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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment

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
	Total Program Element (PE) Cost	0	50,073	58,783	190,001	257,665	247,322	177,451	177,624	Continuing	TBD
5049	JINTACCS	0	5,418	10,552	22,511	20,838	31,387	18,088	18,136	Continuing	TBD
5050	TDL System Integration	0	29,990	48,231	167,490	236,827	215,935	159,363	159,458	Continuing	TBD
5051	Family of Interoperable Operational Pictures (FIOP)	0	14,665	0	0	0	0	0	30	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

The Chief of Staff of the Air Force (CSAF) on April 17, 2001 approved the management of the Tactical Data Links (TDL) as a Major System Acquisition Program. In order to effectively manage the program, the Tactical Data Links System Program Office (SPO) was stood up at Electronic Systems Center (ESC), Hanscom AFB, MA on 29 May, 2001. Funding for the Tactical Data Links was contained in PE 0604754F, Tactical Data Link Integration; PE 0604779F, Tactical Data Link Interoperability; and PE 0207434, Link 16 Support and Sustainment. This funding was consolidated into this program element, PE 0207434F, for the purpose of supporting the Tactical Data Link Infrastructure.

Funding for the Family of Interoperable Operational Pictures (FIOP) Task 1 effort was originally provided in FY02 in PE 0604754F, #654992, FIOP. This was approximately $15M per year across the FYDP. The entire funding was transferred in FY03 to this program element, PE 0207434F, #655051, FIOP, to consolidate Infrastructure funding for TDLs. The FIOP funding for FY04 - FY09 was then transferred to PE 0207438F, Theater Battle Management C4I, #654790, Theater Battle Management Core Systems (TBMCS).

In FY04 funding was provided to this PE, 0207434F, Link 16 Support and Sustainment, project #655050, TDL System Integration to support SIAP Block 1 efforts.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2003
BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment

(U) **A. Mission Description**

Tactical Data Links (TDL) are used in a combat environment to exchange information such as messages, data, radar tracks, target information, platform status, imagery, and command assignments. TDLs provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. TDLs are used by the Air Force, Army, Navy, and Marine Corps theater Command and Control (C2) elements, weapons platforms, and sensors. TDLs include but are not limited to: Link 16, Link 11, Situational Awareness Data Link (SADL), and Variable Message Format (VMF).

Utilization of Link 16 in a joint environment requires the integration of terminals (e.g., Joint Tactical Information Distribution System (JTIDS) or Multifunctional Information Distribution System (MIDS)) into these host platforms, and interoperability of Link 16 nets across all deployed joint and allied platforms. The Tactical Data Links (TDL) System Program Office (SPO) performs several cross-platform activities to help ensure proper integration of Link 16 capabilities and interoperability of Link 16 nets. In addition, the SPO has management responsibility for the Air Force's Air Defense System Integrator (ADSI) systems. The Single Integrated Air Picture (SIAP) efforts will lead to the joint development of improvements to TDLs to better support the warfighter by ensuring the air picture is composed of common, continual, unambiguous tracks of all airborne objects.

The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) Program ensures platform/system interoperability through the development and management of the joint/combined architecture, tactical information exchange requirements (IERs), interface definitions and protocols, platform/system implementations, employment concepts, and operating procedures. This includes the coordination of all TDL and United States Message Text format (USMTF) message standards configuration management, platform/system interoperability assessments and interoperability certification testing.

(U) **B. Budget Activity Justification**

This program is in budget activity 5 (Engineering Manufacturing and Development) because it supports development, integration solutions, fielding, operational support activities, and support of special projects.

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

	FY 2002	FY 2003	FY 2004	Total Cost
(U) Previous President's Budget		44,146	44,186	TBD
(U) Appropriated Value		51,146		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions		-637		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram		-436		
d. Below Threshold Reprogram				

Exhibit R-2 (PE 0207434F)

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment

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

	FY 2002	FY 2003	FY 2004	Total Cost
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			14,597	
(U) Current Budget Submit/FY 2004 PBR		50,073	58,783	TBD

(U) Significant Program Changes:
In FY04 funding was provided to this PE, 0207434F, Link 16 Support and Sustainment, project #655050, TDL System Integration to support SIAP Block 1 efforts.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2003
BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

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
5049 JINTACCS	0	5,418	10,552	22,511	20,838	31,387	18,088	18,136	Continuing	TBD

In FY 2003, #655049, JINTACCS efforts transferred from PE 0604779F, Tactical Data Link Interoperability, #652189, JINTACCS

(U)   A. Mission Description

The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) Program is a Joint Staff directed program that provides the sole Air Force (AF) activity responsible for ensuring the interoperability of AF Tactical Data Links (TDLs) [including, but not limited to Tactical Digital Information Links (TADILs) and Variable Message Formats (VMF)] and United States Message Text Format (USMTF) systems with the associated Joint and allied/coalition systems. The requirements for the program are delineated in DoDD 4630.5, DoDD 4630.8, CJCSI 6212.01B, and AFI 33-108. The program ensures platform/system interoperability through the development and management of the joint/combined architecture, tactical information exchange requirements (IERs), interface definitions and protocols, platform/system implementations, employment concepts, and operating procedures. This includes the coordination of all TDL and USMTF message standards configuration management, platform/system interoperability assessments and interoperability certification testing. Air Force platforms/systems participating in, and affected by, this program include, but are not limited to: Airborne Warning and Control System (AWACS); Modular Control Element (MCE); Air Operations Center (AOC); Joint Surveillance Target Attack Radar System (JSTARS); F-15 A/B/C/D/E; F-16 B30/40/50; F/A-22; A/OA-10; Joint Strike Fighter (JSF); Airborne Laser (ABL); B-1; B-2; B-52; F-117; RC-135; Regional/Sector Air Operations Center (RAOC/SAOC), Command & Control Information Processing System (C2IPS); Space Based Infrared System (SBIRS); Air Support Operations Center (ASOC); and Tactical Air Control Parties (TACPs), Theater Battle Management Core Systems (TBMCS), Contingency Automated Theater Automated Planning System (CTAPS), Combat Intelligence System (CIS), Air Defense System Integrator (ADSI), Distributed Common Ground System (DCGS), North American Aerospace Defense Command (NORAD)/United States Space Command (USSPACECOM) Warfighting Support System (N/UWSS), Region/Sector Air Operations Center (R/SAOC) AWACS Digital Information Link, and Global Command and Control System (GCCS)-Air Force. The Air Force JINTACCS program supports the Assistant Secretary of Defense (ASD) directive on harmonization of US and NATO messages (e.g., ATO and ACO).

(U)   FY 2002 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $0   No activity
(U) $0   Total

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

(U)   A. Mission Description Continued

(U)   FY 2003 ($ in Thousands)

(U) $0   Accomplishments/Planned Program

(U) $650   Interoperability Certification Testing. Specific platforms will be determined based on Link 16 message implementation, software upgrade, and system modification

(U) $1,463   US Message Text Formats Management and Updates
                                   - Support Joint, Allied/Coalition meetings and working groups
                                   - Support technology maturation for joint standards and DoD policy

(U) $3,305   Tactical Data Link Management and Architecture Development.
                                    - Support multi TADIL and VMF meetings and working groups
                                    - Consultations regarding implementation and interoperability with the F-16, B-52, B-1, B-2, F-117, and other weapon systems
                                    - Consultations regarding software updates and interoperability with the F-15C, E-3, E-8, Control and Reporting Center/Control and Reporting Element (CRC/CRE), interoperable Systems Management and Requirements Transformation (iSMART), and other weapon systems

(U) $5,418   Total

(U)   FY 2004 ($ in Thousands)

(U) $0   Accomplishments/Planned Program

(U) $633   Continue Interoperability Certification Testing. Specific platforms will be determined based on Link 16 message implementation, software upgrade, and system modification

(U) $1,583   Continue US Message Text Formats Management and Updates
                                   - Support Joint, Allied/Coalition meetings and working groups
                                   - Support technology maturation for joint standards and DoD policy

(U) $7,175   Continue Tactical Data Link Management and Architecture Development.
                                    - Support multi TADIL and VMF meetings and working groups
                                    - Consultations regarding implementation and interoperability with the F-16, B-52, B-1, B-2, F-117, and other weapon systems
                                    - Consultations regarding software updates and interoperability with the F-15C, E-3, E-8, CRC/CRE, iSMART, and other weapon systems

(U) $1,161   Tactical Data Link Roadmap Requirements and Configuration Management.

(U) $10,552   Total

(U)   B. Project Change Summary
Not Applicable

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

(U) C. 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										
(U) 27445F (Fighter TDL)	0	38,168	42,877	67,617	41,419	42,032	39,763	48,149		
(U) 27446F (Bomber TDL)	0	0	12,959	120,571	166,535	89,009	0	0		
(U) 27448F (C2ISR TDL)	0	0	26,927	26,713	7,254	745	0	0		
(U) 41839F (Airlift TDL)	0	0	0	67,199	85,030	150,094	42,808	42,457		
(U) 64754F (TDL Integration)	18,138	0	14,675	24,720	26,833	27,079	39,950	28,544		
(U) Other APPN										
(U) Aircraft Procurement, AF (3010)										
(U) 27434F (Link 16 Sup & Sus)	0	36,013	40	0	0	0	0	0		
(U) 27445F (Fighter TDL)	0	0	31,635	98,076	122,338	94,153	44,195	32,518		
(U) 27446F (Bomber TDL)	0	0	0	86,125	48,254	33,185	30,570	28,149		
(U) 27448F (C2ISR TDL)	0	0	0	16,503	5,769	1,091	6,025	6,128		
(U) 41839F (Airlift TDL)	0	0	0	11,827	24,043	0	0	0		
(U) O&M, AF (3400)										
(U) 27434F (Link 16 Sup & Sus)	10,143	11,494	13,482	16,535	21,401	23,521	24,696	22,753		
(U) Other Procurement, AF (3080)										
(U) 27434F (Link 16 Sup & Sus)	0	0	0	1,744	9,602	21,202	2,785	2,829		

(U) D. Acquisition Strategy

As the Air Force lead agent for a jointly directed program, JINTACCS provides level of effort technical support for increasing interoperability of AF programs through message text and data link standards implementation.

(U) E. Schedule Profile

	FY 2002	FY 2003	FY 2004

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

(U) E. Schedule Profile Continued

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) E-8 - Complete ASU Spiral 1 Implementation/Interoperability							X					
(U) AOC - Complete baseline Implementation/Interoperability												X
(U) F-15C - Interoperability consultation for Software upgrades.								X				
(U) F-16 - Interoperability consultation for Software upgrades.											X	
(U) E-3 - Interoperability consultation for Software upgrades.								X				
(U) E-8 - Interoperability consultation for Software upgrades.						X						
(U) CRC/CRE - Interoperability consultation for Software upgrades.								X				
(U) AOC - Interoperability consultation for Software upgrades.								X				
(U) F-15E - Interoperability consultation for Software upgrades.							X					
(U) ABL - Interoperability consultation for Software upgrades.						X						
(U) B-1 - Interoperability consultation for Software upgrades.							X					
(U) B-2 - Interoperability consultation for Software upgrades.							X					
(U) B-52 - Interoperability consultation for Software upgrades.							X					
(U) F/A-22 - Interoperability consultation for Software upgrades.							X					
(U) F-117 - Interoperability consultation for Software upgrades.							X					
(U) Joint Strike Fighter (JSF) - Interoperability consultation for Software									X			
(U) R/SAOC - Interoperability consultation for Software upgrades.						X						
(U) TACP/ASOC - Interoperability consultation for Software upgrades.								X				
(U) -- (TACP/ASOC Passed Joint and CAF Interoperability)												
(U) MCE P3I CAF Interoperability testing						X		X				X
(U) MCE P31 JOINT Interoperability testing						X			X			
(U) JSTARS CAF Interoperability testing						X		X				X
(U) JSTARS JOINT Interoperability testing					*	X				X		
(U) E-3 AWACS CAF Interoperability testing						X		X			X	
(U) E-3 AWACS JOINT Interoperability testing					*	X			X		X	
(U) F-15C CAF Interoperability testing									X			
(U) F-15C JOINT Interoperability testing										X		

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

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

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) F-15E CAF Interoperability testing									X			
(U) F-15E JOINT Interoperability testing										X		
(U) RADIL CAF Interoperability testing						X						
(U) RADIL JOINT Interoperability testing							X					
(U) ABL CAF Interoperability testing							X					
(U) ABL JOINT Interoperability testing								X				
(U) F-16 CAF Interoperability testing						X						
(U) F-16 JOINT Interoperability testing							X					
(U) TACP CAF Interoperability testing						X						
(U) TACP JOINT Interoperability testing								X				
(U) ADSI CAF Interoperability testing							X					
(U) ADSI JOINT Interoperability testing						X			X			
(U) OPFAC INSTALL/INTEGRATION												
(U) - F-15 E COMPLETE												
(U) - SADL TMPG												
(U) SADL TMPG CAF Interoperability testing						X			X			
(U) SADL TMPG JOINT Interoperability testing						X				X		

* Denotes completed event
X Denotes planned event

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5049

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

	FY 2002	FY 2003	FY 2004
(U) Interoperability Certification Testing		650	633
(U) US Message Text Formats Management		1,463	1,583
(U) Tactical Data Links Management		3,305	8,336
(U) Total		5,418	10,552

(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										
MITRE	CPAF	OCT 72					2,703	6,574	Continuing	TBD
B3H	CPFF	MAY 97					1,925	1,940	Continuing	TBD
Odyssey	CPFF	JUN 01						1,200	Continuing	TBD
Support and Management Organizations										
PGM OFFICE	Various	Various					340	355	Continuing	TBD
Test and Evaluation Organizations										
AF Participating Test Unit (PTU)	PO/616	OCT 97					450	483	Continuing	TBD

Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development			4,628	9,714	TBD	TBD
Subtotal Support and Management			340	355	TBD	TBD
Subtotal Test and Evaluation			450	483	TBD	TBD
Total Project			5,418	10,552	TBD	TBD

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

BUDGET ACTIVITY **05 - System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0207434F Link 16 Support and Sustainment**	PROJECT **5050**

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
5050 TDL System Integration	0	29,990	48,231	167,490	236,827	215,935	159,363	159,458	Continuing	TBD

On 17 April, 2001 the Chief of Staff of the Air Force (CSAF) approved the management of the Tactical Data Links (TDL) as a Major System Acquisition Program. In order to effectively manage the program, the Tactical Data Links System Program Office (SPO) was stood up at Electronic Systems Center (ESC), Hanscom AFB, MA on 29 May, 2001. Funding for the Tactical Data Link Infrastructure was contained in PE 0604754F, Tactical Data Link Integration; PE 0604779F, Tactical Data Link Interoperability; and PE 0207434, Link 16 Support and Sustainment. This funding was consolidated in PE 0207434F in FY03 for the purpose of supporting the Tactical Data Link Infrastructure.

In FY03 there was a Congressional increase of $7.0 M to fund the Link 16 integration in the Alaskan Aerospace Surveillance and Range Operations Modernization (AASROM) Program

In FY04 funding was provided to PE 0207434F, Link 16 Support and Sustainment, #655050, TDL System Integration to support SIAP Block 1 efforts.

(U)   A. Mission Description

Tactical Data Links (TDLs) are used in a combat environment to exchange information such as messages, data, radar tracks, target information, platform status, imagery, and mission assignments. TDLs provide interoperable data exchange, local and global connectivity, and situational awareness to the tactical user when operating under rapidly changing operational conditions. TDLs are used by the Air Force, Army, Navy, and Marine Corps theater Command and Control (C2) elements, weapons and sensor platforms. TDLs include but are not limited to: Link 16, Link 11, Situational Awareness Data Link (SADL), and Variable Message Format (VMF).

The number of Air Force platforms hosting TDLs are expanding from C2 aircraft (E-3, E-8, etc.) into the fighter, bomber, sensor, tanker, airlift and other tactical fleets (F-15, F-16, F/A-22, Rivet Joint, B-1, B-2, B-52, etc.). Utilization of TDLs in a joint environment requires the integration of terminals into these host platforms and interoperability of TDL networks across all deployed joint and allied platforms. Cross-platform activities performed by the Tactical Data Links (TDL) System Program Office (SPO) include: integration efforts encompassing hardware, software, operational Link 16 enhancements, and logistics development; certification of individual TDL implementations to joint and allied standards; establishment of Service wide net management procedures and operations; system wide enhancements and improvements; and test and sustainment activities. In addition, the SPO is supporting the integration of the Joint Interface Control Officer (JICO) - Support System (JSS) and TDL Gateways including, but not limited to, the Joint Air Defense System Integrator (ADSI), the family of Joint Range Extension (JRE) functionality, and Beyond Line of Sight (BLOS) capabilities.   The Single Integrated Air Picture (SIAP) efforts will lead to the joint development of near real-time and real-time data from multiple sensors and TDLs. This will enhance the air picture provided to the warfighter by ensuring common, continual, and unambiguous, tracks of all airborne objects.

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5050

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

(U) B. Budget Activity Justification

   This program is in budget activity 5 (Engineering, Manufacturing and Development) because it supports development, integration solutions, fielding, operational support activities, and support of special projects.

(U) FY 2002 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $0   No Activity
(U) $0   Total

(U) FY 2003 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $6,626   LINK 16 INTEGRATION: Efforts associated with hardware and software integration of Link 16 terminals into Air Force platforms.
                           -- (U) On-going engineering integration support to platforms; technical improvements; field support; technical assistance to related tactical data link demonstration programs.
(U) $1,771   LINK 16 EMD SUPPORT: Efforts associated with fielding terminals.
                           -- (U) Maintain developmental equipment; test support; fielding/non-recurring training; network support; crypto support; spectrum support; gateway support; data link tool support; and support operational working groups.
(U) $14,695   SINGLE INTEGRATED AIR PICTURE LINKAGE:
                           -- (U) AF system engineering and infrastructure cost to support SIAP recommendations.
(U) $6,898   ALASKA AEROSPACE SURVEILLANCE AND RANGE OPERATIONS MODERNIZATION (AASROM) PROGRAM
(U) $29,990   Total

(U) FY 2004 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $5,740   CONTINUE LINK 16 INTEGRATION: Efforts associated with hardware and software integration of Link 16 terminals into Air Force platforms.
                           -- (U) On-going engineering integration support to platforms; technical improvements; field support; technical assistance to related tactical data link demonstration programs.
(U) $3,385   CONTINUE LINK 16 EMD SUPPORT: Efforts associated with fielding terminals.
                           -- (U) Support Operations Support Working Group; maintain developmental equipment; test support; fielding/non-recurring training; network support; crypto support; spectrum support; gateway support; data link tool support.

UNCLASSIFIED

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5050

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

(U) FY 2004 ($ in Thousands) Continued

(U) $1,799   TACTICAL DATA LINK CONNECTIVITY:
                 -- (U) Link 16/other TDLs/Gateways/Interfaces/ROBE
                 -- (U) ADSI Management.
                 -- (U) JICO Support Tools

(U) $475   SYSTEM TESTING & SUPPORT: Cross-platform test and evaluation and system level testing.

(U) $5,900   TACTICAL DATA LINK ACQUISITION MANAGEMENT

(U) $30,932   CONTINUE SINGLE INTEGRATED AIR PICTURE LINKAGE:
                 -- (U) Continue AF funding of Single Integrated Air Picture (SIAP) effort.
                 -- (U) AF system engineering and infrastructure cost to support SIAP recommendations.

(U) $48,231   Total

(U) **B. Project Change Summary**
Not Applicable

(U) **C. 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										
(U) 27445F (Fighter TDL)	0	38,168	42,877	67,617	41,419	42,032	39,763	48,149		
(U) 27446F (Bomber TDL)	0	0	12,959	120,571	166,535	89,009	0	0		
(U) 27448F (C2ISR TDL)	0	0	26,927	26,713	7,254	745	0	0		
(U) 41839F (Airlift TDL)	0	0	0	67,199	85,030	150,094	42,808	42,457		
(U) 64754F (TDL Integration)	18,138	0	14,675	24,720	26,833	27,079	39,950	28,544		
(U) Other APPN										
(U) Aircraft Procurement, AF (3010)									Continuing	Continuing
(U) 27434F (Link 16 Sup & Sus)	0	36,013	40	0	0	0	0	0		
(U) 27445F (Fighter TDL)	0	0	31,635	98,076	122,338	94,153	44,195	32,518		
(U) 27446F (Bomber TDL)	0	0	0	86,125	48,254	33,185	30,570	28,149		

Project 5050	Page 12 of 20 Pages	Exhibit R-2A (PE 0207434F)

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5050

(U) C. 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)	27448F (C2ISR TDL)	0	0	0	16,503	5,769	1,091	6,025	6,128		
(U)	41839F (Airlift TDL)	0	0	0	11,827	24,043	0	0	0		
(U)	O&M, AF (3400)										
(U)	27434F (Link 16 Sup & Sus)	10,143	11,494	13,482	16,535	21,401	23,521	24,696	22,753		
(U)	Other Procurement, AF (3080)										
(U)	27434F (Link 16 Sup & Sus)	0	0	0	1,744	9,602	21,202	2,785	2,829		

(U) D. Acquisition Strategy

The Air Force Tactical Data Links System Program Office (SPO) provides for common development of integration and interoperability across all Air Force platforms and ensures that Link 16 is procured and maintained as a joint, end-to-end, command and control system.

(U) E. Schedule Profile

		FY 2002				FY 2003				FY 2004			
		1	2	3	4	1	2	3	4	1	2	3	4
(U)	PLATFORM FIELDING SUPPORT												
(U)	- F-15 (thru FY03) end support								X				
(U)	- F-16 start support									X			
(U)	- B-1 (Interim Data Link) start support						X						
(U)	Link 16 EMD Support					*	X	X	X				
(U)	Single Integrated Air Picture					*	X	X	X	X	X	X	X
(U)	AASROM												
(U)	-Contract Award					*							
(U)	-Initial Link 16 Integration							X					
(U)	-Final Link 16 Integration										X		

* Denotes completed events
X Denotes planned events

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

BUDGET ACTIVITY **05 - System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0207434F Link 16 Support and Sustainment**	PROJECT **5050**

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

	FY 2002	FY 2003	FY 2004
(U) Link 16 Integration		6,626	5,740
(U) EMD Activities		1,771	3,385
(U) Tactical Data Link Connectivity		0	1,799
(U) System Testing and Support		0	475
(U) Tactical Data Link Acquisition Management		0	5,900
(U) Single Integrated Air Picture		14,695	30,932
(U) Alaskan Aerospace Surveillance and Range Operations Modernization (AASROM) Program		6,898	
(U) Total		29,990	48,231

(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										
Logicon*	FFP	Jul 97					325	400	Continuing	TBD
BAE*	FFP	Jul 97					362	425	Continuing	TBD
Contractor Support	Various	Various					6,325	6,505	Continuing	TBD
MITRE	CPAF	1QFY99					7,530	7,809	Continuing	TBD
Single Integrated Air Picture	Various	Various					14,695	30,932	Continuing	TBD
*Funding MIPR'd to SPAWAR										
Support and Management Organizations										
Program Office	Various	Various					432	485	Continuing	TBD
AFC2ISRC	Various	Various						1,200	Continuing	TBD
Test and Evaluation Organizations										
Eglin AFB	PO/616	Various					321	475	Continuing	TBD

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE February 2003
BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	**PE NUMBER AND TITLE** 0207434F Link 16 Support and Sustainment	**PROJECT** 5050

(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										
Support and Management Property										
Test and Evaluation Property										
					Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotals										
Subtotal Product Development							29,237	46,071	TBD	TBD
Subtotal Support and Management							432	1,685	TBD	TBD
Subtotal Test and Evaluation							321	475	TBD	TBD
Total Project							29,990	48,231	TBD	TBD

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5051

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
5051	Family of Interoperable Operational Pictures (FIOP)	0	14,665	0	0	0	0	0	30	Continuing	TBD

Funding for the Family of Interoperable Operational Pictures (FIOP) Task 1 effort was originally provided in FY01 in PE 0604754F, #654992, FIOP. This was approximately $15M per year across the FYDP. The entire funding was transferred in FY03 to PE 0207434F, #655051, FIOP, to consolidate Infrastructure funding for TDLs. The FIOP funding for FY04 - FY09 was then transferred to PE 0207438F, Theater Battle Management C4I, #654790, Theater Battle Management Core Systems (TBMCS). In FY04, additional funding for was added to PE 0604754F, #654992 to fund FIOP Task 2 efforts. Currently, FIOP funding is located in three PEs:

Task 1 efforts:
PE 0604754F, #654992 (FY02)
PE 0207434F, #655051 (FY03)
PE 0207438F, #654790 (FY04-FY09)

Task 2 efforts:
PE 0604754F, #654992 (FY04-FY09)

(U)   A. Mission Description

This funding and schedule will support development, integration, operational fielding and migration of capability to identified systems of record for the Family of Interoperable Operational Pictures (FIOP) initiative. The objective is to provide an all-source picture of the battle space containing actionable, decision-quality, information to the warfighter through a fusion of existing databases. Interoperability deficiencies will be identified and resolved through implementation of Web-Based Technologies and Network Based Services.

(U)   FY 2002 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $0   No Activity
(U) $0   Total

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5051

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

(U) FY 2003 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $2,850   PERFORM REQUIREMENTS & ENGINEERING MANAGEMENT:
--(U) Provide requirement management (AF Exec Agent $750, $300 each USA, USN, USMC; AF $600, and DISA Mgt $600).
(U) $5,739   IMPLEMENT EXECUTION MANAGEMENT CAPABILITY:
--(U) Provide integration support, execution management, and visualization capabilities.
(U) $3,038   DEVELOP TACTICAL COE WORKSTATION:
--(U) Migrate USMC/USA C2PC to COP infrastructure. Provide integration support, engineering, hardware/software, and travel.
(U) $3,038   COE SUPPORT FOR JOINT VARIABLE MSG FORMAT:
--(U) Implement COE processing of JVMF messages among USMC/USN/USA with scalable COP infrastructure in limited bandwidth environments. Provide integration support, engineering, hardware/software, and travel
(U) $14,665   Total

(U) FY 2004 ($ in Thousands)
(U) $0   Accomplishments/Planned Program
(U) $0   No Activity
(U) $0   Total

(U) **B. Project Change Summary**
Not Applicable

(U) **C. 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										
(U) 27445F (Fighter TDL)	0	38,168	42,877	67,617	41,419	42,032	39,763	48,149		
(U) 27446F (Bomber TDL)	0	0	12,959	120,571	166,535	89,009	0	0		
(U) 27448F (C2ISR TDL)	0	0	26,927	26,713	7,254	745	0	0		
(U) 41839F (Airlift TDL)	0	0	0	67,199	85,030	150,094	42,808	42,457		
(U) 64754F (TDL Integration)	18,138	0	14,675	24,720	26,833	27,079	39,950	28,544		

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5051

(U) C. 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) Other APPN										
(U) Aircraft Procurement, AF (3010)										
(U) 27434F (Link 16 Sup &Sus)	0	36,013	40	0	0	0	0	0		
(U) 27445F (Fighter TDL)	0	0	31,635	98,076	122,338	94,153	44,195	32,518		
(U) 27446F (Bomber TDL)	0	0	0	86,125	48,254	33,185	30,570	28,149		
(U) 27448F (C2ISR TDL)	0	0	0	16,503	5,769	1,091	6,025	6,128		
(U) 41839F (Airlift TDL)	0	0	0	11,827	24,043	0	0	0		
(U) O&M, AF (3400)										
(U) 27434F (Link 16 Sup &Sus)	10,143	11,494	13,482	16,535	21,401	23,521	24,696	22,753		
(U) Other Procurement, AF (3080)										
(U) 27434F (Link 16 Sup &Sus)	0	0	0	1,744	9,602	21,202	2,785	2,829		

(U) D. Acquisition Strategy

JROC directed activity to implement spiral develop, integration and sustain web-enabled COP capabilities that are interoperable with existing Service systems by identifying execution-level requirements and candidate solutions which will be tested and then be migrated to Service SOR systems for sustainment.

(U) E. Schedule Profile

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Rqmts/Engr Management					*	X	X	X				
(U) Execution Management Capability					*	X	X	X				
(U) Tactical COE Workstation Development					*	X	X	X				
(U) COE Support for Joint VMF					*	X	X	X				

* Denotes completed event
X Denotes planned event

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5051

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

	FY 2002	FY 2003	FY 2004
(U) REQUIREMENTS & ENGINEERING MANAGEMENT		2,850	0
(U) EXECUTION MANAGEMENT CAPABILITY		5,739	0
(U) TACTICAL COE WORKSTATION DEVELOPMENT		3,038	0
(U) COE SUPPORT FOR JOINT VARIABLE MESSAGE FORMAT		3,038	0
(U) Total		14,665	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										
Execution Management Contractor	FPLOE	Mar 03					5,739		Continuing	TBD
Tactical Coe WS Contractors*	Various	Various					3,038		Continuing	TBD
JVMF Contractors**	Various	Various					3,038		Continuing	TBD
*Funding MIPR'd to Marine Corps Systems Command. **Funding MIPR'd to Army Communication Electronics Command										
Support and Management Organizations										
Multi-Service Contractor Support	Various	Various					2,150		Continuing	TBD
MITRE	CPAF	Various					500		Continuing	TBD
Contractor Support	ITSP	Various					200		Continuing	TBD
Test and Evaluation Organizations										

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

BUDGET ACTIVITY 05 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207434F Link 16 Support and Sustainment	PROJECT 5051

Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development			11,815		TBD	TBD
Subtotal Support and Management			2,850		TBD	TBD
Subtotal Test and Evaluation						
Total Project			14,665		TBD	TBD