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Time-Resolved Imaging of Cryogenic Target X-Ray Emission at Peak Compression on OMEGA F.J. MARSHALL, J.A. DELETTREZ, R. EPSTEIN, V.N. GONCHAROV, D.T. MICHEL, T.C. SANGSTER, C. STOECKL, Laboratory for Laser Energetics, U. of Rochester — This talk will describe the measurements of cryogenic target region size and time history inferred from the combination of a high-speed x-ray framing camera and two time-integrating x-ray microscopes. The high-speed framing camera infers the time of peak stagnation from pinhole images taken at 30-ps time intervals with 30-ps frame times and with $\sim 15\mu$m resolution. The two Kirkpatrick–Baez-type x-ray microscopes have spatial resolutions of $\sim 5\mu$m and $\sim 7\mu$m respectively, and are currently time integrating. The inferred x-ray core size and emission time interval will be compared to the measured neutron emission time and to simulations of the experiments. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

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