Abstract Submitted
for the DPP11 Meeting of
The American Physical Society

**MiniRailgun Pressure and Magnetics Measurements**[1] SARAH MESSER, ANDREW CASE, SAM BROCKINGTON, LINCHUN WU, F. DOUGLAS WITHERSPOON, HyperV Technologies Corp. — We present pressure and magnetic data from both a single 1 inch square bore minirailgun and from the merging of jets from several 1 cm minirailguns. The magnetic probes are in the wall of the minirailguns and monitor current distribution and propagation in the bore. The pressure probe array measures stagnation pressure simultaneously at several points in a plane downstream from the gun and shows how the pressure changes through the merge process at various distances from the gun. Stagnation pressure is influenced by density, temperature, and velocity, and serves as a check on spectroscopic and interferometric measurements. Unlike optical measurements, stagnation pressure is taken at a definite location. These guns are similar to the initial gun recently installed on the Plasma Liner Experiment at LANL. The jet-merging results are compared to objectives for PLX.

[1]Supported by the U.S. DOE Joint Program in HEDLP.

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Date submitted: 15 Jul 2011 Electronic form version 1.4