

## **Integrated Scenarios Breakout Group – US Burning Plasma Workshop Oak Ridge, December 7-9, 2005**

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### **Agenda for Wednesday, Dec. 7**

**8:30am – 5:30pm** Introduction presentations, Plenary presentations

### **Agenda for Friday, Dec. 9**

**8:00am-noon** Reports from breakout sessions and discussion, summary

- 1) This topical area is concerned with both modeling and experimental issues.
- 2) The presentations by attendees on issues related to integrated scenarios, during the breakout session on Thursday, will be limited to 5-10 minutes each for those asked to summarize each topic. Most of the time is reserved for discussion which will be led by the speaker.
- 3) Since integrated scenarios involve transport, heating/CD, MHD, and several other physics areas, there will be some overlap with the other topical breakout groups.
- 4) The sections below are on some key topical areas feeding into integrated scenarios.

### **Draft Agenda for Thursday, Dec. 8 (as of Nov 30<sup>th</sup>)**

**8:30** **Review proposed operating modes** in ITER and on present experiments. (Focus on expected differences for ITER vs present experiments)

**Quick overview of ITER operating mode parameters**, Tim Luce 5 min

**ELMy H-mode**, Stan Kaye 5 min

**Hybrid Scenario**, Jay Jayakumar 5 min

**Steady State (AT) Mode**, Chuck Greenfield 5 min

### **9:30** **Heating/CD/momentum/particle sources**

**ICRF**, Dave Rasmussen, Randy Wilson 10 min

**EC**, Tim Luce 5 min

**LHCD**, Paul Bonoli 5 min

**NBI**, Wayne Houlberg 5 min

**Fueling**, Larry Baylor 5 min

### **10:30-10:45** **Coffee Break**

**10:45** **Core transport issues** (energy, particle and momentum, include projections, uncertainties, and fueling/control issues)

Martin Greenwald 10 min

**11:30** **Pedestal and SOL/divertor Issues** (include pedestal scaling, ELMs, and especially compatibility of pedestal and divertor with proposed scenarios)

Amanda Hubbard 10 min

Mike Ulrickson 10 min

## 12:15-1:15 Lunch

**1:15 Scenarios modeling capabilities and issues** (development, new directions, progress to more sophisticated treatments, code-code and code-experiment benchmarks, interpretive and predictive, other physics, how will ITER use simulations, startup, current rise, pulse length issues, include model needs and focus on results to date and issues they have shown, upgrades or potential improvements to ITER capability, plasma control)

Glenn Bateman - overview	10 min
Masonori Murakami	5 min
Don Batchelor	5 min
Charles Kessel	5 min

## 2:30-2:45 Coffee Break

## 2:45-3:30 Joint Integrated Scenario/Plasma Control Session

Charles Kessel, others

## 3:30 Integrated scenarios wrap-up session: DISCUSSION, ACTION PLAN

**Focus on concrete answers to the questions posed to the group by Program Committee** (*slightly paraphrased, and with some suggested discussion topics*).

B.

- What issues remain to be resolved for successful (robust, flexible) BP experiments on ITER? (*start with lists from prior sessions*).
- Are efforts to resolve these sufficient, should they be given higher priority?
- Can we differentiate issues that need to be resolved *before* ITER operates from those that will really only be resolved by operating ITER? *Which are most time-critical, that is would impact design?*

C.

- What contributions can the US fusion program make to resolving these issues (considering the international efforts that may already exist)? *Which issues are adequately covered by ITPA, which are not, or could use more US attention/leadership?*
- How might the Burning Plasma Organization be structured to help the US fusion community make these contributions?  
*Should BPO have separate working groups for some of the identified areas?  
What kind of interaction is most productive?  
How much focus should be on ITER?  
How do we connect/interact with ITPA groups?*