Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Army											**Date:** March 2019	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0303141A *I Global Combat Support System*						
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	-	45.372	53.855	68.976	-	68.976	67.974	16.083	0.000	0.000	0.000	252.260
083: *Global Combat Support Sys - Army*	-	0.557	1.297	6.109	-	6.109	28.945	1.141	0.000	0.000	0.000	38.049
EK2: *GCSS-A Increment 2*	-	44.815	52.558	62.867	-	62.867	39.029	10.001	0.000	0.000	0.000	209.270
EK3: *AESIP Increment 2**	-	0.000	0.000	0.000	-	0.000	0.000	4.941	0.000	0.000	0.000	4.941

*This project's R-2a exhibit has been suppressed due to funding not beginning until after FY 2020

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

The Global Combat Support System-Army (GCSS-Army) program has two components; a functional component titled GCSS-Army and a technology enabler component provided by the Army Enterprise Systems Integration Program (AESIP) Hub. The GCSS-Army program, coupled with AESIP, are information and communications technology investments that will provide key enabling support to the transformation of the Army into a network-centric, knowledge-based future force. The GCSS-Army approved Capability Development Document and Capability Production Document require an enterprise approach to replace current logistics and maintenance Standard Army Management Information Systems (STAMIS). GCSS-Army provides the Army's sustainment support for the soldier with a seamless flow of timely, accurate, accessible, and secure information management that gives combat forces a decisive edge. The AESIP program provides the system's enterprise hub services, centralized master data management and cross-functional business intelligence/analytics. 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 1 is now in the Capability Support phase, but requires continuous enhancements and will have a large increase in FY 2021 for particular enhancements for ground disconnected operations (wartime requirement) and enhanced audit initiatives..

Building on the foundation of the GCSS-Army Increment 1, Increment 2 will provide the Army Enterprise Aviation maintenance, enhanced Business Intelligence/Business Warehouse (BI/BW) and Army Pre-Positioned Stock (APS) functional capabilities to deliver greater efficiencies and to improve information flow and accuracy in real time to decision makers. Upon the completion of Increment 2, the Unit Level Logistics System-Aviation (Enhanced) (ULLS-A(E)), Unmanned Aircraft System-Initiative (UAS-I), and Army War Reserve Deployment System (AWRDS) will be eligible for retirement since the necessary functionality will have been replaced by capabilties implemented in GCSS-ARMY, AESIP, and the Logistics Modernization Program.

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303141A *I Global Combat Support System*	

The FY 2020 funding provides for the blueprinting, design, engineering, integration, and testing of the GCSS-Army Enterprise Aviation software enhancement Release 2. It continues work on the change requests for the baseline system, build out the BI/BW capability, enhance Army logistics common operating picture capability, and continue development of the APS capability in both GCSS-Army and the Logistics Modernization Program (LMP).

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	64.370	68.619	33.630	-	33.630
Current President's Budget	45.372	53.855	68.976	-	68.976
Total Adjustments	-18.998	-14.764	35.346	-	35.346
• Congressional General Reductions	-0.038	-0.067			
• Congressional Directed Reductions	-17.383	-14.697			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.262	-			
• SBIR/STTR Transfer	-1.839	-			
• Adjustments to Budget Years	-	-	35.346	-	35.346

Change Summary Explanation

FY 2020 -+$35.346 million adjustment to 0303141: $30.561 million increase to Project EK2 (GCSS-A Increment 2) for acceleration of program; $4.785 increase to Project 083 to support system change request enhancements.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army											Date: March 2019	
Appropriation/Budget Activity 2040 I 7				R-1 Program Element (Number/Name) PE 0303141A I Global Combat Support System						Project (Number/Name) 083 I Global Combat Support Sys - Army		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
083: *Global Combat Support Sys - Army*	-	0.557	1.297	6.109	-	6.109	28.945	1.141	0.000	0.000	0.000	38.049
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

GCSS-Army is the tactical unit/installation logistics system for the US Army and is essential for combat readiness. GCSS-Army modernizes automated logistics by implementing best business practices to streamline supply operations, maintenance operations, property accountability, tactical logistics and financial management and integration procedures in support of the Future Force transition path of the Army Campaign Plan. GCSS-Army is an Enterprise Resource Planning (ERP) system that tracks unit supplies, spare parts, organizational equipment, maintenance, total cost of ownership, and other financial transactions related to logistics for all Army units. This modernized application subsumes the outdated STAMIS that is not financially compliant and will integrate numerous local supply and logistics databases into a single, enterprise-wide authoritative system. GCSS-Army is financially compliant and is a key component for the Army Enterprise Strategy to be financially auditable. GCSS-Army affects every supply room, motor pool, direct support repair shop, warehouse, Logistics Readiness Center, and property book office in the Army. GCSS-Army is a key component of an ERP integrated solution that optimizes tactical logistics and finance domain business processes into a single approach. Delivering GCSS-Army eliminates the need for extensive maintenance and modification of aging, diverse software systems that are not cyber compliant, resulting in improved and efficient change control and configuration management through implementation of an enterprise system.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Government System Test and Evaluation	0.557	-	-
Description: Plans, conducts, and reports on developmental tests and assists in the planning, conducting, and reporting of operational and interoperability tests, assessments, and experiments in order to provide essential information for the acquisition and fielding of warfighting systems.			
Title: Product Development	-	1.255	6.109
Description: The funds in the GCSS-Army Increment 1 RDT&E line are for continuous enhancements. After transition to capability support phase, the RDT&E funding will be used to execute system change requests to enhance sustainment activities, accountability, auditability, and calculations of total cost of ownership. *FY 2019 Plans:* After transition to capability support phase, RDT&E funding will be used to execute System Change Requests (SCRs) to enhance current capabilities, accountability, auditability, and calculations of total cost of ownership. Implementation of SCRs to improve			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0303141A I *Global Combat Support System*	Project (Number/Name) 083 I *Global Combat Support Sys - Army*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
readiness enhances sustainment and effectiveness by synchronizing system data and utilizing enterprise interface tools to eliminate input errors. *FY 2020 Plans:* After transition to capability support, RDT&E funding will be used to execute System Change Requests (SCRs) to enhance capability support activities, improve readiness, system usability, automated accountability, auditability, and calculations of total cost of ownership. Implementation of SCRs enhance functional capabilities and improve system effectiveness by synchronizing system data and utilizing enterprise interface tools to eliminate input errors. *FY 2019 to FY 2020 Increase/Decrease Statement:* FY 2020 funding was increased above FY 2019 level to fund system change request enhancements. RDTE funds are needed for system integration and test activities, enhancement of current business process activities, accountability, auditability, and calculations of total cost of ownership.			
Title: FY 2019 SBIR / STTR Transfer *Description:* FY 2019 SBIR / STTR Transfer *FY 2019 Plans:* FY 2019 SBIR / STTR Transfer *FY 2019 to FY 2020 Increase/Decrease Statement:* FY 2019 SBIR / STTR Transfer	-	0.042	-
Accomplishments/Planned Programs Subtotals	0.557	1.297	6.109

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• W00800: *GCSS-A Increment 1*	30.637	7.085	0.000	-	0.000	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Effective February 2, 2017, the 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."

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Army		**Date:** March 2019
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0303141A *I Global Combat Support System*	**Project (Number/Name)** 083 *I Global Combat Support Sys - Army*

GCSS-Army has an evolutionary acquisition strategy, that defined, developed, and deployed an initial operational capability based upon proven technology, time-phased requirements, projected threat assessments, and demonstrated manufacturing capabilities. Increment 1 is a viable stand alone capability. GCSS-Army Increment I was implemented in two waves:

Wave 1 contains the retail supply and associated financial functions and completed fielding in November 2015.

Wave 2 contains the property book and maintenance and associated financial functions. Fielding was completed in December 2017.

The GCSS-Army Increment I entered the Capability Support phase during FY 2018, and will enhance baseline capabilities using a continuous improvement approach.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army														**Date:** March 2019	

Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0303141A *I* *Global Combat Support System*	**Project (Number/Name)** 083 *I* *Global Combat Support Sys - Army*

Management Services ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 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**
1 . PM GCSS-Army- PMO Operations	Various	PM GCSS-Army : Fort Lee, VA 23805	103.931	-		-		-		-		-	0.000	103.931	62.385
Subtotal			103.931	-		-		-		-		-	0.000	103.931	N/A

Product Development ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 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**
1. Enterprise Resource Planning (ERP) design and development	C/FPAF	Northrop Grumman Information Systems : Chester, VA 23836	465.845	-		1.255		6.109	Oct 2019	-		6.109	0.000	473.209	453.329
Government Developer Subject Matter Experts	IA	ASA (FM&C), CASCOM and GFEBS : Various Locations	22.315	-		-		-		-		-	Continuing	Continuing	19.730
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	-	-		0.042		-		-		-	0.000	0.042	-
Subtotal			488.160	-		1.297		6.109		-		6.109	Continuing	Continuing	N/A

Remarks

 FY19 $1.299 Million RDTE will be used for continuing baseline modernization.
 FY18 $295K originally intended for Test and Development was actually executed for Product Development.

Support ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 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**
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

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Army | **Date:** March 2019

Appropriation/Budget Activity 2040 *I* 7	R-1 Program Element (Number/Name) PE 0303141A *I* *Global Combat Support System*	Project (Number/Name) 083 *I* *Global Combat Support Sys - Army*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
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	25.580
3. PM Support - Program Management Support Services B	C/T&M	Logistics Management Institue : Colonial Heights, VA 23834	42.101	-		-		-		-		-	0.000	42.101	34.531
		Subtotal	44.518	-		-		-		-		-	0.000	44.518	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				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	39.393	0.557	Mar 2018	-		-		-		-	Continuing	Continuing	-
		Subtotal	39.393	0.557		-		-		-		-	Continuing	Continuing	N/A

Remarks

 FY18 $295K originally intended for Test and Development was actually executed for Product Development.

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	676.002	0.557	1.297	6.109	-	6.109	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Army | **Date:** March 2019
| |

Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0303141A I *Global Combat Support System*	Project (Number/Name) 083 I *Global Combat Support Sys - Army*

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Field Release 1.2 (Wave 2)																												
Continuous Enhancements (Design and Development)																												
Disconnected Operations																												

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army		Date: March 2019	
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0303141A / Global Combat Support System	**Project (Number/Name)** 083 / Global Combat Support Sys - Army	

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/Release 1.1 DTOE	3	2010	4	2010
GCSS-Army Release 1.1 Design, Build, Test & Stabilize	1	2011	3	2011
Release 1.1 Intial Operational Test and Evaluation (IOT&E)	1	2012	1	2012
Release 1.1 Stabilization	2	2011	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
Field Release 1.2 (Wave 2)	1	2015	1	2018
Continuous Enhancements (Design and Development)	1	2018	4	2022
Disconnected Operations	1	2021	2	2022

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019	

Appropriation/Budget Activity 2040 *I* 7				R-1 Program Element (Number/Name) PE 0303141A *I Global Combat Support System*					Project (Number/Name) EK2 *I GCSS-A Increment 2*		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
EK2: *GCSS-A Increment 2*	-	44.815	52.558	62.867	-	62.867	39.029	10.001	0.000	0.000	0.000	209.270
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The GCSS-Army program has two components: a functional component titled GCSS-Army and a technology enabler component provided by the AESIP Hub. GCSS-Army, coupled with AESIP, are information and communications technology investments that currently provide key enabling support to the transformation of the Army into a network-centric, knowledge-based future force.

Building on the foundation of GCSS-Army Increment 1, Increment 2 will provide the Army Enterprise Aviation maintenance, enhanced BI/BW and APS functional capabilities to deliver greater efficiencies and to improve information flow and accuracy in real time to decision makers. Upon the completion of Increment 2, the ULLS-A(E), UAS-I, and AWRDS will be retired since the necessary functionality will have been replaced by capabilities implemented in GCSS-ARMY, AESIP Hub, and the Logistics Modernization Program.
Enterprise Aviation capabilities extends timely and accurate visibility and accountability of materiel across the Army Logistics enterprise to Aviation Logistics, will provide capability support to Army aviation airworthiness, and allow auditability of transactions to unit level. 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 and helping the Army achieve auditability. 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 in the LMP. Increment 2 will have Research, Development, Test, and Evaluation (RDT&E) requirements until FY 2022.

The FY 2020 funding for GCSS-Army Increment 2 provides RDT&E efforts for Enterprise Aviation Release 2 to complete software development, Limited User Testing, Developmental Test and Evaluation, and begin Operational Test and Evaluation in FY 2020. Release 3 will begin software development to include system design effort, design reviews and provide Development Test and Evaluation. The BI/BW will be funded for incremental development to enhance AESIP Hub data foundation, enhance the Army Readiness Common Operating Picture and perform predictive analytics.
The FY 2020 funding will also provide funds to continue Wave 3 APS design and development in GCSS-Army, AESIP and LMP, and to expand the streamlined LMP business processes associated with the planning and management of war reserve stock and integrate those processes across the ERPs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Blueprint and Design	43.875	-	-
Description: During this phase, the program develops and demonstrates prototype designs to reduce technical risk, validate design approaches, validate cost estimates, and refine requirements. This phase is an iterative process of maturing technologies and refining user performance parameters to ensure an affordable and executable production program.			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army			Date: March 2019	
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*	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: System Design, Develop and Build	-	45.670	56.397

Description: 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.

FY 2019 Plans:
Engineering and Manufacturing Development of Increment 2, to include design, development, and build. Complete all needed hardware and software detailed design; retire any open risks; build and test prototypes or first articles to verify compliance with capability requirements; and establish initial product baseline for all configuration items. Perform design reviews prior to test article fabrication and/or software build or increment coding. Develop and test Release 1.

FY 2020 Plans:
Enterprise Aviation: PM will field Release 1 to 51,000 users. PM will demonstrate that production/deployment design is stable and will meet stated and derived requirements based on acceptable performance in developmental test events; an operational assessment; mature software capability consistent with the software development schedule; no significant production risks, demonstrated interoperability and demonstrated operational supportability. Release 1 will complete full deployment in FY 2020. Enterprise Aviation Release 2 will be in software development and begin Limited User Testing, Developmental Test and Evaluation (DT&E), and Operational Test and Evaluation (OT&E) in FY 2020. PM will finalize designs for product support elements and integrate them into a comprehensive product support package ready for production and deployment to commence in early FY 2021.
EAVN Release 3 will begin software development of Release 3 to include system design effort and a series of design reviews prior to test article fabrication and/or software build or coding. Development Test and Evaluation activities including evaluation of the system for meeting capability requirements, verification of the ability to achieve KPPs and KSAs, and that the system production and deployment and OT&E can be supported.
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.
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.
Army Prepositioned Stock (APS) will continue the ERP Design and Development phase in FY20. Development will include integration of worldwide APS business processes. The design will also address key Army Materiel Command (AMC) planning requirements and the time critical support for more rapid deployment of Army combat forces already included in GCSS-Army. The APS capability requires development in the tactical logistics ERP, GCSS-Army, and the national logistics ERP, the Logistics Modernization Program (LMP).

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		**Date:** March 2019
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*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Army Prepositioned Stock (APS) will continue Design and Development in FY20. Development will include integration of worldwide APS business processes across CONUS and OCONUS APS locations. The design will address critical support for delivery to Army combat forces, capability support, and accountability of APS stock. The LMP in conjunction with GCSS-Army will develop and test APS prototypes to verify compliance with capability requirements for all approved requirements. Design reviews will be conducted prior to testing of any solution. Since the submission of the original schedule and spend plan, the functional sponsor has revised the operational implementation of the Wave 3 APS capability, resulting in a shift of efforts of the development from GCSS-Army to LMP. APS design and development will proceed as a single release with the remaining project milestones and Acquisition reviews planned independently of the other GCSS-Army Increment 2 Waves. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** Increase due to Army Prepositioned Stock efforts shifting from FY 2019 into FY 2020.			
Title: Program Management Office (PMO) Operations	0.940	-	-
Description: PMO operations are to support engineering and manufacturing development.			
Title: Government System Test and Evaluation *Description:* Government System Test and Evaluation ***FY 2019 Plans:*** FY 2019 Plans: Begin test and evaluation of Increment 2. Build and test prototypes or first articles to verify compliance with capability requirements; and establish initial product baseline for all configuration items. Perform design reviews prior to test article fabrication and/or software build or increment coding. Preparations for Developmental Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E). ***FY 2020 Plans:*** Wave 1 Enterprise Aviation Release 2 will be in software development and begin LUT, DT&E, and OT&E in FY 2020. The PMO will finalize designs for product support elements and integrate them into a comprehensive product support package ready for production and deployment to commence in early FY 2021. Enterprise Aviation Release 3 will begin software development of Release 3 to include system design effort and a series of design reviews prior to test article fabrication and/or software build or coding. The program will also perform DT&E activities. Wave 2 BI/BW is scheduled to complete development and testing of reporting capabilities in support of Enterprise Aviation Release 1 in FY 2019 provided the Presidents Budget FY 2019 is sustained at the requested level. These Wave 2 BI/BW capabilities will be enabled in FY 2020 to provide leaders at all echelons with the ability to visualize, query, and report on equipment readiness to enable decision-making, and are integral to the Enterprise Aviation accelerated requirement, and critical to building a more lethal force.	-	4.490	6.470

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Wave 2 BI/BW elements related to data visualization, and reporting and data analytics will perform LUT, DT&E, and OT&E in FY 2020. The PMO 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. 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 effort and a series of design reviews prior to test article fabrication and/ or software build or increment coding. The DT&E activities including evaluation of the system for capability requirements, and verification of the ability to achieve KPPs and KSAs, and that the system production and deployment and OT&E can be supported. **FY 2019 to FY 2020 Increase/Decrease Statement:** Increase to testing as program proceeds through the development phase and increases emphasis on testing in FY 2020.			
Title: FY 2019 SBIR / STTR Transfer **Description:** FY 2019 SBIR / STTR Transfer **FY 2019 Plans:** FY 2019 SBIR / STTR Transfer **FY 2019 to FY 2020 Increase/Decrease Statement:** FY 2019 SBIR / STTR Transfer	-	2.398	-
Accomplishments/Planned Programs Subtotals	44.815	52.558	62.867

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• W11011: *GCSS-Army Increment 2*	3.867	6.841	15.988	-	15.988	21.163	17.110	-	-	0.000	64.969

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.

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

Wave 1 provides the Army Enterprise Aviation logistics capability.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Army		**Date:** March 2019
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0303141A *I Global Combat Support System*	**Project (Number/Name)** EK2 *I GCSS-A Increment 2*

Wave 2 provides the enhanced BI/BW capability.

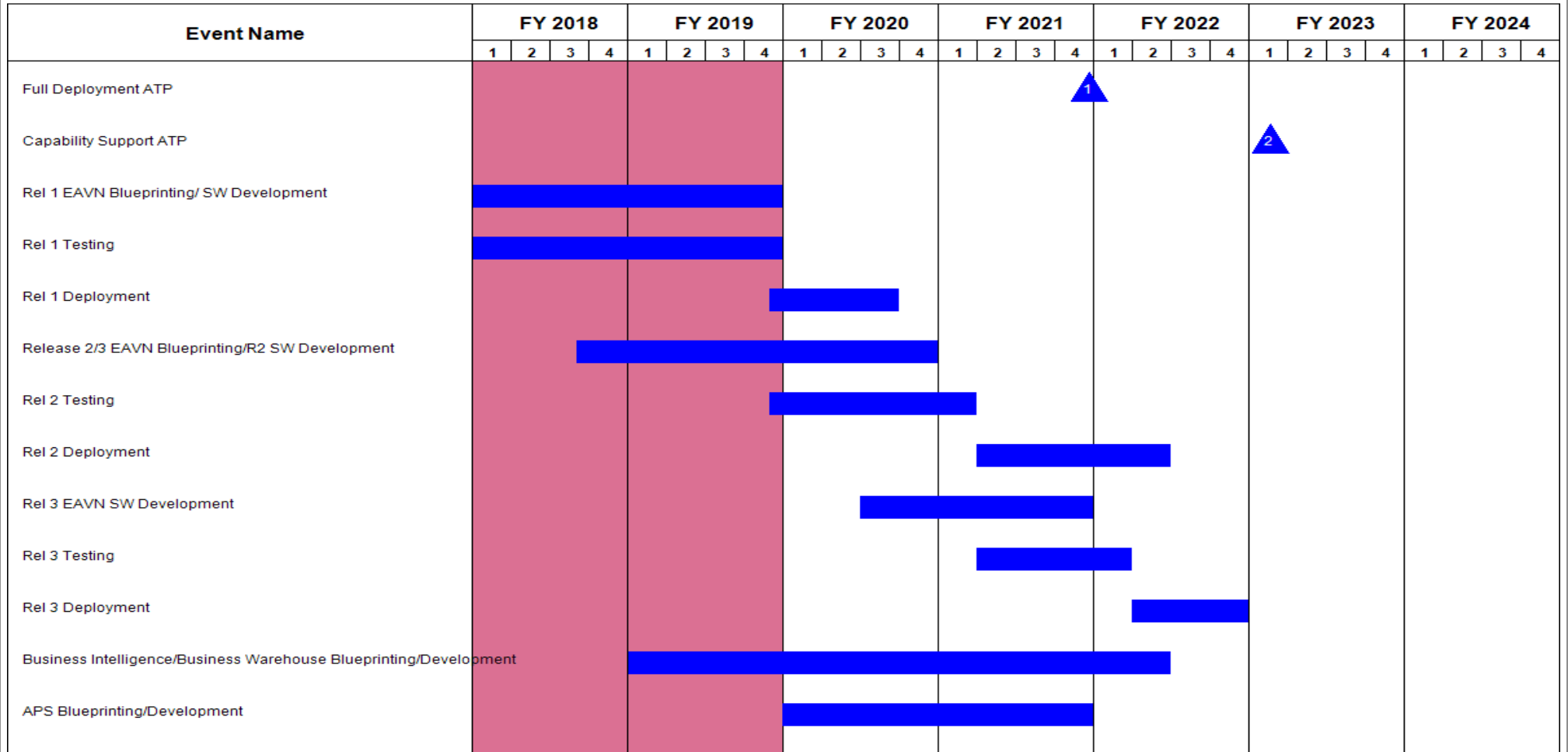Wave 3 provides the APS capability.

E. Performance Metrics

 N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army		Date: March 2019
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PMO Operations	Allot	PMO : Huntsville AL	0.920	0.940	Oct 2017	-		-		-		-	2.920	4.780	-
Subtotal			0.920	0.940		-		-		-		-	2.920	4.780	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Blueprint and Design	RO	AMRDEC : Huntsville AL	45.407	43.875	Oct 2017	-		-		-		-	0.000	89.282	-
System Design, Develop and Build	C/CPFF	TBD : TBD	-	-		45.670	May 2019	56.397	Oct 2019	-		56.397	72.847	174.914	115.397
FY 2019 SBIR / STTR Transfer	TBD	TBD : TBD	-	-		2.398		-		-		-	0.000	2.398	-
Subtotal			45.407	43.875		48.068		56.397		-		56.397	72.847	266.594	N/A

Remarks

Finish Design/ blueprinting and begin development (FY 2019) and build of Increment 2. Verify achievement of critical technical performance parameters and the ability to achieve key operational performance parameters, and assess progress toward achievement of critical operational issues. Validate system functionality, identify system capabilities, limitations, and deficiencies and assess system specification compliance, system safety, and compatibility.Enterprise Aviation. Following development and testing of Release 1 in FY 2019, PM will field Release 1 to 51,000 users. PM will demonstrate that production/deployment, design is stable and will meet stated and derived requirements based on acceptable performance in developmental test events; an operational assessment; mature software capability consistent with the software development schedule; no significant manufacturing risks, demonstrated interoperability and demonstrated operational supportability. Release 1 will complete full deployment in FY 2020.
Enterprise Aviation Release 2 will be in software development, and begin Limited User Testing, Developmental Test and evaluation, and Operational Test and Evaluation in FY 2020. Release 2 enters production and deployment in early FY 2021.
EAVN Release 3 will continue SW development to include system design effort and a series of design reviews prior to test article fabrication and/or software build or coding. Development Test and Evaluation activities including evaluation of the system for capability requirements, and verification of the ability to achieve KPPs and KSAs, and that the system production and deployment and OT&E can be supported.
Wave 2 BI/BW is scheduled to complete development and testing of reporting capabilities in support of Enterprise Aviation Release 1 in FY20. These wave 2 BI/BW capabilities will be enabled in FY20 to provide leaders at all echelons with the ability to visualize, query, and report on equipment readiness to enable decision-making, are integral to the EAVN accelerated requirement, and critical to building a more lethal force.
BI/BW elements related to data visualization, and reporting and data analytics will complete software development and Limited User Testing in FY 2020. 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.
Development of additional BI/BW capabilities associated with realizing further enhancements in business intelligence and common operating picture across the Army logistics enterprise begins, which includes system design and a series of design reviews prior to test article fabrication and/or software build or coding. Development Test and

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												**Date:** March 2019		
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		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Evaluation activities including evaluation of the system for capability requirements, and verification of the ability to achieve KPPs and KSAs, and that the system production and deployment and OT&E can be supported.

Wave 3 APS: The LMP and GCSS-Army PMO will commence requirements design including Rapid Design Workshops and will award a contract to augment the PMO to support design, development, and delivery of the Wave 3 APS capability. APS design and development will proceed as a single release with the remaining project milestones and Acquisition reviews planned independently of the other GCSS-Army Increment 2 Waves. The PMO will develop and test APS prototypes to verify compliance with capability requirements for all approved requirements. Design reviews will be conducted prior to testing of any solution.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/Various	TBD : TBD	-	-		4.490	Nov 2018	6.470	Oct 2019	-		6.470	39.916	50.876	39.916
Subtotal			-	-		4.490		6.470		-		6.470	39.916	50.876	N/A

Remarks

Test and evaluation efforts anticipated to begin FY 2019. Includes Developmental Testing, Operational Testing, ATEC and JTIC tests, and various other tests as required by regulation. Enterprise Aviation Release 2 will perform Limited User Testing, Developmental Test and evaluation, and Operational Test and Evaluation in FY 2020. EAVN Release 3 will test article fabrication and/or software build or increment coding. Program will perform Development Test and Evaluation activities including evaluation of the system for capability requirements, and verification of the ability to achieve KPPs and KSAs, and that the system production and deployment and OT&E can be supported.

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.327	44.815	52.558	62.867	-	62.867	115.683	322.250	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Army		**Date:** March 2019
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

Event Name	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024

Full Deployment ATP
Capability Support ATP
Rel 1 EAVN Blueprinting/ SW Development
Rel 1 Testing
Rel 1 Deployment
Release 2/3 EAVN Blueprinting/R2 SW Development
Rel 2 Testing
Rel 2 Deployment
Rel 3 EAVN SW Development
Rel 3 Testing
Rel 3 Deployment
Business Intelligence/Business Warehouse Blueprinting/Development
APS Blueprinting/Development

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Army | **Date:** March 2019

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

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
APS Testing																												
APS Deployment																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Army		**Date:** March 2019	
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0303141A *I Global Combat Support System*	**Project (Number/Name)** EK2 *I GCSS-A Increment 2*	

Schedule Details

Events	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Full Deployment ATP	4	2021	4	2021
Capability Support ATP	1	2023	1	2023
Rel 1 EAVN Blueprinting/ SW Development	1	2018	4	2019
Rel 1 Testing	1	2018	4	2019
Rel 1 Deployment	4	2019	3	2020
Release 2/3 EAVN Blueprinting/R2 SW Development	3	2018	4	2020
Rel 2 Testing	4	2019	1	2021
Rel 2 Deployment	2	2021	2	2022
Rel 3 EAVN SW Development	3	2020	4	2021
Rel 3 Testing	2	2021	1	2022
Rel 3 Deployment	2	2022	4	2022
Business Intelligence/Business Warehouse Blueprinting/Development	1	2019	2	2022
APS Blueprinting/Development	1	2020	4	2021
APS Testing	1	2022	2	2022
APS Deployment	2	2022	1	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). Final blueprinting/development for Wave 3 is anticipated to begin in FY20. Product Manager LMP, in conjunction with GCSS-Army, will plan and lead project milestones and Acquisition reviews independently of the other GCSS-Army Increment 2 Waves.