Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

tion Air Cores

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS

BA 7: Operational Systems Development

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	168.736	109.250	113.107	0.000	113.107	4.840	5.658	0.000	0.000	Continuing	Continuing
674885: Avionics Modernization Program (AMP)	161.810	105.907	43.472	0.000	43.472	4.840	5.658	0.000	0.000	Continuing	Continuing
675243: C-130 Initiatives	6.926	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
675362: AMP Phase II	0.000	3.343	69.635	0.000	69.635	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This C-130 Airlift Squadrons' Program Element contains three Budget Program Activity Codes (BPACs): C-130 Avionics Modernization Program (AMP), C-130 AMP Phase II and C-130 Initiatives.

C-130 Avionics Modernization Program (AMP) will modernize the avionics suite and cockpit configuration of 221 Combat Delivery C-130s in order to meet the CNS/ATM and AF Nav/Safety mandates.

C-130 Initiatives is where the AF puts C-130 RDT&E funding for Congressional adds and new programs not covered by C-130 AMP or C-130 AMP Phase II. See BPAC# 675362.

C-130 Avionics Modernization Program (AMP) Phase II will modernize the avionics suite and cockpit configurations of 74 AC/EC/MC/LC-130 Special Mission aircraft and 28 Combat Delivery C-130s in order to meet the CNS/ATM and AF Nav/Safety mandates. The funds in AMP Phase II represent the program office estimates and are awaiting completion of final contract negotiation for further definitization. The FY11 funds will enable initial contract award for risk reduction efforts. The complete program definition will be outlined in the FY12 budget submission

This program intends to leverage design efforts completed under AMP Phase I. USSOCOM's AC-130U and MC-130H/W will require SOF-unique capabilities integrated within AMP Phase II. Funds for these unique capabilities will be provided in MFP-11 and are not shown here.

Note: Funding for the Integration of C/EC/WC-130J fleets are NOT included here.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0401115F: C-130 AIRLIFT SQUADRONS	

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	179.760	109.250	0.000	0.000	0.000
Current President's Budget	168.736	109.250	113.107	0.000	113.107
Total Adjustments	-11.024	0.000	113.107	0.000	113.107
 Congressional General Reductions 		0.000			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 		0.000			
 Congressional Directed Transfers 		0.000			
Reprogrammings	0.000	0.000			
SBIR/STTR Transfer	0.000	0.000			
Other Adjustments	-11.024	0.000	113.107	0.000	113.107

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 675243: C-130 Initiatives

Congressional Add: Electromagnetic in-flight Prop Balancing Sys.

Congressional Add: C-130 AIRCAT Condition Based Maintenance (CBM+).

	FY 2009	FY 2010
	1.950	0.000
	3.136	0.000
Congressional Add Subtotals for Project: 675243	5.086	0.000
Congressional Add Totals for all Projects	5.086	0.000

Change Summary Explanation

1. Congress approved an FY09 OMNIBUS action that added \$12.726M here to pay the 2005 C-130 AMP protest settlement to Lockheed. In the FY10 appropriations, Congress rescinded \$19M of FY09 funds and also cut an additional \$19M from AMP's FY10 RDT&E request.

Exhibit R-2A, RDT&E Project Just	ification: Pl	3 2011 Air F	orce				DATE: February 2010				
APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Test BA 7: Operational Systems Develop	& Evaluatio	n, Air Force			IOMENCLA 5F: <i>C-130 A</i>		ADRONS	PROJECT 674885: Av (AMP)	ionics Mode	gram	
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
674885: Avionics Modernization Program (AMP)	161.810	105.907	43.472	0.000	43.472	4.840	5.658	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

AMP has completed all Critical Design Reviews (CDR) for hardware and software requirements. Boeing completed the initial software production build with first flight in Aug 08. Developmental flight test was completed in Dec 09 with three test aircraft having completed 426 sorties, totaling 1273 flight hours with no Category One discrepancies. The retrofit to production configuration to support IOT&E of the first two test aircraft began in Jun 09 with retrofit completion by the end of 3rd quarter FY10. Developmental efforts for the AMP training requirements will continue through FY13. In addition, the C-130 AMP contract allows for special mission analysis, studies, and engineering effort in support of additional MDS and planning for future block upgrades.

The C-130 Avionics Modernization Program (AMP) consolidates and installs the mandated AF Navigation/Safety modifications, the Communications Navigation Surveillance/Air Traffic Management (CNS/ATM) capabilities and the C-130 Broad Area Review requirements on 221 of the AF's Combat Delivery C-130s. These mandated modifications are incorporated with various other Reliability, Maintainability, and Sustainability (RM&S) upgrades to include: installation and modification of fleet-wide radars, aircrew displays, dual autopilots, dual flight management systems and HF/UHF/VHF radios/data links. A C-130 AMP-equipped aircraft will be able to safely and effectively operate worldwide in today's and tomorrow's airspace. In addition to meeting CNS/ATM and Navigation/Safety requirements, AMP will also lower the cost of ownership and increase survivability of the Mobility Air Forces' (MAF) C-130 Combat Delivery fleet.

This fleet consists of three (3) different mission design series (MDS) aircraft to be modified by the AMP (C-130 H2, H2.5, and H3). Within each of these MDSs multiple configurations exist among the aircraft that will be modified with AMP. Today, these different models and cockpit configurations create significant logistics support and aircrew training inefficiencies. Also, these differences greatly complicate aircrew and aircraft scheduling and interoperability at forward operating locations. C-130 AMP standardizes the cockpit configurations and avionics suites for these different variants into a single cockpit configuration by installing a core avionics package with a common cockpit layout, thus eliminating many of these significant logistics, interoperability, and training problems. A number of C-130 Diminishing Manufacturing Sources (DMS) issues are addressed during System Development and Demonstration (SDD) as a result of the new hardware included in the AMP design. Boeing's DMS plan developed during SDD will be implemented during the production phases. Shown here are RDT&E funds for only C-130 AMP. (Note: The C/EC/WC-130J fleets are separately funded and not included here.)

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0401115F: C-130 AIRLIFT SQUADRONS	674885: Av	rionics Modernization Program
BA 7: Operational Systems Development		(AMP)	

The SDD contract was awarded to The Boeing Company on 30 Jul 01. An Integrated Baseline Review (IBR) was conducted in January 02. From FY02-05, the combination of funding and requirements instability, coupled with increases in prime contractor development costs pushed AMP into reportable cost and schedule breaches. In Feb 07, SECAF notified Congress of a critical Nunn-McCurdy breach. In Jun 07, USD (AT&L) recertified AMP to Congress-albeit at a reduced profile of 222 aircraft, comprising the majority of the AMC/ANG/AFRC Combat Delivery fleets. The program was reduced to 221, due to loss of aircraft in June 2008.

Not certifed within AMP were 166 Special Mission and C-130H1 Combat Delivery aircraft. These aircraft were placed in a separate modification program: C-130 AMP Phase II.

This project consists of low technical risk efforts supporting a stable design that has been proven in flight test and therefore was assigned Budget Activity Code 07.

Finally: funds are required to pay the settlement w/Lockheed over the 2005 protest agreement. In FY10, Congressional rescissions and reductions of \$37M in FY09 (\$18M) & FY10 (\$19M) resulted in an Air Force unfunded requirement to pay the Lockheed Martin Protest Settlement of \$19M

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Complete design activities for software spirals and remaining Group A engineering data release for the H2, H2.5, and H3 configurations. Contractor also provide flight test support	155.530	102.576	41.372	0.000	41.372
FY 2009 Accomplishments: In FY2009: Continued EMD aircraft retrofit efforts to include drawings updates, support lab integration efforts to government labs at WR-ALC (Warner Robins), Functional Configuration Audit (FCA) support. Also development, test, and delivery of Weapon Systems Trainers (WSTs) and Avionics Parts Task Trainer (APTT).					
FY 2010 Plans: In FY2010: Continue lab integration and government user training at ALC, support drawing updates, complete system Functional Configuration Audit (FCA), and deliver Cockpit Familiarization Trainer (CFT).					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0401115F: C-130 AIRLIFT SQUA	ADRONS	PROJECT 674885: <i>Avi</i> (<i>AMP</i>)	ionics Model	rnization Pro	gram
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: In FY2011: Perform development and testing of Maintenance Tramodifications of WST at second C-130 AMP location, Pope AFB. develop new and modify interactive instruction procedures for eximal Maintenance Training Systems.	Also government ALC efforts to					
FY 2011 OCO Plans: In FY2011 (OCO): N/A.						
MAJOR THRUST: Developmental Test and Evaluation (DT&E).		6.280	3.331	2.100	0.000	2.100
FY 2009 Accomplishments: In FY2009: Final major software capability first flight successful, completed, and performed flight test data analysis and assessme						
FY 2010 Plans: In FY2010: DT&E flight test and ground tests completed for all 3 reports, and complete technical order certification/verification.	aircraft, generate final flight test					
FY 2011 Base Plans: In FY2011: DT&E completed on retrofitted aircraft (H2/H2.5), and complete Initial Operational Test & Evaluation (IOT&E).	support tasks and reports to					
FY 2011 OCO Plans: In FY2011 (OCO): N/A.						
Accomp	lishments/Planned Programs Subtotals	161.810	105.907	43.472	0.000	43.472

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS 674885: Avionics Modernization Program

BA 7: Operational Systems Development

(AMP)

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

			FY 2011	FY 2011	FY 2011					Cost 10	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE Not Provided (168): Activity	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Not Provided											

D. Acquisition Strategy

The C-130 AMP contract was awarded 30 July 01 as a Cost-Plus Award Fee contract to develop and install AMP kits for the development aircraft and conduct developmental flight test. Restructure Engineering Change Proposal (ECP) 1302 was awarded to Boeing 20 Aug 03. The ECP rebaselined the program due to funding reductions in FYs 03/04 which resulted in delays in System Development and Demonstration (SDD) program exceeding 2 years. Revisions to the AF training system began in Jul 06 under the AMP contract. This effort will modify the various Training Programs, Courses, Weapons Systems Trainers, and Maintenance Trainers to the AMP configuration. Due to the Nunn-McCurdy certification, descoping of special mission aircraft MDS's, the C-130 AMP EMD required a 2nd restructure and rebaseline for the remaining program activities with a contract modification in Aug 08. The program office awarded two pre-milestone C kit buys in Sep 2008 under a Jul 08 OSD Acquisition Decision Memorandum (ADM). The program office is actively working with OSD to update the acquisition strategy and proceed with a Milestone C Review in the 2nd quarter of FY10.

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 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0401115F: C-130 AIRLIFT SQUADRONS

PROJECT

674885: Avionics Modernization Program

(AMP)

Product Development (\$ in Millions)

			FY 2	010	FY 2011 10 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Boeing, Long Beach, CA	C/CPAF	Boeing Long Beach, CA	1,169.395	89.087	Nov 2009	37.138	Nov 2010	0.000		37.138	8.658	1,304.278	0.000
		Subtotal	1,169.395	89.087		37.138		0.000		37.138	8.658	1,304.278	0.000

Remarks

Note: Funds shown here contain System Design & Development, ECO,

AMP Training System Upgrades, Government Furnished Property (GFP), & the Award Fee.

Support (\$ in Millions)

	•												
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Support	TBD/TBD	TBD Wright Patterson AFB, OH	120.761	13.489		4.453		0.000		4.453	1.840	140.543	0.000
		Subtotal	120.761	13.489		4.453		0.000		4.453	1.840	140.543	0.000

Remarks

Award Dates vary throughout the year depending

on activity (Protest Settlements, TDY, Training, Internal Contractor Support, and SIF Nodes Delivery

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS

674885: Avionics Modernization Program

(AMP)

Test and Evaluation (\$ in Millions)

		FY 2	2010	FY 2 Ba	2011 ise	FY 2	2011 CO	FY 2011 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	TBD/TBD	TBD Edwards AFB, CA	42.556	3.331	Nov 2009	1.881	Nov 2010	0.000		1.881	0.000	47.768	0.000
		Subtotal	42.556	3.331		1.881		0.000		1.881	0.000	47.768	0.000

Remarks

Management Services (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Funds to pay settlement to Lockheed Martin	TBD/TBD	TBD Wright Patterson AFB, OH	0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000
AF reallocated funds within PE to support C130 Intitiatives (Non- AMP)	TBD/TBD	TBD TBD	0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000
		Subtotal	0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks

Total Congressional reductions of \$37M in FY09 & FY10 results in requirement for additional funds to pay Lockheed Martin Protest Settlement \$19M.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS

674885: Avionics Modernization Program

(AMP)

	Total Prior Years Cost	FY 2	2010		2011 se	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,332.712	105.907		43.472		0.000	43.472	10.498	1,492.589	0.000

Remarks

Total Prior Years Cost may include only FY 2009 data.

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

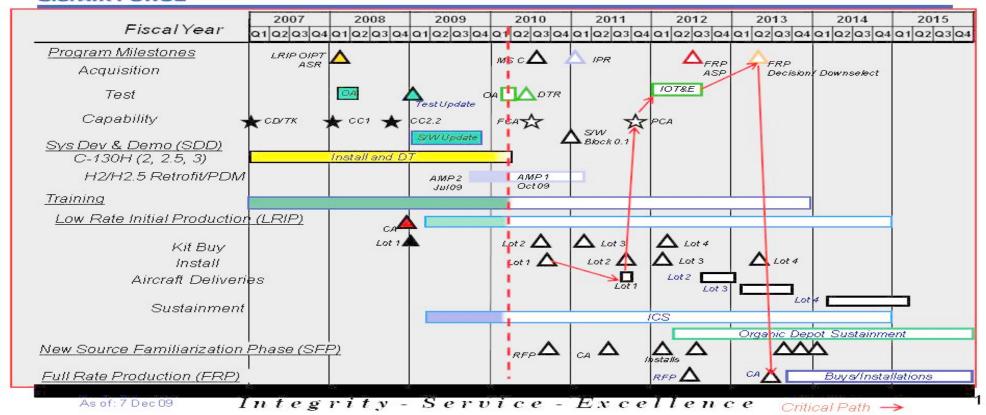
PE 0401115F: C-130 AIRLIFT SQUADRONS

PROJECT

674885: Avionics Modernization Program

(AMP)





R-1 Line Item #220 Page 10 of 24

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0401115F: C-130 AIRLIFT SQUADRONS	674885: Av	vionics Modernization Program
BA 7: Operational Systems Development		(AMP)	

Schedule Details

	St	art	E	nd
Event	Quarter	Year	Quarter	Year
C-130H3 First Flight	2	2009	2	2009
Development Flight Test Complete	1	2010	1	2010
Functional Configuration Audit (FCA)	3	2010	3	2010

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0401115F: C-130 AIRLIFT SQUADRONS 675243: C-130 Initiatives

BA 7: Operational Systems Development

Bit 1. Operational Gysterns Bevelop	Cr. Operational Systems Development												
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost		
675243: C-130 Initiatives	6.926	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing		
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0				

A. Mission Description and Budget Item Justification

C-130 Congressional Adds of \$7.4M consist of \$3.2M for Automated Inspection Repair Corrosion and Aircraft Tracking (AIRCAT); \$2M for Electromagnetic In-flight Propeller Balancing System and \$2M for NP-2000 Propellers for ANG.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
CONGRESIONAL ADD: NP-2000 Propellers for ANG.	1.840	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: In FY 2009: NP-2000 Propellers for ANG.					
FY 2010 Plans: In FY 2010: N/A.					
FY 2011 Base Plans: In FY 2011: N/A.					
FY 2011 OCO Plans: In FY2011 (OCO): N/A.					
Accomplishments/Planned Programs Su	btotals 1.840	0.000	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force **DATE:** February 2010 **PROJECT** APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE**

PE 0401115F: C-130 AIRLIFT SQUADRONS 3600: Research, Development, Test & Evaluation, Air Force

675243: C-130 Initiatives BA 7: Operational Systems Development

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

		FY 2009	FY 2010
Congressional Add: Electromagnetic in-flight Prop Balancing Sys. FY 2009 Accomplishments: In FY 2009: Electromagnetic in-flight Prop Balancing Sys.		1.950	0.000
FY 2010 Plans: In FY 2010: N/A.			
Congressional Add: C-130 AIRCAT Condition Based Maintenance (CBM+).		3.136	0.000
FY 2009 Accomplishments: In FY 2009: C-130 AIRCAT Condition Based Maintenance (CBM+).			
FY 2010 Plans: In FY 2010: N/A.			
	Congressional Adds Subtotals	5.086	0.000

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

			FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	<u>000</u>	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
 PE Not Provided (515): None 	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D. Acquisition Strategy

AIRCAT contract awarded in Sep 08.

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 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS

675243: C-130 Initiatives

BA 7: Operational Systems Development

Product Development (\$ in Millions)

				FY 2	2010	FY 2 Ba	2011 se	FY 20		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AIRCAT System engineering development	C/FFP	TBD Warner Robins, GA	3.136	0.000		0.000		0.000		0.000	0.000	3.136	0.000
		Subtotal	3.136	0.000		0.000		0.000		0.000	0.000	3.136	0.000

Remarks

Support (\$ in Millions)

		Contract Bowforming			010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NP-2000 Propellers for ANG & EM In-Flight Prop Balancing Sys	Various/ Various	Various Various	3.790	0.000		0.000		0.000		0.000	0.000	3.790	0.000
		Subtotal	3.790	0.000		0.000		0.000		0.000	0.000	3.790	0.000

Remarks

	Total Prior Years Cost	FY 2010	FY 2 Ba	2011 se	FY 2	2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.926	0.000	0.000		0.000		0.000	0.000	6.926	0.000

UNCLASSIFIED

			UNCL	ASSIFIED					
Exhibit R-3, RDT&E Project Cost Analysis	s: PB 2011 Air Force	e					DATE: Febru	ary 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evalu BA 7: Operational Systems Development	uation, Air Force			M NOMENCLATURE 115F: <i>C-130 AIRLIF</i>		PROJECT 675243: <i>C</i> -	130 Initiatives		
	Total Prior Years Cost	FY 20	10	FY 2011 Base	FY 2011 OCO	FY 20 Tota		Total Cost	Target Value of Contract
Remarks Total Prior Years Cost may include only FY 2009 date	a.								

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE 3600: Research, Development, Test & Evaluation, Air Force PE 0401115F: C-130 AIRLIFT SQUADRONS

BA 7: Operational Systems Development

PROJECT

675243: C-130 Initiatives

	F	Y	200	9	F	Y 2	201	0	F	Y 2	201	1	F	Y 2	201	2	F	Y 2	201	3	F	Υ 2	201	4	F	Y 2	201	5
	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
Prop De-icing System Flight Test																												

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0401115F: C-130 AIRLIFT SQUADRONS

PROJECT

675243: C-130 Initiatives

Schedule Details

	St	art	Eı	nd
Event	Quarter	Year	Quarter	Year
Prop De-icing System Flight Test	3	2009	3	2009

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0401115F: C-130 AIRLIFT SQUADRONS 675362: AMP Phase II

BA 7: Operational Systems Development

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
675362: AMP Phase II	0.000	3.343	69.635	0.000	69.635	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The C-130 Avionics Modernization Program (AMP) Phase II consolidates and installs mandated AF Navigation/Safety modifications, Communications Navigation Surveillance/Air Traffic Management (CNS/ATM) capabilities, and C-130 Broad Area Review requirements on 102 C-130 aircraft (74 Special Mission AC/EC/LC/MC-130s and 28 Combat Delivery C-130H1s). The aircraft were part of AF's C-130 AMP since its inception in 2001 and will leverage AMP's core hardware and software, designed from the start to accommodate the unique requirements of the Special Mission aircraft. The funding for these aircraft was postponed until FY10 as a result of AMP's Nunn-McCurdy certification in Jun 2007.

These mandated modifications are incorporated with various other Reliability, Maintainability, and Sustainability (RM&S) upgrades to include installation of new radars, aircrew displays, dual autopilots, dual flight management systems and HF/UHF/VHF radios/data links. An AMP-equipped aircraft will be able to safely and effectively operate world-wide in today's and tomorrow's airspace. In addition, AMP Phase II will lower the cost of ownership and increase survivability for both the Mobility Air Forces (MAF) and Special Operations Forces (SOF) C-130 fleets.

The fleets consist of six (6) different mission design series (MDS) aircraft to be modified by the AMP Phase II (AC-130U, EC-130H, LC-130H, MC-130H, MC-130W, and C-130H1). Within each MDS, multiple configurations exist among the aircraft that will be modified. Today, different models and cockpit configurations create significant logistics support and aircrew training inefficiencies. Also, these differences greatly complicate aircrew and aircraft scheduling and interoperability at forward operating locations. C-130 AMP Phase II will standardize the cockpit configurations and avionics suites for these variants into a single cockpit configuration by installing the core AMP avionics package with a common cockpit layout, thus eliminating many of these significant logistics, interoperability and training problems. Also, many of the C-130 Diminishing Manufacturing Sources (DMS) issues are resolved as a result of new hardware included in the AMP Phase II design.

Shown here are RDT&E funds for only C-130 AMP Phase II. The funds represent program office estimates and are awaiting completion of final contract negotiation for further definitization. The funds enable initial contractual award for risk reduction efforts. Additional funds will be requested in FY12 POM. (Notes: This program intends to leverage design efforts completed under AMP, BPAC 674885, also known as AMP Phase I, which are separately funded and not shown here. USSOCOM's AC-130U and MC-130H/W required SOF-unique capabilities integrated with AMP Phase II. Funds for these capabilities will be provided in MFP-11 and are not shown here.)

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 040

BA 7: Operational Systems Development

PE 0401115F: C-130 AIRLIFT SQUADRONS

675362: AMP Phase II

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Conduct risk reduction and design activities for CNS/ATM compliance, improved avionics/cockpit commonality, RM&S improvements, and related obsolescence/DMS fixes for the AC-130U, MC	0.000	3.343	69.635	0.000	69.635
FY 2009 Accomplishments: In FY2009: N/A					
FY 2010 Plans: In FY2010: Initiate short term CNS/ATM solutions including 8.33KHz radios, enhanced Mode S transponder, and voice/data recorder. Increase long term planning for Materiel Development Decision and develop Request for Proposal.					
FY 2011 Base Plans: In FY2011: Continue short term CNS/ATM solutions. For long term solutions, negotiate and award contract for risk reduction activities and detailed program definition to support a Milestone B (MS B).					
FY 2011 OCO Plans: In FY2011 (OCO): N/A.					
Accomplishments/Planned Programs Subtotals	0.000	3.343	69.635	0.000	69.635

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0401115F: C-130 AIRLIFT SQUADRONS

675362: AMP Phase II

BA 7: Operational Systems Development

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

			FY 2011	<u>FY 2011</u>	<u>FY 2011</u>					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE 0401115F: <i>APAF, C-130 AMP</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Phase II, BP1100											

D. Acquisition Strategy

The AMP Phase II work is divided into short-term and long-term efforts. The short term effort meets near term CNS/ATM mandates and obsolescence. The long term and main effort will integrate AMP capabilities (aka AMP Phase I) onto each MDS in AMP Phase II, add SOF-unique capabilities (e.g. terrain following radar), and preserve the current unique capabilities. This program includes modifications to training and support systems. The long-term contractual actions are divided into two main parts. The first part updates preliminary design with sub-system risk reduction to provide decision knowledge for the second part, a traditional Engineering and Manufacturing Development effort. The long term effort leverages the existing AMP contract and core design, but segments activities to permit focus on each aircraft type.

This capability is considered a low technical risk from a stable design that has been proven in flight test and therefore was assigned Budget Activity Code 07.

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 2011 Air Force

R-1 ITEM NOMENCLATURE

PROJECT DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

PE 0401115F: C-130 AIRLIFT SQUADRONS

675362: AMP Phase II

Product Development (\$ in Millions)

-	•	•											
				FY 2	010	FY 2 Bas		FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Short term radios, enhanced mode S, and voice/data recorder	C/Various	330th Aircraft Sustainment Wing Robins AFB	0.000	3.000		28.000		0.000		28.000	0.000	31.000	0.000
Long-term hardware and software design, integration, and test	SS/CPIF	Boeing Long Beach, CA	0.000	0.000		36.685	Jun 2011	0.000		36.685	Continuing	Continuing	Continuing
		Subtotal	0.000	3.000		64.685		0.000		64.685			

Remarks

Note: Funds shown here contain SDD, ECO, Training System Upgrades and the Award Fee.

Support (\$ in Millions)

				FY 2	010	FY 2 Ba		FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support Office	C/Various	Various Various	0.000	0.343		4.100		0.000		4.100	Continuing	Continuing	Continuing
		Subtotal	0.000	0.343		4.100		0.000		4.100			

Remarks

Award dates vary throughout the year depending on activity (TDY, Training, Contractor Support)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development

PE 0401115F: C-130 AIRLIFT SQUADRONS

675362: AMP Phase II

Test and Evaluation (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various/ Various	Various Various	0.000	0.000		0.850	Jun 2011	0.000		0.850	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.850		0.000		0.850			

Remarks

	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2		Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	3.343	69.635	0.000	69.635			

Remarks

Total Prior Years Cost may include only FY 2009 data.

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0401115F: C-130 AIRLIFT SQUADRONS

PROJECT

675362: AMP Phase II

	I	FΥ	200	9	F	Y 2	201	0	ı	Y :	201	1	F	Y 2	201	2	F	FY 2	201	3	F	Y 2	201	4	F	Y 2	201	5
	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
Short Term radios, enhanced mode S, and voice/data recorders																												
Long term Material Development Decision																												
Long term Risk Reduction Contract Award																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0401115F: C-130 AIRLIFT SQUADRONS

PROJECT

675362: AMP Phase II

Schedule Details

	St	art	E	nd
Event	Quarter	Year	Quarter	Year
Short Term radios, enhanced mode S, and voice/data recorders	4	2010	4	2011
Long term Material Development Decision	3	2010	3	2010
Long term Risk Reduction Contract Award	3	2011	3	2011