Rotation Reversals in Alcator C-Mod L-mode Plasmas\footnote{Supported by USDoE award DE-FC02-99ER54512.} JOHN RICE, MIT PSFC, BASIL DUVAL, EPFL CRPP, MATT REINKE, YURI POD-PALY, MIT PSFC — Abrupt rotation reversals have been observed in Alcator C-Mod L-mode plasmas. The magnitude of the reversals is typically 10s of km/s, and can be triggered by slight changes in the electron density or plasma current. The critical density for the reversal is itself a strong function of plasma current. There are no other changes in macroscopic parameters such as the electron temperature or energy confinement time. Subtle differences in the turbulence characteristics are sometimes observed. The reversals occur inside of the q=2 surface.