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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305614F / <i>JSPOC Mission System</i>
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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	328.110	83.277	80.669	72.889	0.000	72.889	62.799	65.388	66.739	69.408	Continuing	Continuing
67A030: <i>Infrastructure</i>	160.354	39.894	30.018	27.526	0.000	27.526	0.000	0.000	0.000	0.000	0.000	257.792
67A031: <i>Mission Applications</i>	159.164	43.383	38.270	20.496	0.000	20.496	0.000	0.000	0.000	0.000	0.000	261.313
67A035: <i>INCREMENT 3</i>	0.000	0.000	12.381	24.867	0.000	24.867	62.799	65.388	66.739	69.408	Continuing	Continuing

Program MDAP/MAIS Code: N82

⁽⁺⁾ The sum of all Prior Years is \$8.592 million less than the represented total due to several projects ending

A. Mission Description and Budget Item Justification

The Joint Space Operations Center (JSpOC) Mission System (JMS) Program is a Space Command and Control (C2) capability for the Commander, Joint Functional Component Commander for Space (JFCC SPACE). The JMS program is predominately a software effort that will produce an integrated, net-centric Service Oriented Architecture (SOA) and the necessary software applications to accomplish required missions. The program will provide a collaborative environment that will enhance and modernize space situational awareness (SSA) capabilities; create decision-relevant views of the space environment; rapidly detect, track and characterize objects of interest; identify / exploit traditional and non-traditional sources; perform space threat analysis; and enable efficient distribution of data across the Space Surveillance Network (SSN). Furthermore, it provides a viable migration path from the legacy Space Defense Operations Center (SPADOC) system, which has 75% of its components beyond end of life or end of service, and the majority of its software no longer vendor-supported. JMS Increment 3 will expand upon the Increment 2 architecture and deliver Battle Management Command and Control (BMC2) capabilities for capacity and timeliness to manage major theater engagements of many on many threats; synchronize forces and enable automated courses of action (COA) and C2; expand information architecture to include intelligence community, non-traditional, commercial, and international sources. JMS is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force	Date: February 2016
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System
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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	73.779	81.911	65.414	0.000	65.414
Current President's Budget	83.277	80.669	72.889	0.000	72.889
Total Adjustments	9.498	-1.242	7.475	0.000	7.475
• Congressional General Reductions	0.000	-0.242			
• Congressional Directed Reductions	0.000	-1.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	9.499	0.000			
• SBIR/STTR Transfer	-0.001	0.000			
• Other Adjustments	0.000	0.000	7.475	0.000	7.475

Change Summary Explanation

FY15: +\$9.499M Below Threshold Reprogramming for equipment and engineering support for development and testing Increment 2 service packs 9-13

FY16: -\$1M Congressional Mark "Excessive Growth"

FY17: +\$7.475 Funds Space Control BMC2

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force										Date: February 2016		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System				Project (Number/Name) 67A030 / Infrastructure			
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
67A030: Infrastructure	160.354	39.894	30.018	27.526	0.000	27.526	0.000	0.000	0.000	0.000	0.000	257.792
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Infrastructure provides a Service Oriented Architecture (SOA), net-centric collaborative information environment at the Unclassified, Secret, TS/SCI, and SAP levels. Efforts incorporate net-centric enterprise services and integrating incremental space mission applications services. Priority is migration off the legacy SPADOC hardware and services into a sustainable infrastructure. Effort integrates components of SSA mission applications and C2 capabilities into the JSpOC to create timely, actionable knowledge necessary for maintaining space superiority and exercising command and control of space forces.

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

	FY 2015	FY 2016	FY 2017
Title: Increment 2	39.894	30.018	27.526
Description: Pursues and integrates a collaborative net-centric, SOA information environment.			
FY 2015 Accomplishments: Continued development of accrediting SOA infrastructure to support operations of Service Pack (SP)-9; provided incremental upgrades to infrastructure (including net ready, security, reliability core services, messaging, and User Defined Operating Picture (UDOP)) as new applications/capabilities were delivered with each service pack. Provided systems engineering, integration, support and testing of enhanced infrastructure to support future SP-11.			
FY 2016 Plans: Completing testing of SP-9, development/integration of SP-11 and systems engineering of SP-13. Develop JMS Standard Space Trainer and develop capability to net-centrally expose legacy sensor data.			
FY 2017 Plans: Complete testing of SP-11 and development/integration of SP-13. Update Standard Space Trainer with SP-11 capabilities and develop capability to net-centrally expose intelligence data and non-traditional data sources.			
Accomplishments/Planned Programs Subtotals	39.894	30.018	27.526

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
• SPAF: BA01: Line Item # 836790: Space Mods Space	0.000	0.000	0.000	0.000	0.000	11.843	12.254	12.471	12.695	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force	Date: February 2016
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A030 / Infrastructure
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OMAF: PE 0305614F: <i>JSPOC Mission System</i>	8.948	27.188	23.510	0.000	23.510	25.326	29.439	24.023	24.456	Continuing	Continuing

Remarks

Replaces JMS components and provides an operational, sustainable environment to maintain capabilities that fuse data from space intelligence, surveillance, reconnaissance, and environmental sources. This modification will procure commercial hardware, software licenses, and warranties to upgrade the operational environment enclaves (2 Secret / 2 SCI), as well as keep up to date development/operational testing locations.

D. Acquisition Strategy

The JMS overarching Acquisition Strategy, approved by the Milestone Decision Authority on 15 Apr 2012, provides for a multi-increment program to develop, integrate, test, and deliver JMS capability. The acquisition strategy reflects new principles that address the speed, agility, and adaptability required for successful IT acquisition resulting in a tailored incremental acquisition approach to deliver early and often by leveraging mature industry capabilities and taking advantage of previous Government investments in Federally Funded Research and Development Center (FFRDC) and Government lab prototyping efforts.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A030 / Infrastructure
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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			
SOA, Infrastructure and core service development	MIPR	ISS, TDKC : Various	52.529	18.175	Dec 2014	6.744	Dec 2015	0.000		0.000		0.000	0.000	77.448	77.448
Interim Contractor Support (ICS)	MIPR	ISS : Colorado Springs, CO	2.170	0.060	Dec 2014	0.000		0.000		0.000		0.000	0.000	2.230	2.230
High-performance computing and security infrastructure development	MIPR	MIT/LL : Lexington, MA	24.032	3.465	Dec 2014	2.031	Dec 2015	0.000		0.000		0.000	0.000	29.528	29.528
Government Capability Providers	MIPR	MIT/LL : Lexington, MA	0.000	0.000		0.000		1.575	Dec 2016	0.000		1.575	0.000	1.575	1.575
JMS Enterprise SEI	Various	Various : Various	0.000	0.000		0.000		22.655	Nov 2016	0.000		22.655	0.000	22.655	22.655
Mission Infrastructure	Various	Various : Various	23.742	5.572	Nov 2014	8.050	Nov 2015	0.000		0.000		0.000	0.000	37.364	37.364
Net-Centric Sensors and Data Sources	TBD	TBD : TBD	0.000	0.000		0.835	Nov 2015	0.000		0.000		0.000	0.000	0.835	0.835
Standard Space Trainer	C/TBD	Sonalyt : Colorado Springs, CO	0.000	1.000	Oct 2015	2.150	Nov 2015	2.275	Nov 2016	0.000		2.275	0.000	5.425	5.425
Integration & Acq Logistics	MIPR	SPAWAR : San Diego, CA	26.581	8.922	Dec 2014	7.504	Nov 2015	0.000		0.000		0.000	0.000	43.007	43.007
Subtotal			129.054	37.194		27.314		26.505		0.000		26.505	0.000	220.067	220.067

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			
Support Costs	Various	Various : Various	0.842	0.000		0.000		0.250	Nov 2016	0.000		0.250	0.000	1.092	1.092
Subtotal			0.842	0.000		0.000		0.250		0.000		0.250	0.000	1.092	1.092

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			
Combined Developmental Test / Operational Test	Various	Various : Various	4.959	0.000		0.000		0.000		0.000		0.000	0.000	4.959	4.959

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A030 / Infrastructure
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Commerical Software Operation Licenses (Nov 2015)	1	2016	1	2016
Service Pack 7 Delivery	1	2015	1	2015
Service Pack 9 Development and Delivery	1	2015	2	2017
Service Pack 11 Development and Delivery	1	2015	4	2017
Service Pack 13 Development and Delivery	3	2016	1	2018
Inc 2 Milestone C	1	2018	1	2018
Inc 2 Full Deployment Decision (FDD)	2	2018	2	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force										Date: February 2016		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System				Project (Number/Name) 67A031 / Mission Applications			
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
67A031: Mission Applications	159.164	43.383	38.270	20.496	0.000	20.496	0.000	0.000	0.000	0.000	0.000	261.313
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission applications provides space services to enhance the accuracy, sustainability, and responsiveness of space surveillance capabilities by providing the knowledge environment necessary to enable the Commander JFCC Space to make rapid, responsive decisions for the protection of space assets from proliferating threats (adversary as well as orbiting debris). The system provides a high accuracy space catalog (knowledge of space objects), increased observation verification and capabilities, and improved event processing. Research, development, and system design provides SSA space catalog applications, services, space surveillance observation processing, and sensor tasking. Funding includes technical studies, development, and integration.

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

	FY 2015	FY 2016	FY 2017
Title: Increment 2	43.383	38.270	20.496
Description: Services/mission applications to conduct space control/situational awareness.			
FY 2015 Accomplishments: Continued development, testing and fielding of commercial software, provided mission services such as improved resident space object accuracy, breakup processing, launch processing, high priority tasking and additional conjunction assessment tools; efforts associated with the focus on retirement of legacy functionality.			
FY 2016 Plans: Continue development, testing and fielding of commercial software, providing mission services such as exercise/training capabilities, high priority sensor tasking, integration of special access data sources and other operator tools.			
FY 2017 Plans: Complete testing and fielding of commercial software for event processing functions, complete integration of exercise/training capabilities, high priority sensor tasking, integration of special access data sources and other operator tools.			
Accomplishments/Planned Programs Subtotals	43.383	38.270	20.496

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
• SPAF: BA01: Line Item #836790: Space Mods Space	0.000	0.000	0.000	0.000	0.000	11.843	12.254	12.471	12.695	Continuing	Continuing

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force	Date: February 2016
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A031 / Mission Applications
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OMAF: PE0305614F: <i>JSPOC Mission System</i>	8.948	27.188	23.510	0.000	23.510	25.326	29.439	24.023	24.456	Continuing	Continuing

Remarks

D. Acquisition Strategy

The JMS overarching Acquisition Strategy, approved by the Milestone Decision Authority on 15 Apr 2012, provides for a multi-increment program to develop, integrate, test, and deliver JMS capability. The acquisition strategy reflects new principles that address the speed, agility, and adaptability required for successful IT acquisition resulting in a tailored incremental acquisition approach to deliver early and often by leveraging mature industry capabilities and taking advantage of previous Government investments in Federally Funded Research and Development Center (FFRDC) and Government lab prototyping efforts.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A031 / Mission Applications
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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			
Breakup, debris modeling, and NUDET applications	MIPR	National Labs : Various	5.935	0.000		0.000		0.000		0.000		0.000	0.000	5.935	5.935
Continuity of operations pathfinder	C/CPFF	Lockheed Martin : Chantilly, VA	8.000	0.000		0.000		0.000		0.000		0.000	0.000	8.000	8.000
Mission applications and service pack content development	Various	Various : Various	39.037	10.056	Dec 2014	14.833	Dec 2015	0.000		0.000		0.000	0.000	63.926	63.926
Service pack deployment and evaluation	RO	SPAWAR and MITRE : Los Angeles and San Diego, CA	0.846	0.000		0.000		0.000		0.000		0.000	0.000	0.846	0.846
Positive object ID, rapid object characterization, and dynamic sensor tasking risk reduction	MIPR	MIT/LL, AFRL : Various	11.252	0.000		0.000		0.000		0.000		0.000	0.000	11.252	11.252
High performance computing and security infrastructure development	MIPR	MIT/LL : Lexington, MA	21.525	0.000		0.000		0.000		0.000		0.000	0.000	21.525	21.525
JMS Enterprise SEI	Various	Various : Various	0.000	0.000		0.000		5.130	Nov 2016	0.000		5.130	0.000	5.130	5.130
Technical Mission Analysis (WS)	MIPR	Aerospace : Los Angeles, CA	0.000	1.844	Nov 2014	1.152	Nov 2015	1.835	Nov 2016	0.000		1.835	0.000	4.831	4.831
COTS hardware, software purchase and engineering support	C/Various	AGI, Exton, PA; ai Solutions, Lanham, MD; SPAWAR, San Diego, CA : Various	28.313	23.038	Nov 2014	13.965	Nov 2015	7.168	Nov 2016	0.000		7.168	0.000	72.484	72.484
Subtotal			114.908	34.938		29.950		14.133		0.000		14.133	0.000	193.929	193.929

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			
Support Costs	Various	Various : Various	0.807	0.374	Nov 2014	0.361	Nov 2015	0.372	Nov 2016	0.000		0.372	0.000	1.914	1.914
Subtotal			0.807	0.374		0.361		0.372		0.000		0.372	0.000	1.914	1.914

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A031 / Mission Applications
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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			
Combined Developmental Test / Operational Test	Various	Various : Various	6.600	1.959	Nov 2014	2.300	Nov 2015	2.300	Nov 2016	0.000		2.300	0.000	13.159	13.159
Combined Test Facility	Various	Various : Various	4.189	1.764	Nov 2014	1.623	Nov 2015	1.633	Nov 2016	0.000		1.633	0.000	9.209	9.209
Subtotal			10.789	3.723		3.923		3.933		0.000		3.933	0.000	22.368	22.368

Management Services (\$ 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			
A&AS	Various	Various : Various	9.076	2.496	Dec 2014	2.912	Dec 2015	0.432	Dec 2016	0.000		0.432	0.000	14.916	14.916
FFRDC - Mitre	MIPR	Mitre : Bedford, MA	16.523	1.250	Dec 2014	0.686	Dec 2015	1.040	Dec 2016	0.000		1.040	0.000	19.499	19.499
FFRDC - Aerospace	MIPR	Aerospace : Los Angeles, CA	1.052	0.448	Dec 2014	0.288	Dec 2015	0.459	Dec 2016	0.000		0.459	0.000	2.247	2.247
Other Support	Various	Various : Various	0.000	0.154	Dec 2014	0.150	Dec 2015	0.127	Dec 2016	0.000		0.127	0.000	0.431	0.431
Mission Applications Enterprise Systems Engineering and Integration	Various	Not specified. : TBD	6.009	0.000		0.000		0.000		0.000		0.000	0.000	6.009	6.280
Subtotal			32.660	4.348		4.036		2.058		0.000		2.058	0.000	43.102	43.373

Project Cost Totals	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
	159.164	43.383	38.270	20.496	0.000	20.496	0.000	261.313	261.584

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A031 / Mission Applications
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Commerical Software Operation Licenses (Nov 2015)	1	2016	1	2016
Service Pack 7 Delivery	1	2015	1	2015
Service Pack 9 Development and Delivery	1	2015	2	2017
Service Pack 11 Development and Delivery	1	2015	4	2017
Service Pack 13 Development and Delivery	3	2016	1	2018
Inc 2 Milestone C	1	2018	1	2018
Increment 2 FDD	2	2018	2	2018

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force										Date: February 2016		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System				Project (Number/Name) 67A035 / INCREMENT 3			
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
67A035: INCREMENT 3	0.000	0.000	12.381	24.867	0.000	24.867	62.799	65.388	66.739	69.408	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Increment 3 will provide a Battle Management Command & Control (BMC2) System that allows JFCC Space to meet emerging threats. This system will develop and integrate mission applications which include, but are not limited to, providing the ability to aggregate intelligence data from various user-defined sources and automatically generating alerts, provide an integrated operating picture for radio frequency spectrum inputs, and create an interactive modeling and simulation environment to support training and exercises, collaborative data sharing, and Course of Action (COA) development and assessment. Funding includes technical studies, development, experimentation, integration and related support costs.

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

	FY 2015	FY 2016	FY 2017
Title: Increment 3	0.000	12.381	24.867
Description: Services/mission applications to deliver a robust, responsive BMC2 capability to meet emerging threats. Completion of Increment 3 will satisfy remaining JMS Capability Development Document requirements content.			
FY 2015 Accomplishments: N/A			
FY 2016 Plans: Beginning systems engineering, requirements refinement and program planning for Increment-3. Conduct technical maturation studies and risk reduction efforts to enable migration from catalog maintenance to predictive battle management and improved integration planning for intelligence and sensor data. Perform market research and data calls to determine existing capabilities that can be integrated into JMS to meet BMC2 objectives. Identify low tech maturity areas and mitigate program risk and include early prototyping.			
FY 2017 Plans: Finalize requirements development to support service pack design, continue systems engineering and program planning for Increment-3. Continue technical maturation and risk reduction efforts to migrate from catalog maintenance of space to predictive battle management and conduct integration of intelligence and sensor data. Perform market research and data calls to determine existing capabilities that can be integrated into JMS to meet BMC2 objectives. Initial contracts should be awarded in the FY18 timeline. Initial Service Pack Design, Build, and test will commence leveraging prior Government Off The Shelf (GOTS) capabilities at mature Technology Readiness Levels (TRL) from within Air Force Research Laboratory (AFRL) development environments.			
Accomplishments/Planned Programs Subtotals	0.000	12.381	24.867

UNCLASSIFIED

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A035 / INCREMENT 3
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SPAF: BA01: Line Item #836790: <i>Space Mods Space</i>	0.000	0.000	0.000	0.000	0.000	11.843	12.254	12.471	12.695	Continuing	Continuing
• OMAF: PE 0305614F: <i>JSpOC Mission System</i>	8.948	27.188	23.510	0.000	23.510	25.326	29.439	24.023	24.456	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Air Force is in the process of updating the acquisition strategy for JMS Increment 3. For previous increments, the Program Management Office is using a government led integration effort using the Navy SPAWAR Systems Center and incremental service pack deliveries for operations. The JMS Inc 3 Acquisition strategy should allow rapid capability prototyping to address emerging needs and threats.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A035 / INCREMENT 3
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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			
BMC2 Tools	TBD	TBD : TBD	0.000	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Government Capability Development	TBD	TBD : TBD	0.000	0.000		3.204	Apr 2016	13.865	Dec 2016	0.000		13.865	Continuing	Continuing	TBD
JMS Enterprise Systems Engineering & Integration	Various	Various : Various	0.000	0.000		3.633	Apr 2016	5.529	Dec 2016	0.000		5.529	Continuing	Continuing	TBD
Technical Mission Analysis (WS)	Various	Various : Various	0.000	0.000		0.000		0.100	Dec 2016	0.000		0.100	Continuing	Continuing	TBD
SSA Sidecars	TBD	TBD : TBD	0.000	0.000		0.000		0.835	Dec 2016	0.000		0.835	Continuing	Continuing	TBD
Hardware	TBD	TBD : TBD	0.000	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Subtotal			0.000	0.000		6.837		20.329		0.000		20.329	-	-	-

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			
A&AS	TBD	Not specified. : TBD	0.000	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	-	-	-

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			
Combined Developmental Test / Operational Test	TBD	Not specified. : TBD	0.000	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Combined Test Facility	TBD	Not specified. : TBD	0.000	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A035 / INCREMENT 3
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Milestone A									■																			
Milestone B													■															
Contract Award													■															
Service Pack 15 Development and Delivery													■	■	■	■												
Service Pack 17 Development and Delivery																	■	■	■	■								
Service Pack 19 Development and Delivery																					■	■	■	■				
Service Pack 21 Development and Delivery																									■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305614F / JSPOC Mission System	Project (Number/Name) 67A035 / INCREMENT 3
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone A	1	2017	1	2017
Milestone B	4	2017	4	2017
Contract Award	1	2018	1	2018
Service Pack 15 Development and Delivery	2	2018	3	2019
Service Pack 17 Development and Delivery	2	2019	3	2020
Service Pack 19 Development and Delivery	2	2020	3	2021
Service Pack 21 Development and Delivery	2	2021	4	2021