

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 1999			
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605605A DOD High Energy Laser Systems Test Facility (HELSTF)				PROJECT DE97			
COST (In Thousands)		FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DE97 DoD High Energy Laser Systems Test Facility (HELSTF)		28048	23848	14230	14260	14200	14201	17051	17569	Continuing	Continuing

A. Mission Description and Budget Item Justification: The HELSTF provides a broad based high energy laser (HEL) RDTE capability located at White Sands Missile Range, NM in support of Tri-Service HEL research and development and damage, vulnerability, and lethality laser testing. The HELSTF's laser development support capabilities include a certified laser test range, a fully integrated laser support facility, an extensive array of fully instrumented test sites, the Sea Lite Beam Director (SLBD), the Mid-Infrared Advanced Chemical Laser (MIRACL), the Laser Device Demonstration (LDD), and the Low Power Chemical Laser (LPCL). This multiple use facility supports testing of laser effects for targets ranging from scaled laboratory up through full scale flying target.

FY 1998 Accomplishments:

- 14033 Performed operation and maintenance and base operations support functions in support of the Army, Department of Defense and other agencies conducting high energy laser systems concept development studies and test and evaluation on candidate high energy laser weapons systems (Tactical High Energy Laser, Free Electron Laser, Air Force Airborne Laser, and other laser programs).
 - 9461 Conducted field testing of the Tactical High Energy Laser (THEL) Advanced Concept Technology Demonstration.
 - 4554 Continued the Solid State Laser (SSL) Demonstration Program. Completed single module device and beam distortion correction. Manufactured and integrated the first module of the 3 module device. Performed dynamic target tracking with Army Pointer Tracker (APT).
- Total 28048

FY 1999 Planned Program:

- 14529 Perform operation and maintenance and base operations support functions in support of the Army, Department of Defense and other agencies conducting high energy laser systems concept development studies and test and evaluation on candidate high energy laser weapons systems (Tactical High Energy Laser, Free Electron Laser, Air Force Airborne and space-based lasers, and other laser programs).
 - 8706 Manufacture and integrate modules 2 and 3 of the 3 module SSL device including edge cladding, Amplified Spontaneous Emission (ASE) control and wavefront distortion measurement/control. This device will be representative in demonstrating the relatively compact, lightweight, high power solid state laser technology.
 - 613 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs
- Total 23848

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FY 2000 Planned Program:

- 14230 Perform operation and maintenance and base operations support functions in support of the Army, Department of Defense and other agencies conducting high energy laser systems concept development studies and test and evaluation on candidate high energy laser weapons systems (Tactical High Energy Laser, Free Electron Laser, Air Force Airborne and space-based lasers, other laser programs and live-fire test programs).
- Total 14230

FY 2001 Planned Program:

- 14260 Perform operation and maintenance and base operations support functions in support of the Army, Department of Defense and other agencies conducting high energy laser systems concept development studies and test and evaluation on candidate high energy laser weapons systems (Tactical High Energy Laser, Free Electron Laser, Air Force Airborne Laser, other space-based laser programs, and live-fire test programs).
- Total 14260

B. Program Change Summary	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (FY 1999 PB)	28965	15022	15086	15150
Appropriated Value	29952	24022		
Adjustments to Appropriated Value				
a. Congressional General Reductions	-987	-174		
b. SBIR / STTR	-689			
c. Omnibus or Other Above Threshold Reduction	-228			
d. Below Threshold Reprogramming				
e. Rescissions				
Adjustments to Budget Years Since <u>FY 1999 PB</u>			-856	-890
Current Budget Submit (FY 2000/2001 PB)	28048	23848	14230	14260