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Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

# **Modernized Selected Acquisition Report (MSAR)**

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

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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**(U) Common DoD Abbreviations**

\$B	Billions of Dollars
\$K	Thousands of Dollars
\$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

**(U) Program Description**

<b>Full Name</b> DDG 51 Arleigh Burke Class Guided Missile Destroyer	<b>Short Name</b> DDG 51
<b>PNO</b> 180	<b>Milestone Decision Authority</b> Component Acquisition Executive
<b>Lead Component</b> Department of the Navy	<b>Program Executive Office</b> PEO Ships
<b>Joint Program</b> No	<b>International Partners</b> Australia, Canada, Japan, Korea (Seoul), Norway, Spain
<b>Adaptive Acquisition Pathway</b> Major Capability Acquisition	<b>Acquisition Type</b> Major Defense Acquisition Program
<b>Acquisition Category</b> IC	<b>Acquired Systems</b> DDG-51
<b>Acquisition Status</b> Active Acquisition	

**Mission**

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 Surface 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. The DDG 51 Class comprises four separate variants or "Flights." DDGs 51–71 represent the original design and are designated as Flight I ships, whereas DDGs 72–78 are designated as Flight II ships and included capability upgrades such as the Joint Tactical Information Distribution System (JTIDS) Command and Control Processor, Combat Direction Finding, the Tactical Information Exchange System (TADIX B), SLQ-32(V)3, and the capability to launch and control the SM-2 Block IV Extended Range Missile. Beginning with DDG 79, Flight IIA ships introduced new capabilities including Cooperative Engagement Capability (CEC), dual hangars for two embarked Light Airborne Multi-Purpose System (LAMPS) MKIII MH-60R helicopters, and a MK-45 Gun providing improved air and anti-missile defense and land attack. Flight III upgrades will be incorporated on DDG 125, 126, 128 and follow ships. Flight III is centered on the Air and Missile Defense Radar (AMDR) AN/SPY-6(V)1 that enables Flight III ships to simultaneously perform Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD), which satisfies the Navy's critical need for an enhanced surface combatant Integrated Air and Missile Defense (IAMD) capability. 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 LAMPS MK-III helicopters (DDG 79 and follow-on ships). 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 provide IAMD and work with other BMD assets. The AWS for Flight III comprises the AN/SPY-6(V)1 radar system, Command and Decision System MK 2, Weapons Control System MK 7, Missile Fire Control System MK 99, Operational Readiness and Test System MK 9, AEGIS Display System MK 2, AEGIS Computer Programs, Advanced Training Domain, and Logistic Support System.

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## (U) Executive Summary

### Program Highlights Since Last Report

The DDG 51 Program has delivered 73 ships since program inception in 1985. The program is currently in serial production with 11 ships under construction and a total of 26 under contract at two current DDG 51 class shipbuilders, Huntington Ingalls Industries - Ingalls Shipbuilding (HII Ingalls) and General Dynamics - Bath Iron Works (GD BIW), as of this report date. The program is currently executing multi-year procurement (MYP) contracts (FY 2013 – FY 2017, FY 2018 – FY 2022, and FY 2023 – FY 2027) across both shipbuilders.

Both GD BIW and HII Ingalls continue to deliver ships under challenging circumstances. Ingalls continues to deliver ships at pace while BIW remains challenged to deliver ships at the required rate. There is opportunity for the yards to accelerate throughput given adequate resourcing, workforce development, and profile stability. The Navy continues to work with both shipbuilders to implement capital investments, workforce proficiency, and design-for-productibility initiatives to improve cost and schedule performance.

The Navy is currently procuring Flight III ships which will provide enhanced surface combatant Integrated Air Missile Defense (IAMD) capability. The Flight III upgrade consists of the integration of Aegis Weapons System Baseline 10 with the AN/SPY-6(V)1 Air and Missile Defense Radar (AMDR) along with upgrades to the electrical power and cooling systems plus additional associated changes. The first DDG 51 Flight III ship (DDG 125) was delivered 27 June 2023. Initial Operational Capability (IOC) will include Air and Missile Defense Commander (AMDC) capability with core Ballistic Missile Defense (BMD) capability (long-range search and track and sea based terminal). This aligns with Fleet priorities for the more capable Flight III to replace Cruisers (CG) in the AMDC role. Follow-on testing will validate the Integrated Air and Missile Defense (IAMD) capabilities through the Initial Operational Test and Evaluation (IOT&E) campaign.

The Navy continues to manage costs associated with DDG 51 Class ships with the use of competitive contracts in lieu of sole source contracts. Other cost savings initiatives include the use of competitive Multi-Year Procurement (MYP) contracts with Economic Order Quantity savings and leveraging Government Furnished Equipment (GFE) contracts across multiple ship classes to obtain better prices across the Navy.

The Navy awarded an MYP contract for FY 2023-FY 2027 to BIW and Ingalls on 1 August 2023. BIW was awarded three ships and Ingalls was awarded six ships for a total of nine firm ships. On 11 August 2023, the Navy awarded a third FY 2023 ship to Ingalls as a pre-priced option in accordance with the FY 2023 Omnibus Appropriations Act, bringing the total number of FY 2023-FY 2027 Flight III ships on contract to 10. Use of MYP contracts provides for continued, timely procurement of battle force ships by leveraging current production lines to enable stable production of IAMD-capable surface combatants.

The PB 2025 budget requests full funding (\$4,725.819 million) for two ships in FY 2025 and includes a procurement profile of two ships per year in FY 2025-FY 2029.

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

DDG 120 Commissioned June 2023

DDG 120 Final Contract Trials Completed December 2023

DDG 122 Builders Trials Completed April 2024

DDG 123 Commissioned May 2023



DDG 123 Final Contract Trials Completed September 2023  
 DDG 124 Launch Completed October 2023  
 DDG 124 AEGIS Light Off Completed January 2024  
 DDG 125 Builder's Trials Completed April 2023  
 DDG 125 Acceptance Trials Completed May 2023  
 DDG 125 Delivered June 2023  
 DDG 125 Commissioned October 2023  
 DDG 126 Lay Keel July 2023  
 DDG 128 Launch Completed August 2023  
 DDG 128 Christened August 2023  
 DDG 131 Lay Keel November 2023  
 DDG 134 Start of Fabrication November 2023  
 DDG 135 Start of Fabrication November 2023  
 DDG 141 Named ERNEST E EVANS November 2023  
 DDG 142 Named CHARLES J FRENCH January 2024  
 There are no significant software-related issues with this program at this time.

#### (U) History of Significant Developments Since Program Inception

Date	Description
August 2023	FY 2023 Option Ship awarded to HII.
August 2023	FY 2023 - FY 2027 MYP contracts awarded to BIW and HII.
June 2023	First Flight III (DDG 125) delivered to Navy.
April 2022	Acquisition Strategy update reflecting FY 2023 - FY 2027 MYP signed.
June 2020	FY 2020 Option Ship awarded to HII.
December 2018	FY 2019 Option Ship awarded to BIW.
September 2018	FY 2018 - FY 2022 MYP contracts awarded to BIW and HII.
May 2018	First Flight III (DDG 125) started fabrication.
February 2018	Acquisition Strategy update reflecting FY 2018 - FY 2022 MYP signed.
January 2018	USD (AT&L) redesignated the DDG 51 Ship Acquisition Program as an ACAT IC program.
September 2017	Acquisition Strategy Third Addendum for procurement of one FY 2016 Flight IIA Ship approved by USD (AT&L).
September 2017	BIW awarded Flight III ECP ship for DDG 126 (FY 2017 ship) and a construction contract for the congressionally-added third FY 2016 ship, DDG 127, as a Flight IIA.
August 2017	Acquisition Program Baseline update to reflect Flight III ships approved by USD (AT&L).
June 2017	USD (AT&L) approves production of DDG 51 Flight III design and authorizes award of contracts for the first DDG 51 Flight III ships.
June 2017	HII awarded Flight III Engineering Change Proposal (ECP) for DDG 125 (FY 2017 ship).
February 2017	First restart ship at BIW, DDG 115, delivered to Navy.
December 2016	First restart ship at HII, DDG 113, delivered to Navy.
November 2016	DDG 51 Flight III Critical Design Review completed.
October 2014	DDG 51 Flight III Capabilities Development Document validated by the JROC.
May 2014	DDG 51 Class Acquisition Strategy Addendum for Air and Missile Defense Radar Incorporation (Flight III) approved.

Date	Description
June 2013	FY 2013 - FY 2017 MYP contracts awarded to BIW and HII.
July 2012	USD (AT&L) established as Milestone Decision Authority for DDG 51 as an ACAT ID program.
June 2012	DDG 51 Program Acquisition Strategy updated to reflect FY 2013 - FY 2017 MYP approved by USD (AT&L) to include introduction of Flight III in FY 2016 and FY 2017.
September 2011	DDG 51 Program Acquisition Strategy, Revision 2 with Addendum to reflect one ship in FY 2012, was approved by the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)).
September 2011	FY 2011 ships awarded to BIW and HII (one each). DDG 115 is first restart ship at BIW.
June 2011	First FY 2010 restart ship, DDG 113, awarded to Huntington Ingalls Industries (HII - formerly Ingalls Shipbuilding).
June 2009	DDG 51 Class Acquisition Strategy, Revision 2, approved by ASN (RD&A) reflecting continuing production of the DDG 51 Program and procurement of three additional ships (one in FY 2010 and two in FY 2011).
January 2009	USD (AT&L) Memorandum directed re-start of DDG 51 production through FY 2011, with an increase from 62 to 65 ships.
August 2005	DDG Flight IIA ORD, Revision 1 Serial No. 336(1)-86-94, Amended by Vice Chief of Naval Operations (VCNO) ltr Ser No. N09/484.
July 2005	Navy announced decision to truncate the DDG 1000 Program at three ships and to continue production of the DDG 51 Class Program based on the changed threat assessment.
September 2002	FY 2002 - FY 2005 MYP contracts awarded to BIW and Ingalls Shipbuilding.
April 2001	DDG 51 FY 2002 - FY 2004 MYP Acquisition Plan approved.
March 1998	FY 1998 - FY 2001 Multi-Year Procurement (MYP) contracts awarded to BIW and Ingalls Shipbuilding.
July 1995	USD (A&T) re-designated the DDG 51 Ship Acquisition Program as an ACAT IC program.
July 1994	Flight IIA design awarded to BIW as lead yard for DDG 79.
April 1994	DDG Flight IIA ORD, Revision 1, Serial No. 336(1)-86-94.
February 1994	DDG 51 Class Acquisition Strategy, Revision 1, was approved by Under Secretary of Defense for Acquisition and Technology (USD (A&T)) as part of the part of the Defense Acquisition Board's (DAB) Milestone IV Program Review prior to implementing Flight IIA.
February 1993	Initial Operating Capability achieved.
January 1993	Continued production of the DDG 51 Class ships and AN/SPY-1D radar system through FY 1993 approved by ASN (RD&A) Program Decision Memorandum.
October 1992	Upgrade for Flight II was introduced into DDG 72 in FY 1992 and was awarded to BIW as the lead yard.
October 1992	DDG 52 delivered to Navy.
July 1992	The Deputy Under Secretary of Defense (Acquisition) Memorandum established the DDG 51 Class Flight IIA variant as an ACAT ID program.
April 1992	Continued production of the DDG 51 Class ships through FY 1992 approved by ASN (RD&A) Program Decision Memorandum.
April 1991	Lead ship (DDG 51) delivered to Navy.
January 1991	Continued production of the DDG 51 Class ships through FY 1991 approved by the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN (RD&A)) Program Decision Memorandum.
August 1990	SECDEF Major Warship Review (MWR) decision approved procurement of four DDG 51

Date	Description
	Class ships per year starting in FY 1991.
August 1989	ALP extended for DDG 51 Class ships and systems for which funds were appropriated through FY 1990, and long lead material for FY 1991 ships and systems by ASN (S&L) Program Decision Memorandum.
February 1988	DDG 51 Class APB approved.
May 1987	Follow ship (DDG 52) awarded to Ingalls Shipbuilding, Incorporated.
October 1986	Ships Characteristics Improvement Board (SCIB) approved the first upgrade to the DDG 51 Class ship configuration, designated Flight II, and implemented in the last ship in FY 1992.
October 1986	Approval of Milestone IIIA and Approval for Limited Production (ALP) for FY 1987 through FY 1989 (for three FY 1987 ships, three FY 1988, three 1989, and advance procurement of long lead material for three FY 1990 ships) granted by Assistant Secretary of the Navy for Shipbuilding and Logistics (ASN (S&L)) Program Decision Memorandum.
April 1985	Lead ship (DDG 51) contract awarded to Bath Iron Works Corporation (BIW).
December 1984	SECDEF approved DDG 51 Acquisition Strategy for Flight I as part of the Program's Milestone II decision.
December 1983	SECDEF Decision Memorandum authorized Program to proceed (Milestone II).
May 1983	Contract Design initiated to support competitive selection of the lead shipbuilder in early FY 1985.
December 1982	Preliminary Design completed.
November 1982	Secretary of the Navy (SECNAV) named DDG 51 ARLEIGH BURKE.
May 1982	DDG 51 Project Office was transferred from the Surface Ship Warfare Directorate (SEA 93X) into the AEGIS Shipbuilding Project Office as the Destroyer Division (PMS 400D).
December 1981	DDGX re-designated DDG 51.
September 1981	Requirement for a DSARC at Milestone I waived by the Secretary of Defense (SECDEF).
June 1981	Department of the Navy Systems Acquisition Review Council (DNSARC) reviewed the DDGX Program.
February 1980	Surface Force Level-CNO Executive Board (CEB) promulgated.
February 1980	Surface Combatant CEB Decision Memorandum (Milestone 0).
October 1979	DDGX Project Office (93X) established in Naval Sea Systems Command (NAVSEA).
May 1978	The Chief of Naval Operations (CNO) initiated DDGX Study Group to establish the requirements for the next generation of surface combatants.

**(U) Schedule****(U) Schedule Events**

Events		Administrative APB (Current) 10/31/2017 Objective / Threshold		Current Estimate 12/31/2023	Actual
Complete Concept Design	Other	Dec 1980	Jun 1981	Dec 1980	-
DNSARC I	MS I	Jun 1981	Dec 1981	Jun 1981	-
Complete Preliminary Design	PDR	Mar 1983	Sept 1983	Mar 1983	-
DSARC II	MS II	Dec 1983	Jun 1984	Dec 1983	-
Complete Contract Design	Other	Jun 1984	Dec 1984	Jun 1984	-
DDG 51 Contract Award	Other	Apr 1985	Oct 1985	Apr 1985	-
Milestone IIIA	LRIP Decision	Oct 1986	Apr 1987	Oct 1986	-
DDG 52 Contract Award (1)	Other	May 1987	Nov 1987	May 1987	-
DDG 53 Contract Award (1)	Other	Sept 1987	Mar 1988	Sept 1987	-
Lay Keel DDG 51 (1)	Other	Dec 1988	Jun 1989	Dec 1988	-
Launch DDG 51 (1)	Other	Sept 1989	Mar 1990	Sept 1989	-
DDG 51 Delivery (1)	First Asset Delivery	Apr 1991	Oct 1991	Apr 1991	-
Launch DDG 52 (1)	Other	Mar 1991	Sept 1991	May 1991	-
Organic Support Available	OSC	Jul 1991	Jan 1992	Jul 1991	-
Depot Support Available	Other	Jul 1991	Jan 1992	Jul 1991	-
OPEVAL (1)	IOT&E	Feb 1992	Aug 1992	Feb 1992	-
DDG 52 Delivery (1)	Other	May 1992	Nov 1992	Oct 1992	-
DDG 51 IOC (1)	IOC	Feb 1993	Aug 1993	Feb 1993	-
DDG 53 Delivery (1)	Other	Feb 1993	Aug 1993	Aug 1993	-
Milestone IV	Other	Apr 1993	Oct 1993	Oct 1993	-
DDG 51 Flight IIA Contract Award	Other	Mar 1994	Sept 1994	Jul 1994	-
Complete ESSM COEA	Other	Nov 1994	May 1995	Nov 1994	-
ESSM Milestone IV	Other	Nov 1994	May 1995	Nov 1994	-
SH-60B Hellfire IOC (1)	IOC	Dec 1997	Jan 1999	Dec 1997	-
DDG 51 Flight IIA Delivery	Other	May 2000	Nov 2000	May 2000	-
DDG 51 Flight IIA IOC	IOC	Oct 2001	Apr 2002	Oct 2001	-
ESSM IOC (2)	IOC	Jan 2004	Jul 2004	Feb 2004	-
DDG 51 Flight III Detail Design Contract Award	Other	Feb 2015	Feb 2015	Feb 2015	-
DDG 51 Flight III Preliminary Design Review	Other	Sept 2015	Sept 2015	Sept 2015	-
DDG 51 Flight III Critical Design Review	Other	Nov 2016	Nov 2016	Nov 2016	-
DDG 51 Flight III Engineering Change	Other	Jun 2017	Dec 2017	Jun 2017	-

Proposal Contract Award					
DDG 51 Flight III Delivery	Other	Apr 2023	Oct 2023	Jun 2023	-
DDG 51 Flight III IOC	IOC	Feb 2024	Aug 2024	Aug 2024	-

## Notes

### Schedule Notes

Planned Delivery Dates / Obligation Work Limiting Date for DDG 51 Ships

DDG 122 November 2023 / February 2025

DDG 124 September 2024 / December 2025

DDG 127 August 2025 / November 2026

DDG 125 June 2023 / February 2025

DDG 126 July 2026 / October 2027

DDG 128 March 2025 / June 2026

DDG 129 January 2026 / April 2027

DDG 130 April 2027 / July 2028

DDG 131 October 2026 / January 2028

DDG 132 February 2028 / June 2029

DDG 133 June 2027 / August 2028

DDG 134 November 2028 / February 2030

DDG 135 February 2028 / May 2029

DDG 136 August 2029 / October 2030

DDG 137 October 2028 / December 2029

DDG 138 May 2030 / August 2031

DDG 139 June 2029 / September 2030

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

### Schedule Baseline Deviation Explanation

None

### (U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

None

**(U) Performance**

Additional information for this section is provided in the classified annex to this submission.

**(U) Performance Attributes**

<b>Sustainment (Flight III Operational Availability)</b>			<b>KPP</b>
Current Estimate 12/31/2023		at least 72 percent	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	at least 87 percent	
	Threshold	at least 72 percent	
<b>Schedule (IOC first Flight III ship)</b>			<b>APA</b>
Current Estimate 12/31/2023		4th Quarter FY 2024	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	2nd Quarter FY 2024	
	Threshold	4th Quarter FY 2024	
<b>Power SLA (Flight III MW remaining)</b>			<b>KPP</b>
Current Estimate 12/31/2023		at least 1.125	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	at least 1.435	
	Threshold	at least 1.125	
<b>MOBILITY:</b>			
<b>Speed (Knots) (4)</b>			<b>APA</b>
Current Estimate 12/31/2023		30	
Demonstrated Performance -		30	
Administrative APB (Current) 10/31/2017	Objective	30	
	Threshold	30	
<b>Vertical Launching System (Flight III cells)</b>			<b>KSA</b>
Current Estimate 12/31/2023		96	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	96	
	Threshold	(T=0) 96	

<b>Sustainment (Flight III Material Availability)</b>			<b>KPP</b>
Current Estimate 12/31/2023		at least 52 percent	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	at least 63 percent	
	Threshold	at least 52 percent	
<b>Space (Flight III - Square feet of Unassigned Arrangeable Area)</b>			<b>KPP</b>
Current Estimate 12/31/2023		0	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	400	
	Threshold	0	
<b>Manpower (Flight III)</b>			<b>KSA</b>
Current Estimate 12/31/2023		No greater than 318 (with accommodations for 359)	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	No greater than 297 (with accommodations for 380)	
	Threshold	No greater than 318 (with accommodations for 359)	
<b>Armament</b>			
<b>Anti-Submarine Warfare</b>			
<b>Helo</b>			<b>APA</b>
Current Estimate 12/31/2023		2 Embarked Helos	
Demonstrated Performance -		2 Embarked Helos	
Administrative APB (Current) 10/31/2017	Objective	2 EMBARKEDHELOS	
	Threshold	2 EMBARKEDHELOS	
<b>Weight SLA (Flight III Full Load Displacement in Long Tons )</b>			<b>KPP</b>
Current Estimate 12/31/2023		at least 5 percent	
Demonstrated Performance -		TBD	
Administrative APB (Current) 10/31/2017	Objective	at least 10 percent	
	Threshold	at least 5 percent	
<b>Warfare Commander (Flight III)</b>			<b>KSA</b>
Current Estimate 12/31/2023		2 consoles, 1 PCChat (Dual use space)	
Demonstrated Performance		TBD	

-		
Administrative APB (Current) 10/31/2017	Objective	12 watch standers (9 officer/3 enlisted), 4 consoles, 1 PC Chat, Single Office/Planning Space
	Threshold	2 consoles, 1 PC Chat (Dual Use Space)
Cooling SLA (Flight III Rtons remaining)		KPP
Current Estimate 12/31/2023		110
Demonstrated Performance -		TBD
Administrative APB (Current) 10/31/2017	Objective	110
	Threshold	(T=0) 110
Annual Energy (Flight III Fuel Consumption) BBL per ship, per year		KPP
Current Estimate 12/31/2023		115,000
Demonstrated Performance -		TBD
Administrative APB (Current) 10/31/2017	Objective	90,000
	Threshold	115,000
Cost (Flight III BY14\$B)		APA
Current Estimate 12/31/2023		\$1.8
Demonstrated Performance -		TBD
Administrative APB (Current) 10/31/2017	Objective	\$1.9
	Threshold	\$2.1
Endurance (Flight III - Nm)		KSA
Current Estimate 12/31/2023		4,000
Demonstrated Performance -		TBD
Administrative APB (Current) 10/31/2017	Objective	5,000
	Threshold	4,000
Energy (Flight III Fuel Consumption BBL/168 hours)		KPP
Current Estimate 12/31/2023		8,500
Demonstrated Performance -		TBD
Administrative APB (Current) 10/31/2017	Objective	5,500
	Threshold	8,500



**(U) Requirement Source:**

Sponsor(s): None

**1. Document Type Not Provided**

Notes: ORD dated April 15, 1994 and the DDG 51 Flight III CDD, October 28, 2014

**Notes**

Operational Requirements Document (ORD) dated April 15, 1994, and the DDG 51 Flight III Capability

Development Document (CDD), October 28, 2014

Acronyms and Abbreviations

ASROC - Anti-Submarine Rocket

ASW - Anti-Submarine Warfare

BBL - Barrels

BY - Base Year

DF - Direction Finding

ESSM - Evolved Sea Sparrow Missile

FLT - Flight

ft - Feet

FTM - Flight Test Mission

HELO - Helicopter

MK - Mark

MR - Medium Range

NM - Nautical Miles

Rtons - Refrigeration Tons

SLA - Service Life Allowance

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

**Performance Deviation Explanation**

None

**(U) Acquisition Budget Estimate****(U) Total Acquisition Estimates and Quantities**

Category (\$M) Base Year: 1987	Administrative APB (Current) 10/31/2017 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
	RDT&E	3,504.1	3,854.5	4,567.7*
Procurement	64,949.2	71,444.1	82,394.9*	163,820.1
MILCON	37.6	41.4	37.7	44.5
O&M	0.0	0.0	0.0	0.0
R&MF	-	-	-	-
Total Acquisition	68,490.9	-	87,000.3	171,392.4
Program Acquisition Unit Cost	769.561	846.517	798.168	1,572.407
Average Procurement Unit Cost	729.766	802.743	755.917	1,502.937
Program End-Item Quantity				
Development	0		-	
Procurement	89		109	
O&M-Acquired	-		0	

\* **Baseline Deviation**

**Budget Notes**

The December 2023 SAR is aligned with the PB 2025 budget submission, which includes funding only through FY 2032.

**Quantity Notes**

None

**Cost Baseline Deviation Explanation**

Parameter	Explanation
Acquisition Cost (RDT&E)	The Procurement and RDT&E deviations are driven by the increase to the ship procurement profile from 89 to 109 (PB25) and associated capabilities upgrades for the AEGIS Weapon System. A Program Deviation Report was sent to ASN(RD&A) on September 01, 2021.
Acquisition Cost (Procurement)	The Procurement and RDT&E deviations are driven by the increase to the ship procurement profile from 89 to 109 (PB25) and associated capabilities upgrades for the AEGIS Weapon System. A Program Deviation Report was sent to ASN(RD&A) on September 01, 2021.

**(U) Risk and Sensitivity Analysis**

Current Procurement Estimate Risks (12/31/2023)
None
Current Baseline Risks (10/31/2017)
In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is For Official Use Only.
Original Baseline Risks (2/17/1988)
In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is For Official Use Only.

**(U) Unit Costs****(U) Current Estimate Compared with Current Baseline**

Category (CY\$M) Base Year: 1987	Current Baseline 10/31/2017	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	68,490.9	87,000.3	
Program Quantity	89	109	
PAUC	769.561	798.168	3.72%
Average Procurement Unit Cost			
Procurement Cost	64,949.2	82,394.9	
Procurement Quantity	89	109	
APUC	729.766	755.917	3.58%

**(U) Current Estimate Compared with Original Baseline**

Category (CY\$M) Base Year: 1987	Original Baseline 02/17/1988	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	16,723.8	87,000.3	
Program Quantity	23	109	
PAUC	727.122	798.168	9.77%
Average Procurement Unit Cost			
Procurement Cost	15,745.3	82,394.9	
Procurement Quantity	23	109	
APUC	684.578	755.917	10.42%

**Notes**

None

**(U) Life-Cycle Costs****(U) Operating and Support and Disposal Cost Estimates Compared with Baseline**

Category (\$M) Base Year: 1987	Administrative APB (Current) 10/31/2017 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
	Total O&S	113,493.3	124,842.6	152,149.1*
Total Disposal	-	-	289.0	1,228.0

\* Baseline Deviation

**(U) Current Cost Estimate Sources****Operating and Support Cost**

Type: Program Office Estimate

Approved by: NAVSEA 05C, March 20, 2024

Note: 35 year service life assumed for DDG51 Flight (Flt) I and Flt II

40 year service life extensions included for DDGs 51/57/61/65/69

40 year service life assumed for DDG51 Flt IIA and Flt III

DDG 51 FLT I and II have a 35 year Estimated Service Life (ESL); DDG FLT IIA and beyond have a 40 year ESL. Adjustments to individual ship ESLs will be evaluated based on combat capability and ship material condition.

Estimates are based on a service life of 35 years for 16 Flight I ships and seven Flight II ships, and 40 years service life for five Flight I ships, 47 Flight IIA ships, and 34 Flight III ships.

**Disposal/Demilitarization Cost**

Type: Program Office Estimate

Approved by: D, CAPE, March 20, 2023

**Operating and Support Baseline Deviation Explanation**

The O&S deviation is driven by the increase to the ship procurement profile from 89 to 109 (PB25), service life extensions for five Flight I ships, and associated capabilities upgrades for the AEGIS Weapon System. A Program Deviation Report was sent to ASN(RD&A) on September 01, 2021.

**Cost Notes**

None

**(U) Operating and Support Variance with Prior Estimate**

(CY\$M) Base Year: 1987	Estimate	
Prior Estimate (3/3/2023)	160,933.4	
Current Estimate	152,149.1	

(CY\$M) Base Year: 1987	Estimate	
Category	Variance	Explanation
Unit-Level Manpower	9,364.8	Variances in cost categories 1.0 through 5.0 from PB24 to PB25 are due to: - Differences in VAMOSC data for PB24 vs PB25 - Flight III costs estimated using Flight IIA VAMOSC data for PB25 vice CRB Baseline from PB22 - Service life extensions from 35 to 40 years for five Flight I ships - Increase in total quantity of ships from 104 to 109
Unit Operations	3,406.5	Variances in cost categories 1.0 through 5.0 from PB24 to PB25 are due to: - Differences in VAMOSC data for PB24 vs PB25 - Flight III costs estimated using Flight IIA VAMOSC data for PB25 vice CRB Baseline from PB22 - Service life extensions from 35 to 40 years for five Flight I ships - Increase in total quantity of ships from 104 to 109
Maintenance	3,200.5	Variances in cost categories 1.0 through 5.0 from PB24 to PB25 are due to: - Differences in VAMOSC data for PB24 vs PB25 - Flight III costs estimated using Flight IIA VAMOSC data for PB25 vice CRB Baseline from PB22 - Service life extensions from 35 to 40 years for five Flight I ships - Increase in total quantity of ships from 104 to 109
Sustaining Support	52.9	Variances in cost categories 1.0 through 5.0 from PB24 to PB25 are due to: - Differences in VAMOSC data for PB24 vs PB25 - Flight III costs estimated using Flight IIA VAMOSC data for PB25 vice CRB Baseline from PB22 - Service life extensions from 35 to 40 years for five Flight I ships - Increase in total quantity of ships from 104 to 109
Continuing System Improvements	1,418.4	Variances in cost categories 1.0 through 5.0 from PB24 to PB25 are due to: - Differences in VAMOSC data for PB24 vs PB25 - Flight III costs estimated using Flight IIA VAMOSC data for PB25 vice CRB Baseline from PB22 - Service life extensions from 35 to 40 years for five Flight I ships - Increase in total quantity of ships from 104 to 109
Other	-26,227.4	Cost category 6.0 Indirect Costs no longer reported after PB24.
Not Categorized	0.0	

**(U) Operating and Support Cost Element Structure Estimates by Acquired System**

(CY\$M) Base Year: 1987

System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
DDG-51	59,074.9	25,955.4	37,285.3	6,096.7	23,736.8	-	152,149.1
Program	59,074.9	25,955.4	37,285.3	6,096.7	23,736.8	-	152,149.1

### (U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY\$M) Base Year: 1987							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
DDG-51	13.9	6.1	8.8	1.4	5.6	-	35.8
CG-47 (Antecedent)	12.3	5.7	9.3	1.4	4.7	-	33.4

### (U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
DDG-51	109	38.9	Ship	1992 - 2079
CG-47 (Antecedent)	27	34.2	Ship	1984 - 2020

### Additional O&S Estimate Assumptions

DDG 51 FLTI and FLTII have a 35 year Estimated Service Life (ESL); DDG 51 FLTIIA and beyond have a 40 year ESL.

Adjustments to individual ship ESLs will be evaluated based on combat capability and ship material condition. Unit Expected Service Life and Annual Unitized O&S Cost estimates are based on a service life of 35 years for 16 FLTI ships and seven FLTII ships, and 40 year service life for five FLT I ships, 47 FLTIIA ships and 34 FLTIII ships.

Weighted Average Unit Expected Service Life for DDG 51 = (35 years X (23 ships/109 ships) + (40 years X (86 ships/109 ships) = 38.9 years

### Antecedent Estimate Assumptions

CG 47(Ship Qty X Avg Annual Cost per Ship per Year X Ship Service Life)  
 (11 ships X \$33.408M X 40 years) + (11 ships X \$33.408M X 35 years) + (1 ship X \$33.408M X 21 years) + (2 ships X \$33.408M X 20 years) + (1 ship X \$33.408M X 19 years) + (1 ship X \$33.408M X 18 years) = \$30,836M

Weighted Average Unit Expected Service Life for CG 47 = (40 years X (11 ships/27 ships) + (35 years X (11 ships/27 ships) + (21 years X (1 ship/27 ships) + (20 years X (2 ships/27 ships) + (19 years X (1 ship/27 ships) + (18 years X (1 ship/27 ships) = 34.2 years

### O&S Annual Cost Calculation Memo

**DDG 51 Operations and Support**

(BY87\$M) (Ship Quantity X Avg. Annual Cost per Ship, per Year X Ship Service Life) (23 ships X \$35.806M X 35 years) + (86 ships X \$35.806M X 40 years) = \$152,149.1M The current APB Threshold (BY87\$M) for O&S is \$124,842.6M.

The DDG 51 O&S breach is driven by the increase to the ship procurement profile from 89 to 109 (PB25), service life extensions from 35 to 40 years for five FLT I ships, and associated capabilities upgrades for the AEGIS Weapon System. A Program Deviation Report was sent to ASN(RD&A) on September 01, 2021.

DDG 51 Operations and Support (TY\$M) = \$592,688M (109 Ships)



## (U) Technologies and Systems Engineering

### (U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/26/2022	In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.

**(U) Performing Activities and Contracts****(U) External Government Activities**

None

**(U) Contracts and Efforts**

Contract Title	Contract Number / Effort	Contractor	Phase
DDG 122 Guided Missile Destroyer	N00024-13-C-2305/122	General Dynamics (GD), Bath Iron Works (BIW)	Production
DDG 124 Guided Missile Destroyer	N00024-13-C-2305/124	General Dynamics (GD), Bath Iron Works (BIW)	Production
DDG 126 Guided Missile Destroyer	N00024-13-C-2305/126	General Dynamics (GD), Bath Iron Works (BIW)	Production
DDG 127 Guided Missile Destroyer	N00024-13-C-2305/127	General Dynamics (GD), Bath Iron Works (BIW)	Production
DDG 128 Guided Missile Destroyer	N00024-18-C-2307/128	Huntington Ingalls Industries (HII)	Production
DDG 129 Guided Missile Destroyer	N00024-18-C-2307/129	Huntington Ingalls Industries (HII)	Production
DDG 130 Guided Missile Destroyer	N00024-18-C-2305/130	General Dynamics (GD), Bath Iron Works (BIW)	Production
DDG 131 Guided Missile Destroyer/131	N00024-18-C-2307/131	Huntington Ingalls Industries (HII)	Production

**(U) Contract and Effort Identification, Price, Quantity and Performance**

<b>Contract Number:</b>	N00024-13-C-2305/122	<b>Order Number:</b>	-
<b>Contract Title:</b>	DDG 122 Guided Missile Destroyer	<b>Strategy:</b>	-
<b>CAGE:</b>	-- General Dynamics (GD), Bath Iron Works (BIW)	<b>Contracting Office:</b>	-
<b>City, State/Province:</b>	Bath, ME		
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	June 3, 2013
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	June 3, 2013
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-
<b>Technical Data Rights:</b>	-		
<b>Notes:</b>	DDG 122 (FY 2015 ship) is part of the FY 2013 - FY 2017 Multi-Year Procurement awarded on June 3, 2013. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-13-C-2305/124	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 124 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- General Dynamics (GD), Bath Iron Works (BIW)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Bath, ME				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	June 3, 2013		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	June 3, 2013		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 124 (one of three FY 2016 ships) is part of the FY 2013 - FY 2017 Multi-Year Procurement awarded on June 3, 2013. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-13-C-2305/126	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 126 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- General Dynamics (GD), Bath Iron Works (BIW)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Bath, ME				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	June 3, 2013		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 28, 2017		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 126 (one of two FY 2017 ships) is part of the FY 2013 - FY 2017 Multi-Year Procurement awarded on June 3, 2013. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-13-C-2305/127	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 127 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- General Dynamics (GD), Bath Iron Works (BIW)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Bath, ME				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	September 28, 2017		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 28, 2017		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 127 (one of three FY 2016 ships) is part of the FY 2013 - FY 2017 Multi-Year Procurement awarded on June 3, 2013. It is the final FLTIIA. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-18-C-2307/128	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 128 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- Huntington Ingalls Industries (HII)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Pascagoula, MS				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	September 27, 2018		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 27, 2018		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 128 (one of two FY 2018 ships) is part of the FY 2018 - FY 2022 Multi-Year Procurement awarded on September 27, 2018. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-18-C-2307/129	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 129 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- Huntington Ingalls Industries (HII)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Pascagoula, MS				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	September 27, 2018		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 27, 2018		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 129 (one of two FY 2018 ships) is part of the FY 2018 - FY 2022 Multi-Year Procurement awarded on September 27, 2018. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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(U) Contract and Effort Identification, Price, Quantity and Performance					
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<b>Contract Number:</b>	N00024-18-C-2305/130	<b>Order Number:</b>	-		
<b>Contract Title:</b>	DDG 130 Guided Missile Destroyer	<b>Strategy:</b>	-		
<b>CAGE:</b>	-- General Dynamics (GD), Bath Iron Works (BIW)	<b>Contracting Office:</b>	-		
<b>City, State/Province:</b>	Bath, ME				
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production		
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	September 27, 2018		
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 27, 2018		
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-		
<b>Technical Data Rights:</b>	-				
<b>Notes:</b>	DDG 130 (one of three FY 2019 ships) is part of the FY 2018 - FY 2022 Multi-Year Procurement awarded on September 27, 2018. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.				

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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**(U) Contract and Effort Identification, Price, Quantity and Performance**

<b>Contract Number:</b>	N00024-18-C-2307/131	<b>Order Number:</b>	-
<b>Contract Title:</b>	DDG 131 Guided Missile Destroyer/131	<b>Strategy:</b>	-
<b>CAGE:</b>	-- Huntington Ingalls Industries (HII)	<b>Contracting Office:</b>	-
<b>City, State/Province:</b>	Pascagoula, MS		
<b>Effort Number:</b>	-	<b>Supported Phase:</b>	Production
<b>Type:</b>	Fixed-Price Incentive (Firm Target)	<b>Award Date:</b>	September 27, 2018
<b>Latest Modification Date:</b>	-	<b>Definitization Date:</b>	September 27, 2018
<b>Latest Modification No.:</b>	-	<b>Work Start Date:</b>	-
<b>Technical Data Rights:</b>	-		
<b>Notes:</b>	DDG 131 (one of three FY 2019 ships) is part of the FY 2018 - FY 2022 Multi-Year Procurement awarded on September 27, 2018. In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is CUI.		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
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**(U) Production****(U) Low-Rate Initial Production**

	<b>Original LRIP Determination</b>	<b>Current LRIP Determination</b>
Total LRIP Quantity	9	9
Date	10/30/1986	10/30/1986
Reference	Milestone IIIA Review Decision Memorandum	Milestone IIIA Review Decision Memorandum
LRIP Period	FY 1985 - 1989	FY 1985 - 1989
Total Procurement Quantity	23	109
LRIP Percentage of Total	39.1%	8.3%

**Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)**

None

**LRIP Notes**

None

**(U) Deliveries and Expenditures****(U) Acquisition Funding**

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	100	45	45.0%
Appropriations (TY, \$M)	171,392.4	123,976.8	72.3%
Expenditures (TY, \$M)	171,392.4	97,770.7	57.0%

**(U) End Items Delivered**

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Procurement	109			
DDG-51		73	73	
<b>Total</b>	<b>109</b>	<b>73</b>	<b>73</b>	<b>67.0%</b>

**Notes**

None



**(U) International Program Aspects**

**General Memo**

Quantity numbers reflect Foreign Military Sales 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., Ordal 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.

**Exportability and Business Issues**

None

Is design for international exportability planned? No Industry/Partner Exportability Cost-Sharing? No  
 If not, has the MDA approved an exportability waiver for a U.S.-only design? Not Applicable

**Program Protection: Technology Security and Foreign Disclosure Issues**

None

**(U) Agreements**

Activity Date	Type	Agreement Number	International Partner(s)	Quantity	Funding (TY\$M)
11/20/2023	FMS LOA	JA-P-FTX	-	-	-
9/25/2023	FMS LOA	KS-P-GPV	-	-	-
2/2/2023	FMS LOA	NO-P-GDZ	-	-	-
12/7/2022	FMS LOA	SP-P-LGB	-	-	-
9/3/2021	FMS LOA	CN-P-LLG	-	-	-
9/16/2020	FMS LOA	AT-P-GTI	-	-	-

**(U) Agreement Information**

Partner(s): - Activity Date: 11/20/2023  
 Type: Foreign Military Sales: Letter of Offer and Acceptance Agreement Number: JA-P-FTX  
 Notes: International Partner: Japan (JPN)  
 Fiscal Year: 2020  
 Funding (\$M): 7612.0  
 Quantity: 177

**(U) Agreement Information**

Partner(s): - Activity Date: 9/25/2023

**Type:** Foreign Military Sales: Letter of Offer and Acceptance      **Agreement Number:** KS-P-GPV  
**Notes:** International Partner: Korea, Republic of (KOR)  
Fiscal Year: 2019  
Funding (\$M): 3383.0  
Quantity: 17

**(U) Agreement Information**

**Partner(s):** -      **Activity Date:** 2/2/2023  
**Type:** Foreign Military Sales: Letter of Offer and Acceptance      **Agreement Number:** NO-P-GDZ  
**Notes:** International Partner: Norway (NOR)  
Fiscal Year: 2018  
Funding (\$M): 489.0  
Quantity: 18

**(U) Agreement Information**

**Partner(s):** -      **Activity Date:** 12/7/2022  
**Type:** Foreign Military Sales: Letter of Offer and Acceptance      **Agreement Number:** SP-P-LGB  
**Notes:** International Partner: Spain (ESP)  
Fiscal Year: 2019  
Funding (\$M): 2011.0  
Quantity: 11

**(U) Agreement Information**

**Partner(s):** -      **Activity Date:** 9/3/2021  
**Type:** Foreign Military Sales: Letter of Offer and Acceptance      **Agreement Number:** CN-P-LLG  
**Notes:** International Partner: Canada (CAN)  
Fiscal Year: 2022  
Funding (\$M): 1511.0  
Quantity: 2

**(U) Agreement Information**

**Partner(s):** -      **Activity Date:** 9/16/2020  
**Type:** Foreign Military Sales: Letter of Offer and Acceptance      **Agreement Number:** AT-P-GTI  
**Notes:** International Partner: Australia (AUS)  
Fiscal Year: 2016  
Funding (\$M): 2825.0  
Quantity: 8



UNCLASSIFIED

**Modernized  
Selected Acquisition Report  
Supplement**

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

FY 2025 President's Budget  
As of: December 31, 2023

UNCLASSIFIED

## **MSAR Supplement Sections**

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

## Program Description

**Full Name**

DDG 51 Arleigh Burke Class Guided Missile Destroyer

**Short Name**

DDG 51

**PNO**

180

**Lead Component**

Navy

**AAF Pathway**

MCA

**Acquisition Type**

MDAP

**Acquired Systems**

DDG-51

**Related Programs**

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR?	
						Acq	O&S

## **Program Use of the Adaptive Acquisition Framework**

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

## Technologies and Systems Engineering

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

#### Major Software Efforts

Title	Status	Fielding Date	Description

#### Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

## Funding Sources (Acquisition)

### Acquisition Funding Notes

None

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	04	0603564N - Ship Preliminary Design & Feasibility Studies	0603564N	0409 - DDG-51 Fit III Concept Development	x	
Note: None.							
RDT&E	1319N	05	0604307N - Surface Combatant Combat System Engineering	0604307N	K1447 - Surf Combatant Combat Sys Imp	x	
Note: None.							
Procurement	1611N	02	2122 - DDG-51	0204222N	-		
Note: None.							
Procurement	1611N	05	5110 - Outfitting	0204222N	-	x	
Note: None.							
Procurement	1611N	05	5300 - Completion of PY Shipbuilding Programs	0204222N	-	x	
Note: None.							
MILCON	1205N	XX	OTHER - Other or New 1205N Line Item	XXX	XXX - --		x
Note: PE 0204228N, Project 0263, AEGIS Computer Center Building Addition PE 0605896N, Project 0261, Battle Force Combatant Education Facility							



## Funding Sources (Operating and Support)

*Note: Budget lines fund activities executed by the Program Office or Sustainment Office.*

### Operating and Support Funding Notes

O&S funding lines for DDG 51 program are controlled by other activities.

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
O&M	1804N	XX	OTHER - Other or New 1804N Line Item	XXX	XXX - --		
<p>Note: Specific BLIs and PEs for DDG 51 are controlled by other activities.</p>							
MILPERS	1453N	XX	OTHER - Other or New 1453N Line Item	XXX	XXX - --		
<p>Note: Specific BLIs and PEs for DDG 51 are controlled by other activities.</p>							

## Acquisition Estimate and Quantity Summary

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

#### Acquisition Estimates

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY1987 (\$M)	CY1987 (\$M)	CY2024 (\$M)
RDT&E		7,527.8	4,567.8	4,567.8	10,452.5
Procurement		163,820.3	82,395.0	82,395.0	188,546.9
MILCON		44.5	37.7	37.7	86.2
O&M		-	-	-	-
Total Acquisition		171,392.7	87,000.4	87,000.4	199,085.6
PAUC		1,572.410	798.169	798.169	1,826.473
APUC		1,502.939	755.917	755.917	1,729.788

#### Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
DDG-51		-	109
<b>Total</b>		-	<b>109</b>

#### Unit Description

DDG 51 will be able to operate offensively and defensively, independently or as units of Carrier Strike Groups and Surface Action Groups, in support of Marine Amphibious Task Forces in multi-threat environments that include air, surface and subsurface threats. These ships will respond to Low Intensity Conflict/Coastal and Littoral Offshore Warfare (LIC/CALOW) scenarios as well as open ocean conflict providing or augmenting power projection and forward presence requirements, and escort operations at sea. Beginning in FY17, DDG 51 Flight III with the Air and Missile Defense Radar (SPY-6(V)1) will significantly enhance Integrated Air and Missile Defense capability against current and future threats. Starting in FY22, DDG 51 Flight III AN/SLQ-32 system is upgraded from AN/SLQ-32(V)6 to AN/SLQ-32(V)7, with the addition of SEWIP Block 3, which provides advanced Electronic Attack (EA) capability to keep pace with the evolving Anti-Ship Missile (ASM) threat and counter-targeting. Starting in FY23, the MK38 Gun Weapon System is being upgraded to the Mod 4 configuration and transitions from a post construction to an in-line installation, the WSN-7 inertial navigation system is being replaced with the follow-on WSN-12 navigation system, 15 additional berths are being introduced, and the Bridgemaster Surface Search Radar is being replaced by the Next-Generation Surface Search Radar (NGSSR).

#### Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	5,338.6	465.8	446.9	368.8	310.3	296.4	301.1	-	7,527.8
Procurement	113,322.2	4,805.6	6,844.1	5,466.5	5,582.0	6,662.2	5,744.8	15,393.0	163,820.3
MILCON	44.5	-	-	-	-	-	-	-	44.5
O&M	-	-	-	-	-	-	-	-	-
<b>PB 2025 Total</b>	<b>118,705.3</b>	<b>5,271.4</b>	<b>7,290.9</b>	<b>5,835.3</b>	<b>5,892.3</b>	<b>6,958.6</b>	<b>6,045.8</b>	<b>15,393.0</b>	<b>171,392.7</b>

**Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

<b>1319N - Research, Development, Test &amp; Eval, Navy</b>					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1987 (\$M)
<b>Total</b>		<b>7,527.8</b>	<b>7,527.8</b>	<b>-</b>	<b>4,567.8</b>
1980		10.500	10.5	0.750629	14.0
1981		35.300	35.3	0.818884	43.1
1982		102.000	102.0	0.862037	118.3
1983		150.700	150.7	0.900769	167.3
1984		121.100	121.1	0.933298	129.8
1985		138.800	138.8	0.962338	144.2
1986		93.500	93.5	0.990109	94.4
1987		100.400	100.4	1.019411	98.5
1988		93.400	93.4	1.053518	88.7
1989		52.300	52.3	1.097938	47.6
1990		41.200	41.2	1.142797	36.1
1991		87.500	87.5	1.183789	73.9
1992		87.200	87.2	1.218263	71.6
1993		110.600	110.6	1.246447	88.7
1994		102.700	102.7	1.269805	80.9
1995		89.600	89.6	1.294276	69.2
1996		87.300	87.3	1.316138	66.3
1997		82.500	82.5	1.332278	61.9
1998		78.300	78.3	1.343191	58.3
1999		155.400	155.4	1.359005	114.3
2000		232.600	232.6	1.378896	168.7
2001		143.500	143.5	1.397815	102.7
2002		230.700	230.7	1.411944	163.4
2003		199.000	199.0	1.432643	138.9
2004		135.300	135.3	1.472634	91.9
2005		126.000	126.0	1.511393	83.4
2006		113.400	113.4	1.558488	72.8
2007		69.200	69.2	1.596660	43.3
2008		37.400	37.4	1.625785	23.0
2009		8.700	8.7	1.646661	5.3
2010		16.784	16.8	1.671360	10.0
2011		42.500	42.5	1.711267	24.8
2012		48.827	48.8	1.739648	28.1
2013		62.136	62.1	1.757915	35.3
2014		86.305	86.3	1.782754	48.4
2015		125.729	125.7	1.805186	69.6
2016		243.370	243.4	1.838690	132.4

**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

<b>1319N - Research, Development, Test &amp; Eval, Navy</b>					
<b>fiscal year</b>		<b>Other/ Unallocated</b>	<b>Total TY(\$M)</b>	<b>Weighted Rate</b>	<b>Total CY1987 (\$M)</b>
2017		175.472	175.5	1.873093	93.7
2018		185.066	185.1	1.918973	96.4
2019		189.478	189.5	1.955932	96.9
2020		220.800	220.8	2.027860	108.9
2021		230.729	230.7	2.119000	108.9
2022		270.617	270.6	2.229702	121.4
2023		324.654	324.7	2.296081	141.4
2024		465.806	465.8	2.348495	198.3
2025		446.870	446.9	2.398314	186.3
2026		368.790	368.8	2.448678	150.6
2027		310.314	310.3	2.500100	124.1
2028		296.407	296.4	2.552602	116.1
2029		301.074	301.1	2.606207	115.5

**Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

<b>1611N (BLS Hist) - Shipbuilding and Conversion, Navy</b>									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1987 (\$M)
<b>Total</b>	<b>162,274.9</b>	<b>-</b>	<b>1,545.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>163,820.3</b>	<b>-</b>	<b>82,395.0</b>
1980							-	0.907397	-
1981							-	0.936973	-
1982							-	0.965065	-
1983							-	0.980861	-
1984	78.500		-				78.5	1.000177	78.5
1985	846.600		299.200				1,145.8	1.020201	1,123.1
1986	98.100		-				98.1	1.043988	94.0
1987	2,326.700		158.200				2,484.9	1.067430	2,327.9
1988	9.600		-				9.6	1.098928	8.7
1989	2,876.500		-				2,876.5	1.132252	2,540.5
1990	3,569.500		13.500				3,583.0	1.164945	3,075.7
1991	3,145.110		3.600				3,148.7	1.197472	2,629.5
1992	3,982.880		38.300				4,021.2	1.228405	3,273.5
1993	3,379.340		7.900				3,387.2	1.240808	2,729.9
1994	2,703.340		86.900				2,790.2	1.270675	2,195.9
1995	2,779.670		37.800				2,817.5	1.284949	2,192.7
1996	2,289.470		61.700				2,351.2	1.298759	1,810.3
1997	3,541.840		38.800				3,580.6	1.318600	2,715.5
1998	3,427.550		110.500				3,538.1	1.348275	2,624.1
1999	2,674.140		44.200				2,718.3	1.369720	1,984.6
2000	2,651.090		30.100				2,681.2	1.404523	1,909.0
2001	3,231.320		-				3,231.3	1.452836	2,224.1
2002	3,293.790		14.400				3,308.2	1.461107	2,264.2
2003	2,657.210		63.100				2,720.3	1.545639	1,760.0
2004	3,345.310		4.700				3,350.0	1.601708	2,091.5
2005	3,653.410		8.900				3,662.3	1.672704	2,189.5
2006	508.590		-				508.6	1.731695	293.7
2007	289.020		-				289.0	1.811267	159.6
2008	94.910		-				94.9	1.872959	50.7
2009	331.200		-				331.2	1.930256	171.6
2010	2,191.500		121.830				2,313.3	1.997318	1,158.2
2011	2,269.520		11.580				2,281.1	2.062841	1,105.8
2012	1,652.670		120.200				1,772.9	2.110163	840.2
2013	4,471.470		29.800				4,501.3	2.154297	2,089.4
2014	2,019.800		-				2,019.8	2.197921	919.0
2015	2,932.540		-				2,932.5	2.248578	1,304.2
2016	3,979.520		230.230				4,209.8	2.306079	1,825.5

**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

<b>1611N (BLS Hist) - Shipbuilding and Conversion, Navy</b>									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1987 (\$M)
2017	3,730.640		10.000				3,740.6	2.372230	1,576.8
2018	3,566.330		-				3,566.3	2.449503	1,455.9
2019	5,954.140		-				5,954.1	2.540646	2,343.6
2020	5,886.790		-				5,886.8	2.645337	2,225.3
2021	3,369.080		-				3,369.1	2.752292	1,224.1
2022	3,946.390		-				3,946.4	2.848396	1,385.5
2023	8,021.680		-				8,021.7	2.915422	2,751.5
2024	4,805.560		-				4,805.6	2.977966	1,613.7
2025	6,844.070		-				6,844.1	3.040614	2,250.9
2026	5,466.540		-				5,466.5	3.104467	1,760.9
2027	5,582.010		-				5,582.0	3.169661	1,761.1
2028	6,662.190		-				6,662.2	3.236224	2,058.6
2029	5,744.750		-				5,744.8	3.304184	1,738.6
2030	6,157.211		-				6,157.2	3.373572	1,825.1
2031	6,157.211		-				6,157.2	3.444417	1,787.6
2032	3,078.605		-				3,078.6	3.516750	875.4

**Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

<b>1205N - Military Construction, Navy</b>					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1987 (\$M)
<b>Total</b>		<b>44.5</b>	<b>44.5</b>	<b>-</b>	<b>37.7</b>
1980			-	0.803052	-
1981			-	0.850609	-
1982			-	0.897817	-
1983			-	0.929766	-
1984			-	0.961524	-
1985			-	0.990493	-
1986		4.600	4.6	1.019842	4.5
1987			-	1.054617	-
1988		14.700	14.7	1.092959	13.4
1989		8.500	8.5	1.136719	7.5
1990			-	1.170286	-
1991			-	1.212409	-
1992			-	1.241787	-
1993			-	1.266434	-
1994			-	1.296723	-
1995			-	1.318236	-
1996			-	1.335819	-
1997			-	1.344093	-
1998		13.200	13.2	1.356305	9.7
1999			-	1.377778	-
2000			-	1.395554	-
2001		3.500	3.5	1.411335	2.5

## Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

1611N (OSD Compt) - Shipbuilding and Conversion, Navy				
fiscal year	DDG-51			Total
<b>Total</b>	<b>109</b>			<b>109</b>
Undistributed				-
1970				-
1971				-
1972				-
1973				-
1974				-
1975				-
1976				-
1977				-
197T				-
1978				-
1979				-
1980				-
1981				-
1982				-
1983				-
1984	-			-
1985	1			1
1986	-			-
1987	3			3
1988	-			-
1989	4			4
1990	5			5
1991	4			4
1992	5			5
1993	4			4
1994	3			3
1995	3			3
1996	2			2
1997	4			4
1998	4			4
1999	3			3
2000	3			3
2001	3			3
2002	3			3



**DDG 51 Arleigh Burke Class Guided Missile Destroyer**

<b>1611N (OSD Compt) - Shipbuilding and Conversion, Navy</b>				
<b>fiscal year</b>	<b>DDG-51</b>			<b>Total</b>
2003	2			2
2004	3			3
2005	3			3
2006	-			-
2007	-			-
2008	-			-
2009	-			-
2010	1			1
2011	2			2
2012	1			1
2013	3			3
2014	1			1
2015	2			2
2016	3			3
2017	2			2
2018	2			2
2019	3			3
2020	3			3
2021	2			2
2022	2			2
2023	3			3
2024	2			2
2025	2			2
2026	2			2
2027	2			2
2028	2			2
2029	2			2
2030	2			2
2031	2			2
2032	1			1

## **Nuclear Costs**

### **DDG 51 Arleigh Burke Class Guided Missile Destroyer**

#### **Program's Use of Department of Energy Resources**

None

## Operational Fielding Plan

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

**System: DDG-51**

#### Fielding and Inventory Notes

Fielding schedule reflects PMS 400D Master Planning Schedule as of 15 September 2023 and PB25 budget submission.

#### DDG-51 Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					73
2024		1			74
2025		2			76
2026		2			78
2027		2			80
2028		3			83
2029		2			85

## O&S Independent Cost Estimate

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

#### Independent and Current Cost Estimate Comparison

Category	CY1987 (\$M)	Independent Cost Estimate 3/20/2024	Current Estimate 3/20/2024	Variance with ICE (%)
Unit-Level Manpower		59,074.9	59,074.9	0%
Unit Operations		25,955.4	25,955.4	0%
Maintenance		37,285.3	37,285.3	0%
Sustaining Support		6,096.7	6,096.7	0%
Continued System Improvements		23,736.8	23,736.8	0%
Other		-	-	-
<b>Total O&amp;S</b>		<b>152,149.1</b>	<b>152,149.1</b>	<b>0%</b>

#### Independent Cost Estimate Source

- Event: Annual Update
- Type: Independent Cost Estimate
- Approved by: NAVSEA 05C, March 20, 2024
- Note:
- Estimate based on Feb 2024 VAMOSC data query for Flight I, II, and IIA ships.
  - Flight III estimate based on Flight IIA VAMOSC averages.
  - 35 year service life for DDG51 Flight I and Flight II ships except service life extended to 40 years for DDG 51/57/61/65/69.
  - 40 year service life for DDG51 Flight IIA and Flight III ships.
  - Total quantity is 109 ships.

#### Current Cost Estimate Source

- Type: Program Office Estimate
- Approved by: NAVSEA 05C, March 20, 2024
- Note:
- Estimate based on Feb 2024 VAMOSC data query for Flight I, II, and IIA ships.
  - Flight III estimate based on Flight IIA VAMOSC averages.
  - 35 year service life for DDG51 Flight I and Flight II ships except service life extended to 40 years for DDG 51/57/61/65/69.
  - 40 year service life for DDG51 Flight IIA and Flight III ships.
  - Total quantity is 109 ships.

#### Cost Estimate Variance Explanation

No variances exist because the ICE and Current Estimate are identical.

## Annual Operating and Support Estimates by Cost Element

### DDG 51 Arleigh Burke Class Guided Missile Destroyer

#### System: DDG-51

Source for TY-CY Conversion: Standard O&S inflation indices from PB25 Joint Inflation Calculator

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY1987 (\$M)
<b>Total</b>	<b>59,074.9</b>	<b>25,955.4</b>	<b>37,285.3</b>	<b>6,096.7</b>	<b>23,736.8</b>	-	<b>#####</b>
1991	12.196	5.379	8.785	1.353	6.191		33.9
1992	12.196	5.379	8.785	1.353	6.191		33.9
1993	36.589	16.136	26.354	4.060	18.574		101.7
1994	73.177	32.272	52.708	8.120	37.148		203.4
1995	158.551	69.923	114.200	17.592	80.487		440.8
1996	219.532	96.816	158.123	24.359	111.443		610.3
1997	269.542	118.562	192.597	29.784	134.897		745.4
1998	309.805	135.390	216.958	33.879	149.536		845.6
1999	350.069	152.217	241.319	37.974	164.175		945.8
2000	378.679	164.840	258.989	40.897	175.185		1,018.6
2001	435.900	190.087	294.329	46.743	197.204		1,164.3
2002	478.816	209.022	320.833	51.127	213.719		1,273.5
2003	521.732	227.957	347.338	55.511	230.234		1,382.8
2004	578.953	253.203	382.677	61.357	252.253		1,528.4
2005	636.174	278.450	418.016	67.203	274.273		1,674.1
2006	664.784	291.073	435.686	70.126	285.283		1,747.0
2007	693.395	303.696	453.356	73.049	296.293		1,819.8
2008	722.005	316.319	471.025	75.972	307.302		1,892.6
2009	764.921	335.254	497.530	80.356	323.817		2,001.9
2010	793.531	347.877	515.200	83.279	334.827		2,074.7
2011	822.142	360.501	532.869	86.202	345.837		2,147.6
2012	836.447	366.812	541.704	87.663	351.342		2,184.0
2013	836.447	366.812	541.704	87.663	351.342		2,184.0
2014	836.447	366.812	541.704	87.663	351.342		2,184.0
2015	836.447	366.812	541.704	87.663	351.342		2,184.0
2016	836.447	366.812	541.704	87.663	351.342		2,184.0
2017	865.058	379.436	559.374	90.586	362.352		2,256.8
2018	893.668	392.059	577.043	93.509	373.361		2,329.6
2019	907.973	398.370	585.878	94.970	378.866		2,366.1
2020	922.279	404.682	594.713	96.432	384.371		2,402.5
2021	936.584	410.994	603.548	97.893	389.876		2,438.9
2022	950.889	417.305	612.383	99.355	395.381		2,475.3
2023	993.929	436.272	638.883	103.738	411.896		2,584.7

**System: DDG-51**

Source for TY-CY Conversion: Standard O&S inflation indices from PB25 Joint Inflation Calculator

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY1987 (\$M)
2024	#####	442.584	647.718	105.200	417.401		2,621.1
2025	#####	455.239	665.384	108.121	428.410		2,694.1
2026	#####	467.895	683.050	111.043	439.420		2,767.1
2027	#####	480.582	700.712	113.964	450.430		2,840.2
2028	#####	488.856	709.635	115.639	454.562		2,882.1
2029	#####	485.407	700.943	114.500	446.998		2,853.6
2030	#####	477.545	683.513	112.115	432.556		2,793.8
2031	#####	475.061	674.867	111.084	424.306		2,767.9
2032	#####	472.347	666.886	110.040	417.367		2,742.5
2033	#####	474.551	669.017	110.326	419.243		2,752.0
2034	#####	470.410	662.318	109.152	415.614		2,724.9
2035	#####	472.340	662.410	109.366	414.241		2,730.3
2036	#####	474.270	662.503	109.581	412.868		2,735.6
2037	#####	486.958	680.165	112.502	423.878		2,808.7
2038	#####	499.645	697.826	115.423	434.888		2,881.9
2039	#####	505.989	706.657	116.883	440.393		2,918.4
2040	#####	499.709	697.819	115.421	434.888		2,882.2
2041	#####	474.463	662.479	109.575	412.868		2,736.5
2042	#####	455.528	635.975	105.191	396.353		2,627.2
2043	991.278	436.593	609.470	100.806	379.839		2,518.0
2044	934.057	411.347	574.131	94.961	357.819		2,372.3
2045	876.836	386.100	538.791	89.115	335.799		2,226.6
2046	848.225	373.477	521.122	86.192	324.790		2,153.8
2047	819.615	360.854	503.452	83.269	313.780		2,081.0
2048	791.004	348.231	485.782	80.346	302.770		2,008.1
2049	748.089	329.296	459.278	75.962	286.255		1,898.9
2050	719.478	316.672	441.608	73.039	275.245		1,826.0
2051	690.868	304.049	423.938	70.116	264.236		1,753.2
2052	676.562	297.738	415.104	68.655	258.731		1,716.8
2053	676.562	297.738	415.104	68.655	258.731		1,716.8
2054	676.562	297.738	415.104	68.655	258.731		1,716.8
2055	676.562	297.738	415.104	68.655	258.731		1,716.8
2056	676.562	297.738	415.104	68.655	258.731		1,716.8
2057	647.952	285.114	397.434	65.732	247.721		1,644.0
2058	619.341	272.491	379.764	62.809	236.711		1,571.1
2059	605.036	266.180	370.929	61.347	231.206		1,534.7
2060	590.731	259.868	362.095	59.886	225.701		1,498.3

**System: DDG-51**

Source for TY-CY Conversion: Standard O&amp;S inflation indices from PB25 Joint Inflation Calculator

<b>Operating and Support Cost Elements</b>							
<b>fiscal year</b>	<b>1.0 Unit-Level Manpower</b>	<b>2.0 Unit Operations</b>	<b>3.0 Maintenance</b>	<b>4.0 Sustaining Support</b>	<b>5.0 Continuing System Improvements</b>	<b>Other</b>	<b>Total CY1987 (\$M)</b>
2061	576.426	253.556	353.260	58.424	220.196		1,461.9
2062	562.121	247.245	344.425	56.963	214.691		1,425.4
2063	519.081	228.278	317.924	52.580	198.177		1,316.0
2064	504.776	221.966	309.089	51.118	192.672		1,279.6
2065	476.041	209.311	291.424	48.196	181.662		1,206.6
2066	447.307	196.655	273.758	45.274	170.652		1,133.6
2067	418.448	183.968	256.096	42.353	159.642		1,060.5
2068	375.160	164.937	229.603	37.972	143.128		950.8
2069	346.302	152.249	211.942	35.051	132.118		877.7
2070	303.014	133.218	185.449	30.670	115.603		768.0
2071	259.726	114.187	158.956	26.288	99.088		658.2
2072	216.439	95.156	132.464	21.907	82.574		548.5
2073	173.151	76.125	105.971	17.526	66.059		438.8
2074	144.292	63.437	88.309	14.605	55.049		365.7
2075	115.434	50.750	70.647	11.684	44.039		292.6
2076	86.575	38.062	52.985	8.763	33.029		219.4
2077	57.717	25.375	35.324	5.842	22.020		146.3
2078	28.858	12.687	17.662	2.921	11.010		73.1
2079	14.429	6.344	8.831	1.460	5.505		36.6