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**Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army** **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	51.415	60.076	86.908	-	86.908	32.518	0.000	0.000	0.000	0.000	230.917
083: <i>Global Combat Support Sys - Army</i>	-	1.255	6.109	21.675	-	21.675	17.590	0.000	0.000	0.000	0.000	46.629
EK2: <i>GCSS-A Increment 2</i>	-	50.160	53.967	65.233	-	65.233	14.928	0.000	0.000	0.000	0.000	184.288

**Note**

Effective February 2, 2017, the Department of Defense Instruction (DODI) 5000.75 was issued to establish policy for use of Business Capability Acquisition Cycle for Defense Business Systems. The DODI 5000.75 supersedes DODI 5000.02, improving the alignment of business systems to commercial best practices as well as optimizing efficiencies and effectiveness across the DOD for the acquisition of business systems. Decisions rendered by the Milestone Decision Authority, as outlined in the DODI 5000.75, are referred to as "Authority To Proceed" and replace DODI 5000.02 "Milestones."

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

GCSS-Army Increment 1 gives combat forces a decisive edge by providing soldiers a seamless flow of timely, accurate, accessible, and secure logistics information to get combat power at the right place, at the right time. The GCSS-Army program is an information and communications technology investment that provides key enabling support to the transformation of the Army into a network-centric, knowledge-based future force. GCSS-Army implements best business practices to streamline supply, accountability, maintenance, distribution, and reporting procedures in support of the future force transition path of The Army Campaign Plan.

GCSS-Army Increment 2 builds on the current foundation by providing auditable Army Enterprise Aviation maintenance, enhanced Business Intelligence/Business Warehouse (BI/BW) and Army Pre-Positioned Stock (APS) functional capabilities and will sunset legacy systems: the Aircraft Notebook and Army War Reserve Deployment System (AWRDS). Increment 2 will deliver greater efficiencies to Aviation Logistics warfighters and improved information flow and accuracy in real time to decision makers, helping them make better decisions faster on the battlefield. The APS capabilities directly impact the speed at which a deploying unit can draw combat equipment.

The FY 2020 funding provides for the engineering, design, development, and integration of GCSS-Army Increment 2 into the Increment 1 baseline. It also supports critical change requests, coming from the warfighter and prioritized by the Combat Developer, for the baseline system.

The FY 2021 funding provides for the continuation of engineering, design, development, integration, and testing of the GCSS-Army Increment 2. The funding also builds edge software for disconnected supply, maintenance and accountability, leveraging the Increment 2 architecture and revised technical approach approved in FY 2019. The FY 2021 funding also supports trade studies, analysis and market research for SAP based ERP integration, consolidation and efficiencies.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2021 Army	<b>Date:</b> February 2020
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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	53.855	68.976	67.974	-	67.974
Current President's Budget	51.415	60.076	86.908	-	86.908
Total Adjustments	-2.440	-8.900	18.934	-	18.934
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-8.900			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.440	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	18.934	-	18.934

**Change Summary Explanation**

FY 2021 Increment 1 funding was increased above FY 2020 level to fund disconnected operations development. RDTE funds are needed for first year of a two year development effort to cover all design, development, test and evaluation efforts to develop a disconnected operations solution for GCSS-Army.

GCSS-Army INC2- On 4 June 2019 the Army Acquisition Executive approved a modification in strategy to an SAP Agile Deployment Operations (ADO) technical solution which shifted RDTE requirements and fielding schedules, resulting in changes to funding requirements and plans to Wave 1 (Enterprise Aviation) in FY20 and FY21. This also affected plans for Wave 2 (Business Intelligence/Business Warehouse) and Wave 3 (Army Prepositioned Stock-APS).

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 2040 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>					<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
083: <i>Global Combat Support Sys - Army</i>	-	1.255	6.109	21.675	-	21.675	17.590	0.000	0.000	0.000	0.000	46.629
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

GCSS-Army Increment 1 provides critical Army sustainment support to the soldier with a seamless flow of timely, accurate, accessible, and secure information management that gives combat forces a decisive edge and is essential for combat readiness. GCSS-Army implements best business practices to streamline supply, accountability, maintenance, distribution, and reporting procedures in support of the future force transition path of The Army Campaign Plan. GCSS-Army is financially compliant and is a key component for the Army Enterprise Strategy to be financially auditable.

The FY 2021 funding builds edge software for disconnected supply, maintenance and accountability, leveraging the Increment 2 architecture and revised technical approach approved in FY 2019. The Army requires a single disconnected operations architecture for GCSS-Army to support the ground and aviation missions. Currently the Army has battlefield gaps without network connectivity: inability to maintain or regenerate combat power, order/process spare parts, track battle losses, or conduct maintenance. The disconnected operations architecture, using FY 2021 RDTE funding, will alleviate these problems when there are disruptions in communications or cyber-attacks. The FY 2019 and FY 2020 funding also supports critical change requests, coming from the warfighter and prioritized by the Combat Developer, for the baseline system.

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

	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> Product Development	1.255	5.831	21.675
<p><b>Description:</b> The funds in the GCSS-Army Increment 1 RDT&amp;E line are for building the edge software for disconnected supply, maintenance and accountability, leveraging the Increment 2 architecture and revised technical approach approved in FY 2019. The Army requires a single disconnected operations architecture for GCSS-Army to support ground and aviation mission. The funds in FY 2019 and FY 2020 are for critical change requests, coming from the warfighter and prioritized by the Combat Developer. In FY 2021 the Army will commence design, development and build of disconnected operations capability to support ground operations, leveraging Increment 2 architecture.</p> <p><b>FY 2020 Plans:</b> After transition to capability support, RDT&amp;E funding will be used to execute critical change requests to enhance capability support activities, improve readiness, system usability, automated accountability, auditability, and calculations of total cost of ownership. Implementation of critical change requests enhance functional capabilities and improve system effectiveness by synchronizing system data and utilizing enterprise interface tools to eliminate input errors.</p> <p><b>FY 2021 Plans:</b></p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<p>Currently the Army has battlefield gaps without network connectivity: inability to maintain or regenerate combat power, order/process spare parts, track battle losses, or conduct maintenance. The FY 2021 funding builds edge software for disconnected supply, maintenance and accountability, leveraging the Increment 2 architecture and revised technical approach approved in FY 2019. The disconnected operations architecture, using FY 2021 RDTE funding, will alleviate these problems when there are disruptions in communications or cyber-attacks.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> FY 2021 funding was increased above the FY 2020 level to fund the first year of a two year development effort for disconnected ground operations. FY 2021 funding will cover all design and development efforts to develop the edge software and front end user interface screens to allow soldiers to operate disconnected. This is a critical requirement validated by Army in order to regenerate combat power, order/process spare parts, track battle losses, or conduct maintenance when there are disruptions in communications or cyber-attacks.</p>			
<p><b>Title:</b> FY 2020 SBIR/STTR Transfer</p> <p><b>Description:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 Plans:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Funding transferred in accordance with Title 15 USC ?638</p>	-	0.278	-
<b>Accomplishments/Planned Programs Subtotals</b>	1.255	6.109	21.675

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u> <u>Base</u>	<u>FY 2021</u> <u>OCO</u>	<u>FY 2021</u> <u>Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• W00800: <i>GCSS-A Increment 1</i>	7.085	-	0.000	-	0.000	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
GCSS-Army will design and develop the edge software for disconnected ground operations tapping into the technical architecture that is being developed in Increment 2, Army Enterprise Aviation. The program will design and build user screens for disconnected supply, maintenance and accountability, leveraging the core framework that will already be established in another part of the program. The Army will use a single disconnected operations architecture for GCSS-Army to support the ground and aviation missions.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>
<p>The program office (INC 2) will award a base year contract with 3 option years in FY 2020, using a Department of Defense Enterprise Software Initiative (DoD ESI) contract, to design and develop the core architecture that will be used for disconnected ground and aviation operations. In FY21, utilizing the DoD ESI contract, the program will start to design and develop the core architecture that will be used for disconnected ground operations leveraging aviation architecture.</p> <p>GCSS-Army will also leverage the partnership with the U.S. Army Communications-Electronics Command, and supplement the design and development team with architecture and engineering support from the existing support contract.</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army** **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>
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<b>Management Services (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
1 . PM GCSS-Army- PMO Operations	Various	PM GCSS-Army : Fort Lee, VA 23805	103.931	-		-		-		-		-	0.000	103.931	62.385
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.278		-		-		-	0.000	0.278	-
<b>Subtotal</b>			103.931	-		0.278		-		-		-	0.000	104.209	N/A

<b>Product Development (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Enterprise Resource Planning (ERP) design and development	C/FPAF	Northrop Grumman Information Systems : Chester, VA 23836	465.845	1.213		-		-		-		-	0.000	467.058	457.056
Government Developer Subject Matter Experts	IA	ASA (FM&C), CASCOM and GFEBs : Various Locations	22.315	-		-		-		-		-	0.000	22.315	19.730
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	-	0.042		-		-		-		-	0.000	0.042	-
Disconnected Ground Operations	SS/FFP	DOD ESI Multi Vendor : Arlington VA	-	-		-		21.675		-		21.675	19.218	40.893	-
Continuous Enhancements	TBD	TBD : TBD	-	-		5.831	May 2020	-		-		-	6.182	12.013	-
<b>Subtotal</b>			488.160	1.255		5.831		21.675		-		21.675	25.400	542.321	N/A

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>
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<b>Support (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
1. PM Support - Independent Verification and Validation (IV&V)	C/T&M	CAP Gemini : 2250 Corporate Park Dr, Herndon, VA 20171	1.031	-		-		-		-		-	0.000	1.031	1.031
2. PM Support - Program Management Support Services A	C/T&M	Engility Corporation : 3750 Centerview Drive Chantilly, VA 20151	1.386	-		-		-		-		-	0.000	1.386	-
3. PM Support - Program Management Support Services B	C/T&M	Logistics Management Institute : Colonial Heights, VA 23834	42.101	-		-		-		-		-	0.000	42.101	42.101
<b>Subtotal</b>			44.518	-		-		-		-		-	0.000	44.518	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
1. Test and Evaluation - Test and Evaluation	C/IDIQ	Northrop Grumman : McLean VA	39.950	-		-		-		-		-	0.000	39.950	-
<b>Subtotal</b>			39.950	-		-		-		-		-	0.000	39.950	N/A

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		676.559	1.255	6.109	21.675	-	21.675	25.400	730.998	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2021 Army</b>			<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>	

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025							
	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				
Continuous Enhancements (Design and Development)																																
Disconnected Ground Operations (Development Testong and Deployment)																																

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> 083 / <i>Global Combat Support Sys - Army</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Seg 2 Contract Award	1	2008	1	2008
Increment 1 - Acquisition Review	2	2008	2	2008
Increment 1/Segment 1 Operational Assessment	1	2008	3	2010
Increment 1 - Milestone B	4	2008	4	2008
Increment 1/Release 1.1 DTOE	3	2010	4	2010
GCSS-Army Release 1.1 Design, Build, Test & Stabilize	1	2011	3	2011
Increment 1 - Milestone C	4	2011	4	2011
Release 1.1 Intial Operational Test and Evaluation (IOT&E)	1	2012	1	2012
Release 1.1 Stabilization	2	2011	1	2013
Lead Site Verification	1	2013	1	2013
Release 1.1 Full Deployment Decision	1	2013	1	2013
Field Wave 1	1	2013	1	2016
GCSS-Army Release 1.2 (Wave 2) Plan, Analyze, Design, Build & Test	3	2011	4	2015
Release 1.2 (Wave 2) Lead Site Verification Test	3	2015	3	2015
Release 1.2 (Wave 2) In Progress Review	4	2015	4	2015
Field Release 1.2 (Wave 2)	1	2015	1	2018
Continuous Enhancements (Design and Development)	1	2018	4	2022
Disconnected Ground Operations (Development Testong and Deployment)	1	2021	4	2022

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<b>Appropriation/Budget Activity</b> 2040 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>					<b>Project (Number/Name)</b> EK2 / <i>GCSS-A Increment 2</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
EK2: <i>GCSS-A Increment 2</i>	-	50.160	53.967	65.233	-	65.233	14.928	0.000	0.000	0.000	0.000	184.288
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

GCSS-Army Increment 1 gives combat forces a decisive edge by providing soldiers a seamless flow of timely, accurate, accessible, and secure logistics information to get combat power at the right place, at the right time. The GCSS-Army program is an information and communications technology investment that provides key enabling support to the transformation of the Army into a network-centric, knowledge-based future force. GCSS-Army implements best business practices to streamline supply, accountability, maintenance, distribution, and reporting procedures in support of the future force transition path of The Army Campaign Plan.

GCSS-Army Increment 2 builds on the current foundation by providing auditable Army Enterprise Aviation maintenance, enhanced Business Intelligence/Business Warehouse (BI/BW) and Army Pre-Positioned Stock (APS) functional capabilities and will sunset legacy systems: the Aircraft Notebook and Army War Reserve Deployment System (AWRDS). Increment 2 will deliver greater efficiencies to Aviation Logistics warfighters and improve information flow and accuracy in real time to decision makers, helping them make better decisions faster on the battlefield.

In FY 2019, the AAE approved a new technical approach for Enterprise Aviation, which will utilize a commercial disconnected architecture capability from SAP, called Agile Deployed Operations (ADO). ADO will allow the Army to extend the fully integrated Enterprise Aviation capability to a disconnected platform and will provide timely and accurate visibility and accountability of materiel down to the unit level. ADO developed under the Enterprise Aviation effort will also serve as the foundation for disconnected ground operations. Enterprise Aviation will replace a legacy standalone client server architecture and integrate its functionalities into an enterprise system.

Implementation of the BI/BW capabilities provide enhancements in materiel and supply chain readiness analytics that are critical to inform commanders' understanding of weapons systems readiness, helping them make better decisions faster on the battlefield.

The APS capabilities directly impacts the speed at which a deploying unit can draw combat equipment while reducing the burden of the day-to-day maintenance and accountability of APS stock.

The FY 2021 funding will continue design, development, and incremental testing for Enterprise Aviation capability in the GCSS-Army baseline software; will continue to develop the SAP disconnected operations technical architecture; and will begin development to re-platform the Aircraft Notebook in order to sunset this legacy system. FY 2021 RDTE funds will also allow the Army to develop critical maintenance, supply and financial reports that will be used for Enterprise Aviation and key functional areas in order to improve readiness reporting. Finally, FY 2021 funding will address the requirements to allow units to quickly draw APS stocks.

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

	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> System Design, Develop and Build	49.535	50.798	64.378

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<p><b>Description:</b> The purpose of this phase is to begin the system development for an incremental capability that is affordable and executable to satisfy the Key Performance Parameters and Key System Attributes.</p> <p><b>FY 2020 Plans:</b> Enterprise Aviation (EAVN): PM will field Release 1 to 2,000 new users in addition to the existing Aviation GCSS-Army users for recording off-platform tracked equipment repairs. Release 1 also delivers Master Data capabilities ACN platform. The PM will demonstrate that production/deployment design is stable, the design will meet stated and derived requirements based on acceptable performance in developmental test events, provide mature software capability consistent with the software development schedule, incur no significant production risks, and demonstrate interoperability and operational supportability. Release 1 will complete full deployment in early FY 2021. The PM will develop EAVN Release 2 primarily focusing on the disconnected Agile Deployed Operations (ADO) capability that Army Aviation requires. PM will finalize designs for product support elements and integrate them into a comprehensive product support package ready for production and deployment.</p> <p>BI/BW elements related to data visualization, reporting and data analytics will complete software development. PM will finalize designs for product support elements and integrate them into a comprehensive product support package ready for production and deployment in early FY 2021.</p> <p>Additional BI/BW capabilities associated with realizing further enhancements in business intelligence, common operating picture and data analytics across the Army logistics enterprise will begin software development to include system design and a series of design reviews prior to test article fabrication and/or software build or coding.</p> <p><b>FY 2021 Plans:</b> After FY 2020 contract award, in FY 2021 the program will continue design, development, and incremental testing for Enterprise Aviation software Release 2, which includes 1) required changes in the GCSS-Army baseline and the AESIP Enterprise Hub to accommodate the development and integration of the Enterprise Aviation solution; 2) continued development of the SAP Agile Deployed Operations (ADO) technical architecture solution into FY21, which will also serve as a required foundation for GCSS-Army disconnected ground capabilities; and 3) initiation of the development effort to re-platform the Aircraft Notebook (ACN) functionality into an integrated user edge device. Re-platforming will allow the Army to sunset the ACN legacy system and its standalone client server architecture.</p> <p>Implementation of GCSS-Army Wave 2 BI/BW reporting capabilities will provide enhancements to materiel and supply chain readiness with an additional capability to perform self-service analytics. The analyses will provide critical information to commanders' on weapons systems readiness enabling them to make quick decisions on the battlefield. BI/BW reporting will</p>			

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> EK2 / <i>GCSS-A Increment 2</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<p>provide visibility and associated costs of materials and equipment, at the tactical and national levels, for Supply, Maintenance, Property Book functions, helping to improve lifecycle management and auditability.</p> <p>As directed, following an FY 2020 gap analysis, APS development will include integration of worldwide APS business processes to include conduct of operational assessment of APS in order to operationalize logistics management of APS overseas to improve readiness posture.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> RDTE funding increased in FY 2021 to accommodate an approved new technical solution. The new technical solution involves leveraging the SAP deployed operations technical architecture, known as Agile Deployed Operations (ADO), and the re-platforming effort to integrate Aircraft Notebook functionality into GCSS Army. The revised technical approach involves increased development effort for FY 2021.</p>				
<p><b>Title:</b> Government System Test and Evaluation</p> <p><b>Description:</b> Government System Test and Evaluation</p> <p><b>FY 2020 Plans:</b> Independent Government Testing on EAVN Release 1.</p> <p><b>FY 2021 Plans:</b> FY 2021 funding will provide for government personnel to conduct continuous evaluation assessment of developmental testing.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Release 1 government testing will be completed in FY20. Release 2 government testing will commence in FY 2022.</p>		0.625	0.719	0.855
<p><b>Title:</b> FY 2020 SBIR/STTR Transfer</p> <p><b>Description:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 Plans:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Funding transferred in accordance with Title 15 USC ?638</p>		-	2.450	-
<b>Accomplishments/Planned Programs Subtotals</b>		50.160	53.967	65.233

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> EK2 / <i>GCSS-A Increment 2</i>

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

Line Item	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Cost To	
			Base	OCO	Total					Complete	Total Cost
• W11011: <i>GCSS-Army Increment 2</i>	6.841	6.841	0.794	-	0.794	9.946	-	-	-	0.000	24.422
• OMA - 423612000-OMA: <i>GCSS-Army Increment2</i>	4.357	-	16.791	-	16.791	20.146	-	-	-	0.000	41.294

**Remarks**

**D. Acquisition Strategy**

GCSS-Army Increment 2 continues the evolutionary acquisition strategy of Increment 1 and will define, develop, and deploy additional and enhanced capabilities to GCSS-Army based upon proven technology, time-phased requirements, projected threat assessments, and demonstrated manufacturing capabilities. The program office will award a base year contract with 3 option years in FY 2020, using a Department of Defense Enterprise Software Initiative (DoD ESI) contract, to design and develop the core architecture that will be used for disconnected ground and aviation operations. This same contract vehicle will also be used to build the edge software for disconnected supply, maintenance and accountability.

GCSS-Army will also leverage the partnership with the U.S. Army Communications-Electronics Command, and supplement the design and development team with architecture and engineering support from the existing support contract.

GCSS-Army Increment 2 is being implemented in three waves:

Wave 1 provides the Army Enterprise Aviation logistics capability. Government System Integrator is the Combat Capability Development Command (CCDC) Aviation and Missile Center, System Simulation and Software Integration (S3I) Directorate.. Department of Defense (DoD) Enterprise Software Initiative (ESI) blanket purchase agreement (BPA) contract will be awarded in 2020.

Wave 2 provides the enhanced BI/BW capability. Contract was awarded June 2019.

Wave 3 provides the APS capability. Contract award TBD.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army												Date: February 2020			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0303141A / Global Combat Support System				Project (Number/Name) EK2 / GCSS-A Increment 2							
Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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	Cost To Complete	Total Cost	Target Value of Contract
PMO Operations	Allot	PMO : Huntsville AL	1.860	-		-		-		-		-	0.000	1.860	-
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	-		2.450		-		-		-	0.000	2.450	-
<b>Subtotal</b>			1.860	-		2.450		-		-		-	0.000	4.310	N/A
Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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	Cost To Complete	Total Cost	Target Value of Contract
EAVN Blueprinting	RO	AMRDEC : Huntsville AL	89.282	1.533		-		-		-		-	0.000	90.815	90.815
EAVN System Design, Develop and Build	C/T&M	CCDC Aviation and Missile Cmd : Huntsville AL	-	34.139	May 2019	31.111	Oct 2019	30.634	Oct 2020	-		30.634	20.062	115.946	115.397
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	-	2.398		2.269		2.533		-		2.533	1.407	8.607	-
EAVN ADO Development	C/FFP	DOD ESI : Arlington VA	-	-		6.112		16.614		-		16.614	2.366	25.092	25.337
EAVN SME Services	C/T&M	DOD ESI : Richmond VA	-	-		1.555		1.667		-		1.667	1.701	4.923	5.168
EAVN SETA Supt	C/T&M	LMI : Arlington VA	-	5.963	Dec 2018	7.035	Dec 2019	7.197	Dec 2020	-		7.197	6.924	27.119	27.364
BI/BW Development	C/FFP	4M : Huntsville AL	-	2.140		0.918		2.403		-		2.403	4.971	10.432	10.677
BI/BW Program/SETA Support	C/T&M	LMI : Arlington VA	-	1.259		0.627		0.889		-		0.889	1.335	4.110	4.355
Program Support	TBD	Various : Various	-	0.748		0.486		1.219		-		1.219	1.335	3.788	4.033
EAVN Government Matrix Supt	RO	CCDC Aviation and Missile Cmd : Huntsville A	-	1.355		0.930		1.222		-		1.222	0.000	3.507	-
<b>Subtotal</b>			89.282	49.535		51.043		64.378		-		64.378	40.101	294.339	N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2021 Army</b>		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> EK2 / <i>GCSS-A Increment 2</i>

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
Full Deployment ATP																▲1												
Capability Support ATP																								▲2				
Rel 1 EAVN Blueprinting/ SW Development	■	■	■	■																								
Rel 1 Testing	■	■	■	■	■	■	■	■																				
Rel 1 Deployment																												
Release 2 EAVN Blueprinting/R2 SW Development	■	■	■	■	■	■	■	■	■	■	■	■																
Rel 2 Testing													■	■	■	■												
Rel 2 Deployment																	■	■	■	■	■	■	■	■				
Business Intelligence/Business Warehouse Blueprinting/Develop	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
APS Blueprinting/Development/Testing//Deployment													■	■	■	■	■	■	■	■								

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303141A / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> EK2 / <i>GCSS-A Increment 2</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MDA Meeting	2	2016	2	2016
Full Deployment ATP	4	2022	4	2022
Capability Support ATP	1	2024	1	2024
Rel 1 EAVN Blueprinting/ SW Development	1	2018	4	2019
Rel 1 Testing	1	2018	2	2020
Rel 1 Deployment	4	2019	3	2020
Release 2 EAVN Blueprinting/R2 SW Development	3	2018	3	2021
Rel 2 Testing	1	2022	4	2022
Rel 2 Deployment	1	2023	1	2024
Business Intelligence/Business Warehouse Blueprinting/Development	1	2019	4	2022
APS Blueprinting/Development/Testing//Deployment	1	2022	4	2023

**Note**

The schedule for GCSS-Army Increment 2 is based upon the Army Acquisition Executive (AAE) decision to utilize the Government System Integrator. Schedule reflects three releases for Enterprise Aviation (Wave 1), one release for Business Intelligence/Business Warehouse (Wave 2), and one release for Army Prepositioned Stock (Wave 3).