

NSTX-U Weekly Report (March 23, 2012)

NSTX-U is in the Upgrade Project outage in FY 2012

Two graduate students, Kaifu Gan and Bin Cao, concluded a 1-year visit from ASIPP, China to analyze NSTX data. Gan, working with the ORNL Infrared diagnostic team, worked on thermography analysis and Cao, working with S. Zweben, analyzed GPI data. Several draft articles have been prepared for submission to refereed journals as a result of their studies. (R. Maingi, ORNL)

Jon Menard (PPPL) attended the 2012 KSTAR Program Advisory Committee meeting held at NFRI in Daejeon, Korea on March 21-23, 2012. He also presented a talk on behalf of the NSTX-U research team following the KSTAR PAC meeting entitled "NSTX Research Highlights and Plans for NSTX Upgrade". (J. Menard)

On March 21, 2012, R. Raman (U. Washington) gave the talk entitled "Considerations for a CHI system for Quest," to the Quest members at Kyushu University. The talk discussed the benefits of implementing CHI capability on Quest and discussed a number of concepts that appear feasible. Because Quest is an all metal machine, a CHI program on Quest would benefit NSTX CHI research as it allows testing new methods for implementing CHI in a ST and provides additional information on CHI scaling with machine size. (R. Raman)

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

NSTX Upgrade construction activities continued this week with the completion of in-vessel metrology needed to begin installing the new neutral beam armor brackets, and the ongoing welding of additional support on the upper vacuum vessel ribs. Preparations to remove the first outer TF coil section (TF#7) continued, and good progress was made on the removals of TF turnbuckles and clevis pads. Test cell ductwork and electrical service modifications needed for the eventual move of the 2nd neutral beam-line into the NSTX test cell have been completed, and leak checking of the cryogenic systems for that beam-line continued. Technical staff also continue on the preparation of the fabrication area for the new center stack. The Central I&C group is working on the development of a CAMAC-upgrade prototype.

Access to the NSTX-U test cell will be available only through previous arrangement with the Upgrade Work Control Center.