

Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-247



Joint High Speed Vessel (JHSV)

As of December 31, 2012

Defense Acquisition Management Information Retrieval (DAMIR)

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Program Information

Program Name

Joint High Speed Vessel (JHSV)

DoD Component

Navy

Responsible Office

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 June 1, 2011

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 11, 2009

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated February 11, 2009

Mission and Description

The Joint High Speed Vessel (JHSV) is a shallow draft, commercial-based ship capable of intra-theater personnel and cargo lift providing combatant commanders high-speed sealift mobility with inherent cargo handling capability and agility to achieve positional advantage over operational distances. Bridging the gap between low-speed sealift and high-speed airlift, the JHSV will transport personnel, equipment, and supplies over operational distances with access to littoral offload points including austere, minor and degraded ports in support of the Global War on Terrorism (GWOT)/Theater Security Cooperation Program (TSCP); Intra-theater Operational/Littoral Maneuver and Sustainment; and Seabasing. The JHSV will enable the rapid projection, agile maneuver, and sustainment of modular, tailored forces in response to a wide range of military and civilian contingencies such as Non-Combatant Evacuation Operations, humanitarian assistance, and disaster relief.

Executive Summary

Austal delivered JHSV 1 (USNS SPEARHEAD) on December 5, 2012. The ship was subsequently transferred to the Military Sealift Command. In advance of delivery, the vessel successfully completed Acceptance Trials conducted by the Navy's Board of Inspection and Survey (INSURV) in August 2012. USNS SPEARHEAD will undergo Initial Operational Test and Evaluation (IOT&E) in 2013 during the Post Delivery phase, culminating in Initial Operational Capability for the first ship of the class.

Austal launched JHSV 2 (CHOCTAW COUNTY) on October 1, 2012, after a formal Christening ceremony on September 15, 2012, presided over by the Secretary of the Navy. Austal and the Navy have been preparing for and readying the vessel for ship trials, which commenced in 2nd Quarter FY 2013.

Construction continued on JHSV 3 (MILLINOCKET), as the shipyard began the transition from modular construction to ship assembly. A Keel Laying ceremony was held at Austal on May 3, 2012, to mark the movement into ship erection. Main engines have been loaded onto the ship, and all of the modules have now been erected. The Navy is anticipating the vessel to be launched in 3rd Quarter FY 2013.

Austal started construction on JHSV 4 (FALL RIVER) in May 2012, largely focused on the fabrication and assembly of individual modules in its Modular Manufacturing Facility. However, the first modules began erection in the assembly bay in early 2013, and a Keel Laying ceremony is planned for 3rd Quarter FY 2013.

Austal started construction on JHSV 5 (TRENTON) in February 2013. Construction material ordering has been initiated for JHSVs 6 through 9 with start of construction planned as follows: JHSV 6 (BRUNSWICK) in 4th Quarter FY 2013, JHSV 7 (CARSON CITY) in 2nd Quarter FY 2014, JHSV 8 in 4th Quarter FY 2014, and JHSV 9 in 2nd Quarter FY 2015.

The tenth and final ship of the existing contract was awarded to Austal on December 20, 2012. That ship is forecasted to deliver to the Navy in FY 2017.

This SAR has been updated with current information and data as of April 29, 2013.

This is the final SAR submission for JHSV, because the FY 2013 President's Budget truncated the program from 18 to 10 ships, thereby reducing total costs below the Major Defense Acquisition Program threshold in section 2430 of title 10, United States Code.

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

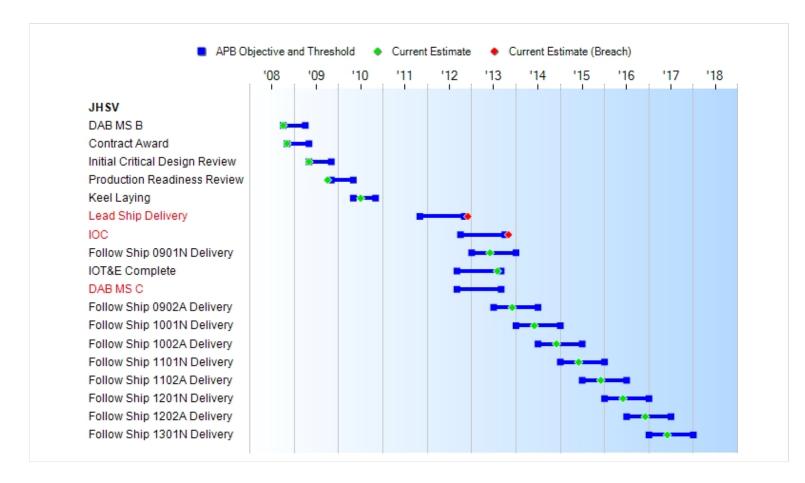
Threshold Breaches

APB Breaches					
Schedule		V			
Performance					
Cost	RDT&E				
	Procurement				
	MILCON				
	Acq O&M				
O&S Cost					
Unit Cost	PAUC				
	APUC				
Nunn-McC	urdy Breache	s			
Current UCR B	Baseline				
	PAUC	None			
	APUC	None			
Original UCR E	Baseline				
	PAUC	None			
	APUC	None			

Explanation of Breach

The lead ship was ready for delivery prior to the end of November, but formal delivery did not occur until December 5, 2012.

Schedule



Milestones	SAR Baseline Dev Est	Deve	ent APB opment e/Threshold	Current Estimate	
DAB MS B	OCT 2008	OCT 2008	APR 2009	OCT 2008	
Contract Award	NOV 2008	NOV 2008	MAY 2009	NOV 2008	
Initial Critical Design Review	MAY 2009	MAY 2009	NOV 2009	MAY 2009	
Production Readiness Review	NOV 2009	NOV 2009	MAY 2010	OCT 2009	
Keel Laying	MAY 2010	MAY 2010	NOV 2010	JUL 2010	
Lead Ship Delivery	NOV 2011	NOV 2011	NOV 2012	DEC 2012 ¹	(Ch-1)
IOC	OCT 2012	OCT 2012	OCT 2013	NOV 2013 ¹	(Ch-2)
Follow Ship 0901N Delivery	JAN 2013	JAN 2013	JAN 2014	JUN 2013	(Ch-3)
IOT&E Complete	SEP 2012	SEP 2012	SEP 2013	AUG 2013	(Ch-2)
DAB MS C	SEP 2012	SEP 2012	SEP 2013	N/A ¹	(Ch-4)
Follow Ship 0902A Delivery	JUL 2013	JUL 2013	JUL 2014	DEC 2013	(Ch-3)
Follow Ship 1001N Delivery	JAN 2014	JAN 2014	JAN 2015	JUN 2014	(Ch-3)
Follow Ship 1002A Delivery	JUL 2014	JUL 2014	JUL 2015	DEC 2014	(Ch-3)
Follow Ship 1101N Delivery	JAN 2015	JAN 2015	JAN 2016	JUN 2015	(Ch-3)
Follow Ship 1102A Delivery	JUL 2015	JUL 2015	JUL 2016	DEC 2015	(Ch-3)
Follow Ship 1201N Delivery	JAN 2016	JAN 2016	JAN 2017	JUN 2016	(Ch-3)
Follow Ship 1202A Delivery	JUL 2016	JUL 2016	JUL 2017	DEC 2016	(Ch-3)
Follow Ship 1301N Delivery	JAN 2017	JAN 2017	JAN 2018	JUN 2017	(Ch-3)

¹APB Breach

Acronyms And Abbreviations

DAB - Defense Acquisition Board

IOC - Initial Operational Capability

IOT&E - Initial Operational Test and Evaluation

MS - Milestone

N/A - Not Applicable

Change Explanations

(Ch-1) The current estimate for Lead Ship Delivery changed from April 2012 to December 2012 to complete lead ship testing. The ship was ready for delivery prior to the end of November; however, formal delivery did not occur until December 5, 2012.

(Ch-2) The current estimate for IOC changed from December 2012 to November 2013 and for IOT&E Complete from April 2013 to August 2013 due to lead ship delivery delays.

(Ch-3) The current estimate for JHSV 2 delivery changed from January 2013 to June 2013 due to the delay in delivery of JHSV 1. Delivery of the follow JHSVs is also delayed due to lead ship delivery.

(Ch-4) MS C is no longer required due to truncation of the program from 18 to 10 ships.

Performance

Characteristics	SAR Baseline Dev Est	Devel	nt APB opment /Threshold	Demonstrated Performance	Current Estimate
Transport Capability	JHSV shall be capable of transporting 700 ST 1200 NM at an average speed of 35 kts in a significant wave height of 1.25 meters prior to needing refueling.	JHSV shall be capable of transporting 700 ST 1200 NM at an average speed of 35 kts in a significant wave height of 1.25 meters prior to needing refueling.	JHSV shall be capable of transporting 600 ST of troops, supplies, and equipment 1200 NM at an average speed of 35 kts in a significant wave height of 1.25 meters prior to needing refueling.	In progress	JHSV shall be capable of transporting 600 ST 1200 NM at an average speed of 35 kts in a significant wave height of 1.25 meters prior to needing refueling.
Draft	JHSV shall have a draft of less than or equal to 10 ft.	JHSV shall have a draft of less than or equal to 10 ft.	JHSV shall have a draft of less than or equal to 15 ft.	In progress	JHSV shall have a draft of less than or equal to 13 ft.
Ramp (M1A2 Capable)	JHSV shall have a ramp capable of interfacing with RRDFs, piers with curb heights of up to 15 in., quay walls and other austere on-and off-load points and on/off-loading a combat-loaded M1A2 with articulation			In progress	JHSV shall have a ramp capable of interfacing with RRDFs, piers with curb heights of up to 15 in., quay walls and other austere on-and off-load points and on/off-loading a combat-loaded M1A2 with articulation

	from dead astern to 40 deg abaft the beam to either side.	from dead astern to 40 deg abaft the beam to either side.	from dead astern to 40 deg abaft the beam towards one side.		from dead astern to 40 deg abaft the beam to one side.
Cargo movement between mission deck and flight deck; between pier and mission deck.	JHSV shall have the capability to move 27,000 lbs of cargo in a single lift between the flight deck and the mission deck in a significant wave height of 1.25 meters. JHSV shall have the capability to move 40,000 lbs of cargo in a single lift between the mission deck and the pier in a significant wave height of 0.1 meters.	JHSV shall have the capability to move 27,000 lbs of cargo in a single lift between the flight deck and the mission deck in a significant wave height of 1.25 meters. JHSV shall have the capability to move 40,000 lbs of cargo in a single lift between the mission deck and the pier in a significant wave height of 0.1 meters.	JHSV shall have the capability to move 27,000 lbs of cargo in a single lift between the flight deck and the mission deck in a significant wave height of 1.25 meters. JHSV shall have the capability to move 40,000 lbs of cargo in a single lift between the mission deck and the pier in a significant wave height of 0.1 meters.	In progress	JHSV shall have the capability to move 27,000 lbs of cargo in a single lift between the flight deck and the mission deck in a significant wave height of 1.25 meters. JHSV shall have the capability to move 40,000 lbs of cargo in a single lift between the mission deck and the pier in a significant wave height of 0.1 meters.
Net-Ready KPP	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures	In progress	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures

and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IΑ requirements including availability, integrity, authentication. confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes,

and the satisfy the technical for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IΑ requirements IA including availability, integrity, authentication. confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally and 5) effective information exchanges; and mission critical performance and IA

and the system must system must satisfy the technical requirements requirements for transition to Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated **GIG KIPs** issuance of an IATO by the DAA, and 3) NCOW RM Enterprise Services 4) requirements including availability, integrity, authentication. confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, Operationally effective information exchanges; and mission critical

and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IΑ requirements including availability, integrity, authentication. confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes,

attributes,

performance

and IA

	data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.		data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.
Force Protection	The JHSV shall possess a force protection system to sense, identify and lethally engage surface threats such as patrol boats and Boghammer type threats. The SST function shall provide the capability to sense, identify and track potential surface threats in nighttime, low light, and limited visibility conditions such as haze and light fog throughout	The JHSV shall possess a force protection system to sense, identify and lethally engage surface threats such as patrol boats and Boghammer type threats. The SST function shall provide the capability to sense, identify and track potential surface threats in nighttime, low light, and limited visibility conditions such as haze and light fog throughout	JHSV shall be equipped with a crewserved weapons system. Additionally, JHSV shall provide the space, weight and power for obtaining the objective.	In progress	JHSV shall be equipped with a crewserved weapons system. Additionally, JHSV shall provide the space, weight and power for obtaining the objective.

360 360 degrees. degrees. The SST The SST function shall function shall provide provide JHSV watch JHSV watch standers standers capability to capability to sense sense potential potential surface surface threats at a threats at a range no range no less than the less than the effective lineeffective lineof-sight of of-sight of the JHSV's the JHSV's navigation navigation radars. The radars. The SST function SST function shall provide shall provide simultaneous simultaneous and and continuous continuous visual autovisual autotracking of tracking of no less than no less than two operator two operator selected selected surface surface threats at a threats at a range of no range of no less than less than 750 meters 750 meters during during daytime, daytime, nighttime nighttime (low-light (low-light conditions) conditions) and during and during limited limited visibility visibility conditions conditions such as haze such as haze or light fog. or light fog. JHSV shall JHSV shall possess possess sufficient sufficient small arms small arms gun mounts gun mounts to engage to engage

threat threat surface surface platforms platforms throughout throughout no less than no less than 360 deg. 360 deg. The gun The gun mounts shall mounts shall be stabilized be stabilized in at least 2 in at least 2 axis in sea axis in sea states with a states with a significant significant wave heights wave heights of up to 6-8 of up to 6-8 ft. during ft. during wind wind conditions of conditions of 17-21 kts. 17-21 kts. The gun The gun mount(s) mount(s) shall have shall have the the capability to capability to lethally lethally engage engage patrol boats / patrol boats / Boghammer Boghammer threats with threats with a hit a hit probability of probability of no less than no less than 70 % at 500 70 % at 500 yds. Gun vds. Gun mounts shall mounts shall be remotely be remotely linked to the linked to the SST and be SST and be capable of capable of being slaved being slaved to the SST to the SST tracking tracking function or function or being being remotely remotely operated by operated by JHSV JHSV watchstander watchstander (s). Gun (s). Gun mounts shall mounts shall be capable be capable

	of hosting a variety of small arms to include: M2 .50 caliber machine guns and MK-19 grenade launchers. The surface force protection system shall be completely operable from the watch standing bridge.	of hosting a variety of small arms to include: M2 .50 caliber machine guns and MK-19 grenade launchers. The surface force protection system shall be completely operable from the watch standing bridge.			
Survivability	JHSV will be built to commercial ABS standards and will not be shock hardened.	JHSV will be built to commercial ABS standards and will not be shock hardened.	JHSV will be built to commercial ABS standards and will not be shock hardened.	In progress	JHSV will be built to commercial ABS standards and will not be shock hardened.
Mission Deck Weight Loading	Mission deck capable of supporting a maximum vehicle size/weight to on/offload a combat ready M1A2 main battle tank (total weight); a fully loaded HEMTT-PLS with a 20 ft ISO container loaded (point loading).	Mission deck capable of supporting a maximum vehicle size/weight to on/offload a combat ready M1A2 main battle tank (total weight); a fully loaded HEMTT-PLS with a 20 ft ISO container loaded (point loading).	Mission deck capable of supporting a maximum vehicle size/weight to on/offload a combat ready M1A2 main battle tank (total weight); a fully loaded HEMTT-PLS with a 20 ft ISO container loaded (point loading).	In progress	Mission deck capable of supporting a maximum vehicle size/weight to on/offload a combat ready M1A2 main battle tank (total weight); a fully loaded Heavy Expanded Mobility Tactical Truck - Palletized Load

	System (HEMTT- PLS) with a 20 ft ISO container loaded (point loading).
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Requirements Source: Capability Development Document (CDD) dated January 29, 2007

Acronyms And Abbreviations

ABS - American Bureau of Shipping

ATO - Approval to Operate

DAA - Designated Approval Authority

deg - Degrees

DISR - DOD Information Technology Standards and Profile Registry

ft - Feet/Foot

GIG - Global Information Grid

HEMTT-PLS - Heavy Expanded Mobility Tactical Truck- Palletized Load System

IA - Information Assurance

IATO - Interim Approval to Operate

in - Inches

ISO - International Standard for Organizations

IT - Information Technology

KIP - Key Interface Profile

KPP - Key Performance Parameter

kts - Knots

lbs - Pounds

NCOW-RM - Net Centric Operations Warfare Reference Model

NM - Nautical Mile

RRDF - Roll-on/Roll-off Discharge Facillities

SST - Search, Sense and Tracking

ST - Short Tons

TV - Technical Standards View

yd - Yards

Change Explanations

None

Track To Budget

RDT&E				
APPN 1319	BA 07	PE 0208058N	(Navy)	
	Project 3131	Intratheater Connectors (Concept Studies)		(Sunk)
	Project 3134	Intratheater Connectors (Contract Design)		
APPN 1319	BA 04	PE 0603564N	(Navy)	
	Project 3131	Intratheater Connectors		(Sunk)
APPN 1319	BA 05	PE 0604567N	(Navy)	
	Project 3134	Intratheater Connectors		(Sunk)
APPN 2040	BA 07	PE 0208058A	(Army)	
	Project JH1	Joint High Speed Vessel (JHSV)		(Sunk)
Procurement				
APPN 1611	BA 03	PE 0208058N	(Navy)	
	ICN 3043	JOINT HIGH SPEED VESSEL (JHSV)		
APPN 1611	BA 05	PE 0208058N	(Navy)	
	ICN 5110	JOINT HIGH SPEED VESSEL (JHSV)		
APPN 2035	BA 03	PE 0208058A	(Army)	
	ICN M11203	JOINT HIGH SPEED VESSEL (JHSV)		(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2008 \$M			BY2008 \$M		TY \$M	
Appropriation	SAR Baseline Dev Est	Curren Develor Objective/1	pment	Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	122.2	122.2	134.4	115.6	124.8	124.8	116.6
Procurement	3337.8	3337.8	3671.6	1836.3	3767.5	3767.5	2061.7
Flyaway	3079.2			1719.0	3463.0		1916.4
Recurring	3079.2			1679.8	3463.0		1876.3
Non Recurring	0.0			39.2	0.0		40.1
Support	258.6			117.3	304.5		145.3
Other Support	143.5			80.4	170.1		100.1
Initial Spares	115.1			36.9	134.4		45.2
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	3460.0	3460.0	N/A	1951.9	3892.3	3892.3	2178.3

The FY 2013 President's Budget requested a total of 10 ships within the Future Years Defense Program (FYDP), which is a reduction of eight ships from the 18 ships authorized at Milestone B.

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	0	0	0
Procurement	18	18	10
Total	18	18	10

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	113.7	1.9	1.0	0.0	0.0	0.0	0.0	0.0	116.6
Procurement	1723.8	218.9	27.0	33.5	25.1	21.1	12.3	0.0	2061.7
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 2014 Total	1837.5	220.8	28.0	33.5	25.1	21.1	12.3	0.0	2178.3
PB 2013 Total	1835.3	221.6	35.9	34.2	14.4	9.1	32.9	0.0	2183.4
Delta	2.2	-0.8	-7.9	-0.7	10.7	12.0	-20.6	0.0	-5.1

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	0	0	0	0	0	0	0	0	0	0
Production	0	9	1	0	0	0	0	0	0	10
PB 2014 Total	0	9	1	0	0	0	0	0	0	10
PB 2013 Total	0	9	1	0	0	0	0	0	0	10
Delta	0	0	0	0	0	0	0	0	0	0

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							6.5
2007							14.1
2008							18.4
2009							11.5
2010							8.2
2011							3.5
2012							4.0
2013							1.9
2014							1.0
Subtotal			-		-	-	69.1

Annual Funding BY\$

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

Fiscal Year	Quantity	RV 2008 \$M	Non End Item Recurring Flyaway BY 2008 \$M	Non Recurring Flyaway BY 2008 \$M	Total Flyaway BY 2008 \$M	Total Support BY 2008 \$M	Total Program BY 2008 \$M
2006							6.7
2007							14.2
2008							18.2
2009							11.2
2010							7.9
2011							3.3
2012							3.7
2013							1.7
2014							0.9
Subtotal	-		-	-			67.8

Annual Funding TY\$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

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
2005							10.0
2006							3.1
2007							20.2
2008							5.0
2009							2.9
2010							3.1
2011							3.2
Subtotal							47.5

Annual Funding BY\$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2008 \$M	Non End Item Recurring Flyaway BY 2008 \$M	Non Recurring Flyaway BY 2008 \$M	Total Flyaway BY 2008 \$M	Total Support BY 2008 \$M	Total Program BY 2008 \$M
2005							10.6
2006							3.2
2007							20.3
2008							4.9
2009							2.8
2010							3.0
2011							3.0
Subtotal							47.8

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
2009	1	192.3			192.3		192.3
2010	1	177.4			177.4		177.4
2011	1	179.7			179.7	1.3	181.0
2012	2	372.3			372.3	0.2	372.5
2013	1	189.2			189.2	29.7	218.9
2014		2.7			2.7	24.3	27.0
2015		5.8			5.8	27.7	33.5
2016		5.8			5.8	19.3	25.1
2017		5.8			5.8	15.3	21.1
2018		1.8			1.8	10.5	12.3
Subtotal	6	1132.8			1132.8	128.3	1261.1

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2008 \$M	Non End Item Recurring Flyaway BY 2008 \$M	Non Recurring Flyaway BY 2008 \$M	Total Flyaway BY 2008 \$M	Total Support BY 2008 \$M	Total Program BY 2008 \$M
2009	1	174.4			174.4		174.4
2010	1	155.7			155.7		155.7
2011	1	153.0			153.0	1.1	154.1
2012	2	310.7			310.7	0.2	310.9
2013	1	154.9			154.9	24.4	179.3
2014		2.2			2.2	19.5	21.7
2015		4.6			4.6	21.8	26.4
2016		4.5			4.5	14.9	19.4
2017		4.4			4.4	11.6	16.0
2018		1.3			1.3	7.9	9.2
Subtotal	6	965.7			965.7	101.4	1067.1

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

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2008
2009	1	174.4
2010	1	155.7
2011	1	153.0
2012	2	310.7
2013	1	171.9
2014		
2015		
2016		
2017		
2018		
Subtotal	6	965.7

Annual Funding TY\$
2035 | Procurement | Other Procurement, Army

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
2008	1	196.4		30.1	226.5		226.5
2009	1	168.3			168.3		168.3
2010	1	193.0		10.0	203.0		203.0
2011	1	185.8			185.8	17.0	202.8
Subtotal	4	743.5		40.1	783.6	17.0	800.6

Annual Funding BY\$ 2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2008 \$M	Non End Item Recurring Flyaway BY 2008 \$M	Non Recurring Flyaway BY 2008 \$M	Total Flyaway BY 2008 \$M	Total Support BY 2008 \$M	Total Program BY 2008 \$M
2008	1	193.2		29.6	222.8		222.8
2009	1	163.4			163.4		163.4
2010	1	183.9		9.6	193.5		193.5
2011	1	173.6			173.6	15.9	189.5
Subtotal	4	714.1		39.2	753.3	15.9	769.2

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	11/12/2008	11/12/2008
Approved Quantity	10	10
Reference	Milestone B ADM	Milestone B ADM
Start Year	2008	2008
End Year	2013	2013

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the JHSV program entering the Engineering and Manufacturing Development phase with approval for a Low Rate Initial Production (LRIP) quantity of 10 ships.

Foreign Military Sales

None

Nuclear Cost

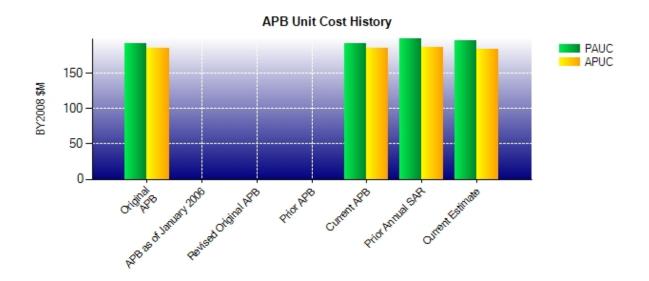
None

Unit Cost

Unit Cost Report

	BY2008 \$M	BY2008 \$M	
Unit Cost	Current UCR Baseline (FEB 2009 APB)	Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	3460.0	1951.9	
Quantity	18	10	
Unit Cost	192.222	195.190	+1.54
Average Procurement Unit Cost (APUC	C)		
Cost	3337.8	1836.3	
Quantity	18	10	
Unit Cost	185.433	183.630	-0.97
	BY2008 \$M	BY2008 \$M	
Unit Cost	BY2008 \$M Original UCR Baseline (FEB 2009 APB)	BY2008 \$M Current Estimate (DEC 2012 SAR)	BY % Change
Unit Cost Program Acquisition Unit Cost (PAUC)	Original UCR Baseline (FEB 2009 APB)	Current Estimate	
	Original UCR Baseline (FEB 2009 APB)	Current Estimate	
Program Acquisition Unit Cost (PAUC)	Original UCR Baseline (FEB 2009 APB)	Current Estimate (DEC 2012 SAR)	
Program Acquisition Unit Cost (PAUC) Cost	Original UCR Baseline (FEB 2009 APB)	Current Estimate (DEC 2012 SAR)	
Program Acquisition Unit Cost (PAUC) Cost Quantity	Original UCR Baseline (FEB 2009 APB) 3460.0 18 192.222	Current Estimate (DEC 2012 SAR) 1951.9 10	% Change
Program Acquisition Unit Cost (PAUC) Cost Quantity Unit Cost	Original UCR Baseline (FEB 2009 APB) 3460.0 18 192.222	Current Estimate (DEC 2012 SAR) 1951.9 10	% Change
Program Acquisition Unit Cost (PAUC) Cost Quantity Unit Cost Average Procurement Unit Cost (APUC)	Original UCR Baseline (FEB 2009 APB) 3460.0 18 192.222	Current Estimate (DEC 2012 SAR) 1951.9 10 195.190	% Change

Unit Cost History



		BY2008 \$M		TY \$M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	FEB 2009	192.222	185.433	216.239	209.306
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	FEB 2009	192.222	185.433	216.239	209.306
Prior Annual SAR	DEC 2011	197.990	186.100	218.340	206.330
Current Estimate	DEC 2012	195.190	183.630	217.830	206.170

SAR Unit Cost History

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

	Initial PAUC				Cha	nges	PAUC			
	Dev Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Current Est
,	216.239	8.340	12.191	2.190	0.000	-4.340	0.000	-16.790	1.591	217.830

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

	Initial APUC	Changes						APUC		
	Dev Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Current Est
-	209.306	8.400	6.644	2.190	0.000	-3.580	0.000	-16.790	-3.136	206.170

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	OCT 2008	N/A	OCT 2008
Milestone C	N/A	SEP 2012	N/A	N/A
IOC	N/A	OCT 2012	N/A	NOV 2013
Total Cost (TY \$M)	N/A	3892.3	N/A	2178.3
Total Quantity	N/A	18	N/A	10
Prog. Acq. Unit Cost (PAUC)	N/A	216.239	N/A	217.830

Cost Variance

Summary Then Year \$M						
	RDT&E	Proc	MILCON	Total		
SAR Baseline (Dev Est)	124.8	3767.5		3892.3		
Previous Changes						
Economic	-0.7	+54.0		+53.3		
Quantity		-1608.0		-1608.0		
Schedule		+21.9		+21.9		
Engineering						
Estimating	-4.0	-43.9		-47.9		
Other						
Support		-128.2		-128.2		
Subtotal	-4.7	-1704.2		-1708.9		
Current Changes						
Economic	+0.1	+30.0		+30.1		
Quantity						
Schedule						
Engineering						
Estimating	-3.6	+8.1		+4.5		
Other						
Support		-39.7		-39.7		
Subtotal	-3.5	-1.6		-5.1		
Total Changes	-8.2	-1705.8		-1714.0		
CE - Cost Variance	116.6	2061.7		2178.3		
CE - Cost & Funding	116.6	2061.7		2178.3		

Summary Base Year 2008 \$M							
	RDT&E	Proc	MILCON	Total			
SAR Baseline (Dev Est)	122.2	3337.8		3460.0			
Previous Changes							
Economic							
Quantity		-1320.0		-1320.0			
Schedule		-10.9		-10.9			
Engineering							
Estimating	-3.3	-35.6		-38.9			
Other							
Support		-110.3		-110.3			
Subtotal	-3.3	-1476.8		-1480.1			
Current Changes							
Economic							
Quantity							
Schedule							
Engineering							
Estimating	-3.3	+6.3		+3.0			
Other							
Support		-31.0		-31.0			
Subtotal	-3.3	-24.7		-28.0			
Total Changes	-6.6	-1501.5		-1508.1			
CE - Cost Variance	115.6	1836.3		1951.9			
CE - Cost & Funding	115.6	1836.3		1951.9			

Previous Estimate: December 2011

RDT&E	\$1	\$M	
Current Change Explanations	Base Year	Then Year	
Revised escalation indices. (Economic)	N/A	+0.1	
Decrease in estimate due to reduction in testing for the Army ships transferred to the Navy (Army). (Estimating)	-2.9	-3.2	
Decrease in estimate due to reduction in testing and research and development to support Navy ships (Navy). (Estimating)	-0.3	-0.3	
Adjustment for current and prior escalation. (Estimating)	-0.1	-0.1	
RDT&E Subtotal	-3.3	-3.5	

Procurement	\$1	M
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+30.0
Adjustment for current and prior escalation. (Estimating)	-20.8	-24.5
Increase in actual costs for overhead and labor rates and additional material costs. (Estimating)	+10.1	+11.0
Increase in estimate for engineering and program management support needed to complete the JHSV program when it was truncated from 18 to 10 ships. (Estimating)	+17.0	+21.6
Adjustment for current and prior escalation. (Support)	-0.8	-1.2
Decrease in Other Support due to actual post delivery requirement being less than planned (Navy). (Support)	-7.4	-9.7
Decrease in Initial Spares due to actual spares requirement being less than planned (Navy). (Support)	-22.8	-28.8
Procurement Subtotal	-24.7	-1.6

Contracts

General Contract Memo

There is one contract between the Navy and Austal USA for the detail design and construction of JHSVs. The contract was initially awarded for detailed design and construction of JHSV 1 with options for 9 additional ships. In addition to awarding the basic contract for JHSV 1, the Navy has exercised the options for JHSVs 2 to 10. These options are shown as separate contracts in this section.

Appropriation: Procurement

Contract Name Joint High Speed Vessel - JHSV 2

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/2, FPIF

Award Date June 17, 2009 Definitization Date June 17, 2009

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
 152.9	176.1	1	152.9	175.7	1	166.0	168.2

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-23.4	-3.6
Previous Cumulative Variances	-6.7	-15.9
Net Change	-16.7	+12.3

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to unplanned cost growth for production material and overhead and labor rates.

The favorable net change in the schedule variance is due to the close out of outstanding tasks as the ship approaches delivery.

Contract Comments

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

Contract Name Joint High Speed Vessel - JHSV 3

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/3, FPIF

Award Date June 17, 2009
Definitization Date June 17, 2009

Initial Contract Price (\$M) Current Contract Price (\$M)			Estimated Price At Completion (\$M)				
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
150.9	173.3	1	150.4	172.7	1	159.6	163.1

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-17.9	-15.4
Previous Cumulative Variances	+1.6	-5.8
Net Change	-19.5	-9.6

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to unplanned cost growth for production material and overhead and labor rates.

The unfavorable net change in the schedule variance is due to JHSV 2 shipyard schedule delay affecting JHSV 3.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the net impact of a reduction in scope for the Mission Bay Interface Panels and Mission Bay Tie Down Arrangements and an increase in scope for the Spare High Expansion Foam Concentrate Stowage.

Contract Name Joint High Speed Vessel - JHSV 4

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/4, FPIF

Award Date October 12, 2010
Definitization Date October 12, 2010

Initial Co	Contract Price (\$M) Current Contract Price (\$M)			Estimated Price At Completion (\$M)			
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
151.7	174.2	1	151.1	173.5	1	154.6	161.3

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-2.6	-14.0
Previous Cumulative Variances	-21.2	0.0
Net Change	+18.6	-14.0

Cost And Schedule Variance Explanations

The favorable net change in the cost variance is due to the prior JHSV SAR reporting only actual costs with no performance measurement baseline for JHSV 4.

The unfavorable net change in the schedule variance is due to the effect of schedule delays from prior ship delays.

Contract Comments

Contract Name Joint High Speed Vessel - JHSV 5

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/5, FPIF

Award Date October 12, 2010
Definitization Date October 12, 2010

Initial Contract Price (\$M) Current Contract Price (\$M)			Estimated Price At Completion (\$M)				
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
152.5	175.0	1	151.8	174.3	1	151.8	159.6

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-45.2	0.0
Previous Cumulative Variances	-12.7	0.0
Net Change	-32.5	+0.0

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Austal reporting only actual costs for JHSV 5.

General Contract Variance Explanation

Schedule variance reporting has not commenced because Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started for JHSV 5.

Contract Comments

Contract Name Joint High Speed Vessel - JHSV 6

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/6, FPIF

Award Date June 30, 2011 Definitization Date June 30, 2011

Initial Contract Price (\$M) Current Contract Price (\$M)			Estimated Price At Completion (\$M)				
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
155.5	178.5	1	154.9	177.9	1	154.9	160.3

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-26.0	0.0
Previous Cumulative Variances	0.0	0.0
Net Change	-26.0	+0.0

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Austal reporting only actual costs for JHSV 6.

General Contract Variance Explanation

Schedule variance reporting has not commenced because Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started for JHSV 6.

Contract Comments

Contract Name Joint High Speed Vessel - JHSV 7

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/7, FPIF

Award Date June 30, 2011 Definitization Date June 30, 2011

Initial Contract Price (\$M) Current Contract Price (\$M)			Estimated Price At Completion (\$M)				
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
157.4	180.7	1	156.8	180.0	1	156.8	160.4

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-16.1	0.0
Previous Cumulative Variances	0.0	0.0
Net Change	-16.1	+0.0

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Austal reporting only actual costs for JHSV 7.

General Contract Variance Explanation

Schedule variance reporting has not commenced because Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started for JHSV 7.

Contract Comments

Contract Name Joint High Speed Vessel - JHSV 8

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/8, FPIF

Award Date February 24, 2012
Definitization Date February 24, 2012

	Initial Contract Price (\$M)			Current C	ontract Price	(\$M)	Estimated Price At Completion (\$M)		
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
Ī	160.5	184.2	1	159.8	183.4	1	159.8	161.8	

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-12.7	0.0
Previous Cumulative Variances		
Net Change	-12.7	+0.0

Cost And Schedule Variance Explanations

The unfavorable cumulative cost variance is due to Austal reporting only actual costs for JHSV 8.

General Contract Variance Explanation

Schedule variance reporting has not commenced because Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started for JHSV 8.

Contract Comments

This is the first time this contract is being reported.

Contract Name Joint High Speed Vessel - JHSV 9

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/9, FPIF

Award Date February 24, 2012
Definitization Date February 24, 2012

Initial Contract Price (\$M)			Current C	ontract Price	(\$M)	Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
162.6	186.6	1	161.9	185.9	1	161.9	162.7	

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (3/31/2013)	-12.7	0.0
Previous Cumulative Variances		
Net Change	-12.7	+0.0

Cost And Schedule Variance Explanations

The unfavorable cumulative cost variance is due to Austal reporting only actual costs for JHSV 9.

General Contract Variance Explanation

Schedule variance reporting has not commenced because Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started for JHSV 9.

Contract Comments

This is the first time this contract is being reported.

Contract Name Joint High Speed Vessel - JHSV 10

Contractor Austal USA

Contractor Location Mobile, AL 36610

Contract Number, Type N00024-08-C-2217/10, FPIF

Award Date December 20, 2012
Definitization Date December 20, 2012

Initial Contract Price (\$M)			Current C	ontract Price	(\$M)	Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
167.6	192.3	1	166.9	191.6	1	166.9	167.3	

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

Cost And Schedule Variance Explanations

None

General Contract Variance Explanation

Cost and schedule variance reporting has not commenced because the option for JHSV 10 was awarded on December 20, 2012, and Earned Value Management (EVM) reporting against a performance measurement baseline has not yet started.

Contract Comments

This is the first time this contract is being reported.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	
Production	1	1	10	10.00%
Total Program Quantities Delivered	1	1	10	10.00%

Expenditures and Appropriations (TY \$M)						
Total Acquisition Cost	2178.3	Years Appropriated	9			
Expenditures To Date	867.1	Percent Years Appropriated	64.29%			
Percent Expended	39.81%	Appropriated to Date	2058.3			
Total Funding Years	14	Percent Appropriated	94.49%			

The above data is current as of 3/20/2013.

Operating and Support Cost

JHSV

Assumptions and Ground Rules

Cost Estimate Reference:

These Operating and Support (O&S) costs are based on the Naval Sea Systems Command (NAVSEA) 05C August 2012 Gate 6 update of the JHSV O&S Program Life Cycle Estimate (PLCCE) of October 1, 2008, and reflect the reduction in authorized JHSVs from 18 to 10 and transfer of the 5 Army ships to the Navy.

Estimates were calculated and analyzed using the Operating and Support Cost Analysis Model (OSCAM) Naval Suite, sponsored by the Naval Center for Cost Analysis (NCCA). Data was obtained from a variety of sources, including Military Sealift Command (MSC) guidance, JHSV technical specifications, and the Visibility and Management of Operating and Support Costs (VAMOSC) historical database, also sponsored by NCCA.

Below are a number of critical assumptions, based on the current program of record:

- 10 ships total (all Navy with MSC crew)
- Primary construction material/hull form: Aluminum/Catamaran
- Design standard: American Bureau of Shipping, High Speed Naval Craft (HSNC)
- Estimated service life: 20 years
- Nominal operational tempo (annually): 3,000 hours steaming underway; 3,000 hours steaming not underway
- Marine Diesel Fuel Cost (per barrel): \$132
- Maintenance Concept: Two-level (Organizational and Depot-level)

Sustainment Strategy:

- MSC designated Life Cycle Manager
- Streamlined to standard MSC maintenance philosophy
- Two-level maintenance approach

Antecedent Information:

There is no antecedent system to the JHSV. The program represents a new materiel solution for DoD in intratheater sealift, leveraging international commercial best practices in high speed ferry technology.

Unitized O&S Costs BY2008 \$M						
Cost Element	JHSV Average Annual Cost Per Hull	No Antecedent System (Antecedent)				
Unit-Level Manpower	4.7	0.0				
Unit Operations	14.6	0.0				
Maintenance	4.5	0.0				
Sustaining Support	0.4	0.0				
Continuing System Improvements	0.3	0.0				
Indirect Support	5.4	0.0				
Other	0.0	0.0				
Total	29.9					

Unitized Cost Comments:

Unit of measure is Average Annual Cost Per Hull.

	Total O&S Cost \$M						
	Current Development APB Objective/Threshold		Current	Estimate			
	JHSV		JHSV	No Antecedent System (Antecedent)			
Base Year	9621.9	10584.1	5981.2	N/A			
Then Year	11343.7	N/A	7273.4	0.0			

Total O&S Costs Comments:

None

Disposal Costs

The sale of recyclable material is estimated to cover the disposal of the vessel; therefore, the net total cost of JHSV disposal is \$0. Estimate based on correspondence from the Chief Operating Office at International Shipbreaking Limited LLC (2008).