

Abstract Submitted
for the DPP08 Meeting of
The American Physical Society

Laser-plasma expansion into a preformed magnetized plasma¹ C. NIEMANN, C. CONSTANTIN, D. SCHAEFFER, E. EVERSON, A. ZYLSTRA, N. KUGLAND, P. PRIBYL, W. GEKELMAN, A. COLLETTE, S. TRIPATHI, S. VINCENA, UCLA — The expansion of an energetic laser-produced plasma across the magnetic field (0.1-1 kG) in a large (1 m x 17 m) magnetized plasma (He, $4 \times 10^{12} \text{ cm}^{-3}$, 5 eV) is studied by means of magnetic pickup coils and fast shutter photography. The bulk blow-off velocity of the laser-plasma is initially larger than the Alfvén velocity. The laser plasma radiates large amplitude Alfvén waves. We will present measurements of the compression and amplification of the magnetic field at the edge of the diamagnetic cavity.

¹This work is supported by the DOE and the Basic Plasma Science Facility.

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Date submitted: 18 Jul 2008

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