

Abstract Submitted  
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**Laser driven shocks in a large magnetized plasma**<sup>1</sup> CHRISTOPH NIEMANN, CARMEN CONSTANTIN, ANDREW COLLETTE, PATRICK PRIBYL, SHREEKRISHNA TRIPATHI, ERIK EVERSON, ALEXANDRE GIGLIOTTI, STEPHEN VINCENA, NATHAN KUGLAND, WALTER GEKELMAN, UCLA, RADU PRESURA, STEPHAN NEFF, CHRISTOPHER PLECHATY, UNR — We will present experiments on the interaction of an energetic laser-produced plasma with a large magnetoplasma. Laser intensities in excess of  $10^{12}$  W/cm<sup>2</sup> produce an ablating plasma plume with expansion velocities of several 100 km/s. Prior to the laser pulse an ambient plasma with a length of 18 m and a diameter of 50 cm is created at  $2 \times 10^{12}$  cm<sup>-3</sup> and 5 eV in an axial magnetic field of 600 G (the Large Plasma Device). We observe large amplitude Alfvén waves radiated from the laser-produced plasma.

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