Modernized Selected Acquisition Report (MSAR)

MQ-25 Stingray (MQ-25)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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Table of Contents

(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

Full Name
MQ-25 Stingray

Short Name
MQ-25

PNO
462

Milestone Decision Authority
Component Acquisition Executive

Lead Component
Department of the Navy

Program Executive Office
PEO Unmanned Aviation & Strike Weapons

Joint Program
No

Acquisition Type
Major Defense Acquisition Program

Adaptive Acquisition Pathway
Major Capability Acquisition

Acquired Systems
MQ-25

Acquisition Category
IB

Acquisition Status
Active Acquisition

Mission
The MQ-25 Stingray (MQ-25) Program rapidly develops an unmanned capability to embark on Carrier Vessels - Nuclear powered (CVNs) as part of the Carrier Air Wing (CVW) to conduct aerial refueling as a primary mission and provide Intelligence, Surveillance, Reconnaissance (ISR) capability as a secondary mission. MQ-25 extends CVW mission effectiveness range, partially mitigates the current Carrier Strike Group (CSG) organic ISR shortfall and fills the future CVW tanker gap, relieving F/A-18 E/F Strike Fighters of the tanking mission and reducing fatigue life expenditures for this mission. As the first carrier-based Group 5 Unmanned Aircraft System (UAS), MQ-25 will pioneer the integration of manned and unmanned operations, demonstrate mature complex sea-based Command, Control, Communications, Computers, and Intelligence (C4I) UAS technologies, and pave the way for future multifaceted multi-mission UAS to outpace emerging threats. MQ-25 requirements address the need for carrier-based refueling and persistent ISR capabilities. The Joint Requirements Oversight Council's (JROC's) guidance, delineated in the validated Initial Capabilities Document and subsequent JROC memoranda, established a requirement for a versatile platform that supports a myriad of organic Naval missions such as aerial refueling and ISR to support the CSG.

(U) Responsible Office

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(U) Executive Summary

Program Highlights Since Last Report

The MQ-25 program is an ACAT IB program managed by the Program Executive Office, Unmanned Aviation & Strike Weapons Unmanned Carrier Aviation (UCA) Program Office. MQ-25 was initiated as an accelerated acquisition program to accelerate the introduction of needed warfighting capabilities. The MQ-25 program uses event-driven "Knowledge Points" at key program inflection points to brief progress to stakeholders throughout the program life cycle.
The MQ-25 Air System is integrating a Ground Control Station (GCS) managed by the Unmanned Carrier Aviation Mission Control System (UMCS) program within UCA. The UMCS program integrates with multiple networks and systems both afloat and ashore. The MQ-25 and UMCS programs are synchronized to provide complete capability to the aircraft carrier. The MQ-25 is the "pathfinder" to the Air Wing of the Future and establishes the foundation for Manned-Unmanned Teaming and autonomous operations from the CVN as the world's first carrier-based, unmanned aircraft .
In June 2023, due to delays in the delivery of EMD aircraft, the Assistant Secretary of the Navy (Research, Development, and Acquisition) shifted the program's Milestone C decision from 2023 to 2025 and IOC from 2025 to 2026. To support this shift, an FY 2023 Above Threshold Reprogramming was approved to convert procurement funding to RDT&E funding to address aircraft obsolescence redesigns and essential non-recurring engineering and support elements, and procure two additional System Demonstration Test Articles for validation and verification of obsolescence redesigns and mitigate fleet fielding impacts. Further realignment of funding from procurement to RDT&E was requested via the FY 2024 enactment cycle.
Production performance improved in the fourth quarter of 2023. Projections in 2024 for substantial increases in production performance were recently exhibited as the Static Test Article aircraft finished final assembly and was delivered to test on January 31, 2024.
Vehicle operational software Block 4 delivered in the fall of 2023 and completed systems verification testing, leading to software maturation for the flightworthy delivery of Block 5 software, which is slated for delivery in 2024. Other significant testing completed in 2023 included the Aerial Refueling Store (ARS) drop test to evaluate ARS pod separation characteristics, and Fuel Rig testing to assess fuel system and ARS integration and performance.
In May 2023, the first Air Vehicle Pilots received their Wings of Gold and joined the Unmanned Carrier-Launched Multi-Role Squadron (VUQ)-10 at Naval Air Station Patuxent River, Maryland.
Current estimates for all remaining APB schedule parameters are in breach of the approved APB for delays in the build of EMD aircraft due to supplier management challenges and learning associated with the Full-Size Determinant Assembly manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the GCS contract effort.
Developmental test utilizing EMD test articles is scheduled to begin with Static Article testing in the third quarter of FY 2024.
Defense Cost and Resource Center Cost and Software Data Reporting Compliance Rating: Red. This is due to the program and Boeing transitioning from a legacy Cost and Software Data Reporting (CSDR) plan to a new FlexFile format, which is required across DoD. The Naval Air Systems Command Cost and Schedule Analysis Department is working with Boeing to implement the new FlexFile with updated submissions events and updated dates. There are no

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

(U) History of Significant Developments Since Program Inception

Date	Description
January 2024	Completion of Joint System Verification Testing on Block 4 software, validating the integration of the ground control station with the MQ-25 aircraft.
October 2023	FY 2023 Congressional Above Threshold Reprogramming (ATR) approved to convert procurement funding to RDT&E funding. This ATR resulted from a Secretary of the Navy decision in June 2023 and the subsequent Assistant Secretary of the Navy (Research, Development, and Acquisition) ADM in August 2023 to shift Milestone C from 2023 to 2025 due to delays in the delivery of test aircraft.
September 2022	LRIP Lot 1 Advance Acquisition Contract awarded to procure long-lead components, materials, and parts required to maintain the program's planned LRIP Lot 1 schedule.
December 2021	Unmanned Carrier Aviation Demonstration completed aboard CVN 77
June 2021	First successful aerial refueling flight with F/A18-E/F completed with T1 Test Asset
December 2020	First test of Aerial Refueling Store on T1 Test Asset
October 2020	ADM directing program to replace MD-5 A/B Ground Control Stations with new ones (MD-5 C/D/E for ship/shore/embarkable), reflecting a change in requirements
April 2020	System Demonstration Test Article options exercised on Boeing EMD contract
March 2020	Completion of System Design Review (Knowledge Point 3)
September 2019	First Flight of Boeing-owned Test Article (T1)
March 2019	Program Deviation Report for MILCON Breach
March 2019	Integrated Design Review 1
February 2019	Integrated Baseline Review
August 2018	ADM/KP-2 approved Milestone B entry into EMD
August 2018	EMD Contract Awarded
October 2017	Request for Proposals for EMD released
July 2017	MQ-25 Carrier Based Unmanned Air System CDD

(U) Schedule

(U) Schedule Events

Events		Development APB (Current) 8/24/2018 Objective	Development APB (Current) 8/24/2018 Threshold	Current Estimate 12/31/2023	Actual
Milestone B	MS B	Aug 2018	Oct 2018	-	24 Aug 2018
System Design Review (SDR)	Other	Oct 2019	Apr 2020	-	26 Mar 2020
Low Rate Initial Production (LRIP)	LRIP Decision	Feb 2023	Aug 2023	Jun 2025*	-
First Flight	First Flight	Sept 2021	Mar 2022	May 2025*	-
First CVN Flight	Other	Dec 2022	Jun 2023	Mar 2026*	-
Initial Operational Test and Evaluation (IOT&E)	IOT&E	Jan 2024	Jul 2024	Nov 2026*	-
Initial Operational Capability (IOC)	IOC	Aug 2024	Feb 2025	Jul 2026*	-
Full Rate Production (FRP)	FRP Decision	Apr 2026	Oct 2026	Jan 2028*	-

* Baseline Deviation

Notes

None

Schedule Baseline Deviation Explanation

The LRIP current estimate changed from September 2023 to June 2025 and is a breach to the approved APB for delays in the build of EMD aircraft due to supplier management challenges and learning associated with the Full-Size Determinant Assembly (FSDA) manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the Ground Control Station contract effort.
The First Flight (Initial Unmanned Carrier Aviation Mission Control System-controlled flight) current estimate changed from August 2024 to May 2025 and is a breach to the approved APB for delays in the build of EMD aircraft due to supplier management challenges and learning associated with the FSDA manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the Ground Control Station contract effort.
The First CVN Flight current estimate changed from June 2025 to March 2026 and is a breach to the approved APB for delays in the build of EMD aircraft due to supplier management challenges and learning associated with the FSDA manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the Ground Control Station contract effort.
The IOT&E current estimate changed from July 2026 to November 2026 and is a breach to the approved APB for delays in the build of EMD aircraft due to supplier management challenges

and learning associated with the FSDA manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the Ground Control Station contract effort.
The IOC deviation was reported in the December 2022 SAR.
The FRP current estimate changed from May 2027 to January 2028 and is a breach to the approved APB for delays in the build of EMD aircraft due to supplier management challenges and learning associated with the FSDA manufacturing processes. A revised APB will be updated upon completion of the Integrated Baseline Review following the definitization of the Ground Control Station contract effort.

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

Event	Date	Description
Current	12/31/2023	Carrier Availability: Limited CVNs configured for test in planned testing windows and limited timing, number, and length of Planned Incremental Availabilities per CVN for required modifications may lead to USN caused schedule delays.
Current	12/31/2023	Deliveries of EMD aircraft: Delays in the build of EMD aircraft due to supplier management challenges and learning associated with the Full-Size Determinant Assembly manufacturing processes may lead to schedule delays.

(U) Performance

(U) Performance Attributes

KPP 1: Carrier Suitability		KPP
Current Estimate 12/31/2023		NIMITZ and FORD class CVNs
Demonstrated Performance -		TBD
Development APB (Current)	Objective	NIMITZ and FORD class CVNs
8/24/2018	Threshold	(T=O) NIMITZ and FORD class CVNs
KPP 2: Air Refueling		**KPP**
Current Estimate 12/31/2023		>= 16K lbs of give at 500 nm from CVN
Demonstrated Performance -		TBD
Development APB (Current)	Objective	>= 16K lbs of give at 500 nm from CVN
8/24/2018	Threshold	>= 14K lbs of give at 500 nm from CVN

(U) Requirement Source:

Sponsor(s): None

1. Document Type Not Provided
   Notes: Capability Development Document (CDD) dated 21 July 2017.

Notes

lbs ??? Pounds
K ??? Thousands
nm ??? Nautical Mile

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category ($M) Base Year: 2018	Development APB (Current) 8/24/2018 CY$ obs Objective / Threshold		Current Estimate PB 2025 CY$ obs / TY$ obs	
RDT&E	3,489.3	3,838.2	3,218.3	3,871.8
Procurement	8,766.1	9,642.7	8,912.2	12,995.5
MILCON	362.9	399.2	570.7*	773.6
O&M	0.0	0.0	-	-
R&MF	-	-	-	-
Total Acquisition	12,618.3	-	12,701.2	17,640.9
Program Acquisition Unit Cost	166.030	182.633	167.121	232.117
Average Procurement Unit Cost	121.751	133.926	133.018	193.963
Program End-Item Quantity				
Development	4		9	
Procurement	72		67	
O&M-Acquired	-		-	

* Baseline Deviation

Budget Notes

Estimates are based on the latest POE, which incorporates fact-of-life updates since January 19, 2023 approved CCE.

Quantity Notes

The shift of Milestone C from 2023 to 2025 delayed procurement of LRIP Lot 1 by two years. President's Budget 2025 shifted 2 aircraft from production aircraft to development aircraft.

Cost Baseline Deviation Explanation

Parameter	Explanation
Acquisition Cost (MILCON)	The MILCON APB deviation was reported in the December 2022 SAR.

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	The Procurement estimate includes risk captured from the CCE approved January 19, 2023. The risk ensures the procurement estimate was at 50% on the cost risk S-Curve. This risk is captured in the Non-Recurring Engineering Cost Work Breakdown Structure element within the Total Flyaway Cost.

Current Baseline Risks (8/24/2018)
(1) An Independent Cost Estimate has been completed for the program in the previous year to support Knowledge Point 2. Program risks identified in the estimate include engineering changes, economic price adjustment (EPA) provisions, the program office acting as the lead system integrator, development and integration of a control system with connectivity to carriers, availability of CVN's used for testing, and the Joint Precision Approach and Landing System. The potential impacts of the risks on program cost would increase the costs above the agreed upon Fixed Price contract. Any modification to the baseline contract could result in reopening the contracts cost. If the Navy delays any delivering of government provided materials, the contract could also be opened. To mitigate these risks, the program office is working closely with the Navy to ensure there is minimal requirement creep and that all government provided materials are provided in a timely manner. Ensuring full funding of the UCA Mission Control System program is extremely important to keep MQ-25 on track.. (2) The Original Baseline matches the Current Baseline Estimate.
Original Baseline Risks (8/24/2018)
(1) An Independent Cost Estimate has been completed for the program in the previous year to support Knowledge Point 2. Program risks identified in the estimate include engineering changes, economic price adjustment (EPA) provisions, the program office acting as the lead system integrator, development and integration of a control system with connectivity to carriers, availability of CVN's used for testing, and the Joint Precision Approach and Landing System. The potential impacts of the risks on program cost would increase the costs above the agreed upon Fixed Price contract. Any modification to the baseline contract could result in reopening the contracts cost. If the Navy delays any delivering of government provided materials, the contract could also be opened. To mitigate these risks, the program office is working closely with the Navy to ensure there is minimal requirement creep and that all government provided materials are provided in a timely manner. Ensuring full funding of the UCA Mission Control System program is extremely important to keep MQ-25 on track.. (2) The Original Baseline matches the Current Baseline Estimate.

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY$M) Base Year: 2018	Current Baseline 08/24/2018	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	12,618.3	12,701.2	
Program Quantity	76	76	
PAUC	166.030	167.121	0.66%
Average Procurement Unit Cost			
Procurement Cost	8,766.1	8,912.2	
Procurement Quantity	72	67	
APUC	121.751	133.018	9.25%

(U) Current Estimate Compared with Original Baseline

Category (CY$M) Base Year: 2018	Original Baseline 08/24/2018	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	12,618.3	12,701.2	
Program Quantity	76	76	
PAUC	166.030	167.121	0.66%
Average Procurement Unit Cost			
Procurement Cost	8,766.1	8,912.2	
Procurement Quantity	72	67	
APUC	121.751	133.018	9.25%

Notes

None

(U) Life-Cycle Costs

(U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category ($M) Base Year: 2018	Development APB (Current) 8/24/2018 CY$ obs Objective / Threshold		Current Estimate CY$ obs / TY$ obs	
Total O&S	13,777.6	15,155.4	11,873.4	22,309.1
Total Disposal	-	-	19.8	42.8

(U) Current Cost Estimate Sources

Operating and Support Cost
Type: Program Office Estimate
Approved by: Cost and Schedule Analysis Director, February 28, 2024
Note: Estimates based on latest POE derived from the CCE approved January 19, 2023.

Disposal/Demilitarization Cost
Type: Program Office Estimate
Approved by: Cost and Schedule Analysis Director, February 28, 2024
Note: Estimates based on latest POE derived from the CCE approved January 19, 2023.

Operating and Support Baseline Deviation Explanation

None

Cost Notes

6.0 Indirect Support removed from total estimate based on CAPE Structure.

(U) Operating and Support Variance with Prior Estimate

(CY$M) Base Year: 2018	Estimate	
Prior Estimate (12/13/2022)	12,202.2	
Current Estimate	11,873.4	
Category	**Variance**	**Explanation**
Unit-Level Manpower	117.4	Updated Navy Military Composite Rates from MSAR Supplement
Unit Operations	-494.3	Updated Satellite Services estimate to a 5TB data plan, Fuel pricing and inflation, and flight hour profile
Maintenance	229.0	Updated Net repair pricing
Sustaining Support	-10.6	Flying Hour Program and programmatic updates

(CY$M) Base Year: 2018	Estimate	
Continuing System Improvements	-170.4	Updated flight hours and aircraft profile
Other	-	
Not Categorized	0.0	

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

(CY$M) Base Year: 2018							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
MQ-25	3,662.9	672.8	5,211.8	1,174.9	1,150.9	-	**11,873.4**
Program	**3,662.9**	**672.8**	**5,211.8**	**1,174.9**	**1,150.9**	**-**	**11,873.4**

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

(CY$M) Base Year: 2018							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
MQ-25	3.9	0.7	5.5	1.2	1.2	-	**12.5**

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
MQ-25	74	20.0	Number of Aircraft	2027 - 2057

Additional O&S Estimate Assumptions

654,921 total flying hours with 951 total aircraft operating years

Antecedent Estimate Assumptions

There is no antecedent for the MQ-25.? This will be the first carrier based unmanned aircraft in the fleet.

O&S Annual Cost Calculation Memo

Total Cost / Total Aircraft Years

(U) Technologies and Systems Engineering

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

Event	Date	Description
Current	12/31/2023	Electrical bonding and lightning design: Design still in work

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
MQ-25 Engineering and Manufacturing Development (EMD)	N00019-18-C-1012 / 1	The Boeing Company	Development

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

Contract Number:	N00019-18-C-1012	**Order Number:**	-
Contract Title:	MQ-25 Engineering and Manufacturing Development (EMD)	**Strategy:**	FAR 15: Negotiated Contracts
CAGE:	76301 - The Boeing Company	**Contracting Office:**	Naval Air Systems Command
City, State/Province:	St. Louis, MO		
Effort Number:	1	**Supported Phase:**	Development
Type:	Fixed-Price Incentive (Firm Target)	**Award Date:**	August 30, 2018
Latest Modification Date:	December 7, 2023	**Definitization Date:**	August 30, 2018
Latest Modification No.:	P00064	**Work Start Date:**	August 30, 2018
Technical Data Rights:	Government Purpose License Rights		
Notes:	The Contract Data Requirements List includes Cost and Software Data Reporting.		

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
649.1	805.3	1,249.8	1,249.8	2,614.6	3,213.9	1	1	-

Work Completed (%):	64.49%
Cost Variance (TY$M):	-442.7
Schedule Variance (TY$M):	-153.6

Factors Contributing to Cost Variance and Projected Effects on Program Costs

This is a fixed-price contract with Government liability limited to the contract ceiling.
The unfavorable net change in the cost variance is due to delays in the build of EMD aircraft delaying deliveries of air vehicles to test. Multiple factors have resulted in these delays:
1. The aircraft design was intentionally paused to optimize weight and strength.

2. Quality issues and Notices of Escape were identified during the build process. Root causes are understood, process improvements and corrective actions have been incorporated, and delivery of replacement parts are compliant.
3. Redesign of the lightning protection solution for implementation into the design.
4. The COVID-19 pandemic has impacted multiple Boeing suppliers, delaying the manufacture and delivery of parts.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

The unfavorable net change in the schedule variance is due to delays in the build of EMD aircraft delaying deliveries of air vehicles to test. Multiple factors have resulted in these delays:

1. The aircraft design was intentionally paused to optimize weight and strength.
2. Quality issues and Notices of Escape were identified during the build process. Root causes are understood, process improvements and corrective actions have been incorporated, and delivery of replacement parts are compliant.
3. Redesign of the lightning protection solution for implementation into the design.
4. The COVID-19 pandemic has impacted multiple Boeing suppliers, delaying the manufacture and delivery of parts.

(U) Production

(U) Low-Rate Initial Production

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	11	12
Date	8/24/2018	11/6/2020
Reference	Knowledge Point 2 / Milestone B ADM	ASN(RDA) ADM
LRIP Period	FY 2023 - 2025	FY 2025 - 2027
Total Procurement Quantity	76	76
LRIP Percentage of Total	14.5%	15.8%

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

The currently authorized total LRIP quantity is more than 10% of the total production quantity due to the establishment of an initial production base for the system and an orderly and efficient increase in the production rate.

LRIP Notes

None

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	20	8	40.0%
Appropriations (TY, $M)	17,640.9	4,084.5	23.2%
Expenditures (TY, $M)	17,640.9	1,562.6	8.9%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	9			
Procurement	67			
Total	**76**	-	-	-

Notes

None

(U) International Program Aspects

General Memo

International involvement in various forms is considered for MQ-25 as the acquisition program moves through its lifecycle. This consideration and potential integration of international acquisition involvement ensures the DoD can achieve national security objectives to enhance coalition interoperability, decrease costs to the DoD and taxpayers through greater economies of scale, and improve the international competitive of U.S. defense systems in the global market.

Exportability and Business Issues

The primary design of MQ-25 for the carrier will limit potential foreign customers of interest, but land based options are being investigated. The Ground Control Station for the MQ-25 is the Lockheed Martin MDCX. Any future sales of MQ-25 will need to also be aligned with the sale of MDCX.

Is design for international exportability planned?	Yes	**Industry/Partner Exportability Cost-Sharing?**	No

Program Protection: Technology Security and Foreign Disclosure Issues

Missile Technology Control Regime (MTCR) will restrict the exportability of MQ-25. MQ-25 has been classified as a Category I treated as a Category II Unmanned Aircraft System under MTCR. Each country request will be reviewed on a case-by-case basis and the Department of Navy will not sponsor any International Traffic in Arms Regulations exemptions. Additional future challenges include weapon stores.

(U) Agreements

No International Agreements have been defined for MQ-25

Modernized
Selected Acquisition Report
Supplement

MQ-25 Stingray
(MQ-25)

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

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
MQ-25 Stingray

Short Name
MQ-25

PNO
462

Lead Component
Navy

AAF Pathway
MCA

Acquisition Type
MDAP

Acquired Systems
MQ-25

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

MQ-25 Stingray

Major Software Efforts

Title	Status	Fielding Date	Description
Block 4	Development	Jan 2024	Software required for ground test

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts
Obsolescence EMD redesign	Mar 2028	Mar 2028	Redesign of Vehicle Management System Computer, Joint Precision Approach and Landing System Aircraft Computer System, Embedded Global Positioning System/Intertial Navigation System, Mission Management System Computer, Wide Band Satellite Communications Dual Channel Modem

Funding Sources (Acquisition)

Acquisition Funding Notes

None

MQ-25 Stingray

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	05	0605414N - Unmanned Carrier Aviation (UCA)	0605414N	3278 - MQ-25 Air System (AS)		
RDT&E	1319N	05	0604404N - Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) System	0604404N	3278 - MQ-25 Development	x	x
Procurement	1506N	04	0449 - MQ-25	0305205N	-		
Procurement	1506N	06	0605 - Spares and Repair Parts	0305205N	-	x	
MILCON	1205N	01	62613233 - PDI: MQ-25 Facility	0712876N	-		
MILCON	1205N	01	C1002222 - MQ-25 Aircraft Laydown Facilities	0212176N	-		
MILCON	1205N	01	62613233 - PDI: MQ-25 Facility	0712876N	-		
MILCON	1205N	03	64482044 - Planning and Design	0901211M	-		

Funding Sources (Operating and Support)

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

Operating and Support Funding Notes

None

MQ-25 Stingray

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
O&M	1804N	01	1A1A - Mission and Other Flight Operations	0305205N	-	x	
O&M	1804N	01	1D4D - Weapons Maintenance	0305205N	-		
O&M	1804N	01	1A5A - Aircraft Depot Maintenance	0305205N	-		
Procurement	1506N	05	0599 - MQ-25 Series	0204112N	-		

Acquisition Estimate and Quantity Summary

MQ-25 Stingray

Acquisiton Estimates

Category PB 2025	TY ($M)	Current Base Year CY2018 ($M)	Original Base Year CY2018 ($M)	Report Fiscal Year CY2024 ($M)
RDT&E	3,871.8	3,218.3	3,218.3	3,929.1
Procurement	12,995.5	8,912.2	8,912.2	10,880.5
MILCON	773.6	570.7	570.7	696.7
O&M	-	-	-	-
Total Acquisition	17,640.9	12,701.2	12,701.2	15,506.3
PAUC	232.117	167.121	167.121	204.030
APUC	193.963	133.018	133.018	162.395

Acquisiton End-Item Quantities

System PB 2025	Development	Procurement
MQ-25	9	67
Total	**9**	**67**

Unit Description

Number of aircraft

Static and Fatigue Test Articles not included in the Development Assets

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

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	2,288.7	246.4	200.3	197.9	197.5	197.2	198.3	345.5	3,871.8
Procurement	226.5	54.5	553.0	683.9	729.7	882.4	1,188.6	8,677.0	12,995.5
MILCON	200.4	114.5	-	-	121.8	-	-	336.9	773.6
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	**2,715.6**	**415.4**	**753.4**	**881.7**	**1,049.0**	**1,079.5**	**1,386.9**	**9,359.4**	**17,640.9**

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

MQ-25 Stingray

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

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2018 ($M)
Total		**3,871.8**	**3,871.8**	**-**	**3,218.3**
2017		28.200	28.2	1.000370	28.2
2018		140.712	140.7	1.024874	137.3
2019		446.638	446.6	1.044613	427.6
2020		571.134	571.1	1.083027	527.3
2021		204.364	204.4	1.131703	180.6
2022		212.119	212.1	1.190826	178.1
2023		685.536	685.5	1.226277	559.0
2024		246.394	246.4	1.254270	196.4
2025		200.345	200.3	1.280877	156.4
2026		197.883	197.9	1.307775	151.3
2027		197.510	197.5	1.335239	147.9
2028		197.152	197.2	1.363279	144.6
2029		198.300	198.3	1.391907	142.5
2030		202.267	202.3	1.421138	142.3
2031		143.214	143.2	1.450981	98.7

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

MQ-25 Stingray

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

1506N - Aircraft Procurement, Navy									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2018 ($M)
Total	**9,236.5**	**316.7**	**1,115.9**	**1,018.6**	**448.5**	**859.4**	**12,995.5**	**-**	**8,912.2**
2017							-	1.019898	-
2018							-	1.040524	-
2019							-	1.069229	-
2020							-	1.111405	-
2021							-	1.162383	-
2022	47.468	-	-	57.749		-	105.2	1.208146	87.1
2023	-	-	-	121.233		-	121.2	1.241505	97.7
2024	11.982	-	-	42.500		-	54.5	1.269283	42.9
2025	505.155	2.290	-	-		45.582	553.0	1.296162	426.7
2026	485.247	-	26.635	115.349		56.622	683.9	1.323381	516.7
2027	505.972	-	8.000	116.093		99.608	729.7	1.351172	540.0
2028	719.535	-	-	118.773		44.086	882.4	1.379547	639.6
2029	941.860	-	-	123.073		123.679	1,188.6	1.408517	843.9
2030	926.188	8.250	-	164.502		152.410	1,251.4	1.438096	870.1
2031	926.850	65.366	234.762	53.124	224.233	78.266	1,582.6	1.468296	1,077.8
2032	915.102	65.304	236.369	53.124	134.540	82.669	1,487.1	1.499130	992.0
2033	917.183	65.346	238.610	53.124	89.693	73.206	1,437.2	1.530612	938.9
2034	946.261	65.464	253.974	-		34.119	1,299.8	1.562755	831.7
2035	877.598	27.371	76.475	-		35.211	1,016.7	1.595573	637.2
2036	510.104	17.261	41.049	-		33.940	602.4	1.629080	369.8

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

MQ-25 Stingray

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

1205N - Military Construction, Navy					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2018 ($M)
Total		**773.6**	**773.6**	**-**	**570.7**
2017		51.600	51.6	1.052976	49.0
2018			-	1.092054	-
2019			-	1.134064	-
2020			-	1.181952	-
2021			-	1.223024	-
2022		148.800	148.8	1.250531	119.0
2023			-	1.279578	-
2024		114.495	114.5	1.306994	87.6
2025			-	1.334511	-
2026			-	1.362535	-
2027		121.840	121.8	1.391149	87.6
2028			-	1.420363	-
2029			-	1.450190	-
2030		336.850	336.9	1.480644	227.5

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

MQ-25 Stingray

1319N - Research, Development, Test & Eval, Navy				
fiscal year	MQ-25			Total
Total	**9**			**9**
Undistributed				-
2019	4			4
2020	3			3
2021				-
2022				-
2023	2			2

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

MQ-25 Stingray

1506N - Aircraft Procurement, Navy				
fiscal year	MQ-25			Total
Total	**67**			**67**
Undistributed				-
2019				-
2020				-
2021				-
2022				-
2023				-
2024				-
2025	3			3
2026	3			3
2027	3			3
2028	5			5
2029	7			7
2030	7			7
2031	7			7
2032	7			7
2033	7			7
2034	7			7
2035	7			7
2036	4			4

O&S Independent Cost Estimate

MQ-25 Stingray

Independent and Current Cost Estimate Comparison

Category CY2018 ($M)	Independent Cost Estimate 8/15/2018	Current Estimate 2/28/2024	Variance with ICE (%)
Unit-Level Manpower	4,414.0	3,662.9	-17%
Unit Operations	625.0	672.8	8%
Maintenance	5,825.0	5,211.8	-11%
Sustaining Support	658.0	1,174.9	79%
Continued System Improvements	1,257.0	1,150.9	-8%
Other			-
Total O&S	**12,779.0**	**11,873.4**	**-7%**

Independent Cost Estimate Source

Event: Milestone B
Type: Independent Cost Estimate
Approved by: OSD Cost Assessment & Program Evaluation, August 15, 2018
Note: The Independent Cost Estimate (ICE) was produced and is documented above in a CY2017$. There is no way for the cost team to translate this into a CY2018$, the Base Year for the program.

Current Cost Estimate Source

Type: Program Office Estimate
Approved by: Cost and Schedule Analysis Director, February 28, 2024
Note: Estimates based on latest Program Office Estimate derived from the Component Cost Estimate approved January 19, 2023.

Cost Estimate Variance Explanation

Original ICE was prepared in preparation for Milestone B in 2018. At the time, the cost were displayed in CY2017$. At this time, the OSD Cost Assessment and Program Evaluation (CAPE) ICE was $14,614M and the Service Cost Position, built by the Naval Air Systems Command, was $13,554M. At the time difference were outlined to be from inflation, personnel inflation costs, and additional escalation being applied to engine Depot-Level Repair costs.

Since 2018, the cost team continues to update assumptions and technical baselines to best capture the future program costs.

Changes from last SAR include updated Navy Military Composite Rates from SAR Supplement, updated Satellite Services estimate to a 5TB data plan, as well as updates to fuel pricing/inflation, flight hour profiles, net repair pricing, and aircraft profiles.

Nuclear Costs

MQ-25 Stingray

Program's Use of Department of Energy Resources

None

Operational Fielding Plan

MQ-25 Stingray

System: MQ-25

Fielding and Inventory Notes
Fielding plan based on PB25 procurement buy profile.

MQ-25 Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					-
2024	-		-		-
2025	-	-			-
2026	-	3			3
2027	-	2			5
2028	-	3			8
2029	-	3			11

Annual Operating and Support Estimates by Cost Element

MQ-25 Stingray

System: MQ-25

Source for TY-CY Conversion: OSD 2024 Inflation

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 CY2018 ($M)
Total	**3,662.9**	**672.8**	**5,211.8**	**1,174.9**	**1,150.9**	**-**	**11,873.4**
2020	1.558	-	-	-	-		1.6
2021	3.533	-	-	-	-		3.5
2022	5.103	-	-	-	-		5.1
2023	13.966	-	-	-	-		14.0
2024	22.906	-	-	-	-		22.9
2025	42.137	-	-	2.568	-		44.7
2026	73.208	-	4.637	20.311	32.043		130.2
2027	86.135	1.407	6.228	32.899	8.157		134.8
2028	111.959	6.463	25.635	29.914	15.064		189.0
2029	137.179	6.254	24.473	32.084	17.208		217.2
2030	134.249	11.351	46.796	37.408	19.874		249.7
2031	134.249	14.002	104.030	38.717	22.865		313.9
2032	134.249	17.459	113.347	48.317	27.350		340.7
2033	134.249	25.766	176.442	42.267	32.584		411.3
2034	134.249	28.444	189.360	42.933	36.322		431.3
2035	134.249	28.815	193.063	42.839	40.808		439.8
2036	134.249	28.877	197.861	42.839	45.294		449.1
2037	134.249	28.877	201.565	50.433	49.780		464.9
2038	134.249	28.877	207.387	42.839	53.518		466.9
2039	134.249	28.877	209.610	42.839	58.752		474.3
2040	134.249	28.877	215.259	42.933	60.995		482.3
2041	134.249	28.877	218.344	42.839	60.247		484.6
2042	134.249	28.877	219.887	50.339	59.499		492.9
2043	134.249	28.877	225.265	42.933	58.752		490.1
2044	134.249	28.877	228.725	42.839	58.004		492.7
2045	134.249	28.877	230.336	42.839	58.004		494.3
2046	134.249	28.877	235.749	42.769	57.256		498.9
2047	134.249	28.877	239.209	49.882	56.509		508.7
2048	121.322	28.877	240.753	41.813	55.761		488.5
2049	108.395	28.238	245.899	41.820	51.275		475.6
2050	95.467	27.909	247.211	37.787	46.789		455.2
2051	95.467	26.961	252.363	34.201	43.051		452.0
2052	81.937	17.402	150.679	30.715	8.203		288.9

System: MQ-25

Source for TY-CY Conversion: OSD 2024 Inflation

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 CY2018 ($M)
2053	81.937	19.853	184.098	26.852	8.203		320.9
2054	69.009	16.265	163.841	20.627	4.753		274.5
2055	56.082	8.354	79.751	18.366	2.014		164.6
2056	39.157	7.841	83.773	16.114	2.014		148.9
2057	-	4.591	50.242	-	-		54.8