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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 0401119F / <i>C-5 Airlift Squadrons (IF)</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	-	31.772	22.864	66.146	0.000	66.146	46.692	5.795	0.000	0.000	0.000	173.269
675358: <i>C-5 Mission Computer-Mission Sys Equip-Weather Radar</i>	-	31.772	7.403	11.837	0.000	11.837	0.000	0.000	0.000	0.000	0.000	51.012
675359: <i>CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio</i>	-	0.000	15.461	54.309	0.000	54.309	46.692	5.795	0.000	0.000	0.000	122.257

A. Mission Description and Budget Item Justification

"The FY 2017 funding request was reduced by \$10 million to account for availability of prior execution balances."

675358: The C-5 core mission computer (CMC)/Weather Radar modification project is a comprehensive sustainment modification to mitigate the obsolescence of the current CMC and weather radar. This effort centers on modifying the current mission computer by replacing core processing module (CPM) cards to obtain sufficient capacity to support integration of new system capabilities with margin for growth by upgrading module cards and correcting any mission essential deficiencies identified during development. Also, the effort includes replacement of the weather radar with a commercial off-the-shelf color weather radar. The modified mission computer will allow for current and future throughput growth of additional processing requirements to meet calendar year 2020 communication, navigation, surveillance/air traffic management mandates.

This program 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.

675359: The C-5 communication, navigation, surveillance/air traffic management (CNS/ATM) modification project is a comprehensive effort to ensure appropriate system design architectures are developed and equipment is installed on the C-5 to allow aircraft operation in accordance with civil airspace access mandates for both the US National Airspace System (NAS) and international civil airspace. Additionally, the program will add equipment to meet outstanding National Security Agency mandates for encryption of voice communications. The C-5 CNS/ATM program ensures systems standardization and interoperability with other DoD systems to the maximum extent possible and directly supports airworthiness certification of the C-5. CNS/ATM requirements include, but are not limited to, capabilities such as automatic dependent surveillance-broadcast out (ADS-B Out), identification friend or foe (IFF) Mode 5, satellite communication equipment replacement, and beyond line-of-sight voice radio replacement. It is anticipated equipment will be predominately commercial off-the-shelf or non-developmental items.

ADS-B Out is a next generation surveillance technology that transitions key aspects of Air Traffic Control from terrestrial based technologies to satellite enabled technologies to provide controllers a more accurate picture of aircraft positioning.

Funding may be used to address the DMS issues.

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This program is a Budget Activity 7, Operations Systems 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 and subsequent fiscal years.

This program 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.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	38.773	42.864	76.805	0.000	76.805
Current President's Budget	31.772	22.864	66.146	0.000	66.146
Total Adjustments	-7.001	-20.000	-10.659	0.000	-10.659
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-20.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-7.001	0.000	-10.659	0.000	-10.659

Change Summary Explanation

The FY2015 funding was reduced by \$7 million for higher AF priorities.

The FY2016 funding was reduced by \$20 million due to a Congressionally directed reduction for forward financing.

The FY 2017 funding request was reduced by \$10 million to account for availability of prior execution balances." The remaining \$0.659M was reduced due to deflation.

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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 0401119F / C-5 Airlift Squadrons (IF)				Project (Number/Name) 675358 / C-5 Mission Computer-Mission Sys Equip-Weather Radar			
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
675358: C-5 Mission Computer-Mission Sys Equip-Weather Radar	-	31.772	7.403	11.837	0.000	11.837	0.000	0.000	0.000	0.000	0.000	51.012
Quantity of RDT&E Articles	-	-	2	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-5 core mission computer (CMC)/weather radar (WxRdr) program is a comprehensive sustainment modification to mitigate the obsolescence of the current CMC and WxRdr. This effort centers around modifying the current mission computer to obtain sufficient capacity/capability to support integration of new system capabilities with margin for growth by upgrading module cards and correcting any mission essential deficiencies identified during development. Also, the effort includes replacement of the weather radar with a commercial off-the-shelf weather radar. Mission systems equipment includes, but is not limited to, a redesign of the C-5 lavatory system. Examples of other mission systems equipment include troop seats, crew entry door and ladder, and interior trim.

The current C-5 CMC has reached maximum capacity and cannot integrate required aircraft systems and capabilities to include the weather radar; flight management system (FMS); and communication, navigation, surveillance (CNS)/air traffic management (ATM) requirements. These requirements include capabilities such as the automatic dependent surveillance-broadcast out (ADS-B Out), and identification, friend or foe (IFF) mode 5. The new CMC will allow for current and future throughput growth of additional processing requirements to meet calendar year 2020 CNS/ATM mandates.

The modification helps to maintain aircraft availability as the new weather radar replaces the current APS-133 weather radar system, which is experiencing severe diminishing manufacturing source (DMS) issues. Failure to upgrade the CMC to support calendar year 2020 CNS/ATM mandates and a new weather radar will create a significant operational impact. DMS issues will be resolved to support continued production and installation of requirements for the C-5 fleet. Further, DMS issues will be resolved to support continued operations through studies, bridge buys, life-of-type buys, development, and redesign efforts.

The C-5 mission systems equipment (MSE) program updates the lavatory system. The current lavatory system suffers inoperability and leakage of liquid sodium hypochlorite causing severe corrosion and burnt wires in the landing gear control panels. A redesign of the MSE will increase safety, mitigate risk, and reduce man-hours required to repair extensive damage.

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

	FY 2015	FY 2016	FY 2017
Title: Mission Computer and Weather Radar Program	31.772	7.403	11.837
Description: Core mission computer modification and weather radar replacement will enable the C-5 to achieve wartime mission requirements by maintaining fleet availability (mission capable rate) and program management administration (PMA).			
FY 2015 Accomplishments:			

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675358 / C-5 Mission Computer-Mission Sys Equip-Weather Radar

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
Supported development and integration of hardware and software, and verified the traceability documentation of requirements to design was mature and complete through the critical design review process. Ensured test cases were prepared and ready to support the start of qualification testing.			
FY 2016 Plans: Supporting completion of formal qualification testing, installation and functional check of hardware, design and development of aircrew and maintenance training system modification, developmental test and evaluation, and operational test completing in FY17.			
FY 2017 Plans: Will support completion of formal qualification testing, installation and functional check of hardware, design and development of aircrew and maintenance training system modification, developmental test and evaluation, and operational test completing in FY17.			
Accomplishments/Planned Programs Subtotals	31.772	7.403	11.837

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>
• APAF: BA05: Line Item # C00500: C-5	0.050	0.000	19.814	0.000	19.814	26.476	38.870	35.884	15.645	0.000	136.739
• APAF: BA06: Line Item # 000999: Initial Spares	0.000	0.382	2.348	0.000	2.348	1.826	3.160	3.111	0.000	0.000	10.827
• APAF: BA07: Line Item # 000075: Other Production	0.000	0.000	0.694	0.000	0.694	5.059	4.563	0.000	0.000	0.000	10.316

Remarks

D. Acquisition Strategy

Core mission computer/weather radar program: Engineering, manufacturing, development (EMD) for the core mission computer and weather radar began in FY13. The acquisition strategy for this project considered every opportunity to use commercial components to modernize the C-5 core mission computer and weather radar and maintain aircraft availability in support of mobility missions worldwide. The strategy is for the prime contractor, Lockheed Martin Aero (LMA), to procure the core mission computer cards and weather radar, integrate and test those components, and install on two (2) EMD aircraft. LMA was placed on contract in March 2014. The sole-source contract is predominately CPIF (Cost Plus Incentive Fee) with some FFP (Firm Fixed Price) elements.

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Mission Systems Equipment program: The mission systems equipment redesign requires RDT&E funding for commercial off-the-shelf (COTS) proofing. Funds are required for validation and verification of the lavatory design and installation. The Mission Systems Equipment contract method was competitive through the Defense Technical Information Center (DTIC). Wyle Science, Technical, and Engineering Group was the selected source, and the contract type is Cost Plus Fixed Fee (CPFF).

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 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675358 / C-5 Mission Computer-Mission Sys Equip-Weather Radar
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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			
Core Mission Computer and Weather Radar (CMC/WxRdr) Hardware/ Software Design, Development, Integration, Data Management, Technical Data Rights, Systems Engineering, and Program Management	SS/ Various	Lockheed Martin Aero : Marietta, GA	-	20.329	Mar 2015	1.950	Feb 2016	1.870	Feb 2017	0.000		1.870	0.000	24.149	82.189
Subtotal			-	20.329		1.950		1.870		0.000		1.870	0.000	24.149	82.189

Remarks
Total cost and target value of contract will not agree because prior year funds are not allowed as an input.

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			
CMC/WxRdr Aircrew and Maintenance Trainers	SS/CPIF	Lockheed Martin Aero : Marietta, GA	-	1.896	Aug 2015	0.886	Dec 2015	3.000	Dec 2016	0.000		3.000	0.000	5.782	7.014
CMC/WxRdr Other Govt Costs (OGC)	Various	Various : TBD	-	3.108	Aug 2015	0.750	Dec 2015	2.622	Dec 2016	0.000		2.622	0.000	6.480	15.099
Subtotal			-	5.004		1.636		5.622		0.000		5.622	0.000	12.262	22.113

Remarks
Total cost and target value of contract will not agree because prior year funds are not allowed as an input.

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			
CMC/WxRdr Developmental and	Various	Various : TBD	-	3.299	Sep 2015	2.298	Jun 2016	0.355	Dec 2016	0.000		0.355	0.000	5.952	7.452

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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			
Operational Test and Evaluation															
CMC/WxRdr Qualification Testing	Various	Various : TBD	-	0.980	Nov 2015	0.460	Jun 2016	0.150	Dec 2016	0.000		0.150	0.000	1.590	1.590
Subtotal			-	4.279		2.758		0.505		0.000		0.505	0.000	7.542	9.042

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			
CMC/WxRdr PMA Government Costs	Various	AFLCMC/WLS : Dayton, OH	-	2.160	Feb 2015	1.059	Feb 2016	3.840	Feb 2017	0.000		3.840	0.000	7.059	9.571
Subtotal			-	2.160		1.059		3.840		0.000		3.840	0.000	7.059	9.571

Remarks
Total cost and target value of contract will not agree because prior year funds are not allowed as an input.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals		-	31.772	7.403	11.837	0.000	11.837	0.000	51.012	122.915

Remarks
Total cost and target value of contract will not agree because prior year funds are not allowed as an input.

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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 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675358 / C-5 Mission Computer-Mission Sys Equip-Weather Radar

	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
Preliminary Design Review	■																											
Critical Design Review	■	■	■	■																								
Training Development	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Integrated Developmental/Operational Test and Evaluation									■	■	■	■																
Milestone C													■															

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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 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675358 / C-5 Mission Computer-Mission Sys Equip-Weather Radar

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Preliminary Design Review	1	2015	1	2015
Critical Design Review	1	2015	4	2015
Training Development	1	2015	2	2017
Integrated Developmental/Operational Test and Evaluation	2	2016	2	2017
Milestone C	1	2017	1	2017

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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 0401119F / C-5 Airlift Squadrons (IF)				Project (Number/Name) 675359 / CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio			
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
675359: CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio	-	0.000	15.461	54.309	0.000	54.309	46.692	5.795	0.000	0.000	0.000	122.257
Quantity of RDT&E Articles	-	-	-	1	-	1	1	-	-	-		

A. Mission Description and Budget Item Justification

C-5 communication, navigation, surveillance/air traffic management (CNS/ATM) program is a comprehensive effort to ensure appropriate CNS/ATM system design architectures are developed and equipment is installed on the C-5 to allow aircraft operation in accordance with civil airspace access mandates for both the US national airspace system (NAS) and international civil airspace. Also, the program will add equipment to meet outstanding National Security Agency mandates for encryption of voice communications. The C-5 CNS/ATM program ensures system standardization and interoperability with other DoD systems to the maximum extent possible and directly supports airworthiness certification of the C-5. CNS/ATM requirements include, but are not limited to, capabilities such as automatic dependence surveillance-broadcast out (ADS-B Out), identification friend or foe (IFF) mode 5, satellite communication equipment replacement, and beyond line-of-sight voice radio replacement. It is anticipated equipment will be predominately commercial off-the-shelf or non-developmental items.

The current ARC-210 radio for VHF voice communications is facing diminishing manufacturing source (DMS) supply issues and additionally will no longer be capable of providing secure voice communications due to the development of new crypto algorithms. Addition of next generation ARC-210 radios and associated cryptologic equipment will enable the C-5 to meet NSA mandates for secure communications and allow aircrews to continue to communicate securely over VHF, UHF, HF, or MILSATCOM.

The current generation of satellites that support services used on the C-5 to provide oceanic controller/pilot data link communications (CPDLCs) to air traffic control and aircraft communications addressing and reporting system (ACARS) beyond-line-of-sight command and control messages will no longer be functional after 2016. The next generation of satellites will accommodate legacy C-5 SATCOM equipment for an interim period of time to allow for integration of upgraded SATCOM equipment compatible with this satellite constellation. Without this modification, the C-5 will be unable to fly oceanic tracks and will not be able to meet aircraft separation distance requirements for civil airspace access.

ADS-B Out is a next generation surveillance technology that transitions key aspects of air traffic control from terrestrial based technologies to satellite enabled technologies to provide controllers a more accurate picture of aircraft positioning. ADS-B Out will allow aircraft to provide continuous broadcast of aircraft position to both controllers and other aircraft equipped with ADS-B In capable avionics. International mandates for ADS-B Out for civil airspace access call for equipage by 2020.

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

	FY 2015	FY 2016	FY 2017
Title: CNS/ATM	0.000	15.461	54.309
Description: C-5 CNS/ATM program will install multiple aircraft avionic equipment pieces to enable the C-5 to meet multiple NSA encryption and international/national airspace access mandates while mitigating diminishing manufacturing source issues.			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>FY 2015 Accomplishments: N/A</p> <p>FY 2016 Plans: CNS/ATM system design supports incorporation of ARC-210 Gen V radios, SATCOM replacement equipment, ADS-B Out, and IFF mode 5 into the C-5. Efforts include software design as well as hardware analysis for compatibility with existing C-5 system architecture.</p> <p>FY16 funding supports software design of all the areas to incorporate the various requirements as well as hardware analysis for compatibility with existing systems.</p> <p>FY 2017 Plans: CNS/ATM system design supports incorporation of ARC-210 Gen V radios, SATCOM replacement equipment, ADS-B Out, and IFF mode 5 into the C-5. Efforts will include software design as well as hardware analysis for compatibility with existing C-5 system architecture. Ensure test cases are prepared and ready to support the start of qualification testing.</p> <p>FY2017 funding supports formal qualification testing, software integration, equipment installation, and functional check of hardware.</p>			
Accomplishments/Planned Programs Subtotals	0.000	15.461	54.309

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 Complete</u>	<u>Total Cost</u>
• APAF: BA05: Line Item # C00500: C-5	0.000	0.000	0.000	0.000	0.000	7.821	23.613	27.571	46.746	-	-
• APAF: BA06: Line Item # 000999: Initial Spares	0.000	0.000	0.000	0.000	0.000	5.701	4.966	4.692	7.948	-	-

Remarks

D. Acquisition Strategy
CNS/ATM program: Engineering, manufacturing, development (EMD) for incorporation of the ARC-210 Gen V radio, SATCOM replacement equipment, ADS-B Out, and IFF mode 5 into the C-5 began in FY16. The acquisition strategy for this program will consider every opportunity to use commercial components to modernize the C-5 CNS/ATM equipment to meet mandates for global civil airspace access. The strategy is for the prime contractor, Lockheed Martin Aero (LMA), to procure CNS/

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ATM equipment, develop software, test and integrate those components, and install on two (2) EMD aircraft. The equipment integration will require RDT&E funding for commercial off-the-shelf and non-developmental item proofing.

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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Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0401119F / C-5 Airlift Squadrons (IF)					Project (Number/Name) 675359 / CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio				

Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
CNS/ATM hardware/ software design, development, integration, data management, technical data rights, systems engineering, program management, and spares	Various	Lockheed Martin Aero : Marietta, GA	-	0.000		8.483	Apr 2016	41.053	Feb 2017	0.000		41.053	Continuing	Continuing	79.268
Subtotal			-	0.000		8.483		41.053		0.000		41.053	-	-	79.268

Remarks

Total Cost and Target Value of Contract will not agree because cost to complete funds are not allowed as an input.

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
CNS/ATM Other Government Cost	Various	AFLCMC/WLS : Dayton, OH	-	0.000		1.500	Apr 2016	0.951	Feb 2017	0.000		0.951	Continuing	Continuing	9.201
CNS/ATM Training	Various	Lockheed Martin Aero : Marietta, GA	-	0.000		0.000	Apr 2016	0.190	Feb 2017	0.000		0.190	Continuing	Continuing	0.775
CNS/ATM Peculiar Support Equipment	Various	Lockheed Martin Aero : Marietta, GA	-	0.000		0.300	Apr 2016	0.000		0.000		0.000	Continuing	Continuing	0.300
CNS/ATM Trainers & Simulators	Various	Various : Various	-	0.000		0.800	Apr 2016	6.500	Feb 2017	0.000		6.500	Continuing	Continuing	14.900
Subtotal			-	0.000		2.600		7.641		0.000		7.641	-	-	25.176

Remarks

Total Cost and Target Value of Contract will not agree because cost to complete funds are not allowed as an input.

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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			
CNS/ATM System Test/Qual	Various	Lockheed Martin Aero : Marietta, GA	-	0.000		0.000	Apr 2016	3.700	Feb 2017	0.000		3.700	Continuing	Continuing	10.000
CNS/ATM System Software Integration Lab	Various	Various : TBD	-	0.000		1.100	Apr 2016	0.300	Feb 2017	0.000		0.300	Continuing	Continuing	1.400
Subtotal			-	0.000		1.100		4.000		0.000		4.000	-	-	11.400

Remarks
Total Cost and Target Value of Contract will not agree because cost to complete funds are not allowed as an input.

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			
CNS/ATM Program Management Administration	Various	AFLCMC/WLS : Dayton, OH	-	0.000		3.200	Apr 2016	1.400	Feb 2017	0.000		1.400	Continuing	Continuing	5.900
CNS/ATM Travel	Various	AFLCMC/WLS : Dayton, OH	-	0.000		0.078	Apr 2016	0.215	Feb 2017	0.000		0.215	Continuing	Continuing	0.513
Subtotal			-	0.000		3.278		1.615		0.000		1.615	-	-	6.413

Remarks
Total Cost and Target Value of Contract will not agree because cost to complete funds are not allowed as an input.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	0.000	15.461	54.309	0.000	-	-	122.257

Remarks
Total Cost and Target Value of Contract will not agree because cost to complete funds are not allowed as an input.

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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 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675359 / CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio

	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
MDD/ASP	■																											
Milestone B							■																					
Engineering, Manufacturing, and Development (EMD)							■																					
EMD Contract Awards							■																					
Preliminary Design Review								■																				
Critical Design Review											■																	
Training Development															■													
Integrated Developmental/Operational Test and Evaluation															■													
Milestone C															■													
Initial Operational Capability																												■

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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 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 675359 / CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MDD/ASP	2	2015	2	2015
Milestone B	3	2016	3	2016
Engineering, Manufacturing, and Development (EMD)	3	2016	2	2019
EMD Contract Awards	3	2016	3	2016
Preliminary Design Review	4	2016	4	2016
Critical Design Review	1	2017	1	2017
Training Development	1	2018	4	2018
Integrated Developmental/Operational Test and Evaluation	1	2018	1	2019
Milestone C	3	2018	3	2018
Initial Operational Capability	4	2020	4	2020