

New Energy News

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SHORT SUBJECTS

DEUTERONS IN TITANIUM

Reference:
Dan Chicea & Dan Lupu (Romania), "Low Intensity Neutron Emission From TiDx Samples Under Nonequilibrium Conditions." *Fusion Technology*, Vol. 39, No 1, January 2001, p.108_113, 4 figs, 7 tables, 15 refs.

ABSTRACT

Several experiments were performed that loaded titanium samples with deuterium from the gas phase, changed the temperature of the samples over a wide range, and monitored the neutron emission. Neutron emissions in very low intensity bursts, still significantly above the background, were recorded, revealing that low energy nuclear reactions in condensed matter can be produced at a very low rate, which occasionally can be high enough to become detectable.

MITOGENETIC RADIATION

Jonathan Tennenbaum, "Russian Scientists Replicate 'Impossible' Mitogenetic Radiation," *21st Century Science and Technology*, Winter 2000-2001, p. 60-63, illus.

ABSTRACT

The famous Russian biophysicist, Alexander Gurwitsch, established by 1920 that living cells and tissues emit low level radiation in the ultraviolet range. This finding was denied as being "noise." More recently, (1960s and 1970s) other Russian scientists have replicated Gurwitsch's discoveries. Now the latest work has been to investigate the effect of one set of living cells on another set of living cells. It has been found that

developing fish eggs can influence nearby fish eggs in their growth. If the developing fish eggs are placed near somewhat younger fish eggs then the mitogenetic radiation speeds up the growth of the younger fish eggs. If the development time between the control group and the added eggs is longer then the mitogenetic radiation slows or even kills the nearby eggs. In other extensive experiments, covering an 11_year solar cycle, it was found that there is an influence on growing cells that changed with the solar cycle. It has been determined that this low level radiation passes through quartz glass but not through ordinary glass. This effect is true of ultraviolet radiation. These experiments demonstrate that living matter has some kind of a "field" that can affect other living matter. Few scientists are likely to endow this field with the aspects of a "spirit" that accompanies life forms. However, the findings are likely to be hailed by religious adherents as being spiritual in nature.

NEW ENERGY DEVICE COMING

Courtesy of Hal Fox

Gordon Michael Stallion, writing in Intuitive Flash, cites his view of a new energy device. He states, "...I see such a breakthrough on the horizon a small low cost electrical power device the size of a microwave oven. It will use solid chemical cartridges to power it and provide enough electrical power for the average small home or office." Stallion is the author of the book, Notes From the Cosmos. [We were hoping for a device that taps the energy of space rather than a chemical cartridge.]

See website www.intuitiveflash.com

CALIFORNIA RATE HIKE

Courtesy of Dr. Win Lambertson

Staff of Los Angeles Times, "California ponders utilities rate hike," The Herald (Florida), Business section, 29 Dec 2000.

Energy officials in California expect that the residential rates for electrical power will increase by 76 percent during the next two years. California has long had a policy of severe restrictions for constructing and operation an electric power plant in California. Therefore, the plants that are built are in other states, for example, in Nevada and Utah. In addition, the drought in the Pacific Northwest has caused less water to be impounded for operating hydroelectric plants. All of this coupled with California's strict control of energy prices that can be charged to the consumers has provided for a large energy problem to California. Rate hikes, among

other decisions, are now being considered. To quote the article, "In a worst case scenario, taking a variety of complications into account, Edison officials conceded that residential rates could soar by 76 percent over the next two years, with the average single family residential bill rising from \$58 to \$100.

(This is another citation that strongly supports investing in and the rapid development of all of the known new energy devices and systems. H.Fox, president, EEMF.)

RESEARCH RULES EASED

Courtesy of Dr. Win Lambertson

Staff, Bloomberg News, "Rules eased on getting tax breaks for research," as printed in the Atlanta Journal Constitution.

Businesses no longer must record all of their research and development activities to qualify for tax breaks. The regulation by the Treasury Department eliminates a requirements that businesses record all details of their R&D expenditures. A company is allowed to credit 20 percent of its R&D expenses toward its tax bill. The issuance of a patent is now acceptable demonstration that the R&D effort was properly funded. Also, internal computer systems developed by companies has been claimed.

BOOK REVIEW

A NEW PHYSICS

Courtesy of Marvin Solit, President
Reference: Foundation For New Directions

Dear Colleague and Fellow Dissident:

I want to bring to your attention A NEW PHYSICS, a book by William Day that we have published, that puts the physics controversy in an entirely new perspective.

In this remarkable book the author gives a completely new conception of space, motion, and the structure of matter. He proposes that the problems in quantum physics and cosmology are better resolved by a new physics based on principles different from those of dynamics that are

more appropriate for defining the composition of matter. Day points out that the Michelson-Morley paradox can be explained by either of two suppositions. He dismisses the current theory that the velocity of light is constant because of "relativistic effects" and takes the alternate view that light and matter have unrelated motions. He then deductively outlines a new physics that reshapes the definition of space and gives explicit meaning to inertia and motion.

The author contends that there is a three-stage hierarchy - particles, atoms, gravitational systems - in which motion is an integral part of structure. He then shows that matter is structured on motion, not energy, and in actuality, matter and motion are fundamentally inseparable.

With motion thus defined, he reexamines with astonishing results the theories for the structure of particles and origin of the universe. He presents a model for subatomic particles based on the general hierarchical pattern that is consistent with physical data. This model accounts for the known properties of particles, it shows the basis of mass and charge, and it gives the inter-conversion of mass and energy in a specific structural way.

Perhaps the most astonishing feature of the book is that the author shows how the new physics reveals a radically different world view. The old world view of Galileo and Newton where discrete bodies move in a space void is replaced by a universe in which space, motion and matter are intermeshed and fully integrated. This interpretation of space and matter gives new insights to the origin and composition of the universe, and could cause all of us to revise our impressions of physical reality.

It is a rare occasion for a science book to come along that is as thought provoking as this one. The book is well organized and brilliantly written. Science students and anyone who wonders about the physical world and where it came from will find in this highly readable book a shift from the conventional paradigm. A NEW PHYSICS takes its place as one of the truly original books on physical theory. It accounts for a host of problems that have remained unresolved by traditional physics. It also answers the ultimate question: How could the material universe have come into being from nothing?

With your interest in physics and the issues over quantum physics and the Special Theory of Relativity, this is a book you must read.

Marvin Solit, President Foundation For New Directions

Hard cover - 6 x 9

Dust jacket

208 pages

Appendix containing copies of original papers by Sagnac, Ives, and Gerber.

Retail Price: \$27.95
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ARTICLES

THE HYDROGEN ECONOMY

Courtesy of Toby Grotz

OIL COMPANIES, AUTOMOBILE MANUFACTURERS, AND
CONGRESSMEN, WORKING TOGETHER FOR A HYDROGEN BASED
ECONOMY. POLLUTION AND THE INTERNAL COMBUSTION
ENGINE WILL VANISH IN THE FUTURE.

"I believe fuel cells will finally end the 100-year reign of the internal combustion engine."

Bill Ford, Chairman Ford Motor Company

FORD EXPECTS 'GREEN' FUTURE - Financial Times (UK)

The latest XCELLSiS passenger car engine, a 75-kW hydrogen-fueled engine, was demonstrated in the new DaimlerChrysler Nocar and Ford Focus FCV. The engine incorporates Ballard Power Systems' Mark 9 fuel cell stack.

We are at the peak of the oil age but the beginning of the hydrogen age. Anything else is an interim solution. The transition will be very messy, and will take many technological paths ...but the future will be hydrogen fuel cells.

Herman Kuipers
Royal Dutch Shell

"We believe our customers will want to change to hydrogen in the future because it will have environmental and commercial advantages."

Mark Moody-Stuart, Chairman, Royal Dutch Shell

Robert Dempsey
Vice President, Engineering
Texaco Energy Systems, Inc.
TEXACO'S PATH TO HYDROGEN
Robert Dempsey Quicktime Video

We all share the responsibility for carrying out this project, for the assumption of responsibility is part of the dignity of human beings.

Juergen Shrempf
Chairman
DaimlerChrysler

USA: Volkswagen Unveils Its First Fuel-Cell Car At the Grand Opening of the California Fuel Cell Partnership

http://www.just-auto.com/news_detail.asp?art=16816

GM, Toyota to Join California Fuel Cell Partnership
<http://www.businesswire.com/webbox/bw.101600/202900587.htm>

"It was Senator Matsunaga's vision that renewable energy could provide a sustained source of non-polluting energy and that such forms of alternative energy might ultimately be employed in the production of liquid hydrogen as a transportation fuel and energy storage medium available as an energy export."

from Section 2119 -- The Matsunaga Hydrogen Act

"It may be wise for Congress and this administration to follow Iceland's

lead."

U.S. Congressman John Peterson

"The American shipping industry stands to gain a worldwide competitive advantage using inexpensive, clean burning, highly efficient hydrogen fuel that can be produced anywhere in the world."

U.S. Congressman Buck McKeon

Hydrogen Has Support in Congress

U.S. Sen. Daniel K. Akaka (D-Hawai'i) has co-introduced bipartisan legislation in Congress designed to speed up ongoing efforts for the development of hydrogen as a fuel.

"Clearly, the federal government should increase its support for fuel cell commercialization and for enhanced research and development."

U.S. Rep. John Larson

Source of above Quotes:

California Hydrogen Business Council

Fall Meeting October 13, 2000

<http://www.ch2bc.org/indexh.htm>

NEN Comments: It is apparent that none of the above persons being quoted have heard of any of the new-energy devices that can provide the technology for an on-board battery charger for electric vehicles.

760 GIGAWATTS IN 2007

Courtesy of Toby Grotz

According to the North American Electric Reliability Council and American Business Intelligence, U.S. electricity demand is expected to increase from 349 gigawatts in 1998 to 760 gigawatts in 2007. Factoring in the retiring of older plants, this means that 150 gigawatts of new capacity must be added to meet the demand. Unfortunately, only 70 gigawatts of new capacity are planned. That's a key reason why in places like California where there hasn't been a major installation built in a decade, electricity prices are skyrocketing.

While there is an increasing demand to be met, this need is being effectively countered by environmental concerns. Nobody wants a large power plant built near their city. And with the emphasis on reducing greenhouse emissions following the Kyoto Summit on global warming, the burning of fossil fuels is coming under greater controls in order to cut back on carbon dioxide emissions.

Although progress has been made in the reduction of CO, NOx, SO2 and particulate emissions, each kilowatt of fossil-fueled generating capacity

still produces a ton of CO2 per year. Building additional conventional plants, therefore, cannot economically meet the conflicting goals of added generating capacity and reduced emissions.

http://energypubs.com/issues/html/we0006_002.html

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SPECIAL REPORT: CALIFORNIA POWER CRISIS

Reference: Wall St. Journal: CA - No Power, No Pump, No Fuel

California Fuel Shortage Looms
As Blackouts Disrupt Pipelines

By Alexei Barrionuevo, Susan Carey and Scott McCartney
Staff Reporters of The Wall Street Journal

California's energy crisis is straining the limits of the region's gasoline and jet-fuel distribution system, and industry officials warn of fuel shortages if major pipelines and terminals continue to lose power supplies periodically.

Four days of interruptions last week to California's largest refined-products pipeline, operated by Kinder Morgan Energy Partners LP, Houston, has delayed by at least two days deliveries to gasoline-distribution terminals and airports in California and surrounding states, said a Kinder spokesman.

GATX Corp., Chicago, which operates terminals and a gasoline pipeline from Los Angeles to Las Vegas, also has been affected, as has a crude-oil pipeline operated by Houston-based Plains All American Pipeline LP, which brings oil from Texas. Inventories have begun to drop in gasoline-distribution centers around California, prompting industry officials to predict Friday that shortages at gas stations could begin within days, along with price spikes, if power interruptions resume.

Temporary Release

The state incurred only minor blackouts over the weekend, apparently leaving the refined-products pipelines unscathed, which gave the pipelines and distribution terminals precious time to try to catch up and avert shortages of gasoline, diesel and jet fuel. Late Friday, the Public Utilities Commission put a Band-Aid on the situation by releasing Kinder Morgan & GATX from their "interruptible" service contracts until Jan. 26.

Under those contracts, Kinder gets a 15% discount on power by agreeing to be vulnerable to shutdowns when power is in short supply. If Kinder continues to operate when it has been ordered not to, however, it faces penalties of more than 100 times the contracted rate.

"We have been [pumping] at maximum capacity since Friday afternoon and have made great strides in replenishing the inventories," said a Kinder spokesman.

Refiners also complained about the distribution bottlenecks, saying that inventories were backing up at their plants and they might have to slow production. Meanwhile, diesel for emergency generators was being delayed and major airlines said they were worried about jet-fuel shortages at large Western airports.

"The only part of the petroleum system left that hasn't felt the impact are the gasoline stations," said Doug Henderson, executive director of the Western States Petroleum Association. "The system can't stand this kind of stress that much longer."

AMR Corp.'s American Airlines, UAL Corp.'s United Airlines and Alaska Airlines have been ferrying fuel into Las Vegas, San Francisco and other Western cities by flying planes with tanks fuller than usual. That way, the planes have enough fuel to reach their next scheduled destination, or at least reduce the fuel loaded at Western airports.

Bob Sturtz, director of fuel at United Airlines, said two pipeline companies that serve the Los Angeles airport shut down pumping Tuesday rather than pay steep penalties for continuing to operate. He said a fueling company for 55 carriers that serve the airport agreed Wednesday to underwrite the incremental energy costs, an expense Mr. Sturtz estimates at \$50,000 to \$100,000 a day for the group.

'Scary' Level

San Francisco International Airport narrowly avoided a fuel crisis after airlines that serve the airport agreed to underwrite penalties that Kinder Morgan Faced at that point for violating its agreements by continuing to pump fuel. An Airport spokesman said supplier Chevron Corp. called Thursday afternoon to say the airport was down to a "scary" reserve level of just two days instead of the usual six. "If we had done nothing, we would have been down to zero [fuel] by midnight Friday," the spokesman said.

Valero Energy Corp., which provides 10% of the state's gasoline supply from a Northern California plant, said it would have to start reducing production in two to three days if the pipeline interruptions resume. The company said it received notice on Thursday from power provider PG&E Corp. that even customers paying higher power rates to not be interrupted, which include Valero, could be subject to shutdowns in the

face of wider blackouts of three to six hours if PG&E can't secure enough electricity from outside suppliers.

"This is really serious, because when you shut us down for that long it takes two to three days for us to come back up," said Bill Greehey, Valero's chairman and chief executive.

URL for this Article:

<http://interactive.wsj.com/archive/retrieve.cgi?id=SB979934241825156527.djm>

INFINITE ENERGY, PARK, AND PLAYBOY - JAN. 2001

Courtesy of Eugene F. Mallove

Energy. Its pages promise an energy revolution just around the corner and bitterly denounce the scientific establishment for conspiring to suppress it."

The article continues with the story about Dr. Paul LaViolette's firing from the US patent office and the year began with a bang, so to speak. Infinite Energy magazine is mentioned in the January 2001 issue of Playboy magazine, part of an article by Dr. Robert Park of the American Physical Society. Be sure to get this article to examine some of the "finer points" made in (and around) the article.

We are not regular readers of Playboy, but we were alerted to this article's appearance by our friend Sir Arthur C. Clarke, who has a fine opinion piece, "2001, Hello," in the same issue.

Of course, Park mentions Infinite Energy in a supposedly negative context, part of his continued war against cold fusion and other new energy research. Park writes, in part, about cold fusion:
"What emerged after all the media hype was not a story of a dazzling scientific breakthrough, but a sad comedy about wishful interpretations of sloppy and incomplete experiments, evolved into altered data and suppression of contradictory evidence. By July 1989, when a Department of Energy panel concluded that additional research into cold fusion was not warranted, most scientists had already returned to more productive lines of research.

"Nevertheless, a dwindling band of true believers remain convinced that cold fusion is real. If hucksterism is pseudoscience, this is pathological science, the distortion in which scientists manage to fool themselves.

"Not taken seriously by other scientists, the cold-fusion faithful hold their own meetings and have their own magazine with the all-too-predictable title Infinite Energy. Its pages promise an energy revolution just around

the corner an bitterly denounce the scientific establishment for conspiring to suppress it."

The article continues with the story about Dr. Paul LaViolette's firing from the US patent office and his defense before the Equal Opportunity Employment Commission. Other parts of the Park article attack Black Light Power Corporation and Dr. Randell Mills, Presidential candidate John Hagelin, plus various other good and no so good science. This is all mixed together in a pastiche of confusion and scientific bigotry, for which ignoramus-propagandist Park has become justly famous.

We delight in the irony of his reference to "altered data and suppression of contradictory evidence." The fraudulent MIT Plasma Fusion Center cold fusion calorimetry curves of 1989 were certainly altered data an apparent positive result made to look negative. And Park continues to "suppress contradictory evidence" by not himself acknowledging that refined cold fusion experiments yielding helium-4 commensurate with excess heat have been performed and replicated. Thus does he continue to perpetrate intellectual fraud on a grand scale, in which his parent organization the American Physical Society is complicit.

Let us hope for and work toward better news in 2001 than this obscenity from science playboy and dilettante Park.

Sincerely,

Dr. Eugene F. Mallove
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**BOB PARK'S PLAYBOY JAN 2001 MAGAZINE ARTICLE PHYSICS
PROFESSOR PARK REWORKS TM AND VITAMIN O WITH HIS
BIASED VIEWS ON NEW ENERGY PHYSICS COMING UP LAST**

Courtesy of Thomas Valone

Reference: Integrity Research Institute

Have you read the latest scandalous article by Dr. Robert Park, the Public Affairs Spokesperson for the American Physical Society. Publishing in the very physical magazine, Playboy, shows how low Park

will stoop to sway public opinion concerning scientific innovation, while getting paid for publishing. My greater concern is the number of outright falsehoods that Park throws in on the last page:

* "Typically, that office refuses to consider a perpetual motion machine unless the inventor can make it run for a year..." (The PTO has no such rule.)

* "Newman shied away from the challenge..." (Newman actually submitted his machine for NBS (NIST) testing.)

* "Except they hadn't." (They actually had and now there are many other successful replications: see J. of Sci. Exp., V.10, p. 185-243, 1996 by Dr. Ed Storms for one of the best review of 190 experiments. Get the Martin Fleischmann video from IRI for more information)

* "...reverse engineered from a crashed flying saucer." (Paul does not state anything like this in his contributed article to the IRI Electrogravitics Systems book.)

* "...ruling that cold fusion is a religion." (The EEOC has made a landmark decision, expanding civil rights protection to include scientific beliefs for the first time. Unlike Park's narrow-minded interpretation, this better protects the average worker. If Park's distortion was correct, all of physics becomes a religion by his own reasoning.)

It is very sad that the thousands of published lab results, peer-reviewed journal articles, and APS low energy nuclear reaction sessions proving fusion products on a lab bench apparently do not influence the prejudiced and close-minded spokesman for the American Physical Society. This author of the APS "What's New" column at <http://www.aps.org> seems to demonstrate how progress in physics is stifled: by direct manipulation of government processes and the media.

Lastly, Park's threat that our friend and colleague, Dr. Paul LaViolette, will not get his job back at the Patent Office exposes his unethical track record of deliberately influencing governmental negotiations at any level. This includes the effect of his What's New column on the Patent Commissioner's Office to force them to intercept the issued patent for Blacklight Power. I know the What's New insults of the PTO are a real embarrassment for them because I also used to work at the Patent Office until Park targeted me for organizing COFE (see the following web sites for more information). <http://www.integrity-research.org>

I encourage all those incensed by this abusive, unscientific Playboy article to at least write to the editor at:

Playboy Editor
680 North Lake Shore Drive
Chicago, IL 60611
or email to: dearpb@playboy.com
or email to: opa@aps.org

Sincerely,
Tom Valone

GRITSKEVITCH'S HYDRO-MAGNETIC DYNAMO

Courtesy of Gary Vesperman

During the Institute for New Energy 1999 Symposium, Oleg V. Gritskevitch lectured on his hydro-magnetic dynamo which unfortunately could not be completely and accurately translated from Russian into English. This paper is a result of the author's subsequent attempt, with the able assistance of a retired engineer who wishes to remain anonymous, to understand the basic workings of Gritskevitch's dynamo.

The author is not convinced of the total accuracy of this presentation. Gritskevitch himself has not commented on this report. The correct approach is to consider this report as providing clues, which may not all be necessarily accurate themselves, to completely deciphering the dynamo's construction and operation. To fool investigators of his secrets, Gritskevitch has on occasion provided misleading information. For example, the drawing accompanying the Russian patent referenced below shows a cylinder across the toroid to fool readers. The real dynamo only has the toroid without the cylinder. Even its name "hydro-magnetic dynamo" is somewhat deliberately misleading.

Gritskevitch claims that his hydro-magnetic dynamo is a large-scaled emission-free electrical generator which does not require external fueling. The dynamo is capable of powering larger transportation vehicles such as buses, trucks, ships, locomotives, and airplanes. Doubt remains about making dynamos compact enough to power automobiles.

The circumstantial evidence for the Russian inventor's performance claims for his hydro-magnetic dynamo is reasonably strong. While three experimental prototypes have been built with Russian and Armenian expertise and equipment, a fourth demonstration prototype needs to be built with more modern Western engineering expertise and equipment to verify dynamo performance claims and to further explore the dynamo's potential capabilities. Performance claims are as follows:

Dynamos are scaleable from 100 kilowatts to 1,000 megawatts. One 1000-megawatt dynamo is about the size of a two-car garage. For comparison, Hoover Dam's 17 generators have a total rated capacity of 2,000 megawatts.

One objection to the dynamo's credibility that has been raised is that such a physically small, but enormously powerful generator, cannot be built with small enough bus bars capable of carrying off relatively large amounts of electrical power.

A dynamo can reliably run continuously for 25 years or more with little or no maintenance, no external fuel source, and no pollution. If a dynamo's output is 1,000,000 watts, its total input power is approximately 10,000 watts. So therefore the dynamo's energy efficiency is 100-to-1, or 10,000%.

The source of the dynamo's massive electrical output is a nuclear reaction which is not generally known to mainstream science. However, it is known that the dynamo produces alpha particles which are helium nuclei made from fused deuterium, an isotope of hydrogen with one proton and one neutron. The electrons missing from the helium nuclei are what seem to provide a copious "sink" of electricity, and which happen to be the secret to the dynamo's ability to generate an exceptionally large amount of electricity. It is also known that the dynamo uses high-density charge clusters. High-density charge clusters are the basis of plasma-injected transmutation of elements and also neutralization of radioactive materials. Unlike hot fusion and fission reactors, the dynamo does not accumulate any radioactive contamination of its components.

The result of the dynamo's processes is conversion of electrostatic fields to direct current. Gritskevitch in his emails has mentioned the term "Kulon's conversion". Schematically, the dynamo is an electrostatic transformer, or possibly an electrostatic voltage multiplier.

There were three dynamo prototypes built. The first two small experimental prototypes were built in Vladivostok, Russia. The third and last prototype continuously generated electricity, except when turned off to incorporate improvements, from 1992 to January 1997 in Armenia. (It was sadly destroyed during a serious armed rebellion by local religious fanatics unhappy with the Armenian government.)

The Armenian prototype generated a constant current of 6,800 amperes at 220 volts DC. That multiplies out to nearly 1.5 megawatts. Minimum power output has been 500,000 watts, and maximum power output has been 2,500,000 watts during winter experiments due to better cooling. The Armenian prototype dynamo's toroid weighed 900 kilograms and had a diameter of approximately 2 meters.

Cooling water is circulated through copper pipes wrapped around the toroid. The heat is expelled from the cooling water with a heat exchanger. The working temperature was typically 36 degrees centigrade.

After a dynamo is assembled in a factory, the water is literally "jump-started" (by discharging a large bank of capacitors) to moving around the toroid. The start impulse pressure is as high as 400 atmospheres. The dynamo's controls are temporarily set to generating enough of a modest amount of electricity to sustain itself, possibly even while being transported from the factory to its site. The control circuits are simple as only sensors and a control computer are used. Personnel are unneeded for operational control.

For the Armenian prototype dynamo, two 10-farad capacitor banks (from Russian military radar stations) were used to provide the initial water motion (acceleration and excitation of water). Using a total of 20,000 joules, 100,000 volts with 0.05 amperes of current were applied to the Armenian dynamo for 3 - 5 minutes to ionize and polarize the water which then along with the water motion starts its generation of electricity.

After these Russian radar capacitors were used to "jump start" the Armenian prototype dynamo, a bank of buffer batteries sustained continuous operation when water motion and ionizing begins. This battery bank contained 8 powerful 12-volt, 150-ampere lead batteries. The Armenian dynamo's sustaining input power was 14,400 watts. The nominal maximum output power was nearly 1,500,000 watts. Once, the output current was accidentally increased to 40,000 amperes for almost a minute. Fortunately, the power was reduced to a safe level before the water started to boil. Internal coils (windings) control water velocity and therefore dynamo power. The faster the water is moving, the more electricity the dynamo generates. Once the water stops circulating around the toroid, the dynamo must be "jump-started" again to a minimum power level before it can sustain its electricity generation with its own power.

The following is a condensed summary, with some editing and additional commentary, of the "Description" of the dynamo's Russian patent IPC H 02 K 44/00 "Method of deriving of electrical energy and organization of Gritskevich's MHD-generator for its realization":

The dynamo is a sealed polystyrene toroid filled with ultra-pure distilled water with heavy water (deuterium oxide) added. Movement of water inside the closed loop and use of unique properties of water as a polar liquid cause a release of electrical energy as an outcome of a rupture of hydrogen connections. Additional electrical energy is drawn from nuclear reactions and micro-cavity processes. The liquid is ionized, polarized, and moving around the toroid at start-up time by a running magnetic field with the help of stimulating electromagnetic windings.

A layer of segnetoelectrical material, barium titanate, covers the internal surfaces of the polystyrene toroid. 32 electrodes made from a hard-alloy material containing palladium are inserted into the toroid at equal distances apart. These 32 electrodes are connected to a power supply. Additional stimulation windings are also connected to the power supply.

The partially pre-ionized (on the part of the heavy water) water gets ionized further by the high-voltage discharges by 32 electrodes which contain a total of 2 kilograms of palladium. With the help of the stimulation windings, a running magnetic field is created which moves the water in one direction inside the toroid. An electromotive force gets created by the electromagnetic induction in a separate set of windings.

During the movement of the water stream, free electrons get created, and an additional energy gets emitted because of the water's friction

(viscosity) against the layer coated on the inside surface of the toroid, because of electrostatic breakdowns of cavity-vacuum structures, and because of the ongoing nuclear reaction. At the strength of an electrostatic field equaling 10,000,000 volts/centimeter, the physical vacuum breaks down during which energy is generated within micro-bubbles. The micro-bubbles have diameters of 0.001 millimeter or less.

In addition to the barium titanate deposited on the teflon-coated inner surface of the polystyrene toroid, the water itself also contains tiny barium titanate crystals which are suspended in the water. Ultrasound at 25,000 cycles per second is propagated through the water to form micro-bubbles on the surfaces of the suspended barium titanate crystals. Again due to the barium titanate's piezoelectric action, very high electrostatic fields are also developed within the micro-bubbles at the surface of the crystals. The electrons from the nuclear reaction are added to the electrons generated at the toroid's interior surface. The total amount of mono-crystalline barium titanate in the Armenian dynamo was nearly 1000 grams.

The dynamo's production cost is estimated at \$500 per kilowatt which is competitive to nuclear power's capital costs of \$5,000 per kilowatt, windmill capital costs of \$4,000 per kilowatt, etc. A well-run nuclear power plant can generate power for 1.5 cents per kilowatt-hour, coal 1.8 cents, natural gas 3.4 cents, and oil 4.1 cents, on the average. The dynamo's operating cost would be approximately .1 cent per kilowatt-hour with no external fuel needed and without pollution.

Dynamos could replace all nuclear power plants, solar installations, wood-burning furnaces, hydro-electric dams, windmills, fossil-fueled power plants, etc. Satellites, locomotives, heavy trucks, airplanes, and ships are obvious transportation applications. It does not seem that dynamos can be made compact enough to power electric cars although it certainly would be worth trying.

A Forbes article states that PECO (formerly Philadelphia Electric Company), with an income stream to back it up, was able to sell on Wall Street \$4 billion worth of bonds paying 5.8 per cent. A dynamo manufacturer could simply sell bonds to build and operate dynamos at a low interest rate. Dynamo loan payback times may be in the ball park of a half-year to a year, depending on the local electricity market price. As soon as a dynamo is paid for, the revenue from that time on would be almost pure profit. Once a track record is established by successfully installing a few dynamos, the dynamo company could raise money to build more dynamos by simply selling billions of dollars of bonds instead of stock. So therefore, there wouldn't be any dilution of ownership.

A recent IEEE Spectrum article stated that world demand for electricity increases approximately 500 megawatts every day. To put this in perspective, the equivalent of another Hoover Dam would have to be built

every four days to keep up with world electricity increase demands. Or, a dynamo manufacturing company would have to build another 500-megawatt dynamo every single day to keep up with world electricity increase demand in addition to replacing all existing generators fueled by hydro, nuclear, and fossil fuels.

ADVANCED SELF-POWERED ELECTRIC VEHICLE CONCEPT

Courtesy of Gary Vesperman

Reference: (Expanded text of lecture, with references, presented by Gary C. Vesperman Sept. 9, 2000 during the Institute for New Energy 2000 Symposium in Salt Lake City, Utah.)

ABSTRACT

Candidate technologies were originally combined into an advanced self-powered electric vehicle concept in 1993. The power train of the concept's current version includes a modern version of Edison's nickel-iron battery or one of four super or ultra-capacitors, a closed-cycle blade-less Tesla-type steam turbine or one of several over-unity magnetic motors, and one of several possible types of on-board battery chargers. Miscellaneous innovations include computerized shock absorbers and air ride suspensions, lightweight basalt/carbon fiber foam for body/frame, parts non-destructively coated with diamond or titanium nitride, and compressed air-driven air conditioner/heater.

Origin of Advanced Self-Powered Electric Vehicle Concept

I am holding here a copy of my 42-page compilation which has the title "Advanced Technologies for a Foreign Resort Project". It includes about forty reports of what are claimed to be new sources of energy. I had trouble making up my mind on what I should talk about. I finally decided while eating breakfast this morning that the topic that may be of the most interest is my concept of an advanced self-powered electric vehicle which takes up a chapter of my paper. I shall describe how I originally came up with my concept of an advanced self-powered electric vehicle, and then review where I think we stand today.

About eight years ago, I switched careers from technical writing for computer engineering companies to writing offering memorandums for initial public offerings for a small Las Vegas movie production company. In two years, from three companies I had researched for their IPO's and a couple of inventors I had met, I accumulated knowledge of a variety of advanced technologies.

It was my strange personal happenstance that they appeared to be combinable into a workable self-powered electric vehicle which may be

much more advanced than of any commonly known vehicle design. So, just for fun, I wrote up the first of what was to be more than a dozen versions of an "Advanced Self-Powered Electric Vehicle Concept".

I had then computerized shock absorbers and air ride suspensions [1], Ukrainian super-capacitor batteries [2], basalt/carbon fiber foam also from the Ukraine, a compressed air-driven air conditioner/heater, and not one but two on-board battery chargers. I also had a powerful closed-cycle Tesla-type blade-less steam turbine and, for increased durability, a low-temperature nondestructive process for coating vehicle parts with diamond or titanium nitride [3].

However, I could never figure out what to do with such a fine idea. Developing and putting "super cars" into commercial production could easily cost millions of dollars. There is in Las Vegas, Nevada, (I live in a Las Vegas suburb) an electric car club which could build engineering prototypes of advanced self-powered electric cars. Las Vegas even has a factory building luxury sports cars which appears to be expandable for including initial small-scaled commercial production.

The blade-less Tesla-type steam turbine [4] was developed by Frank Richardson. The turbine has a closed-loop cycle which he claimed is far more efficient than the electric motor in terms of converting electrical energy into rotational energy for application to a vehicle's drive wheels. The water is heated with radio frequencies like a microwave oven into steam which is then forced through two disks in sequence. The two disks are perforated in such a manner as to prevent cavitation (bubbles) even at high rotational velocity. Since steam offers a 1,000-to-1 expansion ratio compared with gasoline's expansion ratio of approximately 300 to 1, the turbine is extremely powerful. An 18-inch diameter prototype's output power was measured at approximately 1,000 horsepower.

Current Version of Advanced Self-Powered Electric Vehicle Concept

So where do we stand today? The advanced self-powered electric vehicle concept that I had written in 1993 is now in its 13th or so revision.

Electric vehicles are clean, quiet, powerful, require much less maintenance than gasoline or diesel-fueled vehicles, and are inherently much simpler and easier to manufacture. Their drawbacks have been a short range, long battery recharging time, and a heavy, bulky battery pack. Clearly, self-powered electric vehicles, if they could somehow be designed and manufactured at a reasonable cost, ought to be a commercial success. Forbes January 25, 1999 compares today's electric golf carts (400,000 already sold) with personal computers back in the 1970's. (For a copy of the article see <http://www.forbes.com/forbes/99/0125/6302088a.htm>).

Practical self-powered electric vehicles at minimum must satisfy four requirements: The battery ideally should not have the disadvantages of

conventional lead-acid batteries such as temperature sensitivity, low charge-to-weight ratio, toxic materials, and finicky slow recharging. The motor should be durable and highly efficient. Heating and air conditioning must be provided. The fundamentally key difference from conventional electric vehicles is having an on-board battery charger.

Electric bicycles with only one battery are inherently more practical than conventional electric cars or trucks carrying a half-ton or so of batteries stuffed into every available nook and cranny of the vehicle. When just one battery out of one or two dozen batteries fails, the dead battery can be time-consuming to find before replacement. Once a dead battery is replaced, it could be a short time before another battery fails again. Besides weighing much less and with the batteries taking up much less space, a self-powered electric vehicle with an on-board battery charger would require at most only a few batteries.

What follows is a discussion of candidate technologies, if commercially developed, which could possibly be combined into a reliable, commercially successful advanced self-powered electric vehicle with additional desirable but currently commercially unavailable features.

BATTERY

Ukrainian Capacitor-Like Battery. The I. N. Frantsevich Institute for Problems of Materials Science, Kiev, Ukraine, has invented an entirely new type of battery. Emtech LTD., Mississauga, Ontario is commercializing the battery and has applied for 11 patents. A set of conventional lead-acid batteries can propel a small electric car for 100 miles or so, require several hours to recharge, and weigh 1000 lb. An equivalent set of Ukrainian batteries is expected to weigh approximately 200 lb., provide a much greater range of up to possibly 200-300 miles, require 15 to 30 minutes to recharge, and maintain full voltage until 94% discharge. The Ukrainian battery operates well in the temperature range of -40 to +60 degrees centigrade. A side benefit of the Ukrainian batteries is that they are made only of proprietary materials which are environmentally friendly, plentiful, and inexpensive.

(These performance claims are dated 1993 and currently are not considered credible without an updated report. Emtech LTD, which had the commercialization license, recently went bankrupt. Nu Omnicomm Technologies, Inc., of Salt Lake City, which has close ties to the I. N. Frantsevich Institute for Problems of Materials Science, may be able to revive the Ukrainian battery. [5])

A Ukrainian battery stores the charges in crystalline layers of a sheet-like material similar in appearance to mica. Due to nonlinear quantum mechanic effects, the electrical characteristic of each crystalline layer is that of a capacitor as thin as one molecule. Since capacitance is inversely proportional to thickness of the separation between layers, the practical consequence of the Ukrainian battery is to electrically function in

a manner similar to that of a giant capacitor.

Alvin A. Snaper's Power Technology Battery. The inventor of the aforementioned compressed air-driven air conditioner/heater and the low-temperature nondestructive diamond or titanium nitride part coating process is Alvin A. Snaper. He has developed about 600 patents, processes, and innovations. Some of his inventions are widely used.

The type font ball in the IBM Selectric typewriter is his invention as well as Tang the orange juice drink, landing gear indicator and blocking verifier for Boeing 727 jet aircraft, coating process for Gillette razor blades using precious metals, and an implantable piezoelectric battery for pacemakers so chests don't have to be cut open just to replace a battery! Others of his more interesting inventions are the Apollo space capsule photo-instrument package, ultrasonic product line, fluidic computer, plastics formulations, optically-based aircraft collision avoidance system, self-closing fire sprinkler valve, and magnetic-pulse splicing of pipeline sections. In his Las Vegas facility, Alvin uses his numerous patent awards for wall paper!

Mr. Snaper is currently developing and patenting a modern version of the century-old Edison nickel-iron battery through his Las Vegas company PowerTechnology, Inc.

See: http://www.powerpwtc.com/business_of_issuer.htm.

His new battery will have none of the drawbacks of all other types of batteries such as temperature sensitivity. Increasing the surface area of the electroplates by up to 1000 times greatly increases current output and allows much quicker charge/discharge rates. Different chemistry reduces the weight of the battery by 50%, reduces cost, and is much more environmentally benign than lead. I just talked with Alvin about a week ago (approximately Sept. 1, 2000). They are moving along nicely, and he has already been granted the first [6] of several forthcoming nickel-iron battery patent applications.

Maxwell Technologies Ultra-Capacitor. Since there is no heat nor waste product buildup as with electrochemical batteries, ultra-capacitors [7] can easily last many hundreds of thousands of extremely rapid and deep charge/discharge cycles. They can supply repeated bursts of power for fractions of a second to several minutes. They are especially useful for supercharging power for accelerations or climbing. With their quick recharge capability, ultra-capacitors can easily capture regenerative braking energy, extending the range of the vehicle. For increased safety, they can be stored, assembled, maintained, and transported while completely discharged. Since the energy stored is directly related to the voltage, the amount of available energy can be easily monitored. This precision eliminates the need for sophisticated state-of-charge algorithms. Other advantages include temperature insensitivity and low maintenance.

Capacitors are inherently more capable than electrochemical batteries of withstanding quick discharges of electricity to the motor when the driver demands high acceleration by stepping on the throttle. It is conceivable that a processor with a sophisticated program could switch between ultra-capacitors and batteries as needed to take advantage of the best performance characteristics of both types.

Maxwell Technologies' commercially available PowerCache(tm); ultra-capacitors pack up to 100 times the energy of conventional capacitors and can deliver ten times the power of ordinary batteries. Their ultra-capacitor is a double-layer capacitor incorporating a unique metal/carbon electrode and an advanced non-aqueous electrolytic solution. As a potential is applied across the terminals, ions migrate to the high-surface-area electrodes. The combination of available surface area and proximity to the current collector provide an ultra-high capacitance for this electrostatic process.

Ed Baldwin's Super-Capacitor. Similar in electrical function to the Ukrainian battery, Ed Baldwin's solid-state multi-layered "super-capacitor" [8] has a very high dielectric constant. It is believed ultimately capable of ten times the electrical energy storage capacity per pound of lead-acid batteries.

Yasunori Takahashi's ultra-capacitor. The Takahashi ultra-capacitor [9] is rated at approximately 20 farads at 25 volts in a volume of about one cubic centimeter.

MOTOR

Of the many types of electrical rotating machines that have been developed, of particular interest are those which are claimed to incorporate permanent magnets in order to develop more mechanical output power than their electrical input power. Such claims are considered suspect by many skeptics since they apparently violate the so-called law of conservation of energy. Their skepticism is unfortunately sometimes reinforced by occasional power gain measurement errors. However, it has also been suggested that the key to over-unity power conversion gain in such motors is to use super-powerful permanent magnets at a very high rotating speed in order to extract usable energy from the zero point energy field. A so-called "super-efficient" electric motor, besides providing motive power, might be engineered to function as an on-board capacitor/battery charger whether the vehicle is cruising, idling, or parked.

In 1993 I didn't know about electric motors built with powerful magnets capable of greater mechanical output power than electrical input power. As mentioned before, I only knew then of Frank Richardson's steam turbine. I now know of several types of such motors like the one invented by Yasunori Takahashi [10].

Ron Brandt's Perm-Mag Motor.

An over-unity energy converter claimed to have a gain of up to several times of shaft rotational power over electrical input power, the super-efficient "perm-mag" motor [11] generates 1 horsepower per pound of weight. Used in a self-powered electric vehicle, a 50-pound, 50-horsepower electric motor is equivalent to a 250-horsepower gasoline-fueled engine.

The perm-mag motor's inventor, Ronald Brandt, has successfully demonstrated a 10-pound, 10-horsepower prototype. Further research is expected to lead to a substantial increase in energy conversion gain over the reported gain of 400%. A few years ago, a 50-pound, 50-horsepower model (equivalent to a 250-horsepower gasoline-fueled engine) was to be mounted in a Chrysler New Yorker for testing [12]. Its companion controller, which is required to complete the resonant circuit for achieving over-unity gain, had been designed. It was not known yet whether a separate on-board battery charger would still be needed for a completely self-powered electric vehicle.

It should be noted that just because a motor can produce more mechanical power than its electrical input power, it does not necessarily mean that it is suitable for powering an electric vehicle. An electric vehicle motor ideally should have a number of other characteristics such as reversibility, complete variable power control, complete variable speed control, braking, and stepping. It is understood that the perm-mag motor meets all performance requirements for powering electric vehicles. It is not known how the perm-mag motor specifically compares with other types of over-unity motors.

Other Over-Unity Motors. There are several other types of motors claimed to have over-unity energy conversion gain. For example, Teruo Kawai of Tokyo, Japan has obtained US Patent No. 5,436,518 for his "Motive Power Generating Device". The patent's key statement is as follows: "Electric power of 19.55 watts was applied to the electromagnets at 17 volts and 1.15 amperes. ... an output of 62.16 watt was obtained." Dividing the output power by the input power yields an efficiency of 318%. However, as stated above for the perm-mag motor, such motors may not necessarily have all the characteristics needed for powering electric vehicles. Power gain measurements also can be misleading.

The names of the inventors of other claimed over-unity motors in an old list of mine for which I do not have references are Hardd Aspden, Troy Reed, Watson, Johnson, Jerry Labine, Paramahansa Tewari, and Marinov (now deceased). I heard Kevin M. Bergman give a talk on his version of over-unity motor at the 1996 International Tesla Society Symposium in Colorado Springs, Colorado. He claimed a power conversion efficiency of 180%.

ON-BOARD BATTERY CHARGER

As one of the two on-board battery chargers which were included in the original 1993 advanced self-powered electric vehicle concept, Al Woodworth's generator [13] had an input of 3 amps at 12 volts, and an output of 32 amps at 6 to 8 volts. It required a momentary starting voltage which can be provided with flashlight batteries. Its DC output voltage had a problem of varying somewhat with time which Mr. Woodworth had claimed to have figured out how to stabilize. It is not known if it is similar to Frank Richardson's generator (see below). Mr. Woodworth has since died in Sacramento, California, and his generator's secret may have been lost.

When I had first heard about Mr. Woodworth's fuel-less generator from his friend Elmo Whitmire, a Las Vegas inventor, as would be expected from someone who has a BS degree in electrical engineering, I of course immediately claimed that it couldn't possibly work since it would violate the law of conservation of energy. I had never heard of the zero point energy field or even was aware of a small fringe network of scientists and inventors doing serious work in researching non-mainstream science theories. A few months later I had started working with Frank Richardson on his generator. I had also by coincidence about that time attended a UFO convention [14] in Mesquite, Nevada, per a timely telephone call from Bruce Meland [15], where Tom Valone, President of the Integrity Research Institute, gave a lecture surveying new sources of energy. Then I finally gave credibility to Mr. Woodworth's generator. It was a classic case of "Oh! So THAT was what Elmo was telling me about!" Since then it has been, for me, a grand intellectual adventure closely following and encouraging the development by independent researchers of new theories and devices which have not yet gained acceptance by mainstream science.

The inventor of the other on-board battery charger [16], Frank Richardson, has also died. However, I myself had done some engineering work on Richardson's generator. I believe that his project could likely be restarted, with the help of engineering documents inherited by Mr. Richardson's son, into a commercially available non-polluting fuel-less generator.

Two pairs of electromagnets warp a permanent magnet's magnetic fields back and forth across output field coils to induce a DC output voltage. The faster the switching speed, the higher is the DC output voltage, up to the point of magnetic saturation, which is then converted to an AC voltage. Some of the output power is fed back to provide input power for the electromagnets and associated electronics. When the entire circuit is optimally tuned by adjusting variable capacitors to achieve resonance, more output power is generated than is needed for the input power, as claimed by Mr. Richardson.

Frank Richardson also invented the powerful closed-cycle blade-less Tesla-type steam turbine described above. Combined with his electrical generator, Richardson had built a self-powered modified beetle-shaped

Volkswagen automobile which he had operated during the early 1970's [17].

Several new types of candidates for the on-board battery charger have come to my attention.

We saw earlier this morning a video of Dr. Wingate Lambertson's WIN zero point electrical energy converter. It generates electricity by collecting electrons between "E-dams" in a vacuum. A charge of electrons is oscillated in a tank circuit, and energy is collected or added to that charge from the vacuum [18]. The basic concept of the method is that the energy collecting E-dam will switch from a high to a low resistance and back again every cycle. This switching action has been accomplished using direct current, but only with marginal results using an alternating circuit [19]. Solid-state with no moving parts and no size restrictions, individual units may eventually be built to power a 15-kilowatt home and even larger. Current research indicates gains of output electrical power over input electrical power could be increased to as high as 1,250% [20]. Efforts are continuing to stabilize the gain and to hopefully complete development and certification sometime in the first quarter of 2001.

Kenneth R. Shoulders' version [21] of high-density charge clusters technology with further development may eventually become a viable charger candidate. Relatively small numbers of protons hitchhike rides on clusters of much larger numbers of electrons to bombard positively charged electrodes.

The pulsed abnormal glow discharge reactor [22] uses high-density charge clusters to produce useful positive AC-to-DC electrical power conversion gains such as 483%. It's an over-sized glass vacuum tube which is constructed and electrically driven within a narrow range of DC voltage so that it operates with negative resistance [23].

The converter of zero-point electromagnetic radiation energy to electrical energy [24] seems to be one of the more likely candidates for an on-board battery charger. Using two small antennas of very slightly different sizes, it picks up very high frequencies of natural fluctuations of the universal electromagnetic radiation field. The higher the frequency, the greater is the power. The device then converts to usable electrical power the much lower beat frequencies between the very high output frequencies of these two antennas.

John Searl's Searl effect generator (SEG) [25] has three concentric rings of magnetic rollers. Brushes positioned around the outer ring of rollers pick up electricity. If the magnetic rollers remain expensive to manufacture, Searl effect generators may not be economically feasible for use as vehicular on-board battery chargers.

A solid-state device, the heart of an SEG is a series of three concentric magnetic rings with magnetic rollers going around the rings. Both the rollers and rings are comprised of four layers of titanium, iron, nylon, and

neodymium.

The magnetic fields impressed on the rollers have both AC and DC components. The AC component is for floating the rollers so they don't touch the rings. The DC component is to prevent them from flying off. The innermost set contains a minimum of 12 rollers for the same reason that a linear motor will not operate with less than 12 phases.

The inner set of rollers travel around at 250 miles per hour, the middle set travels at 625 miles per hour, and the outer set at 1560 miles per hour. Hundreds of millions of volts are generated the energy of which is picked up by brushes positioned all around the outside set of rollers.

An SEG also creates an anti-gravity field. An uncontrolled SEG will rise about 50 feet as the rollers increase speed, emit a light blue halo which indicates energy is being extracted from the ether, and then shoot up into the sky gaining speed, never to be seen again. At least one roof supposedly has been holed by an SEG. The friction-less rollers can be prevented from reaching the critical velocity that produces lift by use of a "governor," either mechanical or electronic.

An SEG can be easily controlled by immersing it in an electromagnetic wave field the frequency of which is a harmonic of the SEG's primary frequency. While in resonance, the magnetic poles of the rollers reach a unification state, and they stop moving.

The inventor has built and flown a small "inverse gravity" vehicle. A flying saucer-like SEG-powered aircraft about the size of a bus is currently being built in England by a private group [26].

The inventor for some years independently powered his house off the power grid with a home-sized electrical generator version of the SEG. A household could set up a 45 x 45-cm unit and generate an output of 11 kilowatts of free electrical power.

MONOCOQUE (UNIBODY) BASALT/CARBON FIBER FOAM BODY/FRAME

Developed by the I. N. Frantsevich Institute for Problems of Materials Science, Kiev, Ukraine, basalt/carbon fiber foam [27] is extremely strong yet lighter than fiberglass. A test vehicle made with basalt/carbon fiber foam parts was reportedly the only vehicle ever tested that can cut through a cast-iron London taxicab in a collision.

COMPRESSED AIR-DRIVEN AIR CONDITIONER/HEATER

The compressed air-driven air conditioner/heater [28] relies on the principle of a vortex tube. Air whirled in a vortex tube separates with the cold air molecules collecting in one portion of the tube, and the warm air molecules collecting in another portion of the tube. The cold air is

expelled from one end of the tube, and the warm air is expelled from the other end. It can be switched between providing 90% cold air and 10% warm air, or 10% cold air and 90% warm air.

The metal tube is about a foot long and a half-inch in diameter with a two-inch long compressed air intake tube perpendicularly attached about three inches from one end. The intake compressed air requirement specifications are 7 cubic feet per minute at a pressure of 40 pounds per square inch. The volume of air expelled is twice that of a refrigerant-type automobile air conditioner while requiring only one-fourth the horsepower. Also, no warm-up period is required as with conventional air conditioners or heaters. Its laboratory-certified efficiency is nearly 30%. I have seen during demonstrations conducted in inventor Snaper's garage on a hot Las Vegas summer day temperature measurements of the air blowing out of the cold end at around 0 degrees Fahrenheit.

While the patent on the compressed air-driven air conditioner/heater has recently expired, it is still available for commercialization. Combined with an on-board battery charger, the advanced self-powered electric vehicle would have the exceptionally nice feature of continuous climate control, even while parked! Parked on a cold winter day, the interior of the vehicle would always be tasty warm. On a hot summer day, the vehicle's interior would always be cool.

ADVANCED COMPUTER-CONTROLLED SUSPENSION SYSTEMS

Computer-controlled hydraulic shock absorbers as well as the computer-controlled air ride suspension system would be supplied by Aimrite Systems International, Inc. [29], which owns the patents [30]. Aimrite's Computer-Optimized Adaptive Suspension Technology (COAST) system replaces a vehicle's conventional shock absorbers with specially designed hydraulic shock absorbers. The COAST system utilizes a sophisticated computer and position sensors to monitor the vehicle's level at each corner. The computer's microprocessor checks the sensors 240 times per second and optimally regulates the damping on all four shocks based on this input. The firmware used in the microprocessor is patented and represents the most important element in the COAST system. It controls nine dynamic and static parameters of motion (roll, pitch, sprung natural frequency, unsprung natural frequency, pumping down, stored energy, topping out, bottoming out, and height).

The COAST system is not only totally automatic, but it monitors and controls the vehicle's ride performance on a continuous basis providing soft and stable ride characteristics at all times as needed. The ride is comparable to active systems without the need for pumps nor expensive high-speed servo-valves.

Each shock absorber is actually a complementary pair of shock absorbers mounted in opposing vertical compression/rebound modes. The computer sends signals to valves to release pressure as required.

Aimrite considers its shock absorbers more durable and react faster than competing computer-controlled shock absorbers which apply pressure when needed. A built-in safety factor is that if the computer fails, the result is conventional damper operation, and failure of an individual damper is equivalent to failure of a conventional shock absorber.

Aimrite's air ride suspension system replaces a vehicle's front coil springs and rear leaf springs. The air suspension comprises of a high-quality control subsystem that includes the aforementioned dual redundant air compressors, air dryers and filters, position sensors, computer-controlled solenoid valves, and a dashboard-mounted control to ensure proper operation and a long and reliable life of the air suspension in all weather and driving conditions. While stopped or driving, the control subsystem allows the operator to easily maintain the correct ride height under all loading conditions. For example, the chassis can be raised for a bumpy ride and lowered for stable highway driving. The vehicle body is automatically leveled at all four corners, even when parked on an uneven surface.

Aimrite's suspension provides a full air suspension ride, with increased comfort and control. Built-in safety capabilities are provided that virtually eliminate traditional problems associated with air ride suspension systems.

Combining Aimrite's two computer-controlled adaptive suspension systems would offer a luxurious ride with sports-car control and additional features at a reasonable price. The air conditioner/heater as well as the air-ride suspension both require compressed air. There has been some talk of using compressed air also for other vehicle applications such as tubular frame members, windshield wiper motors, etc.

Low-Temperature Diamond or Titanium Nitride Coating of Vehicle Parts Durability would be enhanced by nondestructively coating numerous parts such as shock absorbers with diamond or titanium nitride using Alvin Snaper's new low-temperature coating process. The diamond deposition system and process can also be used to manufacture diamond-based semiconductor devices. A multiple gun plasma arc deposition system allows controlled deposition of diamond and other diamond-like materials such as titanium nitride on a substrate. Deposition is controlled by controlling the time duration of pulses to a main gun, an acceptor gun and donor gun in a vacuum chamber that may contain a small amount of hydrogen. The deposition process is also enhanced with microwave temperature control and substrate dithering with a transducer.

MARKETING

By combining these superb new technologies into an advanced self-powered electric car that would be superior to any other car even commonly envisioned, it evidently should not be very difficult to sell a reasonably priced car which would offer the following nice features:

- ** Continuous climate control even while parked;
- ** Computer-controlled luxurious ride with sports-car control and automatic leveling even while parked;
- ** Powerful but quiet and emission-free electric motor or closed-cycle blade-less Tesla-type steam turbine;
- ** Much less hassle with bothersome and costly maintenance such as oil changes, tune-ups, etc. ;
- ** No dangerous gas tank taking up space;
- ** Only a few maintenance-free lifetime environmentally benign super-capacitors and/or batteries;
- ** Basalt/carbon fiber foam body/frame for increased safety;
- ** Never requires refueling nor electricity recharging.

One of my fondest dreams is to be given a blank check with which to build, as quickly as possible, a demonstration prototype of such a wonderful car. My perspective is such that when I see an expensive advertisement for a "totally re-engineered" new car, I can only giggle!

"ADVANCED TECHNOLOGIES FOR FOREIGN RESORT PROJECT" REPORT

My "Advanced Technologies for a Foreign Resort Project" report can be seen on the Web site <http://www.egroups.com/group/strategic-plan/12.htm>. It contains some additional details on my advanced self-powered electric vehicle concept as well as reports on numerous energy technologies. I also wrote reports on torsion field-based communications, aquaponic food factory, light therapy, see <http://www.genesistherapy.com>, Alvin Snaper's invention of microporous solid gel, my own design of a computerized fiber-optic school network, etheric weather engineering, and waste treatment.

FLOOR DISCUSSION.

Scottish inventor David Burns walked to the front of the audience to discuss and show plans for his self-powered electric car. The previous day Mr. Burns had shown a video of his four-foot model of a self-propelled flying saucer actually flying around a field under remote radio control.

His model aircraft has some unusual flying characteristics. For instance, because of its anti-gravity field produced by a circular mechanism in its surprisingly thin body, it doesn't land like a plane on wheels. It flops down on the ground on its belly. It is launched by holding it up and throwing it forward. While it has a small electric motor-powered propeller on its front and a rudder on its rear so it can bank somewhat on turns, it can't fly or land upside down because of its anti-gravity field. It is controlled by remote radio controls like a model airplane. He also showed a photograph of an 11-foot diameter flying saucer that he is building. I thought it was the most exciting lecture at the conference.)

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3. US Patent No. 5,254,237 for Plasma Arc Apparatus for Producing
4. Private conversation with Frank Richardson who is now deceased.
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6. US Patent No. 6,060,198 for Electrochemical Battery Structure and Method. Alvin A. Snaper, Las Vegas, Nevada.
7. Company product literature.
8. Information which is several years old may have come from Hal Fox.
9. Information which is several years old may have come from Hal Fox.
10. Videotape of Takahashi's demonstration of his over-unity electric motor. Author has a copy of this videotape. It has no audio and no written material on its cover. A video shows a prototype Self-Generating Motor with a drive belt turning an alternator. The motor was connected to a battery for starting, and the battery was then disconnected. Two headlights remained illuminated after the battery was disconnected.
11. Bruce Meland, "Ron Bandt's Perm-Mag Motor," Extraordinary Science, International Tesla Society, Inc., Oct/Nov/Dec 1994, p.11.
12. Private conversation with anonymous source.
13. Telephone conversation with Al Wood worth and private conversation with his friend Elmo Whit mire who is an inventor living in Las Vegas, Nevada.
14. These fascinating Unidentified Flying Objects (UFO) conventions are still being annually held in late winter in Laughlin, Nevada. For details, see <http://www.padrak.com/ine>
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28. US Patent No. 4,407,134 for Air Conditioning System. Alvin A. Snaper, Las Vegas, Nevada.

29. Aimrite Systems International, Inc., Nevada Small Corporate Offering Registration 1993.

30. US Patent No. 5,056,811 for Actively Controlled Automotive Suspension System with Adjustable Rolling- Stability and/or Pitching-Stability. US Patent No. 5,735,372 for Variable Constant Force Hydraulic Components and Systems. US Patent No. 4,634,142 for Computer Optimized Adaptive Suspension System. US Patent No. 4,722,548 for Computer Optimized Adaptive Suspension System having Combined Shock Absorber/Air Spring Unit. US Patent No. 4,468,739 for Computer Optimized Adaptive Suspension System having Combined Shock Absorber/Air Spring Unit. US Patent No. 4,468,050 for Computer Optimized Adaptive Suspension System. US Patent No. 5,529,152 for Variable Constant Force Hydraulic Components and Systems. All invented by James M. Hamilton, Solana Beach, California and Lonnie K. Woods, Jacumba, California. US Patent No. 4,651,838 for Air Spring Control System and Method. US Patent 4,783,089 for Air Spring Control System and Method. All invented by James M. Hamilton, Solana Beach, California, Lonnie K. Woods, Jacumba, California, and Michael W. Godwin, San Diego, California. US Patent No. 5,254,237 for Plasma Arc Apparatus for Producing Diamond Semiconductor Devices. Alvin A. Snaper, Las Vegas, Nevada.

Q'S AND A'S REGARDING DON SMITH'S CLAIMS AND DEVICES

Courtesy of Patrick Bailey

Question:

Is there any chance someone could take a closer look at Don Smith's work (see <http://www.altenergy-pro.com>), and report on it (it seems almost too good to be true, but I live in Australia, so am too far away to check it out myself)?

Robin van Spaandonk

Response #1:

Yes, I have tried to duplicate Smith's device. I found his claims to be entirely bogus. Also I found that he was very unspecific about the design of his device in that every time I reported failure he would suggest a modification. None of the modifications worked. I wasted valuable time.

Paul LaViolette

Response #2:

Keep my name out of this but Jerry Decker, myself, and a couple of other technicians checked out Smith's contraption at one of the Tesla conferences.

There was definitely NO free energy. Not only that, Smith displayed the most ignorant understanding of energy that any of us had ever seen. I do not believe Smith has anything. I know personally several people who have bought into his crap and never received anything, no device, no refund.

THE VERY SERIOUS ENERGY CRISIS

Courtesy of Harvey Fiala

Below are about one-half of all the headlines during the past few months from the Los Angeles Times dealing with the energy crisis. Many times, much of the front page is devoted to highlighting the shortage of electricity and gasoline in the California south land. Can anyone doubt the seriousness of the energy crisis? Literally billions are being spent by local, state, and federal governments in coping with the effects of the energy crisis instead of investing a small fraction of that in alternative energy sources. The government and the oil industry, instead of openly trying to suppress alternative energy developments, should encourage the research and development of alternative energy sources. In this author's opinion, if only 2 % of the amount of money spent on hot fusion alone had been spent on alternative energy sources, the current energy crises would not exist. Many homes would be energy self-sufficient and be off the power grid, or even able to feed power excess back into the grid. Many businesses would have their own electrical power generators.

Los Angeles has had several stage three power alerts and rolling blackouts where power is reduced or even turned off in different areas for hours at a time to distribute the energy shortage over a wide area. Oil is not the answer to the energy crisis. Oil supplies will be depleted and oil is polluting the environment and lowering the quality of life on the whole planet. The next decade will see a backlash from many homeowners who will begin to use 10 to 20 kilowatt fusion and liquid powered generators to

power their homes. Numerous reliably over-unity fusion devices exist and there should be several kilowatt models available for home use in the next couple of years. Likewise, there will be non-polluting liquid powered internal combustion generators that run on many liquids other than gasoline, such as that developed by Paul Pantone and demonstrated at the Institute for New Energy Symposium held in Salt Lake City, Utah on September 8 and 9, 2000.

Recent Headlines from the Los Angeles Times Demonstrating the Seriousness of the Energy Crisis:

12-31-00 : Power Providers' Profits Skyrocket
<http://www.latimes.com/news/opinion/20001230/t000124393.html>

12-31-00 : Davis Faces Growing Criticism on Power Crisis
<http://www.latimes.com/news/state/20001231/t000124543.htm>

12-30-00 : Watchdogs Quiz Energy Officials at PUC Hearing
<http://www.latimes.com/news/state/20001230/t000124135.htm>

12-30-00 : Dark Days for Edison's Bright Light
<http://www.latimes.com/news/state/20001230/t000124106.htm>

12-30-00 : Hong Kong Aiming High in Hopes of Harnessing the Sun
<http://www.latimes.com/news/nation/20001230/t000124110.html>

12-29-00 : Power Crunch Puts Spotlight on PUC Chief
<http://www.latimes.com/news/state/20001229/t000123759.htm>

12-29-00 : Edison Seeks OK for 2 Years of Rate Hikes
<http://www.latimes.com/news/state/20001229/t000123755.htm>

12-28-00 : Mandate for California Power Sales Extended
<http://www.latimes.com/news/politics/calpol/20001228/tCB00a0152.html>

12-28-00 : San Onofre Reactor's Shutdown for Servicing to Add to Energy Crunch
<http://www.latimes.com/news/state/20001228/t000123615.htm>

12-28-00 : COLUMN ONE: Electricity a Mystery to Many Consumers
<http://www.latimes.com/news/state/20001228/t000123584.htm>

12-28-00 : Electric Utilities Seek Up to 30% Rate Hike
<http://www.latimes.com/news/state/20001228/t000123586.htm>

12-27-00 : US Extends Mandate for California Power Sales to Jan 5
<http://www.latimes.com/news/politics/calpol/20001227/tCB00a9373.html>

12-26-00 : Allow Little Guy Into Energy Market
<http://www.latimes.com/news/comment/20001226/t000122956.htm>

12-23-00 : Edison to Cut 400 Jobs, Dividend Amid Crisis
<http://www.latimes.com/business/work/20001223/t000122122.html>

12-22-00 : PUC Sets Stage for Increase in Electricity Bills
<http://www.latimes.com/news/politics/calpol/davis/20001222/t000121906.html>

12-21-00 : Davis Needs to Respond Boldly to Energy Crisis
<http://www.latimes.com/news/politics/calpol/davis/20001221/t000121647.html>

12-21-00 : Bush Talks Up a Pro-Energy Industry Agenda
<http://www.latimes.com/news/politics/anderson/20001221/t000121682.html>

12-20-00 : Damage Control a Priority for Davis, Utilities
<http://www.latimes.com/news/politics/calpol/davis/20001220/t000121323.html>

12-20-00 : Rate Hike Needed to Rescue Electric Utilities, Davis Says
<http://www.latimes.com/news/politics/calpol/davis/20001220/t000121326.html>

12-18-00 : As Philosophies Shift, State Could Be Left in the Dark
<http://www.latimes.com/news/politics/capjour/20001218/t000120694.html>

12-15-00 : When Power Price Is High Enough, the Fish Become a Side Dish
<http://www.latimes.com/news/comment/20001215/t000119733.html>

12-15-00 : A Power Crisis Wake-Up
<http://www.latimes.com/news/comment/20001215/t000119664.html>

12-15-00 : U.S. Sets Rules to Ensure Electricity Sales to State
<http://www.latimes.com/news/state/20001215/t000119745.html>

12-14-00 : U.S. Threat to Out-of-State Power Firms Averts Blackouts
<http://www.latimes.com/news/state/20001214/t000119554.html>

12-14-00 : Reluctant Ukraine to Shut Last Reactor at Chernobyl
<http://www.latimes.com/news/nation/20001214/t000119493.html>

12-13-00 : Forecast Brighter but Electricity Price Soars
<http://www.latimes.com/business/20001213/t000118994.html>

12-12-00 : Edison Begins Building Power Plant
<http://www.latimes.com/editions/orange/business/20001212/t000118698.html>

12-12-00 : Tech Companies a Drain on Power Grid
<http://www.latimes.com/news/front/20001212/t000118709.htm>

12-12-00 : State Waits for Break in Power Crisis
<http://www.latimes.com/news/state/20001212/t000118715.htm>

12-11-00 : Power Prices Climb as Crisis Continues
<http://www.latimes.com/news/state/20001211/t000118475.html>

12-10-00 : Electrical Shortage: Grinch 2000
<http://www.latimes.com/news/comment/20001210/t000118107.htm>

12-10-00 : High Natural Gas Prices Not Going Away Soon
<http://www.latimes.com/business/20001210/t000118045.html>

12-10-00 : A Power Supplier Fires Back
<http://www.latimes.com/news/comment/20001210/t000118049.html>

12-10-00 : Worse May Come in State's Lingerin Power Emergency
<http://www.latimes.com/news/state/20001210/t000118253.html>

12-09-00 : As Soarin Costs Threaten Profits, State Utilities See Stock Prices Fall
<http://www.latimes.com/business/20001209/t000117713.html>

12-09-00 : Prepare for Dark While It's Still Light
<http://www.latimes.com/business/20001209/t000117695.html>

12-09-00 : State Keeps the Lights On but Struggles to Meet Power Demands
<http://www.latimes.com/news/science/enviro/20001209/t000117899.html>

12-09-00 : Under Threat of Blackouts, Some Users Conserve but Others Make Light
<http://www.latimes.com/news/state/20001209/t000117864.html>

12-09-00 : How State's Consumers Lost With Electricity Deregulation
<http://www.latimes.com/news/state/20001209/t000117859.html>

12-08-00 : Colleges Balk at Voluntary Cutbacks of Power Usage
<http://www.latimes.com/editions/valley/education/20001208/t000117464.html>

12-08-00 : State Declares First Stage 3 Power Alert
<http://www.latimes.com/news/state/20001208/t000117571.html>

12-08-00 : Clinton OKs Payments to Nuclear Victims
<http://www.latimes.com/news/nation/20001208/t000117616.html>

12-07-00 : Power emergencies shut down users

http://www.latimes.com/communities/news/inland_empire/20001207/tiv0010339.html

12-07-00 : Plugging Into Energy Conservation

<http://www.latimes.com/editions/ventura/vcnews/20001207/t000117260.html>

12-07-00 : Fountain Valley Offices Plug Into Solar Power

<http://www.latimes.com/editions/orange/business/20001207/t000117112.html>

12-07-00 : Consumers to Feel Heat From Newest Surge in Gas Prices

<http://www.latimes.com/business/20001207/t000117070.html>

12-07-00 : State Inspectors Visit Idled Power Plants

<http://www.latimes.com/news/state/20001207/t000117209.html>

12-06-00 : Dissolution Plan for Edison Unit

<http://www.latimes.com/editions/orange/business/20001206/t000116679.html>

12-06-00 : Happy Holidays, Now Turn Off That Tree

<http://www.latimes.com/editions/orange/parsons/20001206/t000116852.html>

12-06-00 : Crisis Darkens State Christmas Tree

<http://www.latimes.com/news/state/20001206/t000116808.html>>

12-05-00 : Power Pinch Steals a Bit of Christmas

<http://www.latimes.com/news/science/environ/20001205/t000116353.html>

12-04-00 : A Year of Power in Prospect

<http://www.latimes.com/news/comment/20001204/t000116160.html>

12-02-00 : Davis Tackles Electricity Problems

<http://www.latimes.com/news/politics/calpol/davis/20001202/t000115366.html>

11-29-00 : Fuel-Cell Partnership Scrambles to Try to Perfect the Technology

<http://www.latimes.com/news/highway1/20001129/t000114311.html>

11-22-00 : Once-Maligned DWP a Font of New Energy Ideas

<http://www.latimes.com/business/columns/flanigan/20001122/t000112098.html>

11-15-00 : Davis Seeks Price Controls on Electricity

<http://www.latimes.com/news/politics/calpol/davis/20001115/t000109547.html>

10-22-00 : Why We Pay So Much for Gasoline, and Other Answers
<http://www.latimes.com/business/columns/flanigan/20001022/t000100816.html>

10-20-00 : Cheney Sees Politics in Energy Move
<http://www.latimes.com/news/politics/elect2000/pres/money/20001020/t00100207.html>

10-12-00 : Funds OKd for Sick Nuclear Workers
<http://www.latimes.com/news/politics/anderson/20001012/t000097291.html>

11-10-00 : Governor Assails U.S. Over State's Electric Crunch; SCE Struggles
<http://www.latimes.com/news/politics/calpol/davis/20001110/t000107682.html>

10-05-00 : DOE Makes Oil Reserve Withdrawal Deals
<http://www.latimes.com/business/columns/deals/20001005/t000094596.html>

10-01-00 : Putting Energy Into Reducing Your Power Usage Will Pay Off in Future
<http://www.latimes.com/business/columns/perfin/20001001/t000093141.html>

09-30-00 : Rivals' Energy Plans Would Have No Immediate Effect, Experts Say
<http://www.latimes.com/news/politics/elect2000/pres/money/20000930/t00092881.html>

09-30-00 : Bush Issues Plan to Cut Oil Prices
<http://www.latimes.com/news/politics/elect2000/pres/money/20000930/t00092882.html>

09-28-00 : Bush Puts His Focus on Energy
<http://www.latimes.com/news/politics/elect2000/pres/money/20000928/t00092185.html>

09-22-00 : Gore Seeks to Tap Oil Reserve; White House Is Cautious
<http://www.latimes.com/news/politics/elect2000/pres/money/20000922/t00089807.html>

09-22-00 : Power Outage Near St. Louis Leaves Cheney in the Dark
<http://www.latimes.com/news/politics/elect2000/pres/money/20000922/t00089835.html>

09-17-00 : Doubts Linger Over Energy Stocks Even as Oil Prices Rise
<http://www.latimes.com/business/columns/marketbeat/20000917/t000087742.html>

09-11-00 : Electric Power Deregulation Gains Steam
<http://www.latimes.com/news/politics/anderson/20000911/t000085597.html>

08-27-00 : Deregulation Is the Answer, Not the Problem
<http://www.latimes.com/business/columns/flanigan/20000827/t000080420.html>

07-01-00 : Questions Raised Over the Effect of Gore's Energy Plan
<http://www.latimes.com/news/politics/elect2000/pres/gore2/20000701/t000062141.html>

06-30-00 : Gore Offers \$25 Billion for Energy Efficient Transit
<http://www.latimes.com/news/politics/elect2000/pres/money/20000630/t000061782.html>

06-29-00 : Gore Offers Tax Credits to Energy-Conscious
<http://www.latimes.com/news/politics/elect2000/pres/money/20000629/t000061603.html>

06-28-00 : Gore Plan Calls for Less Dependence on Imported Oil
<http://www.latimes.com/news/politics/elect2000/pres/gore2/20000628/t000061101.html>

06-26-00 : Gore to Detail Environment, Energy Plans
<http://www.latimes.com/news/politics/elect2000/pres/money/20000626/t000060470.html>

06-24-00 : In Race, Rising Gas Prices Are Make-or-Brake Issue
<http://www.latimes.com/news/politics/elect2000/pres/bush2/20000624/t000059729.html>

06-12-00 : Retail Gasoline Price at New Record
<http://www.latimes.com/business/microsoft/20000612/tCB00a3420.html>

07-29-99 : Utilities Get Low Marks on Easing Public's Y2K Fears
<http://www.latimes.com/news/reports/millennium/y2k/19990729/t000067498.html>

05-31-00 : When the Streets Go Dark, Neighbors Will Now Know Why
<http://www.latimes.com/news/politics/elect2000/california/prop21/20000531/t000051441.html>

05-31-00 : Panel OKs Signs on Darkened Street Lights
<http://www.latimes.com/news/politics/elect2000/california/prop21/20000531/t000051448.html>

In the above headlines, there are only three glimmers of hope for alternative energy solutions: harnessing the sun (12-30-00), allowing the little guy into the market (12-16-00), and fuel-cell technology (11-29-00).

Hopefully our new president will be more favorable to allocating some funding for alternative energy programs.

Deregulation of the prices charged by the power utility companies was thought to be the answer to the Southern California energy crisis. It was thought that other suppliers of lower cost electricity would enter the market. Instead, the power generating companies have raised their prices significantly and the utility companies either have to pass on the added cost to the consumers or go broke, and the situation is much worse than before deregulation.

Harvey E. Fiala

SOLAR CELLS ARE MADE FROM OIL

Courtesy of Toby Grotz

Seems that solar cells are at the break even point. It takes as much energy to manufacture them as they produce in their life. I just toured the local utilities's solar farm, now 20+ years old and still going strong. Output over time does decline but many advances have been made in that area.

The best use of Solar is for hot water and heating. I like patent 5522944 which integrates PV and flat plate collectors for heating. Two such collectors 10 meters square can provide 37 KW hours/day according to Millennium Electric based in Tel Aviv (solor@netvision.net.il) I am certain that if humans had access to F/E and it did not cost any money to run chain saws and bull dozers, that the rain forest would be gone by the end of the year. If we look at what has happened to the world using energy had to be paid for, we can see that if energy was free there would be a free for all that could wreck civilization as we know it. That would be good in the long run for those that survive.

I have come to believe that the consciousness of mankind is not yet ready for free energy since we can solve all our problems without it, and, understanding it requires an evolution in spiritual awareness.

LETTERS

Letter to the Editor

Dear Mr. Bailey;

You have heard of the California black outs no doubt. Well, the "black outs" have already hit the electricity-hungry metals extraction industry HARD. Here in Montana a company once called Montana Resources shut down last June because of fantastic rises in the price of electricity with deregulation. Now Columbia Falls Aluminum is dropping to 50% production because they can't afford electricity at the new, higher rates. Serious money is now being devoted to studying a possible new generating plant here in the Flathead Valley. In other words, the energy picture is no longer academic/theoretical major parts of our economy are starting to disappear.

So, NEN folks, its put up or shut up time.

Either get it OUT of the lab and pumping out electricity or get out of the way for those that can. The need is critical, and it is NOW.

Wayne Powell

2nd Letter to the Editor

RE: COLUMBIA FALLS ALUMINUM

Hi Patrick;
It isn't just California that is becoming a BLACK HOLE of electricity, aluminum plants are closing right and left, Montana is seeing its power-hungry heavy industry disappear as well. These are real people seeing their jobs, their whole LIVES disappear.

Residential electricity rates are set to quadruple next year. This has definitely gotten the political leadership's ATTENTION here in Montana. Little old ladies living on fixed incomes, and freezing in their homes next winter, is political dynamite. Gov Judy Martz was sworn in as Montana's first female governor today, and the legislature session also starts today. The energy crisis is #1 and #2 on their plate. Hal Fox has prepared a brochure for me that I will hand deliver to the energy committee members next saturday. He mentions blacklight, Shoulders, Bearden and Koldamasov as commercial possibilities. It will be a real circus. Big Hydrocarbon will be there(Montana has a lot of coal in eastern Montana)as well as freaks wearing pyramid hats, carrying crystal balls, waving dowsing rods, etc. But my question to you is : if we get some real financial interest in these new energy concepts, can you develop them PRONTO as businesses here in Montana? Say by next summer? The

energy-tide in the affairs of men is cresting right now, can you hang ten and stay with it?

Wayne Powell

Courtesy Eugene Mallove:

The White House
Washington, DC

January 18, 2001

Dr. Eugene F. Mallove
Director
New Energy Research Laboratories
Post Office Box 2816
Concord, New Hampshire 03302-2816

Dear Eugene:

Thank you for your memorandum "The Strange Birth of the Water Fuel Age," which was compiled into a book entitled *Visions of the Future from Leading Thinkers*. I was glad to have your insights about the critical challenges in the field of high technology, and I commend you for your commitment to improving our world. I hope you will remain involved in the important issues of this new century.

Best wishes for every happiness in the years to come.

Sincerely,
Bill Clinton

MEETINGS

ENERGEX' 2002

Courtesy of Hal Fox

The 9th International Energy Conference & Exhibition, May 19_24, 2002 will be held in Cracow, Poland. The Theme of the Conference is "Energy Sustainable Development A Challenge for the New Century." The conference is cosponsored by Mineral & Energy Economy Research

Institute of the Polish Academy of Sciences and the International Energy Foundation. For further information:
www.min_pan.krakow.pl/energex2002/

SPACE PHYSICS CONFERENCE 2001

Thanks to Toby Grotz for sending us this information.
Conference On Space Physics
www.tewari.org

November 9 - 11, 2001
Karwar, Karnataka
INDIA

CALL FOR PAPERS AND INVITATION

Paramahansa Tewari and the Scientific and Spiritual Research Council (SSRC) invite researchers, engineers, physicists, and lay persons to a conference devoted to the topic of Space Physics. Papers are invited to be presented at the conference facilities of the Nuclear Power Corporation of India. Space Physics is defined as the mathematics, physics and experimental evidence that demonstrates that matter is formed from the essence of space itself. Various experimental evidence such as the Casimir Effect point to an understanding that the apparent emptiness of space is an illusion. The term "zero point" energy which refers to the energy density of space, has been shown to be the root cause of inertia and gravitation. In order to bring about a further understanding of the nature of space, the conference seeks to examine the experiments of researchers who have explored the physics of the space and the vacuum. These include the conference host, Paramahansa Tewari, former Director of the Nuclear Power Corporation of India, and former Project Manager of the Kaiga Project, Dr. Shuji Inomata, Electrotechnical Laboratory, Ministry Of International Trade And Industry, Japan, Bruce dePalma, homopolar generator researcher and originator of the term "N-Machine", Dr. Stephan Marinov, Assistant Professor of Physics Sofia University, Physical Institute of the Bulgarian Academy of Science, and editor of Deutsche Physik, Dr. Harold Aspden, Professor of Physics, European Director of patents for IBM, and many others. Abstracts may be sent to the following address:

SPG CONFERENCE 2001
Scientific & Spiritual Research Council
Conference Organizing Committee
P.O. Gotegali - 581 317
Karwar, Karnataka
INDIA

Webmasters: Please copy this page and add to your web page with a link to www.tewari.org.

Transportation

Book flights from the departing destination to the city of Goa, India. Goa is located south of Mumbai on the west coast of India. Goa is a resort destination with many hotels and beaches. For those traveling long distances, especially from North and South America, it will be necessary to stay overnight in Mumbai before taking the next day flight to Goa. Staying a day in Mumbai is a good way to catch up with jet lag. (Mumbai is now the official name given to the area the English named Bombay.) From the airport in Goa, transportation will be provided to the conference site and hotel. Busses will leave on a periodic basis for the 1.5 hour ride to Karwar, and the ride up the Kali River to the lodging facilities. You must confirm your flight arrival and departure times with the conference organizing committee. Send details of arrival and departure times to the following address:

SPG CONFERENCE 2001
Scientific & Spiritual Research Council
Vinodini Nivas
P.O. Gotegali - 581 317
Karwar, Karnataka
INDIA

Lodging

Lodging and meals will be included with the Registration Fees. Donations to help cover other costs will of course be gladly accepted and should be made payable to the Scientific and Spiritual Research Council. Foreign registrants will be lodged in the Kaiga Guest House until full. Thereafter accommodations will be provided in local hotels.

Travel tips for India

Clean water is available in bottles in every location travelers will normally encounter. Danger from diseases such as malaria in this part of India is rare. Even during the monsoon season next to the river there are few mosquitoes. In the drier season there seem to be no more or less. Citronella oil in a spray bottle can be applied to uncovered areas especially at night if there is concern. There are also traditional medical malaria preventatives that should be obtained before departing for India.

Visas must be obtained for travel in India. Make sure to have your passports properly prepared well in advance. US Visa application forms can be downloaded and printed out from the Web.

Eating in India is a treat. Food is prepared in accordance with a Vedic Science that is over 10,000 years old. In India eating is part of Ayurvedic Medicine. In order to assure proper health while traveling, the use of digestive aids with each meal will prevent problem from those not accustomed to the local cuisine. A digestive aid with amylase, protease, and lipase will help with normal digestion. For those who eat meat an extra boost from a betatine HCL supplement may be in order. To promote and maintain intestinal health use a supplement that contains

lactobacillus acidophilus and other organisms. Beware of constipation as that is the first sign that all is not in order. The addition of a mild herbal laxative to your travel kit is always recommended.

Suggested Travel agents

The best airfares are expected to be available by the 1st of March 2001
Royal Wings Travel

1-800-346-7898 www.royalwings.com

HK Travel
Riverdale Georgia
1-770-907-3666

1211 Kirkwood Drive
Fort Collins, Colorado 80525 wireless@rmi.net
970-493-2429
