

Exhibit R-2, RDT&E Budget Item Justification							Date: February 2003	
Appropriation/Budget Activity RDT&E, Defense Wide/BA 2				R-1 Item Nomenclature: <b>* High Energy Laser Development PE 602890D8Z</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	35.231	43.901	0	0	0	0	0	0
High Energy Laser Development/P890	35.231	43.901	0	0	0	0	0	0
<b>A. Mission Description and Budget Item Justification:</b>								
<p><b>* Beginning in FY 2004, High Energy Laser Development, will be transferred to the Air Force under PE-0602890F for management and execution responsibility and will result in a more appropriate policy-level role for OSD.</b></p> <p>(U) This program element funds High Energy Laser (HEL) applied research aimed at translating fundamental scientific knowledge into proof-of-concept solutions relevant to 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 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 by Government laboratories, industry, and universities. 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 breaking through the technology barriers that currently prevent HELs from being fielded as viable weapon systems. DOD intends to transition successful systems concepts developed under this program element into advanced technology demonstrations for particular mission needs.</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	35.231	39.310	42.711	46.151				
Current BES/President's Budget	35.231	43.901	0.000	0.000				
Total Adjustments		-4.591	42.711	-46.151				
Congressional program reductions		-1.409						
Congressional rescissions								
Congressional increases		6.000						
Reprogrammings								
SBIR/STTR Transfer								
Other				-42.711	-46.151			
<b>* Beginning in FY 2004, High Energy Laser Development - PE 0602890D8Z will transfer to the Air Force under PE-0602890F</b>								