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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2021 United States Special Operations Command **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</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	48.714	6.286	6.359	6.066	-	6.066	6.179	6.290	6.412	6.047	Continuing	Continuing
S400A: <i>Distributed Common Ground/Surface Systems</i>	48.714	6.286	6.359	6.066	-	6.066	6.179	6.290	6.412	6.047	Continuing	Continuing

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

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix High Value Targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, other national intelligence agencies, combatant commands and multi-national partners. It connects the SOF warfighters and support analysts with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The three components of DCGS-SOF include the following: Enterprise/All Source Information Fusion (ENT/ASIF) provides infrastructure, processing, and intelligence analytical tools to allow for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP) provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. SOF Signals Intelligence (SIGINT) Processing, Exploitation, Dissemination (PED) provides SIGINT exploitation capability in both garrison and deployed environments. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>
Previous President's Budget	6.286	6.359	6.487	-	6.487
Current President's Budget	6.286	6.359	6.066	-	6.066
Total Adjustments	0.000	0.000	-0.421	-	-0.421
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.421	-	-0.421

**Change Summary Explanation**

Funding:  
FY 2019: None.

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FY 2020: None.

FY 2021: Net decrease of \$0.421 million is due to rebaseline of funding to continue rapid integration and user testing of emerging standards and technology in the Integrated Survey Program (ISP) (-\$0.380 million).

For the Defense Wide Review (DWR), USSOCOM performed a comprehensive analysis of future capabilities and is streamlining contract support costs as a result of better buying power initiatives which aligns with the Department's priorities as outlined in the National Defense Strategy (-\$0.041 million).

Schedule: Market research results and the pivot to the National Reconnaissance Office (NRO) Fusion Analysis and Development Effort (FADE) platform modifies technology development objectives and timelines. Modernization efforts with SGIP and SOF SIGINT PED modify technology development objectives and timelines.

Technical: Usability testing and requirements refinement led to market research and technology shifts across DCGS-SOF.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 United States Special Operations Command										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>				<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</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>
S400A: <i>Distributed Common Ground/Surface Systems</i>	48.714	6.286	6.359	6.066	-	6.066	6.179	6.290	6.412	6.047	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing Intelligence, Surveillance and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix High Value Targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, other national intelligence agencies, combatant commands and multi-national partners. It connects the SOF warfighters and support analysts with essential intelligence information and provides situation awareness information to SOF leadership at all echelons. The three components of DCGS-SOF include the following: Enterprise All Source Information Fusion (ENT/ASIF) provides infrastructure, processing, and intelligence analytical tools to allow for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP) provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. SOF Signals Intelligence (SIGINT) Processing, Exploitation, Dissemination (PED) provides SIGINT exploitation capability in both garrison and deployed environments.

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

	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> DCGS	6.286	6.359	6.066
<b>Description:</b> DCGS-SOF is composed of three major components: Enterprise/ASIF, SGIP and SOF SIGINT PED. DCGS-SOF develops and integrates SOF networks providing USSOCOM with unique decision capabilities to include: measurement and signature data, sensor exploitation, data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network to those who will interpret the data for rapid transmission to collaborative partners via the SOF Information Environment (SIE).			
<b>FY 2020 Plans:</b> Continue tech development, integration of emerging technologies and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics, User Interfaces (UI), cloud computing, machine learning, disconnected operations capability and completion of current Natural Language Processing (NLP) efforts. Continue tech development and integration of emerging technologies for SGIP. Enhances SGIP capabilities including but not limited to next generation analytics processing, and finishes speech to text analyst tool upgrades. Continue SOF SIGINT PED language enhancements. Continue DCGS-SOF Limited Objective Events and exercise participation to test emerging tech integration			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 United States Special Operations Command		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
efforts. Continue interoperability improvements with Coalition partners and Joint Information Environment and begin compatibility development for the next generation Defense Intelligence Information Enterprise (DI2E) framework.			
<b><i>FY 2021 Plans:</i></b> Continues tech development, integration of emerging technologies and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics, User Interfaces (UI), cloud computing, machine learning, and disconnected operations capability. Continues tech development and integration of emerging technologies for SGIP and begins these same efforts for SOF SIGINT PED. Continues DCGS-SOF Limited Objective Events and exercise participation to test emerging tech integration efforts. Continues interoperability improvements with Coalition partners, DI2E framework and Joint Information Environment.			
<b><i>FY 2020 to FY 2021 Increase/Decrease Statement:</i></b> Decrease of \$0.293 million is due to better buying power initiatives as a result of commonality of integrating emerging technologies and software enhancements within Fusion Analysis and Development Effort (FADE) Department of Defense (DoD)/ Intelligence Community (IC) partners.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.286	6.359	6.066

<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>
• PROC/020401INTL: <i>Distributed Common Ground/Surface System</i>	18.597	12.522	11.645	-	11.645	13.316	13.591	14.009	14.222	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

DCGS-SOF leverages SOF programs, DoD and Intelligence Community partners, National labs, and other Government Agencies to integrate Commercial Off The Shelf/ Government Off The Shelf (COTS/GOTS), and other mature technologies into the Program of Record which will reside partially within the SOF Information Enterprise combined with Web-Client tools in a global cloud. These alliances enable more agile access to (searchable, discoverable) and sharing of larger data domains and services to meet SOF-peculiar documented requirements. The technology allows for seamless integration and federation with DoD, Interagency, and Coalition tactical Intelligence, Surveillance and Reconnaissance (ISR) PED systems. The DCGS-SOF program office employs an agile development process with capability insertions into the development baseline for assessment and future deployment into the operational baseline. All development requirements are prioritized through the DCGS Requirements Working Group (DRWG) chaired by J2. Once approved, the requirements are evaluated and scheduled by engineering development teams. Using this methodology allows capabilities to be inserted in a fast and agile manner based on user requirements and priorities. All Evolutionary Technology Insertions (ETIs) in the R-4 schedule are based on current program office projections. If requirements change based on the DRWG, the ETI and version capabilities identified may change.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 United States Special Operations Command** **Date:** February 2020

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<b>Product Development (\$ 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>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Development and Integration - Enterprise / All Source Information Fusion (ENT/ASIF)	Various	Various : Various	10.648	2.347	Jan 2019	1.459	Jan 2020	2.957	Jan 2021	-		2.957	Continuing	Continuing	-
Capabilities Modernization - SOF Geospatial Intelligence Processing Exploitation, and Dissemination (SGIP)	Various	Various : Various	16.581	0.749	Jan 2019	2.500	Jan 2020	0.730	Jan 2021	-		0.730	Continuing	Continuing	-
Independent Verification and Validation - SOF Signals Intelligence Processing Exploitation, and Dissemination (SOF SIGINT PED)	MIPR	Various : Various	2.020	0.301	Mar 2019	0.615	Mar 2020	0.829	Mar 2021	-		0.829	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	0.000	1.788	-
<b>Subtotal</b>			31.037	3.397		4.574		4.516		-		4.516	Continuing	Continuing	N/A

<b>Support (\$ 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>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Support (ENT/ASIF)	C/FFP	SITEC : Various	5.077	1.646	Mar 2019	0.259	Mar 2020	1.100	Mar 2021	-		1.100	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	0.000	0.576	-
<b>Subtotal</b>			5.653	1.646		0.259		1.100		-		1.100	Continuing	Continuing	N/A

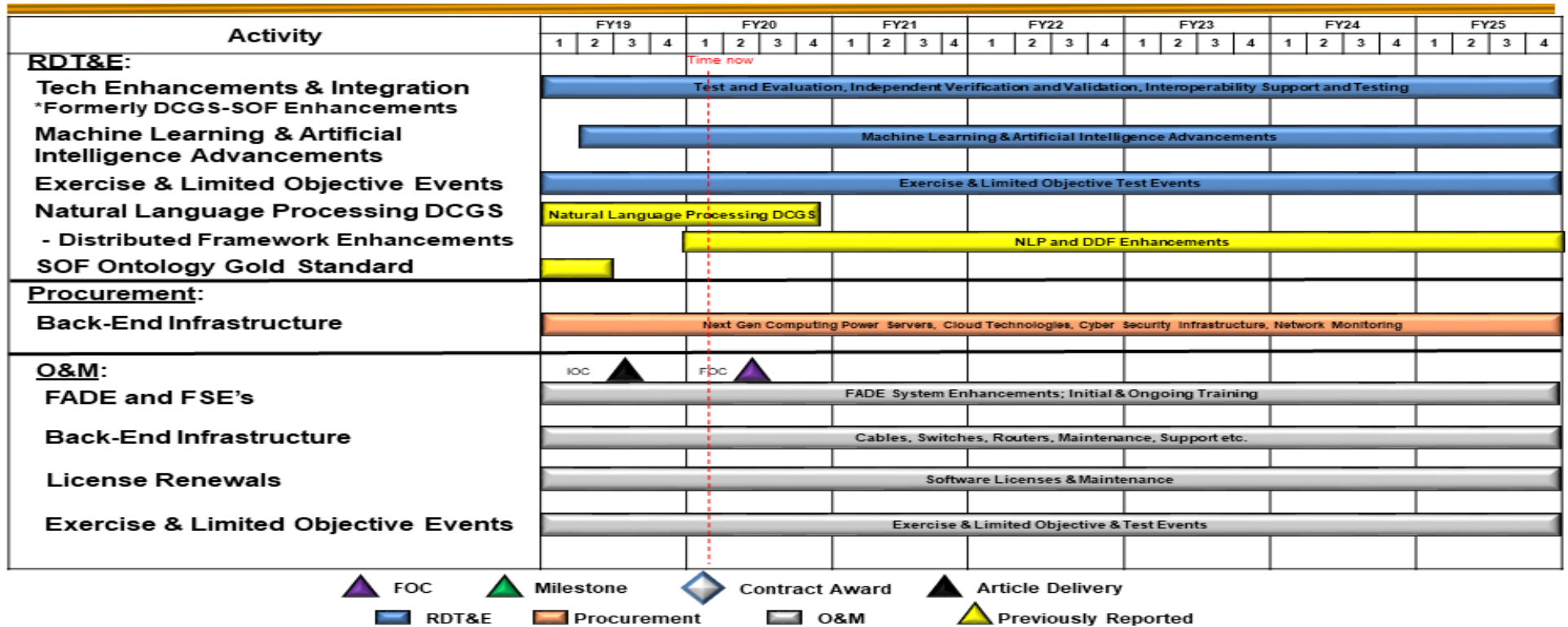


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 0305208BB / Distributed Common  
Ground/Surface Systems

Project (Number/Name)  
S400A / Distributed Common Ground/  
Surface Systems

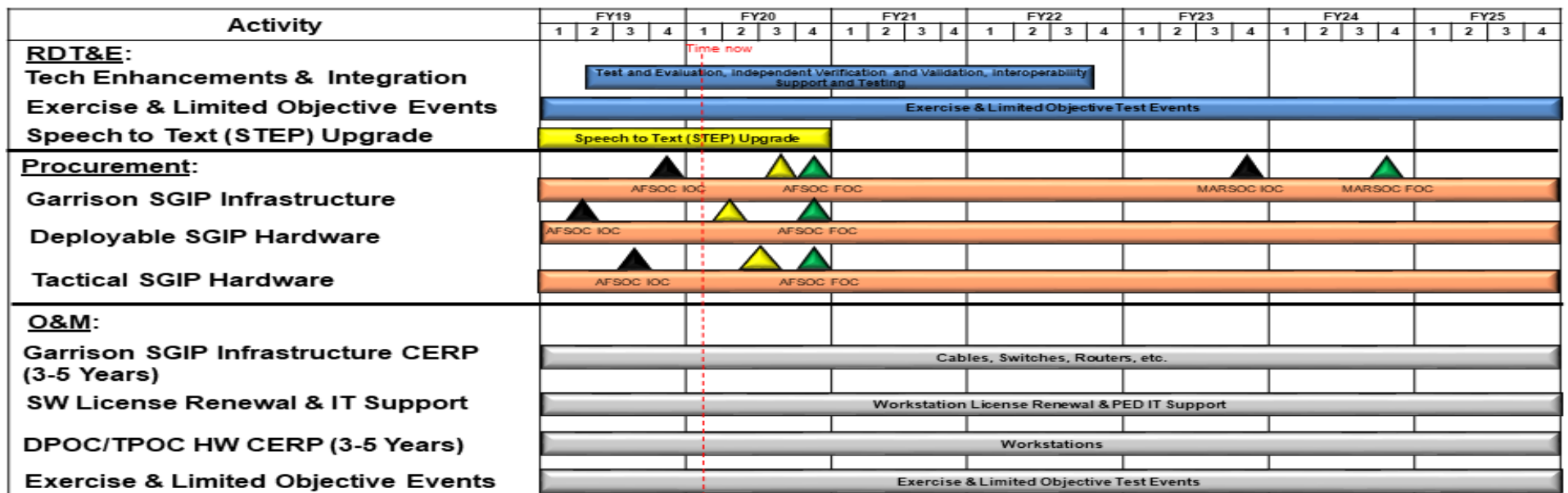
# DCGS-SOF PEO-Managed Enterprise / ASIF Schedule



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2021 United States Special Operations Command		<b>Date:</b> February 2020
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## DCGS-SOF PEO-Managed SGIP Schedule



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2021 United States Special Operations Command		<b>Date:</b> February 2020
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## DCGS-SOF PEO-Managed SOF SIGINT PED Schedule

Activity	FY19				FY20				FY21				FY22				FY23				FY24				FY25			
	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
<b><u>RDT&amp;E:</u></b>																												
<b>Tech Enhancements &amp; Integration</b>					Time now								Test and Evaluation, Independent Verification and Validation, Interoperability Support and Testing															
<b>Exercise &amp; Limited Objective Events</b>	Exercise & Limited Objective Test Events																											
<b>Language Enhancements</b>					Language Enhancements																							
<b><u>Procurement:</u></b>																												
<b>Communication SDNs</b>																												
<b>CERP (3 Years)</b>	CERP (3 Years)																											
<b><u>O&amp;M:</u></b>																												
<b>Network Support Service</b>	24/7 Support Services																											
<b>End User Support Service</b>																												
<b>Global Network Control Center</b>																												
<b>Garrison Partial CERP (3 Years)</b>																												

▲ FOC    ▲ Milestone    ◆ Contract Award    ▲ Article Delivery  
■ RDT&E    ■ Procurement    ■ O&M    ▲ Previously Reported

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 United States Special Operations Command		<b>Date:</b> February 2020
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Distributed Common Ground/Surface Systems - Enterprise/ASIF</i></b>				
Tech Enhancements & Integration	1	2019	4	2025
Machine Learning and Artificial Intelligence Advancements	2	2019	4	2025
Exercise & Limited Objective Events	1	2019	4	2025
<b><i>Distributed Common Ground/Surface Systems - SGIP</i></b>				
Tech Enhancements & Integration	2	2019	4	2022
Exercise & Limited Objective Events	1	2019	4	2025
<b><i>Distributed Common Ground/Surface Systems - SOF SIGINT PED</i></b>				
Tech Enhancements & Integration	1	2021	4	2023
Exercise & Limited Objective Events	1	2019	4	2025