Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-303

Ship to Shore Connector Amphibious Craft (SSC)

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Program Name

Ship to Shore Connector Amphibious Craft (SSC)

DoD Component

Navy

Responsible Office

Responsible Office

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Date Assigned May 21, 2010

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated July 5, 2012

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated July 5, 2012

Mission and Description

SSC is the Landing Craft, Air Cushion (LCAC) replacement. It is an Air Cushion Vehicle (ACV) with the same footprint as the LCAC Service Life Extension Program (SLEP). The SSC mission is to land surface assault elements in support of Operational Maneuver from the Sea (OMFTS) at over-the-horizon (OTH) distances, while operating from amphibious ships and mobile landing platforms. The primary role of SSC is to transport weapon systems, equipment, cargo, and personnel of the assault elements of the Marine Expeditionary Brigades and the Army Brigade Combat Teams during Ship-to-Objective Maneuver and Prepare for Movement operations.

Executive Summary

The Milestone (MS) B Defense Acquisition Board (DAB) was conducted on June 27, 2012. The SSC Acquisition Strategy (AS), the SSC Acquisition Program Baseline (APB), and MS B were approved by Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) on July 5, 2012. Authorization to enter into the Engineering and Manufacturing Development (EMD) phase was granted. On July 5, 2012, USD(AT&L) designated the SSC program Acquisition Category IC (ACAT IC).

On July 6, 2012, the Navy awarded a $212.7M fixed price incentive fee contract for the detail design and construction of a SSC Test and Training craft and technical manuals to Textron, Inc. The award was based on full and open competition.

On July 24-25, 2012, a Navy-shipbuilder SSC Post Award Conference (PAC) was held with Textron, Inc. The PAC aided both Government and contractor personnel in achieving a clear and mutual understanding of the contract requirements, achieving a clear and mutual understanding of their roles, and identifying and resolving potential problems.

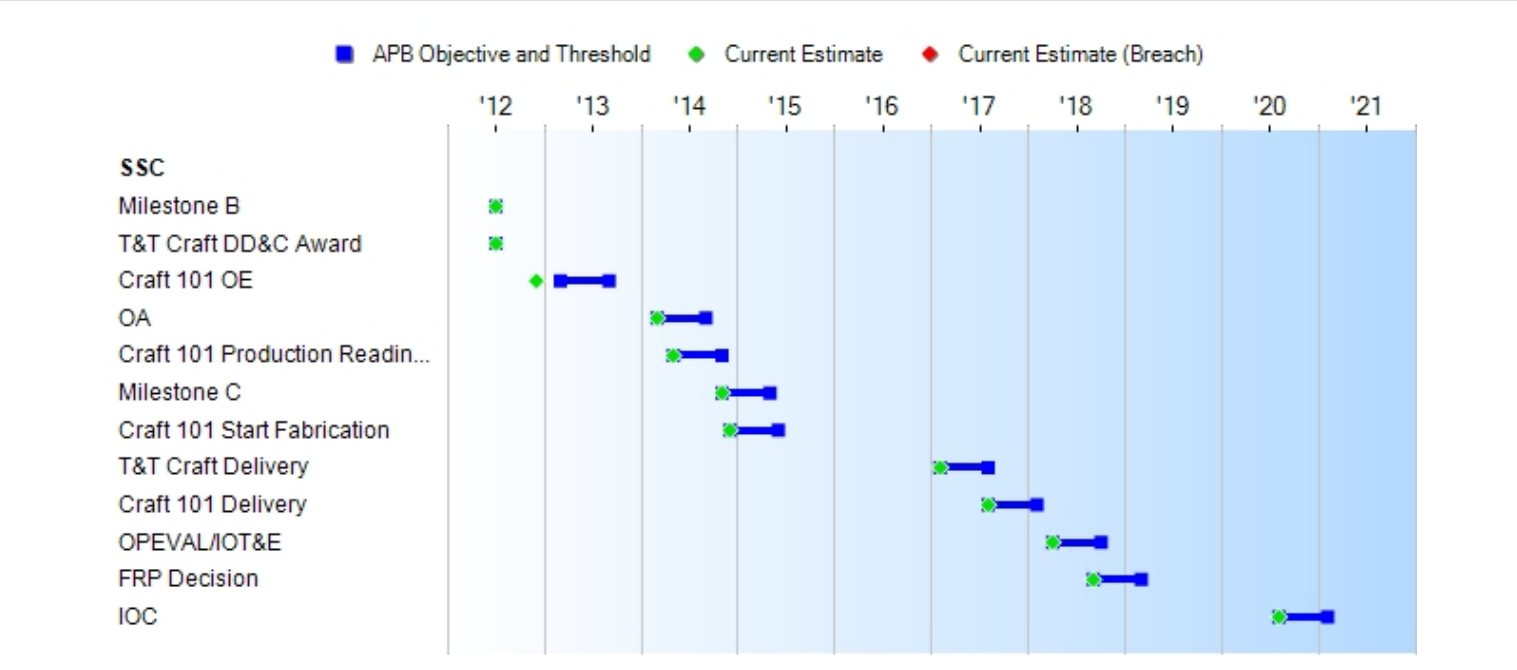
There are no significant software-related issues with this program at this time.

Threshold Breaches

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

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

Schedule



Milestones	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	
Milestone B	JUL 2012	JUL 2012	JUL 2012	JUL 2012	
T&T Craft DD&C Award	JUL 2012	JUL 2012	JUL 2012	JUL 2012	
Craft 101 OE	MAR 2013	MAR 2013	SEP 2013	DEC 2012	(Ch-1)
OA	MAR 2014	MAR 2014	SEP 2014	MAR 2014	
Craft 101 Production Readiness Review	MAY 2014	MAY 2014	NOV 2014	MAY 2014	
Milestone C	NOV 2014	NOV 2014	MAY 2015	NOV 2014	
Craft 101 Start Fabrication	DEC 2014	DEC 2014	JUN 2015	DEC 2014	
T&T Craft Delivery	FEB 2017	FEB 2017	AUG 2017	FEB 2017	
Craft 101 Delivery	AUG 2017	AUG 2017	FEB 2018	AUG 2017	
OPEVAL/IOT&E	APR 2018	APR 2018	OCT 2018	APR 2018	
FRP Decision	SEP 2018	SEP 2018	MAR 2019	SEP 2018	
IOC	AUG 2020	AUG 2020	FEB 2021	AUG 2020	

Acronyms And Abbreviations

DD&C - Detail Design and Construction
FRP - Full Rate Production
IOC - Initial Operational Capability
IOT&E - Initial Operational Test and Evaluation
OA - Operational Assessment
OE - Option Exercise
OPEVAL - Operational Evaluation
T&T - Test and Training

Change Explanations

(Ch-1) Craft 101 OE current estimate was revised from MAR 2013 to DEC 2012.

Memo

OPEVAL/IOT&E event starts and completes in April 2018.

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Payload Capacity	The SSC should be capable of transporting 79 short tons over the threshold range in the threshold temperature operating range and threshold sea state.	The SSC should be capable of transporting 79 short tons over the threshold range in the threshold temperature operating range and threshold sea state.	The SSC should be capable of transporting 74 short tons over the threshold range in the threshold temperature operating range and threshold sea state.	TBD	The SSC should be capable of transporting 74 short tons over the threshold range in the threshold temperature operating range and threshold sea state.
Interoperability	In addition to the threshold Interoperability, the SSC should be able to operate with allied amphibious ships classes with suitable well decks, to include French Mistral, Japanese Osumi, Korean Dokdo, Spanish Juan Carlos, and Australian Canberra if this interoperability does not alter other interfaces.	In addition to the threshold Interoperability, the SSC should be able to operate with allied amphibious ships classes with suitable well decks, to include French Mistral, Japanese Osumi, Korean Dokdo, Spanish Juan Carlos, and Australian Canberra if this interoperability does not alter other interfaces.	The SSC shall be able to: enter, exit, and embark in well decks of current and programmed USN amphibious ships, to include LHD-1, LPD-17, LSD-41, LSD-49 classes, without ship alterations, while transporting an embarked load 168" high; the off cushion length of the SSC shall permit embarkation of (4) SSCs	TBD	The SSC shall be able to: enter, exit, and embark in well decks of current and programmed USN amphibious ships, to include LHD-1, LPD-17, LSD-41, LSD-49 classes, without ship alterations, while transporting an embarked load 168" high; the off cushion length of the SSC shall permit embarkation of (4) SSCs

			in LSD-41 class, (2) SSCs in LSD-49 and LPD-17 classes, and (3) SSCs in LHD-1 class; and, enter/exit well decks of amphibious ships while on cushion or in displacement mode (wet well only). SSC shall embark on board the planned MLP, without ship alterations, as designed and built for the LCAC. SSC shall be able to operate with existing ships services, including the planned MLP, in place for the LCAC including ship's power, fueling/ defueling stations, compressed air, potable and washdown water, lighting,		in LSD-41 class, (2) SSCs in LSD-49 and LPD-17 classes, and (3) SSCs in LHD-1 class; and, enter/exit well decks of amphibious ships while on cushion or in displacement mode (wet well only). SSC shall embark on board the planned MLP, without ship alterations, as designed and built for the LCAC. SSC shall be able to operate with existing ships services, including the planned MLP, in place for the LCAC including ship's power, fueling/ defueling stations, compressed air, potable and washdown water, lighting,

			navigational aids, footprint for spare / consumable pack-up kits, and night vision systems.		navigational aids, footprint for spare / consumable pack-up kits, and night vision systems. The SSC shall be able to enter and exit allied amphibious ships Mistral (French) and Osumi (Japan).
Net-Ready	The SSC should fully support execution of all operational activities and information exchanges identified in DOD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant	The SSC should fully support execution of all operational activities and information exchanges identified in DOD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant	The SSC must fully support execution of joint critical operational activities and information exchanges identified in the DOD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant	TBD	The SSC must fully support execution of joint critical operational activities and information exchanges identified in the DOD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant

	with DOD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges. 2) Compliant with Net - Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DOD IEA, excepting tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementa-tion guidance of GESPs, necessary to meet all operational requirements specified in the DOD Enterprise Architecture	with DOD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges. 2) Compliant with Net - Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DOD IEA, excepting tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementa-tion guidance of GESPs, necessary to meet all operational requirements specified in the DOD Enterprise Architecture	with DOD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges. 2) Compliant with Net - Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DODIEA, excepting tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementa-tion guidance of GESPs necessary to meet all operational requirements specified in the DOD Enterprise Architecture and solution		with DOD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges. 2) Compliant with Net - Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DODIEA, excepting tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementa-tion guidance of GESPs necessary to meet all operational requirements specified in the DOD Enterprise Architecture and solution

	and solution architecture views. 4) Information assurance requirements including availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an ATO by the DAA. 5) Supportabil-ity requirements to include SAASM, Spectrum and JTRS requirements . See appendix A of the CDD for additional details on the NR-KPP.	and solution architecture views. 4) Information assurance requirements including availability, integrity, authenticat-ion, confidential-ity, and non-repudiation, and issuance of an ATO by the DAA. 5) Supportabil-ity requirements to include SAASM, Spectrum and JTRS requirements . See appendix A of the CDD for additional details on the NR-KPP.	architecture views. 4) Information assurance requirements including availability, integrity, authenticat-ion, confidential-ity, and non-repudiation, and issuance of an IATO or ATO by the DAA. 5) Supportabil-ity requirements to include SAASM, Spectrum and JTRS requirements . See appendix A of the CDD for additional details on the NR-KPP.		architecture views. 4) Information assurance requirements including availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an IATO or ATO by the DAA. 5) Supportabil-ity requirements to include SAASM, Spectrum and JTRS requirements . See appendix A of the CDD for additional details on the NR-KPP.
Force Protection	The SSC should be equipped with a remotely operated crew-served weapon system and provide ballistic and fragmenta-tion protection for crew, internally carried embarked forces and	The SSC should be equipped with a remotely operated crew-served weapon system and provide ballistic and fragmenta-tion protection for crew, internally carried embarked forces and	The SSC shall provide protection to the crew and internally carried embarked forces from small arms, crew served weapons and fragmenta-tion. Appendix F of the CDD describes the specific ballistic	TBD	The SSC shall provide protection to the crew and internally carried embarked forces from small arms, crew served weapons and fragmenta-tion. Appendix F of the CDD describes the specific ballistic

	critical machinery spaces. Appendix F of the CDD describes the specific ballistic protection requirement.	critical machinery spaces. Appendix F of the CDD describes the specific ballistic protection requirement.	protection requirement. The SSC shall be equipped with mounts capable of accepting current US crew-served weapons to include the M2 .50 Caliber (12.7mm) Machine Gun, MK19 40mm Grenade Machine Gun and M60/M240 Series 7.62mm Light Machine Gun.		protection requirement. The SSC shall be equipped with mounts capable of accepting current US crew-served weapons to include the M2 .50 Caliber (12.7mm) Machine Gun, MK19 40mm Grenade Machine Gun and M60/M240 Series 7.62mm Light Machine Gun.
Survivability (Sea-Worthiness)	T=O The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a	T=O The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a	T=O The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a	TBD	T=O The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a

	boat haven.	boat haven.	boat haven.		boat haven.
Manpower	The SSC should be fully operable with a crew of no more than three (3).	The SSC should be fully operable with a crew of no more than three (3).	The SSC shall be fully operable, to include conducting on load/offload operations, with a crew of no more than five (5).	TBD	The SSC shall be fully operable, to include conducting on load/offload operations, with a crew of no more than five (5).
Materiel Availability (Am)	The SSC should have a Materiel Availability of 63 percent.	The SSC should have a Materiel Availability of 63 percent.	The SSC shall have a Materiel Availability of 59.5 percent.	TBD	The SSC shall have a Materiel Availability of 61.9 percent.
Inland Accessibility	T=O The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble,	T=O The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble,	T=O The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble,	TBD	T=O The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble,

	obstacles and walls up to 4 feet high, grass, reeds and dunes.	obstacles and walls up to 4 feet high, grass, reeds and dunes.	obstacles and walls up to 4 feet high, grass, reeds and dunes.		obstacles and walls up to 4 feet high, grass, reeds and dunes.

Requirements Source: Capability Development Document (CDD) dated June 10, 2010

Acronyms And Abbreviations

ATO - Authority to Operate
CDD - Capability Development Document
DAA - Designated Acrediting Authority
DOD - Department of Defense
DODAF - Departmnet of Defense Architecture Framework
DODIEA - Department of Defense Information Enterprise Architecture
GESP - GIG Enterprise Service Profile
GIG - Global Information Grid
IATO - Interim Authority to Operate
IP - Internet Protocol
IT - Information Technology
JTRS - Joint Tactical Radio System
LCAC - Landing Craft Air Cushion
MLP - Mobile Landing Platform
mm - Millimeter
NR-KPP - Net Ready Key Performance Parameter
O - Objective
SAASM - Selective Availability Anti-Spoofing Module
SSC - Ship to Shore Connector
SWH - Significant Wave Height
T - Threshold
TV - Technical View
US - United States
USN - United States Navy

Change Explanations

None

Memo

The following footnotes apply to Interoperability Threshold Key Performance Parameters:
1/ LSD-41 well deck can embark a fifth craft in a non-tactical capacity without ship services.
2/ LHD-1 Power converter for 3rd spot not part of Pack Up Kit footprint.
3/ MLP ship's power for SSC may require alteration or separate pieces of equipment which is not part of Pack Up Kit footprint.

Track To Budget

General Memo

There are no specific budget lines of accounting assigned yet for APPN 1205 (MILCON) or APPN 1810 (OPN). The funding falls beyond the Future Years Defense Program (FYDP) and will be populated in the track to budget section once lines of accounting are established.

RDT&E

APPN 1319	BA 04	PE 0603564N	(Navy)	
	Project 3127	Preliminary Design and Feasibility Study/SSC Design	(Shared)	(Sunk)
APPN 1319	BA 05	PE 0604567N	(Navy)	
	Project 3133	Ship To Shore Connector Contract Design	(Shared)	
	Project 3137	SSC Construction	(Shared)	

Procurement

APPN 1611	BA 05	PE 0204411N	(Navy)	
	ICN 5110	Outfitting and Post Delivery	(Shared)	
APPN 1611	BA 05	PE 0204228N	(Navy)	
	ICN 5112	Ship to Shore Connector		

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2011 $M			BY2011 $M	TY $M		
Appropriation	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	552.7	552.7	608.0	539.3	571.9	571.9	563.1
Procurement	3354.4	3354.4	3689.8	3269.7	4137.5	4137.5	4179.8
Flyaway	3284.1	--	--	3201.3	4050.7	--	4092.4
Recurring	3284.1	--	--	3201.3	4050.7	--	4092.4
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	70.3	--	--	68.4	86.8	--	87.4
Other Support	0.0	--	--	0.0	0.0	--	0.0
Initial Spares	70.3	--	--	68.4	86.8	--	87.4
MILCON	18.5	18.5	20.4	18.1	21.7	21.7	21.7
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	3925.6	3925.6	N/A	3827.1	4731.1	4731.1	4764.6

Confidence Level for Current APB Cost 50% -

The estimate to support this program, like most cost estimates, is built upon a product-oriented work breakdown structure based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which we have been successful.

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

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	2	2	2
Procurement	71	71	71
Total	73	73	73

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2014 President's Budget / December 2012 SAR (TY$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	259.0	131.3	90.0	60.6	10.6	7.8	3.8	0.0	563.1
Procurement	0.0	0.0	0.0	90.9	231.5	287.4	413.2	3156.8	4179.8
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	21.7	0.0	21.7
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2014 Total	259.0	131.3	90.0	151.5	242.1	295.2	438.7	3156.8	4764.6
	--	--	--	--	--	--	--	--	--

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	0	0	0	1	4	5	7	54	71
PB 2014 Total	2	0	0	0	1	4	5	7	54	73
	--	--	--	--	--	--	--	--	--	--

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
2006	--	--	--	--	--	--	14.0
2007	--	--	--	--	--	--	13.0
2008	--	--	--	--	--	--	27.0
2009	--	--	--	--	--	--	25.0
2010	--	--	--	--	--	--	33.5
2011	--	--	--	--	--	--	95.5
2012	--	--	--	--	--	--	51.0
2013	--	--	--	--	--	--	131.3
2014	--	--	--	--	--	--	90.0
2015	--	--	--	--	--	--	60.6
2016	--	--	--	--	--	--	10.6
2017	--	--	--	--	--	--	7.8
2018	--	--	--	--	--	--	3.8
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**563.1**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2011 $M	Non End Item Recurring Flyaway BY 2011 $M	Non Recurring Flyaway BY 2011 $M	Total Flyaway BY 2011 $M	Total Support BY 2011 $M	Total Program BY 2011 $M
2006	--	--	--	--	--	--	15.1
2007	--	--	--	--	--	--	13.7
2008	--	--	--	--	--	--	27.9
2009	--	--	--	--	--	--	25.5
2010	--	--	--	--	--	--	33.6
2011	--	--	--	--	--	--	93.5
2012	--	--	--	--	--	--	48.9
2013	--	--	--	--	--	--	123.6
2014	--	--	--	--	--	--	83.1
2015	--	--	--	--	--	--	54.9
2016	--	--	--	--	--	--	9.4
2017	--	--	--	--	--	--	6.8
2018	--	--	--	--	--	--	3.3
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**539.3**

Annual Funding TY$
1611 | Procurement | Shipbuilding and Conversion, 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
2015	1	89.4	--	--	89.4	1.5	90.9
2016	4	226.7	--	--	226.7	4.8	231.5
2017	5	281.1	--	--	281.1	6.3	287.4
2018	7	384.1	--	--	384.1	9.1	393.2
2019	8	454.7	--	--	454.7	10.3	465.0
2020	8	467.4	--	--	467.4	9.7	477.1
2021	8	415.7	--	--	415.7	9.0	424.7
2022	8	431.4	--	--	431.4	9.1	440.5
2023	8	434.4	--	--	434.4	9.2	443.6
2024	8	453.4	--	--	453.4	9.4	462.8
2025	6	387.8	--	--	387.8	9.0	396.8
2026	--	12.8	--	--	12.8	--	12.8
2027	--	12.2	--	--	12.2	--	12.2
2028	--	6.3	--	--	6.3	--	6.3
Subtotal	**71**	**4057.4**	**--**	**--**	**4057.4**	**87.4**	**4144.8**

Annual Funding BY$
1611 | Procurement | Shipbuilding and Conversion, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2011 $M	Non End Item Recurring Flyaway BY 2011 $M	Non Recurring Flyaway BY 2011 $M	Total Flyaway BY 2011 $M	Total Support BY 2011 $M	Total Program BY 2011 $M
2015	1	77.8	--	--	77.8	1.3	79.1
2016	4	193.6	--	--	193.6	4.1	197.7
2017	5	235.6	--	--	235.6	5.2	240.8
2018	7	315.9	--	--	315.9	7.5	323.4
2019	8	367.0	--	--	367.0	8.3	375.3
2020	8	370.2	--	--	370.2	7.7	377.9
2021	8	323.1	--	--	323.1	7.0	330.1
2022	8	329.0	--	--	329.0	7.0	336.0
2023	8	325.2	--	--	325.2	6.8	332.0
2024	8	333.0	--	--	333.0	7.0	340.0
2025	6	279.5	--	--	279.5	6.5	286.0
2026	--	9.1	--	--	9.1	--	9.1
2027	--	8.5	--	--	8.5	--	8.5
2028	--	4.3	--	--	4.3	--	4.3
Subtotal	**71**	**3171.8**	**--**	**--**	**3171.8**	**68.4**	**3240.2**

Cost Quantity Information
1611 | Procurement | Shipbuilding and Conversion, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2011 $M
2015	1	77.8
2016	4	193.6
2017	5	235.6
2018	7	315.9
2019	8	367.0
2020	8	370.2
2021	8	323.1
2022	8	329.0
2023	8	325.2
2024	8	333.0
2025	6	301.4
2026	--	--
2027	--	--
2028	--	--
Subtotal	**71**	**3171.8**

Annual Funding TY$
1810 | Procurement | Other 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
2018	--	20.0	--	--	20.0	--	20.0
2019	--	15.0	--	--	15.0	--	15.0
Subtotal	**--**	**35.0**	**--**	**--**	**35.0**	**--**	**35.0**

Annual Funding BY$
1810 | Procurement | Other Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2011 $M	Non End Item Recurring Flyaway BY 2011 $M	Non Recurring Flyaway BY 2011 $M	Total Flyaway BY 2011 $M	Total Support BY 2011 $M	Total Program BY 2011 $M
2018	--	17.0	--	--	17.0	--	17.0
2019	--	12.5	--	--	12.5	--	12.5
Subtotal	**--**	**29.5**	**--**	**--**	**29.5**	**--**	**29.5**

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

Fiscal Year	Total Program TY $M
2018	21.7
Subtotal	**21.7**

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

Fiscal Year	Total Program BY 2011 $M
2018	18.1
Subtotal	**18.1**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	7/5/2012	7/5/2012
Approved Quantity	13	13
Reference	ADM	ADM
Start Year	2013	2013
End Year	2021	2021

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the July 5, 2012 Acquisition Decision Memorandum (ADM).

Foreign Military Sales

None

Nuclear Cost

None

Unit Cost

Unit Cost Report

Unit Cost	BY2011 $M Current UCR Baseline (JUL 2012 APB)	BY2011 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	3925.6	3827.1	
Quantity	73	73	
Unit Cost	53.775	52.426	-2.51
Average Procurement Unit Cost (APUC)			
Cost	3354.4	3269.7	
Quantity	71	71	
Unit Cost	47.245	46.052	-2.53

Unit Cost	BY2011 $M Original UCR Baseline (JUL 2012 APB)	BY2011 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	3925.6	3827.1	
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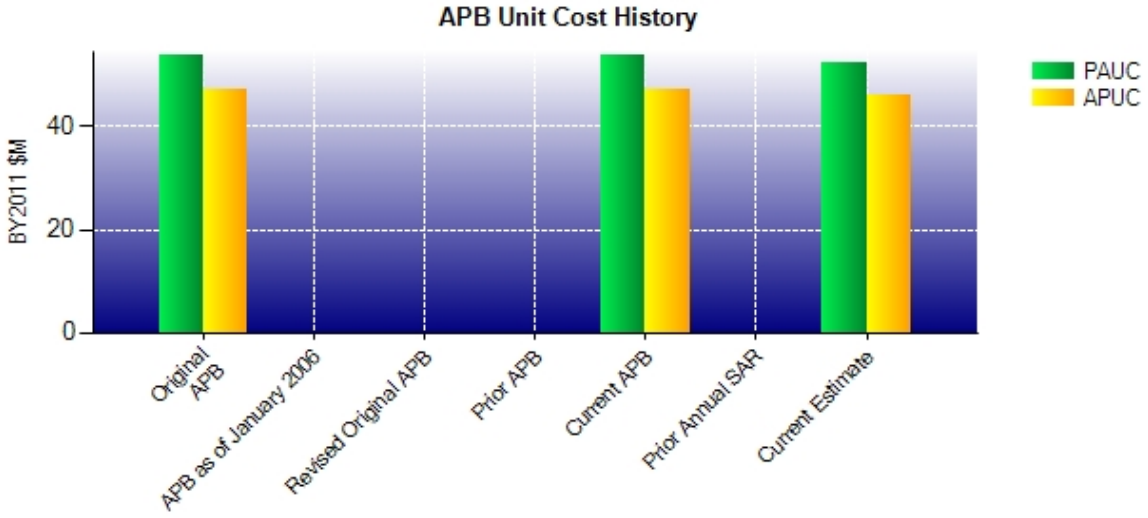
Unit Cost History



		BY2011 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	JUL 2012	53.775	47.245	64.810	58.275
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	JUL 2012	53.775	47.245	64.810	58.275
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	DEC 2012	52.426	46.052	65.268	58.870

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
64.810	1.918	0.000	0.295	0.000	-1.725	0.000	-0.030	0.458	65.268

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
58.275	1.893	0.000	0.303	0.000	-1.569	0.000	-0.031	0.596	58.870

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	JUL 2012	N/A	JUL 2012
Milestone C	N/A	NOV 2014	N/A	NOV 2014
IOC	N/A	AUG 2020	N/A	AUG 2020
Total Cost (TY $M)	N/A	4731.1	N/A	4764.6
Total Quantity	N/A	73	N/A	73
Prog. Acq. Unit Cost (PAUC)	N/A	64.810	N/A	65.268

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	571.9	4137.5	21.7	4731.1
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	+5.2	+134.4	+0.5	+140.1
Quantity	--	--	--	--
Schedule	--	+21.5	--	+21.5
Engineering	--	--	--	--
Estimating	-14.0	-111.4	-0.5	-125.9
Other	--	--	--	--
Support	--	-2.2	--	-2.2
Subtotal	-8.8	+42.3	--	+33.5
Total Changes	-8.8	+42.3	--	+33.5
CE - Cost Variance	563.1	4179.8	21.7	4764.6
CE - Cost & Funding	563.1	4179.8	21.7	4764.6

Summary Base Year 2011 $M				
	RDT&E	**Proc**	**MILCON**	**Total**
SAR Baseline (Dev Est)	552.7	3354.4	18.5	3925.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-13.4	-82.8	-0.4	-96.6
Other	--	--	--	--
Support	--	-1.9	--	-1.9
Subtotal	-13.4	-84.7	-0.4	-98.5
Total Changes	-13.4	-84.7	-0.4	-98.5
CE - Cost Variance	539.3	3269.7	18.1	3827.1
CE - Cost & Funding	539.3	3269.7	18.1	3827.1

Previous Estimate: September 2012

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+5.2
Adjustment for current and prior escalation. (Estimating)	-2.7	-2.8
Decrease in funding for several Below Threshold Reprogrammings (BTRs). (Estimating)	-5.9	-6.1
Revised estimate for rate adjustments. (Estimating)	+1.4	+1.5
Revised estimate to reflect the application of new outyear escalation indices. (Estimating)	-6.2	-6.6
RDT&E Subtotal	-13.4	-8.8

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+134.4
Rephasing of procurement quantity from FY 2015 and FY 2016 to FY 2025. (Schedule)	0.0	+21.5
Revised estimate to reflect the application of new outyear escalation indices (Appropriation 1611). (Estimating)	-106.9	-139.5
Revised estimate to reflect the application of new outyear escalation indices (Appropriation 1810). (Estimating)	-0.3	-0.3
Increased funding to offset inefficiencies in FY 2015 and FY 2016 for craft reduction. (Estimating)	+24.4	+28.4
Revised estimate to reflect the application of new outyear escalation indices (Initial Spares). (Support)	-1.9	-2.2
Procurement Subtotal	-84.7	+42.3

MILCON	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+0.5
Revised estimate to reflect the application of new outyear escalation indices. (Estimating)	-0.4	-0.5
MILCON Subtotal	-0.4	0.0

Contracts

Appropriation: RDT&E	
Contract Name	**SSC Detail Design & Construction**
Contractor	Textron, Inc
Contractor Location	19401 Chef Menteur Hwy New Orleans, LA 70129-2565
Contract Number, Type	N00024-12-C-2401, FPIF
Award Date	July 06, 2012
Definitization Date	July 06, 2012

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
199.9	226.4	1	223.2	252.2	2	223.2	223.2

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	0.0	0.0
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

General Contract Variance Explanation

There is no cost or schedule variance to date. The Navy is working with Textron to establish an Integrated Baseline Review (IBR). Earned Value Management (EVM) reporting will commence after the IBR is completed.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to Long Lead Time Material (LLTM) Advance Planning Funds being placed on contract for the CLIN0200 option that was exercised.

The Navy is currently working with the contractor towards the execution of an Integrated Baseline Review (IBR).

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	2	0.00%
Production	0	0	71	0.00%
Total Program Quantities Delivered	0	0	73	0.00%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	4764.6	Years Appropriated	8
Expenditures To Date	145.6	Percent Years Appropriated	34.78%
Percent Expended	3.06%	Appropriated to Date	390.3
Total Funding Years	23	Percent Appropriated	8.19%

The above data is current as of 2/20/2013.

Operating and Support Cost

SSC

Assumptions and Ground Rules

Cost Estimate Reference:

The SSC Operating & Support (O&S) cost estimate is based primarily on Landing Craft Air Cushion (LCAC) actual operating and support cost data. The cost data is obtained from the Assault Craft Units (ACU) and the program office and managed using the LCAC-M cost model. The LCAC-M model is a Chief of Naval Operations (CNO) accredited cost model currently used as a financial model and management information tool by the LCAC Program. LCAC-M is the LCAC program equivalent of the Visibility and Management of Operating and Support Cost (VAMOSC) database and Operating and Support Cost Analysis Model (OSCAM). The LCAC-M model was used to generate an LCAC Baseline O&S cost model to account for the differences in operating hours between the SSC and LCAC and to reflect the various design changes made to improve reliability, maintainability and performance. Since the SSC is basically an updated version of the LCAC design with an identical support structure at the ACU's, LCAC O&S cost data provides a reasonable basis of estimate for SSC. The Program Life Cycle Cost Estimate (PLCCE) for SSC was completed in April 2012.

Sustainment Strategy:

The O&S costs are calculated based on 73 craft over a 30 year life cycle. Sustaining support includes the cost of the ACU Facility maintenance and services, system specific training, Industrial Plant Equipment (IPE) maintenance and replacement, operating equipment replacement, Equipment & Equipage, Ground Support Equipment (GSE), Travel Lift maintenance, and sustaining engineering and program management.

Antecedent Information:

LCAC-M is currently used as a financial model and management information tool by the LCAC Program. LCAC-M uses data from the most recent ten years of Operating Target (OPTAR) data which funds LCAC Operations, Support, Readiness, Hours of Operation, Sustaining Support, and Continuing System Improvements to predict the O&S cost of a specified level of readiness. The LCAC-M model parameters were adjusted to reflect the specified 150 operating hours per year and manning specified in the Cost Analysis Requirements Document (CARD).

Unitized O&S Costs BY2011 $M		
Cost Element	**SSC Average Annual Cost Per Craft**	**LCAC (Antecedent) Average Annual Cost Per Craft**
Unit-Level Manpower	1.498	1.291
Unit Operations	0.367	1.035
Maintenance	0.307	0.440
Sustaining Support	0.184	0.061
Continuing System Improvements	0.681	0.670
Indirect Support	0.498	0.410
Other	0.000	0.000
Total	3.535	3.907

Unitized Cost Comments:

The total Operating and Support (O&S) costs for one craft across the 30-year life is estimated to be $106M (FY 2011).

	Total O&S Cost $M			
	Current Development APB Objective/Threshold		Current Estimate	
	SSC		SSC	LCAC (Antecedent)
Base Year	10171.3	11188.4	10154.0	11222.0
Then Year	18058.9	N/A	18023.0	19920.0

Total O&S Costs Comments:

The Unitized O&S costs of $3.535 BY$M reflect the 50th percentile estimate for one craft. In order to translate this into the total O&S Cost for the life cycle of SSC, a point estimate $3.823 BY$M was calculated against 73 craft over 30 years to arrive at an estimate of $16,099.0 TY$M. An element of risk was then added. This risk of cost changes, seen primarily through inflation adjustments over time, is associated with price fluctuations that sometimes exceed nominal inflation values in MPN, OMN, and DoD fuel price indices. After capturing this additional risk, the total O&S cost estimate is determined to be $18,023.0 TY$M. This total was de-escalated by the Naval Center for Cost Analysis (NCCA) using FY 2011 indices to arrive at a total O&S Current Estimate of $10,154.0 BY$M.

Disposal Costs

O&S Costs do not include disposal costs ($35.941 TY$M). The SSC disposal cost estimate is based on the actual disposal costs of the ten LCAC disposed of to date. The five west coast LCACs were disposed of at an average cost of $164K (FY 2010). The five east coast LCACs were disposed of at an average cost of $76K (FY 2010). The difference in cost is attributable to the more stringent environmental regulations on the west coast. The disposal estimate uses the average of the two costs or $120K per craft (FY 2010). The estimate for disposal of all craft is $120K for 73 craft (FY 2010).