



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-582



*Signal Data Processor with Sierra Chip
(SDP-S)*



*Planar Array Antenna Assembly
(PAAA)*

Cooperative Engagement Capability (CEC)

As of FY 2016 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

Cooperative Engagement Capability (CEC)

DoD Component

Navy

Joint Participants

United States Marine Corps; United States Air Force; United States Army

Responsible Office

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Date

Assigned: June 27, 2012

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated April 3, 2002

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 16, 2004

Mission and Description

Mission

The Cooperative Engagement Capability (CEC) increases overall Naval Air Defense capabilities by integrating sensors and weapon assets into a single, integrated, real-time network which expands the battlespace; enhances situational awareness; increases depth of fire and enables longer intercept ranges; and improves decision and reaction times.

Description

CEC is a real-time sensor netting system that enables high quality situational awareness and Integrated Fire Control (IFC) capability, which revolutionizes Naval Air Defense by providing improved accuracy, continuity, and identification consistency. This sensor netting system significantly improves Naval Carrier and Expeditionary Strike Group's Area Air Defense capabilities by extracting and distributing sensor-derived information such that the superset of this data is available to all participating CEC Cooperating Units (CUs). CEC fuses the distributed data from shipboard, airborne, Composite Tracking Network (CTN) ground mobile units, Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS), and select coalition partners into a single fire control quality air track picture. Radar measurement data from individual CUs within a CEC equipped force are transmitted to other CUs using the Line-Of-Sight Data Distribution System. A variety of automated network configurations are possible since CEC terminals provide highly directional, point-to-point data exchanges.

The CEC system distributes data between sensor and weapon assets to create a single, distributed, integrated air picture that supports and enables IFC. Individual sensors on all platforms in a CEC network are used in a cooperative manner as a distributed system to obtain track information to form a single, real-time composite track. This real-time composite tracking enables CEC to support Theater Air and Missile Defense allowing coordination of Naval and Joint sensor system assets among CEC-equipped ships, aircraft, and land platforms and joint operational access to engage cruise missiles that threaten joint forces in a denied access environment.

CEC consists of the following variants:

AN/USG-2: Shipboard designation of CEC deployed aboard the Aegis Guided Missile Cruisers, Aegis Guided Missile Destroyers, Aircraft Carriers and Amphibious Transport Dock/Amphibious Assault ships

AN/USG-3: Airborne designation of CEC deployed in E-2C and E-2D aircraft

AN/USG-4: United States Marine Corps CTN platform

AN/USG-5: United States Army JLENS platform

AN/USG-6/7/8: FMS

Executive Summary

The CEC program achieved a Milestone (MS) III FRP decision in April 2002 for the AN/USG-2 shipboard variant and is continuing development efforts to keep pace with the security threats and ensure producibility. The program remains focused on ensuring compatibility, appropriate maintenance, and ultimate disposal.

The Assistant Secretary of the Navy (Research, Development and Acquisition) Memorandum for PEO for Integrated Warfare Systems dated April 14, 2014 authorized entrance into FRP for the CEC AN/USG-3B (E-2D Airborne Variant) System in support of E-2D Advanced Hawkeye FRP.

Phase 1 of the Track File Concurrence (TFC) software updates to resolve TFC software shortfalls discovered during DT-IIID/OT-IIIF testing for the CEC AN/USG-3B (E-2D Airborne Variant) System were fielded in FY 2014. Phase 2 is scheduled to be fielded in FY 2016 and Phase 3 is scheduled to be fielded in FY 2017. The Accelerated Mid-Term Interoperability Improvement Project software improvements, including Dual Tracks improvements, are currently being installed on surface ships and E-2Cs and are planned for delivery to E-2D aircraft in FY 2017.

The following identifies \$6.268M FY 2015 Congressional reductions and impacts to the CEC program.

- **Program Execution (-\$3.268M)** This reduction impacts the analysis, design, and development changes to the CEC Kernel with respect to track load and variable rate from FY 2015 plans, affecting Air and Missile Defense Radar's (AMDR's) impact on Fleet Situational Awareness by reducing the number of tracks and track accuracy shared throughout the CEC networked units. This reduction also altered plans to support AMDR MS C risk reduction events including:
 - Moving CEC AMDR and Combat System-Interface Support Equipment Adaptive Layer Development from front-end of program to back-end of integration period
 - Delaying software development, build, test, and delivery of Stand Alone-CEC Engagement Processor and Wrap Around Software Program for Naval Systems Computing Center from fourth quarter FY 2015 to fourth quarter FY 2016
 - Reducing capability set delivered as part of software Build 1 by 50% with limited capability set that does not support integration with AMDR
 - Eliminating CEC Software Release 2 and 3
 - Deferring Start of CEC – AMDR/Combat Systems System-of-System Integration until fourth quarter FY 2016
- **Common Array Block (CAB) contract award delay (-\$3.000M)** This reduction will significantly delay development and fielding of both the CAB-Shipboard (CAB-S) and CAB-Expeditionary (CAB-E) variants, forcing the United States Navy and United States Marine Corps to continue to rely on aging, increasingly obsolescent, and unreliable equipment. The legacy surface Ship Board Aperture Antennas have passed their expected service life and are experiencing reliability and maintainability problems. These older antennas are costly to maintain, so longer sustainment of the legacy antenna will incur increased O&M, Navy costs or result in reduced operational availability in the Fleet. The current expeditionary Compact Solid State Antenna has substandard reliability and high corrective and preventive maintenance costs, issues that will be corrected by the fielding of the CAB-E. Any delay to CAB antenna fielding will increase cost to the Navy while decreasing capability in the Fleet.

CEC continues to follow an evolutionary acquisition process, delivering capability in increments of hardware and/or software upgrades. This evolutionary approach acknowledges the need for future capability improvements to pace evolutionary trends.

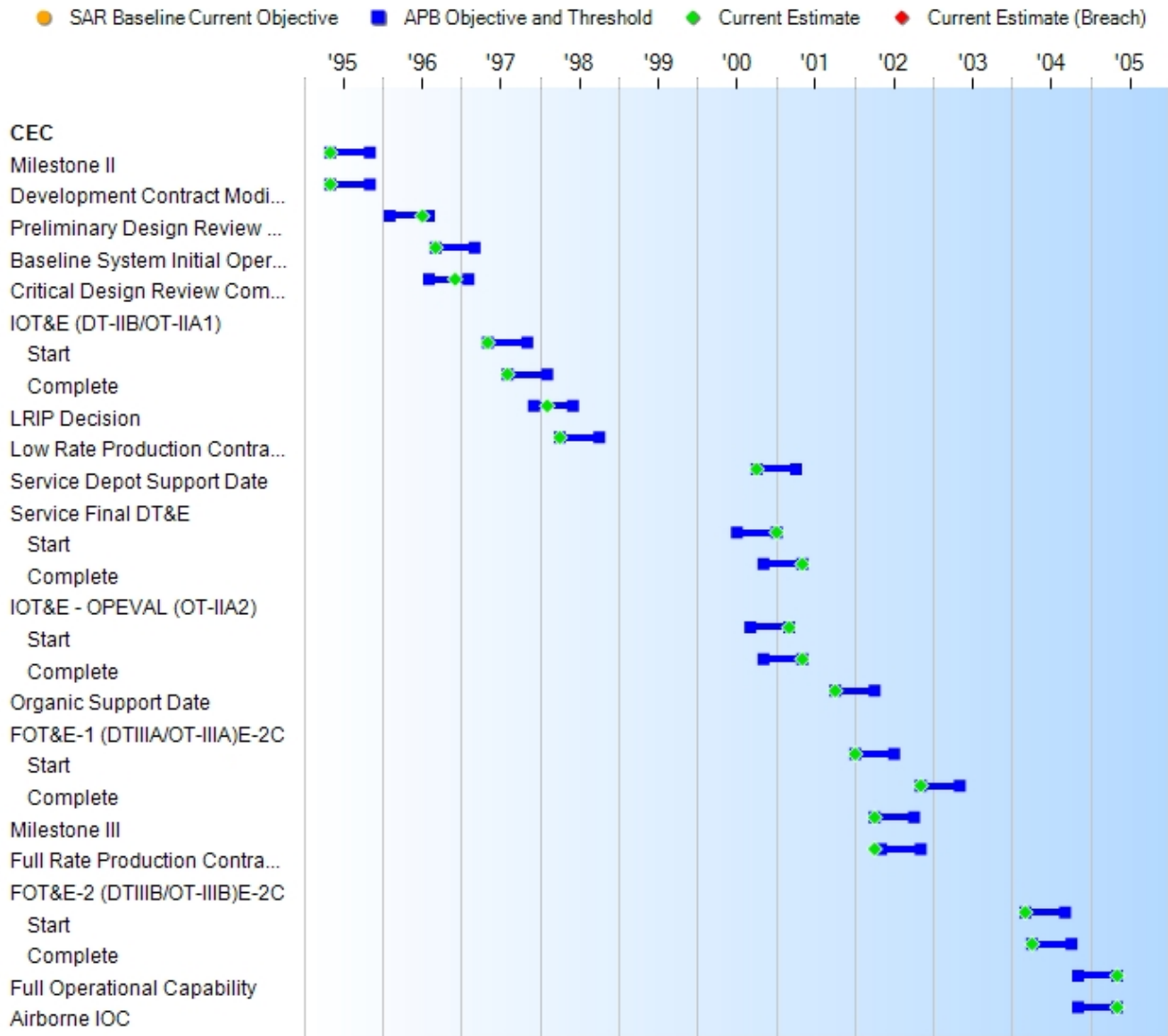
There are no significant software-related issues with this program at this time.

Threshold Breaches

APB Breaches		Explanation of Breach
Schedule	<input type="checkbox"/>	<p>This breach was first reported in the December 2011 SAR, and was based on an extension of the RDT&E program to FY 2017 in the FY 2013 PB. A Program Deviation Report dated May 31, 2012 noted the original APB only reflected RDT&E through 2007 at which time CEC would transition to Single Integrated Air Picture (SIAP). However, the April 8, 2009 Resource Management Decision 802 for the FY 2010 Budget Request terminated the SIAP Program.</p>
Performance	<input type="checkbox"/>	
Cost	<input checked="" type="checkbox"/>	
RDT&E	<input checked="" type="checkbox"/>	
Procurement	<input type="checkbox"/>	
MILCON	<input type="checkbox"/>	
Acq O&M	<input type="checkbox"/>	
O&S Cost	<input type="checkbox"/>	
Unit Cost	<input type="checkbox"/>	
PAUC	<input type="checkbox"/>	
APUC	<input type="checkbox"/>	

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

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone II	May 1995	May 1995	Nov 1995	May 1995
Development Contract Modification	May 1995	May 1995	Nov 1995	May 1995
Preliminary Design Review Complete	Feb 1996	Feb 1996	Aug 1996	Jul 1996
Baseline System Initial Operational Capability	Sep 1996	Sep 1996	Mar 1997	Sep 1996
Critical Design Review Complete	Aug 1996	Aug 1996	Feb 1997	Dec 1996
IOT&E (DT-IIB/OT-IIA1)				
Start	May 1997	May 1997	Nov 1997	May 1997
Complete	Aug 1997	Aug 1997	Feb 1998	Aug 1997
LRIP Decision	Dec 1997	Dec 1997	Jun 1998	Feb 1998
Low Rate Production Contract Award	Apr 1998	Apr 1998	Oct 1998	Apr 1998
Service Depot Support Date	Oct 2000	Oct 2000	Apr 2001	Oct 2000
Service Final DT&E				
Start	Jul 2000	Jul 2000	Jan 2001	Jan 2001
Complete	Nov 2000	Nov 2000	May 2001	May 2001
IOT&E - OPEVAL (OT-IIA2)				
Start	Sep 2000	Sep 2000	Mar 2001	Mar 2001
Complete	Nov 2000	Nov 2000	May 2001	May 2001
Organic Support Date	Oct 2001	Oct 2001	Apr 2002	Oct 2001
FOT&E-1 (DTIIIA/OT-IIIA)E-2C				
Start	Jan 2002	Jan 2002	Jul 2002	Jan 2002
Complete	Aug 2002	Nov 2002	May 2003	Nov 2002
Milestone III	Apr 2002	Apr 2002	Oct 2002	Apr 2002
Full Rate Production Contract Award	May 2002	May 2002	Nov 2002	Apr 2002
FOT&E-2 (DTIIIB/OT-IIIB)E-2C				
Start	Mar 2003	Mar 2004	Sep 2004	Mar 2004
Complete	Jul 2003	Apr 2004	Oct 2004	Apr 2004
Full Operational Capability	Dec 2003	Nov 2004	May 2005	May 2005
Airborne IOC	Dec 2003	Nov 2004	May 2005	May 2005

Change Explanations

None

Acronyms and Abbreviations

DT - Developmental Test

DT&E - Developmental Test and Evaluation

FOT&E - Follow-on Test and Evaluation

IOT&E - Initial Operational Test and Evaluation

OPEVAL - Operational Evaluation

OT - Operational Test

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate	
Operational Availability				
>=.95	>=.95	>=.90	>=.91	>=.91 (Ch-1)
Interoperability				
Information Exchange Requirements (IER)				
100% of top-level IERs	100% of top-level IERs.	100% of top-level IERs designated critical	100% of top-level IERs designated critical	100% of top-level IERs designated critical
Track File Consistency				
Integration will improve track file consistency in each host system	CEC integration will improve track file consistency as measured in each host system	CEC integration must not degrade track file consistency (0% degradation)as measured in each host system	CEC integration will improve track file consistency as measured in each host system	CEC integration will improve track file consistency in each host system

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

Requirements Reference

Operational Requirements Document (ORD) dated January 31, 2002 and ORD Change 1 dated January 31, 2011

Change Explanations

(Ch-1) The Demonstrated Performance change from 0.94 to 0.91 is due to AN/USG-2 reaching end of life. Currently installing AN/USG-2B back-fits to update AN/USG-2s.

Acronyms and Abbreviations

IER - Information Exchange Requirements
ORD - Operational Requirements Document

Track to Budget

General Notes

All APPNs and PEs have been updated to align with FY 2016 PB values.

Project element Line Item 0900 DDG Modernization removed from sunk as of FY 2016 PB.

Project element Line Item 0960 Curiser Modernization removed from sunk as of FY 2016 PB.

Project element Line Item 55 JLENS Army RDT&E reported as sunk as of FY 2016 PB.

Project element Line Item 3051 NAVAIR RDT&E reported as sunk as of FY 2016 PB.

RDT&E

Appn	BA	PE	
Navy	1319	07	0206313M
	Project	Name	
	2273	Marine Corps Communication (Shared) Systems/Marine Corps Communication Systems	
	Notes: Shared with Composite Tracking Network		
Navy	1319	04	0603658N
	Project	Name	
	2039	Cooperative Engagement Capability (CEC)	
	2616	Cooperative Engagement (Sunk) Capability (CEC)	
Navy	1319	05	0604234N
	Project	Name	
	3051	E2-D Advanced Hawkeye (Shared) (Sunk)	
	Notes: Shared with Advanced Hawkeye Program		
	5EJ	E2-D Advanced Hawkeye (Shared) (Sunk)	
	Notes: Shared with Advanced Hawkeye Program		
Army	2040	07	0102419A
	Project	Name	
	55	Joint Aero Stat Program EMD (Shared) (Sunk) Effort	
	Notes: Shared with Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System		

Procurement

Appn	BA	PE	
Navy	1109	01	0206313M
	Line Item	Name	
	4640	Air Operations C2 Systems (Shared)	
	Notes: Shared with Composite Tracking Network		

Navy	1506	01	0204152N
	Line Item		Name
	0195		E-2D Adv Hawkeye (Shared)
	Notes:	Shared with E-2C Hawkeye	
Navy	1611	02	0204112N
	Line Item		Name
	2001		Carrier Replacement Program (Shared) (Sunk)
	Notes:	Shared with CVN Replacement Program	
	2086		CVN Refueling Overhauls (Shared)
	Notes:	Shared with Refueling Complex Overhaul	
Navy	1611	05	0204228N
	Line Item		Name
	2119		DDG 1000 (Shared) (Sunk)
	Notes:	Shared with DDG 1000 Program	
Navy	1611	02	0204222N
	Line Item		Name
	2119		DDG 1000 (Shared) (Sunk)
	Notes:	Shared with DDG 1000 Program	
	2122		DDG-51 (Shared)
	Notes:	Shared with DDG-51 Program	
Navy	1611	03	0204411N
	Line Item		Name
	3035		LHD-1 (Shared) (Sunk)
	Notes:	Shared with Amphibious Assault Ships	
	3036		LPD-17 (Shared)
	Notes:	Shared with Amphibious Assault Ships	
	3041		LHA Replacement (Shared)
	Notes:	Shared with Amphibious Assault Ships	
Navy	1810	01	0204228N
	Line Item		Name
	0900		DDG Modernization (Shared)
	Notes:	Shared with DDG Modernization Program - Removed from sunk in this SAR due to FY 2015 funds being received as of FY 2016 PB.	
Navy	1810	01	0204162N
	Line Item		Name
	0960		CG Modernization (Shared)
	Notes:	Shared with Cruiser Modernization Program. Removed from sunk in this SAR due to FY 2015 funds being received as of FY 2016 PB.	
Navy	1810	02	0204228N
	Line Item		Name
	2606		Cooperative Engagement Capability (CEC)

Navy

1810 02 0204221N

Line Item	Name
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2606	Cooperative Engagement Capability (CEC)
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(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2002 \$M			BY 2002 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	2028.1	2435.7	2679.3	2888.6 ¹	1946.5	2394.3	3036.1
Procurement	2095.2	2095.2	2304.7	1573.6	2364.2	2364.2	1858.7
Flyaway	--	--	--	1361.8	--	--	1589.5
Recurring	--	--	--	1361.8	--	--	1589.5
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	211.8	--	--	269.2
Other Support	--	--	--	211.8	--	--	269.2
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	4123.3	4530.9	N/A	4462.2	4310.7	4758.5	4894.8

¹ APB Breach

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		16	27
Procurement		256	256
Total		272	283

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	2588.4	38.8	77.0	82.1	81.8	86.0	82.0	0.0	3036.1
Procurement	1410.0	68.0	50.9	70.3	68.3	54.4	55.6	81.2	1858.7
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2016 Total	3998.4	106.8	127.9	152.4	150.1	140.4	137.6	81.2	4894.8
PB 2015 Total	4001.9	102.8	135.2	132.4	141.6	138.5	29.5	84.9	4766.8
Delta	-3.5	4.0	-7.3	20.0	8.5	1.9	108.1	-3.7	128.0

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	30	0	0	0	0	0	0	0	0	30
Production	0	162	9	8	11	10	7	6	21	234
PB 2016 Total	30	162	9	8	11	10	7	6	21	264
PB 2015 Total	30	162	7	9	10	9	7	7	20	261
Delta	0	0	2	-1	1	1	0	-1	1	3

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1994	--	--	--	--	--	--	203.2
1995	--	--	--	--	--	--	154.1
1996	--	--	--	--	--	--	256.4
1997	--	--	--	--	--	--	224.7
1998	--	--	--	--	--	--	200.8
1999	--	--	--	--	--	--	189.8
2000	--	--	--	--	--	--	179.8
2001	--	--	--	--	--	--	173.4
2002	--	--	--	--	--	--	106.7
2003	--	--	--	--	--	--	107.1
2004	--	--	--	--	--	--	91.1
2005	--	--	--	--	--	--	114.0
2006	--	--	--	--	--	--	99.8
2007	--	--	--	--	--	--	55.0
2008	--	--	--	--	--	--	53.4
2009	--	--	--	--	--	--	44.2
2010	--	--	--	--	--	--	65.8
2011	--	--	--	--	--	--	59.6
2012	--	--	--	--	--	--	60.0
2013	--	--	--	--	--	--	52.5
2014	--	--	--	--	--	--	60.0
2015	--	--	--	--	--	--	38.8
2016	--	--	--	--	--	--	77.0
2017	--	--	--	--	--	--	82.1
2018	--	--	--	--	--	--	81.8
2019	--	--	--	--	--	--	86.0
2020	--	--	--	--	--	--	82.0
Subtotal	22	--	--	--	--	--	2999.1

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2002 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1994	--	--	--	--	--	--	224.2
1995	--	--	--	--	--	--	166.8
1996	--	--	--	--	--	--	272.9
1997	--	--	--	--	--	--	236.3
1998	--	--	--	--	--	--	209.4
1999	--	--	--	--	--	--	195.7
2000	--	--	--	--	--	--	182.7
2001	--	--	--	--	--	--	173.8
2002	--	--	--	--	--	--	105.9
2003	--	--	--	--	--	--	104.7
2004	--	--	--	--	--	--	86.7
2005	--	--	--	--	--	--	105.7
2006	--	--	--	--	--	--	89.7
2007	--	--	--	--	--	--	48.3
2008	--	--	--	--	--	--	46.0
2009	--	--	--	--	--	--	37.6
2010	--	--	--	--	--	--	55.2
2011	--	--	--	--	--	--	48.8
2012	--	--	--	--	--	--	48.3
2013	--	--	--	--	--	--	41.6
2014	--	--	--	--	--	--	47.1
2015	--	--	--	--	--	--	30.0
2016	--	--	--	--	--	--	58.5
2017	--	--	--	--	--	--	61.2
2018	--	--	--	--	--	--	59.8
2019	--	--	--	--	--	--	61.6
2020	--	--	--	--	--	--	57.6
Subtotal	22	--	--	--	--	--	2856.1

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1999	--	--	--	--	--	--	9.7
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	--	--	--	--	--	--	--
2003	--	--	--	--	--	--	--
2004	--	--	--	--	--	--	--
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	8.6
2010	--	--	--	--	--	--	5.2
2011	--	--	--	--	--	--	5.0
2012	--	--	--	--	--	--	5.6
2013	--	--	--	--	--	--	2.4
2014	--	--	--	--	--	--	0.5
Subtotal	8	--	--	--	--	--	37.0

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2002 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1999	--	--	--	--	--	--	10.0
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	--	--	--	--	--	--	--
2003	--	--	--	--	--	--	--
2004	--	--	--	--	--	--	--
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	7.3
2010	--	--	--	--	--	--	4.3
2011	--	--	--	--	--	--	4.1
2012	--	--	--	--	--	--	4.5
2013	--	--	--	--	--	--	1.9
2014	--	--	--	--	--	--	0.4
Subtotal	8	--	--	--	--	--	32.5

Annual Funding								
1109 Procurement Procurement, Marine Corps								
Fiscal Year	Quantity	TY \$M						Total Program
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support		
2008	--	--	3.0	--	3.0	--	3.0	
2009	10	16.0	--	--	16.0	--	16.0	
2010	--	--	--	--	--	--	--	
2011	--	--	11.3	--	11.3	--	11.3	
2012	--	--	3.8	--	3.8	--	3.8	
2013	--	--	--	--	--	--	--	
2014	--	--	--	--	--	--	--	
2015	--	--	0.4	--	0.4	--	0.4	
Subtotal	10	16.0	18.5	--	34.5	--	34.5	

Annual Funding 1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	BY 2002 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	2.6	--	2.6	--	2.6
2009	10	13.5	--	--	13.5	--	13.5
2010	--	--	--	--	--	--	--
2011	--	--	9.2	--	9.2	--	9.2
2012	--	--	3.0	--	3.0	--	3.0
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	--
2015	--	--	0.3	--	0.3	--	0.3
Subtotal	10	13.5	15.1	--	28.6	--	28.6

Annual Funding								
1506 Procurement Aircraft Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2000	6	35.0	--	--	35.0	--	35.0	
2001	1	14.7	--	--	14.7	--	14.7	
2002	5	27.6	--	--	27.6	--	27.6	
2003	6	33.3	--	--	33.3	--	33.3	
2004	6	27.9	--	--	27.9	--	27.9	
2005	--	--	--	--	--	--	--	
2006	--	--	--	--	--	--	--	
2007	--	--	--	--	--	--	--	
2008	--	--	--	--	--	--	--	
2009	2	7.7	--	--	7.7	--	7.7	
2010	3	12.6	--	--	12.6	--	12.6	
2011	5	16.3	--	--	16.3	--	16.3	
2012	5	15.6	--	--	15.6	--	15.6	
2013	5	14.9	--	--	14.9	--	14.9	
2014	5	13.1	--	--	13.1	--	13.1	
2015	5	13.3	--	--	13.3	--	13.3	
2016	5	13.6	--	--	13.6	--	13.6	
2017	6	16.6	--	--	16.6	--	16.6	
2018	5	14.1	--	--	14.1	--	14.1	
2019	4	11.5	--	--	11.5	--	11.5	
2020	4	11.8	--	--	11.8	--	11.8	
2021	4	12.0	--	--	12.0	--	12.0	
2022	4	12.2	--	--	12.2	--	12.2	
2023	4	12.5	--	--	12.5	--	12.5	
2024	4	12.7	--	--	12.7	--	12.7	
Subtotal	94	349.0	--	--	349.0	--	349.0	

Annual Funding 1506 Procurement Aircraft Procurement, Navy							
Fiscal Year	Quantity	BY 2002 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2000	6	35.1	--	--	35.1	--	35.1
2001	1	14.6	--	--	14.6	--	14.6
2002	5	27.0	--	--	27.0	--	27.0
2003	6	32.0	--	--	32.0	--	32.0
2004	6	26.1	--	--	26.1	--	26.1
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	2	6.5	--	--	6.5	--	6.5
2010	3	10.4	--	--	10.4	--	10.4
2011	5	13.2	--	--	13.2	--	13.2
2012	5	12.4	--	--	12.4	--	12.4
2013	5	11.7	--	--	11.7	--	11.7
2014	5	10.1	--	--	10.1	--	10.1
2015	5	10.1	--	--	10.1	--	10.1
2016	5	10.2	--	--	10.2	--	10.2
2017	6	12.2	--	--	12.2	--	12.2
2018	5	10.1	--	--	10.1	--	10.1
2019	4	8.1	--	--	8.1	--	8.1
2020	4	8.2	--	--	8.2	--	8.2
2021	4	8.1	--	--	8.1	--	8.1
2022	4	8.1	--	--	8.1	--	8.1
2023	4	8.1	--	--	8.1	--	8.1
2024	4	8.1	--	--	8.1	--	8.1
Subtotal	94	290.4	--	--	290.4	--	290.4

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1995	1	13.9	--	--	13.9	1.6	15.5	
1996	1	11.3	--	--	11.3	0.1	11.4	
1997	--	--	--	--	--	--	--	
1998	3	31.8	--	--	31.8	3.2	35.0	
1999	1	9.0	--	--	9.0	0.9	9.9	
2000	2	14.3	--	--	14.3	1.7	16.0	
2001	2	12.3	--	--	12.3	1.1	13.4	
2002	2	15.4	--	--	15.4	1.7	17.1	
2003	1	5.8	--	--	5.8	0.8	6.6	
2004	1	6.3	--	--	6.3	0.6	6.9	
2005	1	7.6	--	--	7.6	0.6	8.2	
2006	2	12.6	--	--	12.6	1.3	13.9	
2007	3	16.8	--	--	16.8	5.9	22.7	
2008	2	12.8	--	--	12.8	3.3	16.1	
2009	3	13.8	--	--	13.8	6.4	20.2	
2010	1	6.9	--	--	6.9	0.7	7.6	
2011	3	12.1	--	--	12.1	4.9	17.0	
2012	2	9.1	--	--	9.1	2.8	11.9	
2013	5	24.1	--	--	24.1	6.2	30.3	
2014	1	5.0	--	--	5.0	1.4	6.4	
2015	2	9.0	--	--	9.0	2.4	11.4	
2016	2	8.9	--	--	8.9	2.7	11.6	
2017	3	14.7	--	--	14.7	3.8	18.5	
2018	3	14.4	--	--	14.4	3.8	18.2	
2019	2	9.7	--	--	9.7	2.5	12.2	
2020	2	9.9	--	--	9.9	2.5	12.4	
2021	2	10.0	--	--	10.0	2.6	12.6	
2022	3	15.3	--	--	15.3	3.9	19.2	
Subtotal	56	332.8	--	--	332.8	69.4	402.2	

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy								
Fiscal Year	Quantity	BY 2002 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1995	1	14.7	--	--	14.7	1.7	16.4	
1996	1	11.8	--	--	11.8	0.1	11.9	
1997	--	--	--	--	--	--	--	
1998	3	32.0	--	--	32.0	3.2	35.2	
1999	1	8.9	--	--	8.9	0.9	9.8	
2000	2	13.8	--	--	13.8	1.7	15.5	
2001	2	11.5	--	--	11.5	1.0	12.5	
2002	2	14.3	--	--	14.3	1.6	15.9	
2003	1	5.1	--	--	5.1	0.7	5.8	
2004	1	5.3	--	--	5.3	0.5	5.8	
2005	1	6.2	--	--	6.2	0.5	6.7	
2006	2	9.9	--	--	9.9	1.0	10.9	
2007	3	12.6	--	--	12.6	4.4	17.0	
2008	2	9.3	--	--	9.3	2.4	11.7	
2009	3	9.7	--	--	9.7	4.5	14.2	
2010	1	4.7	--	--	4.7	0.5	5.2	
2011	3	8.0	--	--	8.0	3.2	11.2	
2012	2	5.9	--	--	5.9	1.8	7.7	
2013	5	15.2	--	--	15.2	4.0	19.2	
2014	1	3.1	--	--	3.1	0.9	4.0	
2015	2	5.5	--	--	5.5	1.5	7.0	
2016	2	5.3	--	--	5.3	1.6	6.9	
2017	3	8.6	--	--	8.6	2.3	10.9	
2018	3	8.3	--	--	8.3	2.2	10.5	
2019	2	5.5	--	--	5.5	1.4	6.9	
2020	2	5.5	--	--	5.5	1.4	6.9	
2021	2	5.4	--	--	5.4	1.4	6.8	
2022	3	8.1	--	--	8.1	2.1	10.2	
Subtotal	56	254.2	--	--	254.2	48.5	302.7	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	5	55.2	--	--	55.2	12.1	67.3	
1999	5	79.7	--	--	79.7	1.7	81.4	
2000	3	53.2	--	--	53.2	6.0	59.2	
2001	6	36.4	--	--	36.4	--	36.4	
2002	4	77.6	--	--	77.6	6.4	84.0	
2003	6	64.9	--	--	64.9	6.1	71.0	
2004	4	60.4	--	--	60.4	5.8	66.2	
2005	3	60.9	--	--	60.9	6.2	67.1	
2006	3	21.2	--	--	21.2	3.8	25.0	
2007	5	34.4	--	--	34.4	3.6	38.0	
2008	4	33.1	--	--	33.1	5.8	38.9	
2009	4	29.3	--	--	29.3	4.9	34.2	
2010	5	42.4	--	--	42.4	8.2	50.6	
2011	5	42.8	--	--	42.8	8.7	51.5	
2012	--	--	34.6	--	34.6	--	34.6	
2013	2	20.7	--	--	20.7	10.7	31.4	
2014	2	19.5	--	--	19.5	14.8	34.3	
2015	2	17.2	--	--	17.2	25.7	42.9	
2016	1	10.4	--	--	10.4	15.3	25.7	
2017	2	16.6	--	--	16.6	18.6	35.2	
2018	2	16.9	--	--	16.9	19.1	36.0	
2019	1	14.4	--	--	14.4	16.3	30.7	
2020	--	--	31.4	--	31.4	--	31.4	
Subtotal	74	807.2	66.0	--	873.2	199.8	1073.0	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	BY 2002 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	5	57.3	--	--	57.3	12.5	69.8	
1999	5	81.6	--	--	81.6	1.8	83.4	
2000	3	53.7	--	--	53.7	6.1	59.8	
2001	6	36.3	--	--	36.3	--	36.3	
2002	4	76.3	--	--	76.3	6.3	82.6	
2003	6	62.6	--	--	62.6	5.9	68.5	
2004	4	56.9	--	--	56.9	5.4	62.3	
2005	3	55.8	--	--	55.8	5.6	61.4	
2006	3	18.8	--	--	18.8	3.4	22.2	
2007	5	29.8	--	--	29.8	3.2	33.0	
2008	4	28.3	--	--	28.3	4.9	33.2	
2009	4	24.7	--	--	24.7	4.1	28.8	
2010	5	35.0	--	--	35.0	6.8	41.8	
2011	5	34.9	--	--	34.9	7.0	41.9	
2012	--	--	27.7	--	27.7	--	27.7	
2013	2	16.3	--	--	16.3	8.5	24.8	
2014	2	15.2	--	--	15.2	11.5	26.7	
2015	2	13.2	--	--	13.2	19.6	32.8	
2016	1	7.8	--	--	7.8	11.5	19.3	
2017	2	12.2	--	--	12.2	13.8	26.0	
2018	2	12.2	--	--	12.2	13.8	26.0	
2019	1	10.2	--	--	10.2	11.6	21.8	
2020	--	--	21.8	--	21.8	--	21.8	
Subtotal	74	739.1	49.5	--	788.6	163.3	951.9	

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	3/2/1998	10/31/2013
Approved Quantity	7	84
Reference	LRIP-1 – ADM	LRIP-14 – USD (AT&L) ADM
Start Year	1998	1998
End Year	1998	2013

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the requirements (1) to meet ship installation schedules, (2) to outfit Land Based Test Sites in preparation for completion of Operational Testing (OT), and (3) to maintain the Minimum Sustaining Rate for production of CEC systems pending completion of OT and entry into FRP.

Foreign Military Sales

Notes

The CEC Program Office, in conjunction with the Integrated Warfare Systems International Program Office, has active FMS cases with the United Kingdom, Australia and Canada towards integration of the CEC capability across their respective fleets in compliance with U.S. Government directives and FMS requirements.

The FMS cases have been deemed sensitive by these individual countries and are not included in this SAR.

Nuclear Costs

None

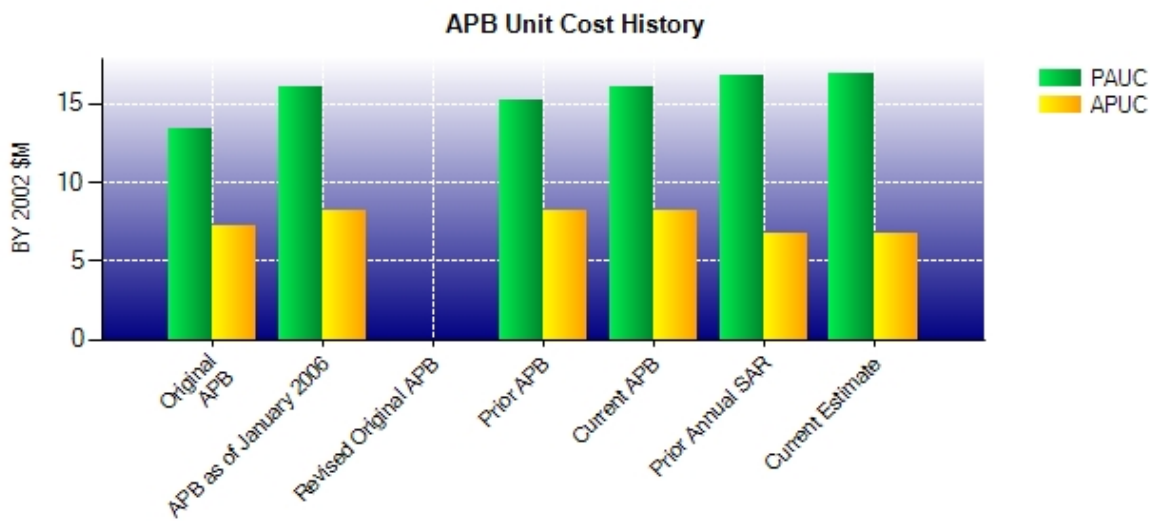
Unit Cost

Unit Cost Report

Item	BY 2002 \$M	BY 2002 \$M	% Change
	Current UCR Baseline (Jun 2004 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	4530.9	4462.2	
Quantity	283	264	
Item	16.010	16.902	+5.57
Average Procurement Unit Cost			
Cost	2095.2	1573.6	
Quantity	256	234	
Unit Cost	8.184	6.725	-17.83

Item	BY 2002 \$M	BY 2002 \$M	% Change
	Original UCR Baseline (Jul 1995 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	2443.4	4462.2	
Quantity	183	264	
Unit Cost	13.352	16.902	+26.59
Average Procurement Unit Cost			
Cost	1262.8	1573.6	
Quantity	174	234	
Unit Cost	7.257	6.725	-7.33

Unit Cost History



Item	Date	BY 2002 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Jul 1995	13.326	7.257	14.061	8.222
APB as of January 2006	Jun 2004	16.010	8.184	16.814	9.235
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Apr 2002	15.159	8.184	15.848	9.235
Current APB	Jun 2004	16.010	8.184	16.814	9.235
Prior Annual SAR	Dec 2013	16.722	6.752	18.264	7.981
Current Estimate	Dec 2014	16.902	6.725	18.541	7.943

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
14.060	-0.656	-2.840	0.590	0.420	5.010	0.000	-0.736	1.788	15.848

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
15.848	0.291	-0.317	1.448	1.260	0.052	0.000	-0.041	2.693	18.541

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
8.220	-0.532	-0.797	0.291	-0.439	1.761	0.000	0.731	1.015	9.235

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
9.235	0.204	-0.251	0.272	-0.624	-0.831	0.000	-0.062	-1.292	7.943

SAR Baseline History					
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate	
Milestone I	N/A	N/A	N/A	N/A	
Milestone II	N/A	May 1995	May 1995	May 1995	
Milestone III	N/A	Oct 1998	Apr 2002	Apr 2002	
IOC	N/A	Sep 1996	Sep 1996	Sep 1996	
Total Cost (TY \$M)	N/A	2573.1	4310.7	4894.8	
Total Quantity	N/A	183	272	264	
PAUC	N/A	14.061	15.848	18.541	

IOC identified above refers to the CEC Shipboard configuration, AN/USG-2. FOC occurred in conjunction with Airborne IOC in May 2005.

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	1946.5	2364.2	--	4310.7
Previous Changes				
Economic	+34.1	+51.1	--	+85.2
Quantity	+51.6	-281.4	--	-229.8
Schedule	+237.4	+20.4	--	+257.8
Engineering	+485.0	-142.7	--	+342.3
Estimating	+168.0	-160.8	--	+7.2
Other	--	--	--	--
Support	+0.6	-7.2	--	-6.6
Subtotal	+976.7	-520.6	--	+456.1
Current Changes				
Economic	-5.2	-3.3	--	-8.5
Quantity	--	+19.5	--	+19.5
Schedule	+81.3	+43.2	--	+124.5
Engineering	-6.3	-3.4	--	-9.7
Estimating	+40.1	-33.6	--	+6.5
Other	--	--	--	--
Support	+3.0	-7.3	--	-4.3
Subtotal	+112.9	+15.1	--	+128.0
Total Changes	+1089.6	-505.5	--	+584.1
CE - Cost Variance	3036.1	1858.7	--	4894.8
CE - Cost & Funding	3036.1	1858.7	--	4894.8

Summary BY 2002 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	2028.1	2095.2	--	4123.3
Previous Changes				
Economic	--	--	--	--
Quantity	+47.8	-243.2	--	-195.4
Schedule	+170.8	-50.8	--	+120.0
Engineering	+423.7	-108.3	--	+315.4
Estimating	+133.7	-14.1	--	+119.6
Other	--	--	--	--
Support	+0.5	-119.0	--	-118.5
Subtotal	+776.5	-535.4	--	+241.1
Current Changes				
Economic	--	--	--	--
Quantity	--	+15.9	--	+15.9
Schedule	+57.0	+29.5	--	+86.5
Engineering	-4.8	-2.7	--	-7.5
Estimating	+29.5	-24.3	--	+5.2
Other	--	--	--	--
Support	+2.3	-4.6	--	-2.3
Subtotal	+84.0	+13.8	--	+97.8
Total Changes	+860.5	-521.6	--	+338.9
CE - Cost Variance	2888.6	1573.6	--	4462.2
CE - Cost & Funding	2888.6	1573.6	--	4462.2

Previous Estimate: December 2013

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-5.2
Stretch-out of development effort from FY 2019 to FY 2020. (Schedule)	+57.0	+81.3
Congressional reductions for program execution and Common Array Block antenna contract award delay. (Engineering)	-4.8	-6.3
Adjustment for current and prior escalation. (Estimating)	-1.5	-2.0
Additional CEC RDT&E funding for CEC/E-2D Dual Tracks Interoperability and CEC-AEGIS ACB 16/SM-6 BLK 1A Integration. (Estimating)	+30.2	+41.1
Adjustment for current and prior escalation. (Estimating)	+0.8	+1.0
Additional U.S. Marine Corps RDT&E funding to support Composite Tracking Network. (Support)	+2.3	+3.0
RDT&E Subtotal	+84.0	+112.9

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-3.3
Stretch-out of AN/USG-3 procurement buy profile from FY 2023 to FY 2024. (APN) (Schedule)	0.0	+0.8
Schedule adjustment due to five AN/USG-3 systems being shifted - one to FY 2015 and four to FY 2024. (APN) (Schedule)	-3.0	-4.5
Revised estimate for AN/USG-3 realized unit cost savings. (APN) (Estimating)	-12.4	-16.9
Schedule adjustment due to one CEC LHD AN/USG-2 system shifted from FY 2015 to FY 2019. (OPN) (Schedule)	0.0	-0.2
Stretch out of AN/USG-2 procurement buy profile from FY 2019 to FY 2020. (OPN) (Schedule)	+32.2	+46.1
Quantity increase from 70 to 74 for four AN/USG-2 OPN systems for CG Modernization. (Navy) (Subtotal)	+14.2	+19.6
Quantity increase from 70 to 74 for four AN/USG-2 OPN systems for CG MOD. (Navy) (Quantity)	(+20.9)	(+28.9)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+0.4)	(+0.5)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-3.5)	(-4.9)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-3.6)	(-4.9)
Schedule change from decrease of one AN/USG-2 CVN 73 SCN system. (Navy) (Schedule)	0.0	+0.7
Quantity change from 57 to 56 resulting from a removal of one AN/USG-2 CEC SCN System.(Navy) (Subtotal)	-3.4	-6.4
Quantity reduction from 57 to 56 resulting from a removal of one AN/USG-2 CVN 73 SCN System.(Navy) (Quantity)	(-5.0)	(-9.4)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.1)	(-0.2)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+0.8)	(+1.5)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+0.9)	(+1.7)
Reduced CEC budget controls/program improvements for AN/USG-2. (OPN) (Estimating)	-8.7	-12.2
Adjustment for current and prior escalation. (Estimating)	+0.6	+0.2

Reduced AN/USG-4 (U.S. Marine Corps) Procurement funding due to programmatic changes in FY 2014. (PMC) (Estimating)	-1.1	-1.4
Revised DDG SCN estimate. (Estimating)	0.0	-0.1
Adjustment for current and prior escalation. (Support)	0.0	+0.3
Decrease in Other Support due to schedule adjustment of CEC AN/USG-2 OPN buy profile; LHD 5 moved from FY 2015 to FY 2019. (Navy) (Support)	-3.6	-5.6
Decrease in Other Support due to removal of CVN 73 from SCN buy profile. (Navy) (Support)	-1.0	-2.0
<hr/> Procurement Subtotal	+13.8	+15.1

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: CEC Signal Data Processor-Sierra (SDP-S) Production
Contractor: Sechan Electronics Inc
Contractor Location: 525 Furnace Hills Pike
 Lititz, PA 17543-8902
Contract Number: N00024-12-D-5203/1
Contract Type: Indefinite Delivery Indefinite Quantity (IDIQ), Firm Fixed Price (FFP)
Award Date: December 20, 2011
Definitization Date: December 20, 2011

Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
13.8	N/A	N/A	28.4	N/A	N/A	64.0	64.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of Delivery Orders 0001, 0002 and 0003.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (IDIQ/FFP) contract.

Notes

This is a Delivery Order contract to procure SDP-S. Production units are FFP, the engineering support services are Cost Plus Fixed-Fee. This is an IDIQ contract, therefore, the estimated ceiling price at completion is not applicable.

Contract Identification

Appropriation: RDT&E
Contract Name: Design Agent/Engineering Services (FY 2014 - FY 2018)
Contractor: Raytheon - Network Centric Systems
Contractor Location: 8333 Bryan Dairy Road
 Largo, FL 33777-1444
Contract Number: N00024-13-C-5212/0
Contract Type: Cost Plus Fixed Fee (CPFF)
Award Date: September 27, 2013
Definitization Date: September 27, 2013

Contract Price								
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
32.8	N/A	0	110.8	N/A	0	288.6	288.6	

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising options for FY 2014 and FY 2015 Design Agent/Engineering Services (DA/ES) efforts.

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date (2/18/2015)	+77.0		-20.0
Previous Cumulative Variances	0.0		-0.1
Net Change	+77.0		-19.9

Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to the Program Management function executing on the CEC Program as shared resources across multiple Technical Instruction CLINs in addition to the Design Agent tasks.

The unfavorable net change in the schedule variance is due to a planned software license renewal purchase order that was delayed beyond the January 2015 reporting period.

Notes

The FY 2014 - FY 2018 DA/ES contract was awarded on September 27, 2013 and is the follow-on contract to the FY 2008 - FY 2013 DA/ES contract. The current end date including all option years is September 26, 2018.

This follow-on effort includes labor, facilities, engineering, and technical support services required for CEC System Design Agent Services, support equipment, and computer program installations as well as Engineering and Technical services in support of existing CEC assets, auxiliary equipment, and stand alone equipment.

The PM, Contractor, and Performance Estimated Price at Completion reflects the Design Agent Services portion of the contract only.

Contract Identification

Appropriation: Procurement
Contract Name: CEC Production (FY 2012 - FY 2014)
Contractor: Raytheon - Network Centric Systems
Contractor Location: 8333 Bryan Dairy Road
 Largo, FL 33777-1444
Contract Number: N00024-12-C-5231/0
Contract Type: Firm Fixed Price (FFP)
Award Date: September 28, 2012
Definitization Date: May 01, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
20.3	N/A	0	88.7	N/A	0	267.1	267.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to incorporating following year production efforts.

Cost and Schedule Variance Explanations

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

Notes

Initial Contract Price Target was changed from \$99.2M to \$20.3M to reflect the amount of funding put on contract when awarded.

FY 2012 - FY 2014 CEC Production was awarded on September 28, 2012 and is the follow-on contract to FY 2008-FY 2011 CEC Production. This contract includes production requirements for CEC systems. Requirements for associated Installations and Checkout Kits and Planar Array Antenna Assemblies back-fit and other ancillary equipment are also included.

Contract Identification

Appropriation: RDT&E
Contract Name: Common Array Block (CAB) Antenna Development and Production
Contractor: Raytheon
Contractor Location: 8333 Bryan Dairy Road
 Largo, FL 33777-1444
Contract Number: N00024-13-C-5230/0
Contract Type: Cost Plus Incentive Fee (CPIF)
Award Date: September 27, 2013
Definitization Date: September 27, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
7.3	N/A	6	9.9	N/A	0	59.1	59.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising Year 1 options.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/16/2015)	+0.2	0.0
Previous Cumulative Variances	--	--
Net Change	+0.2	+0.0

Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to the CAB contract undergoing modifications as a result of Monolithic Microwave Integrated Circuit (MMIC) performance issues, requiring a move from providing the MMIC as Government Furnished Material to having the prime contractor provide it as Contractor Furnished Material. Hence, Earned Value Management (EVM) data and associated variances at this stage of contract performance may not accurately reflect current or projected contract cost/schedule performance. The required CAB contract restructure is expected to be executed, including revised EVM performance baselines, no later than June 2015. In the meantime, contractor development activities and cost/schedule performance are being closely monitored via frequent Technical Interchange Meetings and scheduled Systems Engineering Technical Reviews.

Notes

This is the first time this contract is being reported.

This contract is for development and production of the next generation CEC antenna.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	30	30	30	100.00%
Production	162	142	234	60.68%
Total Program Quantity Delivered	192	172	264	65.15%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	4894.8	Years Appropriated	22
Expended to Date	3941.3	Percent Years Appropriated	70.97%
Percent Expended	80.52%	Appropriated to Date	4105.2
Total Funding Years	31	Percent Appropriated	83.87%

The above data is current as of January 31, 2015.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	February 27, 2015
Source of Estimate:	SCP
Quantity to Sustain:	264
Unit of Measure:	System
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 1994 - FY 2042

The unit of measure is the AN/USG-2/2A/2B Shipboard variant and AN/USG-3/3B Airborne Variant.

The sustainment strategy costs includes: prime contractor and government in-service engineering support, continuing engineering support for Navy in-house facilities and software maintenance, depot repairs of CEC equipment, modification kit procurements and installations, and fleet recurring training.

Sustainment Strategy

Sustainment strategy efforts include: Maintenance and repair of CEC fielded systems (AN/USG-2, Land Based Test Sites, AN/USG-3), Integrated Logistics Support, Software Trouble Reports, Original Equipment Manufacturer Design Agent support, In-Service Engineering, Diminishing Manufacturing Supply Material Shortages, Obsolescence Management.

Antecedent Information

No Antecedent

Cost Element	Annual O&S Costs BY2002 \$K	
	CEC Average Annual Cost Per System	No Antecedent (Antecedent) N/A
Unit-Level Manpower	0.000	0.000
Unit Operations	4.958	0.000
Maintenance	212.821	0.000
Sustaining Support	111.561	0.000
Continuing System Improvements	158.838	0.000
Indirect Support	0.000	0.000
Other	--	0.000
Total	488.178	--

Item	Total O&S Cost \$M			
	CEC		Current Estimate	No Antecedent (Antecedent)
	Current Production APB Objective/Threshold			
Base Year	N/A	N/A	1912.8	N/A
Then Year	N/A	N/A	3089.6	N/A

Equation to Translate Annual Cost to Total Cost

An equation would not accurately depict the total cost since ship service is not always 20 years (as assumed in the past SAR). The service life per hull varies anywhere from five years to 20 years.

O&S Cost Variance		
Category	BY 2002 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2013 SAR	2207.0	
Programmatic/Planning Factors	34.2	A net of 70 service-life years were added to the program (70 years x \$488,178 per system = \$34.2M)
Cost Estimating Methodology	-328.4	A revised cost model was used to account for varying service-life years per system which reflects a more accurate O&S cost estimate.
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	-294.2	
Current Estimate	1912.8	

Disposal Estimate Details

Date of Estimate: February 27, 2015
Source of Estimate: SCP
Disposal/Demilitarization Total Cost (BY 2002 \$M): Total costs for disposal of all System are 24.6

Disposal costs are based on an estimated 20-year service-life and not included in the unitized cost.