



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-180



DDG 51 Arleigh Burke Class Guided Missile Destroyer (DDG 51)

As of FY 2016 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

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

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

Program Information

Program Name

DDG 51 Arleigh Burke Class Guided Missile Destroyer (DDG 51)

DoD Component

Navy

Responsible Office

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Assigned: May 23, 2011

References

SAR Baseline (Production Estimate)

Decision Coordinating Paper #1337 Revision 1, Change 1 of August 22, 1986

Approved APB

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated May 10, 2011

Mission and Description

The DDG 51 Arleigh Burke Class Guided Missile Destroyer (DDG 51) is a multi-mission guided missile destroyer designed to operate offensively and defensively, independently, or as units of Carrier Strike Groups, Expeditionary Strike Groups, and Missile Defense Action Groups in multi-threat environments that include air, surface, and subsurface threats. These ships will respond to Low Intensity Conflict/Coastal and Littoral Offshore Warfare scenarios as well as open ocean conflict providing or augmenting power projection, forward presence requirements, and escort operations at sea. Flight IIA ships have introduced new capabilities, Cooperative Engagement Capability (CEC) and a MK-45 Gun that will provide improved air and anti-missile defense and improved land attack.

The DDG 51 Class ships provide outstanding combat capability and survivability characteristics while considering procurement and lifetime support costs. They feature extraordinary seakeeping and low observability characteristics.

The DDG 51 features the AEGIS Weapon System (AWS), which has quick reaction time, high firepower, and improved Electronic Countermeasures capability in Anti-Air Warfare (AAW). The ships' Anti-Submarine Warfare (ASW) System provides superior long range multi-target detection and engagement capability with two embarked Light Airborne Multi-Purpose System MK-III helicopters (Flight IIA, DDG 79 and follow-on ships). DDG 91 and follow-on ships employ the littoral variant SPY-1D(V). The Advanced Tomahawk Weapon Control System (DDGs 79-95) and the Tactical Tomahawk Weapons Control System (DDG 96 and follow-on ships) allow employment of multiple variants of Tomahawk missiles for strike warfare. The MK-45 gun weapon system provides significant capability for surface warfare, land attack, and air defense. The CEC is being installed on DDG 51 Class Ships to promote Network Centric Warfare capability. The AWS is the heart of an integrated combat system that provides area coverage and command/control focus in all dimensions of Naval Warfighting and Joint Military Operations: AAW; ASW; Anti-Surface Warfare; Command, Control, Communications, Computers & Intelligence; and Strike Warfare. DDG 113 and follow ships will provide Integrated Air and Missile Defense and work with other Ballistic Missile Defense assets.

Structural features are an all steel hull and deckhouse with vital spaces protected and located within the hull. The ship employs a gas turbine propulsion system with Controllable Pitch Propellers similar to the CG 47 class.

The DDG 51 Destroyer is being produced to fulfill a surface combatant requirement to provide air dominance, integrated air and missile defense, maritime dominance and land attack capability.

Executive Summary

The DDG 51 has delivered 62 (DDG 51-112) ships to date. Contracts for 14 ships between FY 2010 – FY 2017 have been awarded.

The Navy has instituted several initiatives to reduce cost associated with FY 2010 and follow DDG 51 Class ships. The Navy has significantly increased the use of competitive contracts in lieu of sole source contracts. Other cost initiatives include the use of refurbished assets from retiring Navy ships and leveraging Government Furnished Equipment (GFE) contracts across multiple ship classes to obtain better prices across the Navy.

On June 3, 2013 the Navy awarded two contracts for the FY 2013 - FY 2017 Multi Year Procurement (MYP), with four ships (and an option for a fifth / exercised on March 17, 2014) awarded to General Dynamics Bath Iron Works and five ships awarded to Huntington Ingalls Industries. On December 27, 2013 the Navy awarded a MYP contract to Lockheed Martin for the procurement of AEGIS Weapon Systems (AWS) for Flight IIA ships from FY 2013 through one of two FY 2016 ships. On December 12, 2014 the Navy awarded Lockheed Martin MYP award for the Vertical Launching System. These MYPs enabled the program to procure 10 ships at significant savings, while providing for a stable industrial base for shipbuilders in Maine and Mississippi, for the AWS procurement in New Jersey, and for GFE vendors across the rest of the country.

The FY 2016 PB submission requests \$3,149.7M Full Funding for two ships in FY 2016, and \$75M Cost to Complete for the FY 2012 ships caused by FY 2013 sequestration. Flight III will be introduced via an Engineering Change Proposal to already awarded MYP ships, beginning with one ship in FY 2016.

The DDG 51 Class Program has achieved the following significant production milestones since the last report:

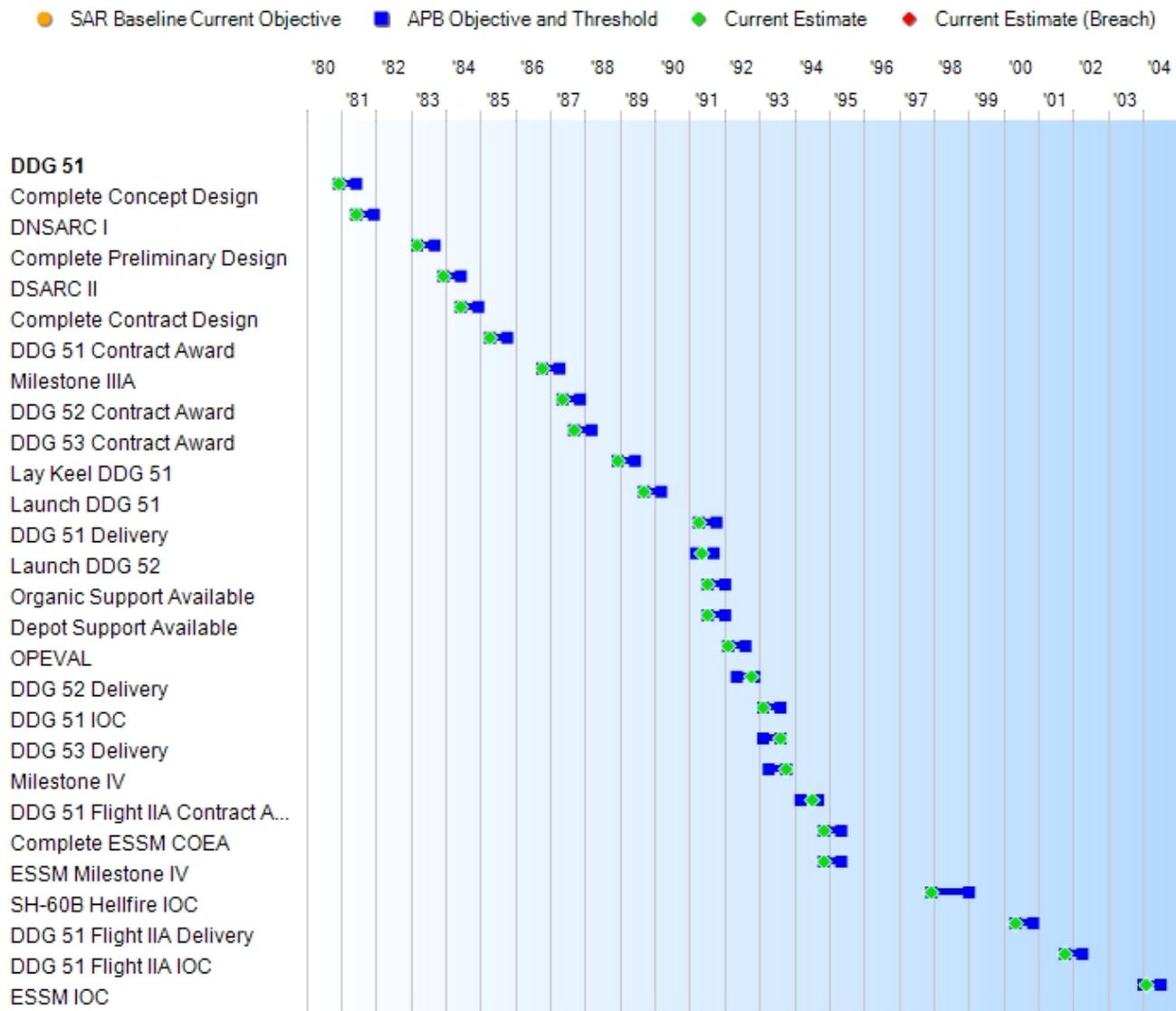
- DDG 114 (RALPH JOHNSON) Lay Keel on September 12, 2014 in Pascagoula, MS.
- DDG 115 (RAFAEL PERALTA) Lay Keel on October 19, 2014 in Bath, ME.
- DDG 117 (PAUL IGNATIUS) Start Fabrication on September 30, 2014 in Pascagoula, MS.

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

Threshold Breaches

APB Breaches		Explanation of Breach
Schedule	<input type="checkbox"/>	RDT&E Cost Breach is due to increased development and integration costs associated with the introduction of new Standard Missile-6 Block (BLK) IA and Naval Integrated Fire Control - Counter Air (NIFC-CA) 2019 warfighting capabilities into AEGIS Advanced Capability Build (ACB) 16, and development and integration of NIFC-CA 2019, Ballistic Missile Defense improved threat set, Surface Electronic Warfare Improvement Program BLK II, and Combat ID warfighting capabilities into AEGIS ACB 20.
Performance	<input type="checkbox"/>	
Cost	<input checked="" type="checkbox"/>	
RDT&E	<input checked="" type="checkbox"/>	
Procurement	<input type="checkbox"/>	
MILCON	<input type="checkbox"/>	O&S Cost Breach due to the increase in ship quantity from last approved APB to current estimate (75 ships vice 82 ships) and corrected service life per unit calculations for FLT IIA and FLT III (increase of 5 years from 35 to 40 for FLT IIA/FLT III ships. Added 2 ships in 2012 SAR, 3 ships in 2013 SAR, and 2 new ships in 2014 SAR.
Acq O&M	<input type="checkbox"/>	
O&S Cost	<input checked="" type="checkbox"/>	
Unit Cost	<input type="checkbox"/>	
PAUC	<input type="checkbox"/>	Updated Program Deviation Report and APB are in process.
APUC	<input type="checkbox"/>	
Nunn-McCurdy Breaches		
Current UCR Baseline		
PAUC	None	
APUC	None	
Original UCR Baseline		
PAUC	None	
APUC	None	

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Complete Concept Design	N/A	Dec 1980	Jun 1981	Dec 1980
DNSARC I	Jun 1981	Jun 1981	Dec 1981	Jun 1981
Complete Preliminary Design	N/A	Mar 1983	Sep 1983	Mar 1983
DSARC II	Dec 1983	Dec 1983	Jun 1984	Dec 1983
Complete Contract Design	N/A	Jun 1984	Dec 1984	Jun 1984
DDG 51 Contract Award	Apr 1985	Apr 1985	Oct 1985	Apr 1985
Milestone IIIA	Oct 1986	Oct 1986	Apr 1987	Oct 1986
DDG 52 Contract Award	Jan 1987	May 1987	Nov 1987	May 1987
DDG 53 Contract Award	N/A	Sep 1987	Mar 1988	Sep 1987
Lay Keel DDG 51	N/A	Dec 1988	Jun 1989	Dec 1988
Launch DDG 51	N/A	Sep 1989	Mar 1990	Sep 1989
DDG 51 Delivery	N/A	Apr 1991	Oct 1991	Apr 1991
Launch DDG 52	N/A	Mar 1991	Sep 1991	May 1991
Organic Support Available	N/A	Jul 1991	Jan 1992	Jul 1991
Depot Support Available	N/A	Jul 1991	Jan 1992	Jul 1991
OPEVAL	N/A	Feb 1992	Aug 1992	Feb 1992
DDG 52 Delivery	N/A	May 1992	Nov 1992	Oct 1992
DDG 51 IOC	Oct 1990	Feb 1993	Aug 1993	Feb 1993
DDG 53 Delivery	N/A	Feb 1993	Aug 1993	Aug 1993
Milestone IV	N/A	Apr 1993	Oct 1993	Oct 1993
DDG 51 Flight IIA Contract Award	N/A	Mar 1994	Sep 1994	Jul 1994
Complete ESSM COEA	N/A	Nov 1994	May 1995	Nov 1994
ESSM Milestone IV	N/A	Nov 1994	May 1995	Nov 1994
SH-60B Hellfire IOC	N/A	Dec 1997	Jan 1999	Dec 1997
DDG 51 Flight IIA Delivery	N/A	May 2000	Nov 2000	May 2000
DDG 51 Flight IIA IOC	N/A	Oct 2001	Apr 2002	Oct 2001
ESSM IOC	N/A	Jan 2004	Jul 2004	Feb 2004

Change Explanations

None

Acronyms and Abbreviations

COEA - Cost and Operational Effectiveness Analysis
DNSARC - Department of the Navy System Acquisition Review Council
DSARC - Defense System Acquisition Review Council
ESSM - Evolved Sea Sparrow Missile
OPEVAL - Operational Evaluation

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
SHIP:				
Length (ft)				
466	N/A	N/A	See Change Explanations	See Change Explanations
Beam (ft)				
59	N/A	N/A	59	59
Navigational Draft (ft)				
30.6	N/A	N/A	31.0	31.0
Displacement (long tons)				
8300	N/A	N/A	9300	9300
Propulsion LM (Gas Turbine)				
2500	N/A	N/A	2500	2500
Accommodations				
341	N/A	N/A	314	314
MOBILITY:				
Speed (knots)				
30	30	30	30	30
Armament				
Anti-Submarine Warfare				
ASW System				
AN/SQQ-89	N/A	N/A	AN/SQQ-89	AN/SQQ-89
ASROC				
VLA	N/A	N/A	VLA	VLA
Helo				
SEAHAWK; LAMPS	2 EMBARKEDHELOS	2 EMBARKEDHELOS	2 Embarked Helos	2 Embarked Helos
Anti-Air Warfare				
Launchers				
MK 41 VLS	N/A	N/A	MK 41 VLS	MK 41 VLS
Missiles				
SM-2 MR	N/A	N/A	SM-2 MR/SM-3/ESSM	SM-2 MR/SM-3/ESSM
Missile Fire Control System				

(Ch-1)

3 MK 99	N/A	N/A	3 MK 99	3 MK 99
Guns				
2 PHALANX	N/A	N/A	2 PHALANX	2 PHALANX
Anti-Surface/Strike Warfare				
Guns				
1 5"/54	N/A	N/A	1 5"/62	1 5"/62
Gunfire Control System				
MK 160	N/A	N/A	MK 160	MK 160
Anti-Ship Cruise Missile				
HARPOON	N/A	N/A	N/A	N/A
Cruise Missile				
TOMAHAWK	N/A	N/A	TOMAHAWK	TOMAHAWK
Electronic Warfare				
SLQ-32 SRBOC	N/A	N/A	SLQ-32, SRBOC, Combat DF	SLQ-32, SRBOC, Combat DF
Radars				
Surface				
SPS-67	N/A	N/A	SPS-67	SPS-67/SPQ-9B
3D				
SPY-1D	N/A	N/A	SPY-1D (V)	SPY-1D (V)/SPY-6
MINE WARFARE:				
Detection Range of Moored/Floating Mine (YDS)				
N/A	1000	800	1400	1400

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

Requirements Reference

Operational Requirements Document (ORD) dated April 15, 1994

Change Explanations

(Ch-1) The 2013 SAR Baseline Production Estimate for ship length was noted as 466 and demonstrated performance and current estimate were noted as 471. The production estimate, demonstrated performance and current estimate for length at waterline for FLT I and FLT II are 466. Demonstrated performance and current estimate for length at waterline for FLT IIA and FLT III is 471. Demonstrated performance and current estimate for length overall FLT IIA is 509. Current estimate for FLT III length overall is 509.

Notes

Demonstrated Performance and Current Estimate are for the FLT IIA configuration except for Radars that have inputs for FLT IIA and FLT III ships. Production Estimates are from the FLT II configuration. Demonstrated Performance characteristics reflect testing through the TEMP 801-OT-IIIH report dated July 20, 2006. SM-3 Block IA Demonstrated

Performance is reflected in FTM-15, approved April 14, 2011.

Acronyms and Abbreviations

ASROC - Anti-Submarine Rocket
ASW - Anti-Submarine Warfare
DF - Direction Finding
ESSM - Evolved Sea Sparrow Missile
FLT - Flight
ft - Feet
FTM - Flight Test Mission
HELO - Helicopter
MK - Mark
MR - Medium Range
SM-2 - Standard Missile 2
SM-3 - Standard Missile 3
SRBOC - Super Rapid Blooming Off-Board Chaff
TEMP - Test & Evaluation Master Plan
VLA - Vertical Launching ASROC (Anti-Submarine Rocket)
VLS - Vertical Launching System
YDS - Yards

Track to Budget

RDT&E

Appn	BA	PE	
Navy	1319	04	0603564N
	Project	Name	
	0409	DDG-51 Flt III Concept Development	
Navy	1319	05	0604303N
	Project	Name	
	1776	AEGIS Weapon System Mods (Sunk)	
Navy	1319	05	0604307N
	Project	Name	
	1447	Surf Combatant Combat System Imp (Shared)	

Procurement

Appn	BA	PE	
Navy	1611	02	0204222N
	Line Item	Name	
	2122	DDG-51	
Navy	1611	05	0204222N
	Line Item	Name	
	5110	Outfitting (Shared)	
	5300	Completion of PY Shipbuilding Programs (Shared)	

MILCON

Appn	BA	PE	
Navy	1205		0204228N
	Project	Name	
	263	AEGIS Computer Center Building Addition (Sunk)	
Navy	1205		0605896N
	Project	Name	
	261	Battle Force Combatant Education Facility (Sunk)	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 1987 \$M			BY 1987 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	979.8	3031.8	3335.0	3361.3 ¹	916.6	3954.6	4621.3
Procurement	15948.3	57095.5	62805.1	60036.4	19173.1	84417.5	93661.7
Flyaway	--	--	--	60036.4	--	--	93661.7
Recurring	--	--	--	58928.6	--	--	92112.5
Non Recurring	--	--	--	1107.8	--	--	1549.2
Support	--	--	--	0.0	--	--	0.0
Other Support	--	--	--	0.0	--	--	0.0
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	25.6	34.8	38.3	37.6	27.8	41.0	44.5
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	16953.7	60162.1	N/A	63435.3	20117.5	88413.1	98327.5

¹ APB Breach

Confidence Level

Confidence Level of cost estimate for current APB: 84%

Eighty One percent (81%) of the ships are complete with a confidence level of 100%. Remaining future ships are budgeted at a 50% confidence level as reflected in Navy cost estimating curves.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		0	0
Procurement		23	75
Total		23	75

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	3372.6	124.5	269.2	198.0	204.3	195.9	176.2	80.6	4621.3
Procurement	72316.5	2931.6	3286.9	3488.4	3577.4	3631.3	3750.9	678.7	93661.7
MILCON	44.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.5
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2016 Total	75733.6	3056.1	3556.1	3686.4	3781.7	3827.2	3927.1	759.3	98327.5
PB 2015 Total	75737.6	3079.6	3533.5	3528.4	3590.8	3573.2	197.7	783.4	94024.2
Delta	-4.0	-23.5	22.6	158.0	190.9	254.0	3729.4	-24.1	4303.3

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	70	2	2	2	2	2	2	0	82
PB 2016 Total	0	70	2	2	2	2	2	2	0	82
PB 2015 Total	0	70	2	2	2	2	2	0	0	80
Delta	0	0	0	0	0	0	0	2	0	2

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1980	--	--	--	--	--	--	10.5
1981	--	--	--	--	--	--	35.3
1982	--	--	--	--	--	--	102.0
1983	--	--	--	--	--	--	150.7
1984	--	--	--	--	--	--	121.1
1985	--	--	--	--	--	--	138.8
1986	--	--	--	--	--	--	93.5
1987	--	--	--	--	--	--	100.4
1988	--	--	--	--	--	--	93.4
1989	--	--	--	--	--	--	52.3
1990	--	--	--	--	--	--	41.2
1991	--	--	--	--	--	--	87.5
1992	--	--	--	--	--	--	87.2
1993	--	--	--	--	--	--	110.6
1994	--	--	--	--	--	--	102.7
1995	--	--	--	--	--	--	89.6
1996	--	--	--	--	--	--	87.3
1997	--	--	--	--	--	--	82.5
1998	--	--	--	--	--	--	78.3
1999	--	--	--	--	--	--	155.4
2000	--	--	--	--	--	--	232.6
2001	--	--	--	--	--	--	143.5
2002	--	--	--	--	--	--	230.7
2003	--	--	--	--	--	--	199.0
2004	--	--	--	--	--	--	135.3
2005	--	--	--	--	--	--	126.0
2006	--	--	--	--	--	--	113.4
2007	--	--	--	--	--	--	69.2
2008	--	--	--	--	--	--	37.4
2009	--	--	--	--	--	--	8.7
2010	--	--	--	--	--	--	16.8
2011	--	--	--	--	--	--	42.5
2012	--	--	--	--	--	--	48.8
2013	--	--	--	--	--	--	62.1
2014	--	--	--	--	--	--	86.3

2015	--	--	--	--	--	--	124.5
2016	--	--	--	--	--	--	269.2
2017	--	--	--	--	--	--	198.0
2018	--	--	--	--	--	--	204.3
2019	--	--	--	--	--	--	195.9
2020	--	--	--	--	--	--	176.2
2021	--	--	--	--	--	--	48.7
2022	--	--	--	--	--	--	31.9
Subtotal	--	--	--	--	--	--	4621.3

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 1987 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1980	--	--	--	--	--	--	14.0
1981	--	--	--	--	--	--	43.1
1982	--	--	--	--	--	--	118.3
1983	--	--	--	--	--	--	167.3
1984	--	--	--	--	--	--	129.8
1985	--	--	--	--	--	--	144.2
1986	--	--	--	--	--	--	94.4
1987	--	--	--	--	--	--	98.5
1988	--	--	--	--	--	--	88.7
1989	--	--	--	--	--	--	47.6
1990	--	--	--	--	--	--	36.1
1991	--	--	--	--	--	--	73.9
1992	--	--	--	--	--	--	71.6
1993	--	--	--	--	--	--	88.7
1994	--	--	--	--	--	--	80.9
1995	--	--	--	--	--	--	69.2
1996	--	--	--	--	--	--	66.3
1997	--	--	--	--	--	--	61.9
1998	--	--	--	--	--	--	58.3
1999	--	--	--	--	--	--	114.3
2000	--	--	--	--	--	--	168.7
2001	--	--	--	--	--	--	102.7
2002	--	--	--	--	--	--	163.4
2003	--	--	--	--	--	--	138.9
2004	--	--	--	--	--	--	91.9
2005	--	--	--	--	--	--	83.4
2006	--	--	--	--	--	--	72.8
2007	--	--	--	--	--	--	43.3
2008	--	--	--	--	--	--	23.0
2009	--	--	--	--	--	--	5.3
2010	--	--	--	--	--	--	10.1
2011	--	--	--	--	--	--	24.8
2012	--	--	--	--	--	--	28.0
2013	--	--	--	--	--	--	35.1
2014	--	--	--	--	--	--	48.3
2015	--	--	--	--	--	--	68.7
2016	--	--	--	--	--	--	145.9
2017	--	--	--	--	--	--	105.4
2018	--	--	--	--	--	--	106.6
2019	--	--	--	--	--	--	100.2

2020	--	--	--	--	--	--	88.4
2021	--	--	--	--	--	--	23.9
2022	--	--	--	--	--	--	15.4
Subtotal	--	--	--	--	--	--	3361.3

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1984	--	78.5	--	--	78.5	--	78.5
1985	1	846.6	--	299.2	1145.8	--	1145.8
1986	--	98.1	--	--	98.1	--	98.1
1987	3	2326.7	--	158.2	2484.9	--	2484.9
1988	--	9.6	--	--	9.6	--	9.6
1989	4	2876.5	--	--	2876.5	--	2876.5
1990	5	3569.5	--	13.5	3583.0	--	3583.0
1991	4	3145.1	--	3.6	3148.7	--	3148.7
1992	5	3982.8	--	38.3	4021.1	--	4021.1
1993	4	3379.3	--	7.9	3387.2	--	3387.2
1994	3	2703.3	--	86.9	2790.2	--	2790.2
1995	3	2779.7	--	37.8	2817.5	--	2817.5
1996	2	2289.5	--	61.7	2351.2	--	2351.2
1997	4	3541.9	--	38.8	3580.7	--	3580.7
1998	4	3424.3	--	110.5	3534.8	--	3534.8
1999	3	2674.1	--	44.2	2718.3	--	2718.3
2000	3	2651.1	--	30.1	2681.2	--	2681.2
2001	3	3231.3	--	--	3231.3	--	3231.3
2002	3	3293.7	--	14.4	3308.1	--	3308.1
2003	2	2657.2	--	63.1	2720.3	--	2720.3
2004	3	3345.3	--	4.7	3350.0	--	3350.0
2005	3	3653.5	--	8.9	3662.4	--	3662.4
2006	--	508.6	--	--	508.6	--	508.6
2007	--	289.3	--	--	289.3	--	289.3
2008	--	94.9	--	--	94.9	--	94.9
2009	--	331.2	--	--	331.2	--	331.2
2010	1	2306.7	--	121.8	2428.5	--	2428.5
2011	2	2584.2	--	11.6	2595.8	--	2595.8
2012	1	1780.8	--	120.2	1901.0	--	1901.0
2013	3	4471.5	--	29.8	4501.3	--	4501.3
2014	1	2086.5	--	--	2086.5	--	2086.5
2015	2	2931.6	--	--	2931.6	--	2931.6
2016	2	3052.9	--	234.0	3286.9	--	3286.9
2017	2	3478.4	--	10.0	3488.4	--	3488.4
2018	2	3577.4	--	--	3577.4	--	3577.4
2019	2	3631.3	--	--	3631.3	--	3631.3
2020	2	3750.9	--	--	3750.9	--	3750.9
2021	--	134.7	--	--	134.7	--	134.7
2022	--	214.6	--	--	214.6	--	214.6
2023	--	64.0	--	--	64.0	--	64.0

2024	--	65.0	--	--	65.0	--	65.0
2025	--	65.9	--	--	65.9	--	65.9
2026	--	66.8	--	--	66.8	--	66.8
2027	--	67.7	--	--	67.7	--	67.7
Subtotal	82	92112.5	--	1549.2	93661.7	--	93661.7

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	BY 1987 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1984	--	78.5	--	--	78.5	--	78.5
1985	1	829.8	--	293.3	1123.1	--	1123.1
1986	--	94.0	--	--	94.0	--	94.0
1987	3	2179.7	--	148.2	2327.9	--	2327.9
1988	--	8.7	--	--	8.7	--	8.7
1989	4	2540.5	--	--	2540.5	--	2540.5
1990	5	3064.1	--	11.6	3075.7	--	3075.7
1991	4	2626.4	--	3.1	2629.5	--	2629.5
1992	5	3242.3	--	31.1	3273.4	--	3273.4
1993	4	2723.5	--	6.3	2729.8	--	2729.8
1994	3	2127.5	--	68.3	2195.8	--	2195.8
1995	3	2163.3	--	29.4	2192.7	--	2192.7
1996	2	1762.8	--	47.5	1810.3	--	1810.3
1997	4	2686.1	--	29.4	2715.5	--	2715.5
1998	4	2539.8	--	81.9	2621.7	--	2621.7
1999	3	1952.3	--	32.3	1984.6	--	1984.6
2000	3	1887.5	--	21.5	1909.0	--	1909.0
2001	3	2224.1	--	--	2224.1	--	2224.1
2002	3	2254.2	--	9.9	2264.1	--	2264.1
2003	2	1719.2	--	40.8	1760.0	--	1760.0
2004	3	2088.6	--	2.9	2091.5	--	2091.5
2005	3	2184.2	--	5.3	2189.5	--	2189.5
2006	--	293.7	--	--	293.7	--	293.7
2007	--	159.7	--	--	159.7	--	159.7
2008	--	50.7	--	--	50.7	--	50.7
2009	--	171.6	--	--	171.6	--	171.6
2010	1	1155.0	--	61.0	1216.0	--	1216.0
2011	2	1253.7	--	5.6	1259.3	--	1259.3
2012	1	845.3	--	57.0	902.3	--	902.3
2013	3	2082.1	--	13.9	2096.0	--	2096.0
2014	1	954.5	--	--	954.5	--	954.5
2015	2	1317.6	--	--	1317.6	--	1317.6
2016	2	1346.6	--	103.2	1449.8	--	1449.8
2017	2	1504.8	--	4.3	1509.1	--	1509.1
2018	2	1517.4	--	--	1517.4	--	1517.4
2019	2	1510.1	--	--	1510.1	--	1510.1
2020	2	1529.2	--	--	1529.2	--	1529.2
2021	--	53.8	--	--	53.8	--	53.8
2022	--	84.1	--	--	84.1	--	84.1
2023	--	24.6	--	--	24.6	--	24.6

2024	--	24.5	--	--	24.5	--	24.5
2025	--	24.3	--	--	24.3	--	24.3
2026	--	24.2	--	--	24.2	--	24.2
2027	--	24.0	--	--	24.0	--	24.0
Subtotal	82	58928.6	--	1107.8	60036.4	--	60036.4

Cost Quantity Information 1611 Procurement Shipbuilding and Conversion, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 1987 \$M
1984	--	--
1985	1	934.7
1986	--	--
1987	3	2344.3
1988	--	--
1989	4	2630.9
1990	5	3159.7
1991	4	2666.6
1992	5	3305.4
1993	4	2672.1
1994	3	2117.9
1995	3	2157.2
1996	2	1560.9
1997	4	2631.7
1998	4	2805.7
1999	3	2159.0
2000	3	2063.4
2001	3	2107.9
2002	3	2335.7
2003	2	1576.3
2004	3	2159.9
2005	3	2210.6
2006	--	--
2007	--	--
2008	--	--
2009	--	--
2010	1	1038.3
2011	2	1557.0
2012	1	859.8
2013	3	2037.6
2014	1	817.6
2015	2	1381.2
2016	2	1514.2
2017	2	1508.6
2018	2	1530.2
2019	2	1516.2
2020	2	1568.0
2021	--	--
2022	--	--

2023	--	--
2024	--	--
2025	--	--
2026	--	--
2027	--	--
<hr/>		
Subtotal	82	58928.6

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	TY \$M
	Total Program
1986	4.6
1987	--
1988	14.7
1989	8.5
1990	--
1991	--
1992	--
1993	--
1994	--
1995	--
1996	--
1997	--
1998	13.2
1999	--
2000	--
2001	3.5
Subtotal	44.5

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	BY 1987 \$M
	Total Program
1986	4.5
1987	--
1988	13.4
1989	7.5
1990	--
1991	--
1992	--
1993	--
1994	--
1995	--
1996	--
1997	--
1998	9.7
1999	--
2000	--
2001	2.5
Subtotal	37.6

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	10/30/1986	10/30/1986
Approved Quantity	9	9
Reference	Milestone IIIA Review Decision Memorandum	Milestone IIIA Review Decision Memorandum
Start Year	1985	1985
End Year	1989	1989

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the Milestone IIIA Review Decision Memorandum dated October 30, 1986, approving 9 LRIP ships which is standard for ship building programs.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Description
Japan	9/25/2014	112	4307.0	Date cited is date of last case sale.
South Korea	6/11/2014	11	1262.0	Date cited is date of last case sale.
Australia	5/22/2014	6	1225.0	Date cited is date of last case sale.
Norway	7/18/2012	10	344.0	Date cited is date of last case sale.
Spain	8/11/2006	7	1285.0	Date cited is date of last case sale.

Notes

Quantity numbers above reflect FMS cases, rather than ships. Cases are agreements between the United States and an eligible foreign country to provide defense articles, training, and/or services for purchase. Cases can be related to procurements (e.g., Ordalt or standard missile), training (e.g., AEGIS shipboard training or replacement crew training), and program management support (e.g., Combat System Ship Qualification Test). Case quantity numbers reflect all cases; open and closed.

Nuclear Costs

None

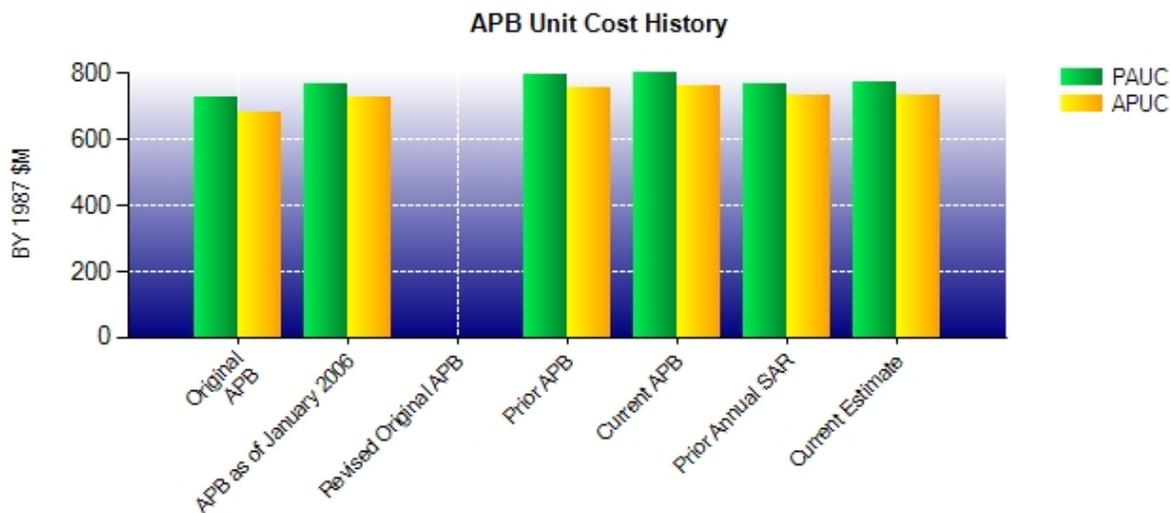
Unit Cost

Unit Cost Report

Item	BY 1987 \$M	BY 1987 \$M	% Change
	Current UCR Baseline (May 2011 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	60162.1	63435.3	
Quantity	75	82	
Item	802.161	773.601	-3.56
Average Procurement Unit Cost			
Cost	57095.5	60036.4	
Quantity	75	82	
Unit Cost	761.273	732.151	-3.83

Item	BY 1987 \$M	BY 1987 \$M	% Change
	Original UCR Baseline (Feb 1988 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	16723.8	63435.3	
Quantity	23	82	
Unit Cost	727.122	773.601	+6.39
Average Procurement Unit Cost			
Cost	15745.3	60036.4	
Quantity	23	82	
Unit Cost	684.578	732.151	+6.95

Unit Cost History



Item	Date	BY 1987 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Feb 1988	727.122	684.578	883.152	843.209
APB as of January 2006	Aug 2002	766.675	725.342	1031.612	981.022
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Mar 2010	796.555	759.297	1131.565	1085.962
Current APB	May 2011	802.161	761.273	1178.841	1125.567
Prior Annual SAR	Dec 2013	770.950	730.971	1175.302	1121.644
Current Estimate	Dec 2014	773.601	732.151	1199.116	1142.216

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
874.674	-40.641	92.734	21.345	88.794	162.210	0.000	0.000	324.442	1199.116

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
833.613	-39.261	122.278	19.578	69.310	136.698	0.000	0.000	308.603	1142.216

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone I	Jun 1981	Jun 1981	Jun 1981	Jun 1981
Milestone II	May 1983	Dec 1983	Dec 1983	Dec 1983
Milestone III	Aug 1986	Aug 1986	N/A	N/A
IOC	N/A	N/A	Oct 1990	Feb 1993
Total Cost (TY \$M)	10953.5	14910.6	20117.5	98327.5
Total Quantity	9	14	23	82
PAUC	1217.056	1065.043	874.674	1199.116

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	916.6	19173.1	27.8	20117.5
Previous Changes				
Economic	-100.4	-3324.6	+0.1	-3424.9
Quantity	--	+56717.7	--	+56717.7
Schedule	+144.9	+1519.6	--	+1664.5
Engineering	+1197.3	+5330.4	+16.7	+6544.4
Estimating	+2089.8	+10315.3	-0.1	+12405.0
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+3331.6	+70558.4	+16.7	+73906.7
Current Changes				
Economic	-12.9	+105.2	--	+92.3
Quantity	--	+2492.3	--	+2492.3
Schedule	--	+85.8	--	+85.8
Engineering	+383.7	+353.0	--	+736.7
Estimating	+2.3	+893.9	--	+896.2
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+373.1	+3930.2	--	+4303.3
Total Changes	+3704.7	+74488.6	+16.7	+78210.0
CE - Cost Variance	4621.3	93661.7	44.5	98327.5
CE - Cost & Funding	4621.3	93661.7	44.5	98327.5

Summary BY 1987 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	979.8	15948.3	25.6	16953.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	+34024.2	--	+34024.2
Schedule	+89.1	+384.1	--	+473.2
Engineering	+683.8	+2884.2	+11.9	+3579.9
Estimating	+1408.0	+5236.9	+0.1	+6645.0
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+2180.9	+42529.4	+12.0	+44722.3
Current Changes				
Economic	--	--	--	--
Quantity	--	+1016.1	--	+1016.1
Schedule	--	+36.9	--	+36.9
Engineering	+199.3	+143.9	--	+343.2
Estimating	+1.3	+361.8	--	+363.1
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+200.6	+1558.7	--	+1759.3
Total Changes	+2381.5	+44088.1	+12.0	+46481.6
CE - Cost Variance	3361.3	60036.4	37.6	63435.3
CE - Cost & Funding	3361.3	60036.4	37.6	63435.3

Previous Estimate: December 2013

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-12.9
Development and Integration of Standard Missile-6 Block (BLK) IA and Naval Integrated Fire Control (NIFC) - Counter Air 2019 into AEGIS Advanced Capability Build (ACB) 16, addition of NIFC-2019, Ballistic Missile Defense improved threat set, Surface Electronic Warfare Improvement Program BLK II, and Combat ID into AEGIS ACB 20. (Engineering)	+199.3	+383.7
Adjustment for current and prior escalation. (Estimating)	+1.3	+2.3
RDT&E Subtotal	+200.6	+373.1

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+105.2
Revised estimates and phasing of Outfitting and Post Delivery requirements. (Schedule)	-4.1	-14.8
Quantity variance resulting from an increase of two ships from 80 to 82. (Subtotal)	+1479.4	+3628.6
Quantity variance resulting from an increase of two ships from 80 to 82. (Quantity)	(+1016.1)	(+2492.3)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+41.0)	(+100.6)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+143.9)	(+353.0)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+278.4)	(+682.7)
Adjustment for current and prior escalation. (Estimating)	-34.0	-72.7
Revised estimate to reflect refinement of FY 2016 - FY 2019 shipbuilding and GFE estimates. (Estimating)	+117.4	+283.9
Procurement Subtotal	+1558.7	+3930.2

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: DDG 113 Guided Missile Destroyer
Contractor: Huntington Ingalls Industries (HII)
Contractor Location: 1000 Access Road
 Pascagoula, MS 39567
Contract Number: N00024-11-C-2309/113
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 15, 2011
Definitization Date: June 15, 2011

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
773.6	852.5	1	785.9	867.2	1	815.9	823.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/21/2014)	-57.5	-12.9
Previous Cumulative Variances	-33.8	-22.1
Net Change	-23.7	+9.2

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased manufacturing hours due to less experienced staff that was hired for the DDG 51 Program restart. DDG 113 fabrication shop tasks have been completed. Improved performance is shown in other manufacturing shops.

The favorable net change in the schedule variance is due to improved performance and plans to deliver DDG 113 before the Contract Delivery Date.

Notes

DDG 113 (FY 2010 ship) was a sole source annual procurement awarded to HII on June 15, 2011.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 114 Guided Missile Destroyer
Contractor: Huntington Ingalls Industries (HII)
Contractor Location: 1000 Access Road
 Pascagoula, MS 39567
Contract Number: N00024-11-C-2307/114
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: September 26, 2011
Definitization Date: September 26, 2011

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
687.6	787.6	1	688.1	788.1	1	686.2	708.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/21/2014)	-27.0	-17.1
Previous Cumulative Variances	-6.2	-12.6
Net Change	-20.8	-4.5

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased manufacturing hours in fabrication shops due to less experienced staff that was hired for the DDG 51 Program restart. DDG 114 fabrication shop performance shows improvement compared to DDG 113. Improved performance is shown in other manufacturing shops.

The unfavorable net change in the schedule variance is due to increased manufacturing hours in fabrication shops due to less experienced staff that was hired for the DDG 51 Program restart. DDG 114 fabrication shop performance shows improvement compared to DDG 113. Improved performance is shown in other manufacturing shops. DDG 114 continues to have a negative schedule variance which is in part due to the aggressive Performance Measurement Baseline established, however, HII plans to deliver DDG 114 before the Contract Delivery Date.

Notes

The DDG 114 (one of two FY 2011 ships) was a competitively bid annual procurement awarded to Ingalls on September 26, 2011.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 115 Guided Missile Destroyer
Contractor: General Dynamics (GD), Bath Iron Works (BIW)
Contractor Location: 700 Washington Street
 Bath, ME 04530
Contract Number: N00024-11-C-2305/115
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: September 26, 2011
Definitization Date: September 26, 2011

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
669.6	749.3	1	675.7	756.2	1	716.5	696.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date (12/28/2014)	-56.3		-15.8
Previous Cumulative Variances	-29.2		-18.8
Net Change	-27.1		+3.0

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased manufacturing hours due to a less experienced staff that was hired in response to the DDG 51 Program restart and the reassignment of experienced staff to the DDG 1000 program.

The favorable net change in the schedule variance is due to increased BIW efficiency and initiatives implemented by BIW. BIW plans to deliver DDG 115 prior to Contract Delivery date.

Notes

The DDG 115 (one of two FY 2011 ships) was a competitively bid annual procurement awarded to BIW on September 26, 2011.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 116 Guided Missile Destroyer
Contractor: General Dynamics (GD), Bath Iron Works (BIW)
Contractor Location: 700 Washington Street
 Bath, ME 04530
Contract Number: N00024-11-C-2305/116
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: February 28, 2012
Definitization Date: September 26, 2011

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
655.0	718.6	1	657.6	721.4	1	681.8	689.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/28/2014)	-32.2	-16.5
Previous Cumulative Variances	-6.8	-29.4
Net Change	-25.4	+12.9

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased manufacturing hours due to a less experienced staff that was hired in response to the DDG 51 Program restart and the reassignment of experienced staff to the DDG 1000 program.

The favorable net change in the schedule variance is due to increased BIW efficiency and initiatives implemented by BIW. BIW plans to deliver DDG 116 prior to Contract Delivery date.

Notes

The DDG 116 (FY 2012 ship) was awarded as an option to BIW on September 26, 2011. Option was exercised on February 28, 2012.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 113/114/115 AWS Production
Contractor: Lockheed Martin (LM)
Contractor Location: 199 Borton Landing Road
 Moorestown, NJ 08057
Contract Number: N00024-09-C-5110
Contract Type: Fixed Price Incentive(Firm Target) (FPIF), Cost Plus Incentive Fee (CPIF), Cost Plus Award Fee (CPAF), Cost Plus Fixed Fee (CPFF), Firm Fixed Price (FFP)
Award Date: September 21, 2009
Definitization Date: October 14, 2010

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
200.7	N/A	3	267.0	N/A	3	262.4	262.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the definitization of the DDG 115 system.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/28/2014)	+1.9	-0.8
Previous Cumulative Variances	+2.1	-0.4
Net Change	-0.2	-0.4

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to minimal increases in material and labor costs.

The unfavorable net change in the schedule variance is due to minimal increases in material and labor costs.

Notes

This contract currently includes funding for 3 systems (FY 2010 - FY 2011). AEGIS Weapon Systems are funded as follows: DDG 113 (FY 2010) and DDG 114/115 (FY 2011).

The contract is a hybrid of fixed price and cost reimbursement line items, including FPIF, CPIF, CPAF, CPFF, and FFP. All of these line items are included in the Contract Target Price, however not all line items have a comparable ceiling price. The Initial Ceiling Price and Current Ceiling Price have been set to N/A to show that there is no set ceiling price for the entire contract.

Definitization of the AWS production contract exceeded the standard 6 month time frame as a result of extensive negotiations designed to capture the most current AWS configuration and to maximize savings through the use of advanced procurement for DDGs 113 and 114/115.

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

Contract Identification

Appropriation: Procurement
Contract Name: DDG 117 Guided Missile Destroyer
Contractor: Huntington Ingalls Industries (HII)
Contractor Location: 1000 Access Road
 Pascagoula, MS 39567
Contract Number: N00024-13-C-2307
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 03, 2013
Definitization Date: June 03, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
626.9	715.3	1	629.6	718.3	1	659.6	669.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date (12/21/2014)	-16.9		+5.0
Previous Cumulative Variances	+2.8		+7.7
Net Change	-19.7		-2.7

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to material budget time-phasing at this early stage of production.

The unfavorable net change in the schedule variance is due to material budget time-phasing at this early stage of production.

Notes

DDG 117 (one of three FY 2013 ships) is part of the FY 2013 - FY 2017 Multi Year Procurement awarded on June 3, 2013.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 118 Guided Missile Destroyer
Contractor: General Dynamics (GD), Bath Iron Works (BIW)
Contractor Location: 700 Washington Street
 Bath, ME 04530
Contract Number: N00024-13-C-2305
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 03, 2013
Definitization Date: June 03, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
650.4	748.3	1	627.3	712.7	1	638.0	649.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/28/2014)	-6.9	-13.9
Previous Cumulative Variances	+0.5	+2.0
Net Change	-7.4	-15.9

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to material budget time-phasing at this early stage of production.

The unfavorable net change in the schedule variance is due to material budget time-phasing at this early stage of production.

Notes

DDG 118 (one of three FY 2013 ships) is part of the FY 2013 - FY 2017 Multi Year Procurement awarded on June 3, 2013.

Contract Identification

Appropriation: Procurement
Contract Name: DDG 119 Guided Missile Destroyer
Contractor: Huntington Ingalls Industries (HII)
Contractor Location: 1000 Access Road
 Pascagoula, MS
Contract Number: N00024-13-C-2307/119
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 03, 2013
Definitization Date: June 03, 2014

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
643.6	706.1	1	647.6	710.5	1	684.2	687.7

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to negotiated changes to the contract.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/21/2014)	-2.4	+14.0
Previous Cumulative Variances	--	--
Net Change	-2.4	+14.0

Cost and Schedule Variance Explanations

The unfavorable cumulative cost variance is due to material budget time-phasing at this early stage of production.

The favorable cumulative schedule variance is due to material budget time-phasing at this early stage of production.

Notes

This is the first time this contract is being reported.

DDG 119 (FY 2014 ship) is part of the FY 2013 - 2017 Multiyear Procurement awarded on June 3, 2013.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	62	62	82	75.61%
Total Program Quantity Delivered	62	62	82	75.61%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	98327.5	Years Appropriated	36
Expended to Date	63425.0	Percent Years Appropriated	75.00%
Percent Expended	64.50%	Appropriated to Date	78789.7
Total Funding Years	48	Percent Appropriated	80.13%

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

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	February 03, 2015
Source of Estimate:	POE
Quantity to Sustain:	82
Unit of Measure:	Ship
Service Life per Unit:	40.00 Years
Fiscal Years in Service:	FY 1992 - FY 2074

The total ship quantity is 82 ships. Estimates are based on a service life of 35 years for the 28 Flight I and Flight II ships and 40 years for the 54 Flight IIA and Flight III ships.

Sustainment Strategy

DDG 51 Hull, Mechanical & Electrical equipment sustainment approach is by use of Multi Ship/Multi Option contracting strategy for repairs and overhauls. The program provides Integrated Logistics Support oversight and guidance to Participating Acquisition Resource Managers that develop various sustainment approaches for combat systems and Communications, Command, Control, Computers, and Intelligence.

Manpower optimization initiatives have been sought to leverage new technology and reduce costs. Reductions have been achieved across all DDG 51 Class Flights. For example, initial Flight IIA Billet Allotment was 333 officers and enlisted personnel. Policies have been implemented and new technologies deployed to reduce billets by 35 to 298, as reflected in the Ship Manpower Document, dated September 2011, for Flight IIA (DDG 103-110).

Antecedent Information

The Antecedent System shown below is the CG 47 Program. The CG 47 Class was used since it is the only other ship class with the AEGIS Weapon System installed. The CG 47 estimates were derived using the Naval Visibility And Management of Operating and Support Costs (VAMOSOC) database. CG 47 estimates are based on 27 ships, 22 with a service life of 35 years and five with service life between 18-21 years. The years of data used for the CG 47 class are FY 2010 - FY 2014.

Cost Element	Annual O&S Costs BY1987 \$M	
	DDG 51 Average Annual Cost Per Ship	CG 47 Program (Antecedent) Average Annual Cost Per Ship
Unit-Level Manpower	9.691	11.111
Unit Operations	3.967	4.514
Maintenance	7.065	11.827
Sustaining Support	0.630	0.776
Continuing System Improvements	1.409	2.105
Indirect Support	8.500	9.835
Other	0.000	0.000
Total	31.262	40.168

Item	Total O&S Cost \$M			
	DDG 51		CG 47 Program (Antecedent)	
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	84945.0	93439.5	98162.7¹	34865.8
Then Year	177651.0	N/A	276287.1	N/A

¹ APB O&S Cost Breach

O&S Cost Breach is due to the increase in ship quantity from last approved APB to current estimate (75 ships vice 82 ships) and corrected service life per unit calculations for Flight (FLT) IIA and FLT III (increase of 5 years from 35 to 40 for FLT IIA/FLT III ships). Change from last APB is a total of 7 ships (2 ships added in 2012 SAR, 3 ships in 2013 SAR, and 2 new ships in 2014 SAR).

Equation to Translate Annual Cost to Total Cost

DDG 51

$(31.262 \times 28 \text{ ships} \times 35 \text{ years}) + (31.262 \times 54 \text{ ships} \times 40 \text{ years}) = 98,162.7$

CG 47

$(40.168 \times 22 \text{ ships} \times 35 \text{ years}) + (40.168 \times 1 \text{ ship} \times 21 \text{ years}) + (40.168 \times 2 \text{ ships} \times 20 \text{ years}) + (40.168 \times 1 \text{ ship} \times 19 \text{ years}) + (40.168 \times 1 \text{ ship} \times 18 \text{ years}) = 34,865.8$

O&S Cost Variance		
Category	BY 1987 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2013 SAR	93259.6	
Programmatic/Planning Factors	2501.0	Addition of two ships
Cost Estimating Methodology	0.0	
Cost Data Update	2402.1	Additional costs from updated data within VAMOSC
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	4903.1	
Current Estimate	98162.7	

Disposal Estimate Details

Date of Estimate: November 30, 2013
Source of Estimate: NAVSEA 05C
Disposal/Demilitarization Total Cost (BY 1987 \$M): Total costs for disposal of all Ship are 368.5

The DDG 51 Class remains in full rate production and continues to be upgraded in new construction. The oldest of the class are approaching mid service life now and many are being upgraded with newer technologies which will inevitably change the cost of inactivation and disposal for the class.