological-warfare-modified mycoplasma damage and pulmonary fibrosis. Nonetheless, with your support and encouragement the vital work of the Association was continued, and very significant accomplishments were made.

During the year we posted quite a few technical articles and papers on our website, www.cheniere.org, and reading has been worldwide and enormous. On a slow day we have about 40,000 hits on the website. On a good day we have about 80,000. And on a superb day we have 120,000 or so, swamping everything. Thus the posted material and the basics of "free energy from the vacuum" is being read and downloaded, and spread worldwide into many countries, both to individuals and institutions, and to universities, students, and research scientists.

We also assisted intensive researcher Leslie R. Pastor by furnishing him information which has been posted on many of his peswiki pages provided by the New Energy Congress. Les has particularly done a tremendous job in specifically documenting the serious suppression of free energy (asymmetric) EM systems since J. P. Morgan elicited Lorentz in 1892 to deliberately cripple the original Heaviside equations (to be used for the new technology of "electrical engineering" to be set up and taught in the universities worldwide. Lorentz took previous work of Lorenz (without the "t") and used it to symmetrize the Heaviside equations. Thus he deliberately threw out all asymmetric Maxwellian systems from the new Heaviside-Lorentz equations. And these mutilated equations – containing only systems which self-enforce COP < 1.0 – were used in the new electrical engineering from its very birth.

Since any energy-from-the-vacuum system with COP > 1.0 is an asymmetric system, it means that the real cause of the world energy crisis is and has been this deliberate crippling of electrical engineering from its very birth. The same crippled model is still taught in our universities.

2. Research In Energy from the Vacuum: In 2008, we made additional advances in deciphering the mechanisms and principles of extracting EM energy from the vacuum, and showing the falsities that are presently taught in electrical engineering in all our universities. We particularly did substantial research in the area of negative energy, documenting how world physics leaders deliberately and fearfully tore out negative energy from physics in 1934, by mutilating Dirac's theory. Dirac himself pointed out that one may rip it from the classical theory, but it cannot be taken from quantum mechanics. Quoting Dirac on the difficulty of the removal of negative energy by the frightened leaders of the scientific community:

[&]quot;One gets over the difficulty in 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." [Proceedings of the Royal Society A, Vol. 117, 1928, p. 610.].

Note that Dirac also was specifying exactly how one easily induces negative energy/negative probability in the local vacuum of a specific region. One simply introduces sharp little lowenergy perturbations with sharp gradients. The pulses pop out electrons from the tickled Dirac Sea, leaving behind the emptied holes which are negative mass-energy electrons. As source charges, they emit negative energy photons, which makes and adds their associated negative energy EM fields. Indeed, the tickle-produced "empty holes" (true antimatter) is the mysterious "dark matter" our astrophysicists are seeking so desperately through their telescopes, and the associated "tickle-produced negative energy EM fields" are the mysterious "dark energy" they are also seeking.

The startling realization is that we can easily change a local vacuum to directly introduce – and tailor – negative energy into that local vacuum, with the use of only minuscule "tickle energy".

2. A Profound Discovery. The result is that now, since one can not only "theoretically" deal with negative vacuum energy, but can also easily induce it including even in very specific patterns, then in addition to the "positive energy/positive probabilities" usually associated with the vacuum and its tremendous interactions we can easily add-in additional "negative energy/negative probabilities" into those ongoing interactions at will.

This leads to a startling new identity axiom which may be stated in several ways, including:

$$|VPF| \equiv |LLLT| \equiv |Energy| \equiv |Physical Reality|$$
 (2-1)

where VPF is the virtual particle flux and interactions of the vacuum, LLLT is relativistic spacetime, etc. This also finally gives a definition of Energy, which previously has not been adequately defined as was pointed out by Feynman and others. Quoting Nobelist Feynman:

"It is important to realize that in physics today, we have no knowledge of what energy <u>is.</u>" [Richard P. Feynman, Robert B. Leighton, and Matthew Sands, <u>The Feynman Lectures on Physics</u>, Addison-Wesley, Reading, MA, Vol. 1, 1964, p. 4-2].

Also note that "emptiness" is completely eliminated since LLLT is identically VPF. There is no "emptiness filled with virtual particle flux interactions"; instead there are only those virtual particle flux interactions. So spacetime is not an "emptiness" but is a *plenum*. This substantiates the view of Einstein that there is no such thing as "empty space" without fields and energy. Quoting Einstein:

"There is no such thing as an empty space, i.e., a space without field. Space-time does not claim existence on its own, but only as a structural quality of the field." [Albert Einstein, Relativity. The Special and General Theory, translated by Robert W. Lawson, Henry Holt, New York, 1920.].

Considering the positive energy/positive probability interactions, then smaller virtual particles interact to make larger structures (particle groups and assemblies etc.) until the quantum threshold is breached, and the increasing interactions from there on are directly creating and sustaining any and all parts of observed physical reality.

This is a shocking discovery: <u>Any and every part of physical reality is continually being created</u> and sustained as a tremendous, ongoing set of interactions between the virtual particles of the seething virtual state vacuum.

The shock comes in realizing that, by deliberately adding negative energy/negative probabilities into a chosen ongoing "bubbling virtual particle creative set", we can "tailor" and change that ongoing creative interaction set as we will.

In short, we can now directly engineer physical reality at will, once the technology is experimentally developed and applied.

3. <u>Significant Ramifications</u>. The tremendous result is that anything and everything real and physical <u>is not</u> something that happened in the past and then has continued to exist as a Machian structure. Instead, <u>it is continually being created and sustained</u> as a complicated interactions structure of ongoing interacting virtual particles. In short, any physical thing or process is continually "happening", when we consider the positive energy/positive probatilities ongoing in the interactions.

When we consider negative energy/negative probabilities added into the ongoing "happening/creating" bubble interactions of a given physical reality, we reduce the positive energy all along the creative bubble interactions set, and also decrease the positive probabilities.

Hence, for essentially "unpatterned" addition of negative energy/negative probabilities to the vacuum bubble "happening/creative" structure, the structure contracts and the last highest positive energy thing that was being "happened" is "unhappened" and ceases to be (ceases being created). Precursor engineering is thus the direct engineering of "happening" and "unhappening".

As an example, in a container of water molecules, if we "tickle" the local vacuum a bit, we contract the ongoing "happening/creative virtual particle bubble interactions set" that is creating the water molecules. The last and highest energy thing making the water molecule is the OH bond. So when we tickle without specific pattern, we start the OH bonds of the water molecules to statistically start to "unhappen". They literally fall apart, forming H2 and O2 mixtures of gas bubbles in the solution. However, this mixed hydrogen gas and oxygen gas is not very combustible or explosive there in its container, because in that tickled region it is now extremely difficult to form the OH bond required for combustion or explosion of the hydrogen in the presence of the oxygen.

But if we then pipe the H2 and O2 gas mixtures <u>outside</u> the tickled-vacuum water container for a few inches and into the combustion chamber of an external combustion engine, then suddenly the H2 and O2 mix is in a "normal vacuum" where the OH bond is very easily established. So in this "normal vacuum" region, the mixed H2 and O2 will now "burn" easily to power the combustion engine, with only water vapor coming out the exhaust.

We have named this type of "reality engineering" <u>precursor engineering</u>, since we are deliberately engineering the virtual particle flux of the "precursor" VPF interaction bubble structure that is creating the physical reality of interest — in this case, the water molecules in the tickled vacuum container so we can easily obtain and burn hydrogen from it with great ease. The process will also work efficiently in deep space, because the necessary combining oxygen gas is already present in the exact ratio needed to produce the water vapor from the combustion.

<u>Precursor engineering</u> -- as described for the so-called "watergas" process, is a total solution to our present "fuel" crisis and will dramatically reduce the motor vehicle's contributions to global warming and environmental pollution.

4. <u>Further Startling Ramifications:</u> Now when we tickle a subject vacuum so that we introduce negative energy/negative probabilities in a <u>specific pattern</u> (i.e., a specific "vacuum engine"), then with suffient research and development experimentation we can determine the specific pattern or "engine" that can be introduced and used to only affect a <u>specific part</u> of an ongoing creative/bubble VPF interaction of interest, and <u>in a specifically desired manner</u>. As an example, if we are interested in curing HIV by destroying all HIV viruses in the affected diseased body, then by working out the exact tickle pattern to form an "anti-HIV vacuum engine", we can place the living infected human in a compartment and very weakly irradiate him with the very weak "specific anti-HIV tickle pattern", thereby "unhappening" the actual HIV viruses anywhere and everywhere in his or her body. This will "unhappen" (i.e., "cure") the disease entirely – and quickly, easily, and cheaply once the technology has been developed.

Note that this expansion and direct tailoring of the basic "overall Dirac tickle mechanism" now allows us to take – eventually – any part of our local physical reality and <u>directly alter and</u> <u>engineer it at will</u>. There is essentially no limit to what the process can change or what it can do!

E.g., suppose we wish to render absolutely harmless that mucky "coal combustion gunk" penned up in more than 1300 reservoirs for our coal-burning electric power plants. Then we need only just use the correct "vacuum tickling engine" and tickle that mess a bit, and transform it to anything we have arranged with the tickling engine—including pure water.

Thus we have discovered two aspects of precursor engineering: (1) overall "unpatterned" tickling, so that we form a general "contraction" or "unhappening" engine acting on the ongoing creative/"happening" VPF virtual particle interactions comprising the entire overall process or part of physical reality that is of interest, and (2) a specifically patterned and constituted "unhappening" engine acting only on a specific small part of that overall ongoing creative bubble interaction "happening" process — a small part that itself is continually bubbling and "happening".

We have posted some preliminary E-mails etc. with some of this information, on the Technical Director's website www.cheniere.org, and we will be posting a technical paper describing all this with the cited references.

5. Projection Of Future Precursor Engineering Capability and Its Proof: We also have noted that a living animal or similar organism has perhaps the world's best "Dirac Sea tickling mechanism" in the tiny-energy "spikings" of its nerve dendrite endings. This means that, if we can arrive at how to teach or induce human beings to deliberately control and use these "nerve dendrite end spikings" to form <u>deliberate patterns of the tickling at will</u>, then we shall be able to consciously perform precursor engineering. As a single example, we would then be able to alter our "tickling" patterns so as to reduce the effects of our own aging, and nothing else. As we aged then into, say, our 70s, we could simply reverse back to an early age and condition — say, 30 or 35 years old condition. <u>A human being could become immortal under his or her own volition</u>.

And there is already astounding confirmation of this capability, proven now in biology! Following are the details of the evolutionary change effected by the little jellyfish <u>turritopsis</u> <u>nutricula</u>, circa 1990, when it became immortal! The biologists have mistakenly labeled it as

probably some strange kind of cellular transdifferentiation – the change of one kind of cell into another. That is not what it is; it does not change its *type* of cell, but only the *aging* of that cell.

6. The Immortal Little Jelly-fish-like Creature and Precursor Engineering.

a. See Susan Milius, "Nearly immortal sea creature spreads: Hydrozoan with reversible life cycle now found worldwide," <u>Science News</u>, Web Edition, June 23, 2008. Quoting:

"Immortal jellyfish, Turritopsis nutricula, is a hydrozoan that has spread from the Caribbean all over the world's oceans in ships' ballast water discharged in various ports. The 5 millimeters-long creature (less than a quarter-inch) is the only known animal that can revert from reproductive adulthood to its younger self. The unique jellyfish can transdifferentiate to its juvenile form, seeming to cheat death. This "eternal" process was first reported in 1992 by G. Bavestrello et al in <u>Scientia Marina</u> and reported by <u>Science News</u> on June 23, 2008. Are these jellyfish truly immortal? If so, what happens to the Earth's oceans as the creatures spread and thrive in their immortality? Geneticists and marine biologists are trying to find the answers."

- b. Turritopsis Nutricula," see http://en.wikipedia.org/wiki/Turritopsis_nutricula.
- c. Piraino, S.; Boero, F.; Aeschbach, B.; Schmid, V. (1996), "Reversing the Life Cycle: Medusae Transforming into Polyps and Cell Transdifferentiation in Turritopsis nutricula (Cnidaria, Hydrozoa)", <u>The Biological Bulletin</u> Vol.190, No. 3, 1996, pp. 302-312. See http://www.biolbull.org/cgi/reprint/190/3/302.
- d. Scott F. Gilbert, <u>Developmental Biology</u>, Eighth Edition, 2006. A standard biological textbook. Also see Scott F. Gilbert, "Cheating Death: The Immortal Life Cycle of Turritopsis," in DevBio, at http://8e.devbio.com/preview_article.php?ch=2&id=6.
- e. Ker Than, "Immortal" Jellyfish Swarm World's Oceans," <u>National Geographic News,</u> Jan. 28, 2009. Quoting:

"We are moving from a marine ecosystem dominated by big fish to a soup of small organisms. If we go on like this, the only things in the sea will be jellyfish and plankton soup." (quoting French-Canadian biologist Daniel Pauly). We comment that eventually the predators of the sea will adapt to consuming this widely available jelly fish for food, thereby keeping down its numbers. The immortal jelly fish can be killed "mechanically", but is immortal with respect to the aging process.

- f. "Having stumbled upon the font of eternal youth, this tiny creature which is just 5mm long is the focus of many intricate studies by marine biologists and geneticists to see exactly how it manages to literally reverse its aging process." Telegraph, 30 Jan. 2009.
- g. Maria Pia Miglietta & Haris Lessios, Miglietta M.P., Lessios H. (2008). "A Silent Invasion." <u>Biological Invasions- On line</u>, June 10, 2008. See http://dx.doi.org/10.1007/s10530-008-9296-0.
- h. Lech Mintowt-Czyz, "Turritopsis nutricula: the world's only 'immortal' creature," <u>Times of London</u>, TimesOnline, January 26, 2009. Quoting:

"Jellyfish usually die after propagating but Turritopsis reverts to a sexually immature stage after reaching adulthood and is capable of rejuvenating itself.

The 4-5mm diameter creature, technically known as a hydrozoan, is the only known animal that is capable of reverting to its juvenile polyp state.

Theoretically, this cycle can repeat indefinitely, rendering it potentially immortal."

i. Our comment:

This Jelly-Fish is demonstrating an application of precursor engineering, specifically patterned. It is an example of specifically patterned Dirac-tickling of its local vacuum by its little "weak but sharp-gradient" EM dendrite ending pulses so that the jelly fish's own "continuous creating VPF creating interactions" -- continually creating the jelly fish itself – contains not only the usual positive energy/positive probabilities, but also the specifically-patterned negative energies/negative probabilities introduced by the jelly fish's patterned dendrite ending spikings to reverse its growth and aging process, returning to an earlier stage. I call that process "precursor engineering" since by directly engineering the precursor dynamics that "continually creates" any observed object or entity or process, one can directly engineer physical reality as one wishes. And this reversal includes the reversal of any and all "aging effects".

The Dirac tickling method is quite simple and easy and cheap. Again quoting Dirac on the difficulty of the removal of negative energy by frightened leaders of the scientific community:

"One gets over the difficulty in 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." [Proceedings of the Royal Society A, Vol. 117, 1928, p. 610.].

There are presently five other processes in science that — unknowingly in four of them — use this Dirac-tickling process, in its general sense. Also, in those four processes none of the scientists involved appear to understand the actual precursor engineering mechanism, nor the method of its implementation that was given by Dirac.

- (1) One process is Prof. John Kanzius' independently tested and verified watergas process.
- (2) Another is his cancer cure (which recently yielded sensational results in its phase one animal trials by curing 100% of the tumors easily and quickly and cheaply).
- (3) Another process is the cold-molding process that the Soviets have used for decades to mold their thick titanium hulls of their nuclear submarines at room temperature, by "tickling" the local vacuum of the titanium so that it contains a <u>lattice-unhappening</u> pattern of negative energy. This "unhappens" the lattice bonds, which simply disappear, so that the titanium metal becomes a liquid at room temperature! Pour it in the molds and wait till the emptied Dirac sea holes are filled with opportunistic electrons again, and the bonds are automatically restored so that the titanium again becomes a solid all at room temperature.
- (4) The bubble-fusion process, which uses a similar approach to accomplish nuclear fusion.
- (5) The watergas hydrino process of Dr. Randell L. Mills.

For more information on the operation of the actual process, see http://www.cheniere.org/correspondence/011409.htm.

7. We Specifically Noted the Extraordinary Work by Klimov et al.

See our website link at http://www.cheniere.org/correspondence/100608.htm.

This fantastic work by Klimov et al at Los Alamos National Laboratory, fully replicated independently by scientists at the National Renewable Energy Laboratory, is now completely proven and accepted scientifically. It is published in leading physics journals and also in nanocrystalline journals, and thus has become "known and totally proven rigorously and experimentally" in physics.

This work clearly proves – forever! – that real EM energy systems can be produced which freely accept and use excess EM energy from the seething virtual state vacuum. <u>We never have to "prove" it again!</u> Quoting from Herb Brody:

"Victor Klimov in Los Alamos National Laboratory in New Mexico has constructed a solar cell which can absorb the light of a specific wave length in such a way, that one photon can energize more than one electron. As soon as the electron absorbs a photon, it disappears for a very short moment into the quantum field. Being in the virtual state the electron can borrow energy from the vacuum and thereafter appears again in our reality. Now the electron can energize up to 7 other electrons. This leads to a theoretical coefficient of performance (COP) of 700%. A COP = 200% can be readily achieved and it has been. The experiment has also been replicated successfully by the National Renewable Energy Laboratory in Golden Colorado. [Herb Brody, "Solar Power - Seriously Souped Up." New Scientist, May 27, 2006, p 45].

Quoting again: "Make solar cells as small as a molecule; and you get more than you bargained for. Could this be the route to limitless clean power?"

Our comment: Note that the super-excited output electron, after emerging from the seething virtual state vacuum immersion, actually splits into two or more electrons! So the output current of the solar cell process is freely amplified by excess energy from the local virtual state vacuum. Note that at about COP = 300%, one could conceivably add clamped positive feedback of one of those output electrons back to the "dive back into the seething virtual state vacuum" input, replacing the original electron input, and the unit would be "self-powering" (powered by energy from the vacuum) while putting out the other two electrons as output.

Or by using some of the output current in a radiation-producing process, one could have the positive feedback input as a radiation photon, to replace the initial solar input entirely. In this fashion, once "jump started" by some source of solar radiation, the resulting "solar panel" system would become totally self-powering, taking all its input and output energy directly from the seething vacuum itself.

Now we note a special characteristic of tourmaline crystals. The tiny tourmaline crystal is dipolar and asymmetric. Because of its self-sustained broken symmetry it continually and freely emits real far-infrared photons, without losing its dipolarity. In short, it is a true "free energy battery". If one properly surrounds such a tourmaline crystal with Klimov tiny nanocrystalline solar cells, then the tourmaline should freely provide the continuous input of photons needed by the Klimov solar cells. This constitutes a "self-powering solar cell ensemble" and could be made into self-powering solar panels, taking their "solar" radiation directly from the seething vacuum. One could change the entire realm of "solar power" since now it would have "self-powering solar systems" and "free solar cell power systems" that continue to work in the dark, in outer space, and wherever. It would constitute a great scientific revolution in the present world energy crisis.

Additional references on Klimov microscopic solar cells with COP > 100%:

- a. Richard D. Schaller, Vladimir M. Agranovich and Victor I. Klimov; "High-efficiency carrier multiplication through direct photogeneration of multi-excitons via virtual single-exciton states." Nature Physics Vol. 1, 2005, pp. 189-194.
- b. Richard D. Schaller, Melissa A. Petruska, and Victor I. Klimov; "Effect of electronic structure on carrier multiplication efficiency: Comparative study of PbSe and CdSe nanocrystals"; <u>Appl. Phys. Lett.</u> Vol. 87, 2005, 253102.
- c. Richard D. Schaller, Milan Sykora, Jeffrey M. Pietryga, and Victor I. Klimov, "Seven Excitons at a Cost of One: Redefining the Limits for Conversion Efficiency of Photons into Charge Carriers," Nano Lett. Vol. 6, 2006, p. 424.
- d. Victor I. Klimov, "Spectral and Dynamical Properties of Multiexcitons in Semiconductor Nanocrystals," <u>Annual Review of Physical Chemistry</u>, Vol. 58, No. 1, 2007, p. 635.
- e. M. C. Hanna, A. J. Nozik. "Solar conversion efficiency of photovoltaic and photoelectrolysis cells with carrier multiplication absorbers," <u>Journal of Applied Physics</u>, vol. 100, No. 7, 2006, p. 07450.
- f. Sung Jin Kim, Won Jin Kim, Yudhisthira Sahoo, Alexander N. Cartwright, Paras N. Prasad, "Multiple exciton generation and electrical extraction from a PbSe quantum dot photoconductor," Applied Physics Letters, Vol. 92, No. 3, 2008, p. 031107.
- g. Alberto Franceschetti, Yong Zhang, "Multiexciton Absorption and Multiple Exciton Generation in CdSe Quantum Dots," Physical Review Letters, Vol. 100, No. 13, 2008, p. 136805.
- h. G. Allan, C. Delerue, "Role of impact ionization in multiple exciton generation in PbSe nanocrystals," Physical Review B, Vol. 73 (20), 2006, p. 205423.
- i. Hsiang-Yu Chen, Michael K. F. Lo, Guanwen Yang, Harold G. Monbouquette, Yang Yang, "Nanoparticle-assisted high photoconductive gain in composites of polymer and fullerene," Nature Nanotechnology, Vol. 3 (9), 2008, p. 543.
- j. M.C. Beard, R.J. Ellingson, "Multiple exciton generation in semiconductor nanocrystals: Toward efficient solar energy conversion," <u>Laser & Photonics Review</u>, Vol. 2, No. 5, 2008, p. 377. Quoting:
- "Now Victor Klimov and colleagues at the Alamos National Laboratory have designed nanocrystals with cores and shells made from different semiconductor materials in such a way that electrons and holes are physically isolated from each other. The scientists said in such engineered nanocrystals, only one exciton per nanocrystal is required for optical amplification. That, they said, opens the door to practical use in laser applications." ["Scientists Create New Type of Nanocrystal," PHY SORG.COM, Nanotechnology, May 24, 2007].
- k. Seo, Hye-won; Tu, Li-wei; Ho, Cheng-ying; Wang, Chang-kong; Lin, Yuan-ting. "Multi-Junction Solar Cell," United States Patent 20080178931, July 31, 2008. A photovoltaic device having multi-junction nanostructures deposited as a multi-layered thin film on a substrate. Preferably, the device is grown as InxGa1-xN multi-layered junctions with the gradient x, where

x is any value in the range from zero to one. The nanostructures are preferably 5-500 nanometers and more preferably 10-20 nanometers in diameter. The values of x are selected so that the bandgap of each layer is varied from 0.7 eV to 3.4 eV to match as nearly as possible the solar energy spectrum of 0.4 eV-4 eV.

- I. J. R. Minkel, "Brighter Prospects for Cheap Lasers in Rainbow Colors," <u>Scientific American</u> (website), May 25, 2007.
- m. Quoting Victor Klimov: "Carrier multiplication actually relies upon very strong interactions between electrons squeezed within the tiny volume of a nanoscale semiconductor particle. That is why it is the particle size, not its composition that mostly determines the efficiency of the effect. In nanosize crystals, strong electron-electron interactions make a high-energy electron unstable. This electron only exists in its so-called 'virtual state' for an instant before rapidly transforming into a more stable state comprising two or more electrons." [Lead project scientist Victor Klimov, quoted in "Nanocrystals May Provide Boost for Solar Cells, Solar Hydrogen Production," Green Car Congress, 4 Oct., 2008.]
- 8. Other Dissemination to the Public: Throughout the year we corresponded by fax, phone, letter, and E-mail with many scientists and researchers worldwide, sharing information and providing technical information in all our fields of research endeavor. We also prepared quite a number of "mini-write-ups" on the our technical research, and placed this material on the Technical Director's website www.cheniere.org.
- 9. <u>Distinguished American Scientist Awards:</u> We also researched the technical work of various candidates and the Association awarded three Distinguished American Scientist awards. This year the nominations were posthumous, and they were made to the three scientists most responsible for the background of knowledge and discovery necessary to allow the discovery of precursor engineering. These nominations are:
 - a. Dr. Ernst Schrödinger.
 - b. Dr. P.A.M. Dirac.
 - c. Dr. Eugene Mallove.
- 10. <u>Summary</u>: In conclusion, 2008 was a again a hectic, difficult, but very busy and an extraordinarily productive year for the Association. While our income remained extremely limited, nonetheless we continued to accomplish very important scientific work some of critical national importance and made it freely available to scientists and to the public through a variety of papers, conferences, mailings, internet bulletin boards, E-mail, journals, communications with other scientists, and other media.

We particularly believe that our discovery of precursor engineering, and the tremendous implications of this discovery, will pay untold scientific dividends to humanity from now on. We are very hopeful that the present strong efforts of leading physicists such as Dr. Dan Solomon, pressing to put back negative energy into physics where it was unscientifically and ruthlessly torn out in 1934, will pay quick dividends and again focus substantial physics efforts on negative energy and – now – on precursor engineering.

ADAS Technical Achievements for 2008

Our efforts *are* having a slow but growing impact upon the national command structure, the Department of Defense, the Senate and the Congress, the Department of Energy, and the scientific community worldwide. We shall continue our work unabated in 2009, and we shall redouble our sensitive and unpublicized efforts in support of the security of the United States.

We look forward to even greater progress and additional scientific breakthroughs in 2009.

Very truly yours,

Thomas E. Bearden

Thomas E. Bearden, President Director of Research