

Abstract Submitted  
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**Deformation of a magnetized plasma jet upon collision with a neutral gas cloud**<sup>1</sup> A.L. MOSER, P.M. BELLAN, Caltech — The Caltech spheromak formation and astrophysical jet simulation experiment uses a coplanar spheromak gun with magnetically linked concentric electrodes. This geometry and the electric field applied between the electrodes provide an analog to the accretion disk environment and allow production of collimated plasma jets similar to those found in astrophysical settings. The experiment has been used to study the evolution of a plasma jet when it collides with a localized neutral gas cloud. The experiment produces a collimated, magnetized dense plasma jet that propagates through a very low pressure environment before colliding with a high density neutral gas cloud. A high speed camera and a magnetic probe array characterize the physical and magnetic field structure of the plasma jet with and without a target gas cloud present.

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