PE NUMBER: 0207446F
PE TITLE: Bomber Tactical Data Link

Exhibit R-2, RDT&E Budget Item Justification							DATE February 2006		

BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207446F Bomber Tactical Data Link					

Cost ($ in Millions)	FY 2005 Actual	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	76.568	142.800	168.168	94.889	0.000	0.000	0.000	Continuing	TBD
5041 Bomber Tactical Data Link	76.568	142.800	168.168	94.889	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.

Exhibit R-2, RDT&E Budget Item Justification	DATE **February 2006**

BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0207446F Bomber Tactical Data Link**

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

	FY 2005	FY 2006	FY 2007
(U) Previous President's Budget	78.721	144.863	136.624
(U) Current PBR/President's Budget	76.568	142.800	168.168
(U) Total Adjustments	-2.153	-2.063	
(U) Congressional Program Reductions			
Congressional Rescissions	-1.248	-2.063	
Congressional Increases			
Reprogrammings	-0.905		
SBIR/STTR Transfer			

(U) Significant Program Changes:

In FY07, additional funds were programmed to align B-1 TDL Program development with B-1 flight test schedule to avoid multi-platform configurations and retrofit costs.

Exhibit R-2a, RDT&E Project Justification							DATE February 2006	

BUDGET ACTIVITY 07 Operational System Development			PE NUMBER AND TITLE 0207446F Bomber Tactical Data Link			PROJECT NUMBER AND TITLE 5041 Bomber Tactical Data Link		

Cost ($ in Millions)	FY 2005 Actual	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	76.568	142.800	168.168	94.889	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	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).

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.

(U) **B. Accomplishments/Planned Program ($ in Millions)**	FY 2005	FY 2006	FY 2007
(U) Contract for LOS Link 16 terminals and BLOS radios for development labs and aircraft.	2.000	1.440	1.440
(U) Provide Link 16 system engineering, testing, and technical support	11.100	7.000	4.000
(U) B-1 FIDL Pre-System Development and Demonstration (SDD)	3.500		
(U) B-1 FIDL System Development and Demonstration (SDD)	46.886	65.611	63.320
(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	76.568	142.800	168.168

Exhibit R-2a, RDT&E Project Justification	DATE February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	0207446F Bomber Tactical Data Link	5041 Bomber Tactical Data Link

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

	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
(U) AF RDT&E									
(U) 0207434F (Link 16 Sup & Sus)	120.633	161.345	172.625	142.449	152.320	154.994	156.665	Continuing	TBD
(U) 0207445F (Fighter TDL)	35.668	119.965	113.388	81.084	38.626	34.714	0.000		343.735
(U) 0207448F (C2ISR TDL)	24.420	14.627	4.338	1.801	1.731	1.697	1.633	Continuing	TBD
(U) 0401839F (Airlift TDL)	0.000	0.000	32.099	0.000	0.000	0.000	0.000		31.466
(U) Other APPN									
(U) Procurement (3010)									
(U) 0207423F (JTRS I&I)	0.000	0.000	0.000	19.472	26.521	66.948	42.346		
(U) 0207434F (Link 16 Sup & Sus)	2.046	2.996	2.783	0.000	9.598	9.846	9.962	Continuing	TBD
(U) 0207445F (Fighter TDL)	95.934	89.222	61.623	12.688	0.000	0.000	0.000		419.662
(U) 0207446F (Bomber TDL)	44.245	21.940	11.818	4.456	0.000	0.000	0.000		82.459
(U) 0401839F (Airlift TDL)	0.000	24.118	11.539	14.616	12.603	26.263	26.591	Continuing	TBD
(U) O&M (3400)									
(U) 0207434F (Link 16 Sup & Sus)	9.549	21.112	10.156	12.279	16.177	16.629	16.975	Continuing	TBD
(U) 0401839F (Airlift TDL)	0.596	2.731	5.708	11.783	16.499	17.178	17.271	Continuing	TBD
(U) Other Procurement (3080)									
(U) 0207434F (Link 16 Sup & Sus)	26.231	42.462	30.740	12.777	8.435	8.508	8.612	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.

Exhibit R-3, RDT&E Project Cost Analysis	DATE February 2006

BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0207446F Bomber Tactical Data Link**	PROJECT NUMBER AND TITLE **5041 Bomber Tactical Data Link**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	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) Product Development												
Link 16 Terminal EMD Terminal Purchases	MIPR	SPAWAR, San Diego CA	1.800							0.000	1.800	1.800
*B-1 JRE DEMO	CPFF	Northrop Grumman	0.600							0.000	0.600	0.600
*B-1/B-52 BLOS DEMO for JEFX		Northrop Grumman	3.600							0.000	3.600	3.600
*B-1 FIDL Pre-System Development and Demonstration (SDD)	SS/CPFF	Boeing Co. Long Beach CA	5.600	3.583	Oct-04					0.000	9.183	9.183
*B-1 FIDL System Development and Demonstration (SDD)	TBD	TBD		58.403	Apr-05	74.051	Apr-06	61.780	Apr-07	0.000	194.234	194.234
*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	0.200	Dec-04	0.200	Dec-05	0.200	Dec-06	Continuing	TBD	TBD
Subtotal Product Development			11.800	75.268		141.460		166.828		Continuing	TBD	TBD
Remarks:		*MIPR funding to Bomber Platform System Program Offices for scheduled contract awards and development efforts.										
(U) Management												
Program Office and Contractor Support	C/FFP	Various	0.249	1.300	Dec-04	1.340	Dec-05	1.340	Dec-06	Continuing	TBD	TBD
Subtotal Management			0.249	1.300		1.340		1.340		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			12.049	76.568		142.800		168.168		Continuing	TBD	TBD

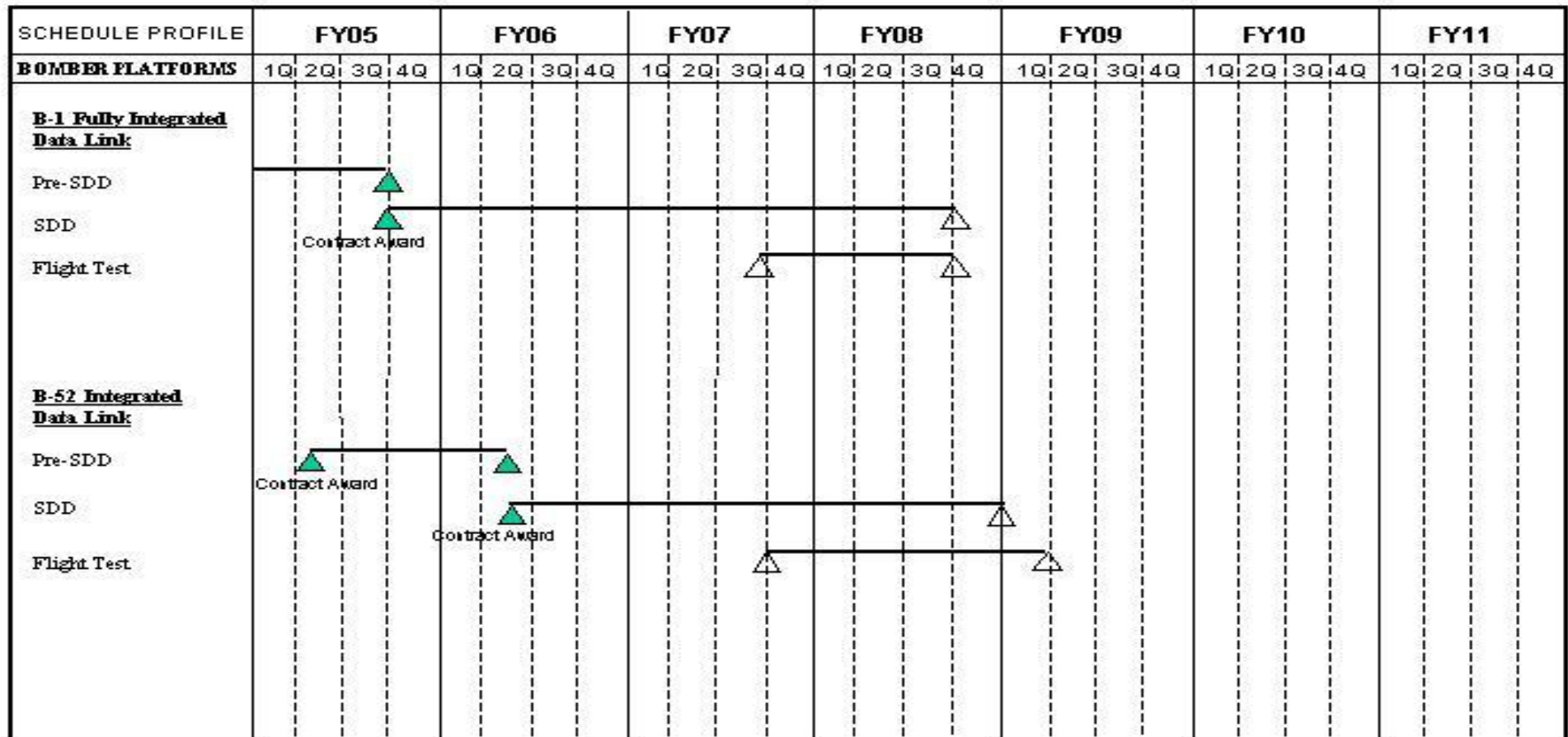| Exhibit R-4, RDT&E Schedule Profile		DATE February 2006
BUDGET ACTIVITY 07 Operational System Development	**PE NUMBER AND TITLE** 0207446F Bomber Tactical Data Link	**PROJECT NUMBER AND TITLE** 5041 Bomber Tactical Data Link

BOMBER TACTICAL DATA LINK SCHEDULE

SCHEDULE PROFILE	FY05	FY06	FY07	FY08	FY09	FY10	FY11
BOMBER PLATFORMS	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q

B-1 Fully Integrated Data Link

- Pre-SDD
- SDD — Contract Award
- Flight Test

B-52 Integrated Data Link

- Pre-SDD — Contract Award
- SDD — Contract Award
- Flight Test

As of 13 January 06

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2006

BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207446F Bomber Tactical Data Link	PROJECT NUMBER AND TITLE 5041 Bomber Tactical Data Link

(U) **Schedule Profile**	FY 2005	FY 2006	FY 2007
(U) B-1 Fully Integrated Data Link Pre-SDD	1-3Q		
(U) B-1 Fully Integrated Data Link Contract Award (SDD)	3Q		
(U) B-1 Fully Integrated Data Link SDD	3-4Q	1-4Q	1-4Q
(U) B-1 Fully Integrated Data Link (DT&E, Flight Test)			4Q
(U) B-52 Integrated Data Link Contract Award (Pre-SDD)	2Q		
(U) B-52 Integrated Data Link Pre-SDD	2-4Q	1-2Q	
(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 FlightTest			4Q