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**Effects of Known Non-axisymmetric Radial Magnetic Perturbations on the DIII-D Boundary Plasma**<sup>1</sup> T.E. EVANS, General Atomics, R.A. MOYER, P. MONAT, UCSD — Experimental data shows that radial magnetic perturbations from the DIII-D C-coil can change the plasma properties near the separatrix. In some cases, when the C-coils are energized, we observe a flattening of the pressure profile and a repositioning of the edge pressure gradient relative to that predicted by the axisymmetric EFIT model. These changes could result from the formation of a narrow stochastic boundary near the separatrix due to interactions of the C-coil harmonics on resonant surfaces in the high magnetic shear region. We investigate the implications of such a model with a field line tracing code (TRIP3D), that includes both the non-axisymmetric C-coil perturbations and the axisymmetric EFIT equilibrium.

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Prefer Oral Session  
 Prefer Poster Session

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