

Abstract Submitted
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Influence of Episodic Mass Ejection on Hydrodynamic Jet Evolution S. SUBLETT, J.P. KNAUER, D.D. MEYERHOFER, I.V. IGUMENSHCHEV, T.J.B. COLLINS, A. FRANK, Laboratory for Laser Energetics, U. of Rochester — The Laboratory for Laser Energetics OMEGA laser has been used to create plasma jets formed by two mass ejections. Two 1-ns laser pulses, separated by 10 ns, launched strong shocks into a 220- μm -thick, mid- Z metal plug. The first laser pulse consisted of three laser beams and the second pulse four beams. Material unloading from the back of the plug traveled 300 μm through a high- Z pipe and launched a jet into a low- Z foam. Control experiments were performed with single mass ejections created by either three or seven laser beams. All experimental results were compared to 1-D and 2-D simulations. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-92SF19460.

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