Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force												Date: February 2015
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0401119F / *C-5 Airlift Squadrons (IF)*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	-	48.617	38.773	42.864	-	42.864	76.805	47.144	5.851	-	-	260.054
675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar*	-	48.617	38.773	12.403	-	12.403	11.905	-	-	-	-	111.698
675359: *CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio*	-	-	-	30.461	-	30.461	64.900	47.144	5.851	-	-	148.356

Note

In FY2016, Project 675359, C-5 Communication, Navigation, Surveillance / Air Traffic Management (CNS/ATM), is a new start effort.

A. Mission Description and Budget Item Justification

675358: C-5 Core Mission Computer (CMC)/Weather Radar modification project: Mission computer and weather radar replacement 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 the 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 CY2020 communication, navigation, surveillance/air traffic management mandates.

675359: C-5 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) modification project: Program 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.

The current ARC-210 radio for VHF voice communications is facing diminishing manufacturing source (DMS) 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force	Date: February 2015
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401119F / *C-5 Airlift Squadrons (IF)*

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.

The FY2016 funding request ws reduced by $15.726 million to account for the availability of prior execution balances.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	48.617	38.773	7.556	-	7.556
Current President's Budget	48.617	38.773	42.864	-	42.864
Total Adjustments	-	-	35.308	-	35.308
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	35.308	-	35.308

Change Summary Explanation

FY16: Program adjustments for change in procurement strategy for CMC/WxRdr increases funding by $4.847M to $12.403M. Also, addition of CNS/ATM as a new start program increases funding by $30.461M for a PE total of $42.864M.

The FY2016 funding request was reduced by $15.726M to account for availability of prior execution balances in FY15. The reduction was applied to the CNS/ATM modification project, proposed payback in FY2017 and FY2018.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar*	-	48.617	38.773	12.403	-	12.403	11.905	-	-	-	-	111.698
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-5 Core Mission Computer (CMC)/Weather Radar program is a comprehensive sustainment modification to mitigate the obsolescence of the current CMC and weather radar. 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 color 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 CY 2020 CNS/ATM mandates.

The modification helps to maintain aircraft availability as the new color 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 the 2020 CNS/ATM mandates and a new weather radar will create a significant operational impact. Equipment 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 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 Mission Systems Equipment program will increase safety, mitigate risk, and reduce man-hours required to repair extensive damage.

BA7 - 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. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Mission Computer and Weather Radar Program	48.617	38.773	12.403	-	12.403

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
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 2014 Accomplishments:*** Supported completion of formal qualification testing, software integration, installation and functional check of hardware, and design and development of aircrew and maintenance training system modifications. ***FY 2015 Plans:*** Support completion of formal qualification testing, installation and functional check of hardware, design and development of aircrew and maintenance training system modification, and developmental test and evaluation, completing in FY17. ***FY 2016 Base 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. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	48.617	38.773	12.403	-	12.403

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APAF: BA05: Line Item # C00500: *C-5 - CMC/WxRadar modification*	-	0.495	-	-	-	21.198	29.064	44.385	42.905	Continuing	Continuing
• APAF: BA06: Line Item # C00500: *C-5 - CMC/WxRadar modification*	-	-	0.397	-	0.397	2.375	1.826	3.116	3.111	-	10.825
• APAF: BA07: Line Item # C00500: *C-5 - CMC/WxRadar modification*	-	-	-	-	-	0.700	5.100	4.600	-	-	10.400

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
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*

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. The LMA negotations were completed 4 Feb 14 and were placed on contract in March 2014. The contract method is sole source. The contract type is predominately CPIF (Cost Plus Incentive Fee) with some FFP (Firm Fixed Price) elements.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force		Date: February 2015
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*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Core Mission Computer and Weather Radar Hardware/Software Design, Development, Integration, Data Management, Technical Data Rights, Systems Engineering, and Program Management	SS/ Various	Lockheed Martin Aero : Marietta, GA	-	39.640	Feb 2014	27.330	Mar 2015	3.450	Feb 2016	-		3.450	Continuing	Continuing	-
		Subtotal	-	39.640		27.330		3.450		-		3.450	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aircrew and Maintenance Trainers	SS/CPIF	Lockheed Martin Aero : Marietta, GA	-	4.232	Dec 2014	1.896	Aug 2015	0.886	Dec 2015	-		0.886	Continuing	Continuing	-
Other Govt Costs (OGC)	Various	Various : TBD,	-	2.801	Dec 2014	3.108	Aug 2015	2.250	Dec 2015	-		2.250	Continuing	Continuing	-
		Subtotal	-	7.033		5.004		3.136		-		3.136	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental and Operational Test and Evaluation	Various	Various : ,	-	-		3.299	Sep 2015	3.798	Jun 2016	-		3.798	Continuing	Continuing	7.451
Qualification Testing	Various	Various : ,	-	-		0.980	Nov 2015	0.460	Jun 2016	-		0.460	Continuing	Continuing	1.620
		Subtotal	-	-		4.279		4.258		-		4.258	-	-	9.071

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force		Date: February 2015
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*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA Government Costs - CMC/WxRadar	Various	AFLCMC/WLS : Dayton, OH	-	1.944	Feb 2014	2.160	Feb 2015	1.559	Feb 2016	-		1.559	Continuing	Continuing	8.571
		Subtotal	-	1.944		2.160		1.559		-		1.559	-	-	8.571

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	48.617		38.773		12.403		-		12.403	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force		Date: February 2015
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*

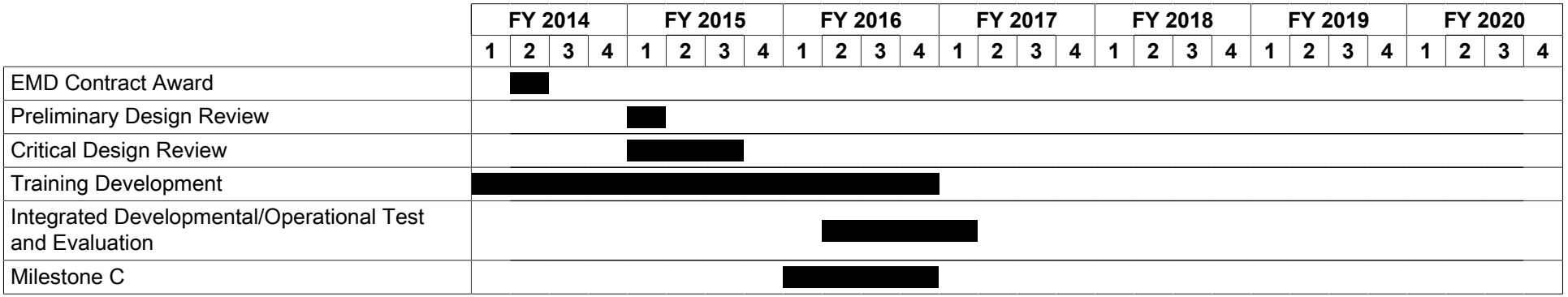

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401119F / *C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 675358 / *C-5 Mission Computer-Mission Sys Equip-Weather Radar*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
EMD Contract Award	2	2014	2	2014
Preliminary Design Review	1	2015	1	2015
Critical Design Review	1	2015	3	2015
Training Development	1	2014	4	2016
Integrated Developmental/Operational Test and Evaluation	2	2016	1	2017
Milestone C	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
675359: *CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio*	-	-	-	30.461	-	30.461	64.900	47.144	5.851	-	-	148.356
Quantity of RDT&E Articles	-	-	-	2	-	2	-	-	-	-		

Note

In FY2016, Project 675359, CNS/ATM Mode 5 Swift Broadband BLOS/LOS Radio, includes new start efforts.

A. Mission Description and Budget Item Justification

C-5 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) program: 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. 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 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, which support services used on the C-5 to provide oceanic Controller/Pilot Data Link Communications (CPDLC) 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 would be unable 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 2019 with mandates in 2020 for access to the US NAS.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
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*

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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: EMD ***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. ***FY 2014 Accomplishments:*** N/A ***FY 2015 Plans:*** N/A ***FY 2016 Base Plans:*** Support CNS/ATM system design to accommodate 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. ***FY 2016 OCO Plans:*** N/A	-	-	30.461	-	30.461
Accomplishments/Planned Programs Subtotals	-	-	30.461	-	30.461

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APAF: BA05: Line Item # C00500: *C-5 - CNS/ATM modification*	-	-	-	-	-	-	8.321	24.196	30.005	Continuing	Continuing
• APAF: BA06: Line Item # C00500: *C-5 - CNS/ATM modification*	-	-	-	-	-	-	5.761	5.076	4.752	-	-

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 begins in FY16. The acquisition strategy for this program will consider every opportunity to use commercial components to modernize the

Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
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*

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/ 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.

Milestone Dates:
-MDD/ASP Jan 2015
-MS B Sep 2015
-CA EMD Feb 2016
-MS C Apr 2018
-CA PROD Jun 2018

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force		Date: February 2015
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CNS/ATM hardware/ software design, development, integration, data management, technical data rights, systems engineering, and program management,	Various	Lockheed Martin Aero : Marietta, GA	-	-		-		20.320	Feb 2015	-		20.320	Continuing	Continuing	109.045
		Subtotal	-	-		-		20.320		-		20.320	-	-	109.045

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various	AFLCMC/WLS : Dayton, OH	-	-		-		0.330	Feb 2015	-		0.330	Continuing	Continuing	1.320
Training	Various	Lockheed Martin Aero : Marietta, GA	-	-		-		-	Feb 2015	-		-	Continuing	Continuing	1.200
Other Gov Costs	Various	Various : TBD,	-	-		-		2.126	Feb 2015	-		2.126	Continuing	Continuing	8.504
Peculiar SE	Various	Lockheed Martin Aero : Marietta, GA	-	-		-		-	Feb 2015	-		-	Continuing	Continuing	0.205
Trainers	Various	Lockheed Martin Aero : Marietta, GA	-	-		-		-	Feb 2015	-		-	Continuing	Continuing	9.000
		Subtotal	-	-		-		2.456		-		2.456	-	-	20.229

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test/Qual	Various	Lockheed Martin Aero : Marietta, GA	-	-		-		3.200	Feb 2015	-		3.200	Continuing	Continuing	-
SIL	Various	Various : TBD,	-	-		-		2.400	Feb 2015	-		2.400	Continuing	Continuing	2.700
		Subtotal	-	-		-		5.600		-		5.600	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force		Date: February 2015
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*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	AFLCMC/WLS : Dayton, OH	-	-		-		0.100	Feb 2015	-		0.100	Continuing	Continuing	0.400
SBIR	TBD	TBD : TBD,	-	-		-		1.985	Feb 2015	-		1.985	Continuing	Continuing	7.940
		Subtotal	-	-		-		2.085		-		2.085	-	-	8.340

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		30.461		-		30.461	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force		Date: February 2015
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*

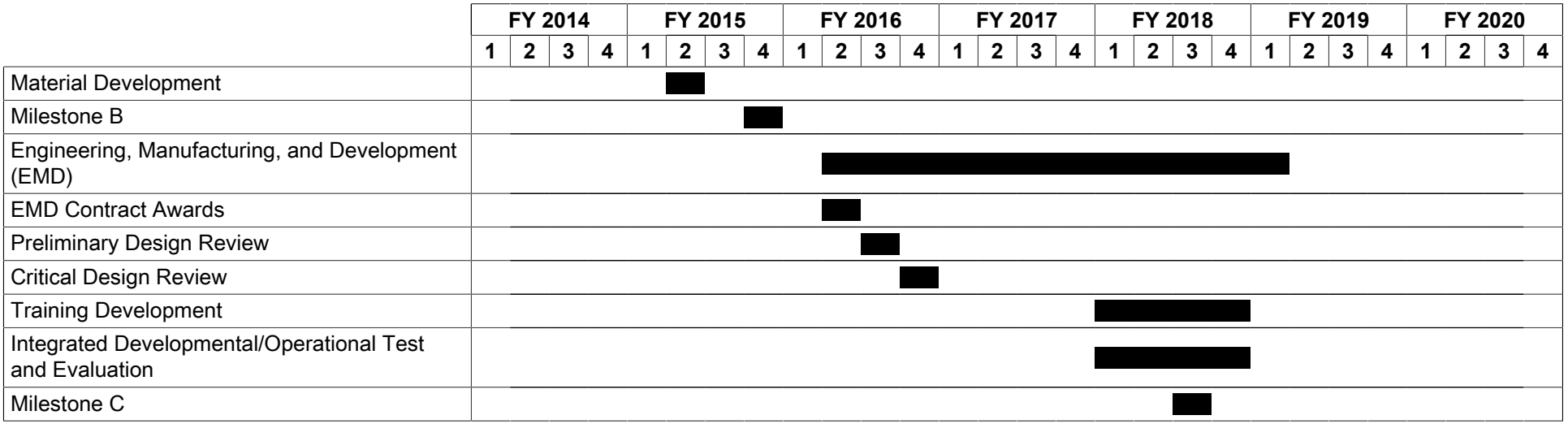

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401119F / *C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 675359 / *CNS/ATM Mode5 Swift Broadband BLOS/LOS Radio*

Schedule Details

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