



U.S. Burning Plasma Organization e-News
April 15, 2008 (Issue 19)

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Dear Burning Plasma Aficionados:

This newsletter provides a short update on U.S. Burning Plasma Organization activities. E-News is also available online at <http://burningplasma.org/enews.html>. Comments on articles in the newsletter may be sent to the editor (R. Nazikian mnazikian@pppl.gov) or assistant editor (Emily Hooks ehooks@mail.utexas.edu).

Thank you for your interest in Burning Plasma research in the U.S.!

Director's Corner by J. Van Dam

USBPO topical group leadership: Last month we announced several changes in the membership of the USBPO Council and the leadership of two of the topical groups. This month we are pleased to note that Don Spong (ORNL) has become the new deputy leader for the Energetic Particles Topical Group. Welcome, Don.

STAC-3 Meeting: The Science and Technology Advisory Committee (STAC) of the ITER Council held its third meeting last week, April 7-9, in Cadarache, France. The US representatives of the STAC are Erol Oktay (OFES), Rob Goldston (PPL), Tony Taylor (GA), Stan Milora (ORNL), and yours truly. To prepare for the meeting, the US ITER Project Office (with thanks to Brad Nelson) and the USBPO organized a marathon videoconference briefing session on March 27, which lasted for most of the day. A number of US scientists who are actively involved in the international effort through the 13 STAC Issues Working Groups to address key issues with the ITER baseline design presented summary-form updates about this work to the US STAC members. We sincerely thank everyone who prepared and presented these summaries, which were very useful. The STAC-3 meeting last week was attended by 29 representatives from the seven

international ITER partners (China, European Union, India, Japan, Korea, Russian Federation, and the United States). On the first day of the meeting, we first heard two overview talks: an update about the ITER status given by Director-General Kaname Ikeda and a summary of recommendations on STAC issues given by Principal Deputy Director-General Norbert Holtkamp. The rest of the day was devoted to presentations given by ITER technical staff members on each of the STAC issues: namely, ELM control, remote handling, divertor armor strategy, 17 MA discharge capacity, coil cold testing, vacuum vessel and blanket loading condition, test blanket modules strategy, hot cell design, and heating/current drive/diagnostics/research plan. Being gluttons for information, the entire morning of the following day was spent hearing 16 further presentations (brief!) that had been prepared overnight in response to questions raised by STAC members on Monday. During the remainder of Tuesday and all day Wednesday, the STAC concentrated on producing a written report—which it was able to do under the able leadership of its chair, Prof. Predhiman Kaw (India). Overall, the STAC endorsed the ITER Organization’s approach to solving the key issues for the updated baseline design. This report, along with the report to be written at the STAC-4 Meeting (May 19-21) concerning the overall project schedule and cost in reference to its design requirements and technical objectives, will be submitted to the ITER Council, which is the governing board for the ITER international project, at its upcoming meeting in June. A short blurb reporting about the STAC-3 Meeting can also be found in the latest issue of the *ITER Newslines* (<http://www.iter.org/newsline/issues/current/ITERnewsline.htm>).

ITER Project Update: Every morning as the bus carrying the STAC representatives turned into the driveway leading to the conference rooms at the Cadarache Chateau, we could see a large sign on the opposite side of the road proclaiming “Chantier ITER,” the new building site for this huge project. For your interest, a photo of the building site (chantier), borrowed from DG Ikeda’s STAC-3 talk, is reproduced below:



The CEA Cadarache Laboratory is visible in the background (upper right). Leading off the main road from the laboratory (right, top to bottom) is the side road (top, right to left) that goes to the new ITER site (left center), where the ground is being cleared and prepared for the start of construction. Director-General Ikeda also reported that as of

March 31, ITER has a staff of 188 professionals and 67 support personnel and is still growing. Two scientists from the US have recently accepted positions at ITER: Wayne Houlberg (formerly ORNL) moved to ITER a few months ago, and Joe Snipes (MIT) will move there this summer.

Integrated modeling needs for ITER: During the recent Annual Meeting of the US Transport Task Force (March 5-28, Boulder, CO), a special town meeting was held in the evening of the second day, at which the needs of the ITER project for integrated modeling work were described. First, Chuck Greenfield, USBPO deputy director, talked about “Working with ITER: Where do we go from here?” Then Wayne Houlberg, a senior scientist in the Fusion Science and Technology Department of ITER, spoke about “Coordination of the ITER research program between the ITER IO and the ITER parties.” Specifically, Houlberg discussed the implementation of ITER physics activities through the ITPA organization (for longer-term research) and by means of official task agreements (for short-term research deliverables). He also described a new program for visiting researchers to ITER, in addition to the postdoctoral program (mentioned last month in *eNews*). Finally he announced the establishment of an Integrated Modeling Advisory Group, to include representatives from each of the ITER Parties, who would be asked to give advice to ITER about infrastructure, network, standards, and applications and also to coordinate development and application tasks among the Parties. Both of these talks are posted on the USBPO web site (go to Reference Files and then to USBPO Presentations and ITER Presentations, respectively).

🔊 **Announcements**

USBPO Council election

Right now we are soliciting nominations for the 2 open seats on the Council. As specified in the USBPO Bylaws, the Council has 12 regular members who serve staggered terms of 3 years each. Council members cannot serve consecutive terms. Elections for Council members are to be held annually to replace half of the members whose terms are ending. The remainder of the open Council seats will be filled by appointment. Please send your nominations to Craig Petty (petty@fusion.gat.com), chair of the nominating committee, by April 18.

Logo Re-design

Our USBPO administrator, Emily Hooks, is working with a professional graphics artist to re-design the USBPO logo. The current logo portrays the fusion reaction of deuterium and tritium as a collision event. Our esteemed former USBPO director, Ray Fonck, currently the associate director for the Office of Fusion Energy Sciences, once remarked tongue-in-cheek that the logo does not conserve momentum—which only a physicist would notice. If you have any ideas for a graphical element that captures the essence of “burning plasma,” please let us know.

Submit BPO-related announcements for next month’s eNews to Raffi Nazikian at rnazikian@pppl.gov.

2008 BPO-Related Meetings

Apr 12-15

[International Conference on HEDP/HEDLA-08](#)

St. Louis, MO

Apr 15-17

ITPA SSO Topical Group Mtg

Boston, MA

Apr 15-18

ITPA Diagnostics Topical Group Mtg

Lausanne, Switzerland

Apr 22-25

ITPA TP, CDBM Topical Group Mtg

Oakridge, TN

Apr 28-30

ITPA Ped Topical Group Mtg

San Diego, CA

May 5-6

[PRC Magnetic Fusion Collaboration Wksp](#)

Austin, TX

May 11-15

[17th High-Temperature Plasma Diagnostics Conference](#)

Albuquerque, NM

May 12-16

[6th Int'l Symp on Non-Thermal Plasma Technology](#)

Taipei, Taiwan

May 15-16

[Magnetics 2008 Conference](#)

Denver, CO

May 18-23

[5th Int'l Conf on Physics of Dusty Plasma](#)

Ponta Delgada, Azores, Portugal

May 26-28

[18th Int'l Conf on Plasma Surface Interactions in Controlled Fusion Devices \(PSI-18\)](#)

Toledo, Spain

Jun TBD

ITPA CC Topical Group Mtg

Location TBD

Jun 8-12

[ANS Annual Meeting](#)

Anaheim, CA

Jun 9-13

[35th EPS Conference on Plasma Physics](#)

Hersonissos, Crete, Greece

Jun 15-19

[35th IEEE International Conference on Plasma Science \(ICOPS2008\)](#)

Karlsruhe, Germany

Jun 15-19

[23rd Symposium on Plasma Physics and Technology](#)

Prague, Czech Republic

Jun 24-27

[Innovative Confinement Concepts](#)

Reno, NV

Jul 6-11

[17th Int'l Conf on High-Power Particle Beams \(BEAMS'08\)](#)

Xi'an, China

Jul 13-20

[37th Scientific Assembly of the Committee on Space Research and Associated Events \(COSPAR 2008\)](#)

Montreal, Canada

Jul 15-19

[19th Europhysics Conf on the Atomic and Molecular Physics of Ionized Gases \(ESCAMPIG-2008\)](#)

Granada, Spain

Jul 27-Aug 2

[7th International Wksp on Strong Microwaves: Sources and Applications](#)

Nizhny Novgorod, Russia

Aug 25-29

[24th Summer School & International Symp on the Physics of Ionized Gases](#)

Novi Sad, Serbia

Sep 1-4

[13th EU-US TTF Wksp](#)

Copenhagen, Denmark

Sep 8-12

[Int'l Congress on Plasma Physics](#)

Fukuoka, Japan

Sep 15-18

[ITPA SolDiv Topical Group Mtg](#)

Japan

Sep 15-19

[25th Symp on Fusion Technology \(SOFT\)](#)

Rostock, Germany

Sep 22-27

[Int'l Conf & School on Plasma Physics & Controlled Fusion and 3rd Alushta Int'l Wksp on the Role of Electric Fields in Plasma Confinement in Stellarators and Tokamaks](#)

Crimea, Ukraine

Sep 25-27

[18th IAEA Technical Mtg on Research using Small Fusion Devices](#)

Crimea, Ukraine

Sep 28-Oct 2

[18th ANS Topical Mtg on the Technology of Fusion Energy](#)

San Francisco, CA

Sep 29-Oct 2

[coNuSS 2008](#)

Belgrade, Serbia

Oct 12-18

[22nd IAEA Fusion Energy Conf - 50th Anniversary of Controlled Nuclear Fusion Research](#)

Geneva, Switzerland

Oct 20-25

[11th Int'l Conf on Electrostatic Precipitation \(ICESP-XI\)](#)

Hangzhou, China

Oct 20-22

ITPA CBDM, Transport, and Pedestal & Edge Physics Mtgs

Milan, Italy

Oct 20-22

ITPA MHD Topical Group Mtg

Lausanne, Switzerland

Oct 20-23

ITPA SSO Topical Group Mtg

Location TBD

Nov TBD

ITPA/IEA Joint Experiment Coordination Mtg

Location TBD

Nov 9-13

[ANS Winter Meeting](#)

Reno, NV

Nov 17-21

[50th APS-DPP](#)

Dallas, TX

Nov 23-25

MHD Control Wksp

Austin, TX

Nov/Dec TBD

ITPA Diagnostics Topical Group Mtg

IPR, India

Please submit your 2008 events to Emily Hooks at ehooks@mail.utexas.edu. For more Fusion Research-related events, visit the USBPO Upcoming Events page online at <http://burningplasma.org/events.html>.