

NSTX Weekly Report (Aug. 20, 2004)

For FY2004 Joule milestone: 18 weeks; programmatic goal: 20 weeks.
Completed: 21.1 weeks producing 2460 plasmas (Aug. 5, 2004).

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

NSTX has been vented and the neutral beam cryogenic plant shut down for the outage. The neutral beam transition duct has been removed to replace the bellows and to provide access to the vacuum vessel. After initial in-vessel visual inspections and photographs, spatial calibrations of the Gas Puff Imaging diagnostic and the Fast Plasma TV camera were performed. The vacuum vessel floor is now being installed and the FARO measurement arm will be installed early next week. Removal of the TF flexible links and buswork is in progress and the disassembly of the lower TF flags will begin on Monday. The removal of the center stack is scheduled for Monday, August 30th.

There are no NSTX test cell access restrictions this coming week other than the local restrictions associated with lifting and construction activities. (A. von Halle)

Research Operations (M. Bell)

Diagnostic Operations (R. Kaita)

- An end-to-end recalibration of the diamagnetic measurement system was performed this week. The system has maintained its flux calibration to within 1 part in 10^4 since its last calibration in December 2001. (M. Bell)
- A calibration of the neutron detector system was performed last week.

Boundary Physics Operations (H. Kugel)

- A vacuum vessel inspection was performed. No major damage was observed. Debris was found on the lower horizontal surfaces in an amount comparable to that found during the March FY04 opening. Lithium compound residue was observed on the Center Stack opposite the Bay K port of the Lithium Pellet Injector. The Bay-B lower divertor viewport was removed for dust analysis. 7 silicon and stainless steel coupons, 3 films, and 14 other samples were obtained for analysis. 50 photos were taken to document interior surfaces and to facilitate analysis. (C. Skinner, L. Roquemore, H. Kugel)