

**UNCLASSIFIED**

PE NUMBER: 0207448F  
 PE TITLE: C2ISR Tactical Data Link

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2008</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0207448F C2ISR Tactical Data Link</b>
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Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	4.126	1.795	1.727	1.695	1.627	1.659	1.693	Continuing	TBD
5045 C2ISR Tactical Data Link	4.126	1.795	1.727	1.695	1.627	1.659	1.693	Continuing	TBD

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

Tactical Data Links (TDL), as a subset of the broader, crucial 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 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), 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 ground and C2 platforms including, but not limited to Airborne Warning and Control System (AWACS), Joint Surveillance Target Attack Radar System (JSTARS), the Air and Space Operations Center (AOC), Global Hawk, Predator, Rivet Joint, Combat Sent, and Cobra Ball. TDLs provide a jam-resistant, secure digital data transfer network capability with a standardized waveform and data format allowing intra- and inter-flight communications. TDLs will increase mission effectiveness, provide situational awareness, and 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. TDL efforts include incorporating changes and additions to the Link-16 message standard (MIL-STD-6016C) and applicable Interface Change Proposals (ICPs), assisting with AF and Joint interoperability certification testing with the Air Force Global Cyberspace Integration Center (GCIC) and Joint Interoperability Test Center (JITC); future development, integration, and verification of Operational Flight Program (OFP) upgrades due to TDL integration and supporting data gathering processes; and incorporating Interoperable Systems Management and Requirements Transformation (iSMART), a process which enables network centric interoperability assessments to be made more quickly and effectively.

C2ISR 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 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207448F C2ISR Tactical Data Link

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	4.322	1.809	1.741
(U) Current PBR/President's Budget	4.126	1.795	1.727
(U) Total Adjustments	-0.196		
(U) Congressional Program Reductions		-0.002	
Congressional Rescissions		-0.012	
Congressional Increases			
Reprogrammings	-0.076		
SBIR/STTR Transfer	-0.120		
(U) <u>Significant Program Changes:</u>			

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2008**

<b>BUDGET ACTIVITY</b> 07 Operational System Development							<b>PE NUMBER AND TITLE</b> 0207448F C2ISR Tactical Data Link		<b>PROJECT NUMBER AND TITLE</b> 5045 C2ISR Tactical Data Link	
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total	
5045 C2ISR Tactical Data Link	4.126	1.795	1.727	1.695	1.627	1.659	1.693	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), as a subset of the broader, crucial 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 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), and Tactical Targeting Network Technology (TTNT).

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C2ISR 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)**

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) AWACS 40/45 Data Link Infrastructure (DLI)	0.602		
(U) AWACS 40/45 Combat ID (CID)	1.725		
(U) C2ISR data link integration and AWACS Block 30/35 Software Enhancements	1.799	1.795	1.727
(U) Total Cost	4.126	1.795	1.727

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

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

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0207448F C2ISR Tactical Data Link

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5045 C2ISR Tactical Data Link

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

	<u>FY 2007</u>	<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>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>Complete</u>	
(U) AF RDT&E									
(U) 0207434F (Link 16 Sup & Sus)	156.169	194.652	186.213	151.735	164.954	175.223	191.891	Continuing	TBD
(U) 0207445F (Fighter TDL)	88.094	38.944	62.788	90.709	0.000	0.000	0.000	Continuing	TBD
(U) 0207446F (Bomber TDL)	87.613	36.875	11.702	0.000	0.000	0.000	0.000	Continuing	TBD
(U) 0401839F (Airlift/Other TDL)	6.785	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) Aircraft Procurement, AF (3010)									
(U) 0207434F (Link 16 Sup & Sus)	0.735	0.001	0.008	35.674	88.253	92.337	64.443	Continuing	TBD
(U) 0207445F (Fighter TDL)	51.047	35.434	5.804	9.790	0.778	0.776	0.000	Continuing	TBD
(U) 0207446F (Bomber TDL)	11.775	4.488	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) 0401839F (Airlift TDL)	2.000	12.394	12.612	26.284	26.616	27.138	27.679	Continuing	TBD
(U) O&M (3400)									
(U) 0207434F (Link 16 Sup & Sus)	16.156	12.998	22.364	12.947	14.825	17.383	18.784	Continuing	TBD
(U) 0207445F (Fighter TDL)	0.000	0.276	0.286	0.284	0.281	0.285	0.291		
(U) 0401839F (Airlift 3400)	4.301	5.468	6.537	11.351	17.311	17.673	18.037	Continuing	TBD
(U) Other Procurement, AF (3080)									
(U) 0207434F (Link 16 Sup & Sus)	36.886	25.756	16.126	39.612	41.093	22.144	7.110	Continuing	TBD

(U) **D. Acquisition Strategy**

The 653rd Electronics Systems Group (ELSG), formerly the Air Force Tactical Data Links Network (TDN) System Program Office (SPO), provides for common development, integration and interoperability across the entire Airborne Network and ensures that Link 16 is 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.

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

DATE

**February 2008**

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
<b>07 Operational System Development</b>				<b>0207448F C2ISR Tactical Data Link</b>					<b>5045 C2ISR Tactical Data Link</b>			
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2007 Cost</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
Joint STARS	SS/CPAF	Northrop Grumman, Melbourne FL								0.000	0.000	48.504
AWACS	SS/FPIF/CP AF	Boeing, Seattle WA		4.126	Dec-06	1.795	Dec-07	1.727	Dec-08	Continuing	TBD	TBD
Subtotal Product Development			0.000	4.126		1.795		1.727		Continuing	TBD	TBD
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:		Test requirements are funded by platforms										
(U) <u>Management</u>												
Program Office and Contractor Support										Continuing	TBD	TBD
Subtotal Management			0.000	0.000		0.000		0.000		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			0.000	4.126		1.795		1.727		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2008

BUDGET ACTIVITY  
07 Operational System Development

PE NUMBER AND TITLE  
0207448F C2ISR Tactical Data Link

PROJECT NUMBER AND TITLE  
5045 C2ISR Tactical Data Link

PE27448F Schedule  
C2ISR Tactical Data Link  
(as of 9 Jan 2008)

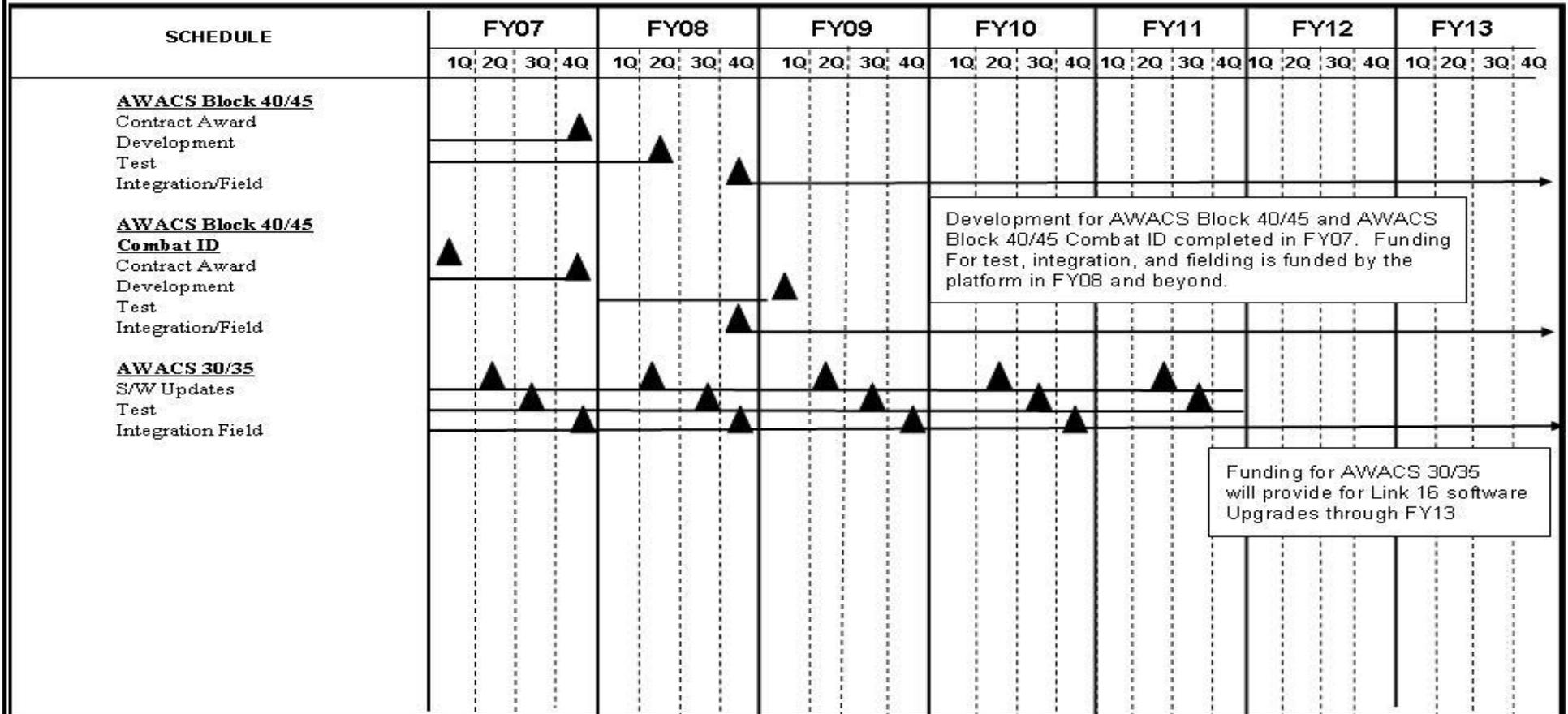


Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207448F C2ISR Tactical Data Link

PROJECT NUMBER AND TITLE

5045 C2ISR Tactical Data Link

(U) Schedule Profile

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) AWACS Block 40/45 Initiative Development	1-4Q		
(U) AWACS Block 40/45 Combat ID Initiative Contract Award	1Q		
(U) AWACS Block 40/45 Combat ID Initiative Development	1-4Q		
(U) AWACS Block 30/35 Software Updates/Development	1-4Q	1-4Q	1-4Q
(U) AWACS Block 30/35 Test/Integration & Field	1-4Q	1-4Q	1-4Q