

**UNCLASSIFIED**

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2000		
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>				PE NUMBER AND TITLE <b>0603438F Space Control Technology</b>				PROJECT <b>642611</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
642611	Technology Insertion Planning and Analysis	7,212	12,621	9,728	9,717	9,699	9,679	9,658	Continuing	TBD
Quantity of RDT&E Articles		0	0	0	0	0	0	0	0	0
<p>Note: Congressional add resulted in an Air Force new start in FY99.</p> <p>(U) <b><u>A. Mission Description</u></b>            This program supports a range of activities including technology planning, development, demonstrations and prototyping, as well as modeling, simulations and exercises to support development of tactics and procedures in the Space Control mission area. The types of Space Control activities accomplished are surveillance, protection, prevention, and negation. Surveillance is the monitoring, detecting, identifying, tracking, assessing, verifying, categorizing, and characterizing, objects and events in space for use in the Space Control mission area. Protection includes defensive activities to protect U.S. and friendly space-systems assets, resources, and operations from enemy attempts to negate or interfere. Prevention limits or eliminates an adversary's ability to use U.S. space systems and services for purposes hostile to U.S. national security interests. Negation activities disrupt, deny, degrade or destroy an adversary's space systems, or the information they provide, which may be used for purposes hostile to U.S. national security interests. Consistent with DoD policy, the negation efforts of this program focus only on negation technologies which have temporary, localized, and reversible effects.</p> <p>(U) <b><u>FY 1999 (\$ in Thousands)</u></b>            (U) \$480                      Developed Space Control mission area requirements for the Air Force Space Surveillance Network.            (U) \$1,350                    Developed technologies for protection of space assets.            (U) \$770                      Developed techniques to prevent unauthorized use of next generation counter-navigation signals.            (U) \$4,612                    Developed technologies to counter surveillance, reconnaissance, and communications satellite systems.            (U) \$7,212                    Total</p> <p>(U) <b><u>FY 2000 (\$ in Thousands)</u></b>            (U) \$1,450                    Determine surveillance system deficiencies to meet Space Control requirements and assess technologies to satisfy mission needs.            (U) \$2,320                    Determine space system protection deficiencies. Assess requirements for protection of U.S. space systems and potential technologies to achieve required threat warning and attack reporting.            (U) \$8,851                    Continue to develop technologies to counter surveillance, reconnaissance, and communications satellite systems.            (U) \$12,621                  Total</p>										
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<p>(U) <b><u>A. Mission Description Continued</u></b></p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$810                      Develop potential technical solutions to address surveillance system deficiencies and identify the most promising technologies to pursue.</p> <p>(U) \$900                      Develop potential technical solutions to address space system protection shortfalls. Develop potential technical solutions to address threat warning and attack reporting shortfalls and determine reporting architecture and most promising technologies to pursue.</p> <p>(U) \$700                      Assess current space systems and other program elements to ensure all aspects of clarified prevention definition are being addressed.</p> <p>(U) \$7,318                    Continue to develop technologies to counter surveillance, reconnaissance, and communications satellite systems.</p> <p>(U) \$9,728                    Total</p> <p>(U) <b><u>B. Budget Activity Justification</u></b></p> <p>This program is in budget activity 4 - Demonstration and Validation, because it supports the research, demonstration, and validation of Space Control technologies.</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;">7,479</td> <td style="text-align: center;">9,822</td> <td style="text-align: center;">9,814</td> <td style="text-align: center;">TBD</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">7,500</td> <td style="text-align: center;">12,822</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>    a. Congressional/General Reductions</td> <td style="text-align: center;">-21</td> <td style="text-align: center;">0</td> <td></td> <td></td> </tr> <tr> <td>    b. Small Business Innovative Research</td> <td style="text-align: center;">-227</td> <td style="text-align: center;">0</td> <td></td> <td></td> </tr> <tr> <td>    c. Omnibus or Other Above Threshold Reprogram</td> <td style="text-align: center;">0</td> <td style="text-align: center;">-102</td> <td></td> <td></td> </tr> <tr> <td>    d. Below Threshold Reprogram</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> <td></td> </tr> <tr> <td>    e. Rescissions</td> <td style="text-align: center;">-40</td> <td style="text-align: center;">-99</td> <td></td> <td></td> </tr> <tr> <td>    f. Other</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">TBD</td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2000 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">-86</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2001 PBR</td> <td style="text-align: center;">7,212</td> <td style="text-align: center;">12,621</td> <td style="text-align: center;">9,728</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table> <p>(U) <b><u>Significant Program Changes:</u></b> FY01 -\$86K for higher priority Air Force programs</p>				<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2000 PBR)	7,479	9,822	9,814	TBD	(U) Appropriated Value	7,500	12,822			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-21	0			b. Small Business Innovative Research	-227	0			c. Omnibus or Other Above Threshold Reprogram	0	-102			d. Below Threshold Reprogram	0	0			e. Rescissions	-40	-99			f. Other	0	0		TBD	(U) Adjustments to Budget Years Since FY 2000 PBR	0	0	-86		(U) Current Budget Submit/FY 2001 PBR	7,212	12,621	9,728	TBD
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(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) Not Applicable

(U) **E. Acquisition Strategy**  
 Use the Air Force's modernization planning process to better define surveillance and protection technologies for study and for possible development in FY 2002 and beyond. This PE will influence Air Force Research Laboratory technology, Space and Missile System Center systems, and Electronic Systems Center space surveillance investments. Technologies to address counter surveillance, reconnaissance, and communications will be investigated toward capabilities identified in the AFSPC space control mission area plan.

(U) **F. Schedule Profile**

	<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) SecDef Report to Congress				*								
(U) Air Force Space Control Technology Plan Approved					*							
(U) AFSPC Space Control Mission Area Plan Completion												X

\* = Completed Event    X = Scheduled Event

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2000		
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>				PE NUMBER AND TITLE <b>0603438F Space Control Technology</b>				PROJECT <b>642611</b>		
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
					<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>	
(U)	Surveillance technology assessment				480		1,450		758	
(U)	Protection technology assessment				1,350		2,320		1,668	
(U)	Prevention technology development and definition				770		0		557	
(U)	Negation technology development				4,612		8,851		6,745	
(U)	Total				7,212		12,621		9,728	
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
SMC	Various				0	7,082	4,771	4,854	Continuing	TBD
AFRL	Various				0	0	7,720	4,744	Continuing	TBD
<u>Support and Management Organizations</u>										
SMC	Various				0	130	130	130	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
TBD										
<b>(U) Government Furnished Property:</b>										
	<u>Contract</u>									
	<u>Method/Type</u>	<u>Award or</u>	<u>Delivery</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Date</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>										
None										
<u>Support and Management Property</u>										
None										

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(U) Government Furnished Property Continued:

Test and Evaluation Property

None

	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development	0	7,082	12,491	9,598	TBD	TBD
Subtotal Support and Management	0	130	130	130	TBD	TBD
Subtotal Test and Evaluation						
Total Project	0	7,212	12,621	9,728	TBD	TBD