

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 EXHIBIT)</b>	DATE <b>February 1999</b>
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<b>BUDGET ACTIVITY</b> <b>7 - Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0305917F Space Architect</b>	<b>PROJECT</b> <b>4746</b>
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COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4746 Space Architect	13,408	13,560	9,898	10,470	10,785	11,182	11,912	12,764	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

\*FY97 and earlier funding contained in PE603855F. Funding transferred from PE603855 to this PE in FY1998 to consolidate R&D and O&M appropriations into one Program Element.

(U) **A. Mission Description** - The Under Secretary of Defense for Acquisition and Technology (USD(A&T)) established the Department of Defense (DoD) Office of the Space Architect (OSA) to consolidate DoD space system architecture development responsibilities into a single organization. The OSA was one of DoD's responses to congressional concerns regarding DoD space management. In July 1998, a Memorandum of Understanding (MOU) was signed by the Secretary of Defense (SECDEF) and Director of Central Intelligence (DCI) to incorporate the architectural activities of the National Reconnaissance Office (NRO). The name was changed to National Security Space Architect (NSSA). This organization works to integrate space system architectures, eliminate unnecessary vertical stovepiping of space programs, and achieve efficiencies in acquisition and future operations through space program integration, thereby improving space support to a variety of customers. The NSSA obtains direct support from various space planning and development organizations across the federal government and industry for space architecture planning and development. Funding in this document incorporates DoD requirements only. NRO requirements and funding to support the NSSA efforts are not included in this program element.

(U) FY 1998 (\$ in Thousands):

- (U) \$ 3,299 Space Weather (SWx) Architecture Study
- (U) \$ 991 Launch Study
- (U) \$ 220 MILSATCOM Study
- (U) \$ 131 DoD Information Management Environment (DIME)
- (U) \$ 91 Satellite Operations ADT (SATOPS)
- (U) \$ 473 Space Control ADT
- (U) \$ 407 SBIRS Study
- (U) \$ 351 DUSD Space Study
- (U) \$ 278 Pos/Nav Support
- (U) \$ 5,701 Core Analysis (Analysis, Modeling and Simulation, Cost, Spectrum) and Core System Engineering and Integration (SE&I) (Community Coordination, Strategic Planning, Process Support and Information Management)
- (U) \$ 1,466 Other Architecture Studies and Documentation and Support
- (U) \$13,408 Total

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>		DATE <b>February 1999</b>
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
<b>7 - Operational System Development</b>	<b>0305917F Space Architect</b>	<b>4746</b>
(U) <u>FY 1999 (\$ in Thousands):</u>		
<ul style="list-style-type: none"> <li>- (U) \$ 1,405 Space Weather (SWx) Architecture Study</li> <li>- (U) \$ 558 Space Control ADT</li> <li>- (U) \$ 40 MILSATCOM Study</li> <li>- (U) \$ 180 SATOPS</li> <li>- (U) \$ 4,239 Mission Information Management (MIM) ADT</li> <li>- (U) \$ 259 Pos/Nav Support</li> <li>- (U) \$ 3,981 Core Analysis (Analysis, Modeling and Simulation, Cost, Spectrum) and Core System Engineering and Integration (SE&amp;I) (Community Coordination, Strategic Planning, Process Support and Information Management)</li> <li>- (U) \$ 2,470 Other Architecture Studies, Documentation and Support</li> <li>- (U) \$ 428 Identified as a source for SBIR</li> <li>- (U) \$ 13,560 Total</li> </ul>		
(U) <u>FY 2000 (\$ in Thousands):</u>		
<ul style="list-style-type: none"> <li>- (U) \$ 1,811 Mission Information Management (MIM) ADT</li> <li>- (U) \$ 220 Space Weather (SWx) Architecture Study</li> <li>- (U) \$ 3,215 Core Analysis (Analysis, Modeling and Simulation, Cost, Spectrum) and Core System Engineering and Integration (SE&amp;I) (Community Coordination, Strategic Planning, Process Support and Information Management)</li> <li>- (U) \$ 575 Space Control</li> <li>- (U) \$ 2,579 Architectural ADTs/Studies Directed by Stakeholders</li> <li>- (U) \$ 1,498 Documentation and Support</li> <li>- (U) \$ 9,898 Total</li> </ul>		
(U) <u>FY 2001 (\$ in Thousands):</u>		
<ul style="list-style-type: none"> <li>- (U) \$ 3,168 Core Analysis (Analysis, Modeling and Simulation, Cost, Spectrum) and Core System Engineering and Integration (SE&amp;I) (Community Coordination, Strategic Planning, Process Support and Information Management)</li> <li>- (U) \$ 590 Space Control</li> <li>- (U) \$ 897 Mission Information Management (MIM) ADT</li> <li>- (U) \$ 4,325 Architectural ADTs/Studies Directed by Stakeholders</li> <li>- (U) \$ 1,490 Documentation and Support</li> <li>- (U) \$ 10,470 Total</li> </ul>		
Project 4746	Page 2 of 6 Pages	Exhibit R-2 (PE 0305917F)

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BUDGET ACTIVITY <b>7 - Operational System Development</b>	PE NUMBER AND TITLE <b>0305917F Space Architect</b>	PROJECT <b>4746</b>
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**(U) B. Budget Activity Justification:**

This program is in Budget Activity 7 because the architecture studies affect the design and acquisition of systems to be developed.

**(U) C. Program Change Summary (\$ in Thousands)**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 1999 PB)	13,480	13,714	14,511	14,428	Cont
(U) Appropriated Value	14,590	13,714			
(U) Adjustments to Appropriated Value					
a. Congressional General Reductions/Recissions	-743	-154			
b. SBIR	-347				
c. Omnibus or Other Above Threshold Reprogram					
d. Below Threshold Reprogramming	-92				
e. Recissions					
(U) Adjustments to Budget Years Since FY 1999 PB			-4,613	-3,958	
(U) Current Budget Submit/FY 2000 PB	13,408	13,560	9,898	10,470	Cont

**(U) Significant Program Changes:**

FY99: \$428K identified as a source for SBIR.

FY00/01: The DoD Space Architect was changed to National Security Space Architect (NSSA) to better include NRO requirements and funding. Adjustments have been made to the Budget years for NRO funding participation in accordance with Air Force/NRO funding sharing agreement in which the NRO agreed to fund a portion of the NSSA mission as it pertains to Intelligence Community architectural studies.

**(U) D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 1998</u>	<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>To Compl</u>	<u>Total Cost</u>
Intelligence Community Contribution			4,353	4,603	4,746	4,929	5,252	5,628	Cont	Cont

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<p>(U) <b>E. <u>Acquisition Strategy:</u></b> RDT&amp;E funds will be used to obtain infrastructure support and direct support from various space planning and development organizations across the DoD and industry, including Federally Funded Research &amp; Development Centers (FFRDCs) and contracted System Engineering and Technical Assistance in direct support of DoD space architecture planning and development. Funds will be applied to existing contract vehicles.</p> <ul style="list-style-type: none"> <li>- As primary support, the Space Architect plans to use two existing Space &amp; Missile Center (SMC) contracts for technical support:             <ul style="list-style-type: none"> <li>-- Engineering, Analysis, Design and Development Contract; Science Applications International Corporation (SAIC)</li> <li>-- Engineering, Analysis and Design Contract; Nichols Research Corporation</li> </ul> </li> <li>- These contracts currently provide support to the Air Force SMC long-range planning, conceptual development, and engineering analysis and assessment efforts.</li> </ul> <p>(U) <b>F. <u>Schedule Profile</u></b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4"><u>FY 1998</u></th> <th colspan="4"><u>FY 1999</u></th> <th colspan="4"><u>FY 2000</u></th> <th colspan="4"><u>FY 2001</u></th> </tr> <tr> <th></th> <th>1</th><th>2</th><th>3</th><th>4</th> 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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE February 1999					
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0305917F Space Architect			PROJECT 4746				
<b>(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u></b>											
				<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>				
MILSATCOM Study				220	40	0	0				
SWx				3,299	1,405	220	0				
Launch Study				991	0	0	0				
SBIRS				407	0	0	0				
DIME				131	0	0	0				
Position-Navigation				278	259	0	0				
Satellite Operations				91	180	0	0				
Space Control				473	558	575	590				
Mission Information Management				0	4,239	1,811	897				
DUSD Space Study				351	0	0	0				
Other Studies (Congressional, DoD, IC Studies) as Directed				39	340	2,579	4,325				
Study/ADT Common Support				4,529	6,111	4,713	4,658				
FFRDC/Not-for-Profit Support				2,599							
Identified as a source for SBIR					428						
Total				13,408	13,560	9,898	10,470				
<b>(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u></b>											
<b>Performing Organizations:</b>											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Identified as a source for SBIR							428				
<u>Product Development Organizations</u>											
None					0	0	0	0	0	0	0

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY <b>7 - Operational System Development</b>					PE NUMBER AND TITLE <b>0305917F Space Architect</b>					PROJECT <b>4746</b>	
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
<u>Support and Management Organizations</u>											
Aerospace	C/CPAF	1993	N/A	N/A	0	1,038	1,200	891	942	Cont	Cont
ANSER	C/CPFF	1993	N/A	N/A	0	691				Cont	Cont
MITRE	C/CPAF	1993	N/A	N/A	0	870	900	693	733	Cont	Cont
Misc Contracts	Various	Various	N/A	N/A	0	2,514	1,900	1,485	1,570	Cont	Cont
Misc In-House	Various	Various	N/A	N/A	0	790	840	594	628	Cont	Cont
NRC	C/CPAF	1997	N/A	N/A	0	3,555	3,330	2,474	2,618	Cont	Cont
SAIC	C/CPAF	1997	N/A	N/A	0	3,950	4,962	3,761	3,979	Cont	Cont
<u>Test and Evaluation Organizations</u>											
None					0	0	0	0	0	0	0
<b>Government Furnished Property: None</b>											
Identified as a source for SBIR							428				
Subtotal Product Development					0	0	0	0	0	0	0
Subtotal Support and Management					0	13,408	13,132	9,898	10,470	Cont	Cont
Subtotal Test and Evaluation					0	0	0	0	0	0	0
Total Project					0	13,408	13,560	9,898	10,470	Cont	Cont