



## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-212



### **V-22 Osprey Joint Services Advanced Vertical Lift Aircraft (V-22)**

As of FY 2015 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

## Table of Contents

Common Acronyms and Abbreviations .....	3
Program Information .....	4
Responsible Office .....	4
References .....	4
Mission and Description .....	5
Executive Summary .....	6
Threshold Breaches .....	7
Schedule .....	8
Performance .....	12
Track to Budget .....	15
Cost and Funding .....	17
Low Rate Initial Production .....	45
Foreign Military Sales .....	46
Nuclear Costs .....	46
Unit Cost .....	47
Cost Variance .....	50
Contracts .....	54
Deliveries and Expenditures .....	61
Operating and Support Cost .....	62

## 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

V-22 Osprey Joint Services Advanced Vertical Lift Aircraft (V-22)

### DoD Component

Navy

### Joint Participants

USMC; USN; USSOCOM; USAF

## Responsible Office

### Responsible Office

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**Date Assigned** July 9, 2013

## References

### SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 28, 2005

### Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 31, 2011

## Mission and Description

The V-22 Osprey Joint Services Advanced Vertical Lift Aircraft (V-22) Program is charged by the DoD with developing, testing, evaluating, procuring, fielding and supporting a tilt rotor, Vertical/Short Takeoff and Landing (V/STOL) aircraft for Joint Service application. The Navy was designated the Executive Agent with support from the United States Air Force (USAF) in the V-22 Joint Program Office located at the Naval Air Systems Command Headquarters, Naval Air Station Patuxent River, MD. The V-22 Program is designed to provide an aircraft to meet the amphibious/vertical assault needs of the United States Marine Corps (USMC), the strike rescue needs of the Navy, and the special operations needs of the USAF and United States Special Operations Command (USSOCOM). The MV-22 variant is replacing the CH-46E in the USMC and will supplement the H-60 in the Navy. The CV-22 variant provides a new capability and augments the MC-130 in the USAF/USSOCOM inventory for special operations infiltration, exfiltration, and resupply missions. The V-22 is capable of flying over 2,100 nautical miles with a single refueling, giving the Services the advantage of a V/STOL aircraft able to rapidly self-deploy to any location in the world.

### Block Descriptions:

V-22 capability is being increased and fielded over time via a Block upgrade acquisition strategy. MV-22 Block A provides a "Safe and Operational Test and Training Asset" configuration that supports developmental and operational flight tests, as well as fleet training. MV-22 Block B provides for correction of previously identified deficiencies and suitability improvements. MV-22 Block C provides mission enhancements, primarily in the areas of environmental control systems upgrades and mission systems improvements. Block 0/10 is a CV-unique configuration including radar and electronic countermeasures upgrades. Block 20 will provide an enhanced CV-unique configuration with communications and aircraft system performance upgrades.

## Executive Summary

The V-22 Osprey continues to meet all Key Performance Parameters and to perform well in the field as the program focuses on delivering production aircraft, improving aircraft readiness, reducing operating costs, and expanding the business base.

Production of aircraft continues with Bell-Boeing. During 2013, 41 aircraft were delivered to the fleet. The second Multi-Year Procurement Contract for 100 aircraft (93 MV/ 7 CV) for FY 2013-FY 2017 (Lots 17-21) was definitized on June 12, 2013, and will provide production stability through the 2017 buy.

The operational fleet continues to grow rapidly and is in high demand world-wide with a fielded aircraft total of 237 (200 MV/37 CV) as of December 31, 2013. Six V-22 concurrent deployments continue through the period. In March 2013 the program delivered the first V-22 to the "Green Side" of HMX-1 for logistics and passenger support. In April 2013, a Special Purpose Marine Air-Ground Task Force – Crisis Response was established in Spain to support Africa Command. In July 2013, the first V-22s delivered to the 352nd Special Operations Group at Royal Air Force Station Mildenhall, United Kingdom, while 12 V-22s were delivered to Marine Corps Air Station Futenma, Okinawa, Japan in support of the second MV-22 squadron stand-up in late August 2013. Additionally, the Osprey played a major role in delivering humanitarian relief to the Philippines in Operation Damayan with the 13<sup>th</sup> Marine Expeditionary Unit and operating off of the USS George Washington. The combined MV/CV fleet surpassed 200,000 total flight hours in 2013. The Program continues to work closely with Naval Supply Systems Command and Defense Logistics Agency to mitigate the additional stress on support systems caused by this rapid fleet expansion.

Development efforts continue to progress well. Follow-On Test and Evaluation (FOT&E) for fielded aircraft continues to emphasize operational envelope expansion, system improvements/upgrades, and changes to increase component Time On Wing. A FOT&E period to evaluate the updated V-22 Software Suite, new capabilities and improvements, upgraded mission kits, and corrections to deficiencies, completed in late October 2013.

Work continues to expand the business base. The Program established its first FMS case with Israel for Studies and Analysis of the V-22 Program to refine requirements for future aircraft procurement. The Program is currently supporting procurement interests from the United Arab Emirates and Japan, as well as inquiries from other countries, including Canada, Singapore, Brazil, and Qatar. Domestically, to support upcoming decisions for a Carrier Onboard Delivery (COD) replacement aircraft, the V-22 successfully completed the Military Utility Assessment (MUA) performing the COD mission to include passengers, cargo, and cyclic flight operations aboard the USS Truman (CVN 75). The MUA report concludes: "The V-22 demonstrated an effective, flexible, and safe capability to conduct the COD mission with no modifications and no adverse impact to cyclic flight operations." Certification of V-22 operations aboard multiple naval ships continues.

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

## Threshold Breaches

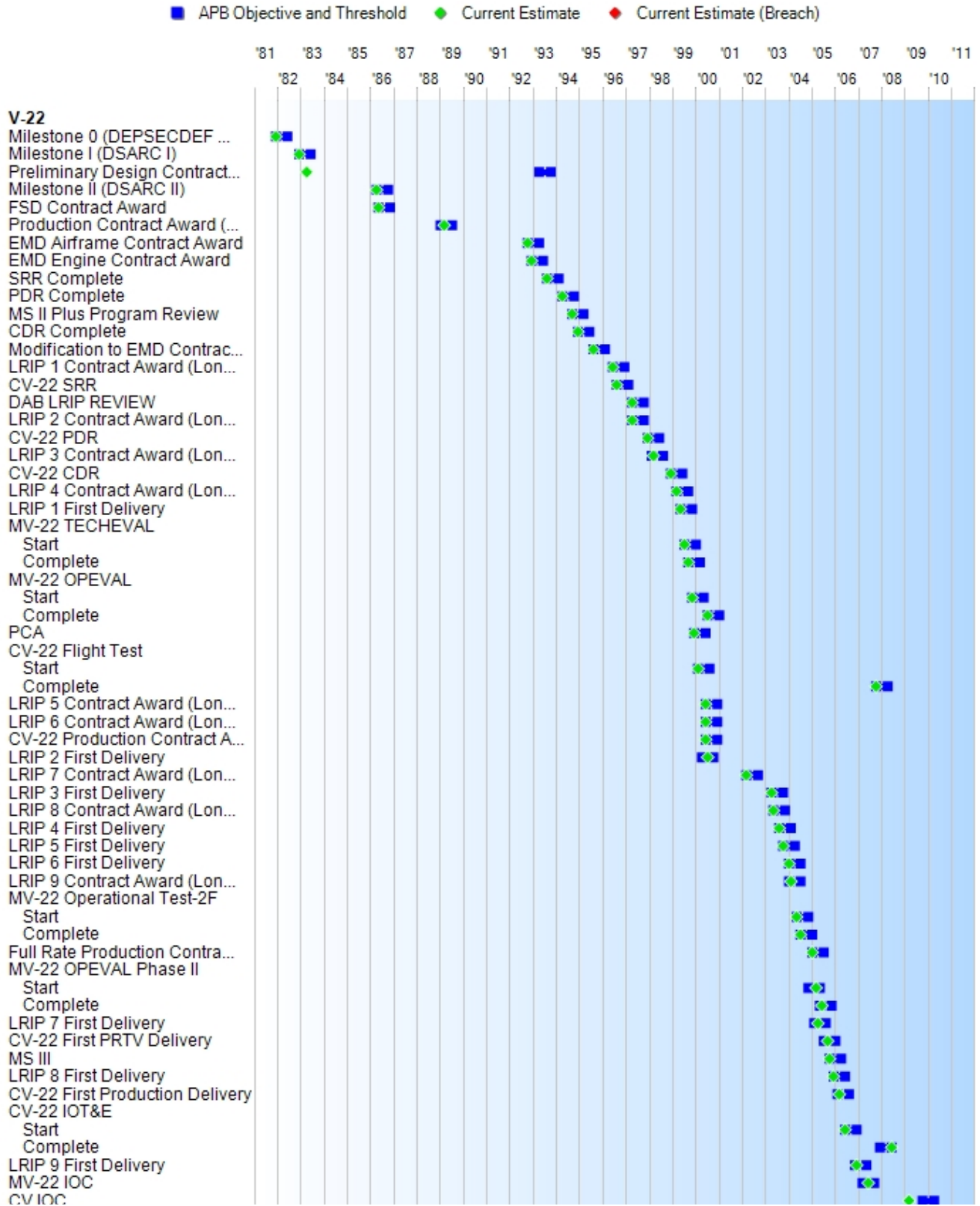
### APB Breaches

<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>O&amp;S Cost</b>		<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

### Nunn-McCurdy Breaches

<b>Current UCR Baseline</b>		
	PAUC	None
	APUC	None
<b>Original UCR Baseline</b>		
	PAUC	None
	APUC	None

# Schedule





GSD

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
Milestone 0 (DEPSECDEF MEMO)	DEC 1981	DEC 1981	JUN 1982	DEC 1981
Milestone I (DSARC I)	DEC 1982	DEC 1982	JUN 1983	DEC 1982
Preliminary Design Contract Award	APR 1993	APR 1993	OCT 1993	APR 1983
Milestone II (DSARC II)	APR 1986	APR 1986	OCT 1986	APR 1986
FSD Contract Award	MAY 1986	MAY 1986	NOV 1986	MAY 1986
Production Contract Award (Long Lead AAC)	JAN 1989	JAN 1989	JUL 1989	MAR 1989
EMD Airframe Contract Award	OCT 1992	OCT 1992	APR 1993	OCT 1992
EMD Engine Contract Award	DEC 1992	DEC 1992	JUN 1993	DEC 1992
SRR Complete	AUG 1993	AUG 1993	FEB 1994	AUG 1993
PDR Complete	APR 1994	APR 1994	OCT 1994	APR 1994
MS II Plus Program Review	SEP 1994	SEP 1994	MAR 1995	SEP 1994
CDR Complete	DEC 1994	DEC 1994	JUN 1995	DEC 1994
Modification to EMD Contract to Include CV-22 Efforts	AUG 1995	AUG 1995	FEB 1996	AUG 1995
LRIP 1 Contract Award (Long lead \$)	JUN 1996	JUN 1996	DEC 1996	JUN 1996
CV-22 SRR	AUG 1996	AUG 1996	FEB 1997	AUG 1996
DAB LRIP REVIEW	APR 1997	APR 1997	OCT 1997	APR 1997
LRIP 2 Contract Award (Long lead \$)	APR 1997	APR 1997	OCT 1997	APR 1997
CV-22 PDR	DEC 1997	DEC 1997	JUN 1998	DEC 1997
LRIP 3 Contract Award (Long Lead \$)	FEB 1998	FEB 1998	AUG 1998	MAR 1998
CV-22 CDR	DEC 1998	DEC 1998	JUN 1999	DEC 1998
LRIP 4 Contract Award (Long Lead \$)	MAR 1999	MAR 1999	SEP 1999	MAR 1999
LRIP 1 First Delivery	MAY 1999	MAY 1999	NOV 1999	MAY 1999
MV-22 TECHEVAL				
Start	JUL 1999	JUL 1999	JAN 2000	JUL 1999
Complete	SEP 1999	SEP 1999	MAR 2000	SEP 1999
MV-22 OPEVAL				
Start	NOV 1999	NOV 1999	MAY 2000	NOV 1999
Complete	JUL 2000	JUL 2000	JAN 2001	JUL 2000
PCA	DEC 1999	DEC 1999	JUN 2000	DEC 1999
CV-22 Flight Test				
Start	FEB 2000	FEB 2000	AUG 2000	FEB 2000
Complete	OCT 2007	OCT 2007	APR 2008	OCT 2007
LRIP 5 Contract Award (Long Lead \$)	JUN 2000	JUN 2000	DEC 2000	JUN 2000
LRIP 6 Contract Award (Long Lead \$)	JUN 2000	JUN 2000	DEC 2000	JUN 2000
CV-22 Production Contract Award (Long lead \$)	JUN 2000	JUN 2000	DEC 2000	JUN 2000

LRIP 2 First Delivery	APR 2000	APR 2000	OCT 2000	JUL 2000
LRIP 7 Contract Award (Long Lead \$)	MAR 2002	MAR 2002	SEP 2002	MAR 2002
LRIP 3 First Delivery	APR 2003	APR 2003	OCT 2003	APR 2003
LRIP 8 Contract Award (Long Lead \$)	MAY 2003	MAY 2003	NOV 2003	MAY 2003
LRIP 4 First Delivery	AUG 2003	AUG 2003	FEB 2004	AUG 2003
LRIP 5 First Delivery	OCT 2003	OCT 2003	APR 2004	OCT 2003
LRIP 6 First Delivery	JAN 2004	JAN 2004	JUL 2004	JAN 2004
LRIP 9 Contract Award (Long Lead \$)	JAN 2004	JAN 2004	JUL 2004	FEB 2004
MV-22 Operational Test-2F				
Start	MAY 2004	MAY 2004	NOV 2004	MAY 2004
Complete	JUL 2004	JUL 2004	JAN 2005	JUL 2004
Full Rate Production Contract Award (Long lead \$)	JAN 2005	JAN 2005	JUL 2005	JAN 2005
MV-22 OPEVAL Phase II				
Start	NOV 2004	NOV 2004	MAY 2005	MAR 2005
Complete	MAY 2005	MAY 2005	NOV 2005	JUN 2005
LRIP 7 First Delivery	FEB 2005	FEB 2005	AUG 2005	APR 2005
CV-22 First PRTV Delivery	JUL 2005	JUL 2005	JAN 2006	SEP 2005
MS III	OCT 2005	OCT 2005	APR 2006	OCT 2005
LRIP 8 First Delivery	DEC 2005	DEC 2005	JUN 2006	DEC 2005
CV-22 First Production Delivery	FEB 2006	FEB 2006	AUG 2006	MAR 2006
CV-22 IOT&E				
Start	JUN 2006	JUN 2006	DEC 2006	JUN 2006
Complete	DEC 2007	DEC 2007	JUN 2008	JUN 2008
LRIP 9 First Delivery	NOV 2006	NOV 2006	MAY 2007	DEC 2006
MV-22 IOC	MAR 2007	MAR 2007	SEP 2007	JUN 2007
CV IOC	OCT 2009	OCT 2009	APR 2010	MAR 2009
GSD	DEC 2010	DEC 2010	JUN 2011	APR 2010

<b>Change Explanations</b>
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None
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**Acronyms and Abbreviations**

AAC - Advanced Acquisition Contract  
CDR - Critical Design Review  
DAB - Defense Acquisition Board  
DEPSECDEF - Deputy Secretary of Defense  
DSARC - Defense Systems Acquisition Review Council  
EMD - Engineering Manufacturing Development  
FSD - Full Scale Development  
GSD - Government Support Date  
IOT&E - Initial Operational Test and Evaluation  
MS - Milestone  
OPEVAL - Operational Evaluation  
PCA - Physical Configuration Audit  
PDR - Preliminary Design Review  
PRTV - Production Representative Test Vehicle  
SRR - System Requirements Review  
TECHEVAL - Technical Evaluation

## Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate		
MV-22						
Interoperability	Satisfy all top level IERs	Satisfy all top level IERs	Satisfy all top level IERs designated as critical	Satisfy all top level IERs designated as critical	Satisfy all top level IERs designated as critical	
Cruise Speed (kts)	270	270	240	255	281	
Mission Radius (nm)						
Land Trooplift	200X1	200X1	200X1	210x1	213X1	(Ch-1)
Land External	110X1	110X1	50X1	69x1	52x1	
Sea Trooplift	110X2	110X2	50X2	53x2	89X2	(Ch-1)
Sea External	110X1	110X1	50X1	89x1	81X1	(Ch-1)
Amphibious Pre-Assault/Raid Ops (nm)	200X1	200X1	200X1	230x1	315x1	
Payload						
Troops	24	24	24	24	24	
External Lift (lbs)	15,000	15,000	10,000	10,000	12,500	
Aerial Refuel Capable	yes	yes	yes	yes	yes	
Self-Deployment (nm)	2100 w/no refuel	2100 w/no refuel	2100 w/1 refuel	2660 w/1 aerial refuel	2234 w/1 aerial refuel	(Ch-1)
Shipboard Compatible	yes	yes	yes	yes	yes	
V/STOL Capable	yes	yes	yes	yes	yes	
Reliability						
MFHBF (log)	>=1.2	>=1.2	>=0.9	1.3	1.3	
MFHBA	17 Hrs	17 Hrs	17 Hrs	31.2	31.2	(Ch-2)
CV-22						
Interoperability	Satisfy all top level IERs	Satisfy all top level IERs	Satisfy all top level IERs designated as critical	Satisfy all top level IERs designated as critical	Satisfy all top level IERs designated as critical	
Cruise Speed (kts)	270	270	230	264	257	(Ch-3)
Mission Radius (nm)	750	750	500	538	560	(Ch-3)
Payload - Troops	24	24	18	18	18	
Aerial Refuel Capable	yes	yes	yes	yes	yes	
Self-Deployment (nm)	2100 w/0 aerial refuel	2100 w/0 aerial refuel	2100 w/1 aerial refuel	2144 w/1 aerial refuel	2153 w/1 aerial refuel	(Ch-3)
Shipboard Compatible	yes	yes	yes	yes	yes	
Operational	100' TF/TA,	100' TF/TA,	300' TF/TA,	100' TF/TA,	100' TF/TA,	

Environment	Day/Night, VMC/IMC	Day/Night, VMC/IMC	Day/Night, VMC/IMC	Day/Night, VMC/IMC	Day/Night, VMC/IMC	
Precision Navigation (diameter @ MAX Combat Radius)	Locate LZ W/IN 1 Rotor	Locate LZ W/IN 1 Rotor	Locate LZ W/IN 2X Rotor	Locate LZ W/IN 2X Rotor	Locate LZ W/IN 2X Rotor	
Operational Enviroment						
DECM	SIRFC w/RF Jamming DIRCM	SIRFC w/RF Jamming DIRCM	SIRFC w/RWR, MW, CMDS	SIRFC w/RF, Jamming DIRCM	SIRFC w/RF, Jamming DIRCM	
MMR (TF/TA)	100 FT	100 FT	300 FT	100FT	100 FT	
Reliability						
MFHBF (LOG)	>=1.2	>=1.2	>=0.9	1.6	1.6	(Ch-4)
MFHBA	15 Hrs	15 Hrs	15 Hrs	29.2	29.2	(Ch-4)

Classified Performance information is provided in the classified annex to this submission.

#### Requirements Source

Capability Production Document (CPD) dated September 1, 2010

#### Change Explanations

(Ch-1) The current estimate for MV-22 Land Troop Lift, Sea Trooplift, Sea External and Self-Deployment (nm) is based on heavier (Lot 15 vice Lot 14) proposed aircraft specification weights. Recent flight test data reduced previous assumptions (calculated values) for mid-point hover gross weights and revised power losses.

(Ch-2) The current estimate for MV-22 MFHBA has improved from 28.2 hrs to 31.2 hrs. These values reflect the updated calculations from the V-22 Failure Reporting, Analysis and Corrective Action System database. This data is based on the Block B and C Aircraft operating in the Vertical Marine Medium Tilt-Rotor Squadrons through December 2013 with 116,735 flight hours.

(Ch-3) The current estimate for CV-22 Cruise Speed (kts), Mission Radius (nm) and Self-Deployment (nm) is based on heavier (Lot 16 vice Lot 15) proposed aircraft specification weights.

(Ch-4) The current estimate for CV-22 MFHBF has improved from 1.4 hrs to 1.6 hrs. The current estimate for CV-22 MFHBA has improved from 23.0 hrs to 29.2 hrs. These values reflect the updated calculations from the V-22 Failure Reporting, Analysis and Corrective Action System database. This data is based on the Block 10 and 20 Aircraft operating at Hurlburt, Cannon, and Mildenhall through October 2013 with 20,871 flight hours.

**Acronyms and Abbreviations**

API - Armor Piercing Incendiary  
CMDS - Counter-Measures Dispenser System  
DECM - Defensive Electronic Countermeasure  
DIRCM - Directed Infrared Countermeasures  
Ft - Feet  
Hrs - Hours  
IERs - Information Exchange Requirements  
kts - knots  
lbs - Pounds  
LZ w/IN - Landing Zone Within  
MAX - Maximum  
MFHBA - Mean Flight Hours Between Aborts  
MFHBF - Mean Flight Hours Between Failures  
mm - Millimeter  
MMR - Multi-Mode Radar  
MW - Missile Warning  
nm - nautical miles  
SIRFC - Suite of Integrated Radio Frequency Countermeasures  
TF/TA - Terrain Following/Terrain Avoidance  
V/STOL - Vertical/Short Takeoff and Landing  
vel - Velocity  
VMC/IMC - Visual Meteorological Conditions/Instrument Meteorological Conditions  
w/RF - with Radio Frequency  
w/RWR - with Radar Warning Receiver

### Track to Budget

#### RDT&E

Appn	BA	PE	
Navy	1319	05	0604262N
	<b>Project</b>		<b>Name</b>
	1425		USMC MV-22 Development and Test Activities
Air Force	3600	05	0401318F
	<b>Project</b>		<b>Name</b>
	654103		USAF CV-22 Development and Test Activities
Defense-Wide	0400	07	1160403BB
	<b>Project</b>		<b>Name</b>
	SF200		Special Operations Command Development and Test Activities (FY 2014-FY 2015)
Defense-Wide	0400	07	1160404BB
	<b>Project</b>		<b>Name</b>
	SF200		
	<b>Notes:</b>		1985 Sunk (funded in prior years only) (Sunk)
Defense-Wide	0400	07	1160421BB
	<b>Project</b>		<b>Name</b>
	SF200		Special Operations Command Development and Test Activities (funded through FY 2013) (Sunk)

#### Procurement

Appn	BA	PE	
Navy	1506	01	0206121M
	<b>Line Item</b>		<b>Name</b>
	0164		USMC MV-22 Production Aircraft and Support
	<b>Notes:</b>		Spares are separately entered.
Navy	1506	06	0206121M
	<b>Line Item</b>		<b>Name</b>
	0605		USMC MV-22 Initial Sparing Requirements (Shared)

Air Force	3010	06	0401318F
	<b>Line Item</b>		<b>Name</b>
	000999		USAF CV-22 Initial Requirements (Shared)
Air Force	3010	04	0401318F
	<b>Line Item</b>		<b>Name</b>
	V022A0		USAF CV-22 Production Aircraft and Support -
	<b>Notes:</b>		Spares are separately entered.
Defense-Wide	0300	02	1160421BB
	<b>Line Item</b>		<b>Name</b>
	1000CV2200		Special Operations Command Production Aircraft and Support (Shared)
	<b>Notes:</b>		Does not include retrofit funding.

**MILCON**

Appn	BA	PE	
Navy	1205	01	0202176M
	<b>Project</b>		<b>Name</b>
	67400213		USMC MV-22 Facilities Support
Defense-Wide	0500	01	1140494BB
	<b>Project</b>		<b>Name</b>
	0500		Special Operations Command Facilities Support

Multiple MILCON projects are associated with each program element and are too numerous to list.



## Cost and Funding

### Cost Summary

#### Total Acquisition Cost and Quantity

Appropriation	BY2005 \$M			BY2005 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold	Current Estimate		SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	11446.5	11446.5	12591.2	11990.3	9891.7	9891.7	10520.0
Procurement	38562.8	38562.8	42419.1	38436.3	43099.3	43099.3	44311.5
Flyaway	--	--	--	31008.1	--	--	35925.3
Recurring	--	--	--	29543.1	--	--	34349.6
Non Recurring	--	--	--	1465.0	--	--	1575.7
Support	--	--	--	7428.2	--	--	8386.2
Other Support	--	--	--	5626.0	--	--	6421.5
Initial Spares	--	--	--	1802.2	--	--	1964.7
MILCON	241.1	241.1	265.2	102.2	262.4	262.4	111.8
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	50250.4	50250.4	N/A	50528.8	53253.4	53253.4	54943.3

Confidence Level for Current APB Cost 50% - The current Acquisition Program Baseline (APB)/ Selected Acquisition Report (SAR) cost estimate provides sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule and programmatic risk and external interference. It was consistent with average resource expenditures on historical efforts of similar size, scope, and complexity and represents a notional 50% confidence level when established.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E		2	2
Procurement		456	458
Total		458	460

Increase in total quantity from 459 to 460 is due to a Congressional add of 1 CV-22 in FY 2014.

## 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	9926.4	92.6	100.1	85.3	75.8	68.2	68.3	103.3	10520.0
Procurement	29754.1	1799.2	1547.4	1515.5	1451.0	429.5	439.8	7375.0	44311.5
MILCON	107.2	0.0	4.6	0.0	0.0	0.0	0.0	0.0	111.8
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	39787.7	1891.8	1652.1	1600.8	1526.8	497.7	508.1	7478.3	54943.3
PB 2014 Total	39990.3	1943.8	1720.8	1623.1	1528.9	502.8	1749.1	6003.0	55061.8
Delta	-202.6	-52.0	-68.7	-22.3	-2.1	-5.1	-1241.0	1475.3	-118.5

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development		2	0	0	0	0	0	0	0	2
Production		0	309	23	19	19	18	4	4	62
PB 2015 Total		2	309	23	19	19	18	4	4	62
PB 2014 Total		2	308	21	19	19	18	4	16	52
Delta		0	1	2	0	0	0	0	-12	10

## Cost and Funding

### Annual Funding By Appropriation

#### Annual Funding TY\$

#### 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

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
1982	--	--	--	--	--	--	0.7
1983	--	--	--	--	--	--	34.4
1984	--	--	--	--	--	--	83.1
1985	--	--	--	--	--	--	169.5
1986	--	--	--	--	--	--	525.1
1987	--	--	--	--	--	--	421.7
1988	--	--	--	--	--	--	404.8
1989	--	--	--	--	--	--	269.9
1990	--	--	--	--	--	--	204.2
1991	--	--	--	--	--	--	212.2
1992	--	--	--	--	--	--	758.0
1993	--	--	--	--	--	--	713.3
1994	--	--	--	--	--	--	8.7
1995	--	--	--	--	--	--	451.8
1996	--	--	--	--	--	--	716.4
1997	--	--	--	--	--	--	605.5
1998	--	--	--	--	--	--	487.5
1999	--	--	--	--	--	--	335.8
2000	--	--	--	--	--	--	175.9
2001	--	--	--	--	--	--	217.9
2002	--	--	--	--	--	--	391.6
2003	--	--	--	--	--	--	387.4
2004	--	--	--	--	--	--	357.3
2005	--	--	--	--	--	--	246.9
2006	--	--	--	--	--	--	192.2
2007	--	--	--	--	--	--	251.6

2008	--	--	--	--	--	--	118.0
2009	--	--	--	--	--	--	65.7
2010	--	--	--	--	--	--	76.9
2011	--	--	--	--	--	--	40.3
2012	--	--	--	--	--	--	69.1
2013	--	--	--	--	--	--	44.3
2014	--	--	--	--	--	--	43.1
2015	--	--	--	--	--	--	61.2
2016	--	--	--	--	--	--	58.9
2017	--	--	--	--	--	--	59.9
2018	--	--	--	--	--	--	53.8
2019	--	--	--	--	--	--	53.6
2020	--	--	--	--	--	--	18.0
2021	--	--	--	--	--	--	10.8
2022	--	--	--	--	--	--	6.7
2023	--	--	--	--	--	--	4.6
2024	--	--	--	--	--	--	0.9
<b>Subtotal</b>	--	--	--	--	--	--	<b>9409.2</b>

**Annual Funding BY\$****1319 | RDT&E | Research, Development, Test, and Evaluation, Navy**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non Recurring Flyaway BY 2005 \$M</b>	<b>Total Flyaway BY 2005 \$M</b>	<b>Total Support BY 2005 \$M</b>	<b>Total Program BY 2005 \$M</b>
1982	--	--	--	--	--	--	1.2
1983	--	--	--	--	--	--	56.7
1984	--	--	--	--	--	--	132.1
1985	--	--	--	--	--	--	261.3
1986	--	--	--	--	--	--	786.9
1987	--	--	--	--	--	--	613.8
1988	--	--	--	--	--	--	570.1
1989	--	--	--	--	--	--	364.7
1990	--	--	--	--	--	--	265.1
1991	--	--	--	--	--	--	266.0
1992	--	--	--	--	--	--	923.2
1993	--	--	--	--	--	--	849.1
1994	--	--	--	--	--	--	10.2
1995	--	--	--	--	--	--	517.9
1996	--	--	--	--	--	--	807.6
1997	--	--	--	--	--	--	674.3
1998	--	--	--	--	--	--	538.5
1999	--	--	--	--	--	--	366.6
2000	--	--	--	--	--	--	189.3
2001	--	--	--	--	--	--	231.3
2002	--	--	--	--	--	--	411.5
2003	--	--	--	--	--	--	401.2
2004	--	--	--	--	--	--	360.0
2005	--	--	--	--	--	--	242.4
2006	--	--	--	--	--	--	183.0
2007	--	--	--	--	--	--	233.8
2008	--	--	--	--	--	--	107.7
2009	--	--	--	--	--	--	59.2
2010	--	--	--	--	--	--	68.3

2011	--	--	--	--	--	--	34.9
2012	--	--	--	--	--	--	58.9
2013	--	--	--	--	--	--	37.1
2014	--	--	--	--	--	--	35.5
2015	--	--	--	--	--	--	49.5
2016	--	--	--	--	--	--	46.7
2017	--	--	--	--	--	--	46.6
2018	--	--	--	--	--	--	41.0
2019	--	--	--	--	--	--	40.1
2020	--	--	--	--	--	--	13.2
2021	--	--	--	--	--	--	7.8
2022	--	--	--	--	--	--	4.7
2023	--	--	--	--	--	--	3.2
2024	--	--	--	--	--	--	0.6
<b>Subtotal</b>	--	--	--	--	--	--	<b>10912.8</b>

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

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
1985	--	--	--	--	--	--	0.8
1986	--	--	--	--	--	--	2.3
1987	--	--	--	--	--	--	3.0
1988	--	--	--	--	--	--	--
1989	--	--	--	--	--	--	--
1990	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--
1992	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--
1996	--	--	--	--	--	--	--
1997	--	--	--	--	--	--	--
1998	--	--	--	--	--	--	--
1999	--	--	--	--	--	--	--
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	--	--	--	--	--	--	145.5
2003	--	--	--	--	--	--	5.9
2004	--	--	--	--	--	--	52.7
2005	--	--	--	--	--	--	14.2
2006	--	--	--	--	--	--	30.5
2007	--	--	--	--	--	--	12.8
2008	--	--	--	--	--	--	22.0
2009	--	--	--	--	--	--	16.1
2010	--	--	--	--	--	--	15.5
2011	--	--	--	--	--	--	17.6
2012	--	--	--	--	--	--	9.6
2013	--	--	--	--	--	--	19.8

2014	--	--	--	--	--	--	46.7
2015	--	--	--	--	--	--	38.7
2016	--	--	--	--	--	--	26.4
2017	--	--	--	--	--	--	15.9
2018	--	--	--	--	--	--	14.4
2019	--	--	--	--	--	--	14.7
2020	--	--	--	--	--	--	15.1
2021	--	--	--	--	--	--	15.4
2022	--	--	--	--	--	--	15.7
2023	--	--	--	--	--	--	16.1
<b>Subtotal</b>	<b>2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>587.4</b>



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

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non Recurring Flyaway BY 2005 \$M</b>	<b>Total Flyaway BY 2005 \$M</b>	<b>Total Support BY 2005 \$M</b>	<b>Total Program BY 2005 \$M</b>
1985	--	--	--	--	--	--	1.2
1986	--	--	--	--	--	--	3.5
1987	--	--	--	--	--	--	4.3
1988	--	--	--	--	--	--	--
1989	--	--	--	--	--	--	--
1990	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--
1992	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--
1996	--	--	--	--	--	--	--
1997	--	--	--	--	--	--	--
1998	--	--	--	--	--	--	--
1999	--	--	--	--	--	--	--
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	--	--	--	--	--	--	153.0
2003	--	--	--	--	--	--	6.1
2004	--	--	--	--	--	--	53.3
2005	--	--	--	--	--	--	14.0
2006	--	--	--	--	--	--	29.2
2007	--	--	--	--	--	--	11.9
2008	--	--	--	--	--	--	20.1
2009	--	--	--	--	--	--	14.5
2010	--	--	--	--	--	--	13.8
2011	--	--	--	--	--	--	15.4
2012	--	--	--	--	--	--	8.3
2013	--	--	--	--	--	--	16.7

2014	--	--	--	--	--	--	38.8
2015	--	--	--	--	--	--	31.6
2016	--	--	--	--	--	--	21.1
2017	--	--	--	--	--	--	12.5
2018	--	--	--	--	--	--	11.1
2019	--	--	--	--	--	--	11.1
2020	--	--	--	--	--	--	11.2
2021	--	--	--	--	--	--	11.2
2022	--	--	--	--	--	--	11.2
2023	--	--	--	--	--	--	11.2
<b>Subtotal</b>	<b>2</b>	--	--	--	--	--	<b>536.3</b>

The FY 2002 Appropriations Act provided funding for two CV Production Representative Test Vehicles.

## Annual Funding TY\$

## 0400 | RDT&amp;E | Research, Development, Test, and Evaluation, Defense-Wide

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
1990	--	--	--	--	--	--	36.1
1991	--	--	--	--	--	--	8.0
1992	--	--	--	--	--	--	15.0
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	14.7
1995	--	--	--	--	--	--	--
1996	--	--	--	--	--	--	--
1997	--	--	--	--	--	--	--
1998	--	--	--	--	--	--	--
1999	--	--	--	--	--	--	--
2000	--	--	--	--	--	--	33.5
2001	--	--	--	--	--	--	40.1
2002	--	--	--	--	--	--	104.1
2003	--	--	--	--	--	--	32.2
2004	--	--	--	--	--	--	68.4
2005	--	--	--	--	--	--	53.1
2006	--	--	--	--	--	--	23.7
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	21.9
2009	--	--	--	--	--	--	30.5
2010	--	--	--	--	--	--	12.2
2011	--	--	--	--	--	--	14.0
2012	--	--	--	--	--	--	10.8
2013	--	--	--	--	--	--	2.1
2014	--	--	--	--	--	--	2.8
2015	--	--	--	--	--	--	0.2
<b>Subtotal</b>	--	--	--	--	--	--	<b>523.4</b>

## Annual Funding BY\$

## 0400 | RDT&amp;E | Research, Development, Test, and Evaluation, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2005 \$M	Non End Item Recurring Flyaway BY 2005 \$M	Non Recurring Flyaway BY 2005 \$M	Total Flyaway BY 2005 \$M	Total Support BY 2005 \$M	Total Program BY 2005 \$M
1990	--	--	--	--	--	--	46.9
1991	--	--	--	--	--	--	10.0
1992	--	--	--	--	--	--	18.2
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	17.2
1995	--	--	--	--	--	--	--
1996	--	--	--	--	--	--	--
1997	--	--	--	--	--	--	--
1998	--	--	--	--	--	--	--
1999	--	--	--	--	--	--	--
2000	--	--	--	--	--	--	36.0
2001	--	--	--	--	--	--	42.5
2002	--	--	--	--	--	--	109.3
2003	--	--	--	--	--	--	33.3
2004	--	--	--	--	--	--	69.1
2005	--	--	--	--	--	--	52.1
2006	--	--	--	--	--	--	22.6
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	20.0
2009	--	--	--	--	--	--	27.5
2010	--	--	--	--	--	--	10.8
2011	--	--	--	--	--	--	12.2
2012	--	--	--	--	--	--	9.2
2013	--	--	--	--	--	--	1.8
2014	--	--	--	--	--	--	2.3
2015	--	--	--	--	--	--	0.2
<b>Subtotal</b>	--	--	--	--	--	--	<b>541.2</b>

**Annual Funding TY\$**  
**1506 | Procurement | Aircraft Procurement, Navy**

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
1989	--	--	--	--	--	231.4	231.4
1990	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--
1992	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--
1996	--	41.1	--	--	41.1	--	41.1
1997	5	552.1	--	25.0	577.1	132.3	709.4
1998	7	622.1	--	20.4	642.5	66.2	708.7
1999	7	561.4	--	18.0	579.4	104.1	683.5
2000	11	768.5	--	31.0	799.5	187.8	987.3
2001	9	753.1	--	99.2	852.3	157.9	1010.2
2002	9	660.6	--	21.6	682.2	204.6	886.8
2003	11	844.2	--	109.4	953.6	129.6	1083.2
2004	9	651.9	--	59.9	711.8	167.5	879.3
2005	8	584.4	--	115.8	700.2	321.8	1022.0
2006	12	868.2	--	146.4	1014.6	367.1	1381.7
2007	14	1129.2	--	222.8	1352.0	244.3	1596.3
2008	23	1651.9	--	153.8	1805.7	308.1	2113.8
2009	30	1855.8	--	70.6	1926.4	307.8	2234.2
2010	30	1847.9	--	81.6	1929.5	317.4	2246.9
2011	30	1855.6	--	30.5	1886.1	264.7	2150.8
2012	30	1921.6	--	25.4	1947.0	264.4	2211.4
2013	18	1304.7	--	16.5	1321.2	167.7	1488.9
2014	19	1238.1	--	5.7	1243.8	158.0	1401.8
2015	19	1337.8	--	19.3	1357.1	175.8	1532.9
2016	19	1352.4	--	3.6	1356.0	144.9	1500.9
2017	18	1284.6	--	7.1	1291.7	157.6	1449.3

2018	4	325.1	--	5.0	330.1	99.4	429.5
2019	4	327.4	--	6.9	334.3	105.5	439.8
2020	8	827.7	--	16.9	844.6	192.9	1037.5
2021	12	1195.7	--	18.8	1214.5	243.0	1457.5
2022	22	2087.3	--	23.3	2110.6	329.1	2439.7
2023	20	1795.3	--	23.9	1819.2	554.5	2373.7
2024	--	--	--	--	--	66.6	66.6
<b>Subtotal</b>	<b>408</b>	<b>30245.7</b>	<b>--</b>	<b>1378.4</b>	<b>31624.1</b>	<b>6172.0</b>	<b>37796.1</b>

**Annual Funding BY\$**  
**1506 | Procurement | Aircraft Procurement, Navy**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non Recurring Flyaway BY 2005 \$M</b>	<b>Total Flyaway BY 2005 \$M</b>	<b>Total Support BY 2005 \$M</b>	<b>Total Program BY 2005 \$M</b>
1989	--	--	--	--	--	299.8	299.8
1990	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--
1992	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--
1994	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--
1996	--	45.8	--	--	45.8	--	45.8
1997	5	609.6	--	27.6	637.2	146.1	783.3
1998	7	679.0	--	22.3	701.3	72.3	773.6
1999	7	605.0	--	19.4	624.4	112.2	736.6
2000	11	817.4	--	33.0	850.4	199.7	1050.1
2001	9	791.5	--	104.3	895.8	166.0	1061.8
2002	9	685.6	--	22.4	708.0	212.4	920.4
2003	11	859.1	--	111.3	970.4	131.9	1102.3
2004	9	646.3	--	59.4	705.7	166.1	871.8
2005	8	563.5	--	111.7	675.2	310.3	985.5
2006	12	814.6	--	137.4	952.0	344.4	1296.4
2007	14	1035.3	--	204.3	1239.6	224.0	1463.6
2008	23	1492.2	--	138.9	1631.1	278.3	1909.4
2009	30	1653.3	--	62.9	1716.2	274.2	1990.4
2010	30	1612.0	--	71.2	1683.2	276.9	1960.1
2011	30	1585.2	--	26.1	1611.3	226.1	1837.4
2012	30	1616.1	--	21.4	1637.5	222.3	1859.8
2013	18	1079.1	--	13.6	1092.7	138.8	1231.5
2014	19	1005.9	--	4.6	1010.5	128.3	1138.8
2015	19	1066.3	--	15.4	1081.7	140.2	1221.9
2016	19	1057.0	--	2.8	1059.8	113.3	1173.1
2017	18	984.3	--	5.4	989.7	120.8	1110.5

2018	4	244.2	--	3.8	248.0	74.7	322.7
2019	4	241.1	--	5.1	246.2	77.7	323.9
2020	8	597.7	--	12.2	609.9	139.2	749.1
2021	12	846.4	--	13.3	859.7	172.1	1031.8
2022	22	1448.6	--	16.2	1464.8	228.4	1693.2
2023	20	1221.5	--	16.3	1237.8	377.3	1615.1
2024	--	--	--	--	--	44.4	44.4
<b>Subtotal</b>	<b>408</b>	<b>25903.6</b>	<b>--</b>	<b>1282.3</b>	<b>27185.9</b>	<b>5418.2</b>	<b>32604.1</b>



**Cost Quantity Information****1506 | Procurement | Aircraft Procurement, Navy**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway (Aligned with Quantity) BY 2005 \$M</b>
1989	--	--
1990	--	--
1991	--	--
1992	--	--
1993	--	--
1994	--	--
1995	--	--
1996	--	--
1997	5	593.7
1998	7	675.2
1999	7	612.8
2000	11	800.2
2001	9	791.5
2002	9	722.7
2003	11	834.8
2004	9	670.4
2005	8	549.7
2006	12	803.9
2007	14	921.0
2008	23	1488.9
2009	30	1757.0
2010	30	1617.2
2011	30	1590.4
2012	30	1629.8
2013	18	1012.1
2014	19	1081.8
2015	19	1072.9

2016	19	1059.4
2017	18	1011.1
2018	4	244.3
2019	4	248.5
2020	8	542.2
2021	12	801.2
2022	22	1456.3
2023	20	1314.6
2024	--	--
<b>Subtotal</b>	<b>408</b>	<b>25903.6</b>

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

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
1999	--	--	--	--	--	21.9	21.9
2000	--	--	--	19.5	19.5	21.3	40.8
2001	--	--	--	26.7	26.7	22.6	49.3
2002	--	--	--	--	--	--	--
2003	--	9.8	--	--	9.8	79.1	88.9
2004	2	147.6	--	--	147.6	42.0	189.6
2005	3	209.1	--	7.2	216.3	113.9	330.2
2006	2	136.6	--	18.6	155.2	94.1	249.3
2007	3	219.6	--	9.3	228.9	156.2	385.1
2008	10	659.4	--	7.0	666.4	272.4	938.8
2009	6	352.5	--	16.4	368.9	103.4	472.3
2010	5	314.3	--	18.8	333.1	237.9	571.0
2011	6	388.9	--	15.0	403.9	166.3	570.2
2012	5	332.0	--	4.0	336.0	62.6	398.6
2013	4	258.9	--	0.5	259.4	115.0	374.4
2014	4	258.6	--	3.2	261.8	36.0	297.8
2015	--	--	--	--	--	2.7	2.7
2016	--	--	--	--	--	6.8	6.8
2017	--	--	--	--	--	0.5	0.5
<b>Subtotal</b>	<b>50</b>	<b>3287.3</b>	<b>--</b>	<b>146.2</b>	<b>3433.5</b>	<b>1554.7</b>	<b>4988.2</b>

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

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non Recurring Flyaway BY 2005 \$M</b>	<b>Total Flyaway BY 2005 \$M</b>	<b>Total Support BY 2005 \$M</b>	<b>Total Program BY 2005 \$M</b>
1999	--	--	--	--	--	23.6	23.6
2000	--	--	--	20.7	20.7	22.6	43.3
2001	--	--	--	28.0	28.0	23.8	51.8
2002	--	--	--	--	--	--	--
2003	--	10.0	--	--	10.0	80.9	90.9
2004	2	147.0	--	--	147.0	41.8	188.8
2005	3	202.3	--	7.0	209.3	110.2	319.5
2006	2	128.7	--	17.5	146.2	88.8	235.0
2007	3	201.6	--	8.5	210.1	143.4	353.5
2008	10	595.8	--	6.3	602.1	246.2	848.3
2009	6	313.1	--	14.6	327.7	91.9	419.6
2010	5	273.9	--	16.4	290.3	207.3	497.6
2011	6	333.4	--	12.9	346.3	142.5	488.8
2012	5	279.9	--	3.4	283.3	52.8	336.1
2013	4	212.9	--	0.4	213.3	94.6	307.9
2014	4	208.8	--	2.6	211.4	29.1	240.5
2015	--	--	--	--	--	2.1	2.1
2016	--	--	--	--	--	5.3	5.3
2017	--	--	--	--	--	0.4	0.4
<b>Subtotal</b>	<b>50</b>	<b>2907.4</b>	<b>--</b>	<b>138.3</b>	<b>3045.7</b>	<b>1407.3</b>	<b>4453.0</b>

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

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway (Aligned with Quantity) BY 2005 \$M</b>
1999	--	--
2000	--	--
2001	--	--
2002	--	--
2003	--	--
2004	2	142.0
2005	3	206.8
2006	2	130.1
2007	3	185.2
2008	10	584.2
2009	6	337.5
2010	5	274.5
2011	6	333.8
2012	5	274.7
2013	4	217.4
2014	4	221.2
2015	--	--
2016	--	--
2017	--	--
<b>Subtotal</b>	<b>50</b>	<b>2907.4</b>

**Annual Funding TY\$**  
**0300 | Procurement | Procurement, Defense-Wide**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
1999	--	--	--	--	--	4.0	4.0
2000	--	--	--	--	--	2.0	2.0
2001	--	--	--	--	--	6.8	6.8
2002	--	--	--	--	--	15.9	15.9
2003	--	5.0	--	--	5.0	36.9	41.9
2004	--	41.9	--	--	41.9	35.5	77.4
2005	--	54.5	--	0.2	54.7	58.6	113.3
2006	--	40.7	--	1.9	42.6	55.0	97.6
2007	--	113.9	--	--	113.9	79.9	193.8
2008	--	177.5	--	2.1	179.6	138.7	318.3
2009	--	85.4	--	11.6	97.0	29.8	126.8
2010	--	56.1	--	7.1	63.2	31.7	94.9
2011	--	57.3	--	9.1	66.4	37.2	103.6
2012	--	57.1	--	8.6	65.7	34.0	99.7
2013	--	63.2	--	3.8	67.0	43.8	110.8
2014	--	64.0	--	6.7	70.7	28.9	99.6
2015	--	--	--	--	--	11.8	11.8
2016	--	--	--	--	--	7.8	7.8
2017	--	--	--	--	--	1.2	1.2
<b>Subtotal</b>	--	<b>816.6</b>	--	<b>51.1</b>	<b>867.7</b>	<b>659.5</b>	<b>1527.2</b>

**Annual Funding BY\$**  
**0300 | Procurement | Procurement, Defense-Wide**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non End Item Recurring Flyaway BY 2005 \$M</b>	<b>Non Recurring Flyaway BY 2005 \$M</b>	<b>Total Flyaway BY 2005 \$M</b>	<b>Total Support BY 2005 \$M</b>	<b>Total Program BY 2005 \$M</b>
1999	--	--	--	--	--	4.3	4.3
2000	--	--	--	--	--	2.1	2.1
2001	--	--	--	--	--	7.2	7.2
2002	--	--	--	--	--	16.5	16.5
2003	--	5.1	--	--	5.1	37.6	42.7
2004	--	41.5	--	--	41.5	35.2	76.7
2005	--	52.5	--	0.2	52.7	56.5	109.2
2006	--	38.2	--	1.8	40.0	51.7	91.7
2007	--	104.8	--	--	104.8	73.6	178.4
2008	--	160.9	--	1.9	162.8	125.6	288.4
2009	--	76.4	--	10.4	86.8	26.6	113.4
2010	--	49.3	--	6.2	55.5	27.9	83.4
2011	--	49.5	--	7.9	57.4	32.1	89.5
2012	--	48.5	--	7.3	55.8	28.9	84.7
2013	--	52.8	--	3.2	56.0	36.6	92.6
2014	--	52.6	--	5.5	58.1	23.7	81.8
2015	--	--	--	--	--	9.5	9.5
2016	--	--	--	--	--	6.2	6.2
2017	--	--	--	--	--	0.9	0.9
<b>Subtotal</b>	--	<b>732.1</b>	--	<b>44.4</b>	<b>776.5</b>	<b>602.7</b>	<b>1379.2</b>

Quantities for the CV-22 are shown under appropriation 3010. In accordance with the approved program plan, the Air Force is funding the majority of the procurement cost for the CV-22. United States Special Operations Command is funding delta costs above the baseline (MV-22) aircraft for Special Operations Forces unique equipment.

**Cost Quantity Information****0300 | Procurement | Procurement, Defense-Wide**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway (Aligned with Quantity) BY 2005 \$M</b>
1999	--	--
2000	--	--
2001	--	--
2002	--	--
2003	--	--
2004	--	40.0
2005	--	56.4
2006	--	38.2
2007	--	46.2
2008	--	215.0
2009	--	79.6
2010	--	49.4
2011	--	49.7
2012	--	49.8
2013	--	53.4
2014	--	54.4
2015	--	--
2016	--	--
2017	--	--
<b>Subtotal</b>	<b>--</b>	<b>732.1</b>



**Annual Funding TY\$**  
**1205 | MILCON | Military Construction,**  
**Navy and Marine Corps**

<b>Fiscal Year</b>	<b>Total Program TY \$M</b>
2003	0.8
2004	10.9
2005	14.5
2006	22.4
2007	--
2008	--
2009	--
2010	7.2
2011	--
2012	6.2
2013	3.9
2014	--
2015	4.6
<b>Subtotal</b>	<b>70.5</b>

**Annual Funding BY\$**  
**1205 | MILCON | Military Construction,**  
**Navy and Marine Corps**

<b>Fiscal Year</b>	<b>Total Program BY 2005 \$M</b>
2003	0.8
2004	10.8
2005	13.9
2006	21.0
2007	--
2008	--
2009	--
2010	6.2
2011	--
2012	5.2
2013	3.2
2014	--
2015	3.6
<b>Subtotal</b>	<b>64.7</b>

**Annual Funding TY\$**  
**0500 | MILCON | Military Construction,**  
**Defense-Wide**

<b>Fiscal Year</b>	<b>Total Program TY \$M</b>
2000	0.2
2001	0.3
2002	8.5
2003	1.9
2004	--
2005	--
2006	1.8
2007	1.9
2008	0.7
2009	7.9
2010	11.6
2011	--
2012	--
2013	6.5
<b>Subtotal</b>	<b>41.3</b>

**Annual Funding BY\$**  
**0500 | MILCON | Military Construction,**  
**Defense-Wide**

<b>Fiscal Year</b>	<b>Total Program BY 2005 \$M</b>
2000	0.2
2001	0.3
2002	8.8
2003	1.9
2004	--
2005	--
2006	1.7
2007	1.7
2008	0.6
2009	7.0
2010	10.0
2011	--
2012	--
2013	5.3
<b>Subtotal</b>	<b>37.5</b>

## Low Rate Initial Production

	<b>Initial LRIP Decision</b>	<b>Current Total LRIP</b>
<b>Approval Date</b>	4/25/1997	5/6/2002
<b>Approved Quantity</b>	25	58
<b>Reference</b>	LRIP ADM	Program Restructure ADM
<b>Start Year</b>	1997	1997
<b>End Year</b>	2001	2009

The Current Total LRIP Quantity is more than 10% of the total production quantity due to a program restructure with the May 2002 Acquisition Decision Memorandum (ADM) which authorized additional LRIP aircraft.

## Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Israel	11/21/2013		1.3	Studies and Analysis of the V-22 Program to refine requirements for future aircraft procurement and conduct site assessments in Israel.

The Program is currently supporting procurement interests from the United Arab Emirates and Japan, as well as inquiries from other countries, including Canada, Singapore, Brazil, and Qatar. Domestically, to support upcoming decisions for a Carrier Onboard Delivery (COD) replacement aircraft, the V-22 successfully completed the Military Utility Assessment (MUA) performing the COD mission to include passengers, cargo, and cyclic flight operations aboard the USS Truman (CVN 75). The MUA report concludes: "The V-22 demonstrated an effective, flexible, and safe capability to conduct the COD mission with no modifications and no adverse impact to cyclic flight operations." Certification of V-22 operations aboard multiple naval ships continues.

## Nuclear Costs

None

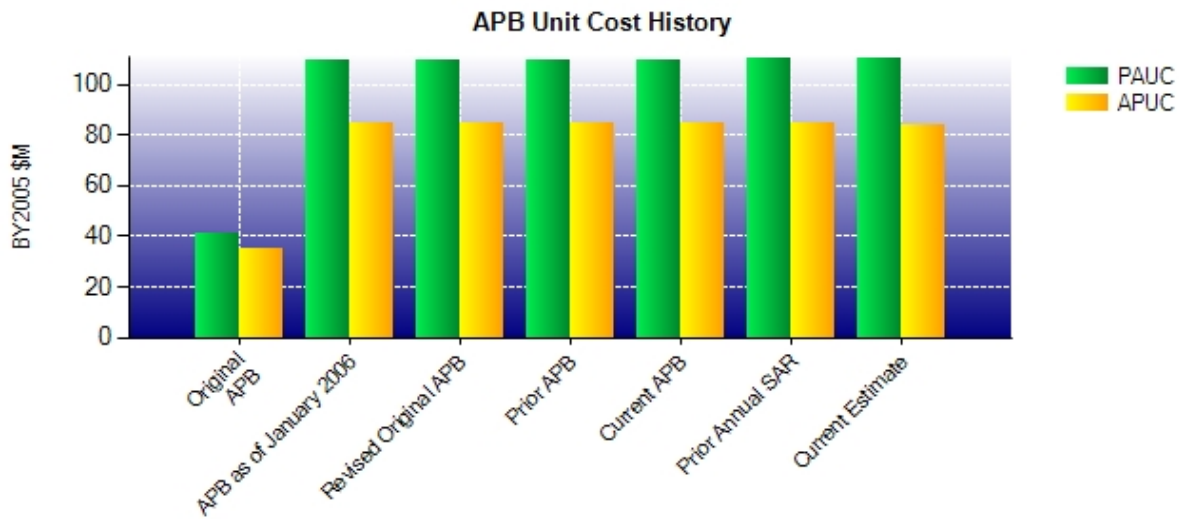
**Unit Cost****Unit Cost Report**

	BY2005 \$M	BY2005 \$M	
Unit Cost	Current UCR Baseline (OCT 2011 APB)	Current Estimate (DEC 2013 SAR)	BY % Change
<b>Program Acquisition Unit Cost (PAUC)</b>			
Cost	50250.4	50528.8	
Quantity	458	460	
Unit Cost	109.717	109.845	+0.12
<b>Average Procurement Unit Cost (APUC)</b>			
Cost	38562.8	38436.3	
Quantity	456	458	
Unit Cost	84.568	83.922	-0.76

	BY2005 \$M	BY2005 \$M	
Unit Cost	Revised Original UCR Baseline (SEP 2005 APB)	Current Estimate (DEC 2013 SAR)	BY % Change
<b>Program Acquisition Unit Cost (PAUC)</b>			
Cost	50250.4	50528.8	
Quantity	458	460	
Unit Cost	109.717	109.845	+0.12
<b>Average Procurement Unit Cost (APUC)</b>			
Cost	38562.8	38436.3	
Quantity	456	458	
Unit Cost	84.568	83.922	-0.76

### Unit Cost History



	Date	BY2005 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
<b>Original APB</b>	FEB 1988	41.101	35.309	34.657	30.541
<b>APB as of January 2006</b>	SEP 2005	109.717	84.568	116.274	94.516
<b>Revised Original APB</b>	SEP 2005	109.717	84.568	116.274	94.516
<b>Prior APB</b>	FEB 2008	109.717	84.568	116.274	94.516
<b>Current APB</b>	OCT 2011	109.717	84.568	116.274	94.516
<b>Prior Annual SAR</b>	DEC 2012	110.286	84.282	119.960	97.179
<b>Current Estimate</b>	DEC 2013	109.845	83.922	119.442	96.750

### 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	
40.180	-12.793	50.391	-4.762	8.157	30.121	0.000	4.980	76.094	116.274



**Current SAR Baseline to Current Estimate (TY \$M)**

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
116.274	-0.447	-0.188	4.985	0.714	-3.656	0.000	1.760	3.168	119.442

**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	
36.641	-12.349	47.964	-4.862	5.134	16.986	0.000	5.002	57.875	94.516

**Current SAR Baseline to Current Estimate (TY \$M)**

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
94.516	-0.478	-0.094	5.007	0.466	-4.435	0.000	1.768	2.234	96.750

**SAR Baseline History**

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	DEC 1982	DEC 1982	DEC 1982	DEC 1982
Milestone II	MAY 1985	APR 1986	APR 1986	APR 1986
Milestone III	JUL 1989	N/A	OCT 2005	OCT 2005
IOC	DEC 1991	N/A	MAR 2007	JUN 2007
Total Cost (TY \$M)	24467.0	29662.3	53253.4	54943.3
Total Quantity	609	919	458	460
Prog. Acq. Unit Cost (PAUC)	40.176	32.277	116.274	119.442

**Cost Variance**

<b>Summary Then Year \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	9891.7	43099.3	262.4	53253.4
Previous Changes				
Economic	+18.9	-36.8	+0.3	-17.6
Quantity	--	+71.8	--	+71.8
Schedule	--	+2105.1	--	+2105.1
Engineering	+91.5	+213.2	--	+304.7
Estimating	+536.1	-1714.2	-149.9	-1328.0
Other	--	--	--	--
Support	--	+672.4	--	+672.4
Subtotal	+646.5	+1311.5	-149.6	+1808.4
Current Changes				
Economic	-5.7	-181.9	-0.3	-187.9
Quantity	--	+73.7	--	+73.7
Schedule	--	+188.2	--	+188.2
Engineering	+23.5	+0.2	--	+23.7
Estimating	-36.0	-316.9	-0.7	-353.6
Other	--	--	--	--
Support	--	+137.4	--	+137.4
Subtotal	-18.2	-99.3	-1.0	-118.5
Total Changes	+628.3	+1212.2	-150.6	+1689.9
CE - Cost Variance	10520.0	44311.5	111.8	54943.3
CE - Cost & Funding	10520.0	44311.5	111.8	54943.3

<b>Summary Base Year 2005 \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	11446.5	38562.8	241.1	50250.4
Previous Changes				
Economic	--	--	--	--
Quantity	--	+59.1	--	+59.1
Schedule	--	+1096.8	--	+1096.8
Engineering	+73.3	+157.1	--	+230.4
Estimating	+481.9	-1788.2	-138.3	-1444.6
Other	--	--	--	--
Support	--	+429.4	--	+429.4
Subtotal	+555.2	-45.8	-138.3	+371.1
Current Changes				
Economic	--	--	--	--
Quantity	--	+59.5	--	+59.5
Schedule	--	+45.1	--	+45.1
Engineering	+18.4	+0.2	--	+18.6
Estimating	-29.8	-250.8	-0.6	-281.2
Other	--	--	--	--
Support	--	+65.3	--	+65.3
Subtotal	-11.4	-80.7	-0.6	-92.7
Total Changes	+543.8	-126.5	-138.9	+278.4
CE - Cost Variance	11990.3	38436.3	102.2	50528.8
CE - Cost & Funding	11990.3	38436.3	102.2	50528.8

Previous Estimate: December 2012

RDT&E	\$M	
	Base Year	Then Year
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	-5.7
Adjustment for current and prior escalation. (Estimating)	+1.3	+1.6
Addition of Digital Interopability Gateway Payload (Navy). (Engineering)	+18.4	+23.5
Revised estimate for Follow-On Test and Evaluation (FOT&E) (Navy). (Estimating)	+0.6	+2.3
Revised estimated for FOT&E (Air Force). (Estimating)	-11.7	-16.1
Revised estimate to reflect actuals (Navy). (Estimating)	-10.9	-12.9
Revised estimate to reflect actuals (Air Force). (Estimating)	-9.6	-11.4
Revised estimate to reflect actuals (DoD). (Estimating)	+0.5	+0.5
RDT&E Subtotal	-11.4	-18.2

Procurement	\$M	
	Base Year	Then Year
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	-181.9
Adjustment for current and prior escalation. (Estimating)	+59.3	+70.8
Revised estimate to reflect the application of new outyear indices (Navy). (Estimating)	+73.1	+97.9
Stretch-out of procurement buy profile resulting from follow-on Multi-Year Procurement Award quantity changes (Navy). (Schedule)	0.0	+102.7
Additional Schedule variance resulting from follow-on Multiyear Procurement Award quantity changes (Navy). (Schedule)	+43.2	+83.1
Total Quantity variance resulting from an increase of 1 aircraft from 49 to 50 (Air Force). (Subtotal)	+60.9	+75.4
Quantity variance resulting from an increase of 1 aircraft from 49 to 50 (Air Force). (Quantity)	(+59.5)	(+73.7)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+1.9)	(+2.4)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+0.2)	(+0.2)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.7)	(-0.9)
Revised estimate based on Multi-Year Procurement II contract award (Navy). (Estimating)	-240.4	-320.0
Revised estimate based on Multi-Year Procurement II contract award (Air Force). (Estimating)	-36.1	-44.2
Decrease attributed to Government Furnished Equipment, Engine, Ancillary, and Non-Recurring cost estimate updates (Navy). (Estimating)	-15.8	-16.7
Additional variance resulting from an increase of 1 aircraft (DoD). (Estimating)	+14.5	+17.6
Revised estimate to reflect actuals (Navy). (Estimating)	-74.8	-87.7
Revised estimate to reflect actuals (Air Force). (Estimating)	+2.9	+3.3
Revised estimate to reflect actuals (DoD). (Estimating)	-32.8	-37.0
Adjustment for current and prior escalation. (Support)	+10.9	+13.1
Increase in Other Support attributed to the stretch-out of procurement buy profile (Navy). (Support)	+124.7	+209.9
Increase in Other Support due to revised estimate of Support Equipment, Peculiar Training Equipment and Production Engineering Support (DoD). (Support)	+10.2	+11.1

Decrease in Other Support due to revised estimate of Support Equipment, Peculiar Training Equipment and Other Integrated Logistic Support (Air Force). (Support)	-8.3	-9.8
Revised estimate to Initial Spares to reflect actuals and to update remaining Spares requirements based on current projections (Navy). (Support)	-17.4	-20.1
Revised estimate to Initial Spares to reflect actuals and to update remaining Spares requirements based on current projections (Air Force). (Support)	-27.7	-34.5
Revised estimate to Initial Spares to reflect actuals and to update remaining Spares requirements based on current projections (DoD). (Support)	-27.1	-32.3
<b>Procurement Subtotal</b>	<b>-80.7</b>	<b>-99.3</b>

(QR) Quantity Related

<b>MILCON</b>	<b>\$M</b>	
	<b>Base Year</b>	<b>Then Year</b>
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	-0.3
Adjustment for current and prior escalation. (Estimating)	+0.2	+0.2
Revised estimate for site standup (Navy). (Estimating)	-0.8	-0.9
<b>MILCON Subtotal</b>	<b>-0.6</b>	<b>-1.0</b>

## Contracts

### Appropriation: Procurement

Contract Name	<b>FY11 FRP Lot 15 Airframe</b>
Contractor	Bell-Boeing JPO
Contractor Location	401 Tiltrotor Drive Amarillo, TX 79111
Contract Number, Type	N00019-07-C-0001/4, FPIF
Award Date	March 28, 2008
Definitization Date	March 28, 2008

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
93.9	N/A	35	2132.3	2249.3	35	2113.7	2126.2

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial contract price reflecting the value of advance procurement funded items only. The current contract price reflects the full airframe value.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2013)	+59.2	-1.4
Previous Cumulative Variances	+42.7	-94.8
Net Change	+16.5	+93.4

### Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to labor manufacturing efficiencies and material cost associated with several work breakdown structure elements being received at lower cost than budgeted.

The favorable net change in the schedule variance is due to Lot 15 being 99% complete. This large schedule variance recovery in FY 2013 was expected. As a contract nears completion, schedule variance will trend towards zero. Once a contract is >95% completed, schedule variance is not a reliable indicator of performance.

### General Contract Variance Explanation

The last CPR for Lot 15 was December 2013. Since the contract is 99% complete, this was the final CPR provided by the contractor.

### Contract Comments

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

**Appropriation: Procurement**

Contract Name	<b>FY12 FRP Lot 16 Airframe</b>
Contractor	Bell-Boeing JPO
Contractor Location	401 Tiltrotor Drive Amarillo, TX 79111
Contract Number, Type	N00019-07-C-0001/5, FPIF
Award Date	March 28, 2008
Definitization Date	March 28, 2008

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
86.4	N/A	35	2268.1	2391.1	36	2299.5	2270.7

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial contract price reflecting the value of advance procurement funded items only. The current contract price reflects the full airframe value.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/31/2014)	-37.3	-189.7
Previous Cumulative Variances	+1.5	-16.4
Net Change	-38.8	-173.3

**Cost and Schedule Variance Explanations**

The unfavorable net change in the cost variance is due to actual overhead rates exceeding the planned overhead rates. In addition material cost associated with several areas has been higher than the baseline plan.

The unfavorable net change in the schedule variance is due to several issues on the production line that are causing parts not to be delivered to the line in accordance with the contractors baseline plan. However, it is forecasted that schedule variance will improve greatly during FY 2014 based on the historical schedule variance recovery of previous Multi-Year Procurement I lots as each lot neared completion.

**Appropriation: Procurement**

Contract Name **FY13 FRP Lot 17 Airframe**  
 Contractor Bell-Boeing JPO  
 Contractor Location 401 Tiltrotor Drive  
 Amarillo, TX 79111  
 Contract Number, Type N00019-12-C-2001/1, FPIF  
 Award Date December 29, 2011  
 Definitization Date June 12, 2013

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
81.9	N/A	21	1410.5	1484.7	22	1426.1	1409.1

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial contract price reflecting the value of advance procurement funded items only. The current contract price reflects the full airframe value.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/31/2014)	-10.6	-66.3
Previous Cumulative Variances	0.0	0.0
Net Change	-10.6	-66.3

**Cost and Schedule Variance Explanations**

The unfavorable cumulative cost variance is due to actual overhead rates exceeding the planned overhead rates. In addition, material cost associated with several areas has been higher than the baseline plan.

The unfavorable cumulative schedule variance is due to delays in receiving various parts to the production line. This delay is due to delays in final negotiations between the prime contractor and several suppliers.

**Contract Comments**

The quantity increase is due to a Congressional add for combat-loss replacement aircraft.



**Appropriation: Procurement**

Contract Name **FY14 FRP Lot 18 Airframe**  
 Contractor Bell-Boeing JPO  
 Contractor Location 401 Tiltrotor Drive  
 Amarillo, TX 79111  
 Contract Number, Type N00019-12-C-2001/2, FPIF  
 Award Date December 17, 2013  
 Definitization Date December 17, 2013

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1000.6	N/A	22	1396.5	1470.0	22	1470.0	1470.0

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial contract price reflecting the value of advance procurement funded items only. The current contract price reflects the full airframe value.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2013)	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

**Cost and Schedule Variance Explanations**

None

**General Contract Variance Explanation**

Earned value data will not be reported until May 2014 when both actual and performance data will be received.

**Contract Comments**

This is the first time this contract is being reported.

**Appropriation: RDT&E**

Contract Name	<b>CV-22 Block 20</b>
Contractor	Bell-Boeing JPO
Contractor Location	401 Tiltrotor Drive Amarillo, TX 79111
Contract Number, Type	N00019-08-C-0025, CPFF
Award Date	December 21, 2007
Definitization Date	December 21, 2007

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
8.5	N/A	N/A	151.9	N/A	N/A	151.4	137.9

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the additions of Block 20 Increments I, II and III.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/31/2014)	+3.1	-1.8
Previous Cumulative Variances	+3.4	-2.7
Net Change	-0.3	+0.9

**Cost and Schedule Variance Explanations**

The unfavorable net change in the cost variance is due to increased cost for test aircraft sustainment and increased hours needed for software quality issues.

The favorable net change in the schedule variance is due to completion of remaining phase II effort.

**Contract Comments**

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

**Appropriation: Procurement**

Contract Name **V-22 AE 1107C Turboshaft Engine**  
 Contractor Rolls Royce  
 Contractor Location 2355 S. Tibbs Avenue  
 Indianapolis, IN 46206-0420  
 Contract Number, Type N00019-12-C-0007, FFP  
 Award Date March 30, 2012  
 Definitization Date March 30, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
150.9	N/A	70	225.8	N/A	104	225.8	225.8

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial contract price reflecting the value of the base year award. The current contract price represents the sum of the base year award plus the sum of the first option.

**Cost and Schedule Variance Explanations**

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

**Contract Comments**

The engine contract provides for a base year and four option years for procurement of engines for production install and spares FY 2012 through FY 2016 requirements for the MV and CV-22 weapons systems. To date the base year (FY 2012) was awarded and the first option (FY 2013) has been exercised. This contract is a Commercial Federal Acquisition Regulation Part 12 contract.

**Appropriation: Acq O&M**

Contract Name	<b>PBL</b>
Contractor	Bell-Boeing JPO
Contractor Location	401 Tiltrotor Drive Amarillo, TX 79111
Contract Number, Type	N00019-09-D-0008, CPIF
Award Date	January 22, 2009
Definitization Date	January 22, 2009

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
581.4	N/A	N/A	660.4	N/A	N/A	660.4	660.4

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the increase in requirements added via modification.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (11/30/2013)	+19.0	0.0
Previous Cumulative Variances	+7.5	0.0
Net Change	+11.5	+0.0

**Cost and Schedule Variance Explanations**

The favorable net change in the cost variance is due to lower labor costs than originally planned.

**General Contract Variance Explanation**

Schedule Variance of 0% is due to the fact that this is a Level of Effort contract.

The last CPR received for this contract was November 2013. Since the contract is 99% complete, this was the final CPR provided by the contractor.

**Contract Comments**

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

## Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	255	255	458	55.68%
Total Program Quantity Delivered	257	257	460	55.87%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	54943.3	Years Appropriated	33
Expended to Date	36200.6	Percent Years Appropriated	76.74%
Percent Expended	65.89%	Appropriated to Date	41679.5
Total Funding Years	43	Percent Appropriated	75.86%

The above data is current as of 3/1/2014.

## Operating and Support Cost

### V-22

#### Assumptions and Ground Rules

##### Cost Estimate Reference:

The following Ground Rules and Assumptions are based on the Operating and Support (O&S) costs estimate as of the October 2011 Acquisition Program Baseline update.

	MV-22 USMC	MV-22 Navy	CV-22
Aircraft Service Life(hrs)	10,000hrs	10,000hrs	10,000hrs
Aircraft Attrition Rate	1%	1%	0.6%
Aircraft Pipeline Rate	5%	10%	8%
Total Aircraft Inventory (TAI)	360	48	50
Primary Authorized Aircraft (PAA)	299	37	46
Flight Hours per Month	35	35	36
Flight Hours per Year	420	420	432
Total Aircraft Operating Years	7467	905	1031

##### Sustainment Strategy:

The V-22 program office is executing a Joint Sustainment Strategy that provides support for all logistics elements for the current Marine Corps MV-22 and the Air Force CV-22. The sustainment strategy addresses all three levels of maintenance (Organizational, Intermediate and Depot). The cornerstone of the Joint Sustainment Strategy is the Performance Based Agreements (PBAs) between the program office and the war fighters. The PBAs clearly define the war fighter's logistic support requirements to be achieved through the execution of the V-22 Joint Sustainment Strategy. The Joint Sustainment Strategy is executed via a myriad of processes and organizations to include DoD organic activities and commercial contractors. Paramount to the Joint Sustainment Strategy is the use of Performance Based Logistics (PBL). Multiple PBL contracts are used to support the V-22, however the preponderance of PBL support is provided under two contracts.

##### Antecedent Information:

There is no antecedent for the V-22 program.

Unitized O&S Costs BY2005 \$M		
Cost Element	V-22 Average Annual Cost Per Aircraft	No Antecedent (Antecedent)
Unit-Level Manpower	1.412	--
Unit Operations	0.333	--
Maintenance	4.742	--
Sustaining Support	0.522	--
Continuing System Improvements	0.218	--
Indirect Support	0.748	--
Other	0.000	--
<b>Total</b>	<b>7.975</b>	<b>--</b>

Unitized Cost Comments:

The formula used for Unitized Cost to Total Cost is: Total cost = average annual cost per aircraft \* (MV-22 USMC operating years + MV-22 Navy operating years + CV-22 operating years).

	Total O&S Cost \$M			
	Current Production APB Objective/Threshold		Current Estimate	
	V-22		V-22	No Antecedent (Antecedent)
<b>Base Year</b>	75022.5	82524.8	74992.7	N/A
<b>Then Year</b>	121543.7	N/A	121495.4	N/A

Total O&S Costs Comments:

Since 2010, the Program has executed to the plan put in place in 2009 which was reflected in the 2009 and subsequent SAR O&S estimates. The APB Objective and Threshold values include disposal costs.

O&S Cost Variance		
Category	Base Year 2005 \$M	Change Explanation
Prior SAR Total O&S Estimate - Dec 2012	75022.5	
Cost Estimating Methodology	0	
Cost Data Update	0	
Labor Rate	0	
Energy Rate	0	
Technical Input	0	
Programmatic/Planning Factors	0	Adjustment to remove disposal costs previously included in error. Also includes adjustment due to rounding.
Other	-29.8	
Total Changes	-29.8	
Current Estimate	74992.7	

**Disposal Costs:**

Based on the Life Cycle Sustainment Plan, the estimated cost of the demil/disposal phase for the remaining aircraft is \$28.8M.