

Abstract Submitted  
for the DPP06 Meeting of  
The American Physical Society

**Optical streak camera images of wire-array z-pinches on the 1-MA COBRA pulsed power generator**<sup>1</sup> RYAN MCBRIDE, SERGEI PIKUZ, ISAAC BLESENER, YU TAO ZHAO, JOHN GREENLY, DAVID HAMMER, BRUCE KUSSE, Laboratory of Plasma Studies, Cornell University, LABORATORY OF PLASMA STUDIES, CORNELL UNIVERSITY TEAM — Initial optical streak camera imaging experiments of wire array z-pinches on the 1 MA COBRA pulsed power generator are presented. The imaging system makes use of a Hamamatsu C7700 streak unit, which is coupled to a V7669-06 image intensifier with an MCP, and a C4742-98 CCD camera. A long focal length optical system is employed to relay the z-pinch produced light from the experiment chamber to the input slit of the streak camera – a total transmission distance of approximately 14 m. The optical streak camera images produced, along with data from other supporting diagnostics, are presented for z-pinch implosions of various wire array geometries and materials.

<sup>1</sup>This research was supported by the NNSA Stockpile Stewardship Academic Alliances program under DOE Cooperative Agreement DE-FC03-02NA00057.

Ryan McBride  
Laboratory of Plasma Studies, Cornell University

Date submitted: 21 Jul 2006

Electronic form version 1.4