

NSTX Weekly Report (Oct. 14, 2005)

FY2006 weeks of research operations

Planned: TBD

Completed: 0 weeks

NSTX Department, Project, Program (M. Ono, M. Peng, E. Synakowski)

- J. Menard traveled to Washington, D.C. this week to serve as a committee member on the National Academy of Science's "Plasma 2010: An Assessment of and Outlook for Plasma Science". The charge of the committee is to: "1. Assess the progress and achievements of plasma science over the past decade, 2. Identify the new opportunities and the compelling science questions for plasma science, frame the outlook for the future, and place the field in the context of physics as a whole, 3. Evaluate the opportunities and challenges for the applications of plasma science to fusion and other fields, 4. Offer guidance to the government research programs and the scientific communities aimed at addressing these challenges and realizing these opportunities." (J. Menard)
- Martin Peng (ORNL) attended the Fusion Power Associates Annual Meeting and Symposium on Fusion and Energy Policy during October 11-12 in Washington DC and presented talk on "Status of World Spherical Torus Research." (M. Peng)
- There will be no NSTX Physics meeting on Monday, Oct. 17 due to the on-going APS Dry Runs. (S. Kaye)

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

The NSTX outage continued this past week with the removal of the TF inner bundle and OH coil assembly. Modifications to the assembly's cradle in preparation for the OH coil water leak repair are in progress, and clean up of the TF contact surfaces for re-silver-plating has started. The in-vessel Faro measuring arm was used to complete a spatial calibration of the Johns Hopkins Soft X-Ray Array diagnostic, and two center stack tiles, one cracked and the other with surface scouring, were replaced this week. Alignments of the Moveable Glow Discharge Cleaning Probe were completed and a post-run inspection of the Lithium Pellet injector is in progress. The Bay G port cover will be removed for modifications this coming week

Access to the NSTX test cell will be available via the card readers throughout this coming week with some local access restrictions during the Bay G port cover removal. (A. von Halle)

Research Operations (M. Bell)

Diagnostic Operations (R. Kaita)

- The in-vessel diagnostic calibration work involving precision position determinations with the FARO measuring arm has been completed. They included locating the sightlines for the Johns Hopkins University “optical” soft X-ray array, and measuring the location of the “dust collector.”

Boundary Physics Operations (H. Kugel)

- The Movable Glow Probe was disassembled and its condition after the effects of operation was found to be normal. Preparations are in progress to perform the planned maintenance for service during Bakeout. (T. Provost)
- A Peer Review for LITER-1 (LITHium EvaporatoR-1) was held and found to be successful pending resolution of the CHITS. (D. Mansfield, H. Kugel)
- Preparations were initiated to replicate the Bay-K Bellows Motion Support for application to the LITER-1 probe at Bay-F. (G. Labik)
- All dimensioning was completed for the LITER-1 cartridges and thermal shield, and the preliminary drawings were finalized. Work was initiated on jigs and fixtures for fabrication of the LITER-1 Cartridges A & B. (D. Mansfield, L. Roquemore, and S. Jurczynski)
- Testing of the LITER-1 snout heater testing in air was completed. (J. Timberlake)
- Faro Arm measurements were performed to characterize the LITER-1 geometry at Bay-F Upper. (R. Feder)
- Faro Arm measurements were performed to characterize the geometry of the Quartz Deposition Monitors. (C.H. Skinner, R. Feder)