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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>					PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	Continuing	Continuing
S400A: <i>Distributed Common Ground/Surface Systems</i>	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	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 Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Joint Task Force level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighter 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 warfighter with the essential intelligence information and provides situation awareness information to the SOF leadership at all echelons. The four components of DCGS-SOF include the following: The Enterprise provides infrastructure and processing capability to allow for worldwide SOF intelligence information sharing. Full Motion Video PED provides PED capabilities in garrison and deployed tactical environments of manned and unmanned sensors. SILENT DAGGER provides Signals Intelligence exploitation capability in both garrison and deployable environments. The All Source Information Fusion will provide the intelligence analytical tools via a global and disconnected architecture.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	5.286	5.302	5.456	-	5.456
Current President's Budget	6.262	5.302	5.415	-	5.415
Total Adjustments	0.976	0.000	-0.041	-	-0.041
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.976	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.041	-	-0.041

Change Summary Explanation

Funding:

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FY 2015: Increase of \$0.976 million is due to a reprogramming in support of emerging operational requirements to accelerate delivery of enterprise capability on multiple networks, advanced analytics, and the SOF unique user interface.

FY 2016: None.

FY 2017: Decrease of \$0.041 million is due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>				Project (Number/Name) S400A / <i>Distributed Common Ground/Surface Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S400A: <i>Distributed Common Ground/Surface Systems</i>	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	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 Joint Task Force level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighter 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 warfighter with the essential intelligence information and provides situation awareness information to the SOF leadership at all echelons. The four components of DCGS-SOF include the following: The Enterprise provides infrastructure and processing capability to allow for worldwide SOF intelligence information sharing. Full Motion Video (FMV) PED provides PED capabilities in garrison and deployed environments of manned and unmanned sensors. SILENT DAGGER provides Signals Intelligence exploitation capability in both garrison and deployable environments. The All Source Information Fusion (ASIF) will provide the intelligence analytical tools via a global and disconnected architecture.

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

Title: DCGS	FY 2015	FY 2016	FY 2017
	6.262	5.302	5.415
FY 2015 Accomplishments:			
SOF Ontology testing completed, delivered to DCGS-SOF Enterprise baseline; Continued to integrate emerging technologies and capabilities for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continued to refine and integrate FMV PED emerging technologies to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continued DCGS-SOF Limited Objective Events and exercise participation to test integration efforts.			
FY 2016 Plans:			
Continue to integrate emerging technologies and capability for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continue to refine and integrate FMV PED emerging technologies and capabilities to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continue DCGS-SOF Limited Objective Events and exercise participation to test integration efforts. Begin development of the DCGS-SOF next generation pipeline development.			
FY 2017 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
Completes integration of emerging technologies and capability for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continues to refine and integrate FMV PED emerging technologies and capabilities to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continues DCGS-SOF Limited Objective Events and exercise participation to test integration efforts; Continues development of the DCGS-SOF next generation pipeline development; Begins development of the interoperability with Coalition partners and DCGS-SOF.			
Accomplishments/Planned Programs Subtotals	6.262	5.302	5.415

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

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/020401INTL: <i>Distributed Common Ground/Surface System</i>	17.323	14.964	13.432	-	13.432	11.529	13.461	14.011	12.435	Continuing	Continuing

Remarks

D. Acquisition Strategy
DCGS-SOF leverages SOF programs, DoD partners and other Government Agencies to integrate commercial/government off-the-shelf systems, and other mature technologies into the Program of Record which resides within the SOF Information Enterprise (SIE) and enables more agile access to (searchable, discoverable) and sharing of data and services to meet SOF-peculiar documented requirements. The technology allows for seamless integration and federation with DoD, interagency, and Coalition ISR tactical 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 evaluation and scheduled by an engineering development team. 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.

E. Performance Metrics
N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command **Date:** February 2016

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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
Distributed Common Ground System (DCGS) Capabilities Modernization	Various	Various : Various	13.483	0.889	Jan 2015	0.728	Jan 2016	0.747	Jan 2017	-		0.747	Continuing	Continuing	-
Development and Integration - All Source Information Fusion	C/FFP	SITEC : Various	1.775	2.321	Dec 2014	1.995	Mar 2016	2.256	Mar 2017	-		2.256	Continuing	Continuing	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.827	0.329	Oct 2014	0.280	Oct 2015	0.289	Oct 2016	-		0.289	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	0	1.788	-
Subtotal			17.873	3.539		3.003		3.292		-		3.292	-	-	-

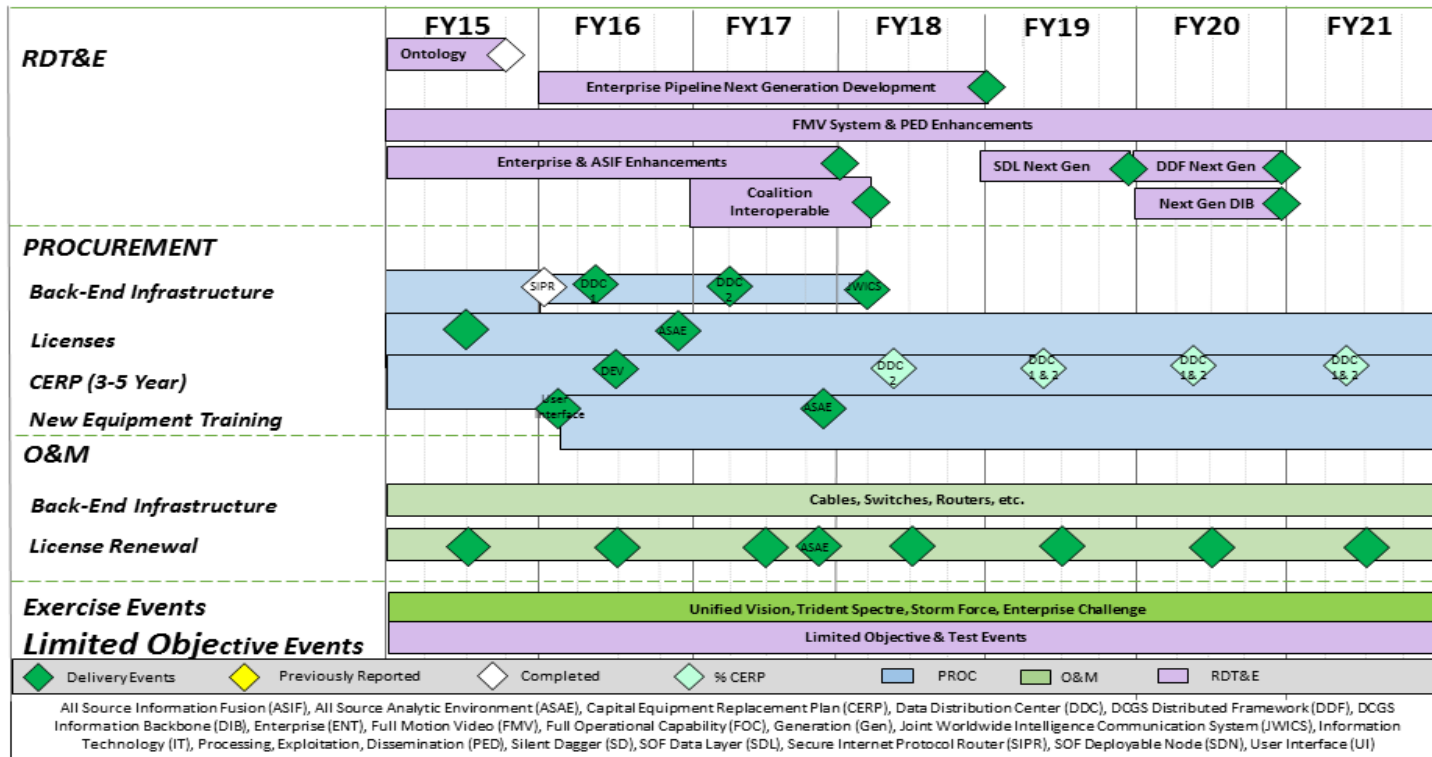
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Support	C/FFP	SITEC : Various	1.264	1.046	Dec 2014	0.900	Mar 2016	0.928	Mar 2017	-		0.928	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	0	0.576	-
Subtotal			1.840	1.046		0.900		0.928		-		0.928	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
Test and Evaluation	MIPR	SPAWAR : Charleston, SC	1.440	0.277	Oct 2014	0.239	Oct 2015	-		-		-	-	-	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	1.982	0.329	Oct 2014	0.280	Oct 2015	0.289	Oct 2016	-		0.289	Continuing	Continuing	-
Interoperability Support	MIPR	JITC : Ft Huachuca, AZ	1.032	0.210	Jan 2015	0.180	Jan 2016	0.186	Jan 2017	-		0.186	Continuing	Continuing	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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

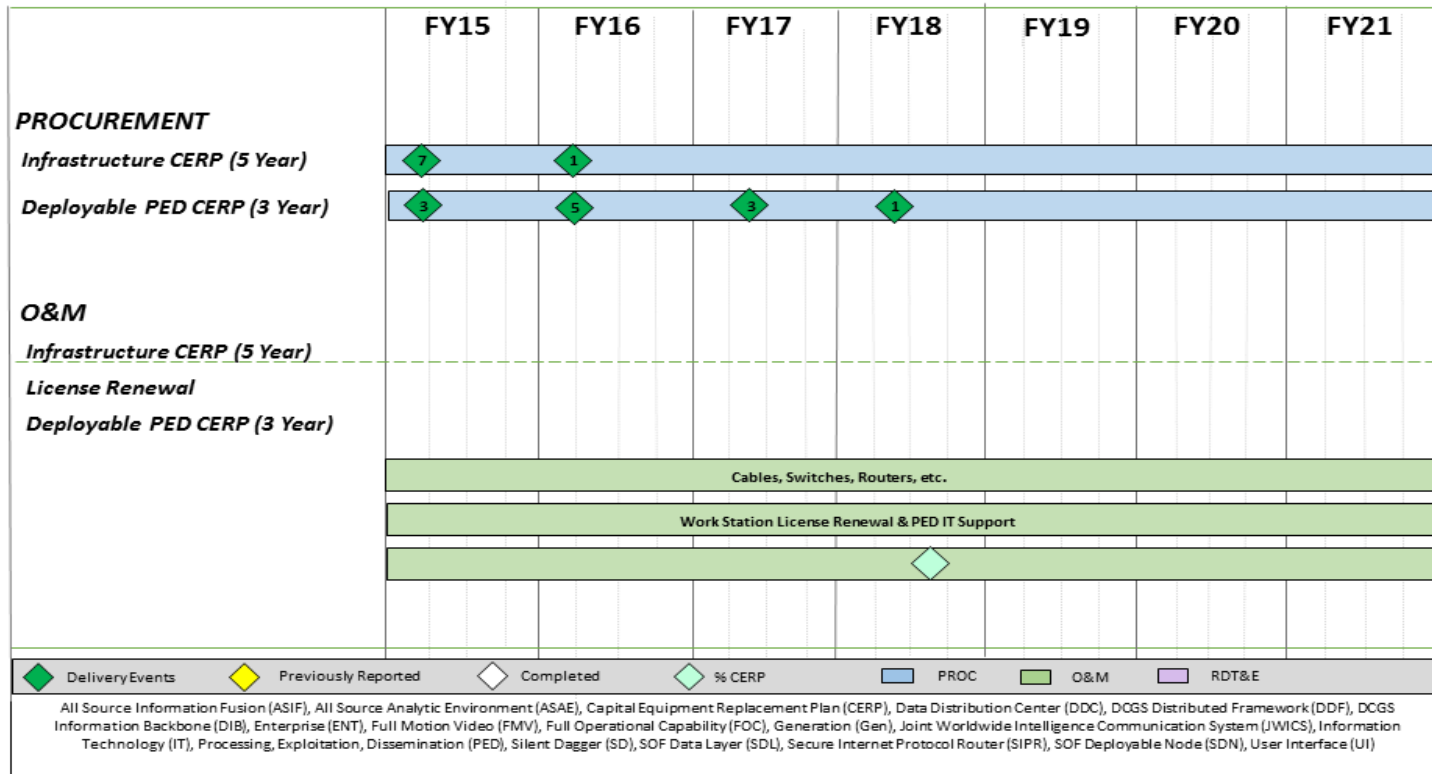
DCGS-SOF Enterprise & ASIF Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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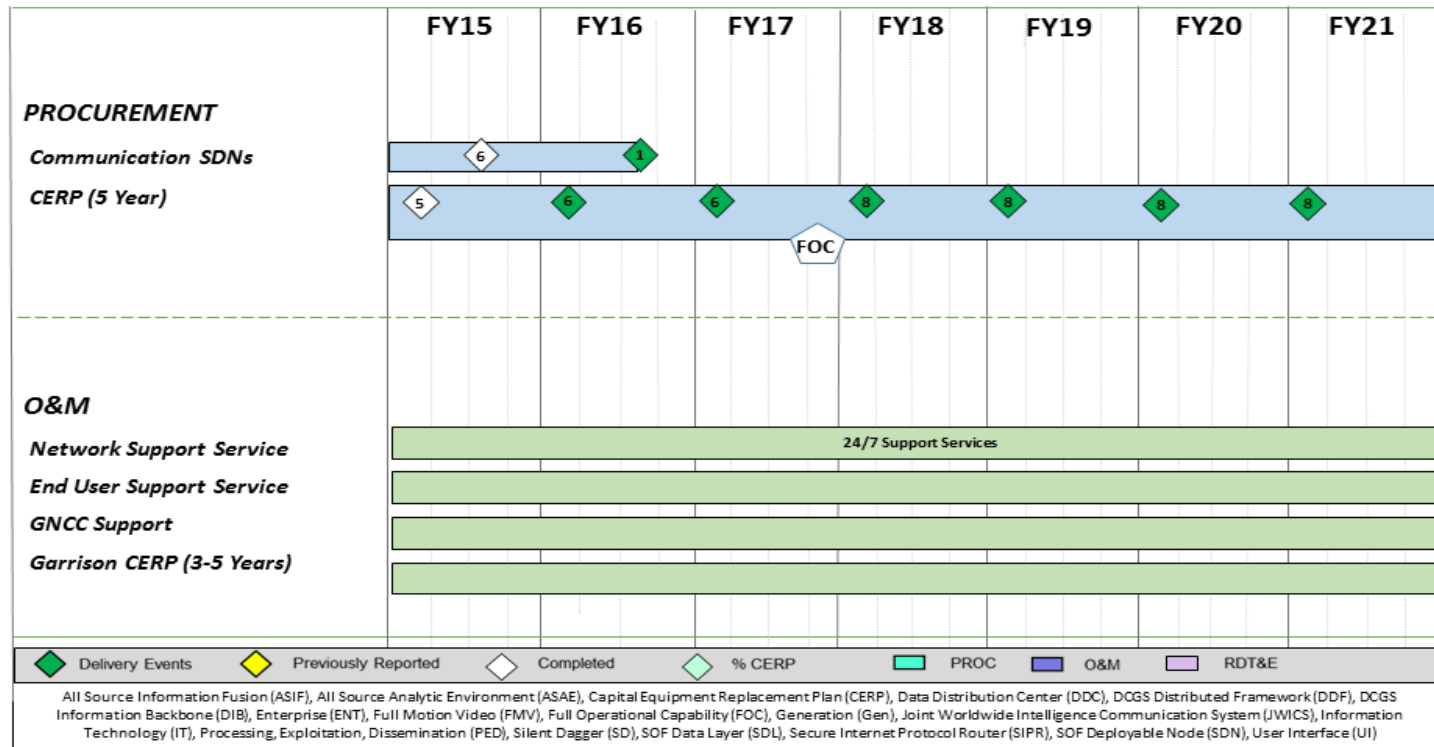
DCGS-SOF FMV Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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DCGS-SOF Silent Dagger Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command **Date:** February 2016

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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Develop, integrate, and test DCGS-SOF unique Ontology on the DCGS-SOF enterprise	1	2015	4	2015
Develop, integrate, and test emerging technologies and capabilities for Enterprise and ASIF enhancements to include: advanced analytics, user interface, disconnected operations into DCGS-SOF baseline	1	2015	4	2017
Develop, integrate, test next gen FMV PED tech, capabilities to include: language transl., upgrading imaging, video exploitation tools, voice-to-text transl., human detection and characterization	1	2015	4	2021
Develop, integrate, and test sharing of DCGS-SOF information with Coalition partners	1	2017	1	2018
Develop, integrate, and text next generation DCGS-SOF pipeline to automatically tag and geolocate data from ingested documents	1	2016	4	2018
Develop, integrate, and test SOF Data Layer (SDL) next generation to refine back end design and infrastructure	1	2019	4	2019
Develop, integrate, and test the next generation DCGS Distributed Framework (DDF) providing compliance with DISR/ICSR/DI2E content discovery and retrieval data standards and IdAM/PKI standards	1	2020	4	2020
Develop, integrate, and test the next generation DCGS-SOF Information Backbone to provide integration of services in to the DCGS-SOF Enterprise baseline	1	2020	4	2020
Limited Objective Events to test technology insertion capabilities across the Enterprise, ASIF, FMV PED, and Silent Dagger	1	2015	4	2021
Participate in Exercise events to include: Trident Spectre, Enterprise Challenge, Storm Force, and D12E Plugfest (annually); United Vision (even fiscal years)	1	2015	4	2021