NSTX Weekly Report (Aug. 5, 2005)

FY2005 Planned Operations: 17 weeks
Completed: 13.77 weeks producing 1610 plasmas
Maintenance Week - No plasma operations

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

• The NSTX Results Review and the NSTX Research Opportunities Forum will be held Monday through Friday, December 12-16, 2005. The Results Review will consist of short talks by researchers that are concise accountings of the research status in both NSTX experiment and ST-related theory. The Research Opportunities Forum is the annual opportunity to discuss experimental proposals and to enter the process of run planning and prioritization. Details regarding the meeting will be announced in the fall. (E. Synakowski)

• There will be an NSTX Physics meeting on Monday, 8/8 at 1:30 pm in LSB318. The agenda is: 1) OH H-modes – XP506 (Bush/Kubota) – 30 min, 2) TAE stability study – XP517 (Fredrickson) – 30 min, 3) XP status reports – 2 vugraphs/5 min each (MAX!) Sontag (XP512), Bernabei (XP527), Kessel (XP509), Bitter (XMP40) (The meeting presentation files are available on the NSTX web - Physics Meeting folder). (S. Kaye)

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

The NSTX test cell remained open for maintenance this past week, with emphasis placed on installation activities associated with the new high K scattering diagnostic. The mirrors for this diagnostic have been aligned and the detectors have been installed at bay K. The RF source has been installed in the gallery adjacent to the test cell, and microwave testing of wave-guides and systems up to bay H will be performed next week. The 3-color Soft X-Ray Array was received from Johns Hopkins University and installed on NSTX. Also this week, maintenance was performed on electrical power systems, including the RWM Switching Power Amplifier system, and on the machine flux loop and thermocouple systems.

Plasma operations will resume on Monday morning and there will be no access to the NSTX test cell during the 1st shift next week. The run day will be extended to 7PM on Tuesday and Thursday this week, and the test cell will be in controlled access each evening from the end of run day until 10PM. A machine area scrub will be performed from 10-11PM each evening in preparation for the following day's run. The next NSTX maintenance week is scheduled for the last in August. (A. von Halle)

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

• The vacuum chamber and mounting for the SNL Hydrogen Sensor (R. Bastasz, SNL) neared completion in preparation for installation and commissioning. (C.H. Skinner)

• A dust detector was modified to detect only reflected UV, and not dust, to help resolve the contribution of each. On a second dust detector, a collimator was added to facilitate the recycling of dust particles reflected off the grid, and enhance response. (C. H. Skinner)

• The off-line testing of the VPS1 spectrometer for wall conditioning studies was completed. (V. Soukhanovskii, LLNL)