



# Fusion Power Report

Complete Coverage Of Worldwide Fusion Developments

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## SLANTS & TRENDS

**Dr. Raymond J. Fonck (University of Wisconsin)** was named to head the U. S. Department of Energy's Office of Fusion Energy Sciences, effective March 1, 2007

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**President Bush submitted** his FY 2008 Budget Request to Congress on February 5. For the DOE's Office of Fusion Energy Sciences (OFES), the President asks for \$428 million, including \$160 for the international ITER project and \$268 million for the domestic fusion program. French President Jacques Chirac and ministers from the ITER Parties commented on the importance of the ITER project and fusion.

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**The EU and Japan** formally signed the "Broader Approach" agreement on February 3 in Tokyo.

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**The US Department of Energy's Fusion Energy Sciences Advisory Committee (FESAC)** received a new charge to "identify issues arising in a path to Demo, with ITER as a central part of that effort

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**Dr. Steven Zinkle (ORNL)** was named a recipient of the Ernest Orlando Lawrence Award

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**Dr. James Van Dam (U. Texas)** has been named to head the U. S. Burning Plasma Organization (BPO). Others named to key BPO posts.

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## Fonck Named U.S. Fusion Head

Dr. Raymond J. Fonck (University of Wisconsin) has been named to head the U. S. Department of Energy's Office of Fusion Energy Sciences, effective March 1,

Professor Fonck is an experimental physicist with research interests in plasma and fusion science, atomic processes in high-temperature plasmas, and diagnostic instrumentation. His main research focus is on the properties of magnetically confined plasmas for thermonuclear fusion energy applications.

He has developed a variety of diagnostic techniques for measuring the particle and energy content and the stability of very-high-temperature plasmas. Current applications focus on studies of density and energy microturbulence in hot plasmas to determine the basic source of anomalous plasma particle and energy losses. This includes studies of spatial and temporal correlations between fluctuating modes, plus nonlinear coupling between turbulent modes in the plasma. Most of these turbulence experiments are performed on national tokamak experimental facilities, such as the DIII-D tokamak device. The diagnostic hardware is usually developed and tested at UW-Madison, then moved to these facilities. Real-time interactions with the experiments and operation of the diagnostics are often pursued through internet-based remote connections between UW and the host site. Related interests include developing state-of-the-art, high-speed photon detection techniques and atomic physics in high-temperature plasmas, including observations and analysis technique developments.

Fonck is also pursuing the experimental study of a family of plasma magnetic confinement devices called low-aspect ratio tori. This very-nearly-spherical toroidal geometry allows the study of very high plasma pressures in a tokamak-like geometry. Plasma pressure limits under magnetic confinement are of interest as a basic physics topic, and have practical implications for the economic attractiveness of future fusion reactors. These studies started at UW-Madison with the small MFDUSA experiment, and are now concentrated in the Pegasus Toroidal Experiment program. The Pegasus project uses unique high-stress magnet technology to access plasmas with near-unity aspect ratio, which in turn allows ready access to relatively high pressure plasma conditions. The focus of the program is on the current and pressure stability limits in this low-aspect regime. Additional areas of interest in the Pegasus program include: the use of plasma current injectors to initiate high temperature plasmas without the need for a strong solenoidal induction magnet; studies of radiofre-

quency waves and their interactions with confined plasmas to heat and sustain the plasma; and unique diagnostic measurements for these low-field and relatively high-density plasma conditions.

In making the announcement, DOE Under Secretary Raymond Orback issued the following letter:

Dear Colleague,

I am pleased to announce the appointment of Dr. Raymond J. Fonck to be the Associate Director of the Office of Fusion Energy Science (OFES) in the Department's Office of Science. Ray will formally assume the role of Associate Director on March 1, 2007.

Ray is joining the DOE from the University of Wisconsin-Madison, where he held the position of Steenbock Professor of Physical Sciences. A recognized leader in the fusion field, Ray was appointed to chair the Burning Plasma Organization; established to orchestrate community input for U.S. participation in the International ITER Project, and provide advice on the future of fusion energy. He was named Chief Scientist for the new U.S. ITER project office earlier this year. Ray is the recipient of several awards, including the Fusion Power Associates 2004 Leadership Award. He has also published over 180 journal publication on fusion plasma science and measurements.

Ray joins OFES at a very exciting time for fusion energy research: the U.S. is embarking on an international collaboration to build the world's first fusion reactor designed to achieve and sustain a burning plasma (a self-sustaining fusion reaction): ITER. He will be responsible for the US participation in ITER, ensuring that the U.S. appropriately directs fusion research resources to maximize the benefits derived from ITER.

I am very pleased that we were able to attract the highest quality person to manage our fusion program, and would like you all to welcome Ray as he joins the Office of Science.

## FY2008 Budget Request

President Bush submitted his FY 2008 Budget Request to Congress on February 5. The President requested \$4.4 billion for the Department of Energy Office of Science, compared to \$3.6 billion actual in FY 2006 and a presumed level of \$3.7 billion in FY 2007. Congress has not yet passed the FY 2007 appropriation.

For the DOE's Office of Fusion Energy Sciences (OFES), the President asks for \$428 million, in-

cluding \$160 for the international ITER project and \$268 million for the domestic fusion program. This compares to \$25 million and \$60 million for ITER in FY 2006 and (assumed) FY 2007, respectively and \$257 and \$259 million for the domestic fusion program in FY 2006 and (assumed) FY 2007, respectively. The \$60 million in FY 2007 and \$160 million in FY 2008 for ITER are in agreement with an ITER spending profile submitted to Congress in 2006.

The proposed \$9 million increase in the domestic fusion program would be split roughly equally between increases for the three major facilities (D-IIID, Alcator C-Mod and NSTX) and the balance of the domestic program. This would provide the balance of the domestic program with an approximate cost-of-living increase of around 3%

In addition to funding fusion within the Office of Science, the U. S. Department of Energy also funds inertial confinement fusion within its National Nuclear Security Administration (NNSA). Most of this funding is budgeted under the heading "Inertial Confinement Fusion Ignition and High Yield Campaign" but some is also budgeted under the heading "Science Campaign," which is budgeted for a total of \$273 million. Fusion-related research within the latter amount is impossible to determine from the budget document.

The total requested by the President for FY 2008 for the first category is \$412.259 million, compared to \$543.582 actual in FY 2006 and \$451.191 requested by the President for FY 2007. The 2007 numbers are uncertain since the Congress has not yet passed an appropriation for FY 2007. The primary reason for the reduction is the winding down of NIF construction funding (from \$140M in 2006 to \$10M in 2008). Increases are proposed for preparations for NIF operations. A new Joint (with the DOE Office of Science) Program in High Energy Density Laboratory Programs is budgeted at \$3.2 million.

As in the past, the DOE NNSA does not ask for continued funding for congressionally mandated programs in repetitively pulsed lasers and z-pinches, which are of great interest for potential civilian application for fusion power plants. These programs were funded at a level of \$47.52M in FY 2006 and have been funded at a reduced level so far in FY 2007, pending final congressional action.

The NNSA budget can be accessed at <http://www.cfo.doe.gov/budget/08budget/Start.htm> and look at Volume 1 NNSA.

## DOE Allocates FY 2007 Funds

In mid-February, the US Congress passed a Continuing Resolution (CR) funding the US government through September 30, 2007. The CR held most government programs (with some exceptions) to their FY 2006 levels but provided agencies broad authority to redistribute funds among sub-program elements. The US Department of Energy (DOE) was provided \$23.6 billion, approximately the same as it received in FY 2006. On March 16, the DOE sent to Congress its planned distribution. The plan provides the Office of Fusion Energy Sciences with \$319 million, an increase of \$38 million over FY 2006 and equal to the President's original FY 2007 request. The DOE Office of Science receives \$3.8 billion, an increase of \$200 million over FY 2006.

Within DOE, the National Nuclear Security Administration (NNSA) weapons programs receives \$6.3 billion, an increase of approximately \$100 million over FY 2006. Within NNSA, the Inertial Confinement Fusion Ignition and High Yield Campaign will receive \$490 million, a decrease of \$54 million from FY 2006. This decrease is partially offset by the tailing off of NIF construction costs by \$29 million. However, within the category, funds for Inertial Fusion Technology are decreased to \$26.4 million, from \$47.5 million in FY 2006. This category provided funds in FY 2006 to support the High Average Power Laser (HAPL) program (\$24.74 million, Naval Research Laboratory (\$14.85 million), extended operations of Z facility (\$5.94 million) and Ohio State University (\$1.98 million).

The DOE also provided increases over FY 2006 to other programs, including Nuclear Energy (increase of \$41 M), Coal (increase of \$59 M), High Energy Physics (increase of \$54 M), Nuclear Physics (increase of \$65 M), Basic Energy Sciences (increase of \$140 M), Hydrogen Technology (increase of \$40 M), Solar Energy (increase of \$77 M), and Wind Energy (\$11 M).

## ITER News

Preparation of the ITER site in Cadarache, France, started January 29, 2007. Tree felling on the first 75 hectares will be carried out before the end of March. Work to enable the erection of a provisional fence will should be completed in April.

On February 3, 2007, in Tokyo, the European Union (EU) and the Japanese government signed the "Broader Approach" agreement that was initiated in November 2006. This agreement defines a "privileged partnership" between the EU and Japan to collaborate on other fusion activities to comple-

ment ITER. The activities are expected to cost about 340 million Euros over 10 years. Three large projects will be carried out in Japan under this agreement: design of an international fusion materials test facility; the establishment of an international fusion energy research center; and an upgrade of the JT-60 tokamak. Participation in each research project will be open to the other ITER Parties.

The Design Review of ITER was started in November 2006. Since then a series of meetings have been taking place within and between eight Working Groups. A work plan to resolve remaining ITER design issues will be presented to a special Technical Advisory Committee in April.

China has established the ITER China Office affiliated with the Chinese Ministry of Science and Technology. The Office will soon be transformed into the Chinese ITER Domestic Agency, which will have legal responsibility for the implementation of Chinese ITER fusion activities.

ITER-India has launched a website at <http://www.iter-india.res>

An ITER Summer School in Tokamak Physics will be held 16-20 July 2007 at the Universite de Provence, France. The goal is to offer advanced graduate students and recent PhDs a more complete picture of both the theoretical and experimental aspects of tokamak physics.

Plans are underway to open the ITER International School in September 2007, to provide for the education of the children of families assigned to the ITER project.

The Dutch company DeMaCo has been awarded a contract by the European Fusion Development Agreement (EFDA) for the construction of a full scale prototype of the ITER cryogenic vacuum pump over the next 18 months. ITER will contain ten such pumps.

More information on ITER progress is available at <http://www.iter.org>. A subscription to the monthly ITER newsletter can be obtained without charge by sending a request to [mark.westra@iter.org](mailto:mark.westra@iter.org)

## FESAC Meeting Held

A meeting of the U. S. Department of Energy's Fusion Energy Sciences Advisory Committee (FESAC) was held March 1-2, 2007 at the Rio Washingtonian Marriott hotel in Gaithersburg, Maryland. FESAC is chaired by Stewart Prager of the University of Wisconsin. FESAC last met in June 2006.

The Department provided FESAC with a new charge: to "identify issues arising in a path to Demo, with ITER as a central part of that effort." FESAC is asked to "identify and prioritize the broad scientific and technical questions to be answered prior to a Demo; to assess available means (inventory), including all existing and planned facilities around the world as well as theory and modeling, to address these questions; and to identify research gaps and how they may be addressed through new facility concepts, theory and modeling." FESAC established a panel, under the chairmanship of Martin Greenwald (MIT) to address this charge and to report back by October 1. FESAC also reviewed a report from a panel under the chairmanship of Gerald Navratil (Columbia U.) previously charged "to conduct a review and rate the fusion program's progress towards achieving its long-range Program Assessment Rating Tool measures."

At the meeting, Fusion Power Associates president Steve Dean presented FESAC the following letter:

March 1, 2007

To: Stewart C. Prager, Chair, FESAC  
From: Stephen O. Dean, President, FPA

I heard that FESAC would interpret its new first charge to "identify issues arising in a path to Demo" as applying only to MFE. I think this would be most inappropriate and grossly unfair to IFE. I ask that you either interpret the charge to apply to both MFE and IFE or ask DOE to revise the charge.

I am providing a letter Ray Orbach sent to former FESAC member John Lindl three years ago in which he states "For MFE, funding for the energy relevant technology R&D will wait for the results of ITER. Similarly, for IFE, we will wait for the achievement of ignition and gain before investing in the technology required for energy applications." In that letter, Orbach also states, "The issue really is the degree to which our Fusion Energy Sciences program should become an energy development program. The Administration position on this issue is that now is not the time for us to invest in energy related R&D for either MFE or IFE." If this restriction is coming off for MFE via your charge, then it should also come off IFE simultaneously.

It would not be sufficient to just consider IFE in the second charge you are being given, as the report on that charge would come much later than the report on the first charge. It is definitely time to move ahead on post-ITER technology. But it is also time

to get ready to capitalize on the expected success of NIF.

Three years have passed and I heartily agree that it is time to "identify issues arising in a path to Demo." I would remind the FESAC, however, that NIF is expected to begin its ignition and gain campaign in 2010, many years before ITER achieves a burning plasma. Consequently, if the earlier restriction on energy related fusion R&D and Demo planning is coming off for MFE, it is even more appropriate that it be removed for IFE as well. I would also remind FESAC that, contrary to the implications of paragraph 2 of the charge letter, the community consensus reached at the Snowmass meetings applied to the role, needs and promise of both MFE and IFE and not just MFE.

I suggest that you ask that the opening sentence of the third paragraph of the new charge letter be revised (or interpreted) to read as follows: "To assist planning for the ITER/NIF era, it is critical that FESAC identify the issues arising in a path to Demo, with ITER and NIF as central parts of that effort."

Information on FESAC meetings and reports are posted at  
<http://www.ofes.fusion.doe.gov/fesac.shtml>

## Zinkle Receives Lawrence Award

Steven J. Zinkle (Oak Ridge National Laboratory) has been named a winner of the Department of Energy's Ernest Orlando Lawrence Award, which honors mid-career scientists and engineers for exceptional contributions in research and development. He has long been responsible for the development of reduced-activation materials that one day may be used as structural materials for fusion power plants.

Zinkle, a UT-Battelle Corporate Fellow and director of ORNL's Materials Science and Technology Division, is a materials scientist whose work has focused on physical metallurgy of structural materials and the investigation of radiation's effects on ceramic materials and metallic alloys for fusion and fission reactors and space reactor systems.

"These brilliant scientists and their varied and important research inspire us," Secretary of Energy Samuel Bodman said. "Their work reminds us of the importance of continued investment in science and the need for increased emphasis on basic research and math and science education programs."

More information on the E.O Lawrence Award is available at the DOE website:

<http://www.energy.gov/news/4769.htm>.

Zinkle's award for nuclear technology, one of eight Lawrence Awards, cites his work in broadening the understanding of performance limits on materials subjected to extreme, highly radioactive environments such as those found in nuclear reactors and reactor-powered spacecraft.

"This Lawrence Award is terrific news for both Steve and ORNL," said ORNL Director Jeffrey Wadsworth. "Steve's achievements illustrate the critical importance of the materials sciences to the nation's competitiveness in an increasingly global economy."

The award is named for E.O. Lawrence, the Nobel-prize winning scientist whose inventions include the cyclotron and the calutron, the latter of which was critical to the success of the wartime Manhattan Project.

A graduate of the University of Wisconsin with a doctorate in nuclear engineering and at master's degree in materials science, Zinkle arrived at ORNL in 1985 as a Eugene Wigner fellow. He became leader of the laboratory's nuclear materials & science technology group in 2001. He was named director of the Materials Science & Technology Division in 2006.

A native of Wauzeka, Wisc., Zinkle is the author or coauthor of more than 200 peer-reviewed publications. He is a fellow of the American Ceramic Society and ASM International.

Zinkle joined ORNL in 1985 as a Wigner fellow. He earned bachelor's and master's degrees and a doctorate in nuclear engineering, as well as a master's degree in materials science, from the University of Wisconsin. He and his wife, Teresa, reside in Knoxville. They have two sons.

## Van Dam to Head Burning Plasma Organization

The U. S. Department of Energy's Office of Fusion Energy Sciences (OFES) has named Dr. James W. Van Dam (U. Texas) as the next Director of U.S. Burning Plasma Organization, succeeding Raymond Fonck (U. Wisconsin), effective February 1. The announcement was made by Thomas J. Vanek, Acting Associate Director for Fusion Energy Sciences, DOE Office of Science. Fonck was subsequently named to head the Office of Fusion Energy Sciences (OFES). That office had been without a permanent head since the retirement of Dr. N. Anne Davies in April 2006.

Dr. Van Dam is currently the Director of the Institute of Fusion Studies at the University of Texas at Austin. He received his Ph.D. from UCLA in 1979 and has been at the Institute of Fusion Studies since its inception in 1980. He has been director of the Institute since 2003. He is a Fellow of the American Physical Society and a member of Fusion Power Associates Board of Directors.

He can be reached at vandam@physics.utexas.edu

## New Posts in US Burning Plasma Organization

Jim Van Dam, leader of the U. S. Burning Plasma Organization (BPO) has announced that the following persons will serve in leadership positions for the US Burning Plasma Organization.

Deputy Director: Dr. Charles Greenfield (GA) Assistant Director for ITER Liaison: Dr. Nermin Uckan (ORNL) Council Chair: Dr. Amanda Hubbard (MIT) Council Vice-Chair: Dr. Michael Zarnstorff (PPPL)

Chuck Greenfield will take over as Deputy Director from Tony Taylor. There will be a transition period until May 1, during which the responsibilities for this position will be transferred from Tony to Chuck. Chuck had been serving as the leader of the Topical Group on Steady-State Operation. Tony has been named Director of the DIII-D National Fusion Program.

Nermin Uckan will assume the new position of Assistant Director for ITER Liaison. She also serves as leader of the Topical Group on Fusion Engineering Science.

In addition, Emily Hooks (512-471-1485, ehooks@mail.utexas.edu) will take over as US-BPO Administrator from Joan Welc-LePain.

For further information:

Dr. James W. Van Dam  
Director, US Burning Plasma Organization  
512-471-1322  
vandam@physics.utexas.edu

The functions of the Burning Plasma Organization are described at <http://burningplasma.org>

## New Assignments in DOE Fusion Office

The following "new assignments" of responsibility within the US DOE Office of Fusion Energy Sciences (OFES) have recently been announced.

Dr. Francis Thio will be responsible for the initiation of a joint program with the National Nuclear Security Administration in the area of High Energy Density Physics (HEDP) as well as retaining responsibility for the current HEDP program. Dr. Thio will also assume responsibility for the one (of two) basic fusion science center that does HEDP related work--the Center for Extreme States of Matter and Fast Ignition Physics led by the University of Rochester.

Dr. Sam Barish will take over as team leader of the ICCs program. He is currently responsible for the stellarator program, which is a major element of the ICCs program and he will also assume responsibility for some additional ICCs.

Dr. T.V. George will take over responsibility for a number of the ICCs.

Mr. Barry Sullivan will take over responsibility for the heating and fueling programs in the Enabling Technologies program. However, because of Dr. George's significant knowledge of these programs, he will work to mentor Mr. Sullivan during a transition phase of a few months after which, Mr. Sullivan will take over full responsibility. During this mentoring process, both individuals should receive correspondence on these programs and will make decisions on a mutual basis. After this mentoring period, Mr. Sullivan will become the sole program manager having responsibility for these programs. In addition, Mr. Sullivan will be responsible for organizing the annual OFES budget planning meeting, starting next year, as well as taking over immediately as the OFES Small Business Innovative Research coordinator.

Dr. John Mandrekas, a recent addition to the OFES staff, will assume the role of program manager for the Scientific Discovery through Advanced Computing (SciDAC) and Fusion Simulation Project activities.

Dr. Rostom Dagazian will retain his role as program manager for some of the SciDAC projects. He would also assist Dr. Mandrekas during the transfer of responsibility. He would become deputy team leader of the theory team and would take on more responsibility in managing the theory program.

Specific allocation of responsibilities for the ICCs program will be determined soon in discussions between management and all OFES staff that have responsibility in this program area.

These changes represent the initial response to position the program for what promises to be a very exciting time for fusion energy. There will be personnel additions to address the ramp up in ITER as well as to fill potential gaps in staffing.

## Washington Fusion Day

Many members of the U. S. fusion community gathered in Washington for Fusion Day Thursday, February 15. This annual event provides an opportunity to visit with Members of Congress and congressional staff and to provide a coordinated message to them on progress in fusion.

## Decker, Garman, Sullivan, LLC

The following press release was issued February 1 by the new consulting firm Decker Garman Sullivan, LLC.

Decker Garman Sullivan  
500 Montgomery Street, Suite 400  
Alexandria, VA 22314.  
703-647-6225

Washington, DC - February 1 - Former Under Secretary of Energy David K. Garman has joined two of the Department of Energy's most distinguished and honored Career Senior Executives, Dr. James Decker and Mr. John Sullivan, to form a new federal relations and management consulting firm, DECKER GARMAN SULLIVAN, LLC.

These three experts, with 91 years of combined government experience, blend rich knowledge of science, technology, energy and environment with an intimate understanding of the federal agencies, the White House, and Capitol Hill. Their aim is to provide their clients with unparalleled strategic and government relations guidance.

The Honorable David Garman-the former Under Secretary of Energy and former Assistant Secretary for Energy Efficiency and Renewable Energy-is an internationally known expert in clean energy technology. Since 2001, Garman has played a leading role in developing and implementing major Presidential initiatives, including FreedomCAR, the Hydrogen Fuel Initiative, and the Advanced Energy Initiative. In addition to these successful efforts, Garman was called upon to represent the United States Government at key international meetings and negotiations; and to testify before an unprece-

ented forty-seven Congressional hearings from 2001-2006. Before joining the Administration in 2001, Garman honed his highly regarded political, administrative and legislative abilities in service to two United States Senators and two Senate Committees during a 21-year career on Capitol Hill.

"Our goal is simple," Garman said. "We want to put our past experience to work with innovative companies to shape the future. To that end, there is no better team I could join than one that includes John Sullivan and Jim Decker."

Dr. James Decker is internationally recognized for excellence in the management of scientific research and government laboratories. Dr. Decker led the Department of Energy's Office of Science, one of the premier scientific organizations in the world, as its senior career executive for 21 years. In that capacity, he was responsible for research programs spanning nearly every scientific discipline, 10 federal laboratories and construction of major scientific facilities.

"We believe we offer our clients something different," said Decker. "We understand science. We understand technology. We understand Capitol Hill. We understand Federal Agencies. We can provide our clients with legislative advice, and we can convey highly technical, scientific information to Capitol Hill or federal agencies in a way that it can be understood and acted upon."

Mr. John Sullivan was one of the foremost management innovators in government service-a recognized expert in strategic planning, management innovation, and program management. Like Dr. Decker, John Sullivan is a recipient of the Presidential Rank Award, the highest award in the Senior Executive Service.

"Our blend of talent and breadth of perspective makes us different," said Sullivan. "Whether you aim to work with top-level officials to shape a policy, or engage deep in the agencies where policy is implemented, we can help."

Decker Garman Sullivan, LLC is located in Old Town Alexandria, minutes from Capitol Hill and Reagan National Airport, at 500 Montgomery Street, Suite 400, Alexandria, VA 22314. They may be reached at 703-647-6225; their email addresses are as follows:

Decker@DeckerGarmanSullivan.com  
Garman@DeckerGarmanSullivan.com  
Sullivan@DeckerGarmanSullivan.com

## INVITATION TO JOIN FUSION POWER ASSOCIATES

**Fusion Power Associates** is a non-profit scientific research and educational foundation, established in 1979 to advocate policies that will bring the benefits of fusion energy to the general public. This goal is sought by

- Providing policy leaders with timely, accurate information on the status of fusion development and providing an independent perspective on the significance of technical accomplishments and their impact on the pace of the program.
- Hosting an annual meeting and symposium that brings together fusion personnel and others to share information on fusion and its relation to other energy programs.
- Providing email Fusion Program Notes on fusion issues and progress
- Issuing an Executive Newsletter and Fusion Power Report.
- Providing Awards to recognize contributions to fusion development.
- Serving as Editor for the Journal of Fusion Energy (Springer Publications).
- Maintaining a web site (<http://fusionpower.org>) with extensive links to information and other sites.

**Fusion Power Associates** does not "take sides" among the various approaches to fusion, but advocates a broad-base program on a variety of approaches to fusion power and encourages international collaborations and collaborations among laboratories, universities and industry.

Email: [fusionpwrassoc@aol.com](mailto:fusionpwrassoc@aol.com)

### Calendar

Mar 5-9 3<sup>d</sup> International Conference on Frontiers of Plasma Physics and Technology. Bangkok, Thailand. Contact: [desai@mib.infn.it](mailto:desai@mib.infn.it)

Mar 16-22 6<sup>th</sup> Astrophysics Conference on Turbulence and Nonlinear Processes in Astrophysical Plasmas. Hawaii. Contact: [dastgeer@ucr.edu](mailto:dastgeer@ucr.edu)

Apr 23-25 International Sherwood Theory Conferent. Annapolis, Maryland.  
[http://www.psf.mit.edu/research/alcatraz/sherwood2007\\_sherwood.html](http://www.psf.mit.edu/research/alcatraz/sherwood2007_sherwood.html)

Apr 24-27 Inertial Fusion Energy Strategy Workshop. San Ramon, California, USA. Contact: Ed Synakowski: [synakowski2@llnl.gov](mailto:synakowski2@llnl.gov)

May 2-4 8<sup>th</sup> International Reflectometer Workshop. St. Petersburg, Russia. Contact: E. Gusakov: [irw8@mail.ioffe.ru](mailto:irw8@mail.ioffe.ru)

June 3-8 13<sup>th</sup> International Conference on Emerging Nuclear Energy Systems. Istanbul, Turkey.  
<http://www.icenes2007.org>

June 10-13 3<sup>rd</sup> International Workshop on Cold Atmospheric Pressure Plasmas. Ghent, Belgium.  
<http://physics.Ugent.be/cappsa>

June 17-22 Pulsed Power and Plasma Science 2007 and Symposium on Fusion Engineering (SOFE). Albuquerque, New Mexico, USA.  
<http://www.ece.unm.edu/ppps2007> and  
<http://sofe22.sandia.gov>

### **FUSION POWER REPORT**

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