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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0208053A I Joint Tactical Ground System							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	12.649	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.649
635: Joint Tact Grd Station-P3I(MIP)	-	12.649	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.649

Note

FY 2018 and out funding moved from PE 0208053A to PE 1208053A as directed by OSD to better track Space Programs

A. Mission Description and Budget Item Justification

The Joint Tactical Ground Station (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.

JTAGS Block I system 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 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 available as a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES), supporting all Theater Missile Defense pillars, affording the shortest sensor to shooter connectivity.

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). The P3I Improvements will upgrade JTAGS to a new Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, and will improve warning tactical parameters and timeliness. JTAGS Block II is on contract for a two-Phase development effort. JTAGS Block II Phase 2 activities are broken into three spirals to expedite getting critical capabilities fielded sooner. JTAGS P3I Block II Phase 1 and Block II Phase 2 Spiral 1 efforts are included under PE 0208053A. JROC-Memos 197-12 and 113-13 supports the need to develop and field JTAGS Block II capabilities as soon as possible.

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development		PE 0208053A I Joint Tactical Ground System			
B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	12.649	0.000	0.000	-	0.000
Current President's Budget	12.649	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0208053A / Joint Tactical Ground System				Project (Number/Name) 635 / Joint Tact Grd Station-P3I(MIP)			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
635: Joint Tact Grd Station-P3I(MIP)	-	12.649	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.649
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY 2018 and out funding moved from PE 0208053A to PE 1208053A as directed by OSD to better track Space Programs

A. Mission Description and Budget Item Justification

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B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2017	FY 2018	FY 2019
Title: JTAGS Test and Evaluation Support	1.778	-	-
Description: Effort covered the Limited User Test for JTAGS Block II Phase 1			
Title: JTAGS P3I Block II Phase 2 Development	10.871	-	-
Description: JTAGS Block II Phase 2 activities include a three spiral approach which will provide stereo SBIRS GEO starrer sensor data and Net Centric capabilities, per JROC Memos 197-12 and 113-13.			

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B. Accomplishments/Planned Programs (\$ in Millions)								FY 2017	FY 2018	FY 2019	
Accomplishments/Planned Programs Subtotals								12.649	-	-	
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u> <u>Base</u>	<u>FY 2019</u> <u>OCO</u>	<u>FY 2019</u> <u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• BZ8420: <i>JOINT TACTICAL GROUND STATION MODS (JTAGS)</i>	4.417	-	5.434	-	5.434	-	-	-	6.393	0.000	16.244
• 1208053A: <i>Joint Tactical Ground System</i>	-	10.228	7.400	-	7.400	9.282	9.529	11.209	11.658	0.000	59.306
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. P3I Improvements will upgrade JTAGS to a new Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, improving warning tactical parameters and timeliness. JTAGS Block II is on contract for a two-Phase development effort. JTAGS Block II Phase 2, is further divided into three spirals to facilitate delivering critical capabilities to the fielded units faster. JTAGS Block II Phase 1 and JTAGS Block II Phase 2 Spiral 1 efforts will be completed under PE 0208053A. JROC-Memos 197-12 and 113-13 direct fielding of JTAGS Block II capabilities as soon as possible.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army												Date: February 2018			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0208053A / Joint Tactical Ground System				Project (Number/Name) 635 / Joint Tact Grd Station-P3I(MIP)					
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 Program Management	Allot	MDSS Project Office : Redstone Arsenal, AL	59.453	2.653	Oct 2015	-		-		-		-	0.000	62.106	-
Subtotal			59.453	2.653		-		-		-		-	0.000	62.106	N/A
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 : Colorado Springs, CO	39.882	-		-		-		-		-	0.000	39.882	-
P3I Block II Phase 1 Development	SS/CPIF	Northrop Grumman : Colorado Springs, CO	56.928	-		-		-		-		-	0.000	56.928	49.578
P3I Block II Phase 2 Development	SS/CPIF	Northrop Grumman : Colorado Springs, CO	18.500	6.907	Dec 2016	-		-		-		-	0.000	25.407	-
Government Furnished Equipment	TBD	Various : Various	1.510	-		-		-		-		-	0.000	1.510	-
Subtotal			116.820	6.907		-		-		-		-	0.000	123.727	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 Support	C/CPFF	Sigmattech, Inc : Huntsville AL	32.325	1.311	Feb 2017	-		-		-		-	0.000	33.636	-
Subtotal			32.325	1.311		-		-		-		-	0.000	33.636	N/A

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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	11.116	1.778	Oct 2016	-		-		-		-	0.000	12.894	-
Subtotal			11.116	1.778		-		-		-		-	0.000	12.894	N/A

Remarks N/A-Not Applicable															
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	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	219.714	12.649		0.000		-		-		-	0.000	232.363	N/A

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army			Date: February 2018		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0208053A / <i>Joint Tactical Ground System</i>		Project (Number/Name) 635 / <i>Joint Tact Grd Station-P3I(MIP)</i>	

Event Name	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
JTAGS P3I Block II																												
JTAGS P3I Block II Upgrade																												
P3I Block II Phase 1 (Deshelterization and Geosynchronous (GE																												
JTAGS P3I Block II Phase 1 Hardware/Software																												
P3I Block II Phase 2 Spiral 1 (GEO Starer and Net Centric Upgra																												
JTAGS P3I Block II Phase 2 Spiral 1																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army			Date: February 2018
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
JTAGS P3I Block II	3	2012	2	2018
P3I Block II Phase 1 (Deshelterization and Geosynchronous (GEO) Scanner)	4	2012	2	2017
P3I Block II Phase 2 Spiral 1 (GEO Starer and Net Centric Upgrade)	4	2015	2	2018