

UNCLASSIFIED

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

DATE

February 2003

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0207445F FIGHTER TACTICAL DATA LINK

PROJECT

5043

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
5043 Fighter Tactical Data Link	0	38,168	42,877	67,617	41,419	42,032	39,763	48,149	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

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 from platform PEs was transferred to the appropriate TDL platform PE. Four new program elements were created in FY03 to consolidate the platform integration funding. This includes PE 0207445F, Fighter Tactical Data Link; PE 0207446F, Bomber Tactical Data Link; PE 0207448F, Command, Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) Tactical Data Link; and PE 0401839F, Airlift/Other Tactical Data Link.

(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).

This effort adds tactical data link capability to the A/OA-10 aircraft. The A/OA-10 upgrade is required to enhance its ability to support Close Air Support (CAS) and interdiction mission requirements. This effort also adds Link 16 transmit capability to the F/A-22 to support air-to-air and air-to-ground mission requirements and keeps the F-117 current and compatible with the USAF Global Strike Task Force (GSTF) concept through 2020+. Link 16 provides a jam-resistant, secure digital data transfer network capability with a standardized waveform and data format allowing intra and inter-flight communications. Link 16 will increase mission effectiveness, provide situational awareness, provide positive identification of aircraft in the network, correlate on and off-board sensor data sharing target and threat information. Link 16 efforts include incorporating MIL-STD-6016 additions and changes, and applicable Interface Change Proposals (ICPs), and interoperability certification testing with the Joint Interoperability Test Center (JITC).

(U) **FY 2002 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Programs
 (U) \$0 No Activity
 (U) \$0 Total

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PROJECT

07 - Operational System Development**0207445F FIGHTER TACTICAL DATA LINK****5043**(U) **A. Mission Description Continued**(U) FY 2003 (\$ in Thousands)

(U) \$0	Accomplishments/Planned Programs
(U) \$29	Perform A-10 Tactical Data Link studies
(U) \$35,139	Integrate F/A-22 Link 16 transmit capability
(U) \$3,000	Support F/A-22 Link 16 test activities.
(U) \$38,168	Total

(U) FY 2004 (\$ in Thousands)

(U) \$0	Accomplishments/Planned Programs
(U) \$72	Perform A-10 Tactical Data Link studies
(U) \$39,805	Integrate F/A-22 Link 16 transmit capability
(U) \$3,000	Continue F/A-22 Link 16 testing activities support
(U) \$42,877	Total

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

Fighter Tactical Data Link program is in Budget Activity 7, Operational System Development, since it supports integration of tactical data links into operational systems.

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

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget		39,034	38,937	TBD
(U) Appropriated Value		39,034		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions		-481		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram		-385		
d. Below Threshold Reprogram				
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			3,940	
(U) Current Budget Submit/FY 2004 PBR		38,168	42,877	TBD

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(U) **C. Program Change Summary (\$ in Thousands) Continued**(U) **Significant Program Changes:**(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<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>FY 2008</u>	<u>FY 2009</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>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) 27434 (Link 16 Sup & Sus)	0	50,073	58,783	190,001	257,665	247,322	177,451	177,624		
(U) 27446 (Bomber TDL)	0	0	12,959	120,571	166,535	89,009	0	0		
(U) 27448 (C2ISR TDL)	0	0	26,927	26,713	7,254	745	0	0		
(U) 41839 (Airlift TDL)	0	0	0	67,199	85,030	150,094	42,808	42,457		
(U) 64754 (TDL Integration)	18,138	0	14,675	24,720	26,833	27,079	39,950	28,544		
(U) Other APPN										
(U) Procurement (3010)										
(U) 27434 (Link 16 Sup & Sus)	0	36,013	40	0	0	0	0	0		
(U) 27445 (Fighter TDL)	0	0	31,635	98,076	122,338	94,153	44,195	32,518		
(U) 27446 (Bomber TDL)	0	0	0	86,125	48,254	33,185	30,570	28,149		
(U) 27448 (C2ISR TDL)	0	0	0	16,503	5,769	1,091	6,025	6,128		
(U) 41839 (Airlift TDL)	0	0	0	11,827	24,043	0	0	0		
(U) O&M (3400)										
(U) 27434 (Link 16 Sup & Sus)	10,143	11,494	13,482	16,535	21,401	23,521	24,696	22,753		
(U) Other Procurement (3080)										
(U) 27434 (Link 16 Sup & Sus)	0	0	0	1,744	9,602	21,202	2,785	2,829		

(U) **E. 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) **F. Schedule Profile**FY 2002FY 2003FY 2004

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(U) F. Schedule Profile Continued

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) A-10 Tactical Data Link Studies							X				X	
(U) F-22 Link 16 Transmit Integration						X	X	X		X	X	X
(U) F-22 Link 16 test support						X	X	X		X	X	X

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										February 2003
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT
07 - Operational System Development					0207445F FIGHTER TACTICAL DATA LINK					5043
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>	
(U) A-10 Tactical Data Link							29		72	
(U) Requirements definition to incorporate Link 16 F/A-22 transmit capability							35,139		39,805	
(U) Proposal preparation to support development and test activities							3,000		3,000	
(U) Total							38,168		42,877	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2002</u>
										<u>Budget</u>
										<u>Budget</u>
										<u>Budget</u>
										<u>Budget to</u>
										<u>Complete</u>
										<u>Total</u>
										<u>Program</u>
<u>Product Development Organizations</u>										
Lockheed Martin Systems		CPAF		1QFY02				29		72
Integration (A-10 Digital Data Link)*										Continuing
F/A-22 Link 16 Transmit**		TBD		2QFY03				35,389		39,795
Contractor Support		FFP		1QFY03				1,100		1,200
MITRE		FFP		1QFY03				1,300		1,400
*Funding to A-10 SPO via AF Form 616. **Funding to F/A-22 SPO via AF Form 616.										
<u>Support and Management Organizations</u>										
Program Office		various		various				350		410
										Continuing
<u>Test and Evaluation Organizations</u>										
					<u>Total Prior</u>		<u>Budget</u>		<u>Budget</u>	
					<u>to FY 2002</u>		<u>FY 2002</u>		<u>FY 2003</u>	
									<u>FY 2004</u>	
									<u>Budget to</u>	
									<u>Complete</u>	
									<u>Total</u>	
									<u>Program</u>	
<u>Subtotals</u>										
Subtotal Product Development									37,818	
Subtotal Support and Management									42,467	
Subtotal Test and Evaluation									TBD	
Total Project									TBD	
									38,168	
									42,877	
									TBD	
									TBD	
Project 5043										
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