

Exhibit R-2, RDT&E Budget Item Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense Wide/BA 1				R-1 Item Nomenclature: <b>*High Energy Laser Initiative PE 601108D8Z</b>				
Cost (\$ in millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total Program Element (PE) Cost	11.785	11.666	0	0	0	0	0	0
High Energy Laser Initiative/P108	11.785	11.666	0	0	0	0	0	0
<b>A.Mission Description and Budget Item Justification:</b>								
<b>* Beginning in FY 2004, High Energy Laser Initiative program management and execution responsibilities will be transferred to the Air Force under PE-0601108F and will result in a more appropriate policy-level role for OSD.</b>								
<p>(U) This program element funds basic research aimed at developing fundamental scientific knowledge to support future DOD high-energy-laser (HEL) systems. HEL weapons systems have many potential advantages, including speed-of-light time-to-target, high precision, nearly unlimited magazine depth, low cost per kill, and reduced logistics requirements because of no need for stocks of munitions or warheads. As a result, HELs have the potential to perform a wide variety of military missions, including some that are impossible, or nearly so, for conventional weapons. These include interception of ballistic missiles in boost phase, defeat of high-speed, maneuvering anti-ship and anti-aircraft missiles, and the ultra-precision negation of targets in urban environments with no collateral damage. Research conducted under this program element develops the technology necessary to enable these and other HEL missions.</p> <p>(U) This program element is part of an overall DOD initiative in HEL science and technology being conducted by the HEL Joint Technology Office (JTO). The goals of this HEL JTO funded research are to provide the technology to make HEL systems more effective and also to make them lighter, smaller, cheaper, and more easily supportable on the battlefield. In general, efforts funded under this program element are chosen for their potential to have major impact on multiple HEL systems and on multiple Service missions. As a result of this focus and of close coordination with the military departments and defense agencies, this program element complements other DOD HEL programs that are directed at more specific Service and agency needs.</p> <p>(U) A broad range of technology is addressed in key areas such as chemical lasers, solid-state lasers, beam control, optics, propagation, and free-electron lasers. Research is conducted principally by universities, but also by Government laboratories and industry. The program element funds theoretical, computational, and experimental investigations. In many cases, these three types of investigations are combined under a single effort, thereby creating synergistic effects between various scientific approaches, and greatly enhancing the potential for making important breakthroughs in HEL-related technologies. DOD intends to translate the knowledge developed under this program element into proof-of-concept solutions to broadly defined HEL-related military problems as part of further laboratory experiments and field-testing.</p>								
<b>B.Program Change Summary:</b>								
	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>				
Previous President's Budget	11.785	12.082	12.310	12.553				
Current FY04 President's Budget	11.785	11.666	0.000	0.000				
Total Adjustments	0.000	-.416	-12.310	-12.553				
Congressional program reductions	0.000	-.416						
Congressional rescissions	0.000	0.000						
Congressional increases	0.000	0.000						
Reprogrammings	0.000	0.000						
SBIR/STTR Transfer	0.000	0.000						
Other					-12.310		-12.553	
<b>* Beginning in FY2004, High Energy Laser Initiative – PE 0601108D8Z will be transferred to the Air Force under PE 0601108F</b>								