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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 1: Basic Research					R-1 Program Element (Number/Name) PE 0601108F I High Energy Laser Research Initiatives							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	11.614	13.286	12.929	-	12.929	13.870	14.281	14.537	14.739	Continuing	Continuing
615097: High Energy Laser Research Initiatives	-	11.614	13.286	12.929	-	12.929	13.870	14.281	14.537	14.739	Continuing	Continuing
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
This program funds basic research aimed at developing fundamental scientific knowledge to support future Department of Defense (DoD) high energy laser (HEL) systems. This programs funds multi-disciplinary research institutes to conduct research on laser and beam control technologies. In addition, this program supports educational grants to stimulate interest in HELs. These educational grants are used for educational tools, scholarships, and summer intern employees in military laboratories. Efforts in this program have been coordinated through the DoD Science and Technology (S&T) Executive Committee process to harmonize efforts and eliminate duplication. This program is in Budget Activity 1, Basic Research, because it funds scientific study and experimentation.												
B. Program Change Summary (\$ in Millions)				FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total				
Previous President's Budget				13.094	13.286	13.275	-	13.275				
Current President's Budget				11.614	13.286	12.929	-	12.929				
Total Adjustments				-1.480	-	-0.346	-	-0.346				
• Congressional General Reductions				-0.017	-							
• Congressional Directed Reductions				-	-							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-	-							
• SBIR/STTR Transfer				-0.380	-							
• Other Adjustments				-1.083	-	-0.346	-	-0.346				
Change Summary Explanation												
Decrease in FY13 Other Adjustments was due to Sequestration.												
C. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: HEL Devices									7.314	8.406	8.203	
Description: Improve the fundamental understanding of HEL sources, to include solid state, free electron, and gas laser technologies.												

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
<i>FY 2013 Accomplishments:</i> Continued development of innovative laser technologies including diode-pumped alkali, short-pulse, free electron, fiber and solid state laser technologies. Continued overseas efforts to leverage international technology advancements.				
<i>FY 2014 Plans:</i> Continue development of innovative laser technologies including diode-pumped alkali, short-pulse, free electron, fiber, and solid state laser technologies. Continue overseas efforts to leverage international technology advancements.				
<i>FY 2015 Plans:</i> Continue innovative laser technologies in diode-pumped alkali, short-pulse, free electron, fiber and solid state laser technologies. Continue overseas efforts to leverage international technology advancements. Conduct a proposal call to Universities for advanced laser research initiatives.				
<i>Title:</i> HEL Beam Control <i>Description:</i> Improve the fundamental understanding of beam control technologies, as they relate to HEL applications. Conduct research in atmospheric characterization, metrology, control systems, algorithms, and beam control component technology.		3.550	4.130	3.906
<i>FY 2013 Accomplishments:</i> Continued research on innovative beam control architectures. Continued overseas efforts to leverage international technology advancements.				
<i>FY 2014 Plans:</i> Continue research on innovative beam control architectures. Continue overseas efforts to leverage international technology advancements.				
<i>FY 2015 Plans:</i> Continue research on innovative beam control architectures. Continue overseas efforts to leverage international technology advancements. Conduct a proposal call to Universities for advanced beam control initiatives.				
<i>Title:</i> HEL Education <i>Description:</i> Fund educational grants intended to stimulate interest in HELs among students.		0.750	0.750	0.820
<i>FY 2013 Accomplishments:</i>				

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Provided scholarships and internships to support college students studying HEL degrees. Provided grants to Service Academies to stimulate HEL studies among military cadets. Funded publication of journals and supported continuing education for professionals in the HEL field. FY 2014 Plans: Provide scholarships and internships to support college students studying HEL degrees. Provide grants to Service Academies to stimulate HEL studies among military cadets. Fund publication of journals and support continuing education for professionals in the HEL field. FY 2015 Plans: Provide scholarships and internships to support college students studying HEL degrees. Provide grants to Service Academies to stimulate HEL studies among military cadets. Fund publication of journals and support continuing education for professionals in the HEL field.				
Accomplishments/Planned Programs Subtotals		11.614	13.286	12.929
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy N/A				
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.				