

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2000		
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0305917F Space Architect				PROJECT 674746		
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
674746	AF/National Program Cooperation	12,896	10,882	0	0	0	0	0	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

FY 2001 funding for AFNPC is being requested under PE 0603856F.

Note: In FY 2000, per Congressional direction, the National Security Space Architect (NSSA), PE 0305917F, was merged with the Air Force/NRO Partnership, PE 0603856F, into a new entity entitled 'AF/National Program Cooperation (AFNPC)'. FY00 AFNPC funding was executed in this PE, 0305917F. In FY 2001 the NSSA moves to defense-wide PE 0305190D, 'C3I Intelligence Programs'; remaining AFNPC efforts move to PE 0603856F, where FY 2001 funding is requested.

(U) **A. Mission Description**
Detailed descriptions for the AF/National Program Cooperation are in PE 0603856F, where FY 2001 funds for that effort are requested. Efforts that will remain part of AFNPC in FY 2001 are detailed there; the National Security Space Architect, part of AFNPC for FY 2000 only, is detailed below.

The Under Secretary of Defense for Acquisition and Technology 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 was signed by the Secretary of Defense and Director of Central Intelligence 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 1999 (\$ in Thousands)**

(U) \$1,851 Space Weather Architecture (SWx) Study and Transition Planning

(U) \$544 Space Control and MILSATCOM Architecture Tracking

(U) \$605 Satellite Operations (SATOPS) Architecture Transition Planning

(U) \$5,989 Mission Information Management (MIM) Architecture Development Team (ADT)

(U) \$3,162 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)

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE
BUDGET ACTIVITY		PROJECT
07 - Operational System Development		February 2000
PE NUMBER AND TITLE		PROJECT
0305917F Space Architect		674746
(U)	<u>A. Mission Description Continued</u>	
(U)	<u>FY 1999 (\$ in Thousands) Continued</u>	
(U)	\$140	Other Architecture Studies and Architecture Study Planning
(U)	\$605	National Security Space Master Plan and National Security Space Roadmap Development and Update (included in 'Other Architecture...' in the FY 2000 RDT&E Budget Justification Exhibit for this Program Element
(U)	\$12,896	Total
(U)	<u>FY 2000 (\$ in Thousands)</u>	
(U)	\$2,324	Mission Information Management (MIM) ADT
(U)	\$456	Space Weather (SWx), Space Control and MILSATCOM Architecture Tracking
(U)	\$2,886	Core Capabilities (Space Architecture Engineering, Analytic Methods and Tools, Collaboration Technologies, Process Support, and Information Management)
(U)	\$1,686	Architectural ADTs/Studies Directed by Stakeholders (including Hyperspectral Strategy Study) and Architecture Study Planning
(U)	\$355	Satellite Operations Architecture Transition Planning and Tracking (part of 'Documentation and Support' item in FY 2000 budget justification document)
(U)	\$1,115	National Security Space Master Plan and National Security Space Roadmap Development and Update (part of 'Documentation and Support' item in FY 2000 budget justification document)
(U)	\$1,337	Technical support to the AF/NRO Integration Planning Group, ANIPG (included in PE 0603856F in the FY 2000 RDT&E Budget Item Justification)
(U)	\$723	Developing processing capabilities to exploit SBIRS sensor data for technical intelligence (included in PE 0603856F in the FY 2000 RDT&E Budget Item Justification)
(U)	\$10,882	Total
(U)	<u>FY 2001 (\$ in Thousands)</u>	
(U)	\$0	No Activity
(U)	\$0	Total
	*FY 2001 NSSA funding is requested in defense-wide PE 0305190D; remaining AFNPC funding is requested in justification for PE 0603856F.	
(U)	<u>B. Budget Activity Justification</u>	
	This program is in Budget Activity 7 because the architecture studies affect the design and acquisition of systems to be developed.	
Project 674746		Exhibit R-2 (PE 0305917F)

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2000
--	------------------------------

BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0305917F Space Architect	PROJECT 674746
--	---	---------------------------------

(U) C. Program Change Summary (\$ in Thousands)				
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2000 PBR)	13,560	9,898	10,470	TBD
(U) Appropriated Value	13,714	10,882		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-154			
b. Small Business Innovative Research	-428			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-164			
e. Rescissions	-72			
f. Other				TBD
(U) Adjustments to Budget Years Since FY 2000 PBR			-10,470	
(U) Current Budget Submit/FY 2001 PBR	12,896	10,882	0	TBD

(U) Significant Program Changes:
 FY 1999: \$164K reprogrammed to support higher Air Force priorities.

FY 2000: Per Congressional direction, the National Security Space Architect (NSSA), PE 0305917F, was merged with the AF/NRO Partnership, PE 0603856F, into a new entity entitled 'AF/National Program Cooperation (AFNPC). AFNPC funding was executed in this PE for FY 2000.

FY 2001 forward: NSSA funding moves to defense-wide PE 0305190D. AFNPC funding moves to PE 0603856F.

(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>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) N/A								
(U) Other APPN								
(U) Intelligence Community*								
*Not available								

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE
February 2000

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305917F Space Architect

PROJECT

674746

(U) E. Acquisition Strategy

The acquisition strategy for the National Security Space Architect is detailed below; strategies for other AFNPC efforts are detailed in the budget justification for PE 0603856F.

RDT&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 & 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.

- As primary support, the Space Architect plans to use two existing Space & Missile Center (SMC) contracts for technical support:
- Engineering, Analysis, Design and Development Contract; Science Applications International Corporation (SAIC)
- Engineering, Analysis and Design Contract; Nichols Research Corporation
- These contracts currently provide support to the Air Force SMC long-range planning, conceptual development, and engineering analysis and assessment efforts.

(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) SATOPS Transition/Implementation Plan Start	*											
(U) MIM Initiate ADT	*											
(U) Position/Navigation Frequency Allocation Determination	*											
(U) Space Weather Architecture - Phase II Completion		*										
(U) SATOPS Transition/Implementation Plan Complete				*								
(U) Space Weather Architecture - Final Report Published				*								
(U) MIM 99 Report					*							
(U) Hyperspectral Strategy Study Completion									X			

* = completed event

X = planned event

*Schedule events for the NSSA are above; schedule events for AFNPC efforts moving to PE 0603856F in FY 2001 are noted in the budget justification document for that PE.

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000			
BUDGET ACTIVITY 07 - Operational System Development					PE NUMBER AND TITLE 0305917F Space Architect			PROJECT 674746		
(U) A. Project Cost Breakdown (\$ in Thousands)										
						<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>
(U)	Architecture Tracking and Transition Planning					1,149		811		
(U)	Space Weather Architecture					1,851		0		
(U)	National Security Space Master Plan and Roadmap					605		1,115		
(U)	Mission Information Management					5,989		2,324		
(U)	Studies/ADTs Directed by Stakeholders and Study Planning					140		1,686		
(U)	Core Capabilities & Analysis					3,162		2,886		
(U)	Technical support to the AF/NRO Integration Planning Group							723		
(U)	Develop processing capability to exploit SBIRS data for the technical intelligence (TI) mission							1,337		
(U)	Total					12,896		10,882		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 1999</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>	<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>										
SMC	MIPR	12/98	TBD	TBD			723			723
<u>Support and Management Organizations</u>										
Aerospace	C/CPAF	1993	N/A	N/A	1,038	1,162	876		0	3,076
TASC	C/CPAF	1995	N/A	N/A	0	338	0		0	338
MITRE	C/CPAF	1993	N/A	N/A	870	783	590		0	2,243
Misc Contracts	Various	Various	N/A	N/A	3,205	1,044	38		0	4,287
Misc In-House	Various	Various	N/A	N/A	790	764	3,073		0	4,627
NRC	C/CPAF	1997	N/A	N/A	3,555	3,843	2,211		0	9,609
SAIC	C/CPAF	1997	N/A	N/A	3,950	4,962	2,034		0	10,946
ANIPG	MIPR	10/98	Continuing	Continuing			1,337			1,337
<u>Test and Evaluation Organizations</u>										
None										
Project 674746					Page 5 of 6 Pages			Exhibit R-3 (PE 0305917F)		

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000		
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0305917F Space Architect			PROJECT 674746		
(U) Government Furnished Property:									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</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>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									
<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 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development						723			723
Subtotal Support and Management				13,408	12,896	10,159		0	36,463
Subtotal Test and Evaluation									
Total Project				13,408	12,896	10,882		0	37,186