

Section 1

LASER SYSTEM REPORT

1.A GDL Facility Report

The GDL facility continued operations during the third quarter of FY81.

A total of 430 shots were delivered by the facility in the period July 1 to September 30, 1981. The shot distribution was as follows:

3ω target experiments	237 shots
damage test facility	49
NLUF	74
alignment and calibration	<u>70</u>
total	430 shots

National Laser Users Facility operations for GDL during this period included 58 shots for the x-ray biophysics experiments and 16 shots for the Brigham Young University group.

Some of the experimental work carried out under the 0.35 μm Interaction Physics Program and the kinetic x-ray diffraction experiments are reviewed elsewhere in this volume.

1.B OMEGA Facilities Report

In the quarter July 1 to September 30, some 427 shots were fired on the OMEGA system. Of these, 104 shots were part of the beam uniformity characterization campaign which will be reported on in a later issue. Table 1 gives a breakdown by usage of the laser shots in the quarter, and Figs. 1 and 2 show the energy distribution of the 12 and 24 beam shots during August and September.

July 1, 1981 - September 30, 1981			
CATEGORY	NUMBER OF SHOTS		
Target Shots	101*	(24%)	
Driver Align and Test	211	(49%)	
Beamline c/o and Calibration	72*	(17%)	
Software Test and Timing	43	(10%)	
TOTAL	427	(100%)	

* Including laser uniformity series - 104 shots

E1738

Table 1
 OMEGA laser system shot category distribution July 1 to September 30, 1981.

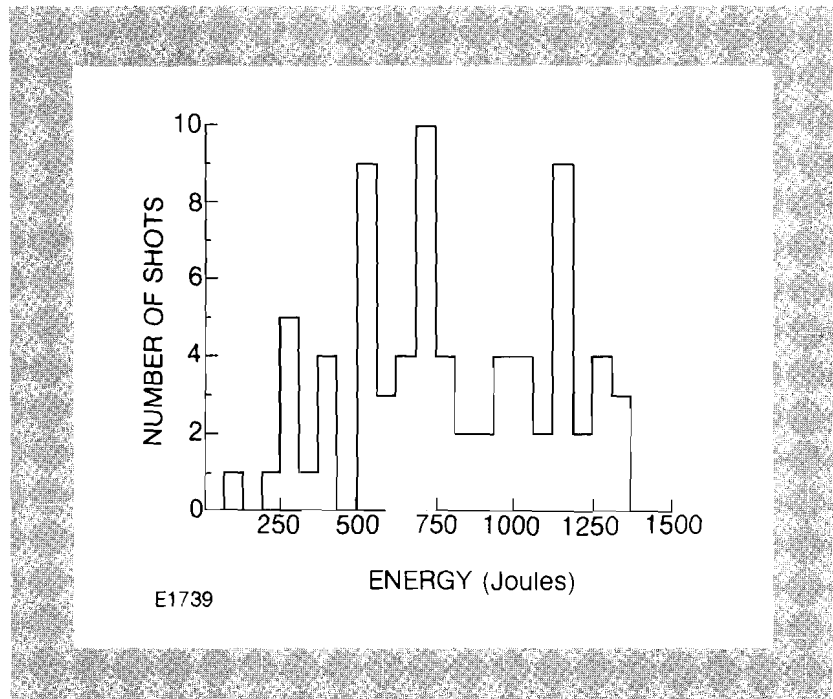


Fig. 1
 12-Beam target shots from August 1 to September 30, 1981.

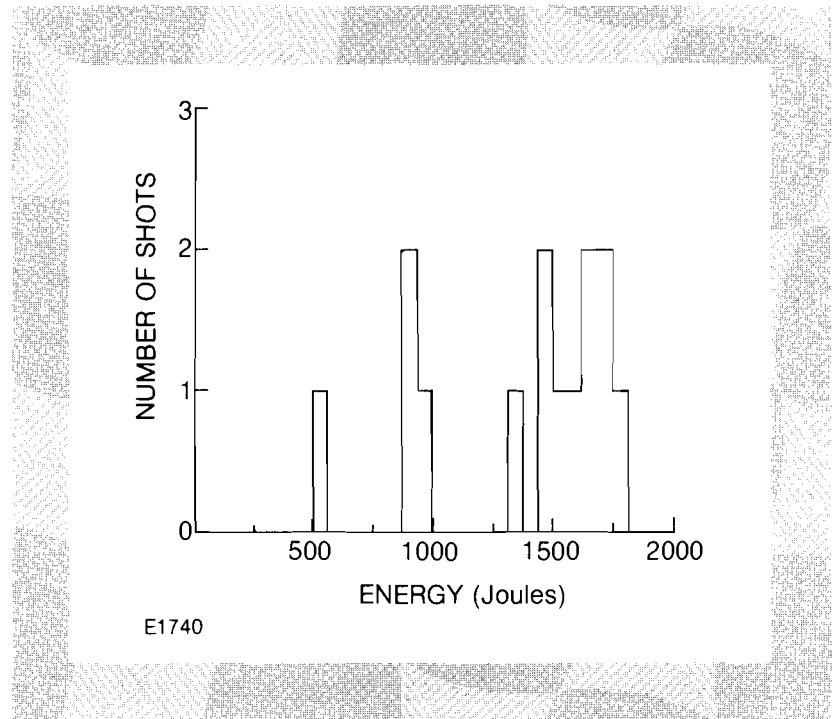


Fig. 2
24-Beam target shots from August 1 to
September 30, 1981.