

US Burning Plasma Organization
Meeting of the Council
November 18, 2008 — 12:45-1:55 pm CST
Hyatt Regency Dallas

Council Members in attendance:

C.S. Chang
Martin Greenwald
Rich Hawryluk
Amanda Hubbard – *Chair*
Martin Peng
Ed Synakowski
Tony Taylor
John Sarff
George Tynan
Mike Zarnstorff – *Vice Chair*

Ex-officio participants in attendance:

Erol Oktay – *USDOE*
Jim Van Dam – *USBPO Director and US ITER Chief Scientist*

Others in attendance:

Chuck Greenfield — *USBPO Deputy Director*
Nermin Uckan — *USBPO Asst. Director for ITER Liaison*
Earl Marmar

Unable to attend:

Bill Nevins
Mike Ulrickson
Stan Milora – *US ITER Chief Technologist*

Notes

1. Roll call

The meeting was called to order at 12:45 CST. Attendance was as noted above, with 10 of the current 13 voting members present for a quorum. No remote participation was used.

2. Review of minutes from October 8, 2008.

It was noted that draft minutes had been distributed a few days before the meeting. Since the time for review was short, Council members were given a further two weeks to send any comments or corrections.

3. Strategic Planning: Report from Subcommittee on US-ITER Participation

Earl Marmar reported on the progress of the panel. The report is nearing completion. Some comments had been received from Council members, as requested at the last

meeting, and they have tried to incorporate most of them. A revised draft was sent to Council members in advance of this meeting. In particular, a section on integrated simulations, suggested at the last Council meeting, was added to the last chapter. Other suggestions include referring in some fashion to the Research Needs Workshop (ReNeW) effort. The panel as a whole has not had sufficient opportunity to review and approve this report, and an Executive Summary will be added. Earl requested that any further comments be sent by early December, and will send a complete version to Council, and also the Research Committee, when it is available.

In discussion, Mike Zarnstorff asked how much this group had incorporated suggestions from the NRC CRISPP report. This will be considered, though some may be more appropriate for the OFES Strategic Plan. The use and distribution of the report was discussed. It was clarified that this will not be a FESAC report or an official response to Congress, but should be made widely available, for example on the USBPO website. It was noted that it will be a valuable resource for ReNeW, making timely completion important.

Action: Council members to send any further comments to Earl Marmar, by December 5

Action: Earl Marmar to distribute completed report to Council and Research Committee, by end December.

4. Update on USBPO activities and plans

USBPO Director Jim Van Dam and reported briefly on USBPO activities since the last Council meeting. Items of interest included:

- *ITER STAC:* He and others attended the STAC-5 meeting, on 20-22 October; USBPO organized a briefing for STAC members in advance of the meeting. Contrary to expectations, a revised version of the ITER Research Plan was not presented. IRP Working Group member Ed Synakowski reported recent communication from the IO that this effort is expected to restart in early January.
- *APS activities:* An excellent oral session on research in support of ITER was held on November 18th, immediately before the Council meeting. This was organized by Mickey Wade and Chuck Greenfield and included presentations from many US and international groups. An APS Press Release on ITER was produced. Thanks are due to Dale Meade for his efforts on this. An ITER Town Meeting, sponsored by USBPO will be held Tuesday evening, chaired by Amanda Hubbard. Speakers for this session include David Campbell of the ITER Organization, Charlie Baker, and Jim Van Dam.
- *Membership:* There are currently 283 Regular Members from the USBPO, from 46 Institutions, as well as 8 Associate Members from 6 Institutions. Jim would like to see this increase to 300. An even larger number of people subscribe to the USBPO e-News. A question was raised as to whether only USBPO members could see the ReNeW forum information, since their web site is being hosted by USBPO. (*This was checked following the meeting and found not to be the case – access to restricted BPO and Renew sites is, appropriately, being kept separate.*)

- *Outreach:* Chuck Greenfield presented a report on USBPO activities at the FESAC meeting held Nov. 6-7, and will also present at the upcoming FPA meeting in LLNL in December. Van Dam again mentioned the need for materials, such as movies, which could be used in outreach efforts concerning fusion and ITER.
- *Facility coordination.* As mentioned at the last coordination meeting, regular meetings between the USBPO and US Facility leadership have been proposed. The USBPO Director and Deputy have been invited to a meeting of the Fusion Facilities Coordinating Committee to discuss this, and Council input was invited. The general issue is how to get facilities engaged with high priority tasks. It was mentioned that there is also an upcoming meeting of international program leaders, sponsored by IEA in conjunction with ITPA leadership, to be held at MIT December 11-13, with a similar aim. A concern is that too many parallel paths could complicate coordination. The IEA meeting has traditionally focused on joint experiments, but its scope is broadening to include other research activities, including modeling and single-facility research. The USBPO will be represented at that meeting by Amanda Hubbard.

5. Report on active Tasks of USBPO Research Committee

Deputy Director Chuck Greenfield updated the Council on a number of Tasks being set up or currently underway by the Research Committee. As noted at prior Council meetings, now that the ITER design review is complete, the Committee aims to focus its efforts on such Tasks. Current ones include:

- A study of ITER heating and current drive mix, led by Chuck Kessel. This is related to recent STAC concerns, and should also involve international efforts though the ITPA TG on Integrated Operational Scenarios. It will largely involve modeling efforts.
- ITER Research Plan. This is being led by Van Dam and Greenfield. As noted above, work on further development of the IRP has not been active recently, but is expected. USBPO has expressed the willingness of the US to assist as needed, and is considering whether more proactive efforts are appropriate.
- ITER Plasma Facing Components. This task is being led by Richard Nygren with involvement from a number of people, primarily in the USBPO Technology Topical Group.
- A Task Group on ITER Test Blanket Modules, including both technology and physics aspects, is being led by Nermin Uckan, with involvement from both communities. This covers for example calculation of ripple effects.
- Dennis Whyte has proposed a new proposal on disruption mitigation and collateral effects. This would include assessment of vessel forces etc and is considered urgent, since ITER wants work done by the end of 2008.

6. General discussion by Council of ‘Tasks’ and other ongoing or suggested USBPO activities.

Council members were very pleased to learn of these activities and noted that several could be areas in which the US takes a leading role. The need to inform members of the

relevant USBPO Topical Groups of these tasks, for their input and involvement, was stressed.

There was discussion, though not full resolution, of the process envisaged for USBPO input to the upcoming IEA Planning meeting. Several felt that the Research Committee should play an active role in suggesting activities, and recommending high priority activities. Again, these should not be limited to joint experiments.

It was noted that USBPO was invited to a meeting of the Transport Task Force steering committee to discuss coordination of activities in the Transport area. It is proposed to hold videoconferenced briefings before or after ITPA meetings, and/or seminars on subjects of interest, to inform and involve the wider community. This could serve as an example for other topical areas.

6. Coordinating international collaborations

Mike Zarnstorff briefly updated the Council about a new Coordinating Committee covering International Tokamak Collaborations, being set up under USBPO auspices as discussed at the October Council meeting. A Charter and initial members have been decided. Unfortunately lack of time at the Council meeting, which was constrained by the APS meeting schedule, prevented a proper presentation and discussion of this activity, which will be on the agenda at the next meeting.

Action: Mike Zarnstorff to distribute the charter, membership and other relevant information on this activity, for information and Council comments.

7. Any other business

The meeting was adjourned at 2:00 p.m. CST.