Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army

R-1 Program Element (Number/Name)

Date: February 2018

Appropriation/Budget Activity

2040: Research, Development, Test & Evaluation, Army I BA 5: System

Development & Demonstration (SDD)

PE 0605034A I Tactical Security System (TSS)

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	-	2.792	4.727	4.496	-	4.496	6.400	2.946	0.545	0.000	0.000	21.906					
EQ4: Tactical Security System (TSS)	-	2.792	4.727	4.496	-	4.496	6.400	2.946	0.545	0.000	0.000	21.906					

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 and 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 detection technologies.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	2.904	4.727	3.957	-	3.957
Current President's Budget	2.792	4.727	4.496	-	4.496
Total Adjustments	-0.112	0.000	0.539	-	0.539
 Congressional General Reductions 	-0.001	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.111	-			
 Adjustments to Budget Years 	-	-	0.539	=	0.539

Change Summary Explanation

FY 2017 variation due to \$1K for FFRDC Reduction and \$111K for SBIR/STTR reduction.

Increase to FY 2019 funding is due to an adjustment required to align funding with planned acquisition strategy.

PE 0605034A: Tactical Security System (TSS)

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Exhibit R-2A, RDT&E Project Ju	ıstification	: PB 2019 A	Army							Date: Febi	uary 2018	
Appropriation/Budget Activity 2040 / 5 R-1 Program Element (Num PE 0605034A / Tactical Secur (TSS)			•	,	Project (N EQ4 / Tact		ne) y System (TS	SS)				
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
EQ4: Tactical Security System (TSS)	-	2.792	4.727	4.496	-	4.496	6.400	2.946	0.545	0.000	0.000	21.906
Quantity of RDT&E Articles	-	-	-	-	-	-	1	-	-	-		

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 and 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 detection technologies.

FY 2019 Base Funding in the amount of \$4.544 million supports the system level Critical Design Review (CDR), continued development of the Technical Data Package (TDP) and Product Support Analysis, Developmental Testing and Limited User Testing (LUT).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: TSS Design and Build	2.792	4.727	4.496
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 2018 Plans: TSS completes building of the Engineering Development Model (EDM), support Program Management Office (PMO), PDR and component selection integration testing of the EDM.			
FY 2019 Plans: TSS completes the Critical Design Review (CDR), continues Technical Data Package and Product Support Analysis and Package development, begins Developmental Testing and Limited User Testing (LUT), Logistics demonstration and supports Program Management Office (PMO).			
FY 2018 to FY 2019 Increase/Decrease Statement:			

PE 0605034A: Tactical Security System (TSS)

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605034A I Tactical Security System (TSS)	Project (Number/Name) EQ4 I Tactical Security System (TSS)
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017 FY 2018 FY 2019

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Additional funding provided to synchronize developmental testing activities to gain efficiencies between the PORs. (Note: Program Management Office (PMO) support funds realigned from RDT&E to Operations and Maintenance Army (OMA).			
Accomplishments/Planned Programs Subtotals	2.792	4.727	4.496

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

N/A

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 Capability (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) provided funding to support pre-milestone B and risk reduction activities.

TSS received Materiel Development Decision (MDD) approval on 6 January 2017. The acquisition concept and contracting strategy for TSS is pending approval from the Milestone Decision Authority (MDA) with plans to leverage an existing task order through Night Vision and Electronic Sensors Directorate (NVESD), Fort Belvoir, Virginia to provide engineering and developmental support for the TSS design, development, and integration of an Engineering Development Model (EDM) and to support Operational Assessments (OA). Key efforts include the development of the EDM, testing and evaluation for TSS Key Performance Parameters (KPPs)/Key System Attributes (KSAs)/Additional Performance Parameters (APAs), and Developmental and Operational Test and Evaluation (DOT&E).

Milestone C is planned for FY 2020 to align Ground-Based Operational Surveillance System - Expeditionary (GBOSS-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 C	ost Analysis: PB 2	2019 Arm	у								Date:	February	2018			
Appropriation/Budge 2040 / 5	et Activity	1		-					umber/Necurity Sy			(Number actical Se					
Management Service	es (\$ in M	lillions)		FY:	2017	FY 2	2018		2019 ise		2019 CO	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	Total Cost	Target Value of Contract		
TSS Project Management	MIPR	PM EOIR : Fort Belvoir, VA	-	0.020	Dec 2017	0.330		-		-		-	0.000	0.350	-		
		Subtotal	-	0.020		0.330		-		-		-	0.000	0.350	N/A		
Product Developmer	nt (\$ in M	illions)		FY	2017	FY 2	2018		2019 ise	FY 2	2019 CO	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	Total Cost	Target Value of Contract		
TSS Design	TBD	TBD : TBD	-		Dec 2017	1.033	Duto	3.077	Jan 2019	-	24.0		Continuing				
TSS Prototypes	TBD	TBD : TBD	-	1.000	Dec 2017	1.195		-		-		-	0.000	2.195	-		
TSS Software Development	TBD	TBD : TBD	-	0.772	Dec 2017	0.138		0.350	Dec 2018	-		0.350	Continuing	Continuing	Continuin		
TSS Integration	TBD	TBD : TBD	-	-		0.977		0.135	Oct 2018	-		0.135	Continuing	Continuing	Continuin		
		Subtotal	-	2.772		3.343		3.562		-		3.562	Continuing	Continuing	N/A		
Support (\$ in Million	s)			FY:	2017	FY 2	2018		2019 ise	FY 2	2019 CO	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	Total Cost	Target Value of Contract		
TSS Design Support	MIPR	RDECOM CERDEC : Fort Belvoir, VA	-	-		0.729		0.379		-			Continuing				
ARL Human Systems Integration Support	MIPR	US Army ARL : Adelphi, MD	-	-		0.025		0.025	Jan 2019	-		0.025	Continuing	Continuing	Continuin		
CECOM FSD - Safety	MIPR	CECOM : APG, MD	-	-		0.050		0.050	Nov 2018	-		0.050	Continuing	Continuing	Continuin		
		Subtotal	-	-		0.804		0.454		-		0.454	Continuing	Continuing	N/A		

PE 0605034A: Tactical Security System (TSS)

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605034A / Tactical Security System	Project (Number/Name) EQ4 / Tactical Security System (TSS)
	(TSS)	

FY 2018

FY 2017

FY 2019

Base

FY 2019

oco

FY 2019

Total

Cost Category Item TSS Test and Evaluation	Contract Method & Type MIPR	Performing Activity & Location ATEC : APG, MD	Prior Years	Cost	Award Date	Cost 0.250	Award Date	Cost	Award Date Mar 2019	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract Continuing
133 Test and Evaluation	IVIIFK	Subtotal	_	-		0.250		0.480		-			Continuing		
			Prior Years	FY2	2017	FY 2	2018	1	2019 ise	FY:	2019 CO	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	-	2.792		4.727		4.496		-		4.496	Continuing	Continuing	N/A

Remarks

Test and Evaluation (\$ in Millions)

PE 0605034A: Tactical Security System (TSS) Army

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army

Date: February 2018

Appropriation/Budget Activity

2040 / 5

R-1 Program Element (Number/Name)
PE 0605034A / Tactical Security System

Project (Number/Name)

EQ4 I Tactical Security System (TSS)

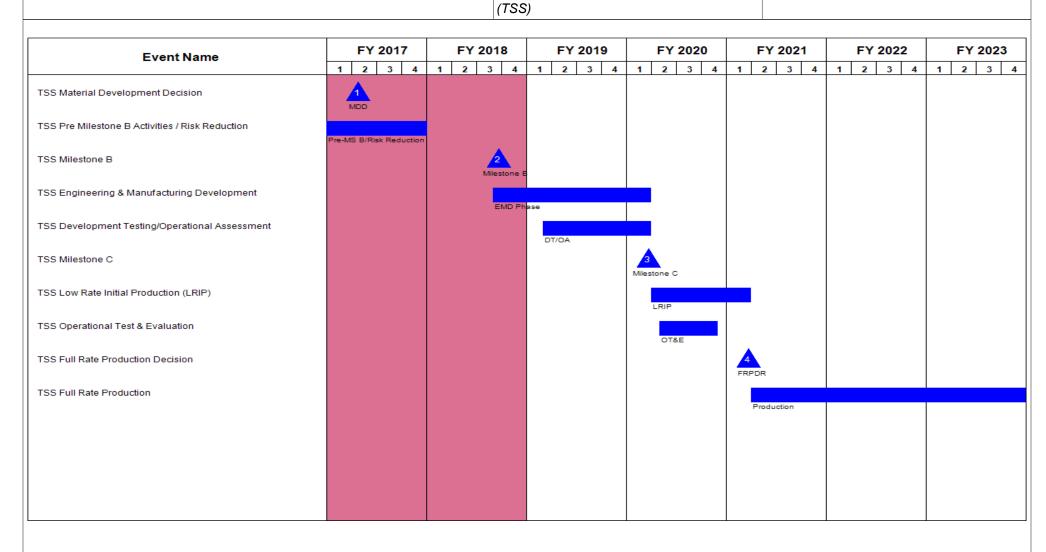


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 / 5	- , \	umber/Name) ical Security System (TSS)

Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
TSS Material Development Decision	2	2017	2	2017	
TSS Pre Milestone B Activities / Risk Reduction	2	2016	4	2017	
TSS Milestone B	3	2018	3	2018	
TSS Engineering & Manufacturing Development	3	2018	1	2020	
TSS Development Testing/Operational Assessment	1	2019	1	2020	
TSS Milestone C	1	2020	1	2020	
TSS Low Rate Initial Production (LRIP)	2	2020	1	2021	
TSS Operational Test & Evaluation	2	2020	4	2020	
TSS Full Rate Production Decision	1	2021	1	2021	
TSS Full Rate Production	2	2021	4	2023	

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