RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE **February 2003**

BUDGET ACTIVITY **07 - Operational System Development**	PE NUMBER AND TITLE **0303401F Communications Security**	PROJECT **4861**

COST ($ in Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4861	Cryptologic 2000	3,726	4,661	0	0	0	0	0	0	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

Note: Starting in FY04 this BPAC is being moved out of PE 33401, Comsec, and into PE 33140, Infosec, same BPAC number and title.

(U) **A. Mission Description**

The Cryptologic 2000 Project consists of multiple developments supporting the Air Force Electronic Key Management Systems (AFEKMS). AFEKMS, in concert with NSA's EKMS, provides a secure and flexible capability for the electronic generation, distribution, accounting, and management of key material, voice callwords, and communications security (COMSEC) publications for AF C4I and weapon systems. AFEKMS replaces the existing physical distribution and management system providing cryptographic keying material for USAF Information Assurance. Information Assurance emphasizes access control, multi-level secure databases, trusted computing and information integrity. AFEKMS is a three-tier system structure in a hierarchical arrangement. This tiered structure provides 'wholesale' to 'retail' to 'consumer' capability to distribute, manage and account for COMSEC keying material. Tier 1 installations comprise the 'wholesale' capability. Tier 2 installations comprise the distribution network and Tier 3 comprises the 'retail locations' where keying material leaves the AFEKMS and enters the End Item COMSEC Equipment (EICE).

Acquisition includes Commercial Off-The-Shelf (COTS) computers and software, contractor-developed application software, and Government Furnished Equipment (GFE) and software such as NSA's Local COMSEC Management Software (LCMS).   The USAF-developed user application software (UAS) is necessary to provide a common framework for specific functions of unique key management systems such as the F-22, Advanced EHF COMSEC/TRANSEC System (ACTS), Joint Strike Fighter, and other current and future programs. Further, unique key fill requirements of EICE for AF applications such as ARC-210, Fighter Data Link, Airborne Integrated Terminal Group and Multi-Band Multi-Mode Radio, and other current and future programs are also supported by AFEKMS developments. The UASs developed by the AFEKMS SPO improve the LCMS user interface, integrate multiple independent UASs into a single commonly supported package, and moderate unique UASs running on the same platform when integration is not possible. They also allow automation of manual operator processes in order to save manpower, reduce required training, and improve mission effectiveness.

Overall AFEKMS will improve protection of national Security-related information by enhancing confidentiality, integrity, and non-repudiation substantially over legacy key management systems. AFEKMS will greatly accelerate availability of key through electronic transmission vice shipping of materials, and will enhance mission responsiveness and flexibility. While much of the current AFEKMS level of effort is directed at enhancing current and developing systems, the ultimate aim is to provide a migration path to future functionality planned under NSA's Key Management Infrastructure (KMI) initiative. Such KMI functionality is expected to emerge

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(U) **A. Mission Description Continued**
about 2007.

(U) FY 2002 ($ in Thousands)

(U) $0   Accomplishment/Planned Program

(U) $2,032   Continued program office contract support of EKMS User Application Software including migration to the Key Management Infrastructure (KMI) and the Browser-Based Development effort

(U) $1,694   Continued End User Application Software Development: common UAS, Local Management Device/Data Management Device (LMD/DMD) browser interface, KOV-21 Integration, and computer-based training

(U) $3,726   Total

(U) FY 2003 ($ in Thousands)

(U) $0   Accomplishment/Planned Program

(U) $1,398   Continue program office contract support of EKMS User Application Software including migration to the Key Management Infrastructure (KMI) and the Browser-Based Development effort

(U) $3,263   Continue End User Application Software Development: common UAS, Local Management Device/Data Management Device (LMD/DMD) browser interface, KOV-21 Integration, and computer-based training

(U) $4,661   Total

(U) FY 2004 ($ in Thousands)

(U) $0   Accomplishment/Planned Program

(U) $0   No Activity

(U) $0   Total

(U) **B. Budget Activity Justification**
This program is in budget activity 7, Operational System Development, because it addresses the development and transition of information security, protection and defensive capabilities and technologies.

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0303401F Communications Security	PROJECT 4861

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

	FY 2002	FY 2003	FY 2004	Total Cost
(U) Previous President's Budget	3,942	4,765	14,638	
(U) Appropriated Value	4,131	4,765		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-189	-6		
b. Small Business Innovative Research	-113			
c. Omnibus or Other Above Threshold Reprogram		-47		
d. Below Threshold Reprogram	-85			
e. Rescissions	-18	-51		
(U) Adjustments to Budget Years Since FY 2003 PBR			-14,638	
(U) Current Budget Submit/FY 2004 PBR	3,726	4,661	0	TBD

(U) Significant Program Changes:

Moved out of PE 33401, Comsec, starting in FY04. Will be placed in PE 33140, Infosec, using the same BPAC number.

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

	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
(U) AF RDT&E	1,300	1,700							0	3,000
(U) F-22 EMD (BA05, PE 0604239F, Avionics Block 3.1.1)										
(U) Continuation of BPAC 674861under another PE (BA07, PE 33140F, Infosec)			4,180	3,284	3,311	3,540	3,599	3,629	Continuing	TBD

(U) E. Acquisition Strategy

All major contracts within this Program Element are awarded after full and open competition.

(U) F. Schedule Profile

	FY 2002	FY 2003	FY 2004

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(U)   **F. Schedule Profile Continued**

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4

(U)   Continue End User Application SW devel., Common UAS, &
        KOV-21 integ.
        NOTE: NSA is lead service on the DoD EKMS Program. NSA changes to the overall program drive AFEKMS changes.

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)	DATE February 2003

BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0303401F Communications Security	PROJECT 4861

(U) **A. Project Cost Breakdown ($ in Thousands)**

	FY 2002	FY 2003	FY 2004
(U) Software Development	3,726	4,661	0
(U) Total	3,726	4,661	0

(U) **B. Budget Acquisition History and Planning Information ($ in Thousands)**

(U) **Performing Organizations:**

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 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Organizations										
SAIC	BPA	May 98	N/A	N/A	5,848	1,672	1,340	0	Continuing	TBD
Mitre	FFRDC	Nov 00	N/A	N/A	1,330	1,910	3,206	0	Continuing	TBD
Windmill Int'l, Inc.	BPA	Nov 01	N/A	N/A	0	144	115	0	Continuing	TBD
Support and Management Organizations										
N/A										
Test and Evaluation Organizations										
N/A										

(U) **Government Furnished Property:**

Item Description	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Delivery Date		Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Property										
N/A										
Support and Management Property										
N/A										
Test and Evaluation Property										
N/A										

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0303401F Communications Security	PROJECT 4861

Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development	7,178	3,726	4,661	0	TBD	TBD
Subtotal Support and Management						
Subtotal Test and Evaluation						
Total Project	7,178	3,726	4,661	0	TBD	TBD