

Meeting of the Council
US Burning Plasma Organization
December 15, 2006
 Held by video conference

Council Members in Attendance:

James Van Dam—Chair
 Amanda Hubbard—Deputy Chair
 Steve Allen
 Rich Hawryluk
 Earl Marmar
 Jerry Navratil
 Bill Nevins
 Martin Peng
 Craig Petty
 John Sarff
 George Tynan
 Mike Zarnstorff

Ex Officio Member in Attendance

Stan Milora—VLT Director
 Erol Oktay—USDOE

Other

Tony Taylor—USBPO Deputy Director

Unable to Attend:

Steve Cowley
 Ray Fonck—USBPO Director
 Gene Nardella—USDOE
 Dave Petti

1. Roll call

The meeting was called to order at 11:00 a.m. EST. The Chair noted that minutes for the Council meeting of November 1, 2006, had been distributed electronically; Council members were invited to submit comments by email.

2. Burning Plasma Planning Activities

Erol Oktay presented a brief written report about the National Research Council's plans for reviewing the Energy Policy Act report about US scientific participation in ITER. This report was submitted to Congress in August 2006. The review by the National Research Council is a congressional requirement. Congress views the EPAAct report submitted in August as "the seed for a more in-depth planning process by the fusion research community" and desires that the "Fusion Energy Sciences program should be working to develop a research plan that shows how concrete scientific goals inform technical milestones." The response from Secretary of Energy Bodman was that the US fusion community in coordination with the ITER Organization will develop a more detailed plan, and that the USBPO has already established several task groups to develop details of research plans for key ITER physics issues.

During the discussion by the Council about this matter, several points were made:

- ITER has set up a design requirements review committee, which plans to develop an initial run plan for ITER over the next 6-9 months. The USBPO planning activity for US participation in ITER should be carried on in parallel with this.
- It is important to determine the time scale for the new USBPO planning activity. The National Research Council plans to conduct its review in the next nine months. The NRC will also solicit input from ITER about its experimental plans.

- At the upcoming FESAC meeting, an updated charge will be presented to FESAC. This charge, which concerns long-range planning, will be broader than what USBPO would contribute, which is tightly coupled to ITER. The USBPO activity will be important input to FESAC as it responds to the new charge.

The Council requested that the USBPO Directorate and the Council Chair and Vice-Chair consult with the Chair of FESAC about the scope and timeline for the USBPO contribution in planning goals and milestones for US burning plasma research relative to ITER.

Also, the Council agreed with the proposal to set up a subcommittee that will lead long-range planning activities. The Council Chair and Vice-Chair will solicit two persons to head this subcommittee.

3. USBPO Charter

George Tynan, chair of the Charter Subcommittee (whose other members are Amanda Hubbard, Martin Peng, Craig Petty, and John Sarff), reported about how the draft document for the Charter had evolved since its consideration by the Council at the November 1, 2006, Council meeting. About three weeks ago, the Subcommittee sent the draft to the USBPO Research Committee for its feedback. The Research Committee suggested that the focus of the Charter should be on purpose and structure, with procedural details put into a separate Bylaws document. The Subcommittee accepted this suggestion and revised the Charter accordingly. The Subcommittee also incorporated comments received from the Council, the Directorate, and DOE.

The Subcommittee sent the final revised version of the Charter (draft #13) to the Council members prior to today's meeting. The Subcommittee also circulated to the Council a set of Bylaws, as a separate document.

After discussion, the Council on motion unanimously approved the Charter document.

Adoption of the Bylaws was deferred in order to allow the Charter Subcommittee to include a statement concerning the nomination of candidates for Council membership. The perfected Bylaws will then be circulated to Council members for approval by email, after which the current Bylaws Subcommittee will be dissolved.

The Council noted that there might be occasions in the future for further additions to the Bylaws (e.g., about Topical Group functioning and reporting).

The Chair thanked the Charter Subcommittee for its work.

4. ITER Issue Cards and Physics Tasks

Tony Taylor presented a brief written report about ITER physics tasks and ITER issue cards.

So far, 13 physics tasks listed in priority order have been forwarded to the US ITER Project Office, along with names of contact persons; it is expected that there will be agreement with the ITER Team to complete about half of these tasks. A team consisting of Nermin Uckan, Chuck Greenfield, and Jon Menard has been set up to serve as liaison for the USBPO with the ITER

Team concerning the physics tasks. The Research Committee is developing detailed work plans for two of the tasks: (1) integrated analysis of ELM, RWM, and error field control coils for ITER; and (2) limitations to startup flexibility for advanced scenarios.

The USBPO has submitted a list of issue cards, some of which are related to physics tasks, to ITER. Several of these issue cards are similar to ones submitted by the ITPA.

Tony also noted that the USBPO Research Committee is planning to hold an extended meeting (“retreat”) in January in order to discuss how to improve the conducting of its meetings and to review goals and objectives and how to accomplish them. This extended meeting would last from half a day to a full day and be held as a videoconference.

Rich Hawryluk noted that he and Ron Stambaugh are the US members of a new ITER committee that will review design requirements. Paul Thomas is the chair of this committee. Rich has been assigned to look at ELM and resistive wall mode control. After ITER clarifies its expectations for the scope of the review, Rich will solicit input from the USBPO Directorate, the Research Committee, and the Topical Groups. The Research Committee is already identifying persons to work on various topics. The US can have an impact through this effort.

5. USBPO Assistant Director for ITER Liaison

The Chair described the recommendation from Ray Fonck to set up a position called “Assistant Director for ITER Liaison,” whose purpose would be to assist the USBPO Directorate and the USIPO Chief Scientist in facilitating communication between the ITER program (i.e., the US Project Office and the Central Team) and USBPO researchers and also keeping on top of the USBPO milestones for ITER. This position is not specified in the new Charter, but it could be construed as falling under “support staff” (albeit professional, not administrative). It will not be a policy-making position. Ray considers it an ad hoc position that will be helpful at the present time, but may not be needed in the future. Ray has suggested a particular person for this position.

After discussion, on motion the Council approved the recommendation to create a position of Assistant Director for ITER Liaison. The Council advised waiting to allow the new USBPO Director to implement this recommendation and appoint the person of his/her choice.

6. USBPO Director Search

The Council on motion determined to express its appreciation to Ray Fonck for his service as the USBPO Director by including in the minutes the following resolution:

On motion, the Council of the US Burning Plasma Organization resolved to express its sincere gratitude to Professor Raymond J. Fonck for his outstanding service to the US fusion research community in serving as the USBPO Director during the past two years. He worked tirelessly to establish the USBPO, visiting numerous fusion groups around the country and giving presentations at major meetings. He guided the establishment of the Council, the Topical Groups, and the Research Committee. He set up the USBPO web site. He spearheaded the Burning Plasma Workshop in December 2005. He served as the US ITER Chief Scientist and interfaced with the US Department of Energy. In all this and more, he was an excellent leader. The Council has appreciated most highly his extremely valuable work.

Amanda Hubbard, chair of the Director Search Subcommittee (whose other members are Rich Hawryluk, Bill Nevins, John Sarff, and Tony Taylor), reported about the activities of the Subcommittee and the process by which it had arrived at its recommendation. The written report from the Subcommittee, along with a description of the Director's job responsibilities, is attached as an appendix to these minutes.

Amanda then announced the specific slate of candidates whom the Subcommittee is recommending.

Jim Van Dam requested that Steve Allen serve as Chair Pro Tem, so that he could be excused from the meeting. He left the meeting at 12:10 p.m. EST. (The rest of the minutes for this meeting were written by Amanda Hubbard.)

The Council had an open discussion of the slate of candidates whom the Subcommittee is recommending.

On motion, the Council accepted the Subcommittee's recommended slate of names, with no expression of preference among them. The Council furthermore stipulated that the names of the persons recommended by the Subcommittee will not explicitly be put into the minutes of this Council meeting. Also, the Council members were asked to keep the slate of names confidential until OFES has made its decision.

The Subcommittee will forward its recommendation to the USBPO Program Manager at OFES. The OFES may thereafter discuss with the Subcommittee the rationale for its recommended slate, after which the OFES will select the new Director. The new Director would assume leadership after Ray Fonck submits an official letter to OFES resigning his present position as Director of the USBPO.

The Chair Pro Tem thanked the Charter Subcommittee for its work.

7. Adjournment

The meeting was adjourned at 12:35 p.m. EST.

APPENDIX 1. REPORT OF THE DIRECTOR SEARCH SUBCOMMITTEE

Report on Activities of USBPO Director Search Subcommittee

Presented to USBPO Council, at meeting 12/15/2006 by Amanda Hubbard

This report summarizes the activities of a USBPO Council subcommittee (“the committee”), which was formed at the request of the Director and Council Chair to recommend a slate of candidates from the US fusion community for consideration as the next Director. The committee consisted of Amanda Hubbard (chair), Richard Hawryluk, William Nevins, John Sarff, and Tony Taylor.

The search process started with the public announcement at the APS-UFA meeting, October 30, by Ray Fonck that he plans to step aside as BPO Director. The target date was the end of November. This time frame was a factor in our process, in that the first two phases of the process proceeded in parallel.

Phase 1: Solicitation of candidate nominations from the community.

An e-mail was sent to all BPO members on Nov. 8th, which announced the search, and invited anyone to send suggestions to any member of the search committee, by Nov 16th. This was followed up with a copy to a number of MFE program leaders (e.g., lab directors). The response from the community was very good. We received a large number of suggestions, most from the BPO general membership and most within the first 2-3 days. The BPO community apparently appreciated the chance to have this input on the new director. At the end of the solicitation period, we had assembled a list of 25 candidates, from a comparable number of people.

Phase 2: Deciding on requirements and considerations for Director.

While collecting community input and before any discussion of individual candidates, the committee spent time discussing and deciding what we were looking for in a director. Ray Fonck (BPO Director) and Erol Oktay (OFES) joined us for our first conference call for input on the ‘job description’ and their considerations. Fonck provided us with an outline of all the many current and envisaged duties, which was very helpful and was used as the basis for a 1-page ‘description of responsibilities’, appended below. It was decided to consider equally candidates from all types of institutions, but that it would not be appropriate to select leaders of major facilities. Some of the qualities considered important included scientific expertise and reputation, excellent communication and organization skills, leadership experience, enthusiasm for the position, willingness to commit the needed time, an expectation of fairness to all groups and institutions, and commensurate acceptability to the broad fusion community.

Phase 3: Deliberations on candidates

To focus deliberations, the committee started with a ‘straw poll’ in which each member picked his or her ‘top 5’ prospective candidates. There turned out to be considerable overlap in these lists. We then contacted each of the candidates who were named by two or more committee members. We were pleased to find that all but one were quite interested in the position. The interested candidates were sent a copy of the ‘Director Responsibilities’ description, to make

sure they understood the expectations and time commitment. They were also invited to submit supporting information to the committee, specifically a CV and a 1-2 page 'candidate statement' outlining their views on the BPO, including the anticipated challenges and the role of the Director in resolving them. Most candidates did submit such statements, which we found very useful in our deliberations. A second conference call was held in which all of these leading candidates were discussed in terms of the previously agreed criteria. At this point two candidates for the slate were agreed by consensus. A follow-up vote was held among remaining candidates. Of these, one clearly had strongest support, while the committee was split among remaining candidates. After further discussion, it was decided to submit to the USBPO council a slate of the three candidates for whom we had strong consensus. This was done at the Council meeting on December 15, 2006.

Following approval of the slate of candidates by the council, the committee was charged by the Council with sending the names of these candidates to OFES along with their submitted information.

As a general remark, the committee was pleased to find that there were in the BPO community a large number of candidates who were both well qualified for and interested in the Director position. This made the selection difficult, but we feel this it is a good indication of the health of the organization. The search process brought to light a number of people, and good ideas through the candidate statements, which the BPO should make every effort to include in its future activities. We also suggest that, where possible, a longer period of about two months be allocated for future Director searches.

APPENDIX 2. USBPO DIRECTOR JOB DESCRIPTION

Responsibilities of US BPO Director

Director search committee, November 29, 2006

The Director of the US Burning Plasma Organization has overall executive responsibility for its successful operation. He or she will require the **leadership** to develop a vision and means to turn USBPO into a Burning Plasma research team, organizing BPO activities and BP R&D activities in the U.S. program as needed. This may include leading the community in discussion and execution of BP research and facilitating development of a long-range plan for U.S. involvement in BP research. Fostering community ownership of BP research and ITER participation, and integration with the rest of the domestic program, are important.

The Director is responsible for day-to-day **management** of the BPO, with appropriate technical and administrative support, and the assistance of a Deputy Director. He will work closely with OFES to identify and facilitate implementation of BP research activities and other discrete BP-related activities as they arise. To this end, he will organize the activities of the Directorate (including the Research Committee), and the Topical Groups and will coordinate closely with the BPO Council. The Director and Council will jointly identify and recruit participants and leaders. He will ensure technical support of all BPO activities, such as remote communication tools, supervising the BPO support staff. An important activity will be developing interfaces to other research organizations, such as ITPA, TTF and SciDac. Good communication is critical, with regular reports on BPO activities expected to the Council, to the US ITER Project Office and ITER Team and OFES Program Managers as needed, and to the BPO membership and the fusion community at large. The Director will be a point of contact between the ITER Team and the US community, facilitating US research support of the ITER Project.

The Director will also have an important role as a **representative and advocate** for Burning Plasma research, both near and longer term. At the national level, this will include interfacing with the USIPO and VLT, identifying and advocating for needed resources with funding agencies, and representation of the BPO at various technical and programmatic meetings, eg at FESAC, Budget Planning Meetings etc, to other fusion program leaders, and to the broader science community (e.g., NRC). He will provide a point of contact for information on Burning Plasma research, which may include education and outreach activities, giving talks or organizing workshops. At the international level, this will include representation of US activities and interests, as the domestic BP science organization, to groups such as the ITPA coordinating committee and the ITER Team and to organizations equivalent to the USBPO in other ITER partners.

To fulfill these varied functions, the Director will need excellent organizational and communication skills as well as technical expertise and reputation. It is anticipated that a 60-80% level of effort will be required. The candidate selected by OFES will remain an employee of his or her current institution. Support staff will be funded by OFES. Partial support for the Director may be arranged on a case-by-case basis.