Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

Progress of STPX Discharges and Diagnostic Systems R. WILLIAMS, J. CLARK, J. B. TITUS, C. AKPOVO, E. MEZONLIN, Florida A. M. University, E. SCIME, West Virginia University, E. THOMAS, Auburn University — The Spheromak Turbulent Physics Experiment (STPX) at Florida A&M University is currently ramping up plasma operations and diagnostic testing. STPX is a large radius (1.5m), magnetic confinement device, capable of creating fusion-relevant and astrophysical-related spheromak plasmas. We have measurements and simulations of the formation banks and bias magnetic field coils. dB/dt coils provided by WVU have been calibrated and a Langmuir triple probe developed by Auburn University is providing density and temperature measurements with a saturation coil array providing a rough density profile. A CO_2 interferometer has been installed to corroborate the density measurements and a mechelle spectrometer is providing spectral line data. CORSICA simulations of STPX plasmas have begun.

Ronald Williams
Florida A.
M. University

Date submitted: 24 Aug 2017 Electronic form version 1.4