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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Army **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOSS-E)</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	5.758	-	-	-	-	0.000	0.000	0.000	0.000	0.000	5.758
EQ3: <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>	-	5.758	-	-	-	-	-	-	-	-	0.000	5.758

**A. Mission Description and Budget Item Justification**

Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) will replace the interim Persistent Surveillance System-Ground (PSS-G) Increment 1 towers with improved persistent surveillance capabilities and will provide network integration and better mobility utilizing modular configurations. G-BOSS(E) will replace obsolete, Quick Reaction Capability (QRC) surveillance and force protections systems utilizing modular configurations: Medium variant (mid sensor height) for small to medium size base camps and Heavy variant (high level sensor height) for large contingency base camps. G-BOSS(E) will operate in a stand-alone mode or as part of an integrated network utilizing government owned software, be easily operated and maintained, and be rugged enough to support employment in expeditionary operations worldwide.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	5.758	0.000	0.000	-	0.000
Current President's Budget	5.758	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 2023 Army **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOS S-E)</i>	<b>Project (Number/Name)</b> EQ3 / <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
EQ3: <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>	-	5.758	-	-	-	-	-	-	-	-	0.000	5.758
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) will replace the interim Persistent Surveillance System-Ground (PSS-G) Increment 1 towers with improved persistent surveillance capabilities and will provide network integration and better mobility utilizing modular configurations. G-BOSS(E) will replace obsolete, Quick Reaction Capability (QRC) surveillance and force protections systems utilizing modular configurations: Medium variant (mid sensor height) for small to medium size base camps and Heavy variant (high level sensor height) for large contingency base camps. G-BOSS(E) will operate in a stand-alone mode or as part of an integrated network utilizing government owned software, be easily operated and maintained, and be rugged enough to support employment in expeditionary operations worldwide.

FY21 is the last year of RDT&E funding for this program.

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

	FY 2021	FY 2022	FY 2023
<b>Title:</b> GBOSS-E Design and Build	5.758	-	-
<b>Description:</b> Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) will replace the interim Persistent Surveillance System-Ground (PSS-G) Increment 1 towers with improved persistent surveillance capabilities and will provide network integration and better mobility utilizing modular configurations. G-BOSS(E) will replace obsolete, Quick Reaction Capability (QRC) surveillance and force protections systems utilizing modular configurations: Medium variant (mid sensor height) for small to medium size base camps and Heavy variant (high level sensor height) for large contingency base camps. G-BOSS(E) will operate in a stand-alone mode or as part of an integrated network utilizing government owned software, be easily operated and maintained, and be rugged enough to support employment in expeditionary operations worldwide.			
FY21 Base funding in the amount of \$5.976 million completes design engineering, documentation, and integration activities, builds Low Rate Initial Production (LRIP) systems, conducts Developmental Testing (DT) and Operational Assessment in lieu of an Initial Operational Test (IOT) and Limited User Test (LUT), Logistics Demonstration, Cyber related test events/assessments, and provides Program Management support.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.758	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOS S-E)</i>	<b>Project (Number/Name)</b> EQ3 / <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b>		
<p>Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) will replace the interim Persistent Surveillance System - Ground (PSS-G) Increment 1 towers with improved persistent surveillance capabilities along with network integration and better mobility utilizing modular configurations. The G-BOSS(E) Capability Development Document (CDD) was Army Requirements Oversight Council (AROC) approved in May 2014. In FY 2013, FY 2014 &amp; FY 2015, the Department of Defense (DoD) Physical Security Enterprise and Analysis Group (PSEAG) provided funds to conduct Pre-Milestone B activities.</p> <p>G-BOSS(E) received an approved Materiel Development Decision (MDD) from the Milestone Decision Authority (MDA) on 4 December 2015. Milestone B decision accomplished 29 September 2017, the existing United States Marine Corps (USMC) tower's design (Ground-Based Operational Surveillance System) (G-BOSS) will be leveraged and modified to meet the Army's G-BOSS(E) program requirements.</p> <p>The acquisition strategy for G-BOSS(E) was approved by the MDA on 11 December 2016, which approved plans to leverage the Naval Surface Warfare Center (NSWC) at Crane, Indiana and the Night Vision and Electronic Sensors Directorate (NVESD), Fort Belvoir, Virginia to provide system design, development, and integration support, as well as a Technical Data Package (TDP) to support future procurements.</p> <p>Milestone C is planned for 2Q FY22.</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOS S-E)</i>	<b>Project (Number/Name)</b> EQ3 / <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>
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<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
GBOSS-E Project Management	MIPR	PM FPS : Fort Belvoir, VA	3.388	0.700	Jan 2021	-		-		-		-	0.000	4.088	-
CVBIED JUONS 0540 Project Management	MIPR	PM FPS : Fort Belvoir, VA	0.051	-		-		-		-		-	0.000	0.051	-
MDAP Cost Overrun	TBD	OASA(FM&C) : Pentagon DC	0.001	-		-		-		-		-	0.000	0.001	-
<b>Subtotal</b>			3.440	0.700		-		-		-		-	0.000	4.140	N/A

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
GBOSS-E Design Engineering	MIPR	NSWC Crane : Crane, IN	8.452	0.670	Jan 2021	-		-		-		-	0.000	9.122	-
GBOSS-E Software Development	TBD	TBD : TBD	0.492	-		-		-		-		-	0.000	0.492	-
GBOSS-E Integration Support	MIPR	NSWC Crane : Crane, IN	1.555	1.183	Jan 2021	-		-		-		-	0.000	2.738	-
Tech Data	MIPR	NSWC Crane : Crane, IN	1.100	-		-		-		-		-	0.000	1.100	-
CVBIED JUONS 0540 Wide Area Motion Imagery Sensor Development	MIPR	NAVAIR : Patuxent River, MD	7.208	-		-		-		-		-	0.000	7.208	-
CVBIED JUONS 0540 Wide Area Motion Imagery Sensor Development	MIPR	RDECOM : Fort Belvoir, VA	8.735	-		-		-		-		-	0.000	8.735	-
Hardware Procurement	MIPR	NSWC Crane : Crane Indiana	0.100	1.664		-		-		-		-	0.000	1.764	-
<b>Subtotal</b>			27.642	3.517		-		-		-		-	0.000	31.159	N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOS S-E)</i>	<b>Project (Number/Name)</b> EQ3 / <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
G-BOSS(E) Engineering Manufacturing & Development and Manual Development	[Redacted]				[Redacted]																							
G-BOSS(E) Operational Assessment	[Redacted]				[Redacted]																							
G-BOSS(E) Milestone C	[Redacted]				[Redacted]																							
G-BOSS(E) Full Rate Production Decision	[Redacted]				[Redacted]																							
G-BOSS(E) Authorization to Operate	[Redacted]				[Redacted]																							

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605033A / <i>Ground-Based Operational Surveillance System - Expeditionary (GBOS S-E)</i>	<b>Project (Number/Name)</b> EQ3 / <i>Grnd-Based Opnl Surv Sys -Exped (GBOSS-E)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
G-BOSS(E) Engineering Manufacturing & Development and Manual Development	1	2019	2	2022
G-BOSS(E) Developmental Testing	3	2020	4	2020
G-BOSS(E) Operational Assessment	3	2021	3	2021
G-BOSS(E) Milestone C	2	2022	2	2022
G-BOSS(E) Full Rate Production Decision	3	2023	3	2023
G-BOSS(E) Authorization to Operate	2	2023	3	2023