

Abstract Submitted
for the DPP19 Meeting of
The American Physical Society

Density profiles of C-2W High Performance FRC MICHAEL BEALL, ELI PARKE, JOHN KINLEY, ROGER SMITH, THE TAE TEAM, TAE Technologies, Inc. — In TAE Technologies' current experimental device, C-2W (also called “Norman”) [1], record breaking, advanced beam-driven field reversed configuration (FRC) plasmas are produced and sustained in steady state utilizing variable energy neutral beams, advanced divertors, end bias electrodes, and an active plasma control system. The performance of the fast ion-dominated FRC and the effects on it from beam injection and end biasing are examined using a 14-chord interferometer array in the 432.5 μm far-infrared (FIR) range. Equilibrium density profiles from the array, together with other diagnostic measurements, are presented to compare early C-2W discharges and new high-performance regime plasmas. [1] H. Gota et al., Nucl. Fusion 59, 112009 (2019).

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Date submitted: 02 Jul 2019

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