Section 4
LASER SYSTEM REPORT

4.A GDL Facility Report

During the second quarter of FY91, the regenerative amplifier pulse-shaping system was removed from GDL and GDL was realigned in preparation for NLUF experiments. At the end of the quarter, users from the University of Illinois began a series of experiments on laser annealing.

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

Laser system		24
Calibration		16
Users		51
	TOTAL	91

ACKNOWLEDGMENT

This work was supported by the U.S. Department of Energy Division of Inertial Fusion under agreement No. DE-FC03-85DP40200 and by the Laser Fusion Feasibility Project at the Laboratory for Laser Energetics, which has the following sponsors: Empire State Electric Energy Research Corporation, New York State Energy Research and Development Authority, Ontario Hydro, and the University of Rochester.

4.B OMEGA Facility Report

The OMEGA Laser Facility was scheduled for several target campaigns during the second quarter of FY91. However, because of problems in several areas of the system, only one campaign was completed and another was begun.

Problem areas included the power-conditioning system, the alignment computer, and the driver line. After total failure of the old FORTH-based alignment system, sufficient portions of the new limited-alignment system were introduced on a "crash" basis so as to enable limited-alignment operation. The driver line was completely realigned and a number of mounts suspected of causing drift were replaced.

The completed campaign was a series of burnthrough targets used to study implosion stability. At the end of the quarter a series of long-scale-length plasma experiments were started on flat targets.

The shot summary for OMEGA this quarter is as follows:

Laser test		260
Target		87
	TOTAL	347

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