

NSTX-U Weekly Report (May 31, 2013)

NSTX-U is in the Upgrade Project outage in FY 2013

Princeton University presented its 2013 Kaul Foundation Prize for Excellence in Plasma Physics Research and Technology Development to NSTX-U Team member Dr. Steven A. Sabbagh of Columbia University who is a long-term collaborator resident since 1990 at PPPL. The citation on the award reads “For his leadership in advancing the physics understanding of resistive wall mode stability and feedback stabilization which resulted in sustainment of record normalized beta plasmas in NSTX.” The award was presented by PPPL director Stewart Prager immediately following his May 28th State-of-the-Laboratory Address. Dr. Sabbagh is an APS Fellow and the recipient of the 2009 Nuclear Fusion Award from International Atomic Energy Agency on his NSTX MHD work. Dr. Sabbagh is an adjunct professor of Columbia University Department of Applied Physics and Applied Mathematics and he has been leading the Columbia University group collaboration on NSTX since 1999. Previously to NSTX, Dr. Sabbagh has participated in experiments on TFTR and also led the TFTR MHD Stability Topical Group. (M. Ono / J. Menard)

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

NSTX Upgrade construction activities continued with the completion of all prep work on the nine conductors for the fourth and last TF inner quadrant, and the loading of those conductors into the quadrant mold in preparation for the upcoming vacuum impregnation with epoxy. Work continues on the commissioning of the second neutral beam (NB2) on NSTX with the installation of the magnetic shield on the ion source side of that beam-line. Fit-ups of NSTX in-vessel armor at NB2 beam impinged surfaces continue with the tack welding of the mounts. Contractors are on site installing cooling lines for the second beam-line.

Preparations of non-upgrade equipment for plasma operations in the NSTX-U configuration also continued with the recommissioning of the three autotransformer and transformer rectifier sets that will provide the primary power for the NB2 ion sources, and the power testing of the new firing generators for the field coil power conversion (FCPC) system rectifiers. Twelve of the planned thirty four firing generators have now been delivered to FCPC, eleven of which have successfully completed power testing.

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