

UNCLASSIFIED

PE NUMBER: 0207446F

PE TITLE: Bomber Tactical Data Link

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2005			
BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0207446F Bomber Tactical Data Link						
Cost (\$ in Millions)		FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost		12.049	78.721	144.863	136.624	57.556	0.000	0.000	0.000	Continuing	TBD
5041	Bomber Tactical Data Link	12.049	78.721	144.863	136.624	57.556	0.000	0.000	0.000	Continuing	TBD

(U) **A. Mission Description and Budget Item Justification**

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 provide a jam-resistant, secure digital data transfer network capability with a standardized waveform and data format allowing Line of Sight (LOS) and Beyond Line of Sight (BLOS) intra- and inter-flight communications. TDLs are used by all Service 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 provides for common development, integration and interoperability of tactical data link aircraft, network, and weapon capabilities for all Air Force bomber platforms to include, but not limited to B-1B, B-2, and B-52 aircraft. Keeps all bomber platforms and datalinked weapons current, interoperable in the network, and compatible with the USAF Global Strike Task Force (GSTF) concept beyond 2020. It also expands Link 16 LOS and BLOS datalink capabilities. TDLs 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, and provide the datalink to accomplish time critical targeting and other mission update functions. The BLOS datalink capability works with Link 16 to extend the range of local Link 16 networks to other areas/theaters. TDL efforts include incorporating changes and additions to the TDL message standard (MIL-STD-6016C) and applicable Interface Change Proposals (ICPs); assisting with AF and Joint interoperability certification testing; future development, integration, and verification of Operational Flight Programs (OFP) upgrade due to TDL integration and supports data gathering processes; studying and incorporating data link technologies to ensure effectiveness and efficiency of the Global Strike CONOPS; and incorporating Interoperable Systems Management and Requirements Transformation (iSMART), a process which enables network centric interoperability assessments to be made more quickly and effectively.

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

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(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	12.849	120.256	166.082	88.827
(U) Current PBR/President's Budget	12.049	78.721	144.863	136.624
(U) Total Adjustments	-0.800	-41.535		
(U) Congressional Program Reductions		-39.000		
Congressional Rescissions		-1.240		
Congressional Increases				
Reprogrammings	-0.400	-1.295		
SBIR/STTR Transfer	-0.400			

(U) **Significant Program Changes:**

The current budget request for FY06-08 reflects the one year delay incorporating a TDL capability into the B-52 fleet. In FY06 the B-52 TDL program will transition from Pre-System Development and Demonstration (Pre-SDD) to System Development and Demonstration (SDD) activities which include: B-52 initial TDL hardware development and the start of flight and simulator software development. Also in FY06, the B-1 Line-of-Sight/Beyond Line-of-Sight (LOS/BLOS) TDL hardware development and the majority of flight software development will be executed. Rephased into the FY07-08 budget request are the B-52 flight-software integration, B-52 task-specific simulator development, B-52 training simulator upgrades, and development testing at the B-52 test range in compliance with SALT II Treaty requirements.

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Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5041 Bomber Tactical Data Link	12.049	78.721	144.863	136.624	57.556	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

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 provide a jam-resistant, secure digital data transfer network capability with a standardized waveform and data format allowing Line of Sight (LOS) and Beyond Line of Sight (BLOS) intra- and inter-flight communications. TDLs are used by all Service 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).

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(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Contract for LOS Link 16 terminals and BLOS radios for development labs and aircraft.	1.800	2.000	1.440	1.440
(U) Provide Link 16 system engineering, testing, and technical support	0.500	11.100	7.000	4.000
(U) B-1 FIDL Pre-System Development and Demonstration (SDD)	9.749	3.500		
(U) B-1 FIDL System Development and Demonstration (SDD)		49.039	67.674	31.776
(U) B-52 IDL Pre-System Development and Demonstration (SDD)		13.082		
(U) B-52 IDL System Development and Demonstration (SDD)			68.749	99.408
(U) Total Cost	12.049	78.721	144.863	136.624

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(U) C. Other Program Funding Summary (\$ in Millions)

	<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>FY 2010</u>	<u>FY 2011</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) 0207434F (Link 16 Sup & Sus)	61.150	134.547	157.677	184.100	151.289	155.710	159.298	162.024	Continuing	TBD
(U) 0207445F (Fighter TDL)	36.418	50.093	122.160	84.513	50.860	0.000	0.000	0.000		343.735
(U) 0207448F (C2ISR TDL)	25.003	25.150	14.838	4.479	1.952	1.948	1.953	1.939	Continuing	TBD
(U) 0401839F (Airlift TDL)	0.000	0.000	0.000	31.967	0.000	0.000	0.000	0.000		31.466
(U) Other APPN										
(U) Procurement (3010)										
(U) 0207434F (Link 16 Sup & Sus)	0.040	6.455	3.036	2.737	0.000	9.464	9.703	9.806	Continuing	TBD
(U) 0207445F (Fighter TDL)	29.300	95.934	90.430	60.614	12.507	0.000	0.000	0.000		419.662
(U) 0207446F (Bomber TDL)	0.000	44.245	22.237	11.624	4.392	0.000	0.000	0.000		82.498
(U) 0207423F (JTRS I&I)	0.000	0.000	17.192	43.445	52.032	53.650	49.645	53.695	Continuing	TBD
(U) 0401839F (Airlift TDL)	0.000	3.091	24.443	11.350	14.407	12.427	25.882	26.175	Continuing	TBD
(U) O&M (3400)										
(U) 0207434F (Link 16 Sup & Sus)	12.877	13.055	21.360	18.590	16.301	16.320	16.862	15.964	Continuing	TBD
(U) 0401839F (Airlift TDL)	0.000	1.812	2.776	5.883	12.073	16.843	17.105	17.397	Continuing	TBD
(U) Other Procurement (3080)										
(U) 0207434F (Link 16 Sup & Sus)	0.000	27.810	32.446	30.656	12.758	8.376	8.413	8.460	Continuing	TBD

(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.

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Exhibit R-3, RDT&E Project Cost Analysis

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(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2004 Cost	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
(U) <u>Product Development</u>															
Link 16 Terminal EMD Terminal Purchases	MIPR	SPAWAR, San Diego CA		1.800	Jan-04							0.000	1.800	1.800	
*B-1 JRE DEMO	CPFF	Northrop Grumman		0.600	Apr-04							0.000	0.600	0.600	
*B-1/B-52 BLOS DEMO for JEFX		Northrop Grumman		3.600	Apr-04							0.000	3.600	3.600	
*B-1 FIDL Pre-System Development and Demonstration (SDD)	SS/CPFF	Boeing Co. Long Beach CA		5.600	May-04	3.583	Oct-04					0.000	9.183	9.183	
*B-1 FIDL System Development and Demonstration (SDD)	TBD	TBD				60.556	Apr-05	76.114	Apr-06	30.236	Apr-07	0.000	166.906	166.906	
*B-52 Pre-System Development and Demonstration (SDD)	TBD	TBD				13.082	Feb-05						13.082	13.082	
*B-52 System Development and Demonstration (SDD)	TBD	TBD						67.209	Feb-06	104.848	Feb-07	Continuing	TBD	TBD	
MITRE	SS/FFP	MITRE, Bedford MA		0.200	Dec-03	0.200	Dec-04	0.200	Dec-05	0.200	Dec-06	Continuing	TBD	TBD	
Subtotal Product Development			0.000	11.800		77.421		143.523		135.284		Continuing	TBD	TBD	
Remarks:	*MIPR funding to Bomber Platform System Program Offices for scheduled contract awards and development efforts.														
(U) <u>Management</u>															
Program Office and Contractor Support	C/FFP	Various		0.249	Dec-03	1.300	Dec-04	1.340	Dec-05	1.340	Dec-06	Continuing	TBD	TBD	
Subtotal Management			0.000	0.249		1.300		1.340		1.340		Continuing	TBD	TBD	
Remarks:															
(U) Total Cost			0.000	12.049		78.721		144.863		136.624		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

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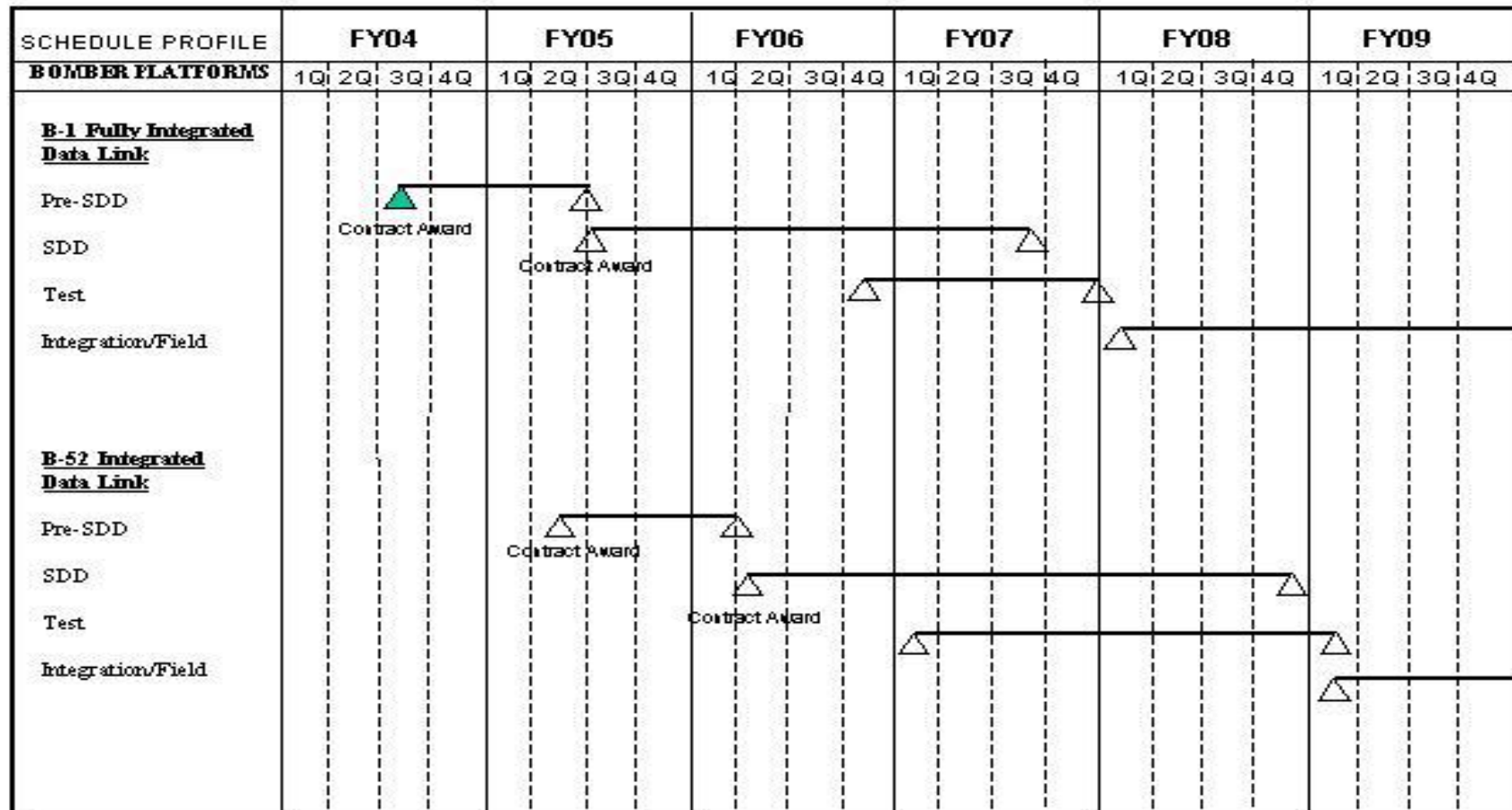
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BOMBER TACTICAL DATA LINK SCHEDULE



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Exhibit R-4a, RDT&E Schedule Detail

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(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) B-1 Fully Integrated Data Link Contract Award (Pre-SDD)

3Q

(U) B-1 Fully Integrated Data Link Pre-SDD

3-4Q

1-2Q

(U) B-1 Fully Integrated Data Link Contract Award (SDD)

3Q

(U) B-1 Fully Integrated Data Link SDD

3-4Q

1-4Q

1-3Q

(U) B-1 Fully Integrated Data Link (DT&E, Flight Test)

4Q

1-4Q

(U) B-52 Integrated Data Link Contract Award (Pre-SDD)

2Q

(U) B-52 Integrated Data Link Pre-SDD

2-4Q

1Q

(U) B-52 Integrated Data Link Contract Award (SDD)

2Q

(U) B-52 Integrated Data Link SDD

2-4Q

1-4Q

(U) B-52 Integrated Data Link Test

1-4Q