



# PMA 266

## Modern Day Marine 2026

### PRESENTED BY:

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# Portfolio Chart



MQ-9A Block 5



MQ-9A Block -5 -25



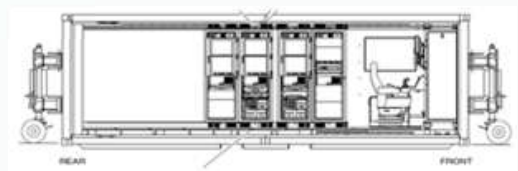
Block 30  
Ground Control Station (GCS)



Sky Tower I Pod



COP/CIP



Secure MCE



Sky Tower II Pod



Electronic Warfare Pod



Detect And Avoid System  
(DAAS)



# PROGRAM BACKGROUND



## 1. The Operational Problem (2016-present)

- USMC lacked a long-endurance, expeditionary, persistent ISR platform to support Marine in distributed maritime operations
- Legacy systems could not provide persistent ISR, maritime domain awareness or tactical relay at the needed range and tempo

## 2. Early Concept: A Single Ship-Based “Do It All” Platform

- Initial MUX vision (2016-202) aimed at a Group 5 shipboard launch.
- Program analysis showed it would be too costly, too complex, and too slow to field

## 3. Pivot to a Timely Fieldable Solution

- Reset to a land-based MALE solution using MQ-9A to deliver capability faster (within 2 years)
- Adopted a family-of-systems approach instead of a single exquisite platform- MAGTF UAS Expeditionary (MUX)

### PMA-266 MISSION

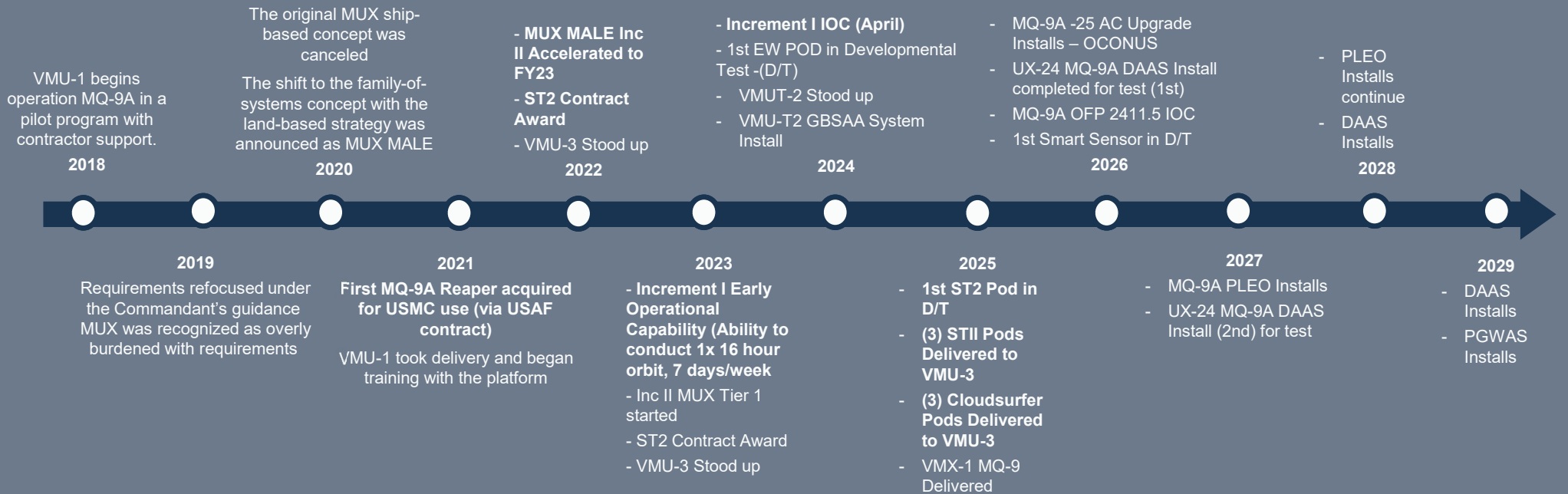
To translate Unmanned Aerial System (UAS) Information Warfare requirements into Fleet Capabilities.





# MQ-9A MUX MALE Key Milestones

PMA-266, in collaboration with industry partners, has equipped the Marine Corps Unmanned Aerial Vehicle Squadrons (VMUs 1, T2, and 3) with the MUX MALE (MQ-9A). The MQ-9A is a remotely piloted aircraft (RPA) that can conduct a variety of mission sets, including Intelligence, Surveillance, and Reconnaissance (ISR) over land and sea. This modern aircraft improves the Marine Corps' situational awareness and operational flexibility, allowing them to carry out missions more precisely. It first flew in 2001 but was acquired for USMC use 20 years later.





# Current Program

## Operational Contribution:

The MQ-9A expands the Marine Corps' ability to sense deep, maintain persistent maritime domain awareness, and connect Marines across distributed formations; all essential to stand-in force concepts and the Commandant's priorities for Force Design. The platform provides long-range Intelligence Surveillance Reconnaissance (ISR), maritime domain awareness, and tactical data relay in theaters where range, geography, and contested electromagnetic conditions challenge legacy capabilities.

## Modernization & Capability Growth:

The program is executing a focused and incremental modernization path.

1. SkyTower II: improves Joint, Navy, and Marine Corps C2 resiliency through multi-path, contested-environment networking
  2. EW Pod and Smart Sensor Payload System: introduce advanced sensing, fusion, and autonomous processing at the tactical edge
  3. Detect-and-Avoid (DAAS): expands global airspace access and safer integration into partner airspace.
- These upgrades keep the MQ-9A ahead of pacing threats while supporting Joint kill-chain integration.



# Conclusion & Way Forward

The MQ-9A MUX MALE is being decisively modernized to meet the challenges of a rapidly evolving battlefield. By integrating advanced capabilities, we are ensuring that this critical asset remains a cornerstone of the Marine Air Ground Task Force's warfighting advantage. Our progress to date demonstrates a clear path to delivering a more resilient and connected capability to the warfighter.

## The Way Forward

1. **Expand autonomous capabilities to reduce operator workload and increase mission tempo**
2. **Improve onboard and offboard data compression to enable faster, more efficient information exchange**
3. **Enhance resilient C2 pathways with low-probability-of-intercept/low-probability-of-detect (LPI/LPD) communications**
4. **Increase integration of multi-domain sensors to provide timely, actionable battlespace awareness**
5. **Strengthen open architecture standards to accelerate tech insertion and interoperability**
6. **Advance edge-processing capabilities to enable decision-quality data at the point of need**



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