

The Burning Issues:
U.S. Burning Plasma Organization e-News

March 13, 2006
from Ray Fonck, USBPO Director

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Dear Burning Plasma Aficionado:

This note is being sent to give you a short update on U.S. Burning Plasma Organization activities.

We have been a bit quiet publicly during the past several weeks as we've worked on infrastructure issues and pursued some internal tasks that were agreed to at the Workshop.

I plan to start sending out periodic updates of activities to keep you in the loop if you wish. In particular, we will be establishing a general announcement e-mail list in the next week or two, and will ask that you put your name on the list if you wish to be kept informed. I will send you a note when the web site will allow you to sign up for these updates. We will automatically include those who have already signed up via the Topical Groups.

In the meantime, I am sending this short update to everyone who signed up for Topical Group activity and those who participated in the BP workshop in ORNL in Dec. 2005. Please feel free to forward to colleagues if they are interested.

These news notes will also be posted on the BPO website at <http://burningplasma.org/news/>

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

Ray Fonck

1) BURNING PLASMA WORKSHOP HELD AT ORNL

The first USBPO-sponsored Workshop on Burning Plasmas was held at ORNL on Dec. 7-9, 2005. It had 140 registered attendees and remote log-ins to the Plenary and Summary sessions from up to 20 institutions. It was quite successful in identifying Burning Plasma issues and concerns for the U.S. fusion community and in furthering the discussion of how the USBPO should evolve. Talks from the Plenary and Summary sessions, as well as the 2-page summaries from each Breakout Group, are available on the USBPO web site at: <http://burningplasma.org/>.

2) DIRECTORATE EXPANDED

The management arm of the USBPO has been expanded, and now includes:

Director	Raymond Fonck (U Wisconsin)
Deputy-Director	Tony Taylor (GA)
Administrator	Joan Welc-LePain (U Wisconsin)
Communications	James DeKock (U Wisconsin)

The Directorate acts to facilitate definition, participation, and execution of BP research activities. It will also include leaders of the BPO Working Groups as they become established.

I wish to welcome Tony, Joan, and Jim to this team. Their help has already been invaluable!

If you have any questions about USBPO issues, please feel free to contact us. Joan will act as our central contact point and can be reached at:

Joan Welc-LePain
lepain@burningplasma.org
(608) 263-2352

3) FIRST USBPO COUNCIL ESTABLISHED

We are happy to announce that the following members of the U.S. fusion research community have agreed to serve on the first USBPO Council:

Chair	James VanDam (U Texas)
Vice-Chair	Amanda Hubbard (MIT)

Steven Allen (LLNL)	David Petti (INEEL)
Steven Cowley (UCLA)	Craig Petty (GA)
Richard Hawryluk (PPPL)	Thomas Rognlien (LLNL)
Earl Marmar (MIT)	John Sarff (U Wisconsin)
Gerald Navratil (Columbia)	George Tynan (UCSD)
Martin Peng (ORNL)	Michael Zarnstorff (PPPL)

ex-officio participants:

Raymond Fonck (U Wisconsin)	USBPO Director and USIPO Chief Scientist
Stanley Milora (ORNL)	US ITER Project Office Chief Technologist
Gene Nardella	OFES BP Technology Program Manager
Erol Oktay	OFES BP Science Program Manager

The Council is expected to be the advisory body of the USBPO, and provide research community governance of the USBPO. It will help set policy, create a charter and procedures, provide guidance of activities, and serve as a central conduit for community input into USBPO activities. While the details await discussions of the BPO Charter, we expect Council seats to be held for 3 years, with rotation of 1/3 of the Council each year.

4) TOPICAL GROUP FORMATION STARTING

As we discussed at the Workshop at ORNL, we will begin establishing the basic technical working groups of the USBPO over the next several weeks. The outcome of those Workshop discussions is that 10 Topical Groups will be established. They are:

MHD, Macroscopic Plasma Physics
Confinement and Transport
Boundary
Plasma-Wave Interactions
Energetic Particles
Fusion Engineering Science
Modeling and Simulation
Operational Scenarios and Control
Diagnostics
Integrated Scenarios

Many members of the U.S. fusion research community have already expressed their interests in these groups by registering at the web site <http://burningplasma.org/jointopical> and we encourage anyone in the community with interest to do so.

We will identify 2 or 3 coordinators for each Topical Group. They will help the community organize each group, identify participants, and provide initial leadership of the Topical Groups.

We will follow this procedure to activate the Topical Groups:

1. Solicit suggestions and expressions of interest for nominees for Topical Group coordinators
2. A slate of candidates will be prepared by the Directorate and presented to the USBPO Council
3. The Council will review the suggested Topical Group leadership for expertise, balance, diversity, etc., and make recommendations as needed
4. A lead coordinator and 2 co-coordinators will then be chosen in consultation with OFES Program Managers

5. The Directorate will assist these coordinators in establishing their respective Topical Groups

PLEASE NOTE: NOMINATIONS ARE WELCOME !!

We are thus soliciting suggestions for individuals who can provide initial leadership for the Topical Groups. Self-nominations are also welcome.

Please send your suggestions and any comments to: Joan Welc-LePain at lepain@burningplasma.org.

We plan to begin identifying Topical Group Coordinators in about 2 weeks (last week of March), so timely nominations would be most appreciated.

I note that the Topical Groups are needed in the relatively near future to help address several issues, including, among other things:

- Define technical tasks to undertake in BP science and technology
- Execute those tasks or define procedures to do so
- Consider how to organize each area, and integrate BP interests within existing community activities
- Help as a community resource, as needed, for the upcoming FESAC study for Integrating U.S. and International Magnetic Fusion Research (see http://fire.pppl.gov/fesac_022806.htm)
- Help in identifying and executing ITER physics tasks
- Developing Burning Plasma Science and Technology presentations and literature
- Help as a community resource, as needed, for the development of a response to the Energy Policy Act of 2005 (discussed below)

So, there is plenty to do...

5) USBPO Director named U.S. ITER Project Office Chief Scientist, and VLT Director USIPO Chief Technologist

Status reports of the ITER project were presented to the recent FESAC meeting held in Gaithersburg, Maryland. Details can be obtained at http://fire.pppl.gov/iter_us_news.html.

Warren Marton, OFES, reported on the ITER Negotiations and Status of Agreement, while Ned Southoff, ITER Project Office Manager, presented an update on the Status of the U.S. ITER Project.

Ned described recent revisions in the U.S. Procurement Allocations for ITER, and discussed recent and near-term activities concerning U.S. contributions to the ITER Project. It was announced there that the positions of USIPO Chief Scientist will be filled by the USBPO

Director (Ray Fonck) and Chief Technologist will be the Virtual Laboratory for Technology Director (Stan Milora).

I note that the USBPO director and IPO Chief Scientist remain two independent positions, albeit held by one person for now. The BPO and IPO remain as parallel structures in the overall U.S. Burning Plasma Program. Having the USBPO Directorate coupled to the IPO via the Chief Scientist position enhances the communication between the U.S. fusion research community and the ITER project, both nationally and internationally. This provides our community a direct voice in ITER developments during these early days of the project construction and formation. These relationships and our communication with the ITER teams will certainly evolve as the ITER project and team evolve over the next several years.

6) USBPO asked to help develop response to Energy Policy Act

Dr. Anne Davies, Associate SC Director for Fusion Energy Sciences, has asked the USBPO to help develop a response to questions posed to DOE in the Energy Policy Act of 2005. In particular, DOE and OFES are required to develop a Plan, in consultation with the Fusion Energy Sciences Advisory Committee (FESAC), for the participation of United States scientists in ITER that include:

- (i) The U.S. research agenda for ITER;
- (ii) Methods to evaluate whether ITER is promoting progress toward making fusion a reliable and affordable source of power; and
- (iii) A description of how work at ITER will relate to other elements of the U.S. fusion program.

Dr. Davies has asked the USBPO to offer answers to these issues, to be delivered to OFES by June 30, 2006. A proposed approach for producing a report on these topics was presented by R. Fonck to the latest FESAC meeting. The USBPO management and OFES have established a Task Group to develop this Plan, which will be presented to FESAC and the USBPO Council for comment and review in early June.

The EPO Act Task Group members are:

Chair Raymond Fonck (U Wisconsin; USBPO)
Vice-Chair Edmund Synakowski (LLNL)

Charles Baker (SNL/UCSD)	Farrokh Najmabadi (UCSD)
Donald Batchelor (ORNL)	G. Hutch Neilson (PPPL)
Herbert Berk (UT)	William Nevins (LLNL)
Martin Greenwald (MIT)	Ronald Parker (MIT)
Richard Hawryluk (PPPL)	Ronald Stambaugh (GA)
Michael Mauel (Columbia)	Ted Strait (GA)
Dale Meade (PPPL)	

More information on this activity will be sent out in next two weeks as it gets established.

7) Technical Connection between ICC research and Burning Plasma research Discussion Forum created

Following a community discussion at the recent ICC Workshop in Austin, a group is being formed to consider the technical connections between Burning Plasma research activities and Innovative Confinement Concepts. The USBPO is glad to support this activity by providing communications support. To participate in this activity, please sign up via the USBPO web site at: <http://burningplasma.org/activities>

