

## **NSTX Weekly Report (Nov. 04, 2005)**

FY2006 weeks of research operations

Planned: TBD

Completed: 0 weeks

### **NSTX Department, Project, Program (M. Ono, M. Peng)**

- Martin Peng (ORNL) attended on behalf of NSTX the Fourth IEA Large Tokamak Workshop (W62) on "Implementation of the ITPA Coordinated Research Recommendations" Joint Workshop of Large Tokamak, Poloidal Divertor and TEXTOR IA's on November 1-2, General Atomics, San Diego, CA. (M. Peng)
- Jon Menard, and the Columbia University team members, Steve Sabbagh, Aaron Sontag, and Jim Bialek attended the 2nd Post-APS Error Magnetic Field Workshop in Denver, Colorado. Jon Menard presented a talk entitled "Locked Mode and Error Field Physics in NSTX. (J. Menard)
- W. Tighe and K. Chien of the L-3 Corporation visited NSTX to discuss plasma diagnostics and other topics on Friday, November 4. (R. Kaita)
- There will be an NSTX Physics Meeting on Monday, Nov. 7 at 1:30 pm in LSB318. The agenda is: 1) Update on OH and TF issues by A. vonHalle, 2) Opportunities for collaboration with DIII-D: preparation for DIII-D Ideas Forum by R. Nazikian. (S. Kaye)
- The NSTX 2005 Results/Theory Review will be held on Mon-Tues, Dec. 12-13, 2005 at PPPL. People who have performed experiments, modeling or theory related to NSTX during the past year are encouraged to participate in the Review through a short presentation of their results. As in past years, the Review will be organized by ET, with the Theory work embedded in the most appropriate ET. Presentations will be typically 15 minutes each. Please send the title(s) of your talk to S. Kaye ([kaye@pppl.gov](mailto:kaye@pppl.gov)) and J. Menard ([jmenard@pppl.gov](mailto:jmenard@pppl.gov)) as soon as possible; we would like to finalize the agenda about a week prior to the Review. (S. Kaye)
- The NSTX Research Forum for FY 2006 research on NSTX will be held at PPPL on December 14, 2005 through December 16, 2005 following the NSTX Results Review. You are cordially invited to attend these consecutive meetings. As in previous years, the Research Forum is intended to provide the opportunity to present ideas for experiments to be conducted on NSTX in the forthcoming run. For the 2006 NSTX Run, Roger Raman of the University of Washington will be the NSTX Run Coordinator with Steve Sabbagh of Columbia University as deputy. The experimental proposals will be discussed within Experimental Task Groups focusing on specific research areas. There will be breakout sessions at

the forum during which these task groups will discuss, evaluate and prioritize proposals made by team members for experiments in their areas of interest. To assist in planning the Research Forum, please submit a 1-page (or less) description of each experiment you are proposing and indicate in which of the above groups you would like to present it for consideration. Please send this abstract to Roger Raman ([raman@aa.washington.edu](mailto:raman@aa.washington.edu)) and Michael Bell ([mbell@pppl.gov](mailto:mbell@pppl.gov)) before November 26. Remote participation will be available for viewing and making the presentations and participating in the discussion. Details will be sent later. (M. Bell)

- The Burning Plasma Workshop will be held at ORNL, Dec. 7- 9, 2005. In order to enter ORNL, it is necessary to register on the website: <http://www.burningplasma.org/home.html> by November 7th. The security regulations are very strict at ORNL. Even if you are undecided about going to the meeting, it is wise to register at this time.

### **Engineering Operations (A. von Halle, C. Neumeyer)**

The NSTX outage continued this past week with the completion of modifications on the Bay G port cover to provide a second viewing point for the EBW diagnostic. The OH coil, now removed from the machine, was run through its thermal operating range using heated water in order to further evaluate a cooling water leak at one of the coil's fittings. An engineering design of a permanent leak repair has now been developed and will be reviewed next week. In-vessel measurements continued this past week, and diagnostic calibrations in preparation for the coming run are expected to start next week.

Access to the NSTX test cell will be available via the card readers throughout this coming week. (A. von Halle)

### **Research Operations (M. Bell)**

#### **Diagnostic Operations (R. Kaita)**

- The repaired CCD detector for the SPRED vacuum ultraviolet survey spectrometer has been reinstalled. Proper operation has been confirmed with visible light. The microchannel plate image intensifier will be checked after the ion pump is replaced.

#### **Boundary Physics Operations (H. Kugel)**

- The maintenance of the Sample Coupon Poloidal Holder Array was completed.
- A meeting of the LITER-1 Team finalized the designs for the snout and reservoir heaters. A meeting on LITER-1 mounting and alignment achieved a design concept for an Installation Alignment Jig, and a procedure for the final

alignment, and welding to the Umbrella Structure. A meeting on the LITER-1 controls and power systems finalized the parts numbers for the requisition of the power supplies, and discussed plans for rack selection, cable layout, and safety barriers. The NEPA Form for LITER-1 was approved.