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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army										DATE: April 2013		
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)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	27.586	31.738	7.108	-	7.108	20.762	20.972	11.835	8.872	Continuing	Continuing
635: JOINT TACT GRD STATION-P3I (MIP)	-	27.586	31.738	7.108	-	7.108	20.762	20.972	11.835	8.872	Continuing	Continuing
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
Not applicable for this item.												
A. Mission Description and Budget Item Justification												
The Joint Tactical Ground System (JTAGS) is a post-production, ACAT III program and is designated as a DoD Space Program. JTAGS provides missile warning message data for the Air and Missile Defense (AMD) architecture and improves performance for Integrated Air and Missile Defense Fire Control Systems/Composite Army Air and Missile Defense Brigades. The JTAGS Program Element (PE) supports development and test to meet JTAGS ORD thresholds using improved sensors and algorithms as Pre-Planned Product Improvements (P3I). Presently, JTAGS is a transportable information processing system, receiving and processing in-theater, direct down-linked data from Defense Support Program (DSP) and other InfraRed (IR) satellites. JTAGS then disseminates near real time warning, alerting, and cueing information on ballistic missile launches and other tactical events of interest throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). Four OCONUS deployed JTAGS units constitute DoD's only in-theater system providing space-based missile warning. The fifth CONUS system is being used as an institutional trainer but is a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES). JTAGS supports all Theater Missile Defense pillars and by being located in-theater, affords the shortest sensor to shooter connectivity. P3I Improvements will upgrade JTAGS to a new configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, and will improve warning tactical parameters and timeliness. JTAGS P3I is on contract for a two-Block development effort. Block 1 activities (ECD 2013) include Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration, Initial Geosynchronous Capability (IGC); commercial antennas; Source on Source (SoS) data; and SIPRNET capability. Beginning with FY 2012 funds, Block 2 will be executed in two phases: Phase 1 deshelters five systems, adds SBIRS Geosynchronous (GEO) scanner capability (FY 2012-15) and updates hardware/software/communication systems. Phase 2 activities include stereo SBIRS GEO starrer sensor data and Net Centric capabilities (FY 2015-17). JROC-Memo 197-12 directs fielding of JTAGS P3I Phase I by FY15 and Phase II by FY 2017.												

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0208053A: Joint Tactical Ground System			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	27.630	31.397	14.109	-	14.109
Current President's Budget	27.586	31.738	7.108	-	7.108
Total Adjustments	-0.044	0.341	-7.001	-	-7.001
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.044	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	0.341	-7.001	-	-7.001

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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
635: JOINT TACT GRD STATION-P3I (MIP)	-	27.586	31.738	7.108	-	7.108	20.762	20.972	11.835	8.872	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note Not applicable for this item.												
A. Mission Description and Budget Item Justification The Joint Tactical Ground System (JTAGS) is a post-production, ACAT III program and is designated as a DoD Space Program. JTAGS provides missile warning message data for the Air and Missile Defense (AMD) architecture and improves performance for Integrated Air and Missile Defense Fire Control Systems/Composite Army Air and Missile Defense Brigades. The JTAGS Program Element (PE) supports development and test to meet JTAGS ORD thresholds using improved sensors and algorithms as Pre-Planned Product Improvements (P3I). Presently, JTAGS is a transportable information processing system, receiving and processing in-theater, direct down-linked data from Defense Support Program (DSP) and other InfraRed (IR) satellites. JTAGS then disseminates near real time warning, alerting, and cueing information on ballistic missile launches and other tactical events of interest throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). Four OCONUS deployed JTAGS units constitute DoD's only in-theater system providing space-based missile warning. The fifth CONUS system is being used as an institutional trainer, but is a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES). JTAGS supports all Theater Missile Defense pillars and by being located in-theater, affords the shortest sensor to shooter connectivity. P3I Improvements will upgrade JTAGS to a new configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, and improve warning tactical parameters and timeliness. JTAGS P3I is on contract for a two-Block development effort. Block 1 activities (ECD 2013) include Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration, Initial Geosynchronous Capability (IGC); commercial antennas; Source on Source (SoS) data; and SIPRNET capability. Beginning with FY 2012 funds, Block 2 will be executed in two phases: Phase 1 deshelters five systems, adds SBIRS Geosynchronous (GEO) scanner capability (FY 2012-15) and updates hardware/software/communication systems. Phase 2 activities include stereo SBIRS GEO starer sensor data and Net Centric capabilities (FY 2015-17). JROC-Memo 197-12 directs fielding of JTAGS P3I Phase I by FY 2015 and Phase II by FY 2017.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Execute Block 1 Upgrades									3.118	0.200	0.200	
Articles:									0	0		
Description: Funding is provided for the following effort												

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0208053A: Joint Tactical Ground System	PROJECT 635: JOINT TACT GRD STATION-P3I (MIP)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Software Upgrades, Information Assurance (IA) Maintenance/Testing, Software Discrepancy Report Resolution and Exercise Participation				
FY 2013 Plans: Information Assurance (IA) Maintenance/Testing, and Software Discrepancy Report Resolution				
FY 2014 Plans: Information Assurance (IA) Maintenance/Testing, and Software Discrepancy Report Resolution				
Title: JTAGS Test and Evaluation Support		0.671	0.885	0.898
Articles:		0	0	
Description: Funding is provided for the following effort				
FY 2012 Accomplishments: Testing of JTAGS Upgrade Activities into existing Command Operation Centers				
FY 2013 Plans: JTAGS P3I Phase I Testing				
FY 2014 Plans: Continues P3I Phase I Testing				
Title: JTAGS P3I Phase I Development (Deshelterization; Hardware/Software Upgrades. Includes Government IPPD)		23.797	30.653	6.010
Articles:		0	0	
Description: Funding is provided for the following effort				
FY 2012 Accomplishments: Began P3I Phase I Development Upgrades				
FY 2013 Plans: Continue P3I Phase I Development				
FY 2014 Plans: Complete P3I Phase I Development				
Accomplishments/Planned Programs Subtotals		27.586	31.738	7.108

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

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SSN BZ8401: SSN BZ8401, Joint Tactical Ground Station (JTGS)	1.199	2.680	9.899		9.899	7.035	2.996	7.940		Continuing	Continuing

Remarks

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 thorough developmental and validation/verification testing to verify performance, operational effectiveness and suitability. JTGS Block 1 activities are focused to maintain system viability in support of warfighter and USSTRATCOM priorities. Activities include: Information Assurance (IA) upgrades; Highly Elliptical Orbit (HEO) Automation Track Transfer (ATT) Integration upgrades; Initial Geosynchronous Capability (IGC); commercial antennas; and SIPRNET capability. Beginning with FY 2012 funds, Block 2 will be executed in two phases. Phase 1 activities include desheltering five systems and integration of hardware/software/communication systems using SBIRS Geosynchronous (GEO) scanning sensors (FY 2012-15). Phase II activities includes stereo SBIRS GEO starer sensor and net centric capabilities (FY 2015-17).

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 2014 Army												DATE: April 2013			
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>			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government IPPD	Various	various:various	43.931	3.416		3.449		3.279		-		3.279	Continuing	Continuing	Continuing
Subtotal			43.931	3.416		3.449		3.279		0.000		3.279			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JTAGS Block I Engineering Services Hardware/Software	SS/CPFF	Northrop Grumman:Arlington, VA	36.364	3.118		0.200		0.200		-		0.200	Continuing	Continuing	Continuing
Government Furnished Equipment	TBD	various:various	1.510	-		-		-		-		-	Continuing	Continuing	Continuing
P3I Phase I Development	SS/CPIF	Northrop Grumman:Arlington, VA	0.000	18.038		24.783		0.631		-		0.631	Continuing	Continuing	Continuing
Subtotal			37.874	21.156		24.983		0.831		0.000		0.831			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	22.902	2.343		2.421		2.100		-		2.100	Continuing	Continuing	Continuing
Subtotal			22.902	2.343		2.421		2.100		0.000		2.100			

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Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support (ATEC/JITC/ ETC)	Various	various:various	5.506	0.671		0.885		0.898		-		0.898	Continuing	Continuing	Continuing
Subtotal			5.506	0.671		0.885		0.898		0.000		0.898			

Remarks N/A-Not Applicable															
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	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	110.213	27.586		31.738		7.108		0.000		7.108			

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army			DATE: April 2013		
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>		

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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 BLOCK 1 IGC FIELDING																												
P3I JTAGS BLOCK 2																												
P3I H/W & S/W BLK 2 PHASE 1 DESHELTERIZATION AND GEO SCANNER																												
P3I GEO STARER AND NET CENTRIC UPGRADE (P3I BLK 2 PHASE 2 UPGRADE)																												
FUTURE SENSOR INTEGRATION AND TECHNOLOGY REFRESH																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
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>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
P3I BLOCK 1 IGC FIELDING	3	2012	4	2012
P3I JTAGS BLOCK 2	3	2012	3	2017
P3I H/W & S/W BLK 2 PHASE 1 DESHELTERIZATION AND GEO SCANNER	4	2012	2	2015
P3I GEO STARER AND NET CENTRIC UPGRADE (P3I BLK 2 PHASE 2 UPGRADE)	2	2014	2	2017
FUTURE SENSOR INTEGRATION AND TECHNOLOGY REFRESH	3	2017	4	2018