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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604251F SPACE-BASED RADAR EMD				PROJECT 5009		
COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5009	SBR Concept and Technology Development	0	24,752	0	0	0	0	0	0	24,752
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

Note: FY02 funding was initially loaded in PE 0604251F (BA 5); however, all future funding for this program has been transferred to PE 0603858F, Space Based Radar Dem/Val (BA 4).

(U) **A. Mission Description**
 The 2001 Multi-Theater Target Tracking Capability (MT3C) Mission Needs Statement (MNS) establishes the requirement for continuous multi-theater surveillance, identification, tracking, and targeting of surface-moving targets. In November 2001 USD(AT&L) directed a focused requirements and risk reduction effort to provide a space element of a future air/space Intelligence, Surveillance, and Reconnaissance (ISR) system to satisfy the MT3C MNS.

The Space Based Radar (SBR) program is focused to mature technology and develop an ISR system capable of providing Ground Moving Target Indication (GMTI), Synthetic Aperture Radar (SAR) imaging, and Digital Terrain and Elevation Data (DTED) over a large portion of the Earth on a near-continuous basis. The system will maximize utility to the tactical warfighters through responsive tasking and timely data dissemination. The SBR system will allow military forces a 'deep-look' into denied areas of interest, on a non-intrusive basis without risk to personnel or resources. This can be done across the spectrum of conflict and simultaneously in multiple theaters -- not currently available with existing capabilities.

Technology maturation, risk reduction and concept development are essential elements of the SBR program strategy to reach initial launch capability (ILC) prior to the end of FY10. Investments in key risk areas are focused to mature technologies leading to component design and demonstration. Concept development activities will focus on reducing risk, integrating technologies, and evaluating system level concepts within the broad range of the C2ISR architecture. Demonstrations as well as modeling and simulation will maximize the operational capabilities of the SBR system.

(U) **FY 2001 (\$ in Thousands)**
 (U) \$0 No Activity
 (U) \$0 Total

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE February 2002			
BUDGET ACTIVITY		PE NUMBER AND TITLE		PROJECT	
05 - Engineering and Manufacturing Development		0604251F SPACE-BASED RADAR EMD		5009	
(U) <u>A. Mission Description Continued</u>					
(U) <u>FY 2002 (\$ in Thousands)</u>					
(U)	\$14,552	Begin Technology Risk Reduction (continuation of classified FY01 Electronically Scanned Array (ESA) effort; start on-board processing efforts; begin BMC3 effort; provide Demonstration support)			
(U)	\$7,900	Begin Requirements Development (SBR system and operational requirements definition)			
(U)	\$2,300	Provide Program Support (Concept Evaluation, Schedule Management, Independent Cost Analysis, Technical Evaluation, Source Selection)			
(U)	\$24,752	Total			
Funding Tail FY03-07 has been programmed into the budget in PE 0603858F, SBR Dem/Val, to develop a viable and executable program.					
(U) <u>FY 2003 (\$ in Thousands)</u>					
(U)	\$0	No Activity - Program funded in PE 0603858F, Space-Based Radar Dem/Val effective in FY03			
(U)	\$0	Total			
(U) <u>B. Budget Activity Justification</u>					
This activity is a BA 4 because all efforts are included in the demonstration and validation phase and are necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology.					
(U) <u>C. Program Change Summary (\$ in Thousands)</u>					
		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U)	Previous President's Budget		50,000		TBD
(U)	Appropriated Value		25,000		
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions		-248		
	b. Small Business Innovative Research				
	c. Omnibus or Other Above Threshold Reprogram				
	d. Below Threshold Reprogram				
	e. Rescissions				
(U)	Adjustments to Budget Years Since FY 2002 PBR				
(U)	Current Budget Submit/FY 2003 PBR		24,752		TBD
Note: Only the initial \$24.8 million is loaded in this PE (see Significant Program Changes below)					
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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604251F SPACE-BASED RADAR EMD				PROJECT 5009			
(U) C. Program Change Summary (\$ in Thousands) Continued											
(U) Significant Program Changes: Revised funding tail FY03 - 07 has been programmed into the budget in PE 0603858F, SBR Dem/Val, to develop a viable and executable program.											
(U) D. Other Program Funding Summary (\$ in Thousands)											
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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) AF RDT&E											
(U) RDT&E-AF, PE 0603858F, Space Based Radar (SBR) Dem/Val			47,859	81,995	81,385	105,881	235,887		TBD		
(U) Cost of War Transfer Account			43,000	203,000	283,000	373,000	281,000	0	1,183,000		
(U) Other APPN											
(U) None											
(U) E. Acquisition Strategy											
(U) The Air Force will lead the SBR Joint Program Office with the National Reconnaissance Office (NRO) as the principal partner. The acquisition strategy will consist of a mixture of sole source and competitive award approaches.											
(U) F. Schedule Profile											
				<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>		
				1	2	3	4	1	2	3	4
(U) Key Decision Point A								X			
(U) Begin Requirements Development								X			
(U) Analysis of Alternatives (AoA) supporting contracts in place								X			
(U) Begin AoA								X			
(U) Begin Technology Risk Reduction								X			
Legend: * = Completed Events; X = Planned Events											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002				
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604251F SPACE-BASED RADAR EMD			PROJECT 5009				
(U) A. Project Cost Breakdown (\$ in Thousands)											
					<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>	
(U)	Technology Risk Reduction effort							14,552			
(U)	Requirements Development							7,900			
(U)	Program Support							2,300			
(U)	Total							24,752			
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
<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 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Organizations</u>											
AFSPC Requirements	FFRDC/SETA	Various	Continuing	Continuing			7,900		0	7,900	
Development	and GSA										
	contracts										
Technology Risk Reduction	Add to	Various					14,552		0	14,552	
(including ESA development)	Existing										
Effort	Contract and										
	other contracts										
	as appropriate										
Note: All FYDP funding FY03 and beyond is included in PE 0603858F, Space-Based Radar Dem/Val.											
<u>Support and Management Organizations</u>											
SMC & AFSPC	TBD	Feb 02						2,300	0	2,300	
Note: All FYDP funding FY03 and beyond is included in PE 0603858F, Space-Based Radar Dem/Val.											
<u>Test and Evaluation Organizations</u>											
N/A											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE February 2002					
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT				
05 - Engineering and Manufacturing Development		0604251F SPACE-BASED RADAR EMD			5009				
(U) Government Furnished Property:									
<u>Item</u>	<u>Contract</u>	<u>Award or</u>	<u>Delivery</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>Method/Type</u>	<u>or Funding</u>	<u>Date</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>									
None									
<u>Support and Management Property</u>									
None									
<u>Test and Evaluation Property</u>									
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 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development						22,452		0	22,452
Subtotal Support and Management						2,300		0	2,300
Subtotal Test and Evaluation									
Total Project						24,752		0	24,752
Note: All FYDP funding FY03 and beyond is included in PE 0603858F, Space-Based Radar Dem/Val.									