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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0208053A: Joint Tactical Ground System							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	13.189	12.403	27.630	-	27.630	31.397	14.109	7.912	8.039	Continuing	Continuing
635: JOINT TACT GRD STATION-P3I (MIP)	13.189	12.403	27.630	-	27.630	31.397	14.109	7.912	8.039	Continuing	Continuing

Note

Change Summary Explanation: FY2012 funds were increased to initiate JTAGS P3I contract that will include deshelterization of the five units, upgrade to a LINUX 64-bit platform, and enhancement to the capability to downlink the GEO scanner/starer data when the Air Force satellite becomes operational.

A. Mission Description and Budget Item Justification

This system is an integral part of the overall Air and Missile Defense (AMD) architecture and will provide for an incrementally fielded Integrated Air and Missile Defense Fire Control System/capability for the composite Army Air and Missile Defense Brigades. This program element supports development of critical improvements and insertion of technological upgrades to the Joint Tactical Ground Station (JTAGS) and the research and development of the JTAGS Pre-Planned Product Improvement (P3I). JTAGS is presently a transportable information processing system that receives and processes in-theater, direct down-linked data from Defense Support Program (DSP) satellites. JTAGS disseminates warning, alerting, and cueing information on Ballistic Missiles and other tactical events of interest throughout the theater using existing communication networks. This program is designated as a DoD Space program. JTAGS provides critical support by providing Combatant Commanders near real-time warning of theater ballistic missiles and other battlespace characterization information in their Areas of Responsibility (AOR). The four OCONUS deployed JTAGS units constitute the Army's only in-theater system providing this space-based warning, and JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System. JTAGS supports all Theater Missile Defense pillars and by being located in-theater, provides the shortest sensor to shooter connectivity. The objectives of the improvements are to upgrade JTAGS to a new configuration for operation with the next generation of Space Based Infrared System (SBIRS), and to improve warning accuracy and timeliness. These improvements will be accomplished in a two-Block P3I Program Improvement development effort. Block 1 activities include Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration bridging Initial Geosynchronous Capability (IGC); new commercial antennas; and SIPRNET capability. Utilizing FY12 and outyears funding, Block 2 upgrades will be executed. Phase 1 upgrade includes removal of five systems from the shelters and integration into operation centers and Geosynchronous (GEO) scanner capability (FY 13-14). Phase 2 integrates GEO starer capability and associated hardware upgrades (to include LINUX 64 bit platform).

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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	13.258	12.403	12.630	-	12.630
Current President's Budget	13.189	12.403	27.630	-	27.630
Total Adjustments	-0.069	-	15.000	-	15.000
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	15.000	-	15.000
• Other Adjustments 1	-0.069	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0208053A: <i>Joint Tactical Ground System</i>				PROJECT 635: <i>JOINT TACT GRD STATION-P3I (MIP)</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
635: <i>JOINT TACT GRD STATION-P3I (MIP)</i>	13.189	12.403	27.630	-	27.630	31.397	14.109	7.912	8.039	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This system is an integral part of the overall Air and Missile Defense (AMD) architecture and will provide for an incrementally fielded Integrated Air and Missile Defense Fire Control System/capability for the composite Army Air and Missile Defense Brigades. This program element supports development of critical improvements and insertion of technological upgrades to the Joint Tactical Ground Station (JTACS) and the research and development of the JTACS Pre-Planned Product Improvement (P3I). JTACS is presently a transportable information processing system that receives and processes in-theater, direct down-linked data from Defense Support Program (DSP) satellites. JTACS disseminates warning, alerting, and cueing information on Ballistic Missiles and other tactical events of interest throughout the theater using existing communication networks. This program is designated as a DoD Space program. JTACS provides critical support by providing Combatant Commanders near real-time warning of theater ballistic missiles and other battlespace characterization information in their Areas of Responsibility (AOR). The four OCONUS deployed JTACS units constitute the Army's only in-theater system providing this space-based warning, and JTACS is designated as the in-theater element of the United States Strategic Command's Theater Event System. JTACS supports all Theater Missile Defense pillars and by being located in-theater, provides the shortest sensor to shooter connectivity. The objectives of the improvements are to upgrade JTACS to a new configuration for operation with the next generation of Space Based Infrared System (SBIRS), and to improve warning accuracy and timeliness. These improvements will be accomplished in a two-Block P3I Program Improvement development effort. Block 1 activities include Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration bridging Initial Geosynchronous Capability (IGC); new commercial antennas; and SIPRNET capability. Utilizing FY12 and outyears funding, Block 2 upgrades will be executed. Phase 1 upgrade includes removal of five systems from the shelters and integration into operation centers and Geosynchronous (GEO) scanner capability (FY 13-14). Phase 2 integrates GEO starer capability and associated hardware upgrades (to include LINUX 64 Bit platforms).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Execute Block 1 Upgrades <div align="right">Articles:</div> Description: Funding is provided for the following effort FY 2010 Accomplishments: Execute Block 1 Upgrade FY 2011 Plans: Complete Block 1 development FY 2012 Plans:	6.815 0	7.110 0	0.200

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
Software, Information Assurance (IA) Upgrade Testing			
Title: Software Upgrades, IA Maintenance, Software Deficiency Report (DR) Resolution and Exercise Participation Description: Funding is provided for the following effort FY 2010 Accomplishments: Scheduled IA Maintenance, Software Deficiency Report (DR) Resolution, and Exercise Participation FY 2011 Plans: Scheduled IA Maintenance, Software Deficiency Report (DR) Resolution, and Exercise Participation FY 2012 Plans: Scheduled IA Maintenance, Software Deficiency Report (DR) Resolution, and Exercise Participation		Articles: 1.000 0	1.734 0
Title: JTAGS Test and Evaluation Support Description: Funding is provided for the following effort FY 2010 Accomplishments: Test of Commercial Antennas; Joint Interop Test Command (JITC) Certification FY 2011 Plans: Test of IGC FY 2012 Plans: Test of Deshelterization and Hardware Upgrades		Articles: 0.734 0	0.233 0
Title: P3I Upgrades (Deshelterization; Hardware/Software Upgrades, Direct Downlink of GEO Starer Data. Includes Government IPPD) Description: Funding is provided for the following effort FY 2010 Accomplishments: Develop JTAGS P3I Requirements Specification FY 2011 Plans:		Articles: 4.640 0	24.980 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2010	FY 2011	FY 2012
P3I RFP and Source Selection												
FY 2012 Plans: Begin P3I Upgrades												
Accomplishments/Planned Programs Subtotals										13.189	12.403	27.630
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
• SSN BZ8401: Joint Tactical Ground Station (JTAGS)	6.682	9.279	1.199		1.199		9.740	4.432	4.496	Continuing	Continuing	
• PE 0604869A,: Patriot/MEADS Combined Aggregate Program (CAP)	570.831	467.139	406.605		406.605					Continuing	Continuing	
• PE 0605456A,: PAC-3/MSE Missile		62.500	88.993		88.993		68.938	63.468	64.215	Continuing	Continuing	
• SSN C53101,: MSE Missile			74.953		74.953		532.540	487.049	560.099	Continuing	Continuing	
• SSN C53201, PATRIOT/MEADS GSE: SSN C53201, PATRIOT/MEADS GSE												
• PE 0102419A, Proj E55: JLENS	317.132	372.493	344.655		344.655		58.124	19.717	19.726	Continuing	Continuing	
• SSN BZ0525,: JLENS Production							501.459	454.966	416.888	Continuing	Continuing	
• PE 0604802A, Proj S23: SLAMRAAM	56.441									Continuing	Continuing	
• PE 0605450A, Project S35: SLAMRAAM		23.700	19.931		19.931					Continuing	Continuing	
• SSN C81002: SLAMRAAM Launcher		116.732								Continuing	Continuing	
• SSN C81004: SLAMRAAM Missile												
• PE 0603305A, Proj TR7: Protection Capability II - Intercept		4.296	21.126		21.126		89.021	92.999	142.738	Continuing	Continuing	
		91.467	7.958		7.958					Continuing	Continuing	

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• SSN WK5053, FAAD GBS: SSN WK5053, FAAD GBS											
• PE 0603327A, Proj S34,: AMD System of System Engineering and Integration	164.719									Continuing	Continuing
• PE 0605457A, Project S40: Army Integrated Air and Missile Defense (AIAMD)		251.124	270.607		270.607		346.341	298.869	275.651	Continuing	Continuing
• SSN BZ5075: Army IAMD Battle Command System (IBCS)							23.587	100.560	256.855	Continuing	Continuing
• PE 0604820A, Proj E10: SENTINEL			2.890		2.890		1.983	1.968	2.937	Continuing	Continuing
D. Acquisition Strategy											
Under this program element, critical improvements will be developed making maximum use of Non-Developmental Items (NDI)/Commercial Off-The-Shelf (COTS) components. After design and integration, the system will be subject to a thorough developmental and limited user test (LUT) to verify performance, operational effectiveness and suitability. All Block 1 activities (formerly known as Defense Support Program (DSP)-Only Multi-Mission Mobile Processor (M3P) (DM3P)) were rebaselined and resources refocused to maintain viability of JTAGS. Block 1 activites include Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration upgrades; and a bridging Initial Geosynchronous Capability (IGC); new commercial antennas; and SIPRNET capability. Block 1 will be fielded in the FY2011-2012 timeframe. Utilizing FY12 and outyears funds, Block 2 upgrades will be executed. These include removal of five systems from the shelters and integration into operation centers; and Geosynchronous (GEO) scanner/starer capability and associated hardware upgrades.											
E. Performance Metrics											
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army										DATE: February 2011				
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Management Services (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Government IPPD	Various	various:various	33.015	5.458		6.558		-		6.558	Continuing	Continuing	Continuing	
Contractor IPPD	Various	TBD:TBD	18.595	1.478		1.678		-		1.678	Continuing	Continuing	Continuing	
Subtotal			51.610	6.936		8.236		-		8.236				
Product Development (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Primary Hardware Development	Various	Lockheed:Arlington, VA	29.191	-		-		-		-	Continuing	Continuing	Continuing	
Engineering Services Software	Various	Northrop Grumman:Arlington, VA	17.844	1.750		0.750		-		0.750	Continuing	Continuing	Continuing	
Engineering Services Hardware	Various	Northrop Grumman:Arlington, VA	8.428	2.903		-		-		-	Continuing	Continuing	Continuing	
Government Furnished Equipment	Various	various:various	1.260	0.125		0.200		-		0.200	Continuing	Continuing	Continuing	
P3I Development	Various	TBD:TBD	-	-		16.744		-		16.744	0.000	16.744	0.000	
Subtotal			56.723	4.778		17.694		-		17.694				
Support (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Contractor Engineering Integrated Product & Process Development (IPPD) Support	Various	various:various	22.024	0.439		0.450		-		0.450	Continuing	Continuing	Continuing	
Subtotal			22.024	0.439		0.450		-		0.450				

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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ATEC	Various	various:various	5.006	0.250		1.250		-		1.250	Continuing	Continuing	Continuing
Subtotal			5.006	0.250		1.250		-		1.250			

Remarks N/A-Not Applicable													
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	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	135.363	12.403		27.630		-		27.630			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army			DATE: February 2011		
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
P3I IGC TEST																												
P3I BLOCK I IGC FIELDING																												
P3I H/W & S/W BLK 2 PHASE 1 DESHELTERIZATION AND GEO SCANNER																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
P3I IGC TEST	3	2010	1	2011
P3I BLOCK I IGC FIELDING	1	2011	1	2012
P3I H/W & S/W BLK 2 PHASE 1 DESHELTERIZATION AND GEO SCANNER	4	2011	1	2014

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