

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>May 2009</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0207446F Bomber Tactical Data Link</b>
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	38.280	11.603	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5041 Bomber Tactical Data Link	38.280	11.603	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

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

Tactical Data Links (TDL), as a subset of the broader Airborne Network, 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 new and standardized waveforms and data formats 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), Variable Message Format (VMF), Integrated Broadcast Service (IBS), Multifunction Advanced Data Link (MADL), and Tactical Targeting Network Technology (TTNT).

This effort provides critical capability and enhancements to the Airborne Network by creating common development, integration, and interoperability among all Air Force bomber platforms to include, but not limited to B-1B, B-2, and B-52 aircraft. Keeps all bomber platforms and data linked weapons current, interoperable in the network, and compatible with the USAF Global Strike Task Force (GSTF) concept beyond 2020. Also expands LOS and BLOS data link capabilities. TDLs 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 data link to accomplish time critical targeting and other mission update functions. The BLOS data link 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 Program (OFP) upgrades due to TDL integration; support of data gathering processes; studying and incorporating data link technologies to ensure effectiveness and efficiency of the Global Strike CONOPS and Global Persistent Attack 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 platforms have both current work and future plans for Tactical Data Links. The B-1 FIDL program is ongoing, and efforts are being made to obtain additional funds in future years for B-1 FIDL. B-2 will need future years dollars for MADL integration, and B-52 is not yet funded for Tactical Data Links.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

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&amp;E Budget Item Justification

DATE

May 2009

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207446F Bomber Tactical Data Link

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	36.875	11.702	
(U) Current PBR/President's Budget	38.280	11.603	
(U) Total Adjustments	1.405	-0.099	
(U) Congressional Program Reductions		-0.067	
Congressional Rescissions		-0.032	
Congressional Increases			
Reprogrammings	2.400	0.000	
SBIR/STTR Transfer	-0.995	0.000	

(U) **Significant Program Changes:**

In FY09, funding was added to complete B-1 Fully Integrated Data Links (FIDL) System Development and Demonstration (SDD) to align with the aircraft programmed depot maintenance schedule.

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>	DATE <b>May 2009</b>
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<b>BUDGET ACTIVITY</b> 07 Operational System Development				<b>PE NUMBER AND TITLE</b> 0207446F Bomber Tactical Data Link				<b>PROJECT NUMBER AND TITLE</b> 5041 Bomber Tactical Data Link		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5041 Bomber Tactical Data Link	38.280	11.603	0.000	0.000	0.000	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**

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Activities also include studies and analysis to support both current program planning and execution and future program planning.

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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<b>Exhibit R-2a, RDT&amp;E Project Justification</b>	DATE <b>May 2009</b>
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BUDGET ACTIVITY <b>07 Operational System Development</b>	PE NUMBER AND TITLE <b>0207446F Bomber Tactical Data Link</b>	PROJECT NUMBER AND TITLE <b>5041 Bomber Tactical Data Link</b>
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(U) <b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Common Bomber Tactical Data Link (TDL) analysis, systems engineering, testing, and technical support	4.368	4.003	
(U) B-1 FIDL System Development and Demonstration (SDD)	33.912	7.600	
(U) Total Cost	38.280	11.603	0.000

(U) <b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>		<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost to</u>	<u>Total Cost</u>
		<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) AF RDT&E											
(U) 0207434F (Link 16 Sup & Sus)	186.371	192.460	0.000							Continuing	TBD
(U) 0207445F (Fighter TDL)	57.424	57.264	72.106								343.735
(U) 0207448F (C2ISR TDL)	1.745	1.719	1.667							Continuing	TBD
(U) 0401839F (Airlift TDL)	4.300	7.923	0.000								
(U) 0604281F (TDN Enterprise)	0.000	0.000	88.444								
(U) Other APPN											
(U) Procurement (3010)											
(U) 0207434F (Link 16 Sup & Sus)	0.001	0.008	0.000							Continuing	TBD
(U) 0207445F (Fighter TDL)	24.877	5.788	9.616								419.662
(U) 0207446F (Bomber TDL)	4.426	0.000	0.000								4.426
(U) 0401839F (Airlift TDL)	12.394	0.000	0.000							Continuing	TBD
(U) O&M (3400)											
(U) 0207434F (Link 16 Sup & Sus)	29.405	22.104	0.359							Continuing	TBD
(U) 0207445F (Fighter TDL)	0.300	0.281	0.219								
(U) 0401839F (Airlift TDL)	3.907	6.469	10.242							Continuing	TBD
(U) 0604281F (TDN Enterprise)	0.000	0.000	34.850								
(U) Other Procurement (3080)											
(U) 0207434F (Link 16 Sup & Sus)	22.980	16.079	0.000							Continuing	TBD
(U) 0604281F (TDN Enterprise)	0.000	0.000	32.441								

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

May 2009

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) **D. Acquisition Strategy**

The 653rd Electronic Systems Group (ELSG) provides for common development, integration and interoperability across the entire Airborne Network and ensures that data links are procured and maintained as a joint, end-to-end, command and control system. Platform acquisition strategies vary by program, but the majority of development and integration is normally accomplished by the weapon system prime contractor.

UNCLASSIFIED

**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**May 2009**

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
<b>07 Operational System Development</b>				<b>0207446F Bomber Tactical Data Link</b>					<b>5041 Bomber Tactical Data Link</b>			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2008 Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost to Complete	Total Cost	Target Value of Contract
<b>(U) Product Development</b>												
B-1 FIDL System Development and Demonstration (SDD) *	SS/CPIF	Boeing		33.993	Nov-07	7.600	Nov-08			0.000	41.593	194.234
B-52 System Development and Demonstration (SDD) *	CPFF	Boeing, Wichita, KS				0.000				0.000	0.000	
Bomber TDL analysis, systems engineering & technical support/MITRE	Various	Various		1.617	Nov-07	0.316	Jan-09			Continuing	TBD	TBD
B-1 Training System	C/FPIF	Rockwell Collins				0.000				0.000	0.000	
B-2 Message Implementation	CPFF	Northrop Grumman									0.000	
B-52 Training System	C/FFP	Rockwell Collins				0.000				0.000	0.000	
Subtotal Product Development			0.000	35.610		7.916		0.000		Continuing	TBD	TBD
Remarks:	*MIPR funding to Bomber platform program offices for scheduled contract awards and development efforts.											
<b>(U) Management</b>												
Program Office and Contractor Support	C/FFP	Various		1.065	Dec-07	1.354	Apr-09			Continuing	TBD	TBD
Subtotal Management			0.000	1.065		1.354		0.000		Continuing	TBD	TBD
Remarks:												
<b>(U) Test &amp; Evaluation</b>												
B-1 Lab Development	CPPF	Tinker AFB, OK		1.105	Dec-07	1.203	Feb-09				2.308	
B-1 FIDL Testing	Project Order	AF Flight Test Center, Edwards AFB, CA		0.500	Jan-08	1.130	Mar-09			0.000	1.630	
Subtotal Test & Evaluation			0.000	1.605		2.333		0.000		0.000	3.938	0.000
Remarks:												
(U) Total Cost			0.000	38.280		11.603		0.000		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

May 2009

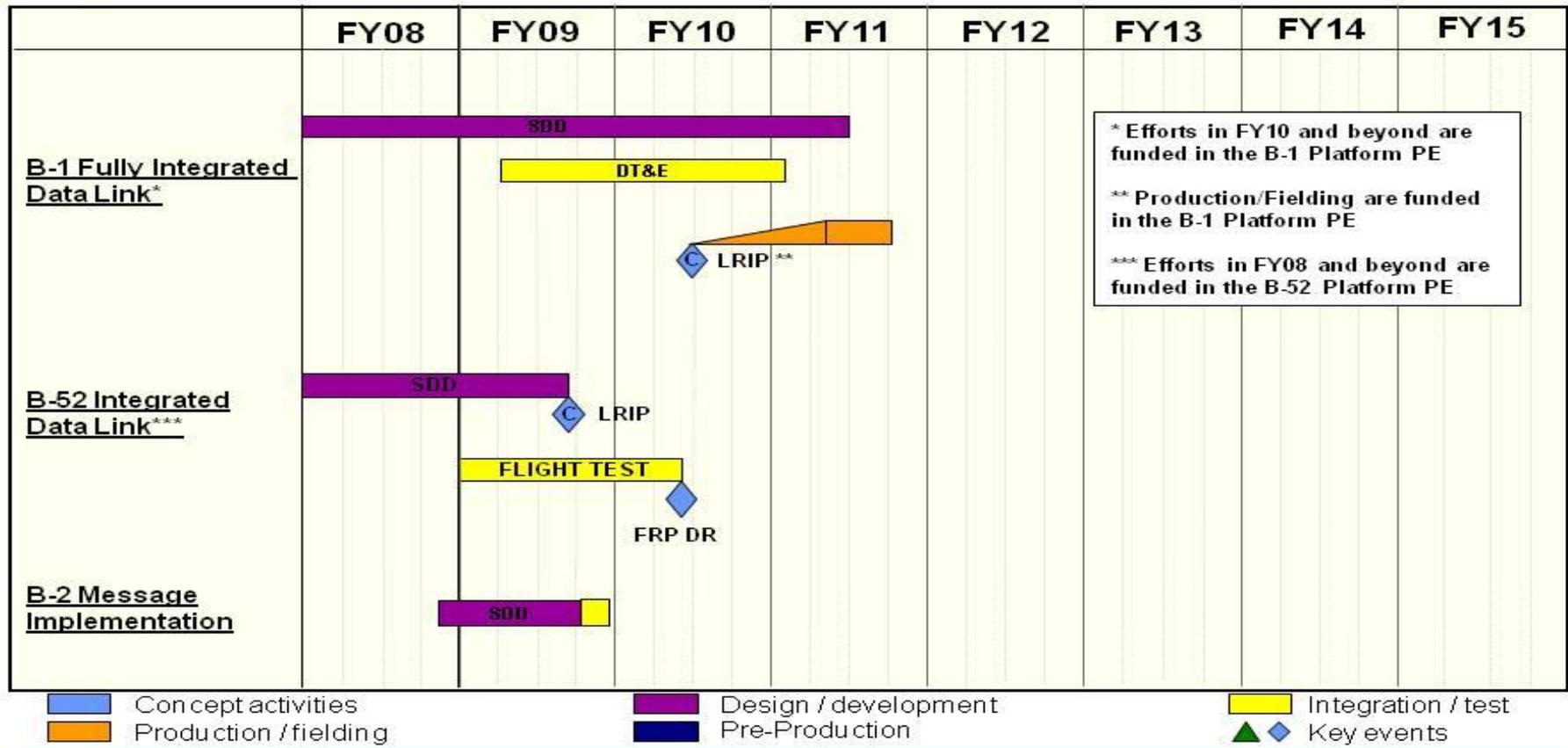
BUDGET ACTIVITY  
07 Operational System Development

PE NUMBER AND TITLE  
0207446F Bomber Tactical Data Link

PROJECT NUMBER AND TITLE  
5041 Bomber Tactical Data Link



# PE 0207446F Bomber Tactical Data Link Schedule (as of 20 Apr 2009)



PB10 R-Docs

Depicted by in stallation/production flow

1

R-1 Line Item No. 154

Page-7 of 8

Exhibit R-4 (PE 0207446F)

<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>May 2009</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0207446F Bomber Tactical Data Link</b>	<b>PROJECT NUMBER AND TITLE</b> <b>5041 Bomber Tactical Data Link</b>
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<b>(U) <u>Schedule Profile</u></b>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) B-1 Fully Integrated Data Link SDD*	1-4Q	1-4Q	1-4Q
(U) B-1 Fully Integrated Data Link MS C/LRIP*			2Q
(U) B-1 Fully Integrated Data Link Flight Test (DT&E)*		2-4Q	1-4Q
(U) B-1 Fully Integrated Data Link/Production/Integration**			2-4Q
(U) B-52 Integrated Data Link SDD***	1-4Q	1-3Q	
(U) B-52 Integrated Data Link MS C/LRIP ***		3Q	
(U) B-52 Integrated Data Link Flight Test***		1-4Q	1-2Q
(U) B-2 Message Implementation	4Q	1-4Q	

\* Efforts in FY10 and beyond are funded in the B-1 Platform PE  
 \*\*Production/Integration/Fielding are funded in B-1 PE starting in FY10  
 \*\*\* Funded in B-52 Platform PE starting FY08