

NSTX Weekly Report (Nov. 24, 2004)

FY2005 Planned Operations: 14 weeks

Completed: 0 weeks producing 0 plasmas

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

- The 9th annual workshop on MHD stability control was held at PPPL from November 21-23. The theme of the meeting was "Control of MHD Stability: back to the basics", and included presentations on modeling of feedback and rotational/dissipational stabilization of RWMs, MHD control in non-axisymmetric devices, the effect of non-axisymmetric fields on stability, ballooning modes and NTMs, and results from active control experiments. From NSTX, J. Menard presented modeling results investigating resistive plasma effects on RWMs for DIII-D and NSTX, J. Bialek (Columbia University) presented VALEN results discussing calculations of resistive wall times, and S. Sabbagh (Columbia University) presented a talk on "Wall stabilization in the ST" for NSTX. (J. Menard)
- Naoki Tamura of National Institute for Fusion Science, Japan, gave a talk entitled 'Tracer-Encapsulated Solid Pellet (TESPEL) diagnostic at LHD' on Tuesday November 23, 2004. (S. Kaye)
- Anthony Webster of Culham Laboratory, UK, gave a talk entitled, "Does flow shear significantly influence the stability of ballooning modes?" on Wednesday November 24, 2004. (D. Gates)

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

The NSTX outage continued this past week with the mounting of the Bay G port cover and the completion of work on the Bay K port cover. The Bay K port cover is ready to install and will be mounted after completing some cabling work at that bay. The Bay H port cover was fit-up with one tile removed to check for interferences with the neutral beam armor. Modifications are now being made to that last tile and mounting bracket to provide proper shielding from neutral beam shine-through while allowing for needed high K scattering diagnostic sight lines. Preparations for the epoxy potting of the TF flag boxes continues, and test pieces of the hub disk surfaces with the new friction coating have been returned from the vendor for review. Two of the three cables needed to power the new RWM error field coils have been run from the power conversion building to the test cell high bay area, with the third scheduled to be in the tray-work by the end of this coming week. The fabrication of the new PF1A coil continues in the coil shop.

There are no NSTX test cell access restrictions expected this week. (A. von

Halle)