

Meeting of the Council
US Burning Plasma Organization
September 15, 2006

Held by video conference call (11:00 am–12:30 am CST)

Council Members in Attendance:

James Van Dam—Chair

Amanda Hubbard—Deputy Chair

Steve Allen

Steve Cowley

Rich Hawryluk

Earl Marmar

Martin Peng

Dave Petti

Craig Petty

John Sarff

George Tynan

Mike Zarnstorff

Stan Milora

Ex Officio Members in Attendance

Ray Fonck—USBPO Director

Tony Taylor—USBPO Deputy Director

Erol Oktay

Unable to Attend:

Jerry Navratil

Gene Nardella

Invited Guest

Martin Greenwald

MINUTES

1. Overview of BPO Status

Ray Fonck and Tony Taylor presented an update about the status of the Burning Plasma Organization.

They discussed the structure of the USBPO.

- Directorate: The USBPO director and deputy director constitute the USBPO Directorate. They communicate on a daily basis.
- Council: The executive committee of the Council, which consists of the chair and the deputy chair, meets by telephone conference call approximately every other week with the Directorate members. Meetings of the full Council will be scheduled on a regular basis in the future.

- Research Committee: This committee consists of the Directorate and the leaders and deputy leaders of the Topical Groups. Tony Taylor chairs its meetings, which are being held every other week.
- Topical Groups: Approximately 260 scientists have signed up as members of the BPO Topical Groups. The groups meet mainly through email and through discussions on the USBPO Bulletin Board forum.

They also discussed recent activities of the USBPO:

- An ad hoc task force led by Ray Fonck wrote a report for OFES in response to the congressional Energy Policy Act. The report was about the initial plan for US participation in ITER.
- ITER has set up an international task force to investigate CODAC issues. Martin Greenwald is the US representative on this task force.
- The Research Committee handled the recent selection process for ITER physics tasks.
- The Research Committee will also coordinate ITER issue cards.
- A subcommittee of the Council has been set up to draft a charter for the Council.

Finally they discussed logistical matters:

- Meetings of the USBPO Topical Groups, Research Committee, and Council will follow the communication technology standards set by the ITER Project Office.
- The USBPO web site has a bulletin board forum. It is password-protected for access by members only. The web site will continue to evolve and improve.
- Several issues of the USBPO Newsletter have been published and circulated. The Directorate will attempt to publish on a more regular basis.

2. ITER Physics Tasks

Tony Taylor presented a report about the ITER Physics Tasks, the process by which they were solicited and selected, their present status, and the plans for moving forward on these tasks. He noted that he had given a talk about the selection of the ITER Physics Tasks at the Department of Energy in late August; this talk was summarized in the most recent issue of the USBPO e-News. The Physics Tasks selection process began with the gathering of background material for the Research Committee. Topical Group leaders then solicited input for possible ITER Physics Tasks from the membership of their groups. A list of 76 proposed tasks was compiled and put into common format. Based on a list of suggested metrics, the Research Committee then ranked the tasks and posted the top 14 tasks for discussion. After the list of tasks was prioritized, it was given to Ray Fonck and then forwarded to Ned Sauthoff (ITER Project Office).

Ray Fonck noted that the ITER Project Office and the Department of Energy had requested the USBPO to provide one or two persons to work with the ITER Central Team on defining the US Physics Tasks. These persons have not yet been identified. He also noted that, once specific Physics Tasks have been assigned to the US, the USBPO would be responsible for choosing scientists to work on these tasks.

3. CODAC Planning for ITER

Martin Greenwald (MIT) joined the meeting in order to report about his involvement in the ITER task group that is planning CODAC for ITER. Jo Lister (CRPP Lausanne) is the leader of this

group. The US participation in CODAC was organized into a USBPO task group. A workshop was held, with eleven US participants and Dr. Lister. The notes from this workshop are a formal ITER document. Dr. Greenwald noted that the US participants expressed interest in various CODAC activities at the workshop. Subsequently, some work has been done, although not as much as had been expected. Work should be moving again soon. The original schedule called for having this work done by the end of the year; however, the delays have probably delayed that schedule by 3-6 months. The chair thanked Dr. Greenwald for his report about this work and his involvement in it. Dr. Greenwald left the meeting.

4. ITER Issue Cards

Ray Fonck and Tony Taylor reported about the process by which the USBPO is identifying Issue Cards, which are part of the ITER design review process. This design review will not be a single event, but an ongoing process. Recently ITER issued a call for issues, based on the 2001 baseline reference design. The US ITER Project Office was asked to poll the US fusion community and find out what it issues it has with the design. Because quick turn-around was needed in order to meet the request for an initial list of issues by the end of August, the Directorate took the list of ITER Physics Tasks, adapted it, and posted it on the USBPO Bulletin Board. Currently, the Topical Group leaders are soliciting input from their members. The International Tokamak Physics Activity organization is also soliciting input, and there may be some overlap with the corresponding USBPO solicitation. Anyone in the fusion community is welcome to submit an Issue Card, although the USBPO is encouraging its members to do so through the Topical Groups. The ITER Project Office will apply some filtering and condensing to the submitted Issue Cards. It is best to submit Issue Cards as soon as possible, although this process may continue for a few years; the schedule is to submit another set of Issue Cards by the end of October. The Principal Deputy Director-General of ITER has stated that the disposition and review of every Issue Card will be documented. Ray Fonck encouraged the use of the Bulletin Board on the USBPO web site for discussions of ITER Issue Cards; he will set up a discussion area for each Issue Card on the Bulletin Board forum.

5. Energy Policy Act

Ray Fonck described how the USBPO had been involved in responding to the congressional Energy Policy Act. In March 2006 the Office of Fusion Energy Sciences asked the USBPO, in consultation with FESAC, to generate a report about US participation in the ITER program, in response to the request in the Energy Policy Act for such a report. The timing was such that the report had to be generated in only two months. A USBPO ad hoc Task Group was set up, comprised of senior scientists in the fusion community. A draft document was written; after being presented to FESAC, it was revised. The report was sent to the Office of Fusion Energy Sciences in June 2006, and subsequently the Department of Energy sent it to Congress. This report has been posted in the public Bulletin Board forum on the USBPO web site. Ray Fonck emphasized that this report is first try at analyzing US participation in ITER; a continuation of such planning is expected. The Energy Policy Act requires that the plan for US participation in ITER be reviewed by the National Academy. Ray noted that he has been asked to speak at the National Academy in November 2006, and that the USBPO may need to become involved with a review by the Academy. He also noted that the plan for US participation in ITER would be integrated within the context of the international ITER program. Ray mentioned that the Council might wish to sponsor a standing planning activity to further develop and refine this plan.

6. BPO Charter Subcommittee

George Tynan, chair of the USBPO Charter Subcommittee, gave an update about the progress of the subcommittee in drafting a charter for the USBPO. The members of the subcommittee are Amanda Hubbard, John Sarff, Martin Peng, Craig Petty, and George Tynan (chair). So far, the subcommittee has met twice by teleconference. The subcommittee has discussed issues such as the major components of a charter, the definition of the USBPO mission, the role of the USBPO in guiding the US program into a more integrated form, the relationship with other organizations (e.g., ITPA), the roles of the components of the USBPO organization (Directorate, Council, Research Committee, Topical Groups), the process of governance, the procedure for selecting Topical Group leaders and determining their terms, and the responsibilities of the Council relative to the Directorate. The subcommittee members have been given writing assignments for a first draft. The plan is to assemble a draft for the charter before the IAEA Conference (i.e., by the first week of October), then iterate once, and submit it to the Council later in October.

7. BPO Activities at the 2006 APS/DPP Meeting

Ray Fonck informed the Council about USBPO activities at the upcoming APS/DPP Meeting.

- He is scheduled to give a talk at the University Fusion Association meeting on Monday evening.
- He will also speak at the ITER Town Hall meeting on Tuesday evening, along with Norbert Holtkamp (ITER PDDG) and Ned Sauthoff (ITER Project Office head). He mentioned the possibility of the Topical Groups getting together following the ITER Town Hall meeting; Tony Taylor will discuss this with the Topical Group leaders. The Council suggested that Tony Taylor also discuss with the Research Committee the idea that Topical Group leaders meet informally with group members by means of an “ice breaker” reception at 9:30 p.m. on Tuesday evening following the ITER Town Hall meeting.
- Jim Van Dam will organize a Council luncheon, probably on Wednesday. He will try to reserve a private room at the conference hotel and make arrangements so that Council members can purchase a box lunch.

Ray Fonck suggested that the Council consider sponsoring a mini-workshop during the 2007 APS/DPP Meeting.

8. Miscellaneous

Jim Van Dam noted that no Council meeting would be held during the month of October, due to the IAEA Conference and the DPP Meeting. The next Council meeting will be scheduled in November.

He also noted that, in consultation with the Directorate, he is in the process of replacing Tom Roglien as a member of the Council, because Tom became a Topical Group deputy leader.

The meeting was adjourned.