

FY20 Q4 Laser Facility Report

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During the fourth quarter of FY20, the Omega Laser Facility conducted 368 target shots on OMEGA and 266 target shots on OMEGA EP for a total of 624 target shots (see Tables I and II). OMEGA averaged 10.8 target shots per operating day, averaging 91.9% Availability and 96.7% Experimental Effectiveness. OMEGA EP averaged 8.3 target shots per operating day, averaging 93.3% Availability and 94.9% Experimental Effectiveness.

Table I: OMEGA Laser System target shot summary for Q4 FY20.

Program	Laboratory	Planned Number of Target Shots	Actual Number of Target Shots
ICF	LLE	104.5	99
	LANL	11	11
	LLNL	11	8
ICF Subtotal		126.5	118
HED	LLE	44	47
	LLNL	27.5	22
	SNL	11	9
HED Subtotal		82.5	78
LBS	LLE	22	23
	LLNL	22	25
LBS Subtotal		44	48
AIBS		33	38
NLUF		11	10
RAL		11	12
NLUF		11	10
LDRD		11	9
Calibration	LLE	0	45
Grand Total		330	368

Table II: OMEGA EP Facility Target Shot Summary for Q4 FY20.

Program	Laboratory	Planned Number of Target Shots	Actual Number of Target Shots
ICF	LLE	45.5	64
	LLNL	28	44
ICF Subtotal		73.5	108
HED	LANL	14	13
	LLE	7	7
	LLNL	42	44
HED Subtotal		63	64
LBS	LLNL	14	22
NLUF		28	28
AIBS		14	19
LaserNetUS		14	22
Calibration	LLE	0	3
Grand Total		206.5	266

A prototype alignment package in the stage-F diagnostics area featuring a modern digital camera was installed on the OMEGA laser. This upgrade will improve the resolution of the alignment and prevent operational delays associated with the aging analog components. The design has been validated, and all 60 beams will be upgraded over the upcoming six months.

