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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0207448F: <i>C2ISR Tactical Data Link</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	1.528	1.522	1.633	-	1.633	1.650	1.691	1.736	1.755	Continuing	Continuing
675045: <i>C2ISR Tactical Data Link</i>	1.528	1.522	1.633	-	1.633	1.650	1.691	1.736	1.755	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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 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. 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), Intra-Flight Data Link (IFDL), and Tactical Targeting Network Technology (TTNT). TDL efforts include incorporating changes and additions to the Link-16 message standard (MIL-STD-6016D) and applicable Interface Change Proposals (ICPs), assisting with AF and Joint interoperability certification testing with the Air Force Command and Control Integration Center (AFC2IC) and Joint Interoperability Test Center (JITC); 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 and Global Persistent Attack CONOPS.

This effort provides critical capability and enhancements to the Airborne Network by creating common development, integration and interoperability among ground and C2 platforms and responds to Quick Reaction Capability integration and demonstration 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, Reaper, Rivet Joint, Combat Sent, and Cobra Ball. TDLs keep all C2ISR Platforms and data linked weapons current/interoperable in the Airborne Network to enable Global Strike (GS), Global Persistent Attack (GPA), Offensive and Defensive Counterair (OCA and DCA) and Suppression of Enemy Air Defenses (SEAD) missions.

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

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	
Previous President's Budget	1.584	1.536	1.626	-	1.626	
Current President's Budget	1.528	1.522	1.633	-	1.633	
Total Adjustments	-0.056	-0.014	0.007	-	0.007	
• Congressional General Reductions	-	-0.014				
• Congressional Directed Reductions	-	-				
• Congressional Rescissions	-	-				
• Congressional Adds	-	-				
• Congressional Directed Transfers	-	-				
• Reprogrammings	-	-				
• SBIR/STTR Transfer	-	-				
• Other Adjustments	-0.056	-	0.007	-	0.007	
Change Summary Explanation						
FY11 Congressional General Reduction of 0.0056 in Other Adjustment row.						
FY12 Congressional General Reduction (FFRDC, Sec. 8023) of 0.014M.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: C2ISR Tactical Data Link Software Enhancements				1.528	1.522	1.633
Description: Improve AWACS Blocks 30/35 and 40/45 Link 16 interoperability and compatibility by incorporating key changes to communications software baseline.						
FY 2011 Accomplishments: Developed and released Request for Proposal (RFP) Package, evaluated proposal and awarded contract. Reviewed existing software baseline and refined requirements. Conducted System Requirements Review (SRR). Began software design.						
FY 2012 Plans: Continuing software design and developing Design Interface Papers. Performing Software Code and Checkout and engineering test. Performing integration testing.						
FY 2013 Plans: Will develop and perform Software Acceptance Test cases and provide final case report.						
Accomplishments/Planned Programs Subtotals				1.528	1.522	1.633

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D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• RDT&E AF, PE 0207445F: Fighter TDL	22.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• RDT&E AF, PE 0604281F: TDN Enterprise	192.882	47.057	24.534	0.000	24.534	25.116	17.268	19.105	22.138	Continuing	Continuing
• APAF, PE 0207445F: Fighter TDL	0.920	0.741	0.000	0.000	0.000	13.148	14.704	14.572	14.721	Continuing	Continuing
• APAF, PE 0207446F: Bomber TDL	0.000	0.000	0.000	0.000	0.000	1.616	1.696	1.429	0.000	Continuing	Continuing
• APAF, PE 0207448F: C2ISR TDL	0.000	0.957	0.000	0.000	0.000	0.832	1.921	1.963	1.973	Continuing	Continuing
• APAF, PE 0604281F: TDN Enterprise	50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• OPAF, PE 0604281F: TDN Enterprise	21.622	10.388	0.269	0.000	0.269	0.248	0.169	0.170	0.173	Continuing	Continuing
• O&M AF, PE 0207445F: Fighter TDL	0.200	0.210	0.249	0.000	0.249	0.254	0.258	0.265	0.276	Continuing	Continuing
• O&M AF, PE 0401839F: Air Mobility TDL	6.937	2.025	6.989	0.000	6.989	4.031	3.974	2.925	3.000	Continuing	Continuing
• O&M AF, PE 0604281F: TDN Enterprise	288.541	434.330	37.132	0.000	37.132	35.058	36.952	37.128	37.521	Continuing	Continuing
E. Acquisition Strategy											
The Airborne Networking Division provides for common development, integration and interoperability across the entire Airborne Network and ensures that TDLs 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.											
F. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AWACS Block 30/35 Software Enhancements	3	2011	2	2013
AWACS Block 40/45 Mode 5 Link 16 Software Enhancements	3	2012	4	2013
AWACS Block 40/45 STR&C Link 16 Software Enhancements	1	2014	4	2015
AWACS Block 40/45 User Identified Critical ICPs	4	2015	4	2017