Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-327

C-5 Reliability Enhancement and Re-engining Program (C-5 RERP)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations

Acq O&M - Acquisition-Related Operations and Maintenance
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
BY - Base Year
DAMIR - Defense Acquisition Management Information Retrieval
Dev Est - Development Estimate
DoD - Department of Defense
DSN - Defense Switched Network
Econ - Economic
Eng - Engineering
Est - Estimating
FMS - Foreign Military Sales
FY - Fiscal Year
IOC - Initial Operational Capability
$K - Thousands of Dollars
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MILCON - Military Construction
N/A - Not Applicable
O&S - Operating and Support
Oth - Other
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
Proc - Procurement
Prod Est - Production Estimate
QR - Quantity Related
Qty - Quantity
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
Sch - Schedule
Spt - Support
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting

Program Information

Program Name

C-5 Reliability Enhancement and Re-engining Program (C-5 RERP)

DoD Component

Air Force

Responsible Office

Responsible Office

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Date Assigned July 15, 2013

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 24, 2008

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 7, 2010

Mission and Description

The C-5 Reliability Enhancement and Re-engining Program (C-5 RERP) is the second phase of a two-phase modernization program for the C-5. The Avionics Modernization Program was Phase I and is the baseline for C-5 RERP. Following completion of Phase II C-5 RERP, the aircraft is designated a C-5M. C-5 RERP is a comprehensive modernization effort that will improve aircraft reliability, maintainability, and availability. C-5 RERP will enable the C-5M to achieve wartime mission requirements by increasing fleet availability (mission capable rates and departure reliability), reducing Total Ownership Costs, and improving aircraft performance. This effort centers on replacing the current TF-39 engine with a more reliable, Commercial Off-the-Shelf General Electric (GE) CF6-80C2 (F138-GE-100 military designation) turbofan engine with increased takeoff thrust, stage-3 noise compliance, and Federal Aviation Regulation pollution compliance. In addition to new engines/pylons, C-5 RERP will provide upgrades to wing attachment fittings; new thrust reversers and Auxiliary Power Units; upgrades to the electrical, hydraulic, fuel, fire suppression, landing gear, and pressurization/air conditioning systems; and airframe structural modifications. These aircraft improvements increase payload capability and access to Communication, Navigation, Surveillance/Air Traffic Management airspace. C-5 RERP also decreases aircraft time to climb, increases engine-out climb gradient for takeoff, improves transportation system throughput, and decreases engine removals.

The procurement tempo to deliver a C-5 RERP aircraft is a three year process. The first year is advance procurement of material with longer than 12 months duration to buy and deliver, the second year involves material procurement and fabrication, while the third and final year is installation on the aircraft.

Executive Summary

Lockheed Martin (LM) delivered six C-5M aircraft to the Air Force in 2013, bringing the total number of C-5Ms delivered to sixteen. The deliveries satisfy the necessary criteria for Air Mobility Command to declare IOC. IOC was declared on February 21, 2014.

LM continues to experience production delivery delays of approximately four months due to longer than anticipated production times and legacy aircraft issues. LM has identified numerous initiatives to improve delivery times and the program has begun to see improvement. A Government Advisory Team, comprised of Air Force aircraft maintainers, was sent to LM in October 2013 to provide expertise on flight line operations and legacy maintenance and repair issues. As a result, four flight line Work-in-Progress aircraft were delivered in less than thirty days. The program will continue to fund travel for the Government Advisory Team to remain in place through the remainder of RERP production. A contract delivery schedule adjustment is in work.

Several issues with the F138 engine were discovered and are in various stages of resolution. In February 2013, General Electric (GE) issued a Service Bulletin affecting the Low Pressure Turbine Blades on 36 engines. Repair and replacement of affected engines is underway with a July 2014 completion date. In October 2013, GE disclosed an additional quality escape affecting the Hydro Mechanical Unit (fuel control valve) on 38 engines. As of December 31, 2013, the government has replaced the suspect units on all operational aircraft with plans in place to have all units repaired by May 2014.

The Aircrew Training Device for Travis Air Force Base, California completed modification on February 24, 2014.

Operational Flight Program 3.5.2 completed a successful Operational Test and Evaluation on November 5, 2013.

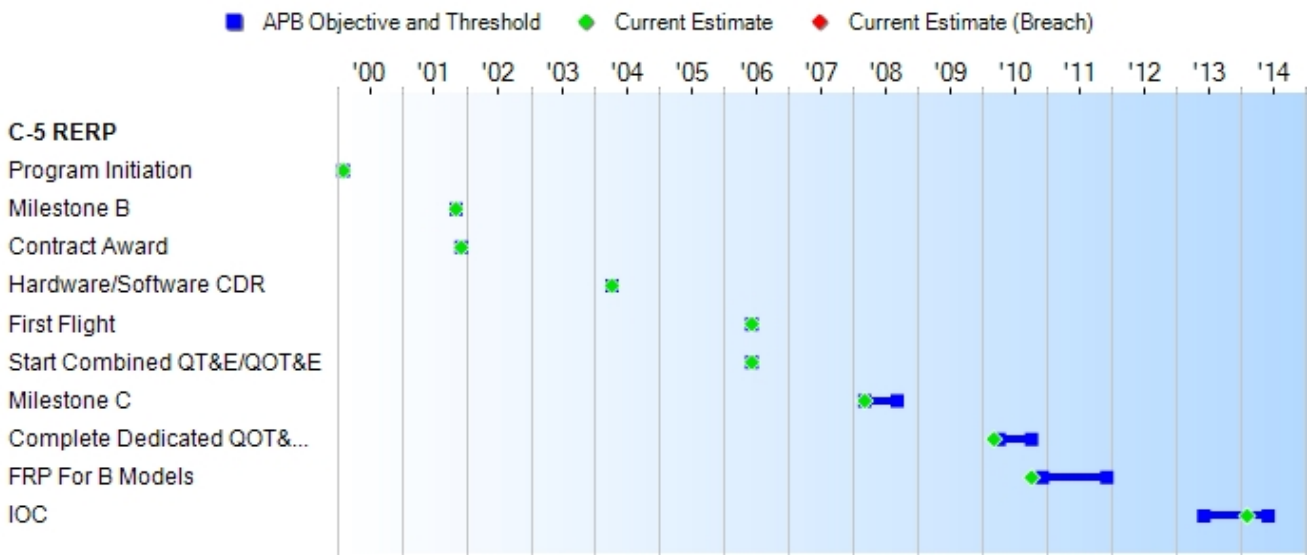
There are no significant software-related issues with this program at this time.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	
Program Initiation	FEB 2000	FEB 2000	FEB 2000	FEB 2000	
Milestone B	NOV 2001	NOV 2001	NOV 2001	NOV 2001	
Contract Award	DEC 2001	DEC 2001	DEC 2001	DEC 2001	
Hardware/Software CDR	APR 2004	APR 2004	APR 2004	APR 2004	
First Flight	JUN 2006	JUN 2006	JUN 2006	JUN 2006	
Start Combined QT&E/QOT&E	JUN 2006	JUN 2006	JUN 2006	JUN 2006	
Milestone C	MAR 2008	MAR 2008	SEP 2008	MAR 2008	
Complete Dedicated QOT&E (AFOTEC Report complete)	APR 2010	APR 2010	OCT 2010	MAR 2010	
FRP For B Models	DEC 2010	DEC 2010	DEC 2011	OCT 2010	
IOC	JUN 2013	JUN 2013	JUN 2014	FEB 2014	(Ch-1)

Change Explanations

(Ch-1) The IOC current estimate changed from AUG 2013 to FEB 2014 to reflect recent delivery of the 16th C-5M aircraft, satisfying the criteria for Air Mobility Command.

Acronyms and Abbreviations

AFOTEC - Air Force Operational Test and Evaluation Center
CDR - Critical Design Review
FRP - Full Rate Production
QOT&E - Qualification Operational Test and Evaluation
QT&E - Qualification Test and Evaluation

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Time To Climb/Initial Level Off	837,000 lbs take-off gross weight; RCR 23; climb condition: 77 deg F; SL to 31,000 ft in less than 25 min	837,000 lbs take-off gross weight; RCR 23; climb condition: 77 deg F; SL to 31,000 ft in less than 25 min	769,000 lbs take-off gross weight; RCR 23; climb condition: 77 deg F; SL to 31,000 ft in less than 25 min	837,000 lbs take-off gross weight; RCR 23; climb condition: 77 deg F; SL to 31,000 ft in less than 25 min	Will meet or exceed Current APB Threshold. 769,000 lbs take-off gross weight; RCR 23; climb condition: 77 deg F; SL to 31,000 ft in less than 25 min
Aircraft Take-off Climb Gradient	One engine out climb gradient >=3.3% beginning at departure end of runway / 837,000 lbs take-off weight / hot day (103 deg F) / 10,000 ft runway / SL / RCR 23	One engine out climb gradient >=3.3% beginning at departure end of runway / 837,000 lbs take-off weight / hot day (103 deg F) / 10,000 ft runway / SL / RCR 23	One engine out climb gradient >=2.5% beginning at departure end of runway / 837,000 lbs take-off weight / hot day (103 deg F) / 10,000 ft runway / SL / RCR 23	One engine out climb gradient >= 3.3% beginning at departure end of runway/ 837,000 lbs takeoff weight; hot day (103 deg F)/ 10,000 ft runway/ SL/ RCR 23	Will meet or exceed Current APB Threshold. One engine out climb gradient >=2.5% beginning at departure end of runway / 837,000 lbs take-off weight / hot day (103 deg F) / 10,000 ft runway / SL / RCR 23
Mission Capable Rate (MCR)	Wartime >= 82% and Peacetime >= 75%	Wartime >= 82% and Peacetime >= 75%	Wartime >= 75%	SDD (81.6%)/ QOT&E (66% & 76%)/ CONOPS I Surge (78%)	Will meet or exceed Current APB Threshold. Wartime >= 75%

				& CONOPS II Surge (89%)/ AMC/ AFTRANS Surge (90%); Wartime >= 75% & Peace time >= 82%	
Noise Compliance	Certifiable under FAR Part 36 Stage 4 noise standards	Certifiable under FAR Part 36 Stage 4 noise standards	Certifiable under FAR part 36 Stage 3 noise standards	Certifiable under FAR Part 36 Stage 4 noise standards	Will meet or exceed Current APB Threshold. Certifiable under FAR part 36 Stage 3 noise standards
Emission Compliance	Certifiable under FAR Part 34 emission requirements	Certifiable under FAR Part 34 emission requirements	Certifiable under FAR Part 34 emission requirements	Certifiable under FAR Part 34 emission requirements	Will meet or exceed Current APB Threshold. Certifiable under FAR Part 34 emission requirements

Requirements Source

Capability Production Document (CPD) Change 1 dated December 1, 2009

Change Explanations

None

Memo

Demonstrated performance reflects the outcome of Flight Test completed during SDD on August 18, 2008; QOT&E completed on March 8, 2010; and Post-QOT&E Real-World Surge Exercises.

Acronyms and Abbreviations

AFTRANS - Air Forces Transportation
AMC - Air Mobility Command
APB - Acquisition Program Baseline
CONOPS - Concept of Operations
deg - degrees
F - Fahrenheit
FAR - Federal Aviation Regulation
ft - feet
lbs - pounds
min - minutes
QOT&E - Qualification Operational Test and Evaluation
RCR - Runway Condition Reading
SDD - System Design and Development
SL - Sea Level

Track to Budget

RDT&E

Appn		BA	PE		
Air Force	3600	07	0401119F		
	Project		**Name**		
	4835		C-5 Airlift Squadrons/C-5 Reliability Enhancement & Reengining Program (RERP)		(Sunk)

Procurement

Appn		BA	PE		
Air Force	3010	07	0401119F		
	Line Item		**Name**		
	000075		C-5 Reliability Enhancement and Reengining Program (RERP)	(Shared)	(Sunk)
Air Force	3010	06	0401119F		
	Line Item		**Name**		
	000999		C-5 Reliability Enhancement and Reengining Program (RERP)	(Shared)	(Sunk)
Air Force	3010	05	0401119F		
	Line Item		**Name**		
	C00500		C-5 Reliability Enhancement and Reengining Program (RERP)		(Sunk)
	C005M0		C-5 Reliability Enhancement and Reengining Program (RERP)		

MILCON

Appn		BA	PE	
Air Force	3300	01	0401896F	
	Project		**Name**	
	103003		C-5 Reliability Enhancement and Reengining Program (RERP)	(Sunk)
	Notes:		Training facility at Dover Air Force Base	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2008 $M			BY2008 $M	TY $M		
Appropriation	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	1722.9	1734.3	1907.7	1691.2	1643.5	1645.0	1601.2
Procurement	5415.9	5396.3	5935.9	5036.5	6042.1	5860.4	5532.4
Flyaway	--	--	--	4191.8	--	--	4609.7
Recurring	--	--	--	4191.8	--	--	4609.7
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	844.7	--	--	922.7
Other Support	--	--	--	290.7	--	--	316.9
Initial Spares	--	--	--	554.0	--	--	605.8
MILCON	7.8	5.1	5.6	5.0	8.5	5.3	5.3
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	7146.6	7135.7	N/A	6732.7	7694.1	7510.7	7138.9

Confidence Level for Current APB Cost 50% -

Confidence Level for current Acquisition Program Baseline (APB) cost is 50%. The Independent Cost Estimate (ICE) to support C-5 RERP Full Rate Production decision, like all life-cycle cost estimates previously performed by the Cost Assessment and Program Evaluation (CAPE), is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

It is difficult to calculate mathematically the precise confidence levels associated with life-cycle cost estimates prepared for Major Defense Acquisition Program (MDAPs) programs. Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is about equally likely that the estimate will prove too low or too high for execution of the program described.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	3	3	3
Procurement	49	49	49
Total	52	52	52

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2015 President's Budget / December 2013 SAR (TY$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	1601.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1601.2
Procurement	4149.3	1051.6	331.5	0.0	0.0	0.0	0.0	0.0	5532.4
MILCON	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	5755.8	1051.6	331.5	0.0	0.0	0.0	0.0	0.0	7138.9
PB 2014 Total	5912.2	1153.9	334.7	0.0	0.0	0.0	0.0	0.0	7400.8
Delta	-156.4	-102.3	-3.2	0.0	0.0	0.0	0.0	0.0	-261.9

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	3	0	0	0	0	0	0	0	0	3
Production	0	38	11	0	0	0	0	0	0	49
PB 2015 Total	3	38	11	0	0	0	0	0	0	52
PB 2014 Total	3	38	11	0	0	0	0	0	0	52
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2000	--	--	--	--	--	--	16.3
2001	--	--	--	--	--	--	39.6
2002	--	--	--	--	--	--	83.7
2003	--	--	--	--	--	--	191.4
2004	--	--	--	--	--	--	260.2
2005	--	--	--	--	--	--	278.2
2006	--	--	--	--	--	--	222.9
2007	--	--	--	--	--	--	137.6
2008	--	--	--	--	--	--	161.6
2009	--	--	--	--	--	--	80.9
2010	--	--	--	--	--	--	62.4
2011	--	--	--	--	--	--	54.4
2012	--	--	--	--	--	--	12.0
Subtotal	**3**	**--**	**--**	**--**	**--**	**--**	**1601.2**

Annual Funding BY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2008 $M	Non End Item Recurring Flyaway BY 2008 $M	Non Recurring Flyaway BY 2008 $M	Total Flyaway BY 2008 $M	Total Support BY 2008 $M	Total Program BY 2008 $M
2000	--	--	--	--	--	--	19.0
2001	--	--	--	--	--	--	45.6
2002	--	--	--	--	--	--	95.4
2003	--	--	--	--	--	--	215.2
2004	--	--	--	--	--	--	285.4
2005	--	--	--	--	--	--	297.5
2006	--	--	--	--	--	--	231.4
2007	--	--	--	--	--	--	139.2
2008	--	--	--	--	--	--	160.2
2009	--	--	--	--	--	--	79.2
2010	--	--	--	--	--	--	60.3
2011	--	--	--	--	--	--	51.6
2012	--	--	--	--	--	--	11.2
Subtotal	**3**	**--**	**--**	**--**	**--**	**--**	**1691.2**

Annual Funding TY$
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2007	--	52.5	--	--	52.5	9.0	61.5
2008	1	132.6	--	--	132.6	61.3	193.9
2009	3	289.9	--	--	289.9	46.7	336.6
2010	5	482.9	--	--	482.9	72.3	555.2
2011	7	637.3	--	--	637.3	186.4	823.7
2012	11	810.5	--	--	810.5	221.3	1031.8
2013	11	1009.5	--	--	1009.5	137.1	1146.6
2014	11	893.3	--	--	893.3	158.3	1051.6
2015	--	301.2	--	--	301.2	30.3	331.5
Subtotal	**49**	**4609.7**	**--**	**--**	**4609.7**	**922.7**	**5532.4**

Annual Funding BY$
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2008 $M	Non End Item Recurring Flyaway BY 2008 $M	Non Recurring Flyaway BY 2008 $M	Total Flyaway BY 2008 $M	Total Support BY 2008 $M	Total Program BY 2008 $M
2007	--	52.3	--	--	52.3	8.9	61.2
2008	1	129.9	--	--	129.9	60.1	190.0
2009	3	279.2	--	--	279.2	45.0	324.2
2010	5	456.3	--	--	456.3	68.3	524.6
2011	7	592.4	--	--	592.4	173.2	765.6
2012	11	740.9	--	--	740.9	202.3	943.2
2013	11	900.1	--	--	900.1	122.2	1022.3
2014	11	782.1	--	--	782.1	138.6	920.7
2015	--	258.6	--	--	258.6	26.1	284.7
Subtotal	**49**	**4191.8**	**--**	**--**	**4191.8**	**844.7**	**5036.5**

Cost Quantity Information
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2008 $M
2007	--	--
2008	1	176.1
2009	3	294.4
2010	5	471.8
2011	7	631.6
2012	11	881.8
2013	11	834.8
2014	11	901.3
2015	--	--
Subtotal	**49**	**4191.8**

Annual Funding TY$
3300 | MILCON | Military Construction, Air Force

Fiscal Year	Total Program TY $M
2010	5.3
Subtotal	**5.3**

Annual Funding BY$
3300 | MILCON | Military Construction, Air Force

Fiscal Year	Total Program BY 2008 $M
2010	5.0
Subtotal	**5.0**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	11/5/2001	3/25/2008
Approved Quantity	12	16
Reference	Milestone B ADM	Milestone C ADM
Start Year	2006	2007
End Year	2010	2012

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the C-5 RERP Milestone C Acquisition Decision Memorandum (ADM) approving an LRIP quantity of 16 systems as being necessary to maintain a steady ramp to Full Rate Production. The start year changed from the Initial LRIP Decision to the Current Total LRIP during the Nunn-McCurdy restructure.

The procurement tempo to deliver a C-5 RERP aircraft is a three-year process. The first year is advance procurement of material with longer than 12 months duration to buy and deliver, the second year involves material procurement and fabrication, while the third and final year is installation on the aircraft.

Foreign Military Sales

None

Nuclear Costs

None

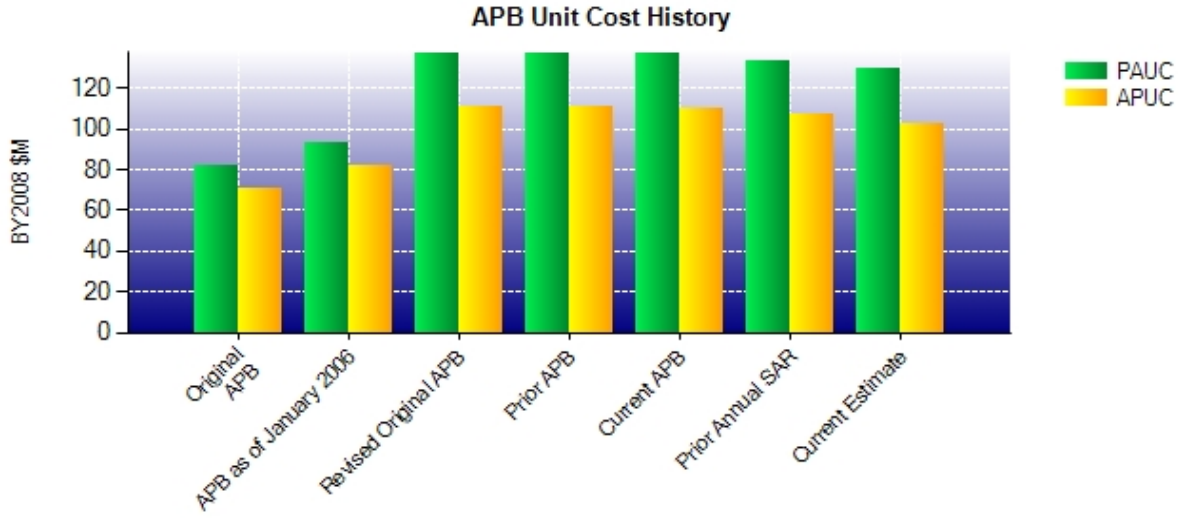
Unit Cost

Unit Cost Report

Unit Cost	BY2008 $M Current UCR Baseline (OCT 2010 APB)	BY2008 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	7135.7	6732.7	
Quantity	52	52	
Unit Cost	137.225	129.475	-5.65
Average Procurement Unit Cost (APUC)			
Cost	5396.3	5036.5	
Quantity	49	49	
Unit Cost	110.129	102.786	-6.67

Unit Cost	BY2008 $M Revised Original UCR Baseline (JUN 2008 APB)	BY2008 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	7146.6	6732.7	
Quantity	52	52	
Unit Cost	137.435	129.475	-5.79
Average Procurement Unit Cost (APUC)			
Cost	5415.9	5036.5	
Quantity	49	49	
Unit Cost	110.529	102.786	-7.01

Unit Cost History



		BY2008 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	NOV 2001	81.955	71.010	88.047	78.293
APB as of January 2006	FEB 2005	92.829	81.564	98.252	88.355
Revised Original APB	JUN 2008	137.435	110.529	147.963	123.308
Prior APB	JUN 2008	137.435	110.529	147.963	123.308
Current APB	OCT 2010	137.225	110.129	144.437	119.600
Prior Annual SAR	DEC 2012	133.292	106.822	142.323	118.233
Current Estimate	DEC 2013	129.475	102.786	137.287	112.906

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
88.047	0.635	55.435	10.863	-1.056	-6.673	0.000	0.712	59.916	147.963

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
147.963	-1.927	0.000	0.000	0.000	-6.084	0.000	-2.665	-10.676	137.287

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
78.293	0.640	32.062	7.029	0.000	-4.756	0.000	10.040	45.015	123.308

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
123.308	-1.849	0.000	0.000	0.000	-5.724	0.000	-2.829	-10.402	112.906

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	FEB 2000	FEB 2000	FEB 2000
Milestone B	N/A	NOV 2001	NOV 2001	NOV 2001
Milestone C	N/A	DEC 2006	MAR 2008	MAR 2008
IOC	N/A	MAR 2010	JUN 2013	FEB 2014
Total Cost (TY $M)	N/A	11093.9	7694.1	7138.9
Total Quantity	N/A	126	52	52
Prog. Acq. Unit Cost (PAUC)	N/A	88.047	147.963	137.287

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	1643.5	6042.1	8.5	7694.1
Previous Changes				
Economic	-9.3	-51.5	-0.2	-61.0
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-32.1	-113.7	-3.0	-148.8
Other	--	--	--	--
Support	--	-83.5	--	-83.5
Subtotal	-41.4	-248.7	-3.2	-293.3
Current Changes				
Economic	-0.1	-39.1	--	-39.2
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-0.8	-166.8	--	-167.6
Other	--	--	--	--
Support	--	-55.1	--	-55.1
Subtotal	-0.9	-261.0	--	-261.9
Total Changes	-42.3	-509.7	-3.2	-555.2
CE - Cost Variance	1601.2	5532.4	5.3	7138.9
CE - Cost & Funding	1601.2	5532.4	5.3	7138.9

Summary Base Year 2008 $M				
	RDT&E	**Proc**	**MILCON**	**Total**
SAR Baseline (Prod Est)	1722.9	5415.9	7.8	7146.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-31.0	-100.8	-2.8	-134.6
Other	--	--	--	--
Support	--	-80.8	--	-80.8
Subtotal	-31.0	-181.6	-2.8	-215.4
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-0.7	-149.1	--	-149.8
Other	--	--	--	--
Support	--	-48.7	--	-48.7
Subtotal	-0.7	-197.8	--	-198.5
Total Changes	-31.7	-379.4	-2.8	-413.9
CE - Cost Variance	1691.2	5036.5	5.0	6732.7
CE - Cost & Funding	1691.2	5036.5	5.0	6732.7

Previous Estimate: December 2012

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-0.1
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
Revised estimate due to Sequestration reductions in FY2012. (Estimating)	-0.8	-0.9
RDT&E Subtotal	-0.7	-0.9

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-39.1
Adjustment for current and prior escalation. (Estimating)	+26.7	+29.6
Revised estimate due to Sequestration reductions in FY 2012 and FY 2013, impacts mitigated by using prior year available funding. (Estimating)	-9.2	-10.4
Revised estimate due to Congressional reductions in FY 2013 and FY 2014, impacts mitigated by using prior year available funding. (Estimating)	-156.1	-173.7
Reduction to reflect FY 2015 funding for Air Force- wide inflationary adjustments. (Estimating)	-2.7	-3.2
Revised estimate for production line shut down costs. (Estimating)	-7.8	-9.1
Adjustment for current and prior escalation. (Support)	+5.5	+6.4
Decrease in Other Support due to Sequestration in FY 2012 and FY 2013, impacts mitigated by using prior year available funding. (Support)	-54.1	-61.2
Decrease in Initial Spares. (Support)	-0.1	-0.3
Procurement Subtotal	-197.8	-261.0

Contracts

General Contract Memo

Requirements for Earned Value reporting on the C-5 RERP production contracts were removed in accordance with the Full Rate Production Acquisition Decision Memorandum dated October 7, 2010.

Appropriation: Procurement

Contract Name	**C-5 RERP LRIP Lot 3**
Contractor	Lockheed Martin
Contractor Location	86 South Cobb Drive Marietta, GA 39963-0290
Contract Number, Type	FA8625-07-C-6471/3, FPEPA
Award Date	February 06, 2009
Definitization Date	February 06, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
79.1	N/A	5	468.3	N/A	5	468.3	468.3

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification adding the following to Lot 3: Long lead, material/fabrication, installation, initial spares, rapid repair and response, readiness spares package, and support equipment.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPEPA contract.

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

Appropriation: Procurement

Contract Name	**C-5 RERP LRIP Lot 4**
Contractor	Lockheed Martin
Contractor Location	86 South Cobb Drive Marietta, GA 39963-0290
Contract Number, Type	FA8625-07-C-6471/4, FPEPA
Award Date	December 21, 2009
Definitization Date	December 21, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
77.0	N/A	7	704.7	N/A	7	704.7	704.7

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification adding the following to Lot 4: Long lead, material/fabrication, installation, initial spares, rapid repair and response, readiness spares package, and support equipment.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPEPA contract.

Appropriation: Procurement

Contract Name	**C-5 RERP FRP Lot 5**
Contractor	Lockheed Martin
Contractor Location	86 South Cobb Drive Marietta, GA 39963-0290
Contract Number, Type	FA8625-07-C-6471/5, FPEPA
Award Date	October 20, 2010
Definitization Date	October 20, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
162.9	N/A	11	1029.4	N/A	11	1029.4	1029.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification adding the following to Lot 5: Long lead, material/fabrication, installation, initial spares, readiness spares package, rapid repair and response, and support equipment.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPEPA contract.

Appropriation: Procurement

Contract Name	**C-5 RERP FRP Lot 6**
Contractor	Lockheed Martin
Contractor Location	86 South Cobb Drive Marietta, GA 39963-0290
Contract Number, Type	FA8625-07-C-6471/6, FPEPA
Award Date	October 21, 2011
Definitization Date	October 21, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
160.0	N/A	11	738.3	N/A	11	738.3	738.3

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification adding the following to Lot 6: Long lead, material/fabrication, initial spares, readiness spares package, and support equipment.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPEPA contract.

Appropriation: Procurement

Contract Name	**C-5 RERP FRP Lot 7**
Contractor	Lockheed Martin
Contractor Location	86 Cobb Drive Marietta, GA 39963-0290
Contract Number, Type	FA8625-07-C-6471/7, FPEPA
Award Date	October 19, 2012
Definitization Date	October 19, 2012

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
155.5	N/A	11	159.8	N/A	11	159.8	159.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification adding the following to Lot 7: Long lead, and termination liability relating to long lead.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPEPA contract.

Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	3	3	3	100.00%
Production	17	13	49	26.53%
Total Program Quantity Delivered	20	16	52	30.77%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	7138.9	Years Appropriated	15
Expended to Date	3565.7	Percent Years Appropriated	93.75%
Percent Expended	49.95%	Appropriated to Date	6807.4
Total Funding Years	16	Percent Appropriated	95.36%

The above data is current as of 2/25/2014.

Operating and Support Cost

C-5 RERP

Assumptions and Ground Rules

Cost Estimate Reference:
N/A

Sustainment Strategy:
N/A

Antecedent Information:
There is no antecedent system for this program.

Unitized O&S Costs BY2008 $M		
Cost Element	**C-5 RERP N/A**	**N/A (Antecedent) N/A**
Unit-Level Manpower	0.000	0.000
Unit Operations	0.000	0.000
Maintenance	0.000	0.000
Sustaining Support	0.000	0.000
Continuing System Improvements	0.000	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	--	--

Unitized Cost Comments:
N/A

	Total O&S Cost $M			
	Current Production APB Objective/Threshold		Current Estimate	
	C-5 RERP		C-5 RERP	N/A (Antecedent)
Base Year	N/A	N/A	N/A	N/A
Then Year	N/A	N/A	N/A	N/A

Total O&S Costs Comments:
O&S costs are not tracked seperately for C-5 RERP. O&S costs are included in the overall operational costs for the existing C-5 fleet managed by the program office at Robins Air Force Base.

Disposal Costs:

N/A