

US Burning Plasma Organization Meeting of the Council

**September 8, 2009, 2:00-4:00 EDT
held by videoconference**

Council Members in attendance:

Lee Berry
Michael Bell
Martin Greenwald
Rich Hawryluk (outgoing member)
Amanda Hubbard – *Chair*
Martin Peng (outgoing member, joined after start of meeting)
John Sarff
Phil Snyder
Tony Taylor
Mike Zarnstorff – *Vice Chair*

Ex-officio participants in attendance:

Erol Oktay – *OFES, ITER Science Officer*
Jim Van Dam – *USBPO Director and US ITER Chief Scientist*

Others in attendance:

Chuck Greenfield — *USBPO Deputy Director*
Rita Wilkinson — *USBPO Administrator*
Earl Marmar

Council members unable to attend:

C.S. Chang
Michael Mauel
Wayne Meier
Mike Ulrickson
Stan Milora – *US ITER Chief Technologist*

MINUTES

1. Roll Call; Introduction of New Council Members

The meeting was called to order at 2:05 EDT. Amanda Hubbard began the meeting by introducing several new members who joined the Council effective this meeting. Michael Bell (PPPL) and Phil Snyder (General Atomics) were elected by the membership in June, and Michael Mauel (U. Columbia) and Wayne Meier (LLNL) were appointed by the USBPO Director, following the usual rotation. All four have three-year terms ending in 2012. In addition, Lee Berry (ORNL) was appointed to complete the term of Edmund

Synakowski, who resigned in June due to his appointment as Associate Director of OFES. This term will end in 2011.

Hubbard, Van Dam and others extended thanks to outgoing Council members, including Rich Hawryluk, Bill Nevins, Martin Peng and George Tynan, who were invited to attend this meeting. These four have served since the beginning of USBPO and have each served in many capacities as subcommittee members and leaders, and helped guide the formation of the USBPO. They were invited to remain active in the organization.

The meeting began with a roll call, with attendance as noted above. Eight current voting members were present, for a quorum.

2. Review of Minutes from Prior Meeting

Draft minutes from the previous meeting, on April 17, 2009, were reviewed and accepted. These will now be posted on the Council web page.

3. Report on 2009 Council Election

Amanda Hubbard reported on the recent Council election. Outgoing Council member Martin Peng led the nominating committee. Other members of the committee were Tony Taylor and Research Committee members Tom Rognlien and Chris Hegna. This year there were about 18 nominations from the USBPO membership, an improvement over 2008. The nominating committee deliberated by email, using a number of criteria to narrow down the slate to 7 candidates. Given that no more than two Council members can be from the same institution, a few nominees were not eligible this year, and the committee decided to propose no more than one candidate from a given institution. The full Council had then been given an opportunity to comment on the slate.

The election was held electronically, again using a website hosted by Univ. Wisconsin and set up by USBPO Communications Coordinator James DeKock. Polling opened on June 4th, with all 318 USBPO Regular Members invited to vote. The site remained open until June 27, with reminders sent to those who had not yet responded. 161 members (53%) voted, a very good response rate especially considering that the election overlapped the major MFE Research Needs Workshop, which involved many members. No technical problems were experienced. The two candidates receiving the most votes were Michael Bell (PPPL) and Phil Snyder (GA).

In discussion, the Council members indicated that the nomination and election process had worked very well, and would be a good model for next year. The nomination committee and James DeKock, were thanked for their efforts. It was suggested that the nomination process, which began in April, be started earlier next year so that the new Council members could start their terms before the summer when meetings can be difficult to schedule.

4. Proposed Amendment to Bylaws Regarding Mid-Term Replacements

Amanda Hubbard outlined some proposed amendments to the USBPO Bylaws, which had been prepared jointly with the USBPO Directorate and sent in advance to the Council members. The primary purpose of these amendments is to clarify procedures in the event that a Council or Research Committee member were to resign before the end of his or her usual term, a situation which has occurred on several occasions, generally as a result of changing job responsibilities, and on which the original Bylaws are silent. A few minor clarifications in other text of the Bylaws were also suggested.

Jim Van Dam proposed the following substantive additions:

a) Added at the end of Section 2: Research Committee:

If a Topical Group Leader or Deputy Leader resigns before the normal end of his or her term, the Director will appoint a replacement for the remainder of the term, following the same procedure as for regular appointments. The new Leader or Deputy Leader is eligible to serve a second, full term.

b) Added as a new paragraph in Section 3: Council:

If a Council member resigns before the normal end of his or her term, the Director, in consultation with OFES and the Council Chair and Vice-Chair, will appoint a replacement, who will serve for the remainder of the term.

In discussion, it was clarified that these procedures have been used for recent replacements on a case-by-case basis, with the consent of Council. They are intended to preserve the regular rotation of members in both the Council and the Research Committee. Codifying them in the Bylaws would make the process and terms clearer for any future replacements.

A motion to accept these changes was made by Tony Taylor and seconded by Mike Zarnstorff. It was unanimously approved by the voting members present. The amended Bylaws, appended to these minutes, are to be posted on the USBPO web page.

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

Earl Marmar presented the final report of a Council subcommittee set up in early 2007. It has had twelve members representing many areas of expertise, over half of them current or former USBPO Council members. Its purpose was to update and extend the 2006 Energy Policy Act (EPAAct) report led by Ray Fonck, thus providing a more complete answer to outside questions – e.g., what the US is doing to prepare for ITER, and what we expect to get out of it. Council had been regularly updated on the progress of this group, and has over the past several months reviewed and commented on earlier drafts.

Marmar reported that the insightful comments received from Council and Research Committee members had been very helpful and had been addressed in the final version. Erol Oktay, who was instrumental in commissioning the report, commented that it is very helpful and adds substantially to the EPAAct report.

The relation between this report and the ITER Research Plan was discussed. Michael Bell was a member of both the Council subcommittee and the ITER Research Plan

working group, ensuring that the latest developments and research needs for ITER were considered. However, it was noted that the two documents are complementary, with the USBPO report focusing on the strategic research interests, and the ITER Research Plan on planning to achieve technical objectives.

The report was adopted by the Council and will be widely disseminated to USBPO members, OFES, USIPO and other interested groups. The Research Committee will consider which of the research areas may be appropriate for near-term tasks. Earl Marmor and other panel members present were thanked for their large and sustained effort. Appreciation was also extended to the whole panel: Earl Marmor (Chair), Steve Allen, Michael Bell, Paul Bonoli, Bill Heidbrink, Steve Knowlton, Farrokh Najmabadi, Hutch Neilson, Martin Peng, Phil Snyder, Ted Strait, George Tynan and Nermin Uckan.

6. Recent and Upcoming USBPO Activities

- *Topical Group Leadership:*

As noted at the last Council meeting, leadership of a number of USBPO topical groups is scheduled to rotate. Following nominations by topical group members and email consultation with the Council in August, the following changes have recently been made.

Topical Group	Retiring Leader	New Leader	New Deputy Leader
Boundary	Dennis Whyte	Tom Rognlien	Tony Leonard
Plasma-Wave Interactions	Cynthia Phillips	Steve Wukitch	Gary Taylor
Fusion Engineering Science	Nermin Uckan	Richard Nygren	Larry Baylor
Operations and Control	Dave Humphreys	David Gates	TBD
Energetic Particles	Raffi Nazikian	Don Spong	Eric Fredrickson

The originally proposed candidate for Deputy Leader of Operations and Control unfortunately declined due to other commitments. After consideration of several other nominees, Chuck Greenfield proposed to appoint Mike Walker of GA, another well-recognized Control expert. Council concurred with this choice.

Also, the Deputy Leader for the Modeling and Simulations expert has just resigned. A replacement will be sought following the procedure in the amended Bylaws. It was noted that balance of representation by smaller institutions on the Research Committee should be a consideration. Suggestions of candidates by Council members were solicited.

- *Other upcoming rotations:*

- The USBPO plays an advisory role in selecting US ITPA members. It was noted that replacements are needed soon for the DIV/SOL topical group

(replacing Mathias Groth who has left the US) and for the Integrated Operational Scenarios TG (replacing David Gates who has resigned).

- A replacement for Ed Synakowski on the ITER Research Plan Working Group would also be valuable when the group becomes more active again.
- Since Raffi Nazikian has left the Research Committee, a new *eNews* editor will be appointed from that group.

Suggestions by Council members for any of these positions were welcomed.

- *USBPO Involvement in ReNeW:*

Van Dam noted that the MFE ReNeW report had just been released. While the USBPO as an organization did not play an official role, USBPO leaders and members were heavily engaged. Theme I (Achieving and Understanding the Burning Plasma State in ITER) was led by Van Dam. Of the 22 members of the USBPO Research Committee, 16 were involved in ReNeW (including 2 theme leaders and 3 panel leaders). Of the 12 members of the USBPO Council, 10 were involved (4 theme leaders and 3 panel leaders, and 3 panel members). This clearly represented a substantial community effort, and it is hoped that the ReNeW report will aid in planning future USBPO activities.

- *ITER developments:*

- ITER is organizing a Plasma Control Workshop in December. Several US experts, many from the USBPO Operations and Control Group, have been nominated to attend. It is anticipated that this might lead to an ITER Control group, in which case links to the USBPO group should be considered.
- A major US activity in support of ITER will be the Test Blanket Module simulation experiments, planned on DIII-D this fall, with extensive ITER and international participation. People interested in updates should contact Chuck Greenfield.
- Van Dam and Erol Oktay attended the ITPA Coordinating Committee meeting (July 15-16). Work plans and priorities for the seven ITPA topical groups were presented by their leaders, including several from the US. It was decided that ITER will host the ITPA web pages. Dissemination of these reports to the broader US community was discussed – openness is a US goal, but ITER and some parties have sensitivities which require further discussion. All agreed that it would be valuable to share ITER research priorities promptly with fusion research groups.
- A STAC-7 Meeting is planned for October 21-23. Due to the exceptionally broad charge, with many documents to be reviewed before a November ITER Council meeting, a smaller pre-STAC meeting was held on September 3-4. Erol Oktay and Tony Taylor, who attended the pre-STAC meeting, reported that it was useful in focusing STAC efforts on a smaller number of key systems. An additional US expert, with magnet expertise, will be invited to the STAC-7 meeting, and it is expected that USBPO members may be asked to help in assessing proposals in their areas of expertise. The MAC has organized a task force on tokamak integration.

- An ITER Vacuum Vessel design review meeting (July 7-10) was chaired by Council member Rich Hawryluk. His efforts on behalf of the US are much appreciated.
 - A number of Physics Task Agreement solicitations have been received from ITER. The USBPO plays a key role in disseminating them to all members, and assists USIPO in technical evaluation of US proposals.
 - An ITER International Summer School was held this year in Cadarache. It was suggested that the USBPO consider hosting the 2010 School.
- *Communication and outreach*
 - ITPA Topical Group annual reports are being summarized in *eNews*.
 - Periodic videoconferences with US program leaders are being considered.
 - On behalf of the USBPO, Chuck Greenfield has organized a contributed oral session on ITER-related work at this year's APS-DPP Meeting (on Thursday afternoon). Interest in giving talks, including from the ITER Organization and international groups, has been high.
 - USIPO continues to seek burning plasma movies for promotional videos.
 - *Research Committee and Topical Group activities:*

Research Committee meetings have been less frequent, given vacations and the extensive commitments of many individuals to ReNeW. Chuck Greenfield noted that a focus for potential new task group activities is issues identified as important by the ITER Research Plan Working Group; member Mickey Wade has recently sent several suggestions in this regard. It may also be timely to revisit some of the ideas initially submitted in response to the ITER Design Review.

Action: Distribute Wade's memo to Council members.

In discussion, Council members commented that ITPA groups seem quite active and vibrant and BPO Topical Groups can perhaps couple into these activities. It was noted that BPO is trying to encourage greater reporting of ITPA to the broader community. This will be explored further.

7. Other Business

No other topics were raised. The possibility of a Council meeting during APS was discussed; while many find this valuable, some Council members are already fully committed with their schedules.

The meeting was adjourned at 4:00 pm EDT.