

New Energy News

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EDITOR'S NOTE:

Hereafter, New Energy News (NEN) will be sent by email in two forms: Regular ASCII (the most basic form for computer handling of alphabetic characters) and also as a *.pdf file. If you have Adobe Acrobat on your computer you can easily read any file with a *.pdf file extension. If you do not have Adobe Acrobat, you can download it from the internet for free. Alternatively, mail \$2 (for S&H) to NEN, 3084 E. 3300 South, Salt Lake City, UT 84109, together with YOUR MAILING ADDRESS and we will send you an Adobe Acrobat CD-ROM in the mail.

ITEMS FOR NEN

If you find new-energy items that you believe others would like to read, send them by email to Patrick Bailey, editor, nen@padrak.com

If you do not have access to email, please mail articles to NEN (see address above). We will give credit to the first person that sends in any particular item. Your help will make NEN a better source of new-energy information.

LETTER to the EDITOR, Nov.6/00

Hi Hal Fox,

Every once in a while we get a "WOW" letter, and this is one of those times. Gerald Lindley has made some major points in support of Randell Mill's - hydrino art, but that not whole story. While he doubts that Mill's o/u/o level has commercial value, there is some other info that says otherwise. When two major labs i.e. 1) MLTI Lincoln Laboratory and 2) Idaho National

Energy Laboratory both report good outputs - at multiples of input over output, this becomes credible evidences in Mill's favor! Also, who the Pacific Corporation, a major (3) utility puts in 1 million info Black Light Corporation with other utilities about to do the same, then there has to be something quite solid to this project! There seems to be a real problem at the U.S. P.T.O. In regard to the stonewalling of his five patents, and we now suspect that the P.T.O. may be in violation of their own Rules of Practice! BK and Mill's has now obviously reduced their theory to practice, with several operations prototypes, so the P.T.O. is on shaky ground in holding up these Mill's putout, in our view. *Gerald L. covers this point at*.

...

Regards

Donald Kelly

From: Gerald Lindley

To: Mr. Donald Kelly, Space Energy Journal

Clearwater, FL 33757

October 29, 2000

Dear Mr. Kelly:

This is in response to your letter of October 25, 2000 where you seek input into the Mills-Blacklightpower situation. I have a more nuanced view than the simple pro-con battle that is taking place. I have no doubt that Blacklightpower is producing excess energy but not enough to commercialize it. As I first proved in my letter of June 27, 1999, the mathematics of Mill's is inconsistent. Fractional quantum states are mathematically impossible. Thus, the excess energy is not coming from the shrinking of hydrogen atoms. Instead as I showed in my letter of June 27, 1999, the excess energy is coming from the golden gate mass (aka the supergraviton mass) of the potassium clusters in their potassium and hydrogen vapor apparatus. Incidentally, some people are impressed by the many PhD materials scientists employed by Blacklightpower. If they are so good, then why did they miss the potassium clusters in their apparatus? I then showed that it will be difficult to increase the density of these potassium clusters. Therefore, it will be difficult to produce enough excess energy to commercialize. It is now sixteen (16) months since I wrote that letter and I still have not seen Blacklightpower put an apparatus that produces excess energy on the market. This is the crux of the problem. ... As a result, more people will be scared away from developing free energy. However the, establishment is making an enormous mistake. Some of us, including me, will not be scared away because some of us, including me, don't care about patents. ... I have only had a very limited amount of time to study some of the other work done by Blacklightpower. I know that they have claimed to have produced a new material. ... Also, they have done many spectroscopic studies that they claim supports their hydrino hypothesis. ... I will finish by summarizing the situation between Blacklightpower and USPTO as boiling down to two groups of idiots wasting large amounts of money and worst, wasting large amounts of time.

Sincerely,

Gerald Lindley

REPORT By Hideo Kozima," <cf-lab.kozima@pdx.edu>

1) H. Kozima, J. Warner, G. Goddard and J. Dash, "Reality of "the Super-nuclear Interaction" in Metal Hydrides and Deuterides (B Verification by Numerical Calculations for Pd H(D))" (submitted to Fusion Technology) This paper is the successor of the previous paper (News No. 17, article 1) and investigate concretely a nuclear interaction between two lattice nuclei mediated by occluded hydrogen isotopes using experimental data about hydrogen wave functions of a proton and deuteron in transition metals.

2) JCF2 (The Second Meeting of Japan CF-Research Association), October 21- 22, Sapporo, Japan. The Second Meeting of JCF was held and 28 papers were presented. Abstracts of these papers can be seen in the following web-page:

<http://fomcane.nucl.eng.osaka-u.ac.jp/jcf/PAPER.HTML> And also the OHP transparencies can be seen in the following web-page: <http://fomcane.nucl.eng.osaka-u.ac.jp/jcf/DIST.HTML>

Following paper by us was presented by M. Ohta of Osaka University. JCF2-13 M. Ohta, H. Kozima, M. Fujii, K. Arai and H. Kudoh, "Possible Explanation of He-4 Production in Pd/D_{2} System by TNCF Model" Abstract of this paper can also be read in the above web-page.

3) RCCNTCE8 (8-th Russian Conference on Cold Nuclear Transmutation of Chemical Elements) Dagomus, Sochi, October 4 - 11, 2000.

The Russian Conference, has been held almost annually for these several years, was held this year by the name written above. 38 papers had been submitted as written in the Brochure and almost of them were presented at the Conference. The Brochure includes Abstracts of

papers in English and in Russian except some with only in Russian. It seems possible to obtain the Brochure from Yu.N. Bazhutov or I.V. Goryachev (E-mail address: gnedenko@kia.ru) by

4.5 rubles (written in the back cover). Visiting Professor of Physics at Portland State University Professor Emeritus at Shizuoka University Dr. Hideo Kozima P.O. Box 751, Portland, Oregon 97207-0751 Tel. 503-725-4222, Fax. 503-725-3888

E-mail cf-lab.kozima@pdx.edu CFRL web-site; www.mars.dti.ne.jp/~kuni hito/cf-lab/index.html

WAVE POWER CONNECTION HERALDS NEW ERA

Courtesy of Toby Grotz

The world's first commercial wave power station has successfully fed electricity into the UK's national grid, on the Scottish island of Islay already famous for its malt whiskies. The station has secured a 15 year power purchase agreement with the major Public Electricity Suppliers in Scotland. This important event has opened the door for wave power to become a major contributor of renewable energy and assist meeting obligations under the Kyoto Protocol by reducing emissions of greenhouse gases.

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By Jed Rothwell <jedrothwell@infinite-energy.com>

Last week I attended the cold fusion session at the American nuclear society (ANS) on Wednesday and Thursday, and on Friday Nov. 17. I attended the Low-energy Nuclear Reactions Educational Workshop 2000 (LENREW), sponsored by Integrity Research Institute (www.integrity-research.org). Both sessions were well attended by the standards of cold fusion; 30 or 40 people showed up at the ANS, and 50 people attended LENREW. Aside from the speakers, the participants were a completely different crowd, presumably because the ANS cost hundreds of dollars to attend, whereas LENREW cost \$50. The LENREW attracted a surprising number of senior scientists from the Washington area, including two physicists from Howard University who told me they replicated the underwater carbon arc experiments and they are anxious to get in touch with Japanese researchers who performed that experiment. The schedules at both meetings were chock-full, leaving little time to discuss the papers or hold a panel discussion at the end. ... Many of the papers were devoted to theory. At the recent JCF2 conference, most papers were about experiments. It seems Americans cannot afford to do experiments, so they theorize instead. Takahashi is considered the leading Japanese theorist. His ideas are backed up by copious evidence from ion beam experiments at his own university, and glow discharge research at Hokkaido and Iwate Universities. ... Here are my impressions and opinions of some of the papers. In previous conference reports I skipped papers I found unimpressive or unimportant. This time I think I will mention a few of them. For the actual content of the papers, please see the abstracts. Papers are not listed here in the order in which they were presented. Hal Fox described a mishmash of over-unity energy devices, including cold fusion-like claims from Mills, a high-density charge cluster device made by Ken Shoulders, and a variety of claims such as AquaFuel, MagneGas, and a "Motionless Electromagnetic Generator" invented by Thomas Bearden et al. As far as I know, none of these devices has ever been independently replicated or verified. ... Dufour discussed experiments that apparently speed up natural fission reactions in uranium, similar to nuclear waste remediation experiments that various people have described. Dufour talks about a great deal of theory, but at least it is backed up by experiments that he himself has performed. This is fascinating stuff, but I do not have a good understanding of it. I may comment after I have a chance to listen to the tape and review his ICC-7 paper. Goddard & Dash discussed another interesting uranium experiment, which I hope to describe later on. Matsumoto showed his usual collection of strange microphotographs, which mean nothing to me and little to other people. The only comments I have ever heard about them from other scientists, such as Oriani, is that they show ordinary and well understood electrochemical phenomena which Matsumoto takes as evidence of gravitational collapse (black holes) in microscopic areas. McKubre described helium findings

in the Case experiments, in a lecture similar to the one he gave at ICCF-8. He made some interesting new comments too, but my tape recorder batteries ran out of and I do not recall exactly what he said! Melvin Miles described experiments with palladium-boron cathodes and China Lake and the NHE. Over the years, he has experienced the highest success rate with palladium-boron alloys. He listed several reasons people have proposed to explain why this particular alloy works well, including the theory that the boron takes part in the nuclear reaction. He does not believe this; he attributes success to mundane chemical causes, such as the fact that boron removes oxygen from molten cathode metal. Also, boron loads and deloads more slowly than pure palladium. Miles showed an interesting set of three graphs showing his temperature data analyzed by his own calorimetry equations; by Fleischman's equations; and by the NHE method. The NHE claimed that Miles did not observe excess heat, but only large perturbations above and below the zero line. Miles and Fleischman believe the NHE reached this conclusion because they used only one calibration point from a 0.2500 watt heat pulse on day three at the beginning of the run, and they did not realize that the system was already generating excess heat when this pulse was applied. This mistake shifts the rest of the data down by about half the value of the excess heat, so that instead of going 200 milliwatts above the zero line, back to zero, and then up about 200 milliwatts again, the NHE graph shows the heat level wandering up 100 milliwatts and then down a negative 100 milliwatts below the zero line. No endothermic reaction was possible at that stage; a minus 100 mW would have to be noise, so NHE scientists concluded that the noise level was approximately 100 milliwatts, and the excursions above and below the zero line are meaningless. The graphs based on the Miles and Fleischman methods do not show any excursions below the zero line. Miles, Imam and Fleischman are writing an extensive report about the NHE experiments which will be published by the NRL in a few months. Mizuno described the plasma electrolysis results covered in the recent JJAP paper, and described here by me. He showed some data taken with his latest, much improved instrumentation. Bruce Cain posted an interesting abstract, but he was not able to attend the conference. Kenny described a nice little experiment designed for undergraduates, with an innovative cell design. They detect increased radiation with a GM counter when palladium is electrolyzed in heavy water. The experiment takes only two hours and it always works. The results are only one or two Sigma at this stage, but perhaps it can be improved and this may impress many people. The cell design eliminates the water and glass barrier, which may be the biggest problem people have encountered trying to detect weak radiation from cold fusion cells. Oriani discussed a mind-boggling experiment stirring water. He has what looks like a miniature version of the Griggs ultrasonic device: spinning rotors with holes in them. He detects bursts of excess heat, in unpredictable patterns. His presentation was disappointing, it was cursory with crude, hand-drawn graphs showing no indication of the units or values. This performance was surprising because Oriani is a consummate professional electrochemist. The heat bursts are shown as relative temperature rises, with no indication of the absolute power level. He did not even mention absolute power. In private discussions, I learned that he tried to measure the heat rigorously with a Seebeck calorimeter he fabricated himself, but he was not satisfied with results. I gather the excess heat bursts are a watt or two, but he is not even made a crude attempt to find out. All he knows is that the temperature goes up when it should remain stable. His calorimeter did not work well. It does not have enough thermocouples per square cm in the wall, so it is sensitive to the position of the apparatus. Our Seebeck calorimeter would not be large enough to hold both the motor and the vessel, but perhaps we could pass the shaft

through the top and ignore heat losses to air from the motor. Oriani did not make it clear that he used an oscilloscope to be sure the speed of rotation was constant, and a simple power meter to ensure that no extra energy went into the motor during the heat bursts. Characteristically, when he got involved in this, he carefully reviewed J. P. Joule's original experiments stirring water, which were performed at much lower RPMs. Oriani's lecture gave an incomplete and unsatisfactory impression of this work. People who do not know him may write this off as a crackpot experiment, which is a shame, because it probably deserves attention. Miley described thin film experiments in a presentation similar to his ICCF-8 paper. The results seem impressive, but I'm not satisfied with his calorimetry, and I think the geometry of his glass slides, with the anode immediately below the cathode, will cause recombination. Miley reported that he has recently shipped glass slides cathodes to us, and we shipped them to Ed Storms, who tested them in a Seebeck envelope calorimeter. Storms did not observe any excess heat. Miley thinks this is because the thin film cracked and delaminated, which did not happen with the glass slide cathodes tested at the University of Illinois. He suspects the glass surface was made too rough before the thin film was applied. This left hills and valleys forming sharp protrusions which put too much stress on the thin film. He hopes to make replacement cathodes, which he will send to Storms for testing. Swartz described calorimetry, his optimal operating point (OOP) hypothesis, and excess heat results from a variety of cathodes. He reports the highest input to output ratio with nickel cathodes and gold anodes. He claims output is as much as 30 times input, and he is even converting some of the heat output to electricity. If this is true, these are among the most impressive cold fusion results ever reported. ... Hagelstein, Chubb, Violante, Bass, Takahashi, Li, Znidarsic and others described theories. Perhaps one of them will be kind enough to give us a summary of these presentations, which were over my head. During the closing discussions, I remarked that there seems to be a gap between theories that explain the deuterium fusion-like reactions producing helium, and what appears to be cold nuclear fission resulting in transmutations. There is a similar gap in experiments; McKubre has found helium, others find transmutations, but few people appear to be looking for both. I remarked that it seems to me reconciling these two branches is one of the most important job for theorists and experimentalists at this stage. Scott Chubb denied there is a gap in the theories. He feels the good theories can explain both phenomena. McKubre said that they checked palladium cathodes for signs of transmutations some years ago. They found confusing, unconvincing evidence of foreign material with possible isotope shifts. McKubre seems convinced that his experiments produce "d-d fusion products" -- quoting the title of his paper. The helium is "commensurate" meaning it is within ~5% of the expected value for a plasma fusion-like reaction. In informal discussions after LENREW, Chubb and other theorists told me helium might also be a byproduct of cold nuclear fission, but they hedged when I asked whether the production rate would be so close to that of d-d fusion. Some said it might be a great deal higher, or lower. It seems like a fantastic coincidence that it should be this close. In his summary viewgraphs, Takahashi listed a deuterium - palladium fusion path with various ramifications, and a hydrogen fission reaction path. I gather he means a d-d fusion probably occurs with deuterium with palladium, whereas light water systems with other metals undergo a different set of fission reactions. If that is what he means, I think he is wrong. Bockris, Mizuno and Iwamura examined cathodes from deuterium - palladium systems and found overwhelming evidence of transmutations in the palladium. -

Jed

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Following comments by Hal Fox

Jed,

You might like to mention (in connection with your report on Fox's paper) that the HDCC work has been independently discovered (much more than verified) in three different countries. Also, there are six patents issued in the U.S. Not too bad considering that is far beyond the cold fusion patents issued in the U.S. One of the patents lists the data for 30 times as much energy out as energy in. The Mills device has raised over \$20 million and is now being supported by an investment banking group. They are developing a new type of battery based on hydrino chemistry (not hydrogen chemistry). Aqua Fuel is a patented product. A company has been formed, money raised, and the equipment commercialized. Magne Gas is similar to Aqua Fuel but is a Santilli invention that is, as I understand, patent-pending. Tom Bearden finally, after many years, has a working device which has been replicated at one university and is called a "Motionless Electromagnetic Generator" (patent pending).

THE UNIFIED SPIRAL, A BOOK REPORT

By Hal Fox

Vladimir B. Ginzburg, *Unified Spiral Field and Matter, A Story of a Great Discovery*, First Ed., 416 pages, illus., indexed, c1999, published by Helicola Press, 612 Driftwood Drive, Pittsburgh, PA 15238, \$14.95 (see www.helicola.com). Using resources from over a 160 printed historical works, Vladimir B. Ginzburg tells a history of science that makes fascinating and compelling reading. In a day when much of scientific information is being rapidly exchanged over the Internet, it is important to obtain the perspective of how many different scientists obtained, shared, exchanged, and protected new scientific discoveries. One of the more important parts of this book, although with some admitted use of the author's own views, is the personality relationships of various scientists in their acceptance or avoidance of the discoveries of fellow scientists. The book begins with Archimedes and his discovery of the complex spiral known as the helicola and traces the saving of that discovery, upon the death of Archimedes, and its impact on the work of Copernicus over seventeen centuries later. Copernicus's great insight: that the earth is not the center of the universe but that the earth travels around the sun and the moon around the earth was not acceptable to the major church at that time. Therefore, as Copernicus determined that even the sun must also be moving, then the earth does not travel in a ring around the sun but is making a great helix with the moon's travel around the earth making another helix. [Include figure on page 35.] The two together are a complex of helical motion that Archimedes had described over three hundred years before. This beautiful concept could not be published but had to be carefully shared and even buried away at times in a copper box for later retrieval. Thus was begun the Archimedes File (the central entity of this book). This file was given to Tycho Brae who, in turn, asked that upon his death, the file be given to Johannes Kepler. However, Kepler had finished what he believed was the most important work of his life with the publication of *World Harmony*. Then he received the Archimedes File. The famous Johannes Kepler, received the Archimedes File with the addition of the secret last days' development by Copernicus. Kepler, born in 1571, is

best known for his book, World Harmony. However, when he saw the beauty of the toroidal spirals, Kepler knew that he had more work to do. He set out to improve his understanding of the motions of the planets, created a new document which he then added to the Archimedes File. This was near the end of Kepler's life but before he died he asked his son to ensure that the Archimedes File be taken to Galileo Galilei. The trail of the Archimedes File is a beautiful mixture of fact and fiction, that serves to introduce the reader to most of the important scientists in the western world. The reader need not be skilled in mathematics to enjoy this historic journey. There are some equations sprinkled throughout the book to describe the nature of the developments of the heliocentric model and its embellishments by a variety of famous scientists as their understanding develops of the true nature of planetary motion, atomic motion, and even the growing understanding of electricity and magnetism. The nature of the electron, once described as a massless point source, is not a completely acceptable description of the electron as we now know. Ginzburg leads us through a development of an understanding of the electron, and the proton as spiral field structures. In addition, he shows that electro-magnetic radiation is also nicely described by use of similar concepts. Some of the basic developments of our understanding of matter, energy, radiation, and even a consistent theory applicable from atoms to solar systems, is made easier to understand. The message of the book is the difficulty of creating a consistent view of the universe, from micro to macro, and its mathematical description and still be able to provide a physical basis for the equations. This book is highly recommended reading. The reader will have one of the most interesting trips through the centuries that have brought us electrical power, magnetic motors, radio waves, and other discoveries that have laid the basis for our TV, computer, and Internet age. The scientific world should feel indebted to Vladimir B. Ginzburg for providing such a fascinating journey through the homes, laboratories, and minds of many of the world's greatest scientists.

Courtesy of Jeane Manning

Any researchers who are trying to build radically-different devices, from Tesla's to Testatika, would in my opinion benefit greatly from seeing a new video. On the video titled The Free Energy Secrets of Cold Electricity, long-time researcher Peter Lindemann tells how Edwin Gray Sr. produced "cold electricity". It's a 3-hour video, from Clear Tech Inc.

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Submitted by Patrick Bailey, President, INE

New method called ecologically superior, more productive than drilling, By Jon E. Dougherty, 2000 World Net Daily. com A research team says it has developed a new technology for the oil industry that would lower crude-oil prices to just \$5 a barrel, dramatically decrease the cost of gasoline and oil-related products and break the hold the Organization of Petroleum Exporting Countries has over U.S. oil supplies.

http://www.worldnetdaily.com/blue_sky_dougherty/20001007_xnjdo_research_p.shtml
The URL has a lot more text on this!

Emerging Energy Marketing Firm, Inc. (EEMF) has just announced its agreement with David Burns to replicate his Energy Pack invention. The Burns' Energy Pack provides more than ten times the amount of electrical energy output as compared to the electrical energy input. The device has been developed over the past three years by a team of Russian scientists. The device has been developed to the manufacturing prototype stage and is ready to replicate, "down to the smallest detail."

The Burns' Energy Pack requires operation in a near vacuum. This device is a new type of vacuum-tube device. Fortunately, there are still two vacuum-tube manufacturing facilities in Western U.S. (one in Salt Lake City, Utah and one in California). The commercialization of the Energy Pack would be expected to add significantly to the profitability of the vacuum-tube industry. Qualified investors may call or write for a copy of EEMF's Private Placement Memorandum. EEMF plans for an early registration of its shares with the U.S. Securities and Exchange Commission. Persons interested in obtaining more information about the sales of shares in EEMF to the public are encouraged to give a copy of this information to their favorite small broker-dealer. The small broker-dealers may contact EEMF at 3084 E. 3300 South, Salt Lake City, UT 84109 or by phone at 801-466-8680.

Fax is 801-466-8668.

MAGNETIC BUBBLE FUEL
Courtesy of Remy Chevalier

NASA Science News for October 4, 2000 NASA-funded scientists are experimenting with miniature magnetospheres as an innovative means of space transportation. If the group succeeds, next-generation spacecraft may come equipped with fuel-efficient magnetic bubbles that speed their occupants from planet to planet and ward off the worst solar flares. FULL STORY at http://spacescience.com/headlines/y2000/ast04oct_1.htm?list Home page: <http://science.nasa.gov>

A New Battery Becomes a Stock Company
By Patrick Bailey, President, INE

POWER TECHNOLOGY, INC. - PWTC (OTC-BB)

<http://www.powerpwtc.com>

NEW POWER TECHNOLOGY BATTERY EXPECTED TO IMPACT THE BATTERY INDUSTRY FUTURE

The Concept: To produce a new, environmentally friendly, more powerful, more efficient battery for commercial use in the electric automobile and other existing battery applications. The Inventor: Internationally recognized inventor Alvin A. Snaper holds several hundred patents, including the IBM Selectric Ball, an Apollo photo instrument for NASA, landing gear for Boeing, a Fluidic computer for Singer, a Fluidic Missile System for Rocketdyne, an electrostatic paint process for General Motors and now, the Power Technology Battery.

The Past: Over the past three years, Mr. Snaper has been developing a battery to improve the lead acid battery used in most automobiles, trains, airplanes and marine craft, and to power electric vehicles more effectively. The Present: Power Technology, Inc. has applied for patent protection for the battery and has received the patent as of May 2000. Meetings with commercial battery producers are slated during the fall of 2000 to demonstrate the product and discuss options for commercial production. The Advantage: While Power Technology, Inc. is initially seeking to deliver an updated battery for the electric car, its unique product can immediately be adapted to the existing battery market place. The Power Technology battery can be used in boats, ships, and airplanes to reduce weight and increase power.

CHANGING THE GLOBAL CARBON CYCLE

Submitted By Patrick Bailey, President, INE

This article states that humans ARE responsible for changing the Global Carbon Cycle, and hence "Global Warming". While I do not necessarily agree with that, the article does show that changes are soon to show up - with colder winters in the North, while electrical generation capacity will have severe shortfalls... Thus the INE has its purpose.

ALARMING RISE IN CO2 CONCENTRATIONS PRESENTS CONTINUING GLOBAL CHALLENGE

10/13/2000

Rutgers, The State University Of New Jersey

(<http://ur.rutgers.edu/medrel>)

Contact: Margaret Sullivan, Science Communications Manager

Phone: (732) 932-7084 x633; Email: msulliv@ur.rutgers.edu

<http://www.sciencedaily.com/releases/2000/10/001012143510.htm>

Paul G. Falkowski, a professor at Rutgers' Institute of Marine and Coastal Sciences (IMCS) with a joint appointment to the geology department, is the lead author of an article in the Oct. 13 issue of Science that shows that in the course of the last 200 years, humans have significantly

altered the global carbon cycle. Falkowski and his co-authors wrote the article under the auspices of the International Geosphere-Biosphere Program (IGBP), which Falkowski co-chaired with fellow author R.J. Scholes of the Council of Scientific and Industrial Research in South Africa. The IGBP Carbon Working Group, established by the United Nations, met in Stockholm in November 1999 to study the impact of human activities on the rate of change in atmospheric CO₂. The group examined changes in biogeochemical and climatological processes along with alterations in international carbon and nutrient cycles. Comparing contemporary processes with the 420,000 years prior to the Industrial Revolution, they determined that atmospheric CO₂ levels have risen at a rate of some 10 to possibly 100 times faster than at any prior time in the Earth's history.

"As we drift further away from the domain that characterized the preindustrial Earth system, we severely test the limits of our understanding of how the Earth system will respond," write the article's authors. "We appear to be fated to continue the increase in CO₂ in the biosphere unless governments come to terms with new technologies. Human beings are ultimately responsible for their own fate," says Falkowski.

Yair Rosenthal, assistant research professor at IMCS, was also a member of the IGBP and a co-author of the article. Falkowski is available for interviews at (732) 932-6555, extension 370.

New Energy Technologies on the Millennium Transition

Congress in Hotel "Moevenpick"-, Zuerich-Regensdorf
Friday, Sept. 15., to Sunday, Sept. 17., 2000

Organizers:

Jupiter-Edition/INET

International Tesla Institute (ITI) Colorado Springs, CO, USA

German Association for Space Energy (GASE)

Friday, Sept. 15th

02. 00 p.m.

Welcome speech: Adolf and Inge Schneider (INET)

02. 15 p.m.

Chances of the "Space-Energy-Technology" Report on different international conferences and other developments Prof.Dr.Dr.Dr.h.c. Josef Gruber, University of Hagen/Germany, President of the German Association of Space Energy (GASE)

03. 15 p.m.

Reproduction of Energy Systems by Students from TU Berlin Experiences with Coler Converter, Adams-Motor, Pantone Device Andreas Manthey, Scientific Assistant, Technical University of Berlin and Organizer of the Berlin Study Group for Free Energy (BSGFE)

04. 00 p.m.
Coffee Break

04.30 p.m.
Intelligent Use of Inertial Forces
Decoding of the Crop Circle Picture "Triple Half-Moon" Prof. Alfred Evert, Marbach/Germany

05.30 p.m.
Inertia and Energy Concept for a Functional Model of an Inertia Machine Herbert Kramer, Abnoba- Institute, Geisingen/Germany

06.30 p.m.
Break for Dinner and Discussions

08. 00 p.m.
Experiments with Electrostatic High Voltage Motors Concepts for autonomous running Motor-Generator-Combinations Ulrich Brueckner, Technical Instructor ret, Btichenbron/Germany

08.45 p.m.
Generators with Supermagnets and Centrifugal Amplifier Practical Tests and Demonstration Prototypes of "Free Energie Machines" Walter Thumer, DipL-Eng. (FH), IBA/Muenich/Germany

Saturday, Sept. 16th

10.00 a.m.
Strange Flying Objects with Exotic Driving Systems Generation of Antigravitation by Absorption of Gravitative Vorte, M.A. Hotwerda, New Energy Foundation, Dordrecht/Netherlands
II. 00 a.m. Energy Generation via Nuclear Resonance Coupling
Concepts for a Radiation free Release of Vacuum Field Energy Dr. sc.nat Hans Weber, MOB and Scientific Consultant of SQR Spreitenbach/ Switzerland

12. 00 a.m.

Lunch

1.30 p.m.

Energy Release and Transmutation according to Ken Shoulders Evidence for Radioactivity Reduction coupled with Energy Release Hal Fox, Physicist, Editor of "New Energy News", Salt Lake City /USA

2.30 p.m.

Energy Release with the Wolgodonsk-Reactor 60 kW-RET-Devices for Electrical and Thermal Energy Application Alexander I. Koldamasov, Chef-Eng., Atom-Mash, Wolgodonsk, Russia

04. 00 p.m.

Coffee Break

04.30 p.m.

Optimal Energy Conversion with Neltron Technology Conversion of Mechanical Energy with superefficient Use of Electrical Energy Gus Caicedo, President CEO, Neltron Corporation, Irvine, CA USA
Dr. Nelsc@n Camus, PresidentICEO, Nel Nithium USA Inc., Los Angeles, CA /USA

06.00 p.m.

Break for Dinner and Discussions

07.30 p.m.

Independent Energy Device of Don Martin
Theoretical Foundations, Practical Demonstrations, Applications John McGinnis, Don Martin, International Tesla Institute, Colorado Springs USA

09.00 p.m.

European Marketing of Decentral Energy Systems Adolf und Inge Schneider, Trans Altec Inc.
Exposition and Demonstration of Models
Appropriate literature is available on book tables, inventors show their exposition models and products which are referred to in their lectures, and they welcome questions of the public.

Sunday, Sept. 17th

10.00 a.m.

The roots of Disease: Becoming an Educated Dental Consumer Suggestions on nutrition and supplementation for maintaining optimal health and Ignored cures for polio, hepatitis, cancers and other classic viruses Dr. Thomas Ldvy, Cardiologist, Colorado-Springs/CO, USA

11.00 a.m.

An Energy Field with a Psychic Component Mutual Influence of Energy and Humany Psyche Dr. Hermann Wild, DipL-Phys., Zuerich/Switzerland

12. 00 a.m.

The Water Motor of Daniel Dingle Wolfgang Czapp, Backnang /Germany

12.30 p.m.

Lunch

02. 00 p.m.

Convincing Pro4 for the Existence of a Space Ether New Insights on the Properties of the Quantized Ether and Conclusions for the Space Energy Technology Dr. Dr. Habit. Otto Oesterie, DipL-Eng., Berlin/Germany

02.45 p.m.

Innovative Technologies of the International Tesla Institute John Mc Ginnis, Colorado Springs/USA

03.30 p.m.

New Concepts with Implosion Technology Indecent Energy Systems and Products for Fuel Savings in Transportation Dr. h.c. Sonne Ward, Nova Plasma, Tech, Hamer/ Idaho, USA

04.30 p.m.

Perspectives for a Changed World in the 21th Century Requirements for a Conscious Change via New Energies

John Mc Ginnis, President International Tesla Institute, Colorado-Springs/CO, USA

05. 00 p.m.

Closing Speech of the Organizers in Switzerland

05.15 p.m.

Final Coffee

ABSTRACT: heat, Zn on Ni, Au cathodes, H₂O
Courtesy of Rich Murray

ICF2-3 Low Excess Heat Evolution and Impurities Production in Light Water Electrolysis
Hiroshi Yamada, Hideyuki Oizumi, Yoshikazu Fujii, Shingo Sato, Mitsuru Nakamura,
Hidetoshi Hirahara and Shinya Narita Faculty of Engineering, Iwate University,
Morioka 020-8551 Japan
<http://www.iwate-u.ac.jp/index.html>

ABSTRACT

Three electrolytic cells made of quartz with a brass or a polyethylene flange were used. These have a cylindrical shape with volume capacity of 100 cm³ (Cell A), 200 cm³ (Cell B) and 500 cm³ (Cell C). The brass flange was plated with gold in 10 micron thickness. A couple of rectangular shape working electrodes of 0.10 mm with gap spacing of 10 mm were set in Cell A for excess heat measurement test. A platinum anode electrode was used in this test. The counter cathode electrode was nickel, nickel scraped, or nickel-plated iron. A larger nickel-plated cathode of 0.1X10X10 mm was also used together with a same size platinum anode. The electrolyte solution was 0.5 M sodium carbonate solution. The volume of electrolyte solution was 40 cm³. Cell voltage and the increments of electrolyte solution temperature were monitored by a personal computer. Cell B and C were used only for transmutation experiment; a gold electrode of 0.1X5X10 mm as a cathode and a 80-mesh platinum net as an anode were employed for the test. The electrolyte solution was 0.5 M sodium sulfate solution. The volume of electrolyte solution was 150-200 cm³ for Cell B and 500 cm³ for Cell C. Both the electrolytes were [pre-tcom?] Merck Sprapur Reagents. The electrolysis was carried out for 7-30 days using Cell A at a constant current 0.5-1 Amps and 3 months using Cell C at a constant current 0.5 Amps. The constituting elements on the gold electrode after electrolysis were identified by means of Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS) and Electron Probe Microanalysis (EPMA). Their isotopic compositions were surveyed by TOF-SIMS. The SIMS measurement was carried out by Ga⁺ ion irradiation. [Ar⁺ ion?]. No excess power was measured for nickel cathode. However, excess power levels of up to 10 was measured for scraped nickel cathode and nickel-plated cathode. The highest excess power level of 10 was observed in a test using nickel-plated cathode of 0.1X10X10mm. Marked increase in counts for mass number 64, 66, 67, 68 and 70, which correspond to zinc, were observed on the gold cathode after electrolysis. The isotopic composition of mass number 67, probably corresponds to ⁶⁷Zn, was increased to 15 from 4, of its natural value. Increase in counts of nickel was also observed by SIMS, however, no change in its natural isotopic composition was seen. EPMA have also showed an increase in the amount of zinc as well as nickel for the same gold cathode after SIMS.

INFINITE ENERGY - WATER Infinite Energy, vol 6, issue 33, 2000 is a special issue devoted to articles on WATER. The articles range from describing abundant water sources

that are contrary to widely-held geologic views to an excellent rebuttal to VOODOO specialist Robert Park by Dr. Randell Mills. Of all the proposed methods for new-energy sources, Randell Mills approach to obtain energy from the collapse of the hydrogen atom (widely available from water) is the most-nearly commercial new-energy invention. An article that everyone should read is Robert Yukes, "Water and Health." Did you know that certain types of water are better for you than other types?

NEWS FROM NEXUS

By Hal Fox

Here are some interesting excerpts from NEXUS NEW TIMES, Vol 7, No 6, November-December, 2000.

"Hark The Heralded 'Digital Angel' Implant" provides the following: "Digital Angel is intended to serve a number of functions. In addition to locating missing persons and monitoring physiological data, the device will be marketed to the world of e-commerce as a means of verifying online consumer identity." See www.digitalangel.net.

NOT FOR THIS FREEDOM- LOVING READER! David W. Allan, "A New Theory of Gravity", pg 46-47. The article cites, "The velocity of the gravitational information is a function of the conditions -- typically, at or faster than the velocity of light." [As reported in various issues of NEN, Hodowanek's device has shown that gravity wave fluctuations travel at many times the velocity of light. Also as reported in six article in the J. of New Energy, torsion fields (spin, magnetic, gravity) travel at least one billion times faster than the speed of light.] Author Allan cite the work of DR. Ning Li at the University of Alabama with the following: "...she is doing high-frequency work with superconductors and investigating the quantum states associated with the gravity fields ... her work appears to be among the most promising." See www.allanstime.com.

See also the latest, beautiful and complex crop circles, pp 55-58.

WATER SHORTAGE Courtesy of Hal Fox Staff, Associated Press, "Earth's Water Systems can't keep up with useage, report says," Deseret News, Sun, 22 Oct 2000, pg A-4

The World Resources Institute, Michigan State Univ., East Lansing, Mich. reports that the world fresh water is abundant only in some areas. In many areas, large populations must get their water from rivers which are polluted by man with silt and chemicals. The report also states that half of the world's wetlands were converted to agricultural use in this past century. Only new-energy technologies have a reasonable solution by providing clean, abundant, low-cost energy.

ELECTRIC HYBRID CARS
Courtesy of Bruce R. Meland

ELECTRIFYING TIMES, vol 8, nos 1&2 is a preview of many electric vehicles being prepared for market in 2002. Most of these electric vehicles are small, light weight, and use a small gasoline or diesel engine to charge the batteries and help with the uphill grades. Electric vehicles that one has to plug in and charge do not appear to be consumer popular. We are too much of a "get in and take off" generation.

INFINITE ENERGY
Reporting on ICCF

Dr. Eugene Mallove, Editor, Infinite Energy, vol 6, issue 31, 2000 is a special report on many of the papers that were presented at ICCF which was held in Lerici, Italy. The International Conference on Cold Fusion, Number 8, presented many papers on further discoveries and advances in low-energy nuclear reactions. While there are some interesting and possible commercial devices being developed, none of them appear to be from the commercialization of low-voltage, electrolysis developed from the March 23, 1989 announcement by Drs. Fleischmann and Pons (the so-called cold fusion). Cold fusion does not appear to have the ease of replication, the production of large amounts of excess thermal energy, nor be sufficiently robust to be a commercial success (this reporter's judgement). However, there are still a lot of new discoveries being reported and a variety of laboratories are still working on investigating cold fusion phenomena. This issue provides a good report on how things are processing the development and understanding of cold fusion.

From Nuclear News: "War does not determines who's right, war determines who's left."

WHO'S FREE? O'Driscoll, Holmes, and Kirkpatrick, "Who's Free, Who's Not," WSJ, 1 Nov 2000, pg A26. An index has been established to measure the degree of freedom in any country. The top twelve on the list are: Hong Kong, Singapore, Ireland, New Zealand, Luxembourg, U.S., U.K., Netherlands, Australia, Bahrain, Switzerland, and El Salvador. If you are in the new-energy business, it would be wise to establish manufacturing/marketing relationships with this list and work down the list for the other 150 countries. Emerging Energy Marketing Firm states that they will use this list to establish working relationships with free countries. The last on the list are the following: Iraq, Libya, North Korea, Burundi, Congo, Sierra Leone, Somalia, Sudan.

OIL GLUT PREDICTED! Courtesy of Gordon B. Moody Gordon B. Moody, Editorial, Global Energy Outlook, October 2000, Vol 5, No 10 (reprinted by permission of editor, PO Box 13830, Arlington, TX 76013). With the former Saudi oil minister, Ahmed Yamani again predicting \$10 oil at the end of 2001, the Organization of Petroleum Exporting Countries (OPEC) should take another look at the volatility of oil markets and try to get some stability at or near the \$20 per barrel regime which is best for both consumers and suppliers. The Oil & Gas Journal quotes a paper by Michael J. Economides, co-author of The Color of Oil, to the Society of Petroleum Engineers this month saying that fuel-cell technology will arrive much sooner than most expect, driven by environmental concerns, whether real or imagined, By 2005 the age of hydrogen will dawn with fuel cells running on natural gas or natural gas liquids. By year 2020, natural gas will provide nearly half of the energy mix worldwide. Oil will only provide 20 percent of the energy mix with enough world reserves to last for 200 years. Members of the oil cartel could delay the transition by keeping stability in oil prices at levels that will enable a smooth transition from oil to natural gas. The United States and Canada have sufficient gas reserves to last through the present century without having to rely on foreign oil imports with new fuel cell technologies. Note by Hal Fox, Pres., EEMF: This is an interesting scenario based only on the currently available technology that is known to Michael Economides. Completely left out of the forecast is the impact that will be made by the pending commercialization of several new-energy devices and systems. The fuel-cell is still a polluting technology and one that is over one hundred years old. The problems of fuel cells using natural gas is the problem of getting rid of the combustion by-products that decrease the efficiency of the fuel cell. That problem can probably be solved but the pollution from burning natural gas is still a problem. Our forecast is that the new-energy technologies will prove to be less expensive, non-polluting, and utilizing sources of energy that are currently not being commercialized. It is forecast that the advent of new-energy devices, beginning in 2001, will dramatically change the way the world produces and distributes energy.

CLINTON-GORE ENERGY POLICY

A recent letter to the Wall Street Journal has accused the Clinton-Gore administration of having a suicidal energy policy that punished coal, oil, and gas producers in the West to benefit friends and political constituencies, including the Riadys of Indonesia and union members of high-sulfur coal producers. For example, president Clinton has, by the use of executive orders, excluded the use of low-sulfur coal from Utah and Colorado to be used to produce energy. In addition, the prevention of oil drilling off the coasts of the U.S. and Alaska, while encouraging similar off-shore drilling in other countries is decried as playing politics to the U.S. environmentalists. It will be great to have several new-energy devices on the market and put a stop to some of this political game playing.

WASHINGTON (Reuters) Thursday, Oct. 26, 2000
Draft Report Shows World Getting Even Warmer page 1 of 2

Statements from page 2 of this news article:

While the numbers seem small, they refer to average global temperatures. Actual variations will be much more extreme locally, and scientists say higher temperatures have already started to cause strong hurricanes, severe floods and devastating droughts. Ice shelves in the Antarctic have started to break off and, if the trend continues, many low-lying coastal areas could be flooded.

Draft Report Shows World Getting Even Warmer

WASHINGTON (Reuters) - Greenhouse gases are making the world even warmer than anybody had predicted, and it is almost certainly the fault of humans, a draft report from an international climate group concludes. The report, from the United Nations-sponsored Intergovernmental Panel on Climate Change (IPCC), predicts that the average global temperature could be as much as 11 degrees F (6 degrees C) higher at the end of the century than it was in 1990.

That is a bigger change than what the world has seen since the end of the last Ice Age and could lead to chaotic weather, with storms, flooding and severe droughts. Greenhouse gases such as carbon dioxide are produced by using fossil fuels such as gasoline and coal, burning forests and other activities. The report is the strongest word yet from the IPCC, which groups 2,500 of the world's top climate scientists. Their last report in 1995 said there was a "discernible human influence" on climate.

The new draft strengthens the language, saying "there is now stronger evidence for a human influence" and revises upwards the estimates on how warm the Earth is going to get. "In 1995, we said since 1860 there had been a 0.3 to 0.6 degree C rise," one source familiar with the report, who asked not to be named, said. "Now it is 0.4 to 0.8 degrees C (0.7 to 1.4 degrees F). The observed change is somewhat larger." This is the same as given in a major report issued in January by the U.S. National Academy of Science's National Research Council (NRC).

"That's largely because the last few years have been very warm. As the report itself says, the last decade was certainly the warmest in 1,000 years," the source said. In 1995, the IPCC projected a 1.0 to 3.5 C increase in average global temperature between 1990 to 2100. The new draft predicts a rise of from anywhere between 1.5 and 6 C. Robert Watson, the Washington, D.C.-based chairman of the IPCC, said the report, leaked to several news organizations, was only a draft and was subject to change. "This is the summary of a report prepared by hundreds of scientists throughout the world," Watson said in a telephone interview.

WASHINGTON (Reuters) Thursday, Oct. 26, 2000

Draft Report Shows World Getting Even Warmer page 2 of 2

"It is indeed still a draft document subject to change after government review."

REPORT TO BE APPROVED IN JANUARY He said the report, which is several hundred pages long, had been prepared by "hundreds of scientists" and reviewed twice, by climate experts and by governments.

"It has been revised, and has now been released to governments for their final review," Watson said. He suggested it would be subject to close scrutiny and considerable discussion. "There will be a meeting of all the governments of the world, plus some of the scientists that prepared the reports, in China in the middle of January for final review and approval. It will literally be a word-by-word approval." Since the last IPCC report was issued in 1995, many studies have shown that global warming is even more serious than had been believed, and many showed definitive links with human-produced chemicals such as carbon dioxide. Several reports have concluded that global temperature took a sudden upward turn at around the turn of the last century, when the Industrial Revolution reached its peak and people started pumping greenhouse gases into the atmosphere. The January NRC report estimated that in the last 20 years, the earth's surface temperature rose by 0.25 to 0.4 C (0.5 to 0.7 F). While the numbers seem small, they refer to average global temperatures. Actual variations will be much more extreme locally, and scientists say higher temperatures have already started to cause strong hurricanes, severe floods and devastating droughts. Ice shelves in the Antarctic have started to break off and, if the trend continues, many low-lying coastal areas could be flooded. A report by the U.S. National Oceanic and Atmospheric Administration (NOAA) that found the cycles of the Pacific El Nino current, blamed for disrupting weather worldwide, have become more frequent and progressively warmer -- just as global temperatures have risen overall on average. Small and subtle changes in the sun's radiation may also contribute, scientists say.

BELOW STAIRS GENERATOR

Courtesy of Tony Smith,

Alternatives Staff, "Below Stairs Generator Has World In Super Spin," England's Sunday Express, Dec 3, 2000.

The article cites the development of small, efficient, turbine-powered (natural gas fired) electrical generating units weighing less than one ton. The idea is to provide your own electrical generating plant and save money on your electric bills. The article cites the combination of Power Gen and National Power as "ripping off customers by 4 million pounds a day." The article urges persons to buy the electrical-power units that will be available in 2001 and sell the extra power back to the power companies. No mention is made of the extent that these small units may (or may not) produce more atmospheric pollution than a large electrical-generating plant. No mention is made of any kind of alternative-energy devices. The thrust of the article is in the following sentence: "...worries about fuel costs may be a thing of the past with the emergence of a new era of micro generators."

COLLAPSING HYDROGEN

Arnold G. Gulko,

"The Collapse of Matter, Excess Heat Generation, Fractional Hydrogen Formation, and Nuclear Reactions in a Gaseous Glasma," Infinite Energy, Vol 6, Issue 34, 2000.

Arnold Gulko and his friend Malvin Beller have studied Dr. Randell Mills' collapsing of the hydrogen atom and attempted to reproduce some of the results. They were successful in producing excess thermal energy. In addition, they discuss the production of carbon in their experimental cell when there is no carbon source for their experiment. They suggest that the boron in the palladium electrode they used could combine with the collapsed hydrogen to make a form of carbon. It would be very interesting to determine if the carbon they produced has significantly different properties from normal carbon.

ZERO POINT ENERGY

Moray B. King,

Transforming the Planet with a Zero-Point Energy Experiment," Infinite Energy, Vol 6, Issue 34, 2000. pp 51-55.

Moray King suggests that some of the most promising energy inventions of the past twenty-five years can be viewed from the concept that each of them produced charge clusters that obtained excess energy from the zero-point energy. These inventions include Shoulders, Papp's engine, Gray's pulsed capacitor, Brown's gas, Sweet's barium ferrite, and Graneau's water arc explosions. King could have added the Correa and Correa device, underwater arcing, and possibly Santilli's MagneGas. This article is recommended for close reading. The reader should then remember that the direct discovery and patenting of charge-cluster technology was accomplished by Kenneth Shoulders. Additional discoveries were made by Stan Gleeson in Cincinnati, Ilyanok in Belarus, and Mesyats in Russia. Dr. Harold Puthoff also has a charge cluster patent.

ROCKY MOUNTAIN INSTITUTE

The Rocky Mountain Institute is one of the many organizations that are working to conserve energy and to find alternative energy sources. The chief founder, Amory B and L. Hunter Lovins have built an excellent alternative energy organization. They publish the RMI Solutions Newsletter from their headquarters in Snowmass, Colorado. They have a website at www.rmi.org. Despite several letters from new-energy experts, they have yet to discover new-energy technologies.

DOE DISCOVERIES NEW ENERGY

The DOE has discovered that new energy phenomena exist. In a document circulated for Agency Review, DOE lists several "physical anomalies" that should be investigated. The report is the following document: DOE Staff, "Breakthrough Energy Physics Research (BEPR)

Program Plan," October 2000, "Draft for Agency Comment Only," 54 pages with figures and illustrations.

Hopefully, this will lead to considerable interest on the part of the academic community. There is an old adage that "Scientists will believe what they are paid to believe." If the BEPR obtains a few million in funding, then the end result should be a significant additional interest in both the Institute for New Energy and in the Journal of New Energy.

Low-Energy Nuclear Reaction (Cold Fusion) Sessions at the ANS Nov. 2000 WDC Meeting

By Patrick Bailey

American Nuclear Society (ANS)
Washington DC Meeting
Nov. 11-17, 2000

From: <<http://www.ans.org/meetings/pdfs/2000/wm2000.pdf>>

The Session Schedules

(Abstracts from each paper will be requested for a future NEN.)

Low-Energy Nuclear Reactions-I, sponsored by IRD.
Session organizer: George Miley (Univ of Illinois). All invited.
Chair: George Miley

1:00 p.m.

Theoretical and Experimental Results Regarding LENR/CF, Robert W. Bass, Wm. Stan Gleeson (Bass & Gleeson)

1:20 p.m.

Experimental Observation of Nuclear Reactions in Palladium and Uranium, J. Dufour, D. Murat, X. Dufour, J. Foos (CNAM-France)

1:40 p.m.

Low-Energy Nuclear Reactions of Protons in Host Metals at Picometre Distance, Heinrich Hora (Univ of New South Wales- Australia), George H. Miley (Univ of Illinois), Jak C. Kelly (Sydney Univ-Australia)

2:00 p.m.

New Energy Development, Hal Fox, S. X. Jin (EEMF)

2:20 p.m.

Generating Carbon Tubes and Films from Lead and Cadmium Wires During Underwater Spark Discharges, Taka-aki Matsumoto (Hokkaido Univ-Japan)

2:40 p.m.

Theory for Anomalies in Metal Deuterides, P. L. Hagelstein (MIT)

3:00 p.m.

Recent Results from Collaborative Research at ENEA-Frascati on Reaction Phenomena in Solids, V. Violante (ENEA, Frascati-Italy), G. H. Miley, P. Tripodi (Univ of Illinois), D. Di Gioacchino (INFN-Italy), C. Sibia (Univ of Rome-Italy)

3:20 p.m.

Theoretical Framework for Anomalous Heat Without High-Energy Particles from Deuteron Fusion in Deuterium-Transition Metal Systems, Scott R. Chubb, Talbot A. Chubb (Rsch Syst) Eisenhower

Low-Energy Nuclear Reactions-II, sponsored by IRD.

Session organizer: George Miley (Univ of Illinois). All invited.

Chair: Bruce Cain (Mississippi State Univ)

8:30 a.m.

Resonant Tunneling in Low-Energy Nuclear Reactions, X. Z. Li, J. Tian, M. Y. Mei (Tsinghua Univ-China)

8:55 a.m.

Hyper Gentle Fusion and Isotope Production, J. Kenny, R. Schultz (Bradley Univ)

9:20 a.m.

Evidence of d-d Fusion Products in Experiments Conducted with Palladium at Near Ambient Temperatures, Michael McKubre, Francis Tanzella, Paolo Tripodi (SRI Int)

9:45 a.m.

Anomalous Power Generation Produced by Stirring Water Solutions, Richard A. Oriani (Univ of Minnesota), John C. Fisher (Fisher)

10:10 a.m.

Electron Screening in Metal Deuterides, K. P. Sinha, P. L. Hagelstein (MIT)

10:35 a.m.

Radiation-Less Fission Products by Selective Channel Low-Energy Photofission for $A > 100$ Elements, Akito Takahashi, Masayuki Ohta (Osaka Univ-Japan), Tadahiko Mizuno (Hokkaido Univ-Japan)

11:00 a.m.

Excess Heat and Helium Production in the Palladium-Boron System, Melvin H. Miles (NAWCWD), M. Ashraf Imam (NRL), Martin Fleischmann (ENEA, Frascati-Italy)

Low-Energy Nuclear Reactions-III-Papers/Panel, sponsored by IRD. Session organizer: George Miley (Univ of Illinois). All invited. Chair: Mark Prelas (Univ of Missouri, Columbia)

1:00 p.m.

Engineering To Control Noise, Loading, and Optimal Operating Points, Mitchell R. Swartz (JET ETI)

1:25 p.m.

Polyneutron Chain Reactions, John C. Fisher (Neutronics)

1:50 p.m.

Heat and Products Induced by Plasma Electrolysis, Tadahiko Mizuno, Tadayoshi Ohmori, Tadashi Akimoto (Hokkaido Univ-Japan), Akito Takahashi (Osaka Univ-Japan)

2:15 p.m.

Carbonate Precipitates During Heat Evolution in FP-Type Cells, Bruce L. Cain (Mississippi State Univ)

2:40 p.m.

Characterization of Uranium Codeposited with Hydrogen on Nickel Cathodes, G. Goddard, J. Dash (Portland State Univ), S. Frantz (Reed College Reactor)

3:05 p.m.

Advances in Thin-Film Proton-Reaction Cell Experiments, George H. Miley, Giovanna Selvaggi, Andy Tate, Carlos Castaño (Univ of Illinois)

3:30 p.m.

Motion Constants, Frank Znidarsic (Znidarsic Consult)

4:00 p.m.

Panel Discussion

Co-Moderators: H. Hora (Univ of New South Wales-Australia) A. Takahashi (Osaka Univ-Japan)

Panelists: G. Miley (Univ of Illinois) R. Oriani (Univ of Minnesota) T. Mizuno (Hokkaido Univ-Japan)

SCIENTISTS CLAIM NOTHING WILL STOP CLIMATE CHANGE

(Submitted by Patrick Bailey)

Jonathan Leake and Guy Dennis
Sunday Times
November 12 2000

From: <http://www.sunday-times.co.uk/news/pages/sti/2000/11/12/stifgneur01006.html>

SCIENTISTS have warned thousands of government officials and politicians gathering for international climate talks in the Hague that the rise in global temperatures is irreversible, and that the best they can hope for is to slow it down by a fraction of a degree.

Their research shows that even if delegates implement all the proposals before them in full, this will cut only about six-hundredths of a degree from a temperature rise that could be as much as 5C by 2100.

The warning comes from researchers at the Hadley Centre, the British Meteorological Office's climate change prediction centre, who will present the results in the Hague next week.

The aim of the talks is to find ways to implement the agreement in Kyoto, Japan, in 1997 under which developed countries would reduce emissions of gases, mainly carbon dioxide, to 5.2% below 1990 levels by 2012.

Geoff Jenkins, head of the Hadley Centre, said: "This has to be seen as just the first stage. If we want to minimise global warming we have to achieve emission cuts of 60% or more within the next few decades."

The centre's research shows that even with 60% cuts, the rise in temperatures will not be halted but could be restricted to only about 2C by 2100. This would cause a sea level rise of about 30cm.

However, with cuts of just 5.2%, temperatures would rise by up to 5C and sea levels would rise more than 60cm, flooding many low-lying areas.

The obstacles facing even a 5.2% reduction are huge. This weekend Michael Meacher, the environment minister, said the key was to persuade America to cut its emissions. "The US has just 5% of the world's population but it emits a quarter of all the gases," he said.

Meacher and others are worried that America favours emissions-trading, under which countries would get quotas for emitting gases which could be sold on the open market. It could then buy the right to emit gases without making real cuts.

Britain has led the way in climate change negotiations. At Kyoto it volunteered to cut carbon dioxide emissions by 20% from 1990 levels by 2010.

Meacher and John Prescott, the deputy prime minister, will propose a tough regime to force every developed country to make real cuts and promote renewable energy sources.

The rise in temperatures has led to increasingly unpredictable weather. Last Christmas Eve a storm hit northern France, killing scores of people and ripping up more than 400,000 trees. Recently towns and cities across Britain have been hit by flooding.

This weekend residents in Sussex were again bracing themselves for severe floods. Ray Kemp, of the Environment Agency, said the critical time would be between midnight last night and this morning, with up to 25mm of rain expected in some places.

CLINTON'S CLIMATE CHANGE WARNING

By environment correspondent Alex Kirby

BBC

Saturday, 11 November, 2000

(Submitted by Patrick Bailey)

From: http://news.bbc.co.uk/hi/english/sci/tech/newsid_1018000/1018813.stm

President Clinton has told Americans that climate change is a reality, and that the United States faces serious damage as a consequence.

Mr Clinton said the threat of global warming was "one of the greatest challenges we face".

He announced a new approach to limiting air pollution from US power plants, which he said would produce significant reductions in greenhouse gas emissions.

It could mean more flooding, more droughts, more extreme weather and a serious disruption of water supplies

And he spelt out the US stance for the UN climate conference in The Hague, which begins on Monday.

Mr Clinton gave his warning in an address broadcast over the internet.

He included details of a scientific report which he said "provides the most detailed assessment ever of the potential impacts of global warming across the United States".

The report - Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change - was completed by the US Global Change Research Program.

'Huge' temperature change

The president said it painted "a sobering picture of the future".

He said: "Scientists project that continued growth in greenhouse gas emissions could raise

temperatures across our country by five to nine degrees Fahrenheit [three to five degrees Celsius] over the next 100 years.

"To put that in perspective, the earth has not seen a temperature change of that magnitude since the end of the last ice age.

"This new study makes clear that this projected warming threatens serious harm to our environment and to our economy."

President Clinton: "The stakes of not acting are simply too high"

Mr Clinton said the scientists were warning as well that "there may be many other impacts that we simply cannot predict".

The president said he and Vice-President Gore - whom he named specifically - had already done a lot to tackle climate change.

Reminding his audience of the steps his administration had taken - "common sense strategies to reduce greenhouse gas pollution", as he called them - Mr Clinton said he was calling for a comprehensive approach to limiting harmful emissions from electrical power plants.

This would establish national emissions standards for the main greenhouse gas, carbon dioxide, and also for sulphur dioxide, nitrogen oxides and mercury.

On The Hague conference, called to finalise the workings of the Kyoto Protocol, the international treaty on tackling climate change, the president said the US would work for real progress "toward a treaty that is both environmentally strong and cost-effective".

"We must continue to move forward together", he said.

"The stakes of not acting are simply too high."

US aims

He set out what the US would seek to do in the negotiations:

- seek strong, market-friendly rules to fight climate change, and oppose restrictions on the use of mechanisms such as emissions trading
- urge an airtight accounting system and binding legal consequences for failure to meet targets
- seek appropriate credit for agricultural and forest sinks which help sequester carbon dioxide and therefore reduce global warming
- urge a prompt start to the clean development mechanism, to help developing nations establish

clean energy infrastructures.

Some of these aims will win wide support, notably the call for penalties for those who do not comply with the protocol.

But the US will certainly face opposition from some developing countries, and from environmental campaigners, in its pressure to allow soils and forests to be counted as stores for carbon.

And they will distrust Mr Clinton's call for "market-friendly rules", and his emphasis on helping developing nations to develop clean energy.

It sounds good, but there will be many who fear that the US will seek to use activity abroad as an excuse for inaction in curbing greenhouse emissions at home.

WARMING WORLD'S WINNERS AND LOSERS

By environment correspondent Alex Kirby

BBC

Wednesday, 8 November, 2000

(Submitted by Patrick Bailey)

From: http://news.bbc.co.uk/1/hi/english/sci/tech/newsid_1013000/1013601.stm

UK scientists claim they can predict how climate change will affect almost every country in the world this century.

They say some can expect to warm more than twice as much as others.

The researchers have established that those most at risk from global warming produce the smallest quantities of greenhouse gases.

And they say this month's conference in The Hague must give priority to the disparity between rich and poor countries.

The study is the work of the Tyndall Centre for Climate Change Research, based at the University of East Anglia, and is reported in the magazine New Scientist.

The centre is being formally opened on 9 November by the UK Environment Minister, Michael Meacher.

Prone to drought

The research shows, by country, the observed rates of warming over the last century and a range

of projected future warming rates.

It means that delegates to The Hague climate change conference, from 13 to 24 November, will be provided with a detailed prediction of what may happen to their countries if the atmosphere continues to warm as it appears to be doing now.

The study finds that parts of central Asia, where temperatures already regularly exceed 40 degrees C, can expect some of the biggest rises ahead.

It says there will be increases of more than five degrees C in countries from Kazakhstan to Saudi Arabia, several of them affected this year by famine.

Next in line are a number of countries in West Africa which are also prone to drought.

National wealth

Among countries expected to warm by between four and five degrees C are India, Egypt and the US.

The study bears out earlier predictions in confirming that the Russian and Canadian Arctic should expect the largest temperature rise - more than six degrees C by 2100.

Those likely to warm least - three degrees C or less - are the UK and Ireland in the Northern Hemisphere, and Argentina, Uruguay, Chile and New Zealand in the south.

The researchers also divided each country's national wealth by its predicted temperature rise to assess the probable impact of warming on its population.

By this criterion, the four most vulnerable countries in the world are Afghanistan, Ethiopia, Sierra Leone and Tanzania.

Vulnerability index

They have just \$100 of their gross national product for each citizen to spend on coping with every degree of warming.

The least vulnerable country, by contrast, is Luxembourg, which can spend \$8,800 per head.

The researchers acknowledge that temperature is only one index of climate change, and that a country's GDP cannot capture every dimension of vulnerability to it.

But the Tyndall Centre's director, Dr Mike Hulme, said that, almost without exception, the countries threatened most starkly by global warming produced the smallest amounts of the greenhouse gases believed to be causing it.

He said: "What this analysis shows is the relation between how much carbon each block of countries emits and how vulnerable they are to climate change. It highlights the disparity between rich and poor nations.

"The climate conference will focus on the richer nations who must act now to start reducing their emissions. This is the main issue facing ministers at The Hague."

WE NEED CLEAN HYDROGEN SOON

By Dr. Rob Wilder rob@pacificwhale.org

to appear in Engineering News-Record, May 8, 2000

(Submitted by Patrick Bailey)

At long last, a technology too long-overlooked promises to transform the construction industry and society. Offering clean and abundant power, fuel cells of all sizes could soon end our reliance on oil--as well as minimize much pollution and global-warming gases. But to take advantage of this technology, we cannot afford to wait another 161 years. We need to begin now looking at ways to cleanly produce hydrogen and make it widely available.

Over the past few years and especially last few months, fresh attention has been lavished on the vision of a world powered by fuel cells. As an efficient way to create electricity with little or no pollution--their promise is suddenly regarded as little short of revolutionary. Yet fuel cells are hardly new. Invented in 1839, they were mostly seen as novel for working electrochemically, rather than by combustion. Until recently however, they found only sporadic use where cost is not an issue, such as in spacecraft.

What is now generating such interest, are the great strides made in producing power from fuel cells at costs so low, that they should in the opinion of many soon match or beat all competitors-even oil. The crux of fuel cell viability comes down to price, and this is why so much interest is lately being given cost-breaking technological advances that suddenly put fuel cells in a whole new light. It is also why professionals in on-the-ground jobs like construction contractors, civil engineers, and architects might well-and sooner than most realize--become exposed to, effected by, and even begin designing for their practical use. Just as the auto industry is fast awakening to changes on its horizon wrought by fuel cells-- over the next few years, the construction industry in my view will be altered dramatically.

Most importantly, this alternative energy should soon prove economic in its own right. FuelCell Energy Inc. expects a coming megawatt-class field test to come out at \$8,000 per kilowatt (a real reduction from the \$20,000 per kilowatt in a 1996 trial) for a still-pricy 17 cents per kilowatt/hour (kWh). But within five years, it is looking to achieve installed costs including fuel of just \$1,200 per kilowatt, for an electricity cost of roughly 5 cents per kWh. That compares favorably to prices around the U.S. ranging in 1998 from over 10 cents in New York and elsewhere, to the cheapest at about 4 cents per kWh in the Pacific Northwest. Despite combustion's leg-up after a century of refinements-only a few years from now, fuel cell rates

could be very attractive. And just imagine fuel cell state of the art twenty years hence, with billions of new research dollars and decades of improvements.

Put aside for a moment the environmental advantages of fuel cells--which are enormous and key--and still their promise is still extraordinary. Fuel cells require just hydrogen, and the oxygen easily taken from air to make desired electricity; there also is some water and heat produced-but nothing

else. They function simply: a catalyst splits hydrogen into two constituent parts: protons (hydrogen ions) and electrons: the protons pass through a membrane to the other side and combine with oxygen making water. But this membrane forces electrons to take an external circuit to the other side: doing so they become power.

Five main types lend themselves to many applications and are distinguished by electrolyte, which determines operating temperatures. These are the proton exchange membrane (PEM, or polymer electrolyte) which operates at about 80 degrees C, alkaline fuel cell (AFC) at about 100 degrees C, phosphoric acid (PAFC) at about 200 degrees C, the molten carbonate (MCFC), and solid oxide fuel cell (SOFC) both at 800 degrees C. Other types of fuel cells are lately being announced at a rapid clip as interest swiftly grows.

Look at benefits to come from substituting hydrogen and fuel cells in place of the oil and fire (combustion) in stationary power generation. Buildings account for about two-thirds of U.S. electricity consumption. To supply that power instead by fuel cells (perhaps with a turbine to capture waste heat) makes it possible to better current efficiencies by as much as 60%. Their high-quality waste heat is also excellent for key tasks of heating and cooling. When compared to oil or coal-fired power plants where energy is wasted at the source by dirty combustion and fails to reach customers, the fuel cell starts out with a big advantage.

Fuel cells compound efficiencies, for they are easily scalable from micro through massive applications and so are especially suited to decentralized power. This idea of distributed power means that electricity is generated by appropriately-sized sources located near to need. By placing the first round of stationary fuel cells where it is easiest to initially compete--such as where the existing grid is fully loaded and expansion is costly, or rural areas where there is no power grid, or where high-quality firm power is a necessity--their still-relatively high present costs is less an issue. And it is smart to first compete in portable applications too, such as laptops and cell phones, where a high price is paid for power.

Generating power where needed further eliminates the huge costs associated with putting in miles of expensive wires on the grid. It also gets rid of related transmission losses and costs of power delivery, which in 1996 averaged 2.4 cents per kilowatt-hour. And it is flexible; FuelCell Energy, Inc's molten carbonate unit can use a variety of fuels directly, although to focus on hydrogen clearly is best. Near-term, ecologically less desirable options than hydrogen or natural gas will be the first implemented--because they are already economically compelling. FuelCell Energy just announced plans for a 2 megawatt power plant in Kentucky as part of a federal Clean Coal technology program. And a bigger 9 megawatt fuel cell plant at a gas-to-liquid facility is also now being discussed.

So why aren't fuel cells now powering our homes, offices, cell phones or cars around the world? Because until very recently, their costs were far too high. Each was hand built by highly-trained Ph.Ds and many required gobs of pricey catalysts like platinum in PEM cells. While proven technology, they could not come near an unbeatable price of King Oil.

Remarkably however, cost reductions will soon become evident, as a flowering of fuel cell companies build new manufacturing facilities. For the first time, economies of scale can appear and mass production will allow the costs to be worked down considerably.

Likewise, imagine cars powered by fuel cells: as recently as 1998, these prototype 'engines' were dear, costing around \$3,000 per kilowatt and more. Yet estimates by Amory & Hunter Lovins and Paul Hawken in their book *Natural Capitalism*, predicts we may see costs for the auto fuel cells of \$500-\$800 per kilowatt in 2000-2001, dropping to \$100 as designs improve and production grows. They predict an eye-popping figure of under \$50 per kilowatt is then possible. For more, see: www.hypercarcenter.org/ggo/whatfgo.html

Yet lately as with so many things fuel cell, that estimate too may prove too conservative. Recent reports note that Ballard now has stated a price goal of just \$60 per kilowatt for mass production of its fuel cell car engine, including the cell stack and balance of plant. To achieve so low a figure, or even come close, would be little short of a milestone: this is almost as inexpensive as a gasoline engine mated to an automatic transmission.

Augmenting the switch to hydrogen economy, note that a fuel cell-powered car might have about 40 kW capacity. Since cars are habitually parked at home or at work, they can become mobile power plants where you plug your car in--not to charge its battery-but to help power your home or office! And net metering means you can sell your car's excess power to the grid. To add insult to injury, fuel cell vehicles should be better in so many ways: they may accelerate faster, go farther, cost less, be more efficient, and last longer.

Huge leaps in stock market valuations of companies like Ballard Power Systems, FuelCell Energy, and Plug Power, all reflect in part recent moves towards actual mass-production. But they also reflect the fact that fuel cells would offer far more than economic gains; their ability to create power without any pollution, when importantly hydrogen is the feedstock, is an extremely attractive solution to myriad pollution problems including global warming.

Near-term, to use methanol directly or reform natural gas are certainly fuel options. But on the longer view, it is best to focus on creating a new Hydrogen Economy. The U.S. infrastructure goal must be to do it cleanly-and avoid pollution that would come from foolishly relying on high-carbon fuels like gasoline, to get hydrogen. Given little demand for hydrogen, sparse attention has been paid how we release this most attractive of fuels from, for instance water. So today about 95% of all hydrogen comes from reforming natural gas. As we begin adopting fuel cells widely, that past inattention to hydrogen should change. For more see, <http://ens.lycos.com/ens/apr2000/2000L-04-11-01.html>

Possibilities include solar or wind power to split water where needed, closing energy flows and

building soft energy paths--or regenerative fuel cells that both use, and make, water. Equally exciting are novel means on the horizon to generate and store hydrogen as the energy carrier. They include green algae that produce hydrogen biologically, or nanotubes to store hydrogen safely and efficiently. For more, visit www.ch2bc.org/indexh.htm or www.h2fc.com. Ecological sensibilities demand that we keep our eye on the prize with fuel cells: it is hydrogen fuel that renders them amazing, and no other choice of fuel will do.

Dr. Robert Wilder, is Director of Conservation at the Pacific Whale Foundation, www.pacificwhale.org. He can be reached at rob@pacificwhale.org, or at 808-879-8860.

WORLD'S FIRST WAVE GENERATED POWER STATION OPENS

Environment News Service

Wednesday, November 22, 2000

(Submitted by Patrick Bailey)

From: <http://ens-news.com/ens/nov2000/2000L-11-21-01.html>

INVERNESS, Scotland, November 21, 2000 (ENS) - The world's first commercial wave power station has been connected to the national grid in Britain. WAVEGEN and Queen's University Belfast jointly developed the LIMPET (Land Installed Marine Powered Energy Transformer) wave system with financial support from the European Union.

The LIMPET is operating on the Island of Islay, off the West coast of Scotland, famed for its unique whisky distilleries.

This first site will generate 500 kW of renewable energy without greenhouse gas emissions. That capacity is sufficient for 400 local homes.

"This is a big day for us," says managing director Allan Thomson. "Wave power has joined the important group of commercially viable, competitive and clean forms of sustainable energy. This is the launch of a new global market."

LIMPET offers modular construction and simple operation, and company officials predict its applications will fill a growing need in coastal communities around the world that are trying to replace diesel generation.

Queen's University Belfast installed a small research wave energy station on Islay in 1990, and its successful operation led to development of the LIMPET project.

"It is very satisfying to find 20 years of collaborative academic research being developed commercially," says Queen's University Belfast professor Trevor Whittaker. "LIMPET is an important milestone in the development of this vast ocean resource."

The LIMPET uses an oscillating water column in an inclined concrete tube that has its opening below the water level. Wave action causes the water level in the collector to oscillate, and this variation alternately compresses and decompresses the trapped air in the column. The air flows back and forth through a pair of generating turbines which are driven in the same direction at all times, regardless of the direction of the airflow.

The unit is designed to operate on the shoreline, or it can be incorporated within rubble mounds or caisson breakwaters to provide coastal protection schemes as well as power generation.

Key features include low cost power, maximum local content and 60 year life with minimal maintenance.

The Islay site opens the door for wave power to become a contributor of renewable energy and to help meet the UK's obligations under the Kyoto Protocol by reducing emissions of greenhouse gases, explains Thomson.

The station has secured a 15 year power purchase agreement with Public Electricity Suppliers in Scotland.

WAVEGEN is backed by UNOTEC Holding AG of Switzerland, AGIP UK of Italy's ENI Group, and the European venture capital company 3i. The company was established in 1992 by Thomson and professor Alan Wells, inventor of the Wells air turbine.

"To see a new renewable energy source reaching this stage is an important day for all people involved since its beginning," says Philippe Schild, a scientific officer with the European Commission. "LIMPET is there to prove that energy can be extracted commercially from the ocean."

CLIMATE CHANGE COULD BANKRUPT US BY 2065

Environment News Service

November 24, 2000

(Submitted by Patrick Bailey)

From: <http://ens.lycos.com/ens/nov2000/2000L-11-24-11.html>

THE HAGUE, The Netherlands, November 24, 2000 (ENS) - The sixth largest insurance company has warned that damage to property due to global warming could bankrupt the world by 2065.

Dr. Andrew Dlugolecki, director of general insurance development at CGNU, told delegates attending the international climate change summit in The Hague that the rate of damage caused by changing weather will exceed the world's wealth.

CGNU is a top five European life insurer and the United Kingdom's largest insurance group.

"Property damage is rising very rapidly, at something like 10 percent a year," he told a briefing at the 6th Conference of Parties (COP 6) to the UN Framework Convention on Climate Change, yesterday.

"We've still not yet really begun to see the effects of climate change in the West. What we are seeing so far is largely the result of more people living in areas which are becoming more dangerous.

"But once this thing begins to happen, it will accelerate extremely rapidly, as the IPCC report makes clear."

Dlugolecki contributed to a Intergovernmental Panel on Climate Change (IPCC) report due out next year. The IPCC consists of more than 2,500 scientists from around the world, and its first assessment report in 1990 was used as the basis for negotiating the United Nations Framework Convention on Climate Change (UNFCCC).

Dlugolecki said that the current rate of growth of damage of 10 percent a year will exceed Gross Domestic Product by 2065. He added that the insurance industry was in danger of "running out of money," to deal with the disasters.

"This stark warning must help focus the minds of everyone sitting round the negotiation table at the climate summit," said Mark Johnston of Friends of the Earth. "We've all seen the storm warnings, now we are being told the financial forecast. These talks must not fail to produce a deal that will prevent future climate chaos."

Dlugolecki proposes a more radical approach to climate change than is being discussed at COP 6. The concept, known as contraction and convergence, has long been promoted by the London based group the Global Commons Institute (GCI).

GCI describes itself as an independent group of people whose aim is the protection of the "Global Commons." It fears the world may be driven beyond the threshold of ecological stability by the relentless pursuit of economic growth.

The 10 year old group has proposed a contraction and convergence framework under which all countries are allocated tradable quotas of a global emissions budget. As the global budget contracts the distribution between countries gradually converges, reaching equal per-capita levels.

Put simply, carbon dioxide and other greenhouse gases caused by human activity must be cut drastically, but every country should have an equal right to use the fuels which emit carbon. Huge cuts in emissions from developed nations should allow a corresponding emissions rise from developing countries.

"If Contraction and Convergence is adopted as the tool for managing CO2 and other greenhouse

gases, there will be a transition to a point (convergence) where future entitlements to emit will have become proportional to population," says GCI on its website: <http://www.gci.org.uk/>

In projections, GCI suggests 2045 will be the year of convergence. It says population forecasts could become critical and be the subject of negotiation. "However, it could be counterproductive to create an incentive for countries to increase their share of the global emissions budget through population growth," says CGI.

"We suggest that a starting position should be that Annex One countries are treated as stable from 2000 forward, and that non-Annex One countries are treated as stable from the Convergence year (2045) forward.

Annex One countries are the 38 industrialized countries, plus the European Union, committed to making cuts in greenhouse gas emissions under the 1997 Kyoto Protocol.

Bailey, Patrick

From: Integrity Research Institute, Thomas Valone [iri@erols.com]

Sent: Saturday, November 25, 2000 2:00 PM

To: Jacqueline; schafferr; Claude Swanson; rebecca whitford; phoebe pfaehler; marc whitford

Subject: "Global Warming Theory Affirmed...Panel Increases Temperature Projections"

(Submitted by Patrick Bailey)

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**GLOBAL WARMING THEORY AFFIRMED;
SCIENTIFIC PANEL INCREASES PROJECTIONS OF RISING TEMPERATURES**

H. JOSEF HEBERT, ASSOCIATED PRESS

Thursday, October 26, 2000 ; Page A18

New evidence shows man-made pollution has "contributed substantially" to global warming and the Earth is likely to get hotter than previously predicted, a United Nations-sponsored panel of hundreds of scientists has found.

The conclusions by the Intergovernmental Panel on Climate Change are expected to widely influence climate debate over the next decade.

The report's summary, a copy of which was obtained by the Associated Press, was being distributed to government officials worldwide this week.

It is the first full-scale review and update of the state of climate science since 1995, when the same panel concluded there is "a discernible human influence" on the Earth's climate because of the "greenhouse" effect caused by the buildup of heat-trapping chemicals in the atmosphere.

The panel's latest assessment said "there is stronger evidence" yet on the human influence on climate and that it is likely that man-made greenhouse gases already "have contributed substantially to the observed warming over the last 50 years."

And the scientists, in revised estimates, concluded that if greenhouse gas emissions are not curtailed, the Earth's average surface temperatures can be expected to increase between 2.7 and nearly 11 degrees Fahrenheit by the end of this century, substantially more than estimated in its report five years ago.

It attributed the increase--from a range of 1.8 to 6.3 degrees Fahrenheit warmer in the 1995 assessment--mainly to a reduced influence now expected to be played by sulfate releases from industrial facilities and power plants. Such releases, which tend to have a cooling influence, will likely dramatically decline in industrial countries because of other environmental concerns, the scientists maintained.

The IPCC's third assessment report may receive final approval at a U.N. conference early next year. While some wording will certainly be changed by government policymakers, the central scientific conclusions may not be altered, several scientists who have been involved in the process said yesterday.

Three years ago in Kyoto, Japan, industrial nations tentatively agreed to curtail the release of greenhouse gases--mainly carbon dioxide from burning fossil fuels--to below 1990 levels as a first step to address global warming.

But none of the major industrial countries has yet ratified the agreement. Skeptics argue that the science remains inconclusive and that computer models used to predict climate change are not reliable enough to warrant a dramatic and possibly costly shift in energy use to curtail carbon emissions.

Articles appear as they were originally printed in The Washington Post and may not include subsequent corrections.

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ANTI GRAVITY NEWS AND SPACE DRIVE TECHNOLOGY
By Patrick Bailey

James Cox has done an outstanding job of collecting, summarizing, and printing almost all he

knows about these topics. He has created and mailed out the AntiGravity News newspaper (newsletter) for several years now. All the "Table of Contents" of his issues are listed now on the internet at: <http://www.padrak.com/agn/>.

As other anti gravity effects, experiments, devices, machines, theories, and inertial drive systems are discovered and talked about, I am sure that they will also appear on this website!

As the INE focuses on new forms of energy conversion and new potential energy sources, it is well that James has created another formal group and website to cover these exciting and related, and maybe very over-lapping, topics. Thanks James!

WHAT DID NEIL ARMSTRONG REALLY SAY BEFORE HE STEPPED OUT ONTO THE MOON?

By Patrick Bailey

We all know what the public heard when this event happened.

Did you know that the broadcast was time-delayed to the public?

What really happened, and what did he really say?

It's just more governmental control...

I don't what he really said, but my friend Randy says he was at JPL, listening on the "Biological Channel! Randy says on radio that Neil Armstrong said THIS:

http://www.padrak.com/ufo/WINTERS_3.html

INE Members Can Submit News to NEN!

By Patrick Bailey

You as an INE Member can find and submit newsworthy articles for publication by the NEN by emailing them to: Patrick Bailey, at nen@padrak.com.

Please submit articles in "text-only" (or ASCII) format from any word processor, or in Adobe Acrobat (PDF) format. The PDF format is great for including equations and pictures!

If YOU are interested in an energy-related article, then I am sure that all the other INE Members would also like to se it!

Please assist using making the NEN a show-case for new and advanced energy conversion topics!

UPCOMING CONFERENCES' DATES

Greetings Everybody:

The 10th Annual International UFO Congress Convention & Film Festival is scheduled for March 4 - 10, 2001 in Laughlin, Nevada.

The schedule, rates and registration forms can be found on our web site www.ufocongress.com

WLADIMIR GUGLINSKI <wladig@uol.com.br>

To announce my book PARADOXES OF PHYSICS AND THEIR SOLUTIONS

Wladimir Guglinski is the author of a New Theory performed by 20 papers. The first paper entitled NEW MODEL OF NEUTRON has been published by the JOURNAL OF NEW ENERGY Spring 2000. The other papers will be published in the upcoming issues. In order to become his ideas accessible to the layman, Guglinski wrote the book PARADOXES OF PHYSICS AND THEIR SOLUTIONS. In such a book you will get a comprehension of the most paradoxical problems of Quantum Physics and the Theory of Relativity, in suitable words compatible with your capacity of comprehension. The book has 200 pages, and its price is US \$ 40 (included the postage cost).

The book is available through postage order to:

WLADIMIR GUGLINSKI, Rua Rabelo Horta, 174 CEP: 36.770-000 Cataguases-MG, BRAZIL

More information about the book are available in the home-page <http://scienc2e000.cjb.net>
