

NSTX Weekly Report (Nov. 17, 2006)

FY 2007 NSTX plasma operations

Planned: TBD

Completed: 0 weeks

- Charles Skinner attended the 7TH ITPA divertor/SOL meeting in Toronto on Nov 6-9th. He gave a presentations on "Dynamic retention and deposition in NSTX measured with quartz microbalances". (C. Skinner)
- R. Maingi (ORNL) gave a seminar titles "The structure of small, Type V ELMs in NSTX" at Oak Ridge National Laboratory. The ensuing discussion highlighted the excellence of the NSTX diagnostic set and port access and views to measure ELM structure. Several possibilities for new experiments were identified. (R. Maingi)
- We will have the next NSTX Physics meeting on **TUESDAY, NOV. 21 AT 3 PM IN B252** (note change of day, time and location). At this meeting, Martin Peng will present the possible topics for ITPA-related joint experiments in which NSTX can participate. We would like to have a discussion of the priority of these topics, with guidelines of a) which are most likely to be completed over the next year or two, and b) which provide the greatest leverage for exposure of NSTX results in upcoming major meetings. A draft list of these joint experiments will be distributed prior to the meeting, but if you have any ideas, please let Martin and the appropriate ET leader know. (S. Kaye)
- There will be an NSTX Team Meeting on Wednesday, Nov. 22 at 1:30 pm in the NSTX Control Room Annex. We will update you on the outage activities and preparation toward the FY 2007 experimental run and also on the upcoming NSTX Research Forum.

Engineering Operations (A. von Halle, C. Neumever)

The NSTX outage continued this past week with the completion of the upper and lower flanges for the new Poloidal CHERS diagnostic. The installation of the fiber optic runs for this diagnostic has been completed and the test cell wall penetrations re-sealed. An alignment, followed by a photometric "white plate" calibration of the MPTS diagnostic were also both completed this week. A calibration of the high-K scattering diagnostic was performed, and the leak checking of the nozzle for the new Johns Hopkins USXR Spectrometer was successfully completed. Other in-vessel work this week included spatial measurements of the SGI, edge diagnostics, LITER, and the UCLA reflectometer. The 21 machine tiles which were sent to Sandia National Lab for measurements of their lithium content have been returned to PPPL and are being re-installed in the vessel.

The test cell will remain in free (card reader) access through most of the coming week.

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

- Lithium deposition measurements on NSTX graphite tiles were completed at SNL (W. R. Wampler, SNL) and the tiles have been returned to NSTX for reinstallation.

Diagnostic Operations (R. Kaita)

- The in-vessel spatial calibration of the Bay C divertor imaging fiber array has been completed. (V. Soukhanovskii, LLNL)
- The calibration of the high-k turbulence microwave diagnostic had been completed. The response of the system was determined with an “acoustic cell” that simulated the frequency and wavenumber of the plasma fluctuations of interest.