

**Abstract Submitted for the 51st Annual Meeting  
Division of Plasma Physics  
November 2–6, 2009, Atlanta, Georgia**

**Progress in Developing ITER Operational Scenarios on DIII-D,\*** E.J. Doyle, *UCLA*, J.C. DeBoo, J.A. Ferron, R.J. La Haye, J.E. Kinsey, T.C. Luce, P.A. Politzer, *GA*, for the DIII-D ITER Demonstration WG – The DIII-D program has initiated an effort to provide experimental evaluations of four ITER operational scenarios: baseline ELMy H-mode, advanced inductive, hybrid, and steady-state. Discharges in 2008 matched the anticipated ITER design for plasma shape, aspect ratio and value of  $I/aB$ , with size reduced by a factor of 3.7, while matching key performance targets for  $\beta_N$  and  $H_{98y2}$ . In 2009, attention has focused on improving the match to anticipated ITER parameters: Baseline scenario plasmas have been operated with reduced densities to match the anticipated ITER edge pedestal collisionality, while maintaining target values for  $\beta_N$  and  $H_{98y2}$ . These plasmas have enabled a demonstration of 2/1 NTM mode suppression at low  $q_{95}$  using ECCD, as planned for ITER. Additional experiments are planned to investigate operation of baseline scenario plasmas with low torque input (low rotation), as well as rf-dominated operation. Comparison of experimental profiles to those from transport modeling will be shown.

\*Work supported by the US DOE under DE-FG02-01ER54615 and DE-FC02-04ER54698.