

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 03 - Advanced Technology Development					PE NUMBER AND TITLE 0603444F MAUI SPACE SURVEILLANCE SYSTEM					PROJECT 4868	
COST (\$ in Thousands)		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4868	Maui Space Surveillance System	0	19,445	6,484	6,488	6,491	6,492	6,592	6,695	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0
<p>Note: This activity was transferred to this PE from PE 0305910F, Spacetrack, starting in FY 2001. FY 2003 - FY 2007 budget numbers do not reflect the DoD strategy review results.</p> <p>(U) <u>A. Mission Description</u> This program funds the operation and upgrading of the Maui Space Surveillance System (MSSS) in Hawaii. Note: In FY 2001, Congress added \$15 million for the MSSS.</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$0 Accomplished in PE 0305910F, Spacetrack. (U) \$0 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$2,050 Enhance operational and research utility of MSSS data products. Develop, analyze, and test non-imaging Space Object Identification (SOI) tools for the Advanced Electro-Optical System (AEOS) sensors. Conduct studies in the feasibility of daylight imaging on AEOS, in the use of the laser guidestar, and in applications for active tracking. Continue atmospheric characterization and advanced imaging algorithm development to support real-time post processing. (U) \$11,085 Provide technical support to operational users and visiting experimenters using the MSSS assets. (U) \$3,997 Conduct upgrades for MSSS. Complete Observatory Control System upgrades on the 0.8 meter beam director telescope and the 1.2 meter telescope. Complete adaptive optics upgrades, sensor enhancements, and tool development. Demonstrate AEOS/MSSS enhancements through characterization and test. These upgrades will significantly increase the ease-of-use and data turn-around for these telescopes. (U) \$2,313 Support the Near Earth Asteroid Tracking mission and follow-up role on AEOS and lost satellite search; continue non-imaging SOI efforts, and evaluation of MSSS systems to detect smaller/fainter objects. (U) \$19,445 Total</p>											
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03 - Advanced Technology Development	0603444F MAUI SPACE SURVEILLANCE SYSTEM	4868		
(U) <u>A. Mission Description Continued</u>				
(U) <u>FY 2002 (\$ in Thousands)</u>				
(U) \$1,068	Enhance operational and research utility of Maui Space Surveillance System (MSSS) data products. Enhance Space Object Identification tools for Advanced Electro-Optical System (AEOS) sensors. Investigate advanced imaging concepts for AEOS/MSSS sensors to provide quicker and higher resolution images for operational customers.			
(U) \$4,248	Provide technical support to operational users and visiting experimenters using the MSSS assets.			
(U) \$1,168	Conduct upgrades for MSSS. Demonstrate AEOS/MSSS enhancements. Complete the AEOS wavefront sensor upgrade for imaging large targets and the infrared acquisition telescope to increase the probability of acquiring near-space object imagery.			
(U) \$6,484	Total			
(U) <u>B. Budget Activity Justification</u>				
This program is in Budget Activity 3, Advanced Technology Development, since it enables and demonstrates technologies for existing system upgrades and/or new system developments that have military utility and address warfighter needs.				
(U) <u>C. Program Change Summary (\$ in Thousands)</u>				
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	0	4,625	4,627	
(U) Appropriated Value	0	19,625		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions		-180		
(U) Adjustments to Budget Years Since FY 2001 PBR			1,857	
(U) Current Budget Submit/FY 2002 PBR	0	19,445	6,484	TBD
(U) <u>Significant Program Changes:</u>				
Not Applicable.				

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<p>(U) <u>D. Other Program Funding Summary (\$ in Thousands)</u></p> <p>(U) Related Activities:</p> <p>(U) PE 0602605F, Directed Energy Technology.</p> <p>(U) PE 0603605F, Advanced Weapons Technology.</p> <p>(U) This project has been coordinated through the Reliance process to harmonize efforts and eliminate duplication.</p> <p>(U) <u>E. Acquisition Strategy</u> Not Applicable.</p> <p>(U) <u>F. Schedule Profile</u></p> <p>(U) Not Applicable.</p>		
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