Modernized Selected Acquisition Report (MSAR)

RCS: DD-A&S-1429-562

MH-139A Grey Wolf (MH-139A)

As of June 2024

Program Data Alignment Application

Common Acronyms and Abbreviations

$B	Billions of Dollars
$K	Thousands of Dollars
$M	Millions of Dollars
AAF	Adaptive Acquisition Framework
ACAT	Acquisition Category
ADM	Acquisition Decision Memorandum
AP	Acquisition Program
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
ASA(ALT)	Assistant Secretary of the Army (Acquisition, Logistics and Technology)
Acq O&M	Acquisition-Related Operations and Maintenance
AoS	Acquisition of Services
BA	Budget Authority/Budget Activity
BCAT	Business System Category
BY	Base Year
Blk	Block
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCaRs	Comprehensive Cost and Requirements System
CDD	Capability Development Document
CLIN	Contract Line-Item Number
CPD	Capability Production Document
CY	Calendar Year/Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAPR	Defense Acquisition Program Reporting
DBS	Defense Business Systems
DSN	Defense Switched Network
DoD	Department of Defense
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
IAPR	Integrated Acquisition Portfolio Reviews
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
IOC	Initial Operational Capability
ISM	Information Security Marking
IT	Information Technology
Inc	Increment
JROC	Joint Requirements Oversight Council
JUON	Joint Urgent Operational Need
KPP	Key Performance Parameter
LRIP	Low-Rate Initial Production
MAR	Management Acquisition Report
MCA	Major Capability Acquisition
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
MS	Milestone
MTA	Middle Tier Acquisition
N/A	Not Applicable/Not Available
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
PDAA	Program Data Alignment Application
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager/Program Management/Project Management
PMRT	Project Management Resource Tools
POE	Program Office Estimate
PSR	Program Status Report
PdM	Product Manager
R&MF	Revolving and Management Fund
RDT&E	Research, Development, Test and Evaluation
SAF/AQ	Assistant Secretary of the Air Force - Acquisition, Technology and Logistics
SAR	Selected Acquisition Report
SCP	Service Cost Position
SWP	Software Pathway
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C.	United States Code
UCA	Urgent Capability Acquisition
UCR	Unit Cost Reporting
UON	Urgent Operational Need
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name
MH-139A Grey Wolf

Program Acronym
MH-139A

Program Type
Acquisition Program

AAF Pathway
Major Capability Acquisition (MCA)

Defense Acquisition Type
Major Defense Acquisition Program (MDAP)

PNO
562

Acquisition Phase
Production & Deployment (P&D)

ACAT
IB

BCAT

ACAT Equivalent

Component
Department of the Air Force

PEO Organization
AFPEO/ISR&SOF

PMO Organization
AFLCMC/WIH

Milestone Decision Authority
SAE

Joint Service
No

Supporting Components

Responsible Office

Program Manager
Mr. Keith S. Scheirmann
keith.scheirmann.1@us.af.mil
937-713-7751 (Commercial)
713-7751 (DSN)

Program Executive Officer
Col Joshua P. Williams
joshua.williams.1@us.af.mil
719-556-5600 (Commercial)
255-2056 (DSN)

References

Milestone APB (Production Estimate)

Service Acquisition Executive Approved Production APB dated March 3, 2023

Approved APB

Service Acquisition Executive Approved Production APB dated March 3, 2023

Mission & Description

The MH-139A Program addresses vertical lift support mission requirements for AF Global Strike Command (AFGSC) and Air Force Reserve Command (AFRC). The MH-139A will provide vertical lift support for nuclear weapon convoy escort, 24/7 adverse weather capable Intercontinental Ballistic Missile (ICBM) emergency security and operational support.

Executive Summary

Significant Developments or Changes Since the Last Report

This quarterly exception MSAR is being submitted to report a Significant Nunn-McCurdy Breach to the PAUC and APUC.

Accomplishments:
On April 19, 2024 - The MH139A program award Low-Rate Initial Production (LRIP) Lot 2 contract for $178M. This includes seven aircraft, one Operational Flight Trainer, spares and support equipment. All assets in LRIP Lot 2 support MH-139A stand-up at F.E. Warren AFB, Wyoming in 2025.

On May 21-22, 2024 - MH-139A completed the Depot Maintenance Activation Working Group Kickoff at Fleet Readiness Center East. This formation of this working group was an important milestone in establishing an organic depot maintenance capability to sustain the MH-139A Grey Wolf for its lifecycle.

Significant Issues:
A Program Deviation Report (PDR) was submitted to the Service Acquisition Executive on March 11, 2024, which documented the reduction of 38 air vehicles in the FY 2025 PB results in a PAUC of $58.5M (CY 2023) and an APUC of $40.2M (CY 2023). The updated PAUC and APUC exceeded the Milestone C APB thresholds resulting in an APB deviation. The PAUC unit cost growth from the Milestone C APB Objective was 43.7% and the APUC unit cost growth from the Milestone C APB Objective was 32.2%, both beyond the 25%-unit cost threshold for a Critical Nunn-McCurdy breach. The Under Secretary of the Air Force validated the Nunn-McCurdy breaches and submitted a Congressional notification letter in accordance with 10 U.S.C. section 4374 on April 25, 2024. The Air Force has now been authorized to purchase additional air vehicles in the upcoming Fiscal Year 2026 budget review process to support mission requirements. The program of record will now be at least 56 air vehicles, a reduction of only 24 air vehicles from the program baseline. This quantity change reduces the growth of the PAUC and the APUC below the critical Nunn-McCurdy threshold of 25 percent.

Boeing has faced significant delays to Federal Aviation Administration (FAA) certification of Supplemental Type Certificate (STC) 4 due to issues with FAA documents. These documents are related to gaining airworthiness certification. This has caused delays to Program milestones of Developmental Test (DT) completion and Operational Testing start. The issuance of STC 4 requires 55 documents to be completed, currently 53 documents have been completed. The primary outstanding artifact is the Instructions for Continued Airworthiness (ICA), which is pending close-out of the critical parts issue paper by Boeing and the FAA. Boeing now projecting issue paper resolution, estimated completion date of September 2024. The program is mitigating the impact of STC 4 delays by coordinating with the USAF Airworthiness Office for Military Flight Releases that allow for continued flight operations with Air Force Gobal Strike Command (AFGSC) and Air Force Reserve Command (AFRC).

The Integrated Maintenance Data System (IMDS) is not fully populated with accurate MH-139A Maintenance and Inspection Data required for Air Force Operational Test and Evaluation Center (AFOTEC) to exercise the Joint Reliability and Maintainability Team 60 days prior to start of Initial Operational Test & Evaluation (IOT&E). AFOTEC will not begin IOT&E without IMDS fully implemented for MH-139A.The MH-139AProgram Office is working with Boeing to transition fleet wide aircraft configuration and maintenance data from the Boeing Gold database to the Air Force-approved IMDS. Additionally, a T-0 waiver was routed to Headquarters Air Force for approval to continue using the Gold database. Currently the IMDS issue is resolved and maintenance data is being loaded for aircraft 1-6. Current and future production deliveries are not expected to be impacted by this issue. IMDS will be fully populated to support the start of IOT&E.

Defense Cost and Resource Center and Cost and Software Data Reporting Compliance Rating: Not applicable given that all contracts are Firm Fixed Price.

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

History of Significant Developments Since Program Initiation

Event Date	Description
Sep 2018	The UH-1N Replacement Program awarded a contract to The Boeing Company on September 24, 2018.
Jan 2019	The Air Vehicle (AV) Configuration Review was conducted by the UH-1N Replacement team January 15-17, 2019, to successfully validate the team’s progress towards Critical Design Review (CDR).
Jun 2019	The AV CDR was executed by the UH-1N Replacement team on June 25-27, 2019, to demonstrate that the maturity of the AV’s design meets performance requirements within cost, schedule and risk.
Oct 2019	The Developmental Test and Evaluation Test Readiness Review was conducted by the UH-1N Replacement team on October 17, 2019, to assess test objectives, methods and procedures, scope and safety.
Dec 2019	Boeing completed delivery of the first MH-139A to Duke Field, FL on December 16, 2019.
Feb 2020	The MH-139A Combined Test Team conducted its first flight with mixed Boeing/Air Force crew at Duke Field, FL on February 11, 2020.
Mar 2020	The MH-139A Program Office executed a contract mod to award two System Demonstration Text Article AVs on March 30, 2020.

Event Date	Description
Apr 2020	The MH-139A team executed a Training Systems CDR on April 7-9, 2020, to demonstrate the maturity of the aircrew training devices' designs, courseware and Type-1 training.
Dec 2020	The Operational Flight Trainer Size Reduction & Modern Air Combat Environment Undefinitized Contract Action was awarded December 17, 2020.
Apr 2021	The MH-139A Program provided notification to the MDA of an APB schedule breach. The breach is against entrance into Milestone C (MS C) and also impacts FRP and Required Assets Available. This APB breach relates to Boeing under-scoping and understaffing the Federal Aviation Administration certification process as a result of not fully understanding the FAA certification requirements for rotary aircraft. Delays and issues involving the FAA airworthiness certification effort have been further complicated by unanticipated integration testing efforts of Non-Development Items. The Program Office is working with Boeing, AFGSC, and the Integrated Test Team to identify mitigations regarding the issues driving this breach.
Sep 2021	The MH-139A closed all Training Systems CDR Action Items. All MH-139A Advance Training Devices CDRs are closed.
Feb 2022	FAA issued STC 1, this allows for modified cabin seating configuration and cabin cargo tie-down capability.
Jul 2022	The FAA issued STC 2, enabling delivery of the first four MH-139As.
Aug 2022	USAF Acceptance (DD250) of AV 1001-1004 completed.
Aug 2022	Acquisition Decision Memorandum (ADM) for updated Acquisition Strategy revising MS C Entrance Criteria Approved.
Oct 2022	An Acquisition Decision Memorandum was approved for procurement of Operational Flight Trainers prior to approval of Milestone C.
Mar 2023	Milestone C approved authorizing entrance into Low Rate Initial Production (LRIP). The program office activated the previously negotiated LRIP contract that will provide 13 air vehicles, training devices, and other production investments to support the initial fielding of the MH-139A at Malmstrom AFB and Maxwell AFB.
Jun 2023	On June 12, 2023, the MH-139A CPT was delivered to Malmstrom AFB. Installation and check-out are in progress, and government testing will occur onsite from July 6-20, 2023 prior to USAF acceptance.
Aug 2023	On Aug 28, 2023, The FAA issued STC 1A, which certifies the use of Closed Circuit Refueling and Cabin Floor Ballistic Protection System. This approval was necessary to proceed with delivery of aircraft 5 and 6.
Aug 2023	On August 9, 2023, Developmental Test, Military Flight Release Signed.
Sep 2023	On September 11, Aircraft 6 was delivered to the USAF at Duke Field, FL. This aircraft is configured with all capabilities required to complete high/hot testing in October and other remaining DT. Aircraft 5 is expected to deliver in October.
Jan 2024	In January 2024, the ADM was signed allowing for the program to move forward with the purchase of LRIP Lot 2 which includes seven aircraft, training devices, and other investments to support initial fielding. LRIP Lot 3 was delegated to the Program Executive Officer once Boeing delivers required technical data.
Feb 2024	The 413th FLTS, LDTO for the MH-139A, completed the Developmental Testing phase of the program. Initial aircraft fielding to Malmstrom AFB, Montana and Maxwell AFB, Alabama occurred in March 2024.
Feb 2024	USAF and Boeing completed testing for the Integrated Aircrew Systems Trainer (IAST) at Maxwell AFB, Alabama. This training device will be used by aircrew for ground familiarization, pre-flight, post-flight, and refueling training.
Feb 2024	Military Flight Release 005 was approved, which allows operational aircrews at Malmstrom AFB, Montana and Maxwell AFB, Alabama to conduct flight operations upon aircraft arrival at each base in March.
Mar 2024	The first two operational MH-139As were fielded to Air Force Global Strike Command (AFGSC) at Malmstrom AFB, Montana.
Apr 2024	The MH-139A program award Low-Rate Initial Production (LRIP) Lot 2 contract for $178M.
Apr 2024	The program reported a Critical Nunn-McCurdy Breach. This was due to the reduction of 38 aircraft in the FY 2025 PB. In order to meet the current requirements, the DAF is buying back additional MH-139s in future budget actions. As a result, the Nunn-McCurdy is currently downgraded from critical to significant.

Threshold Deviations/Breaches

Baseline Deviations/Breaches	
Schedule	
Performance	
Cost	
RDT&E	
Procurement	
MILCON	
Acq O&M	
Operating & Support Cost	
Unit Cost	
PAUC	✔
APUC	

Nunn-McCurdy Breaches	
Current Baseline	
PAUC	Significant
APUC	Significant
Original Baseline	
PAUC	None
APUC	None

Baseline Deviation/Breaches Explanations

Program Acquisition Unit Cost	See detailed description in the Nunn-McCurdy Breach below.

Schedule

Schedule Events

Schedule Events	Production APB March 3, 2023 (Milestone)	Production APB March 3, 2023 (Current)		Current Estimate	Actual
	Objective	Objective	Threshold		
Pre-Milestone C	Sep 2018	Sep 2018	Sep 2018	-	11 Sep 2018
AV CDR	Jun 2019	Jun 2019	Jun 2019	-	29 Jun 2019
TRR	Feb 2020	Feb 2020	Aug 2020	-	17 Oct 2019
TS CDR	Jul 2021	Jul 2021	Jul 2021	-	09 Apr 2020
Milestone C	Feb 2023	Feb 2023	Sep 2023	-	03 Mar 2023
RAA	Feb 2025	Feb 2025	Aug 2025	03 Mar 2025	-
FRP	Mar 2025	Mar 2025	Feb 2026	01 Jul 2025	-

Notes

This Nunn-McCurdy breach is due to a unit reduction in the FY 2025 PB. If shortfalls identified in the Nunn-McCurdy Service Cost Position are not addressed in the FY 2026/FY 2027 budget years, then the program may not be able to procure the contractual minimum number of aircraft quantities requiring renegotiation which will likely result in schedule delays and significant cost increases.

Acronyms and Abbreviations

Term	Definition
AV	Air Vehicle
CDR	Critical Design Review
FRP	Full Rate Production
RAA	Required Assets Available
TRR	Test Readiness Review
TS	Training System

Source: PDAA MSAR 30 Jun 2024

Performance

Performance Attributes

Performance Attributes	Production APB March 3, 2023 (Milestone)	Production APB March 3, 2023 (Current)		Current Estimate	Actual	Demonstrated Performance
	Objective	Objective	Threshold			
Carrying Capacity (KPP-1) KPP	Capable of carrying nine combat equipped troops (2475 lbs) and equipment (719 lbs) (3194 lbs of the total ICBM, ESR, SCL) IAW ICBM ESR mission profile.	Capable of carrying nine combat equipped troops (2475 lbs) and equipment (719 lbs) (3194 lbs of the total ICBM, ESR, SCL) IAW ICBM ESR mission profile.	(T=O) Capable of carrying nine combat equipped troops (2475 lbs) and equipment (719 lbs) (3194 lbs of the total ICBM, ESR, SCL) IAW ICBM ESR mission profile.	Capable of carrying nine combat equipped troops (2475 lbs) and equipment (719 lbs) (3194 lbs of the total ICBM, ESR, SCL) IAW ICBM ESR mission profile.	TBD	TBD
Sustainment (KPP-8) KPP	Operational Availability (Mission Capability) rate of 83% (Mission Capable hours / Possessed hours). Materiel Availability rate of 76% (MC hours / TAI hours)	Operational Availability (Mission Capability) rate of 83% (Mission Capable hours / Possessed hours). Materiel Availability rate of 76% (MC hours / TAI hours)	(T=O) Operational Availability (Mission Capability) rate of 83% (Mission Capable hours / Possessed hours). Materiel Availability rate of 76% (MC hours / TAI hours)	Operational Availability (Mission Capability) rate of 83% (Mission Capable hours / Possessed hours). Materiel Availability rate of 76% (MC hours / TAI hours)	TBD	TBD
Training (KPP-10)	The goal of UH-1N replacement Training System is to efficiently train aircrews to enable the aircraft to function as designed to support assigned missions throughout its life cycle. The airframe itself will not require any specific operational performance characteristics; aircrew will operate and train on aircraft as it normally performs. The full training system compliment should include an ATS consisting of training devices, courseware, Type 1 Training, spare parts, support equipment and technical data. These devices	The goal of UH-1N replacement Training System is to efficiently train aircrews to enable the aircraft to function as designed to support assigned missions throughout its life cycle. The airframe itself will not require any specific operational performance characteristics; aircrew will operate and train on aircraft as it normally performs. The full training system compliment should include an ATS consisting of training devices, courseware, Type 1 Training, spare parts, support equipment and technical data. These devices	(T=O) The goal of UH-1N replacement Training System is to efficiently train aircrews to enable the aircraft to function as designed to support assigned missions throughout its life cycle. The airframe itself will not require any specific operational performance characteristics; aircrew will operate and train on aircraft as it normally performs. The full training system compliment should include an ATS consisting of training devices, courseware, Type 1 Training, spare parts, support equipment and technical data.	The goal of UH-1N replacement Training System is to efficiently train aircrews to enable the aircraft to function as designed to support assigned missions throughout its lifecycle. The airframe itself will not require any specific operational performance characteristics; aircrew will operate and train on aircraft as it normally performs. The full training system compliment should include an ATS consisting of training devices, courseware, Type1 Training, spare parts, support equipment and technical data. These devices must replicate the performance of the airframe and provide full	TBD	TBD

Performance Attributes	Production APB March 3, 2023 (Milestone)	Production APB March 3, 2023 (Current)		Current Estimate	Actual	Demonstrated Performance
	Objective	Objective	Threshold			
KPP	must replicate the performance of the airframe and provide full spectrum training capability.	must replicate the performance of the airframe and provide full spectrum training capability.	These devices must replicate the performance of the airframe and provide full spectrum training capability.	spectrum training capability.		
Mission Range (KPP-4) KPP	Un-refueled range of 515 nm at cruise airspeed with sufficient useable fuel reserves to continue flight for 20 minutes under Hot Day conditions performing the COOP/Transport SCL IAW NCR 3A mission profile. Additional range provides increased distance capability desired for alternate locations for the NCR mission.	Un-refueled range of 515 nm at cruise airspeed with sufficient useable fuel reserves to continue flight for 20 minutes under Hot Day conditions performing the COOP/Transport SCL IAW NCR 3A mission profile. Additional range provides increased distance capability desired for alternate locations for the NCR mission.	Un-refueled range of 225 nm at cruise airspeed with sufficient useable fuel reserves to continue flight for 20 minutes under Hot Day conditions performing the COOP/Transport SCL IAW NCR 3A mission profile.	Un-refueled range of 225 nm at cruise airspeed with sufficient useable fuel reserves to continue flight for 20 minutes under Hot Day conditions performing the COOP/Transport SCL IAW NCR 3A mission profile.	TBD	TBD
Energy (KPP-11) KPP	Average burn rate across both SCL profiles will not exceed 150 GPH.	Average burn rate across both SCL profiles will not exceed 150 GPH.	Average burn rate across both SCL profiles will not exceed 185 GPH.	Average burn rate across both SC profiles will not exceed 150 GPH.	TBD	TBD
System Survivability - Flight Damage (KPP-7)	95 percent probability to withstand flight critical damage for 30 minutes imposed by a single hit at all azimuths and elevation angles within the bottom hemisphere while the aircraft is in a level flight attitude from a 7.62x39mm M1943 BZ API projectile at 50-meter slant range and 12.7x108mm B32 API projectile at 250-meters slant range.	95 percent probability to withstand flight critical damage for 30 minutes imposed by a single hit at all azimuths and elevation angles within the bottom hemisphere while the aircraft is in a level flight attitude from a 7.62x39mm M1943 BZ API projectile at 50-meter slant range and 12.7x108mm B32 API projectile at 250-meters slant range.	95 percent probability to withstand flight critical damage for 30 minutes imposed by a single hit at all azimuths and elevation angles within the bottom hemisphere while the aircraft is in a level flight attitude from a 7.62x39mm M1943 BZ Armor Piercing Incendiary (API) projectile at 100-meter slant range and 12.7x108mm B32 API projectile at 500-meters slant angle. IAW DoDI 8510.01, The airframe shall be capable of cybersecurity	95 percent probability to withstand flight critical damage for 30 minutes imposed by a single hit at all azimuths and elevation angles within the bottom hemisphere while the aircraft is in a level flight attitude from a7.62x39mmM1943 BZ API projectile at 50-meter slant range and 12.7x108mmB32 API projectile at 250-metersslant range.	TBD	TBD

Performance Attributes	Production APB March 3, 2023 (Milestone)	Production APB March 3, 2023 (Current)		Current Estimate	Actual	Demonstrated Performance
	Objective	Objective	Threshold			
KPP			evaluation for MX equipment, flight planning equipment and ground based computer hardware and software with physical access control to systems and data ports. The system monitors and controls for system data exchanges at external boundaries with mechanics for preventing the deployment of malicious code being installed to prevent airframe system compromise. If a cyber system is compromised, the aircraft should be able to perform its primary mission IAW profiles list in Appendix A of the CPD.			
Force Protection - Floor (KPP-5) KPP	Cockpit and cabin floor shall be able to provide ballistic protection at zero degrees obliquity against small arms fire up to 12.7x99 M33 ball at 500 meter range at V50 probability of penetration. If armor is used, it must be removable and accounted for in basic aircraft weight.	Cockpit and cabin floor shall be able to provide ballistic protection at zero degrees obliquity against small arms fire up to 12.7x99 M33 ball at 500 meter range at V50 probability of penetration. If armor is used, it must be removable and accounted for in basic aircraft weight.	Cockpit and cabin floor shall be able to provide ballistic protection at zero degrees obliquity against small arms fire up to 7.62x39mm M43 Type PS ball at 100-meter range at V50 probability of penetration. If armor is used, it must be removable and accounted for in basic aircraft weight.	Cockpit and cabin floor shall be able to provide ballistic protection at zero degrees obliquity against small arms fire up to 7.62x39mm M43 Type PS ball at 100-meter range at V50 probability of penetration. If armor is used, it must be removable and accounted for in basic aircraft weight.	TBD	TBD
Airspeed (KPP-2)	Using no more than maximum continuous power, the UH-1N Replacement must be capable of maintaining 135 KTAS for the en-route portion	Using no more than maximum continuous power, the UH-1N Replacement must be capable of maintaining 135 KTAS for the en-route portion	(T=O) Using no more than maximum continuous power, the UH-1N Replacement must be capable of maintaining 135 KTAS for the	Using no more than maximum continuous power, the UH-1N Replacement must be capable of maintaining 135 KTAS for the en-route portion of the	TBD	TBD

Performance Attributes	Production APB March 3, 2023 (Milestone)	Production APB March 3, 2023 (Current)		Current Estimate	Actual	Demonstrated Performance
	Objective	Objective	Threshold			
KPP	of the ICBM ESR mission profile with 3194 lbs of the ICBM ESR SCL on a High Hot Day IAW ICBM ESR mission profile	of the ICBM ESR mission profile with 3194 lbs of the ICBM ESR SCL on a High Hot Day IAW ICBM ESR mission profile	en-route portion of the ICBM ESR mission profile with 3194 lbs of the ICBM ESR SCL on a High Hot Day IAW ICBM ESR mission profile	ICBM ESR mission profile with 3194 lbs of the ICBM ESR SCL on a High Hot Day IAW ICBM ESR mission profile		
Unrefueled Endurance (KPP-3)	4.0 hours unrefueled flight performing in the ICBM convoy escort mission profile with SCL plus an additional 45 nm flight to the refueling location with sufficient usable fuel reserves to continue fight for 20 minutes. IAW convoy escort mission profile. Additional flight time provides enough gas for return flight home if necessary for additional security compliment.	4.0 hours unrefueled flight performing in the ICBM convoy escort mission profile with SCL plus an additional 45 nm flight to the refueling location with sufficient usable fuel reserves to continue fight for 20 minutes. IAW convoy escort mission profile. Additional flight time provides enough gas for return flight home if necessary for additional security compliment.	3.0 hours unrefueled flight performing in the ICBM convoy escort mission profile with SCL plus an additional 45 nm flight to the refueling location with sufficient usable fuel reserves to continue fight for 20 minutes IAW convoy escort mission profile.	Current estimate 3.2 hours.	TBD	TBD
APA						

Requirement Source(s)

Sponsors(s): Department of the Air Force (Air Force)

Document(s): CPD, UH-1N Replacement CPD, JROC, June 22, 2016

Notes

KPP-3 Unrefueled Endurance is listed as an APA. This is an error it should be listed as a KPP, this error should be fixed when the new APB is published.

The performance Estimates reflect the Program's APB thresholds and Actuals are TBD due to them not being demonstrated yet. At this time with IOT&E start date not confirmed, an estimated date can not be given.

Acronyms and Abbreviations

Term	Definition
API	Armor Piercing Incendiary
ATS	Aircrew Training System
COOP	Continuation of Operations
CPD	Capability Production Document
ESR	Emergency Security Response
GPH	Gallons Per Hour
IAW	In Accordance With
ICBM	Inter-Continental Ballistic Missile
KTAS	Knots True Airspeed

Term	Definition
MC	Mission Capability
NCR	National Capital Region
SCL	Standard Configuration Load
TAI	Total Aircraft Inventory

Track to Budget

Notes

No Data

Research, Development, Test and Evaluation (RDT&E) Appropriations

3600 - Research, Development, Test, and Evaluation, Air Force

BA	PE	Project	BLI	BSA	Shared	Sunk
00	0102110F	672021			No	No

Name
3600 BA 00 PEC 0102110F BPAC 672021

Procurement Appropriations

3010 - Aircraft Procurement, Air Force

BA	PE	Project	BLI	BSA	Shared	Sunk
00	0101235F	1100H1			No	No

Name
3010 BA 00 PEC 0101235F BPAC 1100H1

3010 - Aircraft Procurement, Air Force

BA	PE	Project	BLI	BSA	Shared	Sunk
00	0102110F	10H139			No	No

Name
3010 BA 00 PEC 0102110F BPAC 10H139

3010 - Aircraft Procurement, Air Force

BA	PE	Project	BLI	BSA	Shared	Sunk
00	0102110F	10UH1X			No	No

Name
3010 BA 00 PEC 0102110F BPAC 10UH1X

3010 - Aircraft Procurement, Air Force

BA	PE	Project	BLI	BSA	Shared	Sunk
00	0102110F	16UH1X			No	No

Name
3010 BA 00 PEC 0102110F BPAC 16UH1X

Cost & Funding

Cost Summary

Acquisition Budget Estimate

Category	TY $M			CY $M (BY 2023)			
	Production APB 3 Mar 2023 (Milestone)	Production APB 3 Mar 2023 (Current)	Current Estimate	Production APB 3 Mar 2023 (Milestone)	Production APB 3 Mar 2023 (Current)		Current Estimate
	Objective	Objective		Objective	Objective	Threshold	
RDT&E	$625.000	$625.000	$617.700	$676.000	$676.000	$743.600	$700.037
Procurement	$2,503.000	$2,503.000	$1,966.700	$2,252.000	$2,252.000	$2,477.200	$1,752.396
MILCON	$318.000	$318.000	$310.270	$330.000	$330.000	$363.000	$332.567
Total	$3,446.000	$3,446.000	$2,894.670	$3,258.000	$3,258.000	-	$2,785.000

Current APB Cost Estimate Reference

Type: Other

Approved By: AFCAA, February 14, 2023

Cost Estimate Reference

Type: Program Office Estimate (POE)

Approved By: Air Force Cost Analysis Agency (AFCAA), August 23, 2024

Notes:
The current estimate includes the following: Prior year actuals and the estimated cost associated with procuring and fielding a total of 30 production aircraft in FY 2025 through FY 2029.

Cost Notes

No Data

Quantity

Category	Then Year Objective		Current Estimate
	Production APB 03 Mar 2023 (Milestone)	Production APB 03 Mar 2023 (Current)	
RDT&E	6	6	6
Procurement	74	74	50

Quantity Notes

The FY 2025 PB reduced the total Air Vehicles by 38, a Program Deviation Report was submitted to the Service Acquisition Executive SAE on March 11, 2024, identifying a potential Nunn-McCurdy Unit Cost breach to PAUC and APUC, and the Under Secretary of the Air Force validated the Nunn-McCurdy breaches and submitted a Congressional notification letter in accordance with 10 U.S.C. section 4374 on April 25, 2024. In order to meet current requirements, the DAF is buying back additional MH-139s in current budget actions. As a result, the Nunn-McCurdy is currently downgraded from critical to significant.

Annual Funding by Appropriation

3600 - Research, Development, Test, and Evaluation, Air Force - RDT&E			
Fiscal Year(s)	**Quantity**	**TY $M**	**CY $M**
2016	-	$0.000	$0.000
2017	-	$3.000	$3.589
2018	4	$187.900	$220.162
2019	-	$190.000	$218.560
2020	2	$161.200	$180.781
2021	-	$28.100	$30.099
2022	-	$15.900	$16.164
2023	-	$17.600	$17.278
2024	-	$14.000	$13.403
2025	-	$0.000	$0.000
2026	-	$0.000	$0.000
2027	-	$0.000	$0.000
2028	-	$0.000	$0.000
2029	-	$0.000	$0.000
2030	-	$0.000	$0.000
Total	6	$617.700	$700.037

3010 - Aircraft Procurement, Air Force - Procurement			
Fiscal Year(s)	**Quantity**	**TY $M**	**CY $M**
2016	-	$1.600	$1.897
2017	-	$0.000	$0.000
2018	-	$0.000	$0.000
2019	-	$0.000	$0.000
2020	-	$0.000	$0.000
2021	-	$0.000	$0.000
2022	8	$0.000	$0.000
2023	5	$332.900	$315.658
2024	7	$238.800	$221.959
2025	8	$296.800	$270.167
2026	2	$188.600	$168.145
2027	4	$262.000	$228.780
2028	7	$304.600	$260.508
2029	9	$301.200	$252.301
2030	-	$40.200	$32.981
Total	50	$1,966.700	$1,752.396

3300 - Military Construction, Air Force - MILCON		
Fiscal Year(s)	**TY $M**	**CY $M**
2016	-	-
2017	-	-
2018	$123.460	$137.962
2019	$129.700	$140.600
2020	$26.200	$27.215
2021	-	-
2022	-	-
2023	-	-
2024	$0.000	$0.000

3300 - Military Construction, Air Force - MILCON		
Fiscal Year(s)	**TY $M**	**CY $M**
2025	-	-
2026	-	-
2027	$30.910	$26.790
2028	-	-
2029	-	-
2030	-	-
Total	$310.270	$332.567

Funding Summary

Appropriation Summary Current Estimate or Actuals (TY $M) (PB 2026)									
Appropriation	Prior	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
RDT&E	$586.100	$17.600	$14.000	$0.000	$0.000	$0.000	$0.000	$0.000	$617.700
Procurement	$1.600	$332.900	$238.800	$296.800	$188.600	$262.000	$304.600	$341.400	$1,966.700
MILCON	$279.360	-	$0.000	-	-	$30.910	-	-	$310.270
Jun 2024 SAR Total	$867.060	$350.500	$252.800	$296.800	$188.600	$292.910	$304.600	$341.400	$2,894.670
PB 2025 Total	$1,018.356	$213.250	$260.794	$328.488	$188.398	$201.803	$171.144	$104.810	$2,487.043
Delta	($151.296)	$137.250	($7.994)	($31.688)	$0.202	$91.107	$133.456	$236.590	$407.627

Quantity Summary Current Estimate or Actuals (TY $M) (PB 2026)										
Quantity	Undistributed	Prior	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
RDT&E	-	6	-	-	-	-	-	-	-	6
Procurement	-	8	5	7	8	2	4	7	9	50
Jun 2024 SAR Total	-	14	5	7	8	2	4	7	9	56
PB 2025 Total	0	14	5	7	8	2	2	2	2	42
Delta	0	0	0	0	0	0	2	5	7	14

Funding Notes

A reduction of 38 air vehicles in the FY 2025 PB resulted in a Critical Nunn-McCurdy Breach. The Under Secretary of the Air Force validated the Nunn-McCurdy breaches and submitted a Congressional notification letter in accordance with 10 U.S.C. section 4374 on April 25, 2024. In order to meet current requirements, the DAF is buying back additional MH-139s in current budget actions. As a result, the Nunn-McCurdy is currently downgraded from critical to significant.

Risks

Risk and Sensitivity Analysis

Current Procurement Cost (Jun 2024)	
1	There are no known risks; beyond those associated with the quantity drop and the Nunn-McCurdy.

Current Baseline Estimate (Mar 2023)

(1) The CY 2023 Service Cost Position includes dollars based on uncertainty and risk analysis. Cost Growth is low risk as evidenced by the low % growth from the original baseline. With development over 90% complete and FFP NTE pricing for current and future production lots, additional cost growth is anticipated to be minimal. Additionally, most future modifications to the aircraft will be initiated as new programs, further insulating the program from cost growth.

Original Baseline Estimate (Sep 2018)

No Risk and Sensitivity Analysis provided

Significant Schedule Risks

Event	Date	Description
Current Estimate	December 31, 2023	IF P25 Radio is not integrated, installed on test Air Vehicles and Military Flight Release (MFR) issued in time for IOT&E (Sep 2024 - Feb 2025), THEN planned Initial Operational Capability schedule will be delayed. **MITIGATION:** Due to delays in FAA certification schedule, the MH-139A Program Office is coordinating for issuance of a MFR ahead of FAA certification. MFR issuance is dependent upon the program's ability to produce test artifacts needed to satisfy airworthiness criteria, normally produced via FAA certification, for the MFR. Additionally, the AF and Boeing synchronized the retrofit schedule with test asset needs and incorporated efficiencies into the test plan such as combined contractor, developmental and operational testing. Combined testing is scheduled to begin in July 2024 in order to produce artifacts needed for Operational MFR issuance in September 2024.
Current Estimate	December 31, 2023	IF Interface Control Documents (ICDs) are not updated for technical completion THEN Functional Configuration Audits (FCAs) cannot be closed and Physical Configuration Audits cannot be conducted; negatively affecting production decisions and long-term organic sustainment. **MITIGATIONS:** The program office successfully conducted a detailed face-to-face meeting in late February 2024 with Boeing to review discrepancies and expectations for future ICD submittals. Boeing has started delivery of satisfactory ICD submittals that meet criteria and expectations agreed upon at the February meeting. Remaining ICDs are scheduled to deliver by end of July 2024 that will reduce this risk's severity. Once the last ICD is accepted, FCAs can be closed and PCAs conducted and closed to fully mitigate this risk. Satisfactorily conducted FCAs and PCAs will verify a technically sufficient understanding of the production baseline and enable program office engineering to support organic sustainment from field requests and depot requests for technical support.
Current Estimate	December 31, 2023	IF Boeing is unable to deliver required supplier-owned technical data to support full documentation of the product baseline and development of depot-level technical orders THEN the MH-139A long term organic sustainment strategy cannot be implemented. **MITIGATION:** The MH-139A Program Office collaborated with other DoD Program Offices and stakeholders for lessons learned on programs with similar tech data risks to organic sustainment. As a result, a TDP delivery strategy was developed that uses a metered gate process before each incremental future production decision. Boeing understands and concurs with the strategy. The Service Acquisition Executive (SAE) concurred with the TDP delivery strategy and approved Milestone C on March 3, 2023. This strategy will inform the SAE on the progress of data delivery before each future incremental production decision. AF working groups evaluated supplier data via contractor portal as sufficient. The next mitigation step is establishing long-term AF access to Leonardo data (ECD 4QFY24). Additional access or delivery methods are in-work for remaining supplier data.

Significant Technical Risks

Event	Date	Description
Current Estimate	December 31, 2023	IF P25 Radio is not integrated, installed on test Air Vehicles and Military Flight Release (MFR) issued in time for IOT&E (Sep 2024 - Feb 2025), THEN planned Initial Operational Capability schedule will be delayed. **MITIGATION:** Due to delays in FAA certification schedule, the MH-139A Program Office is coordinating for issuance of a MFR ahead of FAA certification. MFR issuance is dependent upon the program's ability to produce test artifacts needed to satisfy airworthiness criteria, normally produced via FAA certification, for the MFR. Additionally, the AF and Boeing synchronized the retrofit schedule with test asset needs and incorporated efficiencies into the test plan such as combined contractor,

Event	Date	Description
		developmental and operational testing. Combined testing is scheduled to begin in July 2024 in order to produce artifacts needed for Operational MFR issuance in September 2024.
Current Estimate	December 31, 2023	IF Interface Control Documents (ICDs) are not updated for technical completion THEN Functional Configuration Audits (FCAs) cannot be closed and Physical Configuration Audits cannot be conducted; negatively affecting production decisions and long-term organic sustainment. **MITIGATIONS:** The program office successfully conducted a detailed face-to-face meeting in late February 2024 with Boeing to review discrepancies and expectations for future ICD submittals. Boeing has started delivery of satisfactory ICD submittals that meet criteria and expectations agreed upon at the February meeting. Remaining ICDs are scheduled to deliver by end of July 2024 that will reduce this risk's severity. Once the last ICD is accepted, FCAs can be closed and PCAs conducted and closed to fully mitigate this risk. Satisfactorily conducted FCAs and PCAs will verify a technically sufficient understanding of the production baseline and enable program office engineering to support organic sustainment from field requests and depot requests for technical support.
Current Estimate	December 31, 2023	IF Boeing is unable to deliver required supplier-owned technical data to support full documentation of the product baseline and development of depot-level technical orders THEN the MH-139A long term organic sustainment strategy cannot be implemented. **MITIGATION:** The MH-139A Program Office collaborated with other DoD Program Offices and stakeholders for lessons learned on programs with similar tech data risks to organic sustainment. As a result, a TDP delivery strategy was developed that uses a metered gate process before each incremental future production decision. Boeing understands and concurs with the strategy. The Service Acquisition Executive (SAE) concurred with the TDP delivery strategy and approved Milestone C on March 3, 2023. This strategy will inform the SAE on the progress of data delivery before each future incremental production decision. AF working groups evaluated supplier data via contractor portal as sufficient. The next mitigation step is establishing long-term AF access to Leonardo data (ECD 4QFY24). Additional access or delivery methods are in-work for remaining supplier data.

Low-Rate Initial Production

Item	Initial LRIP Decision Details	Current Total LRIP Decision Details
Approval Date	March 3, 2023	January 3, 2024
Approved Quantity	13	20
Reference	Milestone C ADM	MH-139A Lot 2 and 3 ADM
Start Year	2024	2025
End Year	2025	2026

Initial LRIP Quantity as a Percentage of Total Production Quantity: 26.00%

The initial decision for LRIP at Milestone C is based on a program record of 80 aircraft.

Current LRIP Quantity as a Percentage of Total Production Quantity: 40.00%

The United States Air Force Service Acquisition Executive, approved the purchase of LRIP Lot 2 which includes and additional seven aircraft.

Notes

Not Provided

Source: PDAA MSAR 30 Jun 2024

Nuclear Costs

No Data

Unit Cost

Current Baseline and Current Estimate (BY 2023 $M)				
Unit Cost Item	Production APB March 3, 2023 (Current)	Current Estimate	% Change	
Program Acquisition Unit Cost				
Total Acquisition Cost	$3,258.000	$2,785.000		
Total Quantity	80	56		
Unit Cost	$40.725	**$49.732***	+22.12%†	Significant Cost Growth
Average Procurement Unit Cost				
Procurement Cost	$2,252.000	$1,752.396		
Procurement Quantity	74	50		
Unit Cost	$30.432	$35.048	+15.17%†	Significant Cost Growth

***Threshold Breach**
†Nunn-McCurdy Breach

Original Baseline and Current Estimate (BY 2023 $M)				
Unit Cost Item	Development APB September 11, 2018 (Original)	Current Estimate	% Change	
Program Acquisition Unit Cost				
Total Acquisition Cost	$3,739.180	$2,785.000		
Total Quantity	84	56		
Unit Cost	$44.514	$49.732	+11.72%	
Average Procurement Unit Cost				
Procurement Cost	$2,737.597	$1,752.396		
Procurement Quantity	80	50		
Unit Cost	$34.220	$35.048	+2.42%	

Impacts of Schedule Changes on Unit Cost

This Nunn-McCurdy breach is due to a unit reduction in the FY 2025 PB. If shortfalls identified in the Nunn-McCurdy Service Cost Position are not addressed in the FY 2026/FY 2027 budget years, then the program may not be able to procure the contractual minimum number of aircraft quantities requiring renegotiation which will likely result in schedule delays and significant cost increases.

Impacts of Performance Changes on Unit Cost

This Nunn-McCurdy breach is due to a unit reduction in the FY 2025 PB, there is no impact to Program Performance identified at this time.

Actions Taken or Proposed to Control Unit Cost Growth

This Nunn-McCurdy breach is due to a unit reduction in the FY 2025 PB, the contracts for this Program are Firm Fixed Price and the reduction is within the contract parameters.

Notes

A Program Deviation Report (PDR) was submitted to the Service Acquisition Executive on March 11, 2024, which documented the reduction of 38 air vehicles in the FY 2025 PB resulting in a PAUC of $58.5M (CY 2023) and an APUC of $40.2M (CY 2023). The updated PAUC and APUC exceeded the Milestone C APB thresholds resulting in an APB deviation. The PAUC unit cost growth from the Milestone C APB Objective was 43.7% and the APUC unit cost growth from the Milestone C APB Objective was 32.2%, both beyond the 25%-unit cost threshold for a Critical Nunn-McCurdy breach. The Under Secretary of the Air Force validated the Nunn-McCurdy breaches and submitted a Congressional notification letter in accordance with 10 U.S.C. section 4374 on April 25, 2024. The Air Force has now been authorized to purchase additional air vehicles in the upcoming Fiscal Year 2026 budget review process to support mission requirements. The program of

record will now be at least 56 air vehicles, a reduction of only 24 air vehicles from the program baseline. This quantity change reduces the growth of the PAUC and the APUC below the critical Nunn-McCurdy threshold of 25 percent.

Cost Variance

Then Year ($M) Summary						
Item	**RDT&E**	**Procurement**	**MILCON**	**ACQ O&M**	**R&MF**	**Total**
Milestone Baseline†	$625.000	$2,503.000	$318.000	-	-	$3,446.000
Previous Current Estimate (Dec 2023 SAR)	$620.311	$1,587.332	$279.400	-	-	$2,487.043
Current Estimate	$617.700	$1,966.700	$310.270	-	-	$2,894.670
Current Changes	($2.611)	$379.368	$30.870	$0.000	$0.000	$407.627

Constant Year ($M) Summary						
Item	**RDT&E**	**Procurement**	**MILCON**	**ACQ O&M**	**R&MF**	**Total**
Milestone Baseline†	$676.000	$2,252.000	$330.000	-	-	$3,258.000
Previous Current Estimate (Dec 2023 SAR)	$702.718	$1,438.886	$305.822	-	-	$2,447.426
Current Estimate	$700.037	$1,752.396	$332.567	-	-	$2,785.000
Current Changes	($2.681)	$313.509	$26.746	$0.000	$0.000	$337.574

†Production APB - March 3, 2023

Contracts

Contract Notes

Contracts for this Program are Firm Fixed Price and the FY 2025 PB reduction and corresponding DAF buyback are within the contract parameters.

Contract Identification

Appropriation
Research, Development, Test and Evaluation (RDT&E)

Contract Name
UH-1N

Contract / Effort Number
FA873918C5030

Contract Type
Firm Fixed Price (FFP)

Contractor Name
THE BOEING COMPANY

Contractor Location
100 S STEWART AVE, RIDLEY PARK, PA, 19078-1001

Award Date
September 24, 2018

Definitization Date

Contract Price

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Quantity	Target	Ceiling	Quantity	Contractor	PM
$375.500	-	84	$811.916	-	80	-	$1,019.099

Target Price Change Explanation

The difference between the Initial Target Price and the Current Target Price is due to additional air vehicles being procured. The original contract was to deliver four Air Vehicles, a modification was later issued to procure an additional two Air Vehicles for the developmental test and the Low-Rate Initial Production Lot 1 modification was awarded to procure an additional 13 Air Vehicles for the MH-139A Program. An additional 7 aircraft were procured April 2024 as part of the Low-Rate Initial Production Lot2 modification

Cost Variance Explanation

Cost and Schedule Variance reporting is not required on this FFP type contract.

Schedule Variance Explanation

Cost and Schedule Variance reporting is not required on this FFP type contract,

General Contract Variance Explanation

Cost and Schedule Variance reporting is not required on this FFP type contract.

Notes

The MH-139A is replacing the UH-1N.

International Program Aspects

No International Agreements Defined

General Memo

Not Applicable

Exportability and Business Issues

Program will not be designed to support international exportability.

An exportability waiver and U.S. Only design is not required by the MDA.

This program does not plan to use Industry/Partner Exportability Cost-Sharing in one or more International Agreements.

Not Applicable

Technology Security and Foreign Disclosure Issues

Not Applicable.

Source: PDAA MSAR 30 Jun 2024

Deliveries & Expenditures

Delivered to Date				
Quantity	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	6	6	6	100.00%
Procurement	3	1	50	2.00%
Total Program Quantity	9	7	56	12.50%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	$2,894.670	Years Appropriated	9
Total Expended to Date	$1,435.414	Percent Years Appropriated	60.00%
Percent Total Program Expended	49.59%	Appropriated to Date	$1,470.360
Total Funding Years	15	Percent Appropriated	50.80%

Data above is current as of July 15, 2024

Notes

For FY 24 three aircraft are planned to be delivered. As of today only one has been delivered with the other two being delivered end of August/September.

Current Estimate Source: CCaR Estimate 21 Aug 2029
Source: PDAA MSAR 30 Jun 2024

O&S Costs

Cost Estimate Details

Date of Estimate	Source of Estimate		
August 21, 2029	Program Office Estimate (POE)		
Quantity to Sustain	**Unit of Measure**	**Unit Expected Service Life (Years)**	**Fiscal Years in Service**
42	Aircraft	30 years	FY 2019 - FY 2061

Sustainment Strategy

Quarterly Exception MSAR FY2025 PB with Fact of life changes July 2024:
The O&S Cost Sustainment strategy defines a 2-Level Maintenance Approach:
O-Level Maintenance -- Transition to user Service Provided Maintenance contract by FY 2024.
D-Level Maintenance -- All Airframe Depot Maintenance reflected as Unscheduled and Scheduled Maintenance.

FY 2026 PB +14 Aircraft - OSD Tasker: 2-Level Maintenance Approach: • O-Level Maintenance -- Transition to user Service Provided Maintenance (SPM) contract by FY24. • D-Level Maintenance -- All Airframe Depot Maintenance reflected as Unscheduled and Scheduled Maintenance.

Antecedent Information

No Data

Annual Operating and Support Costs		
	TY Cost Estimate	CY Cost Estimate
Subcategory ($M) BY (2023)	Grey Wolf (MH-139A) (Acquired System)	Grey Wolf (MH-139A) (Acquired System)
Unit-Level Manpower	$5,649.500	$3,813.700
Unit Operations	$1,128.900	$756.000
Maintenance	$4,530.400	$2,952.900
Sustaining Support	$1,206.200	$782.500
Continuing System Improvements	$377.500	$253.500
Other	-	-
Total Operating & Support Cost	$12,892.500	$8,558.600

Total O&S Cost BY (2023) $M			
	Grey Wolf (MH-139A)		
	Production APB , March 3, 2023		Current Estimate
Cost	Objective	Threshold	
Constant Year	$14,368.000	$15,804.800	$8,558.600
Then Year	$21,851.000	-	$12,892.500

O&S Cost Variance

Total	CY $M (BY 2023) Estimate	
Prior SAR O&S - Dec 2023 SAR	$8,558.600	
Subcategory	**Change from Prior ($M)**	**Change Explanation**
Unit-Level Manpower	($2,432.754)	Updated phasing and labor rates; Decreased headcount, basing, and buy quantity.
Unit Operations	($730.360)	Updated fuel rates and phasing, decreased buy quantity and total flying hours.
Maintenance	($2,118.332)	Updated phasing, decreased buy quantity and total flying hours.
Sustaining Support	($289.262)	Updated phasing, decreased buy quantity and total flying hours.
Continuing System Improvements	($238.469)	Updated phasing, decreased buy quantity and total flying hours.
Other	-	-

Total Changes	($5,809.177)
Total O&S (Current Estimate)	$8,558.600

Annual Operating and Support Costs per Unit

Subcategory ($M) BY (2023)	Grey Wolf (MH-139A) Estimate
Unit-Level Manpower	$3.027
Unit Operations	$0.600
Maintenance	$2.344
Sustaining Support	$0.621
Continuing System Improvements	$0.201
Other	-
Annual O&S Cost Per Unit	$6.793
Assumptions	
Quantity to Sustain	42
Unit Expected Service Life (Years)	30
Unit of Measure	Aircraft
Fiscal Years Operational	2021 - 2045

Calculating Annual O&S Cost Per Unit

No Data

Disposal Estimate Details

Date of Estimate
August 21, 2029

Source of Estimate
Program Office Estimate (POE)

Total Disposal Cost (BY 2023 $M)
$8.190