NSTX Weekly Report (May 27, 2005)

FY2005 Planned Operations: 17 weeks
Completed: 4.88 weeks producing 478 plasmas
No plasma operations due to the maintenance week.

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

The NSTX test cell remained open for maintenance this past week and modifications to RWM Coil and GDC probe cabling were completed to make room for the new High-K Scattering detector waveguides. Progress was also made on the mounting of the launching system for this diagnostic at Bay H, and on the electrical systems to support the gyrotron to be installed in the gallery adjacent to the test cell. Initial fit-ups of the new moveable glow discharge cleaning probe were made at Bay K, allowing the fabrication of the final components of the mounting assembly to begin. Several upgrades to improve the noise immunity of the SPA system were made this week, including additional shielding, rerouting cables, isolating the control racks and installing instrumentation isolation amplifiers on some signals. Additional channels have been added to the MPTS diagnostic and were tested over the weekend. Neutral Beam maintenance included the replacement of both the main backing pump for the vacuum system, and the cooling pump for the helium refrigerator turbo-pump. Detailed inspections of the MG set rotor were completed with good results.

NSTX operations will resume on Tuesday morning after the Memorial Day holiday, and there will be no access to the NSTX test cell during the 1st shift. The run day will be extended to 7PM on Tuesday and Thursday this week. 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. (A. von Halle)

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

• A Micro Ion Gauge installed on the pump duct Penning Gauge Optical Assembly located between the SPRED chamber valve and the TIV was connected to the PLC to provide individual control logic of the respective valves. (R. Gernhardt)