

NSTX Weekly Report (June 18, 2004)

FY 2004 weeks of operation planned: - 18 weeks, Completed: - 14.7 weeks

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

- Ed Synakowski visited LLNL to meet with fusion researchers and to give a seminar for the Physics and Advanced Technology Directorate. The talk title was "Fusion energy, plasma turbulence, and a shifting scientific landscape," and emphasized the changing nature and requirements of the dialogue between theory and experiment in turbulence and transport. (E. Synakowski)
- The NSTX Physics meeting today will feature Wubiao Zhu, a Columbia University student. The title of his presentation is: "[Toroidal Rotation Damping in NSTX Plasmas](#)". The meeting will be held as usual in LSB B-318, starting at 1:30 pm. (C.K. Phillips)
- The June NSTX Team Meeting was held on **Thursday, June 17, 2004**. The meeting material is available on the NSTX web.

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

NSTX has just completed a two week maintenance period intended to install the first two RWM coils, and to complete the commissioning of and power connections to the PF4 coil system. The power supply has been tested and bus links installed for operation of the PF4 coil. Final connections to this coil will be made after a review of the proposed operating scenarios for upcoming experiments. The mounting supports and coil sections for the 1st two RWM coils have been installed, and work will continue off-line and on weekends to complete the coil links and connections. The Lithium Pellet Injector is under vacuum and has been opened to the NSTX vacuum vessel. Preoperational testing is in progress and aluminum test pellets have been launched into the pellet target. Assembly of the CHI transient start-up capacitor bank and the new CHI snubber circuit continues. A water leak has been found in a cooling line to the PF1A upper coil. Since the cooling line is inaccessible without significant disassembly, and an air cooled option is viable in light of the planned use of that coil for the rest of the year, a work-around has been developed to allow safe PF1Au operation with air cooling and additional monitoring. Plasma operations will resume Monday morning after a vacuum vessel boronization. (A. von Halle)

Research Operations (M. Bell)

Boundary Physics (H. Kugel)

- The Activities Certification Committee (ACC) performed an inspection of the Lithium Pellet Injector (LPI) installation. The LPI torus interface valve was opened to the vessel and the RGA spectrum was found to be satisfactory. The Preliminary Test Procedure (PTP) for the controls was completed. Residual testing is in progress. (P. Sichta)
- The bellows motion drive for the Supersonic Gas Injector (SGI) passed an acceptance leak test. The trial fit-up of the SGI support table was completed. Off-line characterization of the nozzle output profile in vacuum is in progress. (T. Provost, L. Guttadora, L. Roquemoire, V.Suckhanovskii (LLNL))
- 3 cylinders of trimethylboron were received.