

Section 3

LASER SYSTEM REPORT

3.A GDL Facility Report

The refurbishment of the GDL facility, managed by **J. Kelly**, continued during the first quarter of FY93. This work will continue through the summer of 1993. Remodeling of the laser room, target room, and power-conditioning room has been completed. The tables needed to mount the laser system are in place and the laser hardware is being installed. The current OMEGA target chamber will be used as the new GDL target chamber. It will be installed during the second quarter of FY93.

3.B OMEGA Facility Report

The OMEGA laser facility fired a total of 528 shots during the first quarter of FY93. These shots were divided among driver-line, target-irradiation, laser-system, and software-test shots. The last shot on the current OMEGA laser system was taken 18 December 1992 at 17:08. The system is now shut down to begin the construction needed for the OMEGA Upgrade system.

The 282 target shots during this period included long-scale-length plasma interactions, induced, low-order, *l*-mode illumination asymmetrical implosions, measurement of the burnthrough time of plastic ablation layers (ablation layer-stability characterization), and five NLUF projects. These experiments were done with both Gaussian pulses and pulses with fast rise times.

The shot summary for the OMEGA laser this quarter is as follows:

Driver line	166
Laser system	68
Software tests	12
Target shots	<u>282</u>
TOTAL	528

ACKNOWLEDGEMENT

This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC03-92SF19460, the University of Rochester, and the New York State Energy Research and Development Authority. The support of DOE does not constitute an endorsement by DOE of the views expressed in this article.