

**UNCLASSIFIED**

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2000		
BUDGET ACTIVITY <b>03 - Advanced Technology Development</b>				PE NUMBER AND TITLE <b>0603444F MAUI SPACE SURVEILLANCE SYSTEMS</b>				PROJECT <b>634868</b>		
COST (\$ in Thousands)		FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
634868	Maui Space Surveillance Systems	0	0	4,625	4,627	4,625	4,622	4,617	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

Note: This activity was transferred to this PE from PE 0305910F, Spacetrack, starting in FY 2001.

(U) **A. Mission Description**  
 This program has responsibility for the Maui Space Surveillance System in Hawaii. The Maui Space Surveillance System (MSSS) is a space surveillance network atop Haleakala, Maui, Hawaii, that consists of a 0.6 meter Laser Beam Director, 0.8 meter Beam Director/Tracker, 1.2 meter twin telescopes, 1.6 meter telescope, and 3.7 meter Advanced-Electro Optical System (AEOS). AEOS will optimize research and development capabilities, as well as improve the quality of space images taken from the ground. MSSS serves as a contributing sensor to the Space Surveillance Network providing data products to include visual imagery, photometric and radiometric signatures, and metric positional data to the Space Control Center, the Combined Intelligence Center, and Air Force Space Command.

(U) **FY 1999 (\$ in Thousands)**  
 (U) \$0 Previously accomplished in PE 0305910F, Spacetrack.  
 (U) \$0 Total

(U) **FY 2000 (\$ in Thousands)**  
 (U) \$0 Being accomplished in PE 0305910F, Spacetrack.  
 (U) \$0 Total

(U) **FY 2001 (\$ in Thousands)**  
 (U) \$1,035 Enhance operational utility of MSSS data products. Update the Space Object Identification (SOI) tools for AEOS sensors. Conduct daylight optical imaging studies/analyses and research in optimization of multiple channels for the 1.6 meter telescope. Demonstrate utility of high accuracy metrics through high accuracy orbit maintenance. Develop techniques to detect and maintain orbits for small objects below current Space Surveillance Network capabilities; demonstrate utility of providing high accuracy orbit maintenance.  
 (U) \$2,074 Provide technical support to operational users and visiting experimenters using the MSSS assets.  
 (U) \$1,516 Conduct upgrades for MSSS. Demonstrate AEOS enhancements.  
 (U) \$4,625 Total

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<p>(U) <b><u>B. Budget Activity Justification</u></b>                  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.</p>																																																																
<p>(U) <b><u>C. Program Change Summary (\$ in Thousands)</u></b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 55%;"></th> <th style="text-align: center;"><u>FY 1999</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2000 PBR)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Congressional/General Reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">e. Rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">f. Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2000 PBR</td> <td></td> <td></td> <td style="text-align: center;">4,625</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2001 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">4,625</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table>						<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2000 PBR)	0	0	0		(U) Appropriated Value	0	0			(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					f. Other					(U) Adjustments to Budget Years Since FY 2000 PBR			4,625		(U) Current Budget Submit/FY 2001 PBR	0	0	4,625	TBD
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<p>(U) <b><u>D. Other Program Funding Summary (\$ in Thousands)</u></b></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>																																																																
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<p>Project 634868 <span style="float: right;">Page 2 of 2 Pages <span style="margin-left: 100px;">Exhibit R-2 (PE 0603444F)</span></span></p>																																																																