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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Army **Date:** February 2016

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0605034A / Tactical Security System (TSS)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	2.904	-	2.904	5.576	7.140	0.000	0.000	0.000	15.620
EQ4: Tactical Security System (TSS)	-	0.000	0.000	2.904	-	2.904	5.576	7.140	0.000	0.000	0.000	15.620

Note

This is a new start program in FY 2017.

A. Mission Description and Budget Item Justification

The Tactical Security System (TSS) is a modular, scalable, lightweight, rapidly deployable, ground based security and surveillance Family of Systems (FoS). The design of TSS allows for hasty emplacement, is tailorable to support short and long term security, surveillance and detection missions. The TSS and its components are designed to be employed as a stand-alone system, in a layered effort or integrated with additional force protection (FP) systems. Integration with additional sensors will be obtained through network communications and software in line with Net-Ready requirements. TSS will address four of the five base camp core protection/security capabilities identified in the Integrated Base Defense (IBD) Concept of Operations (CONOPS) which are perimeter security, entry control, persistent surveillance, warning and alerting. The TSS will be compliant with the Common Operating Environment (COE) Architecture and Implementation Plan. TSS is designed to be employed as a stand-alone system in a layered effort or integrated with additional force protection systems including motion, acoustic, seismic, surface, and subterranean detection technologies.

B. Program Change Summary (\$ in Millions)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	2.904	-	2.904
Total Adjustments	0.000	0.000	2.904	-	2.904
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	2.904	-	2.904

Change Summary Explanation

Increase in FY 2017 funding is due to this program being a new start.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Army										Date: February 2016		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605034A / <i>Tactical Security System (TSS)</i>				Project (Number/Name) EQ4 / <i>Tactical Security System (TSS)</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
EQ4: <i>Tactical Security System (TSS)</i>	-	0.000	0.000	2.904	-	2.904	5.576	7.140	0.000	0.000	0.000	15.620
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is a new start program in FY 2017.

A. Mission Description and Budget Item Justification

The Tactical Security System (TSS) is a modular, scalable, lightweight, rapidly deployable, ground based security and surveillance Family of Systems (FoS). The design of TSS allows for hasty emplacement, is tailorable to support short and long term security, surveillance and detection missions. The TSS and its components are designed to be employed as a stand-alone system, in a layered effort or integrated with additional force protection (FP) systems. Integration with additional sensors will be obtained through network communications and software in line with Net-Ready requirements. TSS will address four of the five base camp core protection/security capabilities identified in the Integrated Base Defense (IBD) Concept of Operations (CONOPS) which are perimeter security, entry control, persistent surveillance, warning and alerting. The TSS will be compliant with the Common Operating Environment (COE) Architecture and Implementation Plan. TSS is designed to be employed as a stand-alone system in a layered effort or integrated with additional force protection systems including motion, acoustic, seismic, surface, and subterranean detection technologies.

FY 2017 Base Funding in the amount of \$2.904 million supports the system level Preliminary Design Review (PDR), establishment of the TSS capabilities in the System Integration Lab (SIL), completes the development, integration, and production of the TSS Engineering & Manufacturing Development (EMD) assets (production representative articles). The RDTE will also support the development of the Technical Data Package (TDP) and Product Support Analysis and Package, as well as the demonstration and Developmental Testing (DT) for the prototype system.

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

	FY 2015	FY 2016	FY 2017
Title: TSS Design and Build	-	-	2.904
Description: TSS completes building of Engineering Development Model (EDM), integration with Integrated Ground Security Surveillance and Response Capability (IGSSR-C) and Common Operating Environment (COE), and Developmental Testing (DT) of prototype.			
FY 2017 Plans: TSS completes building of Engineering Development Model (EDM), integration with Integrated Ground Security Surveillance and Response Capability (IGSSR-C) and Common Operating Environment (COE), and Developmental Testing (DT) of prototype.			
Accomplishments/Planned Programs Subtotals	-	-	2.904

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605034A / <i>Tactical Security System (TSS)</i>	Project (Number/Name) EQ4 / <i>Tactical Security System (TSS)</i>

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• TSS (M90220): <i>TSS (M90220)</i>	-	-	-	-	-	-	-	11.230	7.211	Continuing	Continuing

Remarks

D. Acquisition Strategy

Tactical Security System (TSS) will eliminate the Non-Standard Equipment (NSE) currently used in the Force Protection System (FPS) under the Base Expeditionary Targeting and Surveillance System – Combined (BETSS-C) Quick Reaction Program (QRC) with improved surveillance capabilities in modular configurations along with enhanced network integration across the command and control system and Common Operating Environment (COE). In FY2016, the Department of Defense (DoD) Physical Security Enterprise and Analysis Group (PSEAG) will provide funding to support pre-milestone B activities and risk reduction activities.

The acquisition strategy for TSS is pending approval from the Milestone Decision Authority (MDA) with plans to leverage the Night Vision and Electronic Sensors Directorate (NVESD), Fort Belvoir, Virginia to provide programmatic and developmental support and existing RDT&E contracts for the system design, development, and integration of Engineering and Manufacturing Development (EMD) systems to support Operational Assessments (OA) and Low Rate Initial Production (LRIP). Key efforts include system design and engineering efforts, development of two engineering development models (EDMs), testing and evaluation for TSS Key Performance Parameters (KPPs)/Key System Attributes (KSAs)/Additional Performance Parameters (APAs), and Developmental and Operational Test and Evaluation.

Milestone C is planned for FY 2019 to align Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)), Integrated Ground Security, Surveillance and Response Capability (IGSSR-C), and TSS in order to gain programmatic efficiencies.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605034A / Tactical Security System (TSS)				EQ4 / Tactical Security System (TSS)							
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
TSS Project Management	MIPR	PM EOIR : Fort Belvoir, VA	0.000	-		-		0.087	Dec 2016	-		0.087	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		0.087		-		0.087	-	-	-
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
TSS Design	TBD	TBD : TBD	0.000	-		-		0.918	Dec 2016	-		0.918	Continuing	Continuing	Continuing
TSS Prototypes	TBD	TBD : TBD	0.000	-		-		0.969	Dec 2016	-		0.969	Continuing	Continuing	Continuing
TSS Software Development	TBD	TBD : TBD	0.000	-		-		0.251	Dec 2016	-		0.251	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		2.138		-		2.138	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
TSS Design Support	MIPR	RDECOM CERDEC : Fort Belvoir, VA	0.000	-		-		0.236	Dec 2016	-		0.236	Continuing	Continuing	Continuing
ARL Human Systems Integration Support	MIPR	US Army ARL : Adelphi, MD	0.000	-		-		0.025	Dec 2016	-		0.025	Continuing	Continuing	Continuing
CECOM FSD - Safety	MIPR	CECOM : APG, MD	0.000	-		-		0.219	Dec 2016	-		0.219	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		0.480		-		0.480	-	-	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
TSS Test and Evaluation	MIPR	ATEC : APG, MD	0.000	-		-		0.199	Dec 2016	-		0.199	Continuing	Continuing	Continuing

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army **Date:** February 2016

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605034A / <i>Tactical Security System (TSS)</i>	Project (Number/Name) EQ4 / <i>Tactical Security System (TSS)</i>
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Event Name	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
(1) TSS Material Development Decision					▲ MDD																							
TSS Pre Milestone B Activities / Risk Reduction									Pre-MS B/Risk Reduction																			
(2) TSS Milestone B													▲ Milestone B															
TSS Engineering & Manufacturing Development													EMD Phase															
TSS Development Testing/Operational Assessment													DT/OA															
(3) TSS Milestone C																	▲ Milestone C											
TSS Low Rate Initial Production (LRIP)																					LRIP							
TSS Operational Test & Evaluation																									OT&E			

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605034A / <i>Tactical Security System (TSS)</i>	Project (Number/Name) EQ4 / <i>Tactical Security System (TSS)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
TSS Material Development Decision	3	2016	3	2016
TSS Pre Milestone B Activities / Risk Reduction	2	2016	2	2017
TSS Milestone B	2	2017	2	2017
TSS Engineering & Manufacturing Development	2	2017	1	2019
TSS Development Testing/Operational Assessment	3	2017	1	2019
TSS Milestone C	1	2019	1	2019
TSS Low Rate Initial Production (LRIP)	1	2019	4	2020
TSS Operational Test & Evaluation	3	2019	3	2020

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