

Abstract Submitted
for the SHOCK19 Meeting of
The American Physical Society

Improvements to Asay Foils for Enhanced Dynamic Range and Robustness¹ PAUL STEELE, STEVE COMPTON, LOUIS FERRANTI, JOSE SINIBALDI, Lawrence Livermore National Laboratory — Recent changes to Asay foil designs and manufacturing processes have improved robustness against shock, vibration and laser heating during fielding operations. Experimental data shows Asay foils survive more than 40x expected shock and vibration environments and more than 10x expected laser heating energies. Moreover, a fielding strategy is presented and experimentally verified with explosively-driven Sn ejecta that yields 5x improved dynamic range in cumulative ejecta areal mass measurements.

¹This work was performed under auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

Jose Sinibaldi
Lawrence Livermore National Laboratory

Date submitted: 27 Feb 2019

Electronic form version 1.4