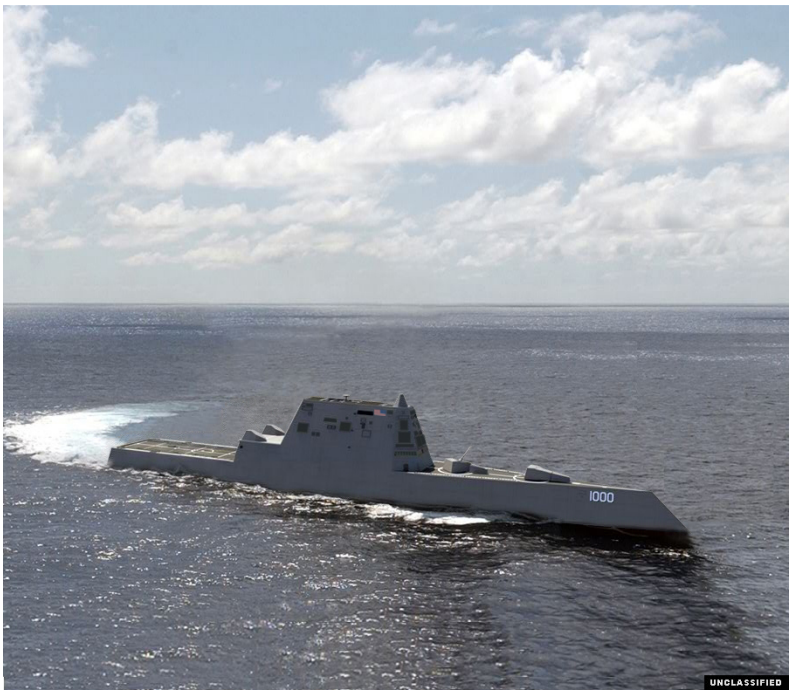
Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-197



DDG 1000 Zumwalt Class Destroyer (DDG 1000)

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Program Information

Program Name

DDG 1000 Zumwalt Class Destroyer (DDG 1000)

DoD Component

Navy

Responsible Office

Responsible Office

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References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated November 23, 2005

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 25, 2011

Mission and Description

DDG 1000 will be an optimally-crewed, multi-mission surface combatant designed to provide littoral dominance, while fulfilling volume firepower and precision strike requirements. This advanced warship will provide credible forward naval presence either while operating independently or as an integral part of Naval, Joint, or Combined Expeditionary Strike Forces. Armed with an array of weapons, DDG 1000 will provide offensive, distributed, and precision firepower at long ranges in support of forces ashore. To ensure effective operations in the littoral, DDG 1000 will incorporate full spectrum signature reduction, active and passive self-defense systems, and cutting-edge survivability features.

Executive Summary

On June 21, 2012, Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RD&A)) chaired the Gate 6 Sufficiency Review, configuration Steering Board and Nunn-McCurdy Annual Cost Review for the DDG 1000 Shipbuilding Program. ASN(RDA) concluded the Nunn-McCurdy Annual Cost Review actions were executed as directed by the Undersecretary of Defense for Acquisition, Technology & Logistics (USD(AT&L)) Acquisition Decision Memorandum (ADM). The Navy provided the Overarching Integrated Product Team (OIPT) leader a final submission of the quarterly cost management control metrics on July 17, 2012. As part of the actions, the Navy submitted a request via Omnibus and Above Threshold Reprogramming (ATR) to fund the DDG 1000 program in accordance with the 2011 Annual Cost Review in the amount of $90.6M. The $90.6M, received in October 2012,is for the FY 2011 shortfalls of $72.2M, and reprogramming $18.4M of Outfitting to SCN End Cost.

Negotiations for the remaining mission systems efforts for DDG 1000, 1001 and 1002 with Raytheon were completed in December 2012. Additionally, the DDG 1002 sole source negotiations with Huntington Ingalls Industries (HII) continue for the procurement of the DDG 1002 deckhouse, hangar, and Aft Peripheral Vertical Launch System (PVLS). Because the sole source negotiations have not reached an affordable solution and deliveries of these components for DDG 1002 are becoming time-critical, the Navy is concurrently pursuing a steel deckhouse, hangar, and Aft PVLS limited competition. The program received a Request for Equitable Adjustment (REA) from Bath Iron Works (BIW) for DDG 1000 design, construction, and support in October 2012, with government analysis ongoing.

The DDG 1000 Program funding reflects reprogramming from Research, Development, Test, and Evaluation (RDT&E) to Procurement to fund the CAPE estimate in the June 1, 2010 USD(AT&L) Nunn-McCurdy certification ADM and the inclusion of FY 2017 and future year outfitting and post delivery costs in the President’s Budget FY 2013 and FY 2014. With these changes, the Average Procurement Unit Cost (APUC) increased by $17.0M (Base Year (BY 2005) due to the transfers to Procurement. The Program Acquisition Unit Cost (PAUC), including both RDT&E and Procurement funds, increased by $45.8M (BY 2005). The APUC and PAUC are favorably 6.63% and 4.33% below the March 2011 Acquisition Program Baseline. Due to the 2013 sequestration impacts commencing during the execution year, the program faces reductions of approximately $70.2M of SCN and $10.3M of RDT&E.

In October 2010, in conjunction with the Milestone B decision, certification was made pursuant to section 2366b of title 10, United States Code. Based on program maturity, the DDG 1000 Zumwalt Class Destroyer program was deemed ready to re-enter the Engineering and Manufacturing Development (EMD) phase; however, the USD (AT&L) waived two of the 2366b provisions, (a)(1)(B) and (a)(1)(D). With the submission of the FY 2014 President's Budget and the associated Future Years Defense Program, and sequestration impacts, the DDG 1000 Zumwalt Class Destroyer program does not satisfy the certification requirements for the waived provisions. The shortfall is being addressed within the Navy.

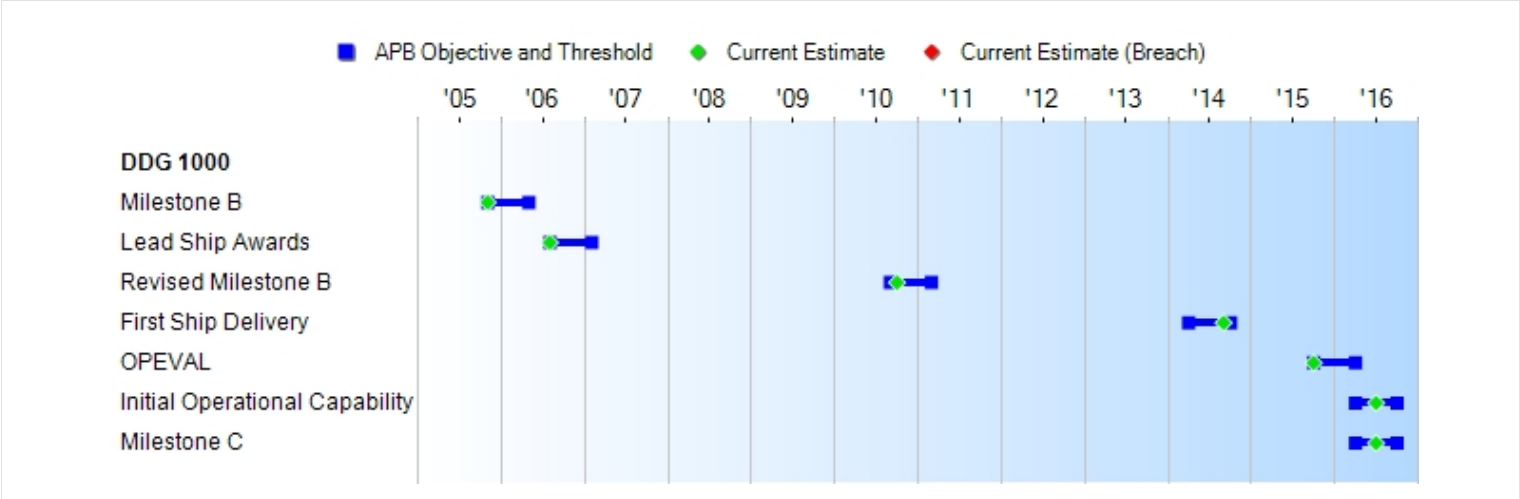
There are no significant software-related issues with this program at this time. The software development is more than ninety percent complete. The remaining ten percent of Software development was negotiated with Raytheon and awarded November 17, 2011.

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	NOV 2005	NOV 2005	MAY 2006	NOV 2005	
Lead Ship Awards	JAN 2006	AUG 2006	FEB 2007	AUG 2006	
Revised Milestone B	N/A	SEP 2010	MAR 2011	OCT 2010	
First Ship Delivery	SEP 2012	APR 2014	OCT 2014	SEP 2014	(Ch-1)
OPEVAL	SEP 2013	OCT 2015	APR 2016	OCT 2015	
Initial Operational Capability	JAN 2014	APR 2016	OCT 2016	JUL 2016	
Milestone C	MAR 2015	APR 2016	OCT 2016	JUL 2016	

Acronyms And Abbreviations

OPEVAL - Operational Evaluation

Change Explanations

(Ch-1) First Ship Delivery Current Estimate is updated from April 2014 to September 2014 to reflect updated estimate from shipyard.

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Number of Advanced Gun Systems	2	2	2	TBD	2
Number of Advanced Vertical Launch Cells	128	128	80	TBD	80
Total Ship Advanced Gun System Magazine Capacity	1200 rounds (600 rounds per magazine)	1200 rounds (600 rounds per magazine)	600 rounds total ship magazine capacity	TBD	600 rounds (300 rounds per magazine)
Number of ship's company personnel (helicopter detachment included)	125	125	175	TBD	148
Operational Availability (Ao) for mission critical systems:					
Ao for 120-day wartime profile	0.95	0.95	0.90	TBD	0.95
Ao for 18 month extended forward deployment	0.95	0.95	0.90	TBD	0.95
Interoperability: All top-level IERs will be satisfied to the standards specified in the Threshold and Objective values.	Achieve 100% of top-level IERs. DD(X) joint tactical battle management and command and control computer programs shall conform to the SIAP System Engineer' s Integrated Architecture and Integrated Architecture Behavior	Achieve 100% of top-level IER. DD (X) joint tactical battle management and command and control computer programs shall conform to the SIAP System Engineer's Integrated Architecture and Integrated Architecture Behavior	Achieve 100% top-level IER designated as critical. DD(X) joint tactical battle mangage-ment and command and control computer programs shall conform to the SIAP System Engineer's Integr-ed Architecture and Integrated	TBD	Achieve 100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements designated as enterprise-level or critical in the Joint integrated architecture. This includes the ORD

	Model now being developed. DD(X) will remain in compliance with CJCSI 6212.01 (Series), Inter-operability and Support-ability of IT and NSS, including future updates.	Model now being developed. DD(X) will remain in compliance with CJCSI 6212.01 (Series), Inter-operability and Support-ability of Information Technology and National Security Systems (IT and NSS), including future updates.	Archi-techture Behavior Model for Track Management now being developed. DD(X) will remain in compliance with CJCSI 6212.0 (Series), Inter-operability and Support-ability of Information Technology and National Security Systems (IT and NSS), Including future updates.		threshold requirements for meeting the IERs which are listed in DDG 1000 ORD Rev 15 (Table B) and the DDG 1000 TEMP Rev D (Table D-3).

Requirements Source: DDX Operational Requirements Document (ORD) Change 1 dated January 23, 2006

Acronyms And Abbreviations

CJCSI - Chairman of the Joint Chiefs of Staff Instruction
IER - Information Exchange Requirement
IT - Information Technology
NSS - National Security System
ORD - Operational Requirements Document
Rev - Revision
SIAP - Single Integrated Air Picture
TBD - To Be Determined
TEMP - Test and Evaluation Master Plan

Change Explanations

None

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

Track To Budget

RDT&E				
APPN 1319	BA 05	PE 0204202N	(Navy)	
	Project 2464	DDG 1000 System Design, Development and Integration		
	Project 4009	Advanced Gun System on DDG 1000		
APPN 1319	BA 04	PE 0603513N	(Navy)	
	Project 2465	DC Survivability	(Shared)	(Sunk)
	Project 2467	Advanced Gun System	(Shared)	(Sunk)
	Project 2468	Undersea Warfare	(Shared)	(Sunk)
	Project 2469	Open System Architecture	(Shared)	(Sunk)
	Project 2470	Integrated Topside Design	(Shared)	(Sunk)
	Project 2471	Integrated Power System	(Shared)	(Sunk)
	Project 4019	Radar Upgrades	(Shared)	(Sunk)
APPN 1319	BA 05	PE 0604300N	(Navy)	
	Project 2463	DD(X) Construction	(Shared)	(Sunk)
	Project 2464	DD(X) Sys Design, Dev & Integration	(Shared)	(Sunk)
	Project 2465	DC Survivability	(Shared)	(Sunk)
	Project 2466	MFR Development	(Shared)	(Sunk)
	Project 2735	Volume Search Radar	(Shared)	(Sunk)
	Project 4009	Advanced Gun System	(Shared)	(Sunk)
	Project 4010	Integrated Power System on DD (X)	(Shared)	(Sunk)
APPN 1319	BA 05	PE 0604366N	(Navy)	
	Project 0439	Standard Missile Improvement: DDG 1000	(Shared)	
APPN 1319	BA 05	PE 0604755N	(Navy)	
	Project 2735	Volume Search Radar		(Sunk)

The congressional adds in PE 0603513N and PE 0604300N are not part of the core DDG 1000 Program.

Procurement

APPN 1611	BA 02	PE 0204202N	(Navy)	
	ICN 211900 FY10 and follow	DDG 1000 Construction FY10 and follow		
APPN 1611	BA 02	PE 0204222N	(Navy)	
	ICN 211900 FY08-09	DDG 1000 FY08-FY09		(Sunk)
APPN 1611	BA 02	PE 0204228N	(Navy)	
	ICN 211900 FY05-07	DDG 1000 FY05-FY07	(Shared)	(Sunk)
APPN 1611	BA 05	PE 0204222N	(Navy)	
	ICN 511000	Outfitting/Post Delivery	(Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2005 $M			BY2005 $M	TY $M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	8313.2	8994.0	9893.4	8839.0	8483.0	9325.5	9186.8
Procurement	23234.7	10195.3	11214.8	9517.5	27813.3	12497.8	12027.4
Flyaway	23234.7	--	--	9517.5	27813.3	--	12027.4
Recurring	21726.7	--	--	7949.4	26170.8	--	10208.8
Non Recurring	1508.0	--	--	1568.1	1642.5	--	1818.6
Support	0.0	--	--	0.0	0.0	--	0.0
Other Support	0.0	--	--	0.0	0.0	--	0.0
Initial Spares	0.0	--	--	0.0	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	31547.9	19189.3	N/A	18356.5	36296.3	21823.3	21214.2

Confidence Level for Current APB Cost 50% - The Independent Cost Estimate (ICE) to support DDG 1000 revised Milestone B decision, like all life-cycle cost estimates previously performed by the Cost Assessment and Program Evaluation (CAPE), is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

It is difficult to calculate mathematically the precise confidence levels associated with life-cycle cost estimates prepared for Major Defense Acquisition 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 equally likely that the estimate will prove too low or too high for execution of the program described.

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	0	0	0
Procurement	10	3	3
Total	10	3	3

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	8465.9	124.7	187.9	185.8	117.8	66.5	38.2	0.0	9186.8
Procurement	10400.5	679.9	280.1	396.2	77.1	71.9	25.6	96.1	12027.4
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	18866.4	804.6	468.0	582.0	194.9	138.4	63.8	96.1	21214.2
PB 2013 Total	18805.9	803.9	420.2	561.2	122.6	122.5	193.4	0.0	21029.7
Delta	60.5	0.7	47.8	20.8	72.3	15.9	-129.6	96.1	184.5

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	3	0	0	0	0	0	0	0	3
PB 2014 Total	0	3	0	0	0	0	0	0	0	3
PB 2013 Total	0	3	0	0	0	0	0	0	0	3
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
1995	--	--	--	--	--	--	7.0
1996	--	--	--	--	--	--	10.0
1997	--	--	--	--	--	--	12.0
1998	--	--	--	--	--	--	53.5
1999	--	--	--	--	--	--	215.1
2000	--	--	--	--	--	--	281.2
2001	--	--	--	--	--	--	532.4
2002	--	--	--	--	--	--	490.4
2003	--	--	--	--	--	--	895.4
2004	--	--	--	--	--	--	1002.2
2005	--	--	--	--	--	--	1120.2
2006	--	--	--	--	--	--	1040.6
2007	--	--	--	--	--	--	755.8
2008	--	--	--	--	--	--	516.5
2009	--	--	--	--	--	--	431.2
2010	--	--	--	--	--	--	503.8
2011	--	--	--	--	--	--	348.8
2012	--	--	--	--	--	--	249.8
2013	--	--	--	--	--	--	124.7
2014	--	--	--	--	--	--	187.9
2015	--	--	--	--	--	--	185.8
2016	--	--	--	--	--	--	117.8
2017	--	--	--	--	--	--	66.5
2018	--	--	--	--	--	--	38.2
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**9186.8**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2005 $M	Non End Item Recurring Flyaway BY 2005 $M	Non Recurring Flyaway BY 2005 $M	Total Flyaway BY 2005 $M	Total Support BY 2005 $M	Total Program BY 2005 $M
1995	--	--	--	--	--	--	8.0
1996	--	--	--	--	--	--	11.3
1997	--	--	--	--	--	--	13.4
1998	--	--	--	--	--	--	59.1
1999	--	--	--	--	--	--	234.8
2000	--	--	--	--	--	--	302.6
2001	--	--	--	--	--	--	565.1
2002	--	--	--	--	--	--	515.3
2003	--	--	--	--	--	--	927.3
2004	--	--	--	--	--	--	1009.8
2005	--	--	--	--	--	--	1099.7
2006	--	--	--	--	--	--	990.7
2007	--	--	--	--	--	--	702.4
2008	--	--	--	--	--	--	471.4
2009	--	--	--	--	--	--	388.5
2010	--	--	--	--	--	--	447.2
2011	--	--	--	--	--	--	301.7
2012	--	--	--	--	--	--	211.9
2013	--	--	--	--	--	--	103.7
2014	--	--	--	--	--	--	153.4
2015	--	--	--	--	--	--	148.9
2016	--	--	--	--	--	--	92.6
2017	--	--	--	--	--	--	51.3
2018	--	--	--	--	--	--	28.9
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**8839.0**

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
2005	--	--	--	304.0	304.0	--	304.0
2006	--	--	--	706.2	706.2	--	706.2
2007	2	1779.2	--	808.4	2587.6	--	2587.6
2008	--	3159.8	--	--	3159.8	--	3159.8
2009	1	1504.3	--	--	1504.3	--	1504.3
2010	--	1378.5	--	--	1378.5	--	1378.5
2011	--	247.1	--	--	247.1	--	247.1
2012	--	513.0	--	--	513.0	--	513.0
2013	--	679.9	--	--	679.9	--	679.9
2014	--	280.1	--	--	280.1	--	280.1
2015	--	396.2	--	--	396.2	--	396.2
2016	--	77.1	--	--	77.1	--	77.1
2017	--	71.9	--	--	71.9	--	71.9
2018	--	25.6	--	--	25.6	--	25.6
2019	--	45.3	--	--	45.3	--	45.3
2020	--	50.8	--	--	50.8	--	50.8
Subtotal	**3**	**10208.8**	**--**	**1818.6**	**12027.4**	**--**	**12027.4**

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2005 $M	Non End Item Recurring Flyaway BY 2005 $M	Non Recurring Flyaway BY 2005 $M	Total Flyaway BY 2005 $M	Total Support BY 2005 $M	Total Program BY 2005 $M
2005	--	--	--	275.1	275.1	--	275.1
2006	--	--	--	617.3	617.3	--	617.3
2007	2	1487.1	--	675.7	2162.8	--	2162.8
2008	--	2555.6	--	--	2555.6	--	2555.6
2009	1	1181.8	--	--	1181.8	--	1181.8
2010	--	1047.9	--	--	1047.9	--	1047.9
2011	--	182.3	--	--	182.3	--	182.3
2012	--	370.9	--	--	370.9	--	370.9
2013	--	482.3	--	--	482.3	--	482.3
2014	--	195.0	--	--	195.0	--	195.0
2015	--	270.7	--	--	270.7	--	270.7
2016	--	51.7	--	--	51.7	--	51.7
2017	--	47.3	--	--	47.3	--	47.3
2018	--	16.5	--	--	16.5	--	16.5
2019	--	28.7	--	--	28.7	--	28.7
2020	--	31.6	--	--	31.6	--	31.6
Subtotal	**3**	**7949.4**	**--**	**1568.1**	**9517.5**	**--**	**9517.5**

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

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2005 $M
2005	--	--
2006	--	--
2007	2	5743.5
2008	--	--
2009	1	2205.9
2010	--	--
2011	--	--
2012	--	--
2013	--	--
2014	--	--
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	--	--
Subtotal	**3**	**7949.4**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	11/22/2005	10/8/2010
Approved Quantity	8	3
Reference	ADM	ADM
Start Year	2007	2007
End Year	2014	2009

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the Acquisition Decision Memorandum (ADM) of October 8, 2010 reducing the LRIP quantity to three ships, which represents the total quantity remaining on the program.

Foreign Military Sales

None

Nuclear Cost

None

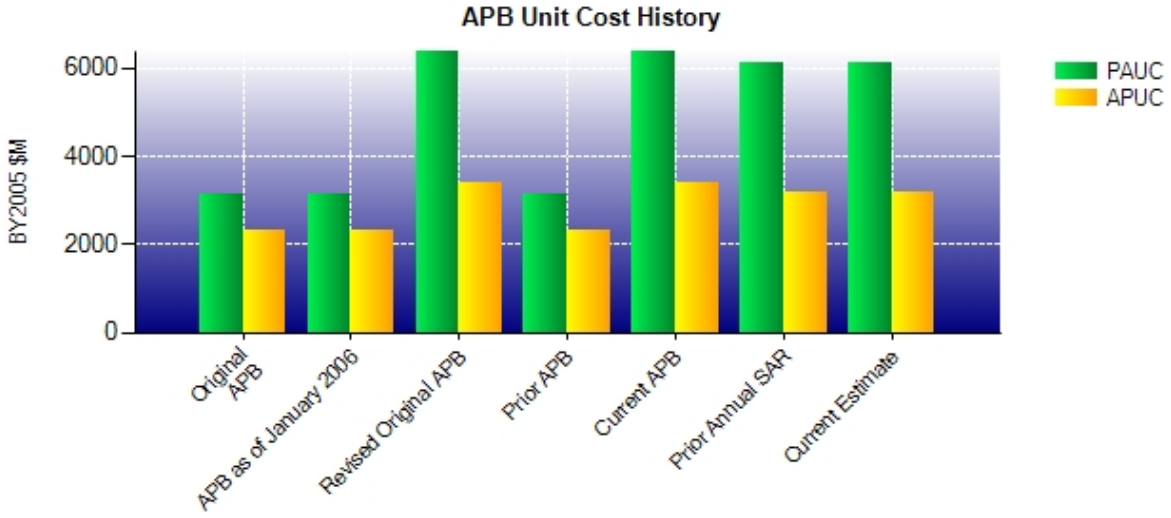
Unit Cost

Unit Cost Report

	BY2005 $M	BY2005 $M	
Unit Cost	**Current UCR Baseline (MAR 2011 APB)**	**Current Estimate (DEC 2012 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	19189.3	18356.5	
Quantity	3	3	
Unit Cost	6396.433	6118.833	-4.34
Average Procurement Unit Cost (APUC)			
Cost	10195.3	9517.5	
Quantity	3	3	
Unit Cost	3398.433	3172.500	-6.65

	BY2005 $M	BY2005 $M	
Unit Cost	**Revised Original UCR Baseline (MAR 2011 APB)**	**Current Estimate (DEC 2012 SAR)**	**BY % Change**
Program Acquisition Unit Cost (PAUC)			
Cost	19189.3	18356.5	
Quantity	3	3	
Unit Cost	6396.433	6118.833	-4.34
Average Procurement Unit Cost (APUC)			
Cost	10195.3	9517.5	
Quantity	3	3	
Unit Cost	3398.433	3172.500	-6.65

Unit Cost History



		BY2005 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	NOV 2005	3154.790	2323.470	3629.620	2781.320
APB as of January 2006	NOV 2005	3154.790	2323.470	3629.620	2781.320
Revised Original APB	MAR 2011	6396.433	3398.433	7274.433	4165.933
Prior APB	NOV 2005	3154.790	2323.470	3629.620	2781.320
Current APB	MAR 2011	6396.433	3398.433	7274.433	4165.933
Prior Annual SAR	DEC 2011	6104.233	3167.433	7009.900	3964.967
Current Estimate	DEC 2012	6118.833	3172.500	7071.400	4009.133

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	
3629.630	604.900	2104.837	19.233	22.067	690.733	0.000	0.000	3441.770	7071.400

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2781.330	596.333	125.470	19.233	-126.500	613.267	0.000	0.000	1227.803	4009.133

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone B	NOV 2005	NOV 2005	N/A	NOV 2005
Milestone C	MAR 2015	MAR 2015	N/A	JUL 2016
IOC	JAN 2014	JAN 2014	N/A	JUL 2016
Total Cost (TY $M)	36296.2	36296.3	N/A	21214.2
Total Quantity	10	10	N/A	3
Prog. Acq. Unit Cost (PAUC)	3629.620	3629.630	N/A	7071.400

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	8483.0	27813.3	--	36296.3
Previous Changes				
Economic	+11.4	+1678.4	--	+1689.8
Quantity	--	-19092.9	--	-19092.9
Schedule	--	+57.7	--	+57.7
Engineering	+445.7	-379.5	--	+66.2
Estimating	+194.7	+1817.9	--	+2012.6
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+651.8	-15918.4	--	-15266.6
Current Changes				
Economic	+14.3	+110.6	--	+124.9
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+37.7	+21.9	--	+59.6
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+52.0	+132.5	--	+184.5
Total Changes	+703.8	-15785.9	--	-15082.1
CE - Cost Variance	9186.8	12027.4	--	21214.2
CE - Cost & Funding	9186.8	12027.4	--	21214.2

Summary Base Year 2005 $M				
	RDT&E	**Proc**	**MILCON**	**Total**
SAR Baseline (Dev Est)	8313.2	23234.7	--	31547.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	-14646.0	--	-14646.0
Schedule	--	+63.8	--	+63.8
Engineering	+385.3	-369.4	--	+15.9
Estimating	+111.9	+1219.2	--	+1331.1
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+497.2	-13732.4	--	-13235.2
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+28.6	+15.2	--	+43.8
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+28.6	+15.2	--	+43.8
Total Changes	+525.8	-13717.2	--	-13191.4
CE - Cost Variance	8839.0	9517.5	--	18356.5
CE - Cost & Funding	8839.0	9517.5	--	18356.5

Previous Estimate: December 2011

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+14.3
Adjustment for current and prior escalation. (Estimating)	-5.4	-6.4
Revised cost estimate to fund the program to the truncated level of three ships; as restructured during the Nunn-McCurdy Review. (Estimating)	+34.0	+44.1
RDT&E Subtotal	+28.6	+52.0

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+110.6
Adjustment for current and prior escalation. (Estimating)	-61.0	-81.4
Revised cost estimate to fund the program to the truncated level of three ships; as restructured during the Nunn-McCurdy Review. (Estimating)	+76.2	+103.3
Procurement Subtotal	+15.2	+132.5

Contracts

Appropriation: Procurement

Contract Name	**Phase IV BIW DD&C (DDG 1000)**
Contractor	Bath Iron Works
Contractor Location	700 Washington Street Bath, ME 04530-2574
Contract Number, Type	N00024-06-C-2303, CPAF
Award Date	August 08, 2006
Definitization Date	September 08, 2006

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
373.5	N/A	1	2455.6	N/A	1	2559.0	2541.4

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/24/2013)	-145.9	-46.5
Previous Cumulative Variances	-135.8	-54.3
Net Change	-10.1	+7.8

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to challenges in electrical work and increased supervision as DDG 1000 progresses through construction towards activation.

The favorable net change in the schedule variance is due to adjustments in the Performance Measurement Baseline (PMB) to recognize added scope for Change; where previously authorized work was performed under Authorized Unpriced Work pending final adjudication of the Change.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of transition to production and exercise of the ship construction Contract Line Item (CLIN) and the deobligation for Class Common Equipment (CCE) for DDG 1001.

Bath Iron Works' (BIW's) DDG 1000 contract scope previously included Long Lead Time Material and Advanced Procurement efforts for DDG 1001. The BIW DDG 1001/1002 contract was awarded September 15, 2011. Therefore, the DDG 1000 contract now includes only the detail design and construction of the DDG 1000 lead ship.

Appropriation: Procurement

Contract Name	**Phase IV HIIDD&C (DDG 1000 / 1001)**
Contractor	Huntington Ingalls Inc
Contractor Location	1000 Access Road Pascagoula, MS 39568-7003
Contract Number, Type	N00024-06-C-2304, CPAF
Award Date	August 31, 2006
Definitization Date	August 31, 2006

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
364.0	N/A	1	1539.2	N/A	2	1663.3	1594.2

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/17/2013)	-94.0	-43.5
Previous Cumulative Variances	-64.1	-34.6
Net Change	-29.9	-8.9

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased manning needed for work performed out of sequence and increased complexities of working in confined spaces in later construction phases required for DDG 1000 deckhouse completion.

The unfavorable net change in the schedule variance is due to the delay in the DDG 1000 deckhouse delivery.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of transition to production and exercise of the ship construction Contract Line Item (CLIN), the deobligation of Class Common Equipment (CCE) for DDG 1001, and the partial termination of construction of the DDG 1001.

In April 2009, the Navy, Bath Iron Works (BIW), and Northrop Grumman Shipbuilding (NGSB), now Huntington Ingalls Industries (HII), signed Memorandums of Agreement (MOA) regarding the allocation of ship construction workload for DDG 1000 and DDG 51 Class ships. The current scope of the HII contract is for the detail design and construction of the DDG 1000 and 1001 Deckhouse and Aft Peripheral Vertical Launching System (PVLS), in accordance with the MOA.

Appropriation: Procurement

Contract Name	**Phase IV BIW DDG 1001 & 1002**
Contractor	Bath Iron Works
Contractor Location	700 Washington Street Bath, ME 04530
Contract Number, Type	N00024-11-C-2306, FPIS/FFP/CR
Award Date	September 15, 2011
Definitization Date	May 15, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1825.7	N/A	2	1542.6	N/A	2	1613.0	1500.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/24/2013)	-37.2	-47.7
Previous Cumulative Variances	0.0	0.0
Net Change	-37.2	-47.7

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to the effort to reduce overall cost on DDG 1001/1002 from DDG 1000, marked by scheduling a challenging amount of work earlier in the manufacturing process. This aggressive scheduling has resulted in some cost variances, however, with the work being done earlier in construction, than was done on DDG 1000; the program office expects the cost variances to improve as construction progresses.

The unfavorable net change in the schedule variance is due to the effort to reduce overall cost on DDG 1001/1002 from DDG 1000, marked by scheduling a challenging amount of work earlier in the manufacturing process. This aggressive scheduling has resulted in some schedule variances, however, with the work being done earlier in construction, than was done on DDG 1000; the program office expects the schedule variances to improve as construction progresses.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to reflecting Contract Performance Report (CPR) scope; this excludes the values of the Firm Fixed Price Class Common Equipment.

Bath Iron Works' (BIW) DDG 1001 contract scope for Long Lead Time Material and Advanced Procurement efforts were initiated and previously captured and reported under contract N00024-06-C-2303. The BIW DDG 1001/1002 contract was awarded September 15, 2011 as a FPIS (Fixed-Price Incentive Successive Targets) contract. The contract ceiling value is $2,190M and is not subject to redetermination.

Appropriation: Procurement

Contract Name	**Phase IV AGS Equipment (DDG 1002)**
Contractor	BAE Systems
Contractor Location	4800 E. River Rd Minneapolis, MN 55421
Contract Number, Type	N00024-12-C-5311, FPIF/CPFF
Award Date	October 26, 2011
Definitization Date	November 19, 2012

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
73.0	N/A	2	161.0	N/A	2	168.0	168.0

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

The contract variance reporting on British Aerospace Engineering (BAE) contract N00024-12-C-5311 has not commenced prior to SAR reporting. Following the definitization of the Undefinitized Contract Action (UCA), awarded on October 26, 2011 and definitized November 19, 2012, the Integrated Baseline Review (IBR) was held in April 2013 and cost variance reporting will begin in June 2013.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the exercise of the FY 2012 and FY2013 option, which is reflected in the Current Contract Price of $161.0M. Estimated Price at Completion has increased to $168.0M due to inclusion of the FY 2013 and FY 2014 option years.

The Navy awarded the Advanced Gun System (AGS) for DDG 1002 to British Aerospace Engineering (BAE) on October 26, 2011 as an Undefinitized Contact Action (UCA). The UCA was definitized November 19, 2012. The definitization was delayed by changes in contract terms and conditions to better control cost and performance and a change in government contracts negotiator personnel. BAE established the Performance Measurement Baseline (PMB) for the DDG 1002 effort, and an Integrated Baseline Review (IBR) for that effort was conducted in April 2013.The contract includes options for FY 2012, FY 2013, and FY 2014 to complete the two Advanced Gun Systems (AGS) for the DDG 1002 and the supporting systems.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	0	0	3	0.00%
Total Program Quantities Delivered	0	0	3	0.00%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	21214.2	Years Appropriated	19
Expenditures To Date	18926.5	Percent Years Appropriated	73.08%
Percent Expended	89.22%	Appropriated to Date	19671.0
Total Funding Years	26	Percent Appropriated	92.73%

The above data is current as of 3/6/2013.

Operating and Support Cost

DDG 1000

Assumptions and Ground Rules

Cost Estimate Reference:

Operating and Support (O&S) cost estimates are based on the Navy 2011 revised Milestone B DDG 1000 Navy Program Life Cycle Cost Estimate (PLCCE). Costs are shown in Base Year (BY) 2005 dollars. The O&S costs are provided in revised cost elements based on the October 2007 O&S Cost Estimating Guide.

Sustainment Strategy:

DDG 1000 maintenance is apportioned to either the ship or a land-based facility. There are two levels of maintenance planned for the DDG 1000 ship class; "on-ship" - accomplished by ship's force and "off-ship" - accomplished through maintenance support contracts in addition to legacy Navy maintenance infrastructure. Maintenance support contracts similar to legacy Multi Ship/Multi Option (MSMO) contracting strategy for repairs and overhauls is planned. The DDG 1000 program provides Integrated Logistics Support (ILS) oversight and guidance to Participating Acquisition Resource Managers (PARMs) that develop various sustainment approaches for combat systems and Communications, Command, Control, Computers, and Intelligence (C4I). The estimate is based on an average unit cost of three ships with an average 35 year service life.

Antecedent Information:

There is no antecedent system for DDG 1000.

Unitized O&S Costs BY2005 $M		
Cost Element	**DDG 1000 Avg. Annual Cost per ship**	**Antecedent System (Antecedent) N/A**
Unit-Level Manpower	10.24	0.00
Unit Operations	8.38	0.00
Maintenance	19.45	0.00
Sustaining Support	1.80	0.00
Continuing System Improvements	11.44	0.00
Indirect Support	3.37	0.00
Other	0.00	0.00
Total	54.68	--

Unitized Cost Comments:

Unitized cost remains as outlined in the approved 2011 SAR.

	Total O&S Cost $M			
	Current Development APB Objective/Threshold		Current Estimate	
	DDG 1000		DDG 1000	Antecedent System (Antecedent)
Base Year	7744.4	8518.8	5740.3	N/A
Then Year	15245.3	N/A	11187.7	N/A

Total O&S Costs Comments:

The current estimate is unchanged from the 2011 SAR. In the 2011 SAR, the O&S Costs decreased from $7,841.14M (BY 2005) to $5,740.3M (BY 2005), excluding the Disposal cost. This decrease is largely due to cost reductions associated with changes in the projected software maintenance cycle. The current estimate is below the Acquisition Program Baseline objective value of $7,744.4M (BY 2005).

Disposal Costs

Disposal costs for DDG 1000 are $36.08M (BY 2005) for the three ships.