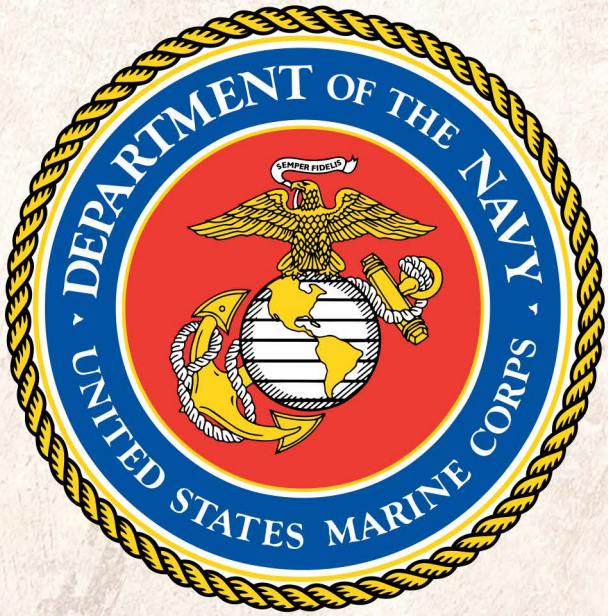
2026
MARINE AVIATION PLAN



February 2026

U.S. Marine Corps photo by Lance Cpl. Michael Gavin

FROM THE DEPUTY COMMANDANT FOR AVIATION

BALANCING READINESS AND AVIATION MODERNIZATION FOR THE FUTURE FIGHT

The United States faces a global landscape defined by strategic competition, contested norms, and the wide proliferation of advanced military technologies. As the character of warfare changes, Marine Aviation's responsibility to safeguard our Nation's security and support Marines in combat grows ever more consequential.

Project Eagle is the Marine Corps' strategic blueprint for the future Aviation Combat Element (ACE)—a strategy designed to strengthen National Defense by balancing near-term **crisis response readiness** with the delivery of long-term **modernization of Marine Aviation** for the **future fight**.

To do so requires a winning TEAM-of-TEAMs approach that is grounded in four guiding themes:

T-E-A-M
T-ake care of our Marines, Sailors, and our aircrew
E-xecute the Basics with Brilliance and precision
A-ttain and Maintain our Mission Readiness
M-itigate Risk in everything we do

This strategy ensures Marine Aviation **remains combat-credible today**, while **preparing** for the **fight tomorrow**.

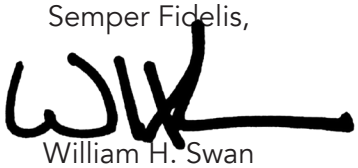
We will continue to modernize our **fixed-wing, tiltrotor, rotary-wing, AGS, C2, and unmanned systems** ensuring their sustained lethality, survivability, and global reach exceed what our Combatant Commanders demand. These efforts are designed with one purpose: **to ensure Marines on the ground have the aviation support they need**, when and where they need it, to seize their objectives - **and win**.

Executing the Basics with Brilliance and precision underpins every aspect of Marine Aviation. From flightline operations to predictive maintenance and digital logistics, data-driven decision-making ensures the ACE's efficiency, safety, and effectiveness. By maintaining this discipline, we build the foundation for **Mission Excellence and Risk Mitigation**.

Mission readiness remains our most important measure of success and **our top priority**. Through modernization, innovation, and **relentless execution of the fundamentals**, Marine Aviation will remain a critical piece of the Corps' combined arms Naval Expeditionary Force. We will be **capable of immediate crisis response** while **delivering the most lethal, capable, future ACE possible** to preserve the warfighting edge required to **deter and defeat any adversary**.

As we move forward, **Marine Aviation** will remain **Naval in character, Expeditionary in mindset, and focused on the Marine on the ground**. With Project Eagle, we are forging a future where Marine Aviation remains ready to fight now and prepared to meet the demands of the next era of conflict—a balance our Nation and Corps demands we deliver.

Semper Fidelis,



William H. Swan
Lieutenant General, U.S. Marine Corps
Deputy Commandant for Aviation

TABLE OF CONTENTS

SECTION 1: MARINE AVIATION STRATEGY: PROJECT EAGLE

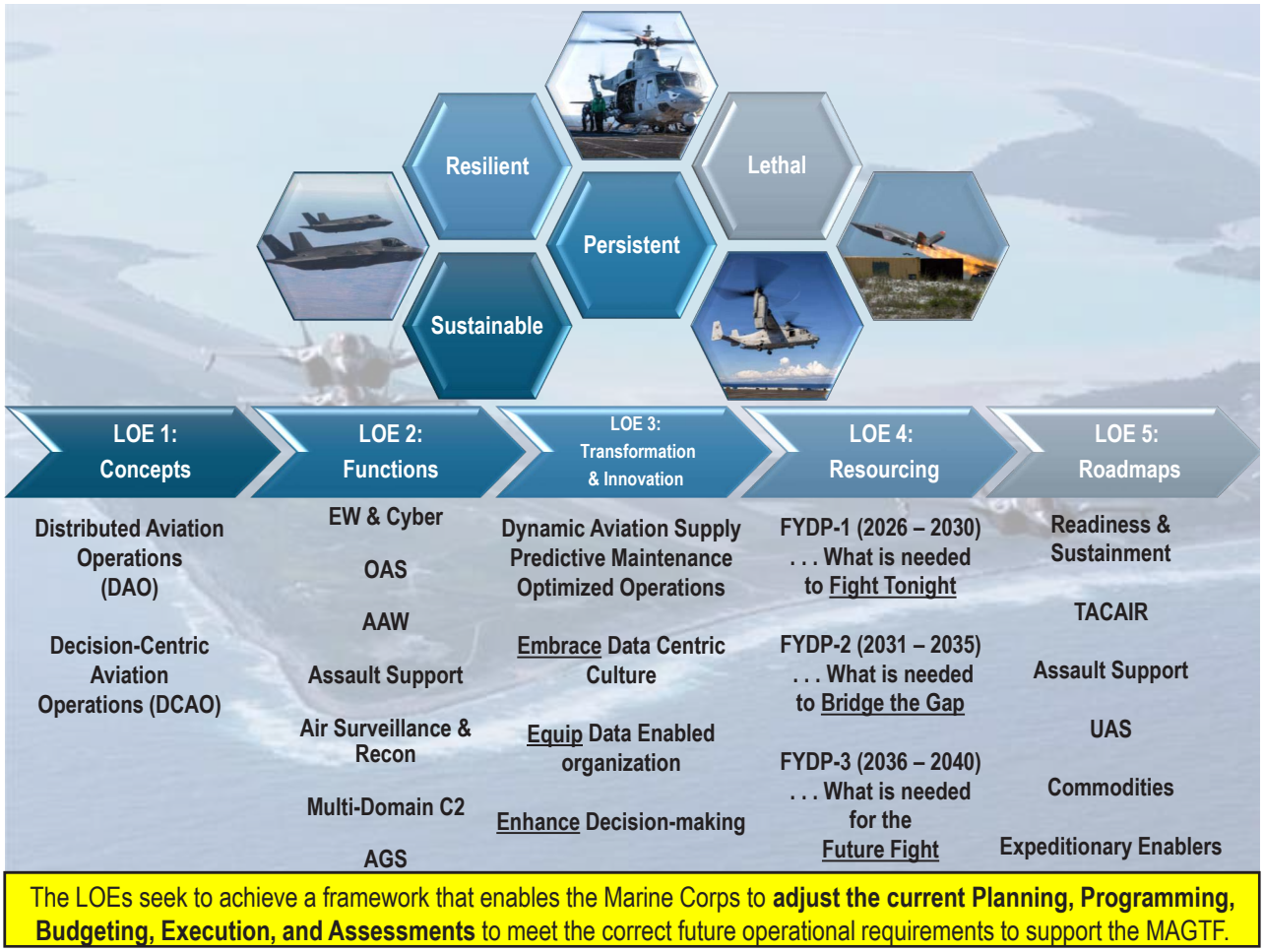
Marine Aviation must remain ready for combat today while aggressively modernizing for the threat environment of tomorrow. The character of warfare is evolving under the pressures of strategic competition, contested logistics, and rapidly advancing technologies. To remain lethal and relevant, Marine Aviation must not only meet Marine Corps requirements; it must close critical gaps in the Marine Air Ground Task Force (MAGTF) and Joint Force's ability to project combat power under threat. Project Eagle provides this framework. It guides Marine Aviation toward a future force that is more survivable, more distributed, more data-enabled, and more lethal across the Range Of Military Operations (ROMO).

Project Eagle is a living strategy designed to adapt as new threats emerge, ensuring Marine Aviation can persist, sustain, and prevail in contested environments. It continuously refines assumptions, incorporates operational feedback, and aligns our modernization pathway with Service-wide priorities. This plan reflects the current state of that evolution and sets conditions for the capabilities, investments, and modernization decisions that follow in subsequent sections.

PROJECT EAGLE AND THE EVOLUTION OF MARINE AVIATION

Project Eagle is aligned under the Commandant's service modernization efforts, establishing the strategic path for Marine Aviation across three Future Years Defense Programs (FYDPs). It enables the Marine Corps to translate operational requirements into deliberate, long-term modernization, ensuring aviation capabilities evolve at the speed of relevance. This approach strengthens the rigor of the Planning, Programming, Budgeting, Execution, and Assessments (PPBEA) cycle by extending our planning horizons beyond a single FYDP and synchronizing modernization with Combat Development and Integration (CD&I) and Programs and Resources (P&R).

Project Eagle is how the Marine Corps communicates its vision to the Department of the Navy (DoN), the Office of the Secretary of War (OSW), Congress, and industry. Now in Phase 3, execution and refinement, Project Eagle is the connective tissue between strategic guidance and platform-level programs described throughout the remainder of the 2026 Marine Corps Aviation Plan (AVPLAN).



The LOEs seek to achieve a framework that enables the Marine Corps to **adjust the current Planning, Programming, Budgeting, Execution, and Assessments** to meet the correct future operational requirements to support the MAGTF.

PROJECT EAGLE LINES OF EFFORT

Line of Effort 1: Concepts - Distributed Aviation Operations and Implementation of Decision Centric Aviation Operations

Distributed Aviation Operations (DAO) is Marine Aviation's central contribution to Expeditionary Advanced Base Operations (EABO) and the Corps' ability to operate inside contested maritime spaces. DAO disperses aviation assets across multiple expeditionary sites to increase survivability, complicate adversary targeting, and provide persistent, lethal support to the Stand-In Force (SIF). DAO is essential to operating under anti-access and area-denial conditions and is the conceptual foundation for how Marine Aviation will fight alongside the Naval and Joint Force.

Decision Centric Aviation Operations (DCAO) enhances DAO. It is the effort to increase the speed and quality of decision-making by leveraging data, digital tools, and emerging Artificial Intelligence/ Machine Learning (AI/ML)-enabled decision support. As the aviation-specific line of effort within this digital transformation, DCAO is the functional application of the service's Project Dynamis, a formal initiative to accelerate Marine Corps contributions to Combined Joint All-Domain Command and Control (CJADC2). This initiative is the Corps' component of a wider Department of War (DoW) effort to build an AI-powered, decision-centric warfighting network. By achieving data dominance—the ability to sense, process, share, and act on information faster than an adversary—DCAO strengthens every aspect of DAO. It ensures distributed sites remain connected, informed, and decision-relevant. As DCAO matures, it will enable distributed forces to rapidly re-task, adapt to changing conditions, and close kill webs faster than any competitor. DAO provides the operational posture; DCAO provides the decision advantage that allows the MAGTF to outmaneuver and overwhelm adversaries in contested environments. Together, DAO and DCAO set the conceptual foundation for the capabilities, technologies, and force structure changes detailed in the rest of the AVPLAN.

Line of Effort 2: Integrate AGS as the Seventh Function of Marine Aviation

The functions of Marine Aviation are continuously evaluated and updated to meet evolving operational demands. The most substantial recent change has been the establishment of Aviation Ground Support (AGS) as the seventh function. AGS is the backbone of DAO. As the Aviation Combat Element (ACE) becomes more distributed and expeditionary, AGS becomes the critical determinant of whether Marine Aviation can sustain combat power in contested environments. To meet this requirement, Project Eagle elevates AGS as a core function of Marine Aviation and directs the recapitalization of its capabilities.

Modernizing AGS ensures the ACE can generate fuel, power, maintenance, mobility, airfield services, and expeditionary infrastructure from austere and rapidly shifting locations. No other Service fields a formation equivalent to the MAGTF's task-organized AGS capability. Recapitalizing AGS is essential for protecting aviation combat power, mitigating risk from degraded supply lines and adversary pressure, and enabling the distributed sustainment concepts.

U.S. Marine Corps photo by Lance Cpl. Michael Gavin

Line of Effort 3: Transforming Marine Aviation for the Future Fight with the integration of Artificial Intelligence (AI) and Machine Learning (ML)

The successful transformation of Marine Aviation hinges on resolving a core problem: "Marine Corps Aviation remains reactive in maintenance, supply, and operations planning, limiting readiness and reducing the ability to sustain distributed aviation operations and crisis response." To outpace peer adversaries, the ACE cannot rely on legacy processes; it must become a data-enabled force. This requires leveraging modern data architectures, interoperable networks, and AI-enabled decision support to turn information into a decisive operational advantage. Ultimately, the ability to anticipate readiness, rapidly assess options, and make faster, more precise decisions is now foundational to generating and sustaining combat power.


U.S. Marine Corps photo by Lance Cpl. Micah Thompson

To begin this transformation, Marine Aviation is fusing maintenance, supply, and operational data to field predictive sustainment and operational decision tools that reduce cognitive load, increase aircraft availability, and enhance lethality, an initiative further detailed in Section 2.3, "Transforming Aviation Sustainment for the Future Fight." These AI/ML efforts provide the decision speed and operational foresight required for the ACE to sustain distributed operations in contested spaces. They are in direct alignment with Project Dynamis, as they provide the practical capabilities needed to achieve its strategic goal of transforming the Marine Corps into a data-centric force that can generate a decisive advantage through superior, high-speed decision-making.

Line of Effort 4: Resourcing through FYDPs

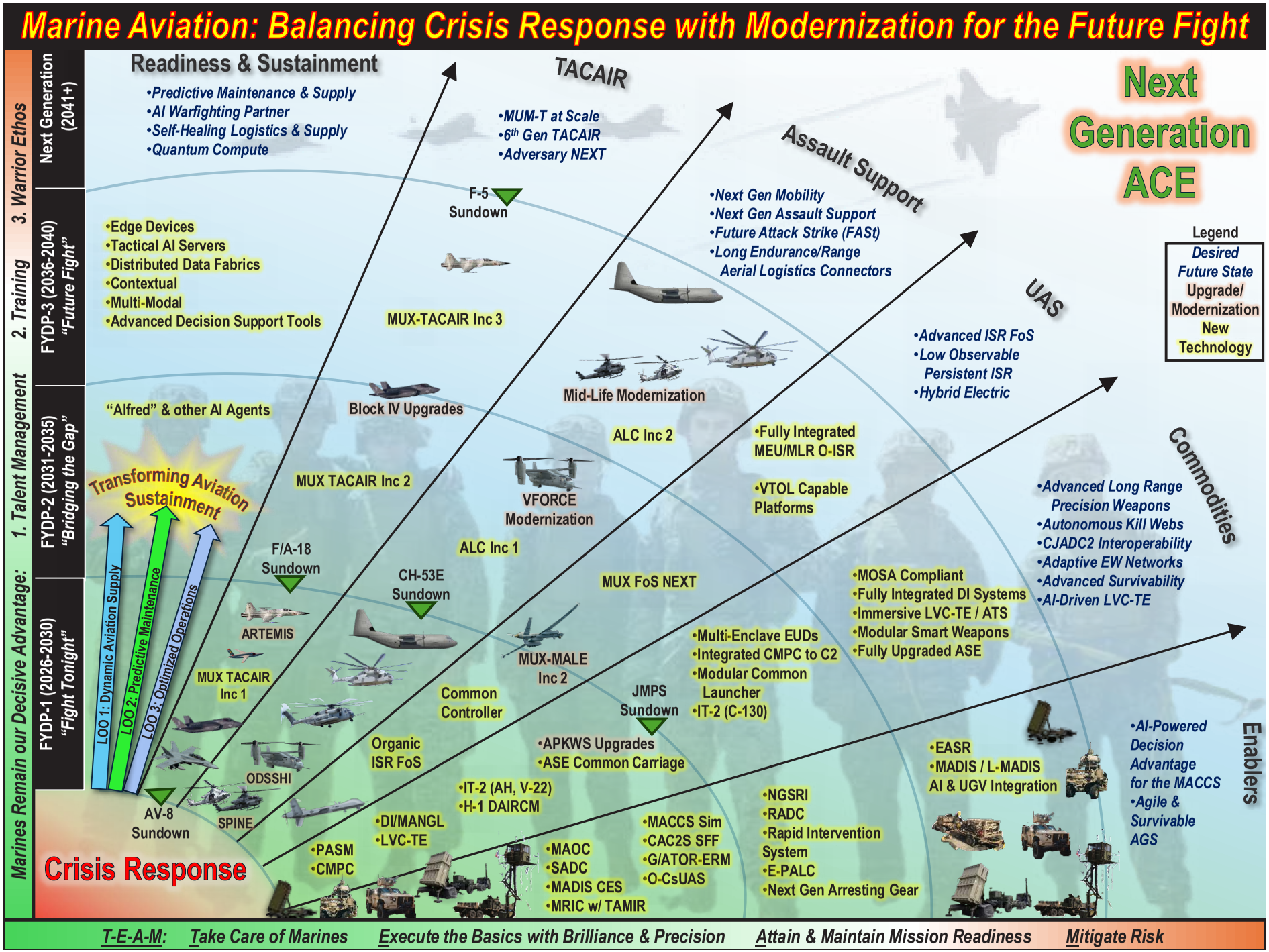
Marine Aviation must be ready for combat, while innovating to remain lethal and relevant through the future. Project Eagle guides this balance by aligning investments across FYDPs ensuring Marine Aviation remains funded, coherent, and synchronized with larger Force Design priorities. This disciplined approach ensures that every dollar contributes to maintaining today's readiness while building tomorrow's capability.

Line of Effort 5: Platform and Capability Roadmaps

Platform and capability roadmaps ensure Marine Aviation modernizes coherently across the enterprise. They align transitions, prevent capability gaps, and sequence upgrades and investments in a deliberate, threat-informed manner. These roadmaps guide platform modernization, Digital Interoperability (DI) improvements, and capability development efforts detailed in later sections of this AVPLAN. Through these coordinated efforts, Marine Aviation will maximize lethality, survivability, and effectiveness in support of MAGTF and Joint Operations.


U.S. Marine Corps photo by Lance Cpl. Christian Salazar

Marine Aviation: Balancing Crisis Response with Modernization for the Future Fight



SECTION 2: MARINE AVIATION READINESS

U.S. Marine Corps photo by Sgt. Tyler Andrews

In accordance with the Commandant's guidance, Marine Aviation will maintain high readiness for crisis response while modernizing for the future fight. Nested within Project Eagle, the graphic on page four provides the roadmap for Marine Aviation and frames the priorities detailed in the AVPLAN sections that follow.

2.1 SAFETY NORTH STAR: "26 IN 26"

Safety is a critical component of Aviation Readiness. Damaging aircraft and injuring or killing Marines directly degrades our readiness and ability to defend the nation. Mishap prevention requires a TEAM effort focused on fundamental, disciplined execution of the basics.

Historically, 78.8% of all our mishaps have human factors involved. Additionally, nearly 30% of our Class A through D aviation mishaps are related to procedural non-compliance. This means 30% of our Class A through D mishaps could have either been prevented or had reduced severity if we simply upheld our standard. Ruthless adherence to the standards and brilliance in our fundamental basics – can't be just words – but need to be actions.

By simply executing our Basic Fundamentals with discipline, we will eliminate mishaps caused by procedural non-compliance and reduce the overall Marine Corps Aviation mishap rate by 30%. The path to a 30% total mishap reduction requires consistent, incremental improvement in the adherence of our standards. Starting in FY26, we will target a 50% reduction in the total number of procedural non-compliance mishaps year-over-year to achieve a 45 total mishap reduction by 2028. By doing so, we will reduce the number of mishaps as follows:

2026: Reduce Class A-D mishaps by 26.

2027: Reduce Class A-D mishaps by an additional 13 mishaps than 2026.

2028: Reduce Class A-D mishaps by an additional 6 mishaps than 2027.

This steady reduction of mishaps will improve our compliance to 90-98% for our fundamental standards and procedures while reducing our total number of mishaps to less than 100 per year.

To reach this attainable goal, sturdy leadership at all levels is required to foster a culture of trust and high reliability through clear direction, strong supervision, proper briefs, risk mitigation, and unwavering support by the entire TEAM. Forty-five fewer mishaps by 2028 is our "North Star," beginning with reducing our total mishaps by **26 in 2026**. By identifying high-risk evolutions, implementing mitigating controls, and executing **brilliance in the basics**, we will avoid mishaps caused by procedural non-compliance and increase our overall readiness.

2.2 OPERATIONAL READINESS

Operational Readiness enables swift and effective crisis response and preserves our advantage against pacing threats, particularly in the Indo-Pacific. Sustaining current aircraft requires predictable investment in programs that keep airframes, aircrew, maintainers, and enablers ready for combat. We must, and will, continue to resource sustainment, readiness, and flight hour accounts to provide mission-capable aircraft, proficient aircrew, and the enablers required and postured for global response.

At the same time, we must modernize the ACE to prepare for the distributed and contested fight of the future. This includes integrating new platforms and systems into the MAGTF while sustaining existing capabilities throughout transition periods. Working closely with the Fleet Marine Force (FMF) and program offices, we will identify and mitigate transition risks as we procure the F-35 and CH-53K, sustain and modernize our existing fleet, and advance H-1 modernization to ensure responsive, aviation-delivered fires in support of MAGTF operations. We will also maintain investments that satisfy Global

Floor munitions requirements while accelerating development of future weapons that enhance lethality in contested environments.

Consistent, disciplined sustainment funding is essential to preserving readiness and crisis response capabilities while enabling modernization. Marine Aviation must maximize the value of every available dollar and divest requirements that no longer support strategic priorities. Through responsible fiscal stewardship and a forward-looking approach, we will balance remaining combat-credible today, while continuing to build a more lethal, capable, resilient, and data-enabled force for tomorrow.

2.3 TRANSFORMING AVIATION SUSTAINMENT FOR THE FUTURE FIGHT

Marine Aviation sustainment is transitioning toward a modernized, predictive, data-enabled system designed to support aviation operations across the ROMO. By implementing modern data analytics, we will enhance our ability to maintain high readiness and augment the task of sustaining aviation forces operating inside contested environments. These modernization efforts are not future aspirations; they are active lines of operation that are already delivering capability and informing the enterprise, decisions, and resourcing.

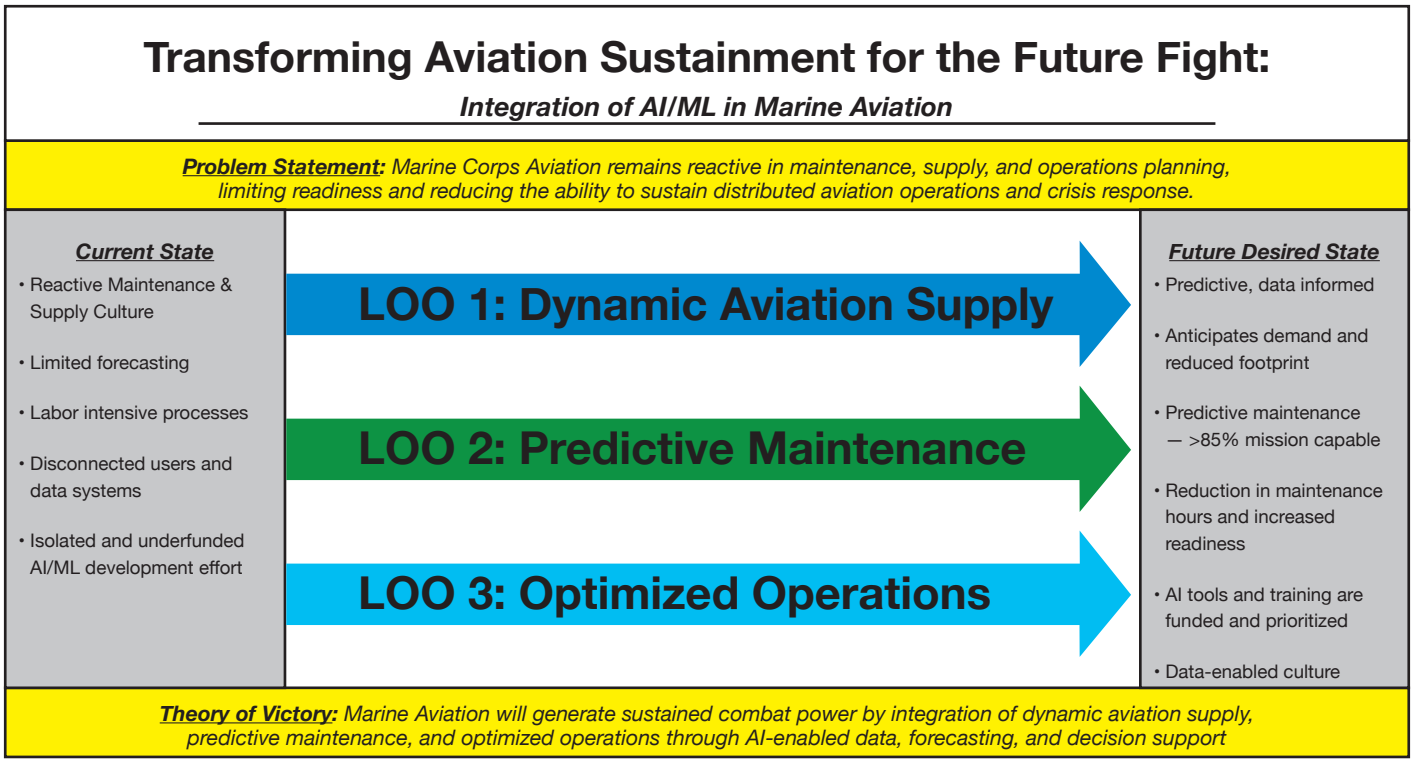
To develop a more accurate forecasting capability and clearer visibility of component health and demand, Marine Aviation is partnering with companies to consolidate F-35 maintenance, supply, and operations data into a singularly accessible system. Another effort is developing AI-enabled analytic tools for MV-22s and KC-130Js that allow maintainers and logisticians to visualize readiness trends, identify anomalies, and anticipate sustainment requirements.

Together, these pathfinder efforts will move Marine Aviation toward more dynamic aviation supply, predictive maintenance, and optimized operations, while serving as proofs-of-concept for a broader enterprise transformation. As we continue to refine these tools and expand their scaling across all Type/Model/Series (T/M/S) communities, Marine Aviation will build a sustainment force that is agile, responsive, and capable of keeping the ACE lethal and more ready across any distributed battlespace.

Line of Operation 1: Dynamic Aviation Supply

To successfully support DAO, Marine Aviation Logistics must undergo a significant modernization effort. The following steps are required:

- **Revise the supply package structure.** Supply packages must be redesigned to provide sufficient depth to sustain a highly dynamic, nodal web of aircraft and support sites. This will require a shift away from the traditional aggregation-based approach.
- **Evolve Supplemental Aviation Spares Support (SASS).** Redefine SASS employment into the broader framework, enabling seamless support for distributed operations.



- **Mitigate operational risk.** Revise the existing Marine Aviation Logistics concept to mitigate the operational risk of supply packages, ensuring a more robust and agile logistics posture that can effectively support distributed operations.
- **Support Aviation Supply Transition directed by the Fiscal Year (FY) 2022 National Defense Authorization Act (NDAA).** As part of this process, Marine Aviation is harnessing AI/ML capabilities to review unique support packages to include F-35 Afloat Spare Packages (ASP) and Base Spare Packages (BSP) for all upcoming deployments. Utilizing AI/ML will capture the latest configurations and failure rates which will improve deployed aircraft readiness rates, reduce costs, and limit material footprint.

Line of Operation 2: Predictive Maintenance

To support the modern maintainer, Project Eagle LOE 3 brings AI/ML to the flightline via Line of Operation 2: Predictive Maintenance. Leveraging cutting edge technology in maintenance empowers our Marines and generates and sustains combat power through data enablement, forecasting, and decision support. This effort represents a fundamental transition from a reactive to a proactive, predictive maintenance culture, a shift that is essential for increasing and enhancing operational readiness across the ACE.

Additionally, Marine Aviation is working with Training and Education Command (TECOM), Center for Naval Aviation Technical Training (CNATT), and industry partners to advance maintenance technical and management training. We have partnered with industry leaders to explore Advanced Maintenance Training Academies (AMTAs) and increase the overall technical aptitude and skill of maintenance professionals.

These immersive programs leverage the expertise of manufacturer instructors and engineering specialists, providing hands-on experience and 3D courseware for critical maintenance tasks on H-1 and V-22

U.S. Marine Corps photo by Lance Cpl. Bryan Giraldo

U.S. Marine Corps photo by Staff Sgt. Brett Norman

aircraft. The newly launched Aircraft Maintenance Chief Fundamentals Course delivers standardized knowledge and practical application skills, establishing a strong baseline for our Maintenance Chiefs to excel in their roles. These courses equip our Marines with standardized best practices and an in-depth technical understanding, fostering a culture of maintenance excellence.

Responsive readiness to meet our operational requirements is essential, achieved through interoperability and industry partner collaboration to address maintenance workload efficiency, personnel readiness, and agility in meeting multiple simultaneous demands without significant cost increases. Implementing solutions like a Nucleated Foam engine wash system empowers flightline units to improve engine care, enhancing readiness by reducing man-hours, extending engine life, and lowering lifecycle costs. Collaborative approaches will transform force sustainment, streamlining maintenance through advanced technologies and ensuring fully manned, trained, and ready squadrons.

Line of Operation 3: Optimized Operations

In parallel with advancements in predictive maintenance, Line of Operation 3: Optimized Operations expands the application of data-centric warfighting across the full spectrum of aviation activities. This initiative harnesses the power of our enterprise data by partnering with industry leaders to apply cutting-edge AI/ML models. By fusing data from historically separate systems like Naval Aviation Logistics Command Management Information System for Organizational Maintenance Activities (NALCOMIS), Marine Sierra Hotel Aviation Readiness Program (M-SHARP), and Global Combat Support System-Marine Corps (GCSS-MC), Marine Aviation is developing a suite of AI-enabled tools to automate and optimize the complex, data-intensive tasks of scheduling and managing flight operations and maintenance.

The ultimate outcome of Optimized Operations is a direct increase in combat readiness and lethality. By leveraging AI/ML to create smarter schedules and streamline maintenance, we generate safer, more efficient operations that reduce unscheduled downtime and increase aircraft availability. This data-driven framework allows commanders and planners to make faster, more informed decisions, ensuring the most efficient use of every asset. This operational advantage is essential to empowering Marines at all levels with the information and agility needed to outpace any adversary and ensure mission accomplishment.

Marine Aviation Sustainment Plan

Together, these pathfinding lines of operation in supply, maintenance, and operations are transforming how the ACE generates and sustains combat power. To guide this enterprise-wide transformation, the Marine Aviation Sustainment Plan from the HQMC Aviation Sustainment Branch (ASB) provides the overarching strategy to organize, train, and equip the force for distributed, high-tempo operations. This involves modernizing training, empowering personnel, and upgrading sustainment infrastructure—including aviation ordnance, logistics platforms, and digital systems—to build a more agile, interoperable, and combat-ready aviation enterprise. The plan focuses on three key areas:

- **Organize.** Empower units with bottom-up sustainment authority and strategically align talent to support modernization and interoperability.
- **Train.** Enhance technical training and maintenance management through the integration of Leadership Engagement and Accelerated Development (LEAD) principles into advanced maintenance courses and expanding AMTAs through strategic industry partnerships. These efforts will increase capacity, reduce downtime, and strengthen operational resilience.

U.S. Marine Corps photo by Sgt. Peter Rawlins

U.S. Marine Corps photo by Cpl. Adam Henke

- **Equip.** Upgrade sustainment infrastructure Electronic Consolidated Automated Support System (eCASS), Aviation Logistics Support Capability/T-AVB Next, Aviation Weapons Support Equipment (AWSE), Aviation Logistics Information Management Systems (ALIMS), and ordnance logistics to support distributed operations and reduce variability.

Implementing the Marine Aviation Sustainment Plan hinges on the modernization of the following key programs, functional areas, and information systems:

Aviation Logistics Information Management Systems (ALIMS)

A mature ALIMS Concept of Employment (COE) is needed to ensure reliable aviation sustainment information, systems, networks, and data. This COE must focus on three key areas:

- **Aviation Information Systems (AIS) Operations.** Marine Aviation's capability-based approach to installing, operating, managing, and monitoring information systems and tactical networks.
- **Tactical Local Area Network (LAN) Capability.** Maintaining a relevant Marine Aviation Logistics Squadron Tactical Aviation Data Network (MALS TADN) through software and hardware upgrades. Due to resource constraints, cybersecurity concerns, and the lack of a sustainment mechanism, maintaining baseline capability requires leveraging ad hoc solutions, repurposing legacy equipment, and seeking temporary workarounds.
- **Scalable and Tailorable AIS Support.** Provides responsive support packages providing administration, support, application, compliance, and cybersecurity.


U.S. Marine Corps photo by Lance Cpl. Manuel Alvarado

Avionics

The progression of emerging technologies, the growth of DI integration, and the need to modernize current logistics capabilities place the Avionics community's focus on the following:

- **Training.** Enhance training to operate and sustain new systems through industry partnerships and integrated learning environments, including cryptographic material application, DI systems package management, and leadership development.
- **Avionics Repair Capabilities.** Replace the aging Reconfigurable Transportable Consolidated Automated Support System (RTCASS) with eCASS to reduce operating and sustainment costs, aligning with the Navy's transition to eCASS at shore sites and aboard CVN/L-Class ships. eCASS benches began fielding in FY25 in United States Indo-Pacific Command (INDOPACOM) for F-35 intermediate-level maintenance.

Aviation Ordnance

Optimizing the balance between sustaining current operations and modernizing Marine Aviation's ordnance capabilities is crucial and requires focus on four key areas:

- **Interoperability.** Adapting the Aviation Ordnance Enterprise to support the Joint Force through cross-training, collaboration within Marine Aviation, and building interoperability with the Joint Force and partner nations.
- **Training.** Enhance live ordnance training by developing virtual trainers and improving career progression with expeditionary and initial accession training.
- **Aviation Weapons Support Equipment (AWSE).** Developing more efficient, transportable, and expeditionary equipment to support distributed operations, leveraging Joint Force partnerships to enhance interoperability and reduce redundancy.
- **Ammunition Logistics.** Rethinking weapons inventory management due to contested logistics by analyzing requirements, pre-positioning, and logistical considerations to optimize strategic stockpiles. A key component is modernizing the ammunition accounting system by integrating advancements from the DI / MAGTF Agile Network Gateway Link (DI/MANGL) network to improve the fidelity of inventory reporting, ammunition transacting, and data analytics.


U.S. Marine Corps photo by Lance Cpl. Orlanys Diaz Figueroa

Equipment Inventory Management

A comprehensive rightsizing initiative for support equipment (SE) will be implemented across Marine Aviation. The primary objective of this project will be to optimize SE inventory levels to align with the evolving maintenance requirements of operational, controlling, and supporting units. Accurate SE inventories must be maintained and reported to ensure sufficient, reliable SE is available to meet the needs of the fleet. Rightsizing and accurate reporting of SE will help with fielding new capabilities and assist in providing the Naval Aviation Enterprise (NAE) with a roadmap for replenishing, upgrading, or replacing SE before it becomes economically unsustainable or reaches the end of its service life.

Specified equipment sets will be prepositioned to immediately support expeditionary operations and self-sustain until Time-Phased Force Deployment Data (TPFDD) or Request for Forces (RFF) initiates, supporting multiple T/M/S aircraft in both the INDOPACOM and Marine Corps Forces Europe and Africa (MARFOREUR/AF) areas of responsibility.

2.4 AVIATION MANPOWER

Following the publication of the 2025 AVPLAN, we established a Manpower Analysis Cell to improve the health of all aviation communities through integration and collaboration across the Deputy Commandants and Staff Agencies.

Key objectives include ensuring appropriate inventories of aircrew, maintainers, and support personnel, balanced across grade, qualification, and experience. Proactive career management is essential to sustained success now and in the future.

We will strategically place talent to maximize impact and reassess structures to align expertise with emerging capabilities. Innovation depends on subject matter experts, particularly in platform program offices, Wing billets, and HQMC Aviation.


U.S. Marine Corps photo by Cpl. Anakin Smith

Every Billet Matters

Marine Aviation will increase coordination with the Total Force Structure Division (TFSD) and Manpower & Reserve Affairs (M&RA) to conduct regular force structure reviews, strengthen retention incentives, and maintain inventory health. Our goal is to pursue the right Marines with the right qualifications, in the right units, at the right times. Instructor qualifications are vital for shaping future Marine Aviators; these positions must be filled with precision and priority.


U.S. Marine Corps photo by Lance Cpl. Aidan Parker


U.S. Marine Corps photo by Cpl. Roderick Jacquote

Marine Aviation must carefully balance aircrew and maintainer numbers to preserve combat readiness despite evolving challenges. To sustain readiness, we must secure resources for accessions, flight school, and the Fleet Replacement Squadron (FRS), while improving training pipeline efficiency without compromising world-class standards. Additionally, we are pursuing increased pay in conjunction with M&RA for our enlisted aircrew, crew chiefs, and loadmasters. Inclusion in programs such as the Critical Skills Incentive Program (CSIP) and other aircrew bonuses would allow for additional monetary incentives for these critical, high-impact Military Occupational Specialties (MOSs).

Navigating Transitions for Tomorrow

Marine Aviation, working with M&RA, is aligning lateral move opportunities across all modernization plans. Strong leadership and experience remain essential to sustaining legacy squadrons through their transition. As these units draw down, we will create opportunities for Marines to transition into other specialties, balancing the needs of the Marine Corps with individual career progression. Empowering our Marines, by providing them greater opportunities, helps to **retain our greatest assets** and keeps them on the Marine Aviation TEAM!

Building a Ready Force for the Future

As populations stabilize and modernization roadmaps mature, Marine Aviation must adapt its manpower plans to meet the demands of the future fight. Success depends on retaining highly skilled Marines and investing in dedicated professionals. We must deliberately shape career pipelines that attract and retain top talent, reward performance, and adapt to evolving generational preferences. By building a force of quality professionals who are ready for tomorrow's challenges, **we ensure Marine Aviation remains lethal, resilient, and ready**.

SECTION 3: MARINE AVIATION CAPABILITIES & COMMODITIES


U.S. Marine Corps photo by Staff Sgt. Brett Norman

Marine Aviation's platforms and capabilities form the core of our ability to generate combat power today, but they must evolve to remain effective in tomorrow's contested and distributed fight. Our current aircraft, weapons, and digital systems provide proven capability, yet many were designed for a different environment, one with more time, more access, and fewer threats to sustainment and survivability. The future requires platforms that are more lethal, more survivable, more interoperable, and more tightly integrated with data-enabled sustainment and decision support. The following subsections describe where our capabilities stand today and the modernization efforts required to ensure Marine Aviation remains lethal and decisive in the years ahead.

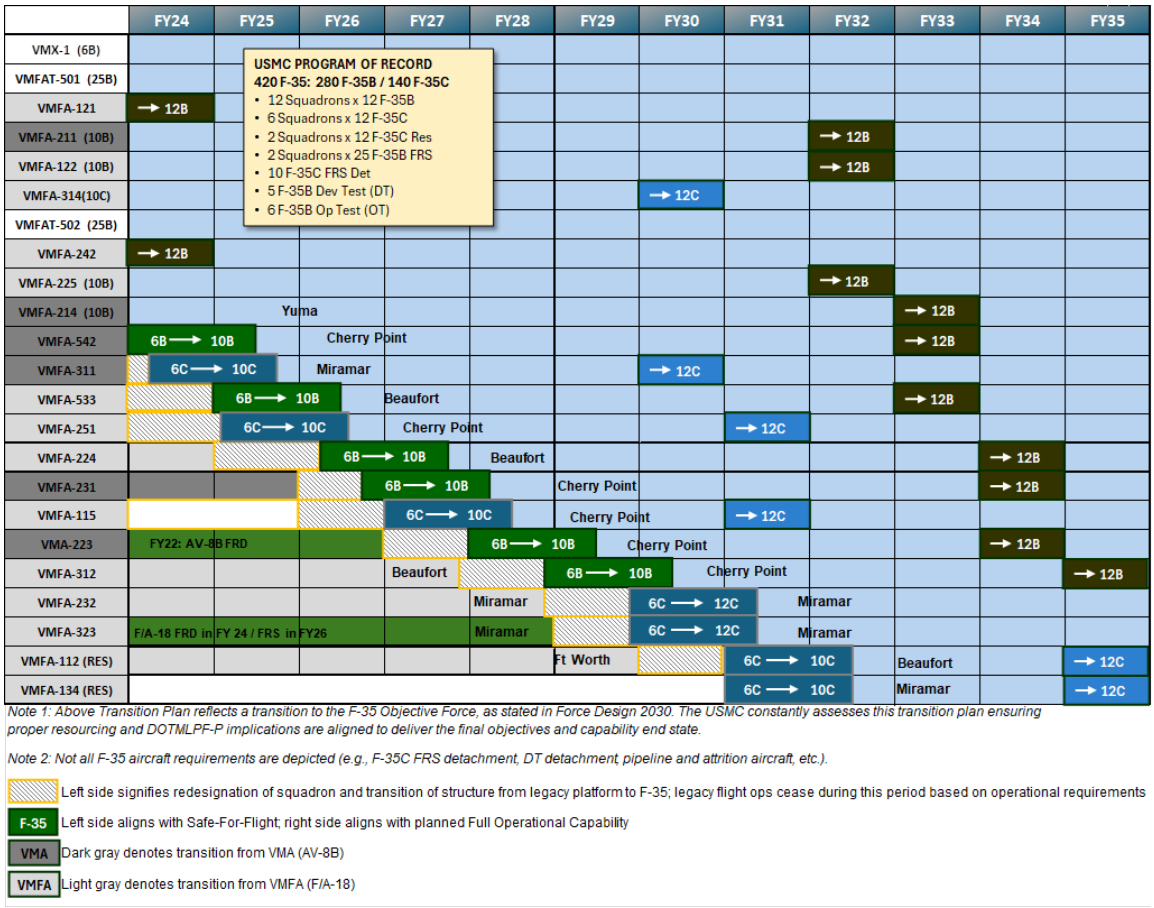
3.1 FIXED-WING AIRCRAFT

Marine Aviation is more than halfway through our Tactical Aircraft Transition Plan to the world's most advanced 5th Generation fighter, the F-35 Lighting II. Once complete, the transition will provide capacity across Marine Aviation to compete in near-peer/high-risk environments in support of the MAGTF and Joint Force.

Marine Aviation's current fixed-wing fleet delivers long-range fires, sensing, and maneuver that remain essential to the MAGTF. Today, these aircraft provide a formidable capability, but future operations will demand deeper integration of sensing, data-sharing, and predictive sustainment. We are evolving fixed-wing aviation to support distributed operations, close and accelerate kill chains, and increase survivability against modern air defenses. This section outlines modernization priorities for fixed-wing aircraft that ensure Marine Aviation remains lethal, survivable, and ready for the future fight.


U.S. Marine Corps photo by Lance Cpl. Victor Gurrola

TACTICAL AIRCRAFT TRANSITION PLAN



Note 1: Above Transition Plan reflects a transition to the F-35 Objective Force, as stated in Force Design 2030. The USMC constantly assesses this transition plan ensuring proper resourcing and DOTMLPF-P implications are aligned to deliver the final objectives and capability end state.

Note 2: Not all F-35 aircraft requirements are depicted (e.g., F-35C FRS detachment, DT detachment, pipeline and attrition aircraft, etc.).

F-35B/C Lightning II (VMFA) Plan

Value To The MAGTF

The F-35B/C provides afloat and expeditionary 5th Generation lethality to Combatant Commanders with an advanced array of sensors, air-to-air missiles, and air-to-surface strike weapons. The F-35B/C's survivability in the most contested environments stands ready to counter the pacing threat. The F-35B/C is Marine Aviation's critical capability that enables the MAGTF and Joint Force mission globally.

Organization

By the end of 2026, 205 F-35B and 56 F-35C aircraft will have been delivered to the Marine Corps. Those aircraft are supporting 14 fleet squadrons, Developmental/Operational Test, a F-35B FRS on each coast, and a F-35C FRS detachment. The Program of Record (PoR) (420 total F-35 aircraft) remains the same and the procurement profile adjusted in 2025 remains 280 F-35Bs and 140 F-35Cs to support 12 F-35B squadrons and eight F-35C squadrons. In addition, all F-35 fleet squadrons are currently organized as 10 PAA squadrons, prepared to deploy as a squadron in support of the MEU or Carrier Air Wing (CVW). After a detailed analysis was conducted in February 2024, a plan was approved to increase all fleet F-35 squadrons to 12 Primary Aircraft Available (PAA) by FY35. That increase is now reflected in the TACAIR Transition Plan, and we will start implementing the manpower changes in FY28 and the aircraft increase in FY30.

To support the future increase to 12 PAA per squadron, each squadron will undergo a manpower re-alignment to fill gaps in certain MOSs within the Maintenance Department. Squadron structure will increase by two pilots and 25 Marines in the Maintenance Department with a heavy focus on corrosion control. Our primary focus is maintaining the correct manning requirements to support the TACAIR Transition Plan.

U.S. Marine Corps photo by Lance Cpl. Michael Gavin

Starting with the 26th MEU, the F-35 will begin supporting all East Coast MEUs and Unit Deployment Program (UDP) obligations once the East Coast Hornets sundown in FY28.

The Marine Corps' commitment to Naval Integration and Tactical Aircraft Integration (TAI) will persist through the TACAIR Transition to F-35. TAI efficiently supports DoN resources by incorporating Marine Corps F-35C squadrons into Navy Carrier Air Wings. Currently, VMFA-314 continues to integrate with CVW-9 as part of TAI. Our commitment to Naval Integration will remain steady as we continue to balance Marine Corps TACAIR global priorities with support to CVW deployments.

Initiatives & Way Ahead

The F-35 program is going through a focused period of upgrades and modernization. Technical Refresh-3 (TR-3) aircraft will continue to be delivered this year to facilitate the transition of VMFA-115, VMFA-224, and VMFA-231. TR-3 hardware upgrades provide the foundation of the future Block 4 aircraft. Modernization initiatives include APG-85 radar upgrades, engine core upgrades, Beyond Line of Sight (BLOS) communications, countermeasure updates, modernized Electronic Warfare (EW), and next generation Distributed Aperture Systems (DAS).

Along with aircraft modernization initiatives, we are working on accelerating aircraft weapons integration on multiple fronts. The fielding of software builds 30P08 and 40P02 Operational Flight Programs (OFPs) will bring Small Diameter Bomb II (SDB-II) to the fleet and must continue to be delivered on time. Continued development of AGM-88G AARGM-ER, AGM-158 family of weapons (Joint Air-to-Surface Standoff Missile-Extended Range [JASSM-ER] and Long-Range Anti-Ship Missile [LRASM]), AIM-9X Block II+, and Six-in-the-bay (F-35C) will provide enhanced lethal capabilities to the F-35 program. Marine Aviation is working closely with the Joint Program Office (JPO) and Marine Operational Test And Evaluation Squadron One (VMX-1) to prioritize and energize these efforts. Finally, the USMC is leading the way incorporating our Collaborative Combat Aircraft (CCA) with the F-35. MAGTF Unmanned Expeditionary TACAIR (MUX-TACAIR) will increase the survivability and lethality of F-35 and enable the successful execution of the VMFA mission across a wide range of developing threat environments.

Funding Priorities

1. Block 4 Capabilities and Modifications
   - BLOS Communications is a top priority
2. Sustainment (Global Sustainment System [GSS] Reset)
3. Weapons Integration (speed of delivery and quantity)
4. Site Activations and Stand-up
5. Support Equipment, Simulator, Contract Support

U.S. Marine Corps photo by Lance Cpl. Erick Reyes

F/A-18C/D Hornet (VMFA) Plan

Value To The MAGTF

The F/A-18 Hornet program's relevance and capacity remain a critical function of the Marine Corps TACAIR Transition Plan bridging legacy fighter attack to F-35.

Today, the Hornet provides an advanced array of sensors, air-to-air missiles, and precision air-to-surface strike weapons. These systems enable the Combatant Commander to conduct maritime strike, air interdiction, and the option of utilizing them from Expeditionary Advanced Bases. The aggressive, final fit modernization program increases survivability and lethality against both air and surface threats to enable the Hornet to continue executing assigned missions.

Marine Aircraft Group (MAG) 11, 31 and 41 continue to source Hornet combat capability for global deployments. Our continued participation in joint and coalition exercises, in both Continental United States (CONUS) and Outside Continental United States (OCONUS) environments, demonstrates the operational value and relevance of the F/A-18.

Organization

The Marine Corps F/A-18 inventory includes 125 F/A-18 aircraft. The FMF will maintain two active squadrons and one reserve squadron through the end of FY26. FY26 will see the dual-mission role of VMFA-323 con-

solidated into an FRS. F/A-18 will continue to support the UDP through the end of FY28 with the remaining squadrons. As units fulfill their final UDP requirements, they will begin the process to transition to F-35.

F/A-18C/D structure requirements remain in place until the end of FY29. M&RA, TFSD, Marine Aviation, and fleet leadership continue to analyze Hornet manpower requirements as the aircraft approaches sundown. The key to sustaining the F/A-18 is aircrew inventory and keeping experienced maintainers throughout the transition and Hornet sundown prior to transitioning them to another MOS.

Initiatives & Way Ahead

With the initial delivery of the AN/APG-79(v)4 radar in FY22 and the final in FY26, the F/A-18 Hornet modernized from a mechanically scanned RADAR to an Active Electronically Scanned Array (AESA). This advancement, coupled with a modern EW suite, the pursuit of net-enabled and extended range weapons, BLOS communications, and the incorporation of Auto Ground Collision Avoidance System (AGCAS) has significantly improved Hornet's readiness, lethality, and survivability.

Funding Priorities

1. Integration of existing Joint extended range, anti-maritime, and land attack weapons
2. Low latency two-way BLOS data transmission of C2 and targeting data in a contested environment
3. Electronic Attack (EA) / Electronic Protection (EP) / Electronic Warfare Support (ES) capabilities through integration of existing aircraft systems
4. High-density low-cost counter-Unmanned Aerial Systems (C-UAS)/cruise missile capability
5. Emission controlled approach capability with vertical guidance for distributed operations
6. Sustainment through sundown


U.S. Marine Corps photo

AV-8B Harrier (VMA) Plan

Honoring the Harrier Legacy

For decades, the AV-8B Harrier has provided indispensable support to the MAGTF commander. Its unique Vertical/Short Takeoff and Landing (V/STOL) capability allowed it to operate from amphibious assault ships and expeditionary airfields, making it a cornerstone of MEUs. From its initial combat deployment with the Marine Corps in Operations Desert Storm and Desert Shield, the Harrier has been a constant presence in major conflicts, including Operations Enduring Freedom and Iraqi Freedom, continuing with Operations Inherent Resolve and Resolute Support, and most recently in Operation Southern Spear. Equipped with precision-guided munitions (PGMs), an advanced LITENING targeting pod, and LINK-16, the Harrier has a distinguished legacy of destroying surface targets and escorting friendly aircraft, providing the Marine Corps with a relevant and survivable fight-tonight capability.


U.S. Marine Corps photo

The Final Chapter

The Harrier's final operational chapter is currently being written by the Marines of Marine Attack Squadron (VMA) 223. The squadron's last AV-8B detachment is deployed with the 22nd MEU, continuing to provide critical support to the MAGTF. The remaining aircraft are stationed at MCAS Cherry Point, supporting

Marine Expeditionary Force (MEF) and Marine Air Wing (MAW) tasking until the platform's operational sunset in FY26. As the Harrier era concludes, its highly experienced aircrew and maintenance personnel are transitioning their skills to other platforms, primarily the F-35B, ensuring their expertise continues to benefit Marine Corps Aviation.

The Marine Corps will formally honor the storied service of the AV-8B Harrier and the Marines who served with it during a sundown celebration at MCAS Cherry Point, North Carolina. Events are scheduled for the week of 1-5 June 2026, culminating in the official sundown ceremony and final flight on 3 June 2026. These activities will provide an opportunity for active duty, retired, contractor, and civilian communities to celebrate the aircraft's and Marines' historic contributions. As the program concludes, efforts are underway to preserve the AV-8B's legacy in aviation museums across the country.

Funding Priorities

1. Current readiness in support of GFM requirements
2. Asset divestment due to T/M/S sundown
3. Sustainment through sundown


U.S. Marine Corps photo by Lance Cpl. Judith Ann Lazaro

KC-130J Hercules (VMGR) Plan

Value To The MAGTF

As the Marine Corps' only fixed-wing tactical lift and aerial-refueling tanker aircraft, demand for the KC-130J across the Combatant Commands remains high. VMGR maintains a continuous presence supporting Crisis Response, while simultaneously supporting operations in Europe, the Middle East, and South America. INDOPACOM remains the service focus, with VMGR-153 aboard MCAS Kaneohe Bay, Hawaii, planned to declare Full Operational Capability (FOC) in September 2026. This addition will make III MEF the only MEF with two active FOC VMGR squadrons.

The KC-130J has proven its value by operating from austere airfields in forward operating areas and providing unique mission capabilities in support of operational plans, humanitarian and disaster relief operations, advanced party reconnaissance, tactical recovery of aircraft and personnel, and special warfare operations. The KC-130J and VMGR will continue to be a critical asset and the "go-to" aircraft for the MAGTF and the Joint Force for the movement of aircraft and cargo for the foreseeable future.


U.S. Marine Corps photo by Lance Cpl. Carlos Paz-Sosa

Organization

VMGR squadrons are structured to support a home station element and one enduring three-aircraft detachment. The home station element is capable of dual-shift maintenance, while the detachment is only single-shift maintenance-capable. There is surge capability within a VMGR to provide an additional deployable detachment in support of simultaneous contingencies; however, the squadron is not structured to sustain the additional detachment on an enduring basis.

Currently, 75 aircraft are designated as Primary Mission Aircraft Inventory (PMAI), 10 are designated as Backup Aircraft Inventory (BAI), one is designated as Primary Development/Test Aircraft Inventory (PDAI), and nine are designated as Attrition Reserve to be funded in future budgets:

- 4 active squadrons x 15 PMAI / 2 BAI
- 1 reserve squadron x 15 PMAI / 2 BAI
- 1 test squadron x 1 PDAI

VMGR does not operate an FRS. Instead, a Fleet Replacement Detachment is used that competes with MAGTF tasking and leverages fleet aircraft. We are continuing to assess the opportunities and impacts of adding a dedicated FRS in the future.

U.S. Marine Corps photo by Cpl. Joshua Brittenham

The KC-130 transition to KC-130J began in 2000 and continues. The Marine Corps has delivered 82% of the required KC-130J aircraft, with a total PoR of 95 aircraft.

Initiatives & Way Forward

The KC-130J enterprise is putting intense focus on fleet health and sustainability. Research is ongoing to further improve the range and depth of critical parts so that the KC-130J fleet is postured to meet the service requirements for the present and future fight.

Updated software and hardware are to be fielded in the coming year which will give the KC-130J access to improved "under glass" communication and navigation capabilities, enabling aircrew to have BLOS communication capabilities and provide access to locations day or night in all weather conditions that had been previously inaccessible.

Work continues towards rapidly integrating the KC-130J into MAGTF and Joint Force common operating pictures. We are procuring carry on DI – Fly Away Kits, to be delivered in FY26, which will provide additional communication capabilities, including Link-16, to the KC-130J fleet. Additionally, research is ongoing to provide a satellite-based communication capability that will replace the KuSS Band Hatch Mounted Satellite Antenna System slated to sundown in FY29.

Funding Priorities

1. Common configuration upgrades to hardware, software, and the airframe
2. Additional depot repair capacity to support scheduled maintenance inspections
3. Battlespace awareness capabilities that provide increased situational awareness and improve aircraft survivability
4. Procure BAI and recapitalize attrition losses

U.S. Marine Corps photo by Lance Cpl. Destiny Perez

3.2 TILTROTOR AIRCRAFT

TILTROTOR TRANSITION PLAN

			FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
VMM-262	12 MV-22B	Okinawa	10 PAA																
VMM-265	12 MV-22B	Okinawa	10 PAA																
VMM-268	12 MV-22B	Kaneohe Bay	10 PAA																
VMM-363	12 MV-22B	Kaneohe Bay	10 PAA																
VMMT-204	24 MV-22B	New River	21 PAA																
VMM-162	12 MV-22B	New River	10 PAA																
VMM-261	12 MV-22B	New River	10 PAA																
VMM-263	12 MV-22B	New River	10 PAA																
VMM-264	12 MV-22B	Sqdn deactivated in FY20				10 PAA													
VMM-266	12 MV-22B	New River	10 PAA																
VMM-365	12 MV-22B	New River	10 PAA																
VMM-161	10 MV-22B	Miramar																	
VMM-163	10 MV-22B	Miramar																	
VMM-166	10 MV-22B	Sqdn deactivated in FY21																	
VMM-165	10 MV-22B	Miramar																	
VMM-362	10 MV-22B	Miramar																	
VMM-164	10 MV-22B	Camp Pen																	
VMM-364	10 MV-22B	Camp Pen																	
VMM-212	12 MV-22B	Decision to activate squadron in FY19 cancelled due to FD 2030																	
VMM-764 (RES)	12 MV-22B	Miramar	10 PAA																
VMM-774 (RES)	12 MV-22B	New River	10 PAA																
HMX-1 (EXEC SPT)	12 MV-22B	Quantico																	
HX-1 (DT)	4 MV-22B	Pax River																	
VMX-1 (OT)	5 MV-22B	Yuma																	

Fleet Squadron | FRS Squadron | Executive Support | Test Squadron

Deactivation — This signifies the decision to deactivate this squadron. Aircraft and personnel transferred to other squadrons. Operations reduced as required.
Stand-Up — This signifies the decision to stand-up this squadron. During this period, aircraft and personnel are transferred. Operations reduced until FOC.
C-4 Status — This signifies the decision to C-5 this squadron. During this period, aircraft and personnel are transferred. Operations reduced until FOC.

Tiltrotor aircraft have transformed MAGTF mobility, enabling rapid force movement across large distances. Today, they remain vital for crisis response, but tomorrow's distributed environment requires even greater survivability, reliability, and sustainment resilience. We are modernizing tiltrotor capabilities to support DAO, operate from austere locations, and integrate data-driven maintenance tools that keep these aircraft flying in contested conditions. This section describes how tiltrotor aviation will evolve to meet future demands.

MV-22B Osprey (VMM) Plan

Value To The MAGTF

Since the first deployment in 2007, the MV-22's revolutionary capability has been a cornerstone of the MAGTF, providing medium lift assault support to ground forces in multiple theaters of operation from expeditionary sites and afloat. The MV-22 Osprey provides unmatched operational flexibility due to its combination of speed, range, payload, and aerial refueling capability. MV-22Bs currently based in Djibouti, Hawaii, and Okinawa, in addition

U.S. Marine Corps photo by Lance Cpl. Jacsive Betancourt Nava

to MEU deployments, provide the ability to rapidly respond to crises, contingencies, and humanitarian missions across significant portions of Africa, Asia, and the Indo-Pacific region. As the backbone of Marine Corps combat assault transport capability, MV-22B squadrons have conducted a total of 111 operational deployments and flown over 600,000 flight hours since 2007. The MV-22B flies approximately twice as many flight hours per year as any other Marine Corps rotary-wing aircraft and remains a safe and reliable aircraft for the MAGTF. Notably, as of January 2026, the MV-22's 10-year (2016–2025) Class A mishap rate is 2.37 per 100,000 flight hours, lower than the Marine Corps average of 3.3.

Organization

Marine Corps MV-22B squadrons are organized to support the operations and maintenance of 10 aircraft. The Marine Corps will procure a PoR of 359 MV-22Bs in the following squadron bed-down:

- 16 active squadrons x 10 MV-22B
- 2 reserve squadrons x 10 MV-22B
- 1 fleet replacement squadron x 21 MV-22B
- 1 executive transport det x 12 MV-22B
- 1 operational test det x 5 MV-22B
- 1 developmental test det x 4 MV-22B

The Marine Corps is complete with the medium lift transition. There are 16 squadrons in the active fleet and two reserve component squadrons. Marine Medium Tiltrotor Squadron (VMM) 264 was reactivated in FY26 and will achieve FOC in FY27.


U.S. Marine Corps photo by Lance Cpl. Victor Gurrola

Proprotor Gearbox (PRGB) Improvements

To continuously enhance the reliability and safety of the MV-22 Osprey, HQMC Aviation and the Program Executive Office (PEO) are proactively collaborating to mitigate risks associated with the platform. As part of this effort, the program is implementing several key improvements to the PRGB and drive system.


U.S. Marine Corps photo by Lance Cpl. Rafael Bermudez Pelayo

The -119 PRGB, introduced in June 2025, uses a refined Triple-Melt steel for four critical gear components to reduce the probability of material defects. This will be followed in January 2026 by the introduction of the -123 PRGB, which will further expand the use of Triple-Melt steel to additional components. Introduction of the -123 PRGB is estimated to result in an unrestricted operational fleet by December 2027 and a complete transition to -123 gearboxes for all aircraft by January 2033. As the fleet transitions to the -123 PRGB, aircraft with -115 and -119 PRGBs installed will continue to comply with the appropriate Interim Flight Clearance limitations until they surpass flight-hour restrictions or are replaced by the fully unrestricted -123 PRGB. A fully redesigned Input Quill Assembly (IQA) to address the cause of previous Hard Clutch Engagement (HCE) events is expected to begin fielding in 2028. In the interim, the present hour limit on the existing system has proven effective, with over 127,000 flight hours flown without incident across all services.

Initiatives & Way Ahead

To ensure the MV-22 fleet continues to meet evolving safety and operational requirements, the program's top priorities are platform modernization and aircraft inventory management. In addition to introducing the Triple-Melt steel -123 gearbox, Osprey Drive System Safety and Health Instrumentation (ODSSHI, pronounced "Odyssey") will


U.S. Marine Corps photo by Sgt. Tyler Andrews

incorporate sensors in critical areas of the PRGB and the drivetrain. These sensors will provide vibration signature data, enabling proactive maintenance by forecasting component failures and allowing for planned removal prior to failure. The V-22 Fleet Optimization and Reduction in Configuration Effort (VFORCE) initiative will convert Block B airframes to the Block C-Mission Computer Obsolescence Initiative (MCOI) configuration, reducing the number of unique configurations and standardizing aircraft capabilities across the fleet. Concurrent modification plans will also provide continuous platform improvements. Informed by the Center for Naval Analysis (CNA) Renewed V-22 Aircraft Modernization Plan (ReVAMP) study, the Marine Corps is pursuing additional modernization efforts to ensure platform relevance and reliability until the end of the V-22 fleet's service life, while at the same time developing and informing the requirements for the Next Generation Assault Support aircraft.


U.S. Marine Corps photo by Lance Cpl. Fabian Ortiz

This program is also pivoting from the wiring bundle-focused Tailored Nacelle Improvements (TNI) to the full-nacelle-replacement initiative, Nacelle Improvements (NI). This decision is informed by validated performance data from the AFSOC V-22 community, with NI exceeding initial readiness projections. Additionally, data supported by the ReVAMP study determined that single-system improvements will likely not achieve the desired readiness gains, especially compared to a multisystem approach like NI. Flight Control Computer (FCC) redesign addresses a component obsolescence issue and provides an opportunity to expand future automation and augmentation flight capabilities. The V-22 Enhanced Cockpit Technology Replacement (VeCToR) initiatives will address obsolescence issues in critical cockpit systems, implement key technology upgrades, and ensure platform reliability, readiness, and relevance. As part of the inventory management focus, the MV-22 Inventory Management (MVIM) facility


U.S. Marine Corps photo by Cpl. Angelina Sara

serves as a central hub for both flyable storage and VFORCE modifications, removing above-PAA assets from flightlines and reducing excess maintenance demands on fleet squadrons.

As the core of the MEU ACE, and centerpiece of MAGTF amphibious lift, the Osprey will continue to evolve. Over the next two years, we will focus on:

- MV-22 modernization initiatives that enhance safety, reliability, readiness, and operational capability to ensure platform relevance through the transition to Next Generation Assault Support aircraft
- Aircraft Survivability Equipment (ASE) upgrades
- DI/MANGL to bring on Link 16, CDL, ANW2, and TTNT
- Upgrades to support expanded mission sets like proliferated low-Earth Orbit (pLEO), Intrepid Tiger-II (IT-II) Block X (V)4, and other sensor and capability packages

Funding Priorities

1. ODSSHI
2. VFORCE
3. Nacelle Improvement
4. FCC Re-design
5. VeCToR

3.3 ROTARY-WING AIRCRAFT

HEAVY LIFT TRANSITION PLAN

Transition Plan			PHASE 2												PHASE 3																PHASE 4											
			FY24				FY25				FY26				FY27				FY28				FY29				FY30				FY31				FY32				FY33			
Milstones			MEU OPT ★								★ CH-53K MEU Deployable																				FOC ★											
PAA	Base	Unit	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3	Yuma	VMX-1	2K to Yuma																																							
3	Pax River	HX-21									1E→1K														Test SQDN				Active SQDN				FRS SQDN				Reserve SQDN			
16	New River	HMH-461	16E→12K				0.75→1.0**				**August 2024 ASR																															
18		HMHT-302									16E→18K (Dual Series FRS)																															
12		HMH-464													12E→12K												0.75→1.0**				**August 2024 ASR											
16	Miramar	HMH-WEST 1																	16E→16K																							
16		HMH-WEST 2																					16E→16K																			
16		HMH-WEST 3																									16E→16K															
16		HMH-WEST 4																													16E→16K											
8	JBMDL	HMH-772																					0.5→1.0**				**Pending MARFORRES and DOTmLPF								8→16//E→K							

Rotary-wing aviation delivers offensive air support, escort, assault support, and maneuver for the MAGTF in environments where agility, precision, and responsiveness remain critical. As Marine Aviation adapts to DAO, rotary-wing platforms must integrate improved sensors, weapons, survivability systems, and predictive sustainment tools. This section describes how rotary-wing capabilities will evolve to maintain decisive advantage in the distributed fight.

CH-53E & CH-53K (HMH) Plan

Value To The MAGTF

Marine Corps Aviation is executing a phased transition from the CH-53E Super Stallion to the CH-53K King Stallion to ensure uninterrupted heavy lift capability while modernizing for future operational demands. The CH-53K King Stallion offers three times the range and payload capacity of the CH-53E Super Stallion measured by the Operational Maneuver From The Sea Key Performance Parameter profile. It can transport heavy equipment, troops, and supplies over long distances, ensuring forces remain agile and supported. Operating from both land and sea bases, including austere sites and amphibious shipping, Heavy Lift provides essential flexibility. The CH-53K handles both internal and external cargo loads, maintaining performance in degraded environments.

This versatility allows it to execute complex missions, including tactical recovery of aircraft and personnel, combat assault transport, casualty evacuation, and logistical resupply, supporting the MAGTF's operational tempo and lethality. Sustaining the legacy CH-53E while transitioning to the upgraded CH-53K's capability enables heavy lift in any clime and place, ensuring the MAGTF's operational success.

U.S. Marine Corps photo by Lance Cpl. Orlanys Diaz Figueroa

Organization

The CH-53K King Stallion, delivered to the first operational squadron in FY22, will fully replace the CH-53E Super Stallion by FY32. A CH-53 squadron is designed to be task organized and is manned, trained and equipped in the following manner:

- Squadron (1.0) - 16 CH-53
- Temp Squadron (0.75) – 12 CH-53
- Squadron Minus (0.5) – 8 CH-53
- Detachment (0.25) – 4 CH-53

A 1.0 squadron can source a 0.5 and (2) x 0.25 requirements simultaneously. Prior to the arrival of the Kilo, a decrement in CH-53E inventory caused a reduction of tactical squadrons to 0.75; with reduced detachment sourcing capability (0.5 and [1] x 0.25).

The Marine Corps will procure a total of 200 CH-53Ks to equip the fleet of:

- 6 active squadrons x 16 CH-53K
- 1 reserve squadron x 16 CH-53K
- 1 fleet replacement squadron x 18 CH-53K
- 1 operational test detachment x 3 CH-53K
- 1 developmental test detachment x 3 CH-53K

The Marine Corps began the CH-53K transition in FY22 at HMH-461. HMH-461 is growing from a 0.75 to 1.0 unit and will meet its full complement of aircraft in FY26. Subsequent squadrons are expected to transition within 18-24 months each.

We are updating the initial force structure laydown for CH-53K stakeholders to ensure complete developmental and operational testing as well as officer and enlisted student training. To that end, VMX-1 and Helicopter Experimental Squadron 21 (HX-21) will have the necessary force structure to achieve the assigned tasks while building the inventory to staff HMHT-302 and the transitioning fleet squadrons.

Initiatives & Way Forward

Deploying the CH-53K is an operational decision supported by three key efforts from the HQMC enterprise: Aircraft Inventory, Sustainment (Spares and Repairs), and Aircraft Capability. By FY26, these three pillars will support both deployed and home-guard CH-53K operations. The first CH-53K MEU detachment is expected to CHOP (Change of Operational Control) in FY26, preparing for its first operational deployment in FY27.

The transition of Marine Corps Forces, Pacific (MARFORPAC) Echo-to-Kilo will occur when CH-53K inventory is sufficient to support Marine Corps Forces Command (MARFORCOM) PMAI and BAI requirements and when the delivery schedule can sustain consecutive transitions. This requires a minimum delivery rate of approximately 16 aircraft per year.

Given the enduring nature of MARFORPAC's GFM requirements, the transition to the CH-53K must minimize any impact on these needs. The planned deployment order for CH-53K within MARFORPAC will be:

1. West Coast MEUs (11th, 13th, 15th)
2. 31st MEU
3. UDP

The transition from CH-53E to CH-53K will align with the return from UDP to ensure maximum HMH capacity is maintained with minimal impact on the deploy-to-dwell ratio.

CH-53E Funding Priorities

1. Sustain and maintain CH-53E until FOC of CH-53K
2. CH-53E safety improvements
3. System capabilities incorporated into CH-53E that benefit and carry over to CH-53K (DI, ASE, Degraded Visual Environment [DVE], etc.)

CH-53K Funding Priorities

1. Aircraft procurement and deliveries to support transition
2. Parts and spares to support transition, training, and deployment
3. Expand I-level and D-level maintenance capabilities
4. Warfighting capability and envelope expansion

LIGHT ATTACK TRANSITION PLAN

Light Attack and Utility Helicopter (HMLA) Plan

Squadron	PAA	Location	FYDP 1					FYDP 2						FYDP 3				
			FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY31	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
HMLA-169	15 AH / 12 UH	Camp Pendleton, CA																
HMLA-267	15 AH / 12 UH	Camp Pendleton, CA																
HMLA-367	15 AH / 12 UH	Camp Pendleton, CA																
HMLA-369	15 AH / 12 UH	Camp Pendleton, CA																
HMLAT-303	15 AH / 12 UH	Camp Pendleton, CA																
HMLA-167	12 AH / 9 UH	New River, NC																
HMLA-269	12 AH / 9 UH	New River, NC																
HMLA-773(-) (RES)	10 AH / 8 UH	JB M-D-L, NJ																
HMLA-773 DET A (RES)	5 AH / 4 UH	JRB New Orleans, LA																
HMLA-775(-) (RES)	10 AH / 8 UH	Camp Pendleton, CA																
HX-21 (DT)	3 AH /3 UH	Pax River, MD																
VMX-1 (OT)	3 AH / 3 UH	Yuma, AZ																

FASt Transition Begins 2040 – Ends 2050

Fleet Squadron | FRS Squadron | Test Squadron

H-1 Mid-Life Modernization

This signifies the decision to make full capacity (1.0 HMLA, 15 AH / 12 UH)

Value To The MAGTF

Marine Light Attack Helicopter Squadrons (HMLA) are organized, trained and equipped to fight from the sea into austere environments and confined littorals. The AH-1Z "Viper" and UH-1Y "Venom" provide attack and utility capability, working in concert with the Naval and Joint Force, to sense, shoot, survive, and sustain inside the Weapon Engagement Zone (WEZ). As a kill web enabler and effector, H-1s expand depth, range, and communication to the MAGTF, providing lethal and non-lethal options to the commander. H-1s are essential to narrowing service gaps in low-altitude attack, strike, and utility capabilities, and will continue flying into the 2040s.

Organization

The H-1 PoR of 349 aircraft is fully delivered. Total aircraft inventory is 301 aircraft and includes ample pipeline and attrition aircraft to maintain high flightline readiness while managing an aggressive mid-life modernization schedule. The H-1 has sustained an exemplary reputation within the NAE, demonstrating an ability to maintain industry-leading Mission Capable Aircraft Required (MCAR) and Full Mission Capable Aircraft Required (FMCAR) performance, an exceptional safety record, and sustained low cost per flight hour year-over-year.

U.S. Marine Corps photo by Sgt. Brendan Custer


U.S. Marine Corps photo by Lance Cpl. Victor Gutrola

There are 5.5 Active Component HMLAs. Four West Coast HMLAs support global force commitments and MEU detachment operations for the 11th, 13th, 15th, and 31st MEUs (Okinawa), as well as the UDP. Two .75 East Coast squadrons support the 22nd, 24th, and 26th MEUs.

The Commandant directed the growth of the two East Coast squadrons to full 1.0 squadrons by the end of FY31. This will increase the total aircraft inventory to 313 H-1 aircraft and 6.0 squadrons.


U.S. Air National Guard photo by Tech Sgt. Alexander Rector

Initiatives & Way Ahead

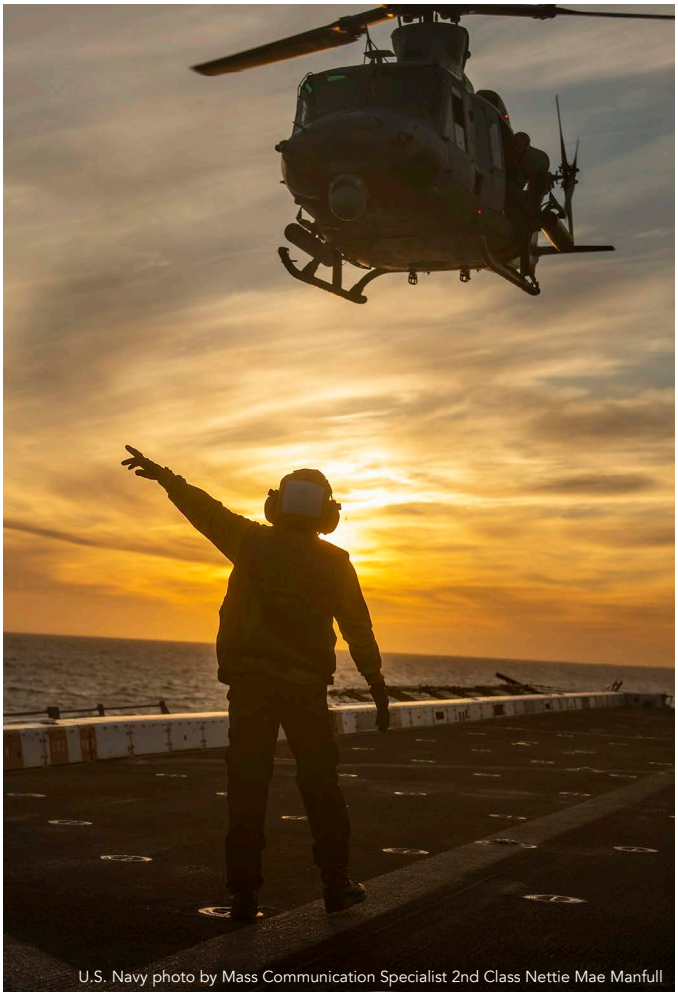
Once considered an asset to support only limited combat operations in a relatively permissive environment, the H-1 program's modernization plan over the next 10 years presents a lethal, survivable, and versatile tool for the MAGTF and Joint Force to combat peer-adversary malign behavior across the ROMO in any clime and place. The modernization plan is oriented around three principal priorities: lethality, DI, and survivability. The backbone of H-1 Mid-Life Modernization is Structural and Power Improvement for Next-gen Effects (SPINE), formerly SIEPU, which provides greater electrical power capacity to expand current warfighting capabilities and increased ability to integrate future weapons (Precision Attack Strike Munition [PASM], AIM-9X, C-UAS).

Investment in H-1s over the next two FYDPs is essential to maintaining a ready crisis response force and is critical to bridging the gap for the MAGTF as it transforms into a fully modernized fleet. H-1 investments also inform Future Attack Strike (FASt) capability development, which will help fill critical gaps in Marine Aviation's future ACE.

Deliberate planning and carefully timed investments will ensure sustained capacity and capability through the 2040s. The objective is to field essential modernization capabilities to all active and reserve component squadrons by 2035.

Funding Priorities

1. **Lethality:** SPINE / PASM
2. **DI:** LINK-16 / pLEO
3. **Survivability:** Distributed Aperture Infrared Countermeasures (DAIRCM) w/ dual lasers / APR-39D(V)2 / Common Carriage expendables


U.S. Navy photo by Mass Communication Specialist 2nd Class Nettie Mae Manfull

3.4 UNMANNED AIRCRAFT

MQ-9A REAPER (VMU) PLAN

VMU Capabilities Schedule								
Unit	AV/Pod	FY25	FY26	FY27	FY28	FY29	FY30	FY31
* 1x Dual MGCS & 2x Single MGCS	AV-20							
*3x Fixed GCS **VMU-1**	AV-25		5	6	6	6	6	6
	GCS*		6	6	6	6	6	6
	S. Twr 1		3	3	3	3	3	3
	S. Twr 2			4	6	6	6	6
	PLEO			1	5	6	6	6
	DAAS						6	6
	ES		3	5	5	5	5	5
* 4x Mobile GCS **VMUT-2**	AV-20							
	AV-25	4	4	4	4	4	4	4
	GCS*	3	3	3	3	3	3	3
	S. Twr 1							
	S. Twr 2				4	4	4	4
	PLEO				4	4	4	4
	DAAS							4
	ES							
* 1x MGCS & 3x FGCS **VMU-3** INC II IOC Squadron	AV-20							
	AV-25		6	6	6	6	6	6
	GCS*		4	4	4	4	4	4
	S. Twr 1		3	3	3	3	3	3
	S. Twr 2		3	6	7	7	7	7
	PLEO				6	6	6	6
	DAAS					5	6	6
	ES		3	5	5	5	5	5
1* FGCS **VMX-1**	AV-25		2	2	2	2	2	2
	GCS*		1	1	1	1	1	1
	S. Twr 1		3	3	3	3	3	3
	S. Twr 2				2	2	2	2
	PLEO			1	2	2	2	2
	DAAS							2
	ES		0	1	1	1	1	1
Acquisition Program Baseline Totals		**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**	**FY31**
Air Vehicles - 20								
Air Vehicle - 25			17	18	18	18	18	18
Ground Control Station			14	14	14	14	14	14
Sky Tower 1 (ANE)			9	9	9	9	9	9
Sky Tower 2 (ANE)			3	10	19	19	19	19
Proliferated Low Earth Orbit SatCom			0	2	17	18	18	18
Detect and Avoid System			0	0	0	5	12	18
Electronic Support Pod			6	11	11	11	11	11
Total			49	64	88	94	101	107

Unmanned aviation expands the ACE's ability to sense and make sense, its logistics capacity, and its ability to close kill chains and enable kill webs while reducing risk to aircrew. UAS capabilities are central to DAO and DCAO, enabling persistent reconnaissance, resilient kill webs, and data-driven decision-making across the force. This section outlines how Marine Aviation will modernize UAS platforms, integrate autonomy, and increase their contribution to the distributed fight.

Value To The MAGTF

MQ-9A's range, persistence, and capacity to share data with Allies and Partners opened doors for further MAGTF access and basing across the Pacific. This "strategic sensing" enables the MAGTF to assume a deployed and distributed fighting stance, alongside committed regional partners, to deter aggression by observing and responding to violations of norms in real time.

The MQ-9A's readiness, persistence, multi-spectrum sensing, and range, connected through digital networks, shape actions on the ground across the spectrum of conflict and directly benefit Marines with strategic results.

Marine Unmanned Aerial Vehicle Squadrons (VMUs) enable partnerships with host nations and Allies, encouraging trust, developing interoperability, sharing awareness, and generating regional confidence. These relationships generate MAGTF access, where presence is both deterrence and decisive in the competition phase.

U.S. Marine Corps photo by Cpl. Joseph Abreu

U.S. Marine Corps photo by Lance Cpl. Alexander Mantai

By combining persistence, placement, and partnership, the MQ-9A, through the VMUs, secures the MAGTF's role as a force that can compete, deter, and fight in the littorals.

Organization

VMU squadrons operate from expeditionary sites in the Pacific that provide the MAGTF with continuous reach and decision advantage. Through this posture, the MQ-9A delivers Maritime Domain Awareness (MDA), extends MAGTF C2, and integrates seamlessly into Naval and Joint campaigns. VMUT-2 produces MQ-9A crews to sustain MAGTF requirements, while Unmanned Aircraft Maintenance Squadron 1 (UASMS-1) builds the sustainment foundation that will secure long-term, organic readiness. Together, these units ensure the MAGTF has an enduring, persistent presence at the forward edge of competition.


U.S. Marine Corps photo

Initiatives & Way Ahead

The MQ-9A will continue to expand the MAGTF's access across the Pacific, coupling aviation presence and persistence. Increment II payloads and capabilities, such as airborne network extension, electronic support, pLEO communications, and MDA sensors, empower the MAGTF and partner decision-makers with shared awareness across distributed forces and close kill chains faster along remote littorals.

Funding Priorities

1. MAGTF Unmanned Expeditionary (MUX) Medium Altitude Long Endurance (MALE) Increment I Procurement
   a. Ground Control Stations
   b. Airframes and -25 Modification
   c. Sky Tower I
2. MUX MALE Increment II Capability Spiral
   a. Secure Mission Control Element
   b. Sky Tower II Pod / Airborne Network Extension Payloads
   c. EW Pod
   d. pLEO SATCOM integration
   e. Maritime Domain Awareness (MDA) Pod
   f. Detect and Avoid System

3.5 SUPPORT AIRCRAFT

OPERATIONAL SUPPORT AIRLIFT (OSA) PLAN

Value to the MAGTF

The Operational Support Airlift (OSA) program stands as a cornerstone of Marine Aviation's logistical prowess, delivering rapid, time-sensitive air transport for high-priority passengers, cargo, and critical support to the MAGTF. By prioritizing affordability and integration, OSA ensures the Marine Corps maintains a decisive edge in contested environments, enabling the "fight tonight" mindset and seamless support for global operations.

OSA is an indispensable enabler of MAGTF agility, providing unmatched time-sensitive airlift capabilities that bridge critical gaps in logistics and mobility. Since its continuous deployment in 2004, OSA has empowered forward-deployed forces with resilient, responsive transport solutions, directly contributing to mission success across theaters.

Today, OSA aircraft are actively supporting MARFORPAC, Marine Corps Forces Central Command (MARFORCENT), and MARFOREUR/AF. This enduring commitment underscores OSA's role in enhancing warfighter readiness while optimizing affordability in dynamic operational landscapes.

Organization

The OSA enterprise is a fully integrated force, leveraging active and reserve components to deliver seamless, high-impact support. Active-duty units stationed at Marine Corps Air Stations provide foundational OSA capabilities, augmented by the vital contributions of Marine Transport Squadrons (VMR) in the reserves—including VMR-1, VMR Belle Chasse, and VMR Andrews—to address surge demands and time-sensitive logistics.

As the T/M/S lead for all OSA platforms (UC-12W, UC-35D, C-20G, and C-40A), 4th MAW drives innovation and readiness. The recent integration of the C-40A into VMR-1 has revolutionized inter-theater transportation, positioning the Marine Corps to rapidly deploy assets and embody the "fight tonight" ethos.

Initiatives & Way Ahead

Propelling OSA into the future, our strategic roadmap is centered on transformative modernization, readiness enhancements, and alignment with Marine Aviation priorities to deliver warfighter advantages. At the forefront is the accelerated recapitalization of legacy UC-12F/M and UC-35D aircraft with the state-of-the-art UC-12W platform. Achieving the full PoR of 30 aircraft is the main priority. With 12 UC-12Ws already operational, this initiative will maximize resilience.

Building on this momentum, we are revolutionizing the OSA requesting and utilization processes through digital streamlining and automation, slashing administrative bottlenecks to dramatically boost asset availability and response times. By implementing intuitive, user-centric request portals, real-time tracking algorithms, and AI-driven scheduling optimizations, we will enhance efficiency, reduce turnaround from request to execution by up to 50%, and maximize fleet utilization—ensuring high-priority missions receive immediate support while freeing resources for emergent needs.

Concurrently, cutting-edge initiatives will amplify platform survivability, including DI modernization for the UC-12W to enable seamless connectivity and Large Aircraft Infrared Countermeasures (LAIRCM) upgrades for the C-40A. Through rigorous program assessments, we will divest lower-impact legacy activities, reallocating resources toward innovations that prioritize affordability and readiness. This forward-leaning strategy positions OSA as a force multiplier, primed to innovate and adapt in support of the MAGTF.

U.S. Marine Corps photo by Capt. Aaron Moshier

Funding Priorities

1. **UC-12W Procurement:** Accelerate acquisition to meet the full PoR of 30 aircraft.
2. **UC-12W DI Modernization:** Invest in connectivity upgrades to enhance network integration.
3. **C-40A LAIRCM Enhancements:** Prioritize advanced defensive systems to boost aircraft survivability in contested environments.

U.S. Marine Corps photo by Sgt. Hunter Helis

Presidential Helicopter Plan

Marine Helicopter Squadron One's (HMX-1) responsibilities encompass worldwide transportation for the President of the United States, as well as transportation within the National Capital Region for the Vice President, Cabinet members, and visiting heads of state. HMX-1 also conducts ongoing operational test and evaluation for rotary-wing Presidential lift aircraft.

VH-92A Transition Plan

HMX-1 is currently executing a planned transition from the legacy VH-3D and VH-60N aircraft to the VH-92A. The U.S. Marine Corps achieved Initial Operational Capability (IOC) for the VH-92A in December 2021, and HMX-1 commenced operational missions with the new aircraft in 2022.

The squadron is conducting all assigned tasking in alignment with the White House Military Office Transition Plan. This plan employs a multi-phased, event-driven strategy for the full replacement of legacy aircraft with the VH-92A. HMX-1 currently operates a fleet of 10 VH-92As to support its mission requirements.

The Marine Corps accepted its 23rd, and final, VH-92A in August 2024. Upon the completion of the full transition and the divestment of all legacy assets, HMX-1's operational fleet will consist of 16 VH-92As.

Key program investments are focused on enhancing the VH-92A's performance in high-altitude and high-temperature environments and expanding the aircraft's available bandwidth through the integration of BLOS systems.

VH-3D and VH-60N Sundown Plan

Both the VH-3D and VH-60N aircraft have undergone a Service Life Extension Program (SLEP), providing sufficient flight hours to support their missions until a full transition to the VH-92A is achieved. Aircraft will be retired upon reaching their airframe hour limitations as the VH-92A assumes operational responsibilities. Current projections anticipate the VH-3D aircraft remaining in service through 2026. The VH-60N is expected to continue operations through 2030 before its complete retirement.


U.S. Marine Corps photo by John Olmstead

3.6 AVIATION WEAPONS AND SPECTRUM DOMINANCE

Marine Aviation continues to develop and integrate new weapons technologies and capabilities to support National Defense priorities and outpace adversary capabilities. As Marine Aviation continues its aircraft modernization and transition plans in support of Project Eagle, we must work to accelerate our weapon systems development, testing, and integration efforts in order to rapidly field new capabilities and build magazine depth to meet operational requirements. Our aviation weapon capability development is focused on increasing lethality in current and future threat environments by leveraging increased range, speed, and DI.

Building and maintaining an effective weapons inventory in the modern fiscal environment requires deliberate balancing of advanced weapons development while building current weapons inventory for prolonged conflicts around the globe.

U.S. Marine Corps photo by Lance Cpl. Isabella R. Mancini

Air-To-Ground Weapons

Long Range & Maritime Strike

The AGM-158C LRASM is a long range, precision guided, anti-ship cruise missile designed to engage advanced adversary surface combatants from increased stand-off ranges in a highly contested environment.

The LRASM C-1 variant was operationally fielded on the F/A-18E/F in FY24 and integration on F-35B and F-35C continues. Concurrent with aircraft integration, the production line will cut-in the upgraded C-3 variant beginning in FY26 that will facilitate even more capability within the FYDP. Fielding of LRASM will enhance power projection and sea control provided by expeditionary air bases and afloat forces.

U.S. Marine Corps photo by Cpl. Nicholas Johnson

Stand-off & Net Enabled Weapons

Integration of more capable stand-off and net-enabled weapons remains a top aviation weapons priority into FY26 and beyond. Weapons acceleration efforts on the F-35 continue to field the highest priority weapons to operational commands quickly while providing as much envelope and operational flexibility as possible. Integration of net-enabled weapons and the training to support and employ them will remain a high priority. Net Enabled Weapons University will help meet the increased demand for subject matter experts to assist in holistic squadron training for maintainers and operators.

U.S. Marine Corps photo by Lance Cpl. Brendan Mullin

Rotary-Wing Precision Guided Munitions

Marine Aviation's PASM formally initiated its PoR as a transition from the Long-Range Attack Missile (LRAM) Defense Innovation Acceleration (DIA). The LRAM DIA completed its Operational Demonstration in September 2025 with successful employment of a test weapon from an HX-21 AH-1Z. Efforts now transition to fielding the capability as quickly as possible to deployed squadrons during FY27.

U.S. Marine Corps photo by 2nd Lt. Brianna Tribou

Current PGMs will continue to be fielded, including Joint Air-to-Ground Missile (JAGM) to enable HMLAs to support contingency operations worldwide. Additional efforts to modernize and improve the Advanced Precision Kill Weapon System (APKWS) continue in conjunction with both the Navy and Air Force. These efforts, already demonstrated by Marine H-1s against a variety of air and ground targets, significantly improve our ability to provide offensive and defensive air support to the MAGTF and Joint Force.

Air-to-Air Missiles

The AIM-9X Block II and AIM-120 missile programs continue as successful production and sustainment programs. Dedicated System Improvement Program (SIP) efforts keep both weapons relevant and lethal into the 2030s. Continued delivery of both weapons through 2030 will build operational inventories in CONUS and abroad. We continue to explore additional variants of these missiles to increase both load-outs and lethality.

Aviation Weapons Training

Annual training allocations and expenditures continue with the goal to balance current year training requirements with the need to maintain sufficient inventories for conflict. This balance is reflected by recent, significant changes to how Non-Combat Expenditure Allocation (NCEA) is developed each year to manage the available inventory and maximize training opportunities. Training and Readiness (T&R) requirements in addition to Weapons Schools, Service Level Training Exercises, and MOS school support account for a significant portion of the ordnance requirements to sustain fleet readiness and proficiency. Marine Aviation will strive to balance allocation of the ordnance needed for daily training with limited quantities of newer capabilities to ensure that fleet units and weapon schools can continue to build proficiency, trust in the weapons, and refine Tactics, Techniques, and Procedures (TTPs).

Future Weapons Plan

To remain on the cutting edge of aviation weapons, HQMC Aviation's Cunningham Group partners with the Marine Corps Warfighting Laboratory (MCWL), CD&I, and the Expeditionary Maritime Aviation-Advanced Development Team (XMA-ADT) to pursue emerging technologies that will increase Marine Aviation's reach, lethality, and survivability. Rapid, efficient transition of these technologies to programs of record and fielding them in relevant timelines will be a guiding principle to weapons development in FY26 and beyond. Fleet input and feedback on capability gaps and requirements will be crucial to informing those priorities and ensuring alignment of efforts.

U.S. Marine Corps photo by 2nd Lt. Brianna Tribou


U.S. Marine Corps photo by Lance Cpl. Koby I. Saunders

Airborne Electromagnetic Warfare (EW) Plan

Sustainment of Current Efforts

Marine Aviation, as part of a larger Electromagnetic Spectrum Operations (EMSO) campaign plan, is fielding an EW Family of Systems (FoS) to provide commanders with organic, flexible, and persistent airborne EW capabilities within the MAGTF. A network of EW payloads that provide advanced Electronic Attack (EA) and Electronic Warfare Support (ES) capabilities on existing multi-role MAGTF platforms comprises the Intrepid Tiger II (IT-II) EW FoS. Current capabilities include:

- IT-II Versions (V)1 and (V)3 are currently in service and deployed in support of MAGTF operations on the AV-8B and UH-1Y, respectively
- (V)1 and (V)3 focus on communications
- (V)4 is currently in developmental test on the on the MV-22B with an IOC goal of FY27
- IT-II Block 5 incorporates Counter-Radar capabilities and is currently under development
- Priority platforms are the UH-1Y, AH-1Z, MV-22, and KC-130

The evolving MUX FoS will also incorporate a variety of EW payloads in support of the FMF and larger Joint Force. Continued collaboration between the XMA-ADT and the Marine Corps Spectrum Integration Lab (MCSIL) will create unmanned system capabilities leveraging EW technology and architecture ensuring mission success through 2040 and beyond.

Initiatives & Way Ahead

Marine Aviation will focus on the development and integration of EMSO capabilities that include:

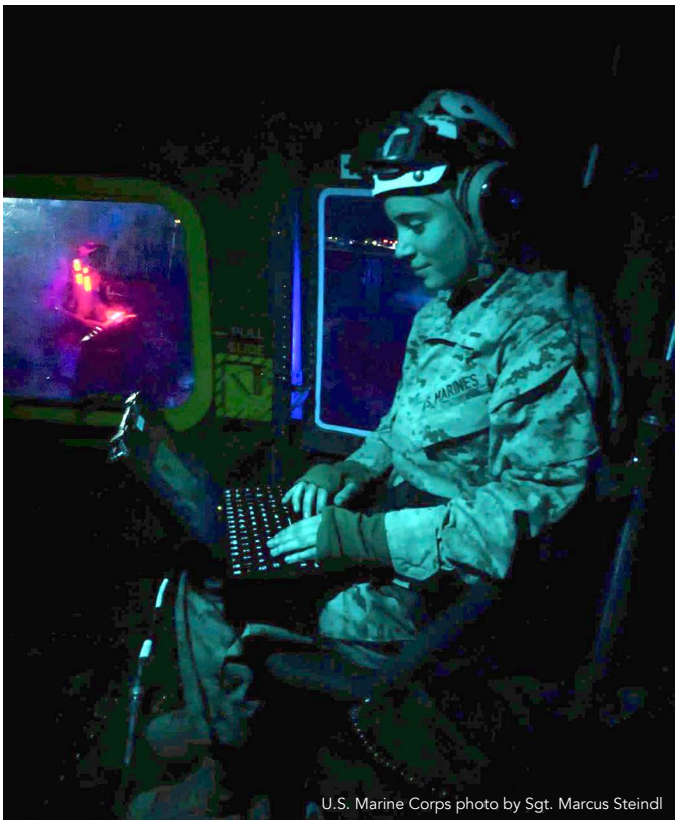
- Capability, platform, and weapon architectures that are common-use, open, and accessible by MAGTF and Joint Forces
- Common Architecture for Persistent EW (CAPE) allows operationalized capabilities such as Multi-Domain Strike
- Development of MUX TACAIR EW capabilities to increase survivability and lethality of manned TACAIR platforms
- A Common Framework Environment (CFE) that delivers a flexible government-owned software architecture for EW, geolocation, waveform, SIGINT, and other EMSO capabilities supporting multiple platforms and vendors
- Sensor-to-Sensor collaboration across all domains leveraging autonomy and AI
- Common services and data formats
- Development of non-kinetic payloads that are platform agnostic and integrated into the kill chain
- Modular component integration
- Common user interfaces across all platforms, both airborne and surface
- Common C2 for Unmanned Systems
- Range upgrades that support training with advanced EW systems

Funding Priorities

1. IT-II (V)4 and (V)5
2. Common Framework Environment (CFE)
3. Open architecture capabilities
4. Spectrum services framework
5. CAPE EW
6. Fieldable Advanced Digital Receiver (FADR) that provides the Marine Corps with an advanced wideband receiver technology

3.7 DIGITAL INTEROPERABILITY

Digital Interoperability/MAGTF Agile Network Gateway Link Plan



U.S. Marine Corps photo by Sgt. Marcus Steindl

The goal of the DI/MANGL plan is to provide the information to users at the right time to successfully engage adversaries and improve operational efficiency during conflict and competition. Given the increasing distribution of MAGTFs, the efficient flow of data and information is crucial. This approach uses the spectrum responsibly to support advanced platforms and weaponry.

MANGL facilitates connections between disparate sensor and communication systems. It creates shared situational awareness through a common interface applicable across MAGTF, Naval, Joint, and Coalition domains. MANGL integrates networks, linking sensors and shooters across the Joint Force and increasing the speed and range of combined arms capabilities without requiring manual data management.

Modernization Efforts

To assess technologies within a larger operational context, the Marine Corps uses the "four pillars of DI." A platform must integrate these four components to reliably exchange relevant information. The four pillars of DI are: sensors, processors, interfaces, and radios/apertures.

The DI/MANGL FoS modernization strategy will update the architecture and bring it into alignment with the CJADC2 architecture. Additionally, we will maintain alignment with waveform advancements and other service investments. This modernization effort will bring together sensors and tactical data via a robust transport layer to the appropriate enclave, at the right classification in the appropriate domain.

Fleet employment of DI/MANGL capabilities has identified paths for tactical expansion and increased relevance. The Extended Tactical Network (ETN) enables connections and mission synchronization across multiple theaters supporting ChatSurfer communications and Tactical Assault Kit (TAK) server connections. MEU Landing Force Operations Centers (LFOCs) "Fly away kits" and tactical vehicles equipped with DI kits enable situational awareness of command operations centers and dismounted forces. Additionally, in close coordination with the Logistics Combat Element (LCE) and the Office

EACH INTEROPERABLE PLATFORM MUST HAVE:

SENSORS

Radars
EO/IR (FMV)
iASE
SIGINT
GMTI
Hyperspectral
RFID
Targeting PLI

Wired or Wireless

PROCESSORS

Mission Computers
C2 Systems
Data Managers
Network Managers

Wired or Wireless

INTERFACES

Cockpit Displays
MAGTAB/Tablets
Computer Monitors
C2 Systems Displays
Electronic Kneeboard (EKB)
ToughBook Laptops

Wired or Wireless

NETWORK RADIOS

Usually designed for specific environment: air-to-air, air-to-ground, ground-to-ground

••• NETWORK A •••

Radios/Terminals	Waveforms	Data Protocols
MIDS-J/STT/PRC-160	LINK-16	J-Series
RC-117G	ANW2	TCP/IP
QNT-200D	TTNT	TCP/IP
VORTEX/Rover	CDL	FMV
PRC-117F/AVT	ANW2	VMF/K-Series

of Naval Research (ONR), the Marine Air Ground Tablets (MAGTAB) Winter 2025 software included the fielding of Visual Integrated Tactical Logistics Battle Management Aid (VITL-BMA), a TAK plug-in supporting contested logistics mission execution.

Future DI Efforts

In the coming year, the Marine Corps plans to evaluate the inclusion of advanced waveforms within the MANGL architecture to improve EABO survivability and viability as well as support contested logistics and ultimately our predictive supply efforts. We are also working to improve reciprocity and compatibility between MAGTABs and Joint Mission Planning Software (JMPS) networks.

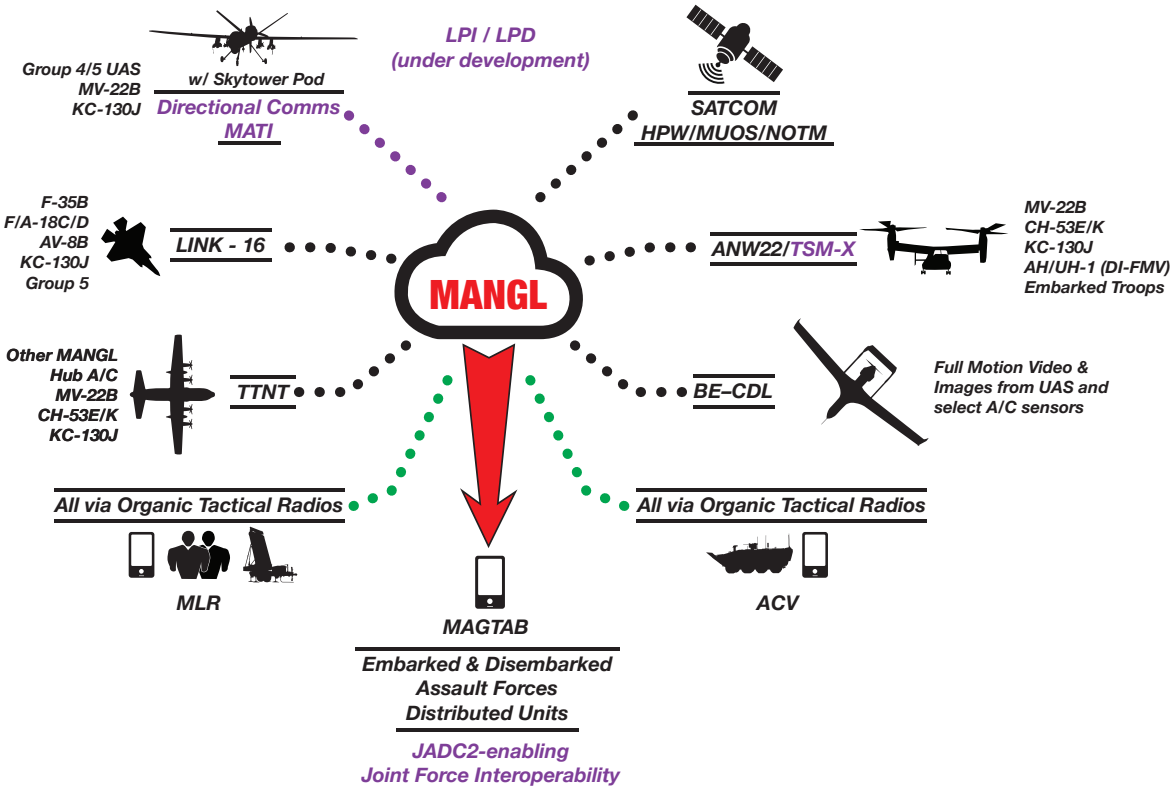
Today, the Marine Corps has formally included BLOS communication capabilities, such as Mobile User Objective System (MUOS) and ETN capabilities that work with the Network on the Move (NOTM) PoR to enable DAO. In the future, these systems will be augmented with the pLEO secure high-bandwidth global network architecture, according to individual platform fielding plans. The MV-22 serves as the lead platform for DI/MANGL, overseen by PMA-209 (Air Combat Electronics) in collaboration with Naval Air Systems Command (NAVAIR) platform program offices. The MV-22 capability demonstration, supported by PMA-275, is scheduled for early FY26, with a platform fielding decision expected in FY27.

Initial integration and MANGL preparation efforts are ongoing for the KC-130J and CH-53K, coordinated with their respective program offices. The H-1 program is also integrating and fielding DI systems through their program office, PMA-276.

DI/MANGL Related Capabilities

The MAGTAB provides Marines a cyber-secure method to interact with multiple Tactical Data Links (TDLs) through standardized applications. The MAGTAB enables Marines from any element to collaboratively plan, brief, execute, re-plan, and debrief on a single platform up to the Secret classification level.

Initially designed as an Electronic Kneeboard (EKB) for Marine Aviation, other MAGTF elements have adopted the MAGTAB as a dismounted situational awareness tool. TECOM and supporting commands have procured MAGTAB kits, increasing the total number of fielded devices to over 10,000. In 2026, unclassified fleet MAGTABs are being configured for internet access with a limited Marine Corps Enterprise Network (MCEN) connection and Microsoft 365 access for flight operations and planning mobile devices. Enabling flight plan filing and Flight Publication access, Mobile Data MAGTABs, receive support from PMA-209, HQMC IC4, and the Marine Corps Cyber Operations Group (MCCOG) as an enterprise-level (MCEN connected) mobile handheld solution for Marine Aviators and leaders across the MAGTF.



3.8 AIRCRAFT SURVIVABILITY EQUIPMENT

Marine Aviation continues to prioritize ASE modernization to increase aircrew situational awareness and enhance survivability by matching threats to capabilities. As integrated air defenses and advanced threats proliferate, ASE development is focused on detecting, identifying, avoiding, and defeating current and future threats in any environment across the competition continuum.

Fielding an effective, integrated suite of ASE sensors and countermeasures also requires deliberate investments in technologies that can integrate into the broader MAGTF C2 ecosystem, enhancing situational awareness across the digital battlespace.

U.S. Marine Corps photo by Lance Cpl. Victoria Ross

Current Systems and Capabilities

ALE-47 Countermeasure Dispensing Set (CMDS)

An integrated, threat-adaptive, reprogrammable system for dispensing expendable decoys, the ALE-47 optimizes countermeasure responses through threat data received from AAR-47, AAQ-24, AAQ-45, and APR-39 systems.

The ALE-47 Power PC variant, operationally fielded since 2013 on MV-22B, AH-1Z, UH-1Y, CH-53E/K, and F/A-18C/D aircraft, is coupled with D-66 dispenser housings and 1.5" diameter round expendables.

AAR-47 Missile Warning System (MWS)

The AAR-47 is an integrated missile warning, laser, and hostile fire detection system that provides audio and visual alerts and threat direction indications to aircrew. Utilizing multi-spectral sensors, the AAR-47 can detect missile plumes, laser designators, unguided rockets and small arms or tracer fire.

The AAR-47B(V)2 variant has been operationally fielded since 2008 on MV-22B, AH-1Z, UH-1Y, CH-53E and KC-130J aircraft, and integrates with the ALE-47 CMDS to initiate automatic deployment of expendable countermeasures.

U.S. Marine Corps photo

AAQ-24 Department of Navy Large Aircraft Infrared Countermeasure (DoN LAIRCM)

An integrated missile warning, laser, and hostile fire detection system that is capable of defeating IR-guided missiles through a directed-energy laser, the AAQ-24 is a reprogrammable, highly accurate and inexhaustible countermeasure that responds instantly and autonomously to defeat incoming threats.

Multiple variants of the AAQ-24 have been operationally fielded since 2010 on the MV-22B, CH-53E/K and KC-130J, replacing the AAR-47 MWS. Like the AAR-47, the AAQ-24 also integrates with the ALE-47 CMDS to initiate automatic deployment of expendable countermeasures. The AAQ-24 is currently fielding the LSPR-4000, an upgraded processor that addresses component obsolescence needs for all DoN LAIRCM platforms.

Distributed Aperture Infrared Countermeasure (DAIRCM)

The Joint Urgent Operational Needs Statement (JUONS) DAIRCM features missile warning, laser and hostile fire detection capabilities combined with a directional laser aperture into a single lightweight sensor. Designed for small platforms, JUONS DAIRCM provides inexhaustible directed-energy countermeasures for size, weight, and power-limited aircraft.

APR-39 Radar Warning Receiver (RWR)

The APR-39 RWR is a radio frequency (RF) detector and analyzer that provides audio and visual alerts and radar threat direction indications to aircrew. The APR-39 also integrates with other ASE systems.

The APR-39D(V)2 variant is currently in production and is incorporated on the MV-22B, AH-1Z, UH-1Y, and CH-53K. Development is currently underway for the Signal Acquisition 1 (SIGACQ1) upgrade, which will provide improved readiness, cost savings, and logistics efficiencies.

Future Systems and Capabilities

AAQ-45 DAIRCM POR

The AAQ-45 DAIRCM PoR is a maturation of the JUONS DAIRCM for the UH-1Y and AH-1Z. The AAQ-45 incorporates improved situational awareness, adaptability, and countermeasure and cybersecurity advancements.

The AAQ-45 is currently undergoing testing on the UH-1Y and is expected to achieve Milestone C in mid-2026.

ALE-47 Common Carriage

The ALE-47 Common Carriage system increases expendable carriage capacity and countermeasure capability for CH-53K and MV-22 platforms. New smart dispenser housings enable the use of 1" square expendables, significantly increasing magazine capacity, bringing commonality with the KC-130J, F-35, all DoW services, and Allies and Partners. Common Carriage also provides access to advanced RF and Electro-Optical Infrared (EO-IR) expendables, including the potential for data communications between expendables and onboard systems. ALE-47 Common Carriage continues integration, development, and testing on the MV-22B and CH-53K. Research and development are also underway to bring these benefits to the AH-1Z and UH-1Y platforms.

Initiatives & Way Ahead

Marine Aviation will focus on the continued fielding of relevant ASE through steady, predictable investment, proactive material obsolescence management, and targeted integration of DI features.

APR-39E(V)2 RWR Integration

The APR-39E(V)2 RWR is an upgrade to the APR-39D(V)2 system, featuring increased processing power and capacity for follow-on capabilities including advanced RF-countermeasures. The APR-39E(V)2 leverages Joint investments and is being considered for the MV-22B, CH-53K and KC-130J.

Next Generation Pointer/Tracker

The Next Generation Pointer/Tracker is a cutting-edge capability improvement that leverages Joint laser development efforts and is applicable to current and future directed-energy IRCM systems.

U.S. Marine Corps photo by Staff Sgt. Maximiliano Rosas

Leveraging Existing Sensors

Multi-spectral sensors like those incorporated into common ASE enable the processing of a tremendous amount of data including hostile system location, identification, and activity. Through integration with digitally interoperable systems, future investments will exploit these sensors to collect threat information in real time, package it in a usable format, and disseminate it to participants in the kill chain:

- Threat detection and geolocation: Leverage excess processing power from current and future systems to detect, identify and geolocate threat emitters
- Networked threat reporting: Display threats detected by any platform; report threats detected by the host platform to all others in the network
- Engagement avoidance: Know where and what the threats are, shrink the engagement envelope, and enable platforms to persist inside the enemy's WEZ

Funding Priorities

1. DAIRCM
2. Common Carriage, ALE-47 square expendables
3. APR-39 upgrades and obsolescence mitigation
4. Advanced RF expendable countermeasures
5. Directed-energy countermeasures

3.9 AVIATION TRAINING SYSTEM

In today's rapidly changing world, Marine Aviation must focus its training to maintain peak combat readiness. The ATS is how we integrate our training, creating a unified and effective program for all aviation personnel. We are aligned with the Marine Corps' broader training initiatives like Project Tripoli, to better prepare our Marines for the challenges ahead.

ATS Scope

ATS encompasses everything from policy to personnel, equipment, facilities, and funding for training after a Marine completes initial entry training. It also integrates aircrew training for specific aircraft at the FRS.

We use the Systems Approach to Training (SAT) to develop our curriculum to meet the demands of the fleet. We emphasize Operational Risk Management (ORM), Crew Resource Management (CRM), and Risk Resource Management (RRM) to teach Marines how to identify and mitigate risks effectively. These efforts are supported by Marine Aviation Training System Sites (MATSS) at our air stations. Each MAW implements and manages ATS, ensuring units have the necessary tools to train. This includes overseeing instructors, simulators, training systems, course materials, classrooms, and cybersecurity measures.

Marine Aviation Training System Sites

MATSS offers a location for instruction on risk management, aviation safety, and training by experienced instructors. These sites facilitate the use of simulators, standardization, and training relevant to the Fleet's needs. By emphasizing common solutions, we aim to increase combat readiness, enhance training across different areas, and reduce the costs of training the ACE and MAGTF.

ATS Simulators

Simulators are essential for training aircrew, maintenance personnel, and C2 Marines in a safe and collaborative virtual environment. Marine Aviation is working closely with TECOM to ensure ATS simulators are aligned with Project Tripoli's training modernization efforts.

Aircrew simulators:

Fielded training devices include: Aircrew Procedures Trainers (APT), Flight Training Devices (FTD), Containerized Flight Training Devices (CFTD), Weapons Systems Trainers (WST), Tactical Operational Flight Trainers (TOFT), Full Flight Simulators (FFS), Full Mission Simulators (FMS), Pilot Training Aids (PTA), Deployable Mission Rehearsal Trainers (DMRT), Mission Rehearsal Trainers (MRT), and Cockpit Procedures Trainers (CPT).

Enlisted Aircrew/Crew simulators:

Fuselage Trainers (FuT), Observer Training Aids (OTA), and Marine Common Aircrew Trainers (MCAT).

U.S. Navy photo by Scott A. Thornbloom

Maintenance simulators:

Simulators that represent aircraft systems and components for each type of aircraft.

By 2030, Marine Aviation plans to add:

- 24 Aircrew simulators
- 2 Enlisted aircrew/crew simulators
- 10 Maintenance simulators/training devices

As we incorporate new platforms, we will replace older ones, such as transitioning from CH-53E to CH-53K simulators. We are focusing on deployable trainers that emphasize battle management, situational awareness, and coordinated fires, rather than basic flight skills.

Live, Virtual, And Constructive (LVC)

Live involves real aircraft, real people, and a real environment. Virtual involves a person operating in a simulated aircraft in a simulated environment. Constructive involves the simulated entities (aircraft, ships, ground units) operating within a simulated or live environment.

The integration of LVC capabilities enhances fleet training by connecting advanced aviation systems to realistic, threat-informed training environments. Naval Aviation continues to mature aviation LVC capabilities through PMA-205, while Marine Aviation is aligning those capabilities with Project Tripoli to close gaps between experimentation, training, and mission rehearsal. This approach enables collaborative unit-level training and large-force exercises within a unified, scalable, and all-domain training environment that supports future operating concepts and Force Design objectives.


U.S. Marine Corps photo by Cpl. Oliver Nisbet

Aviation Distributed Virtual Training Environment (ADVTE)

ADVTE has enhanced and modernized capabilities at 2d and 3d MAWs. In FY26, we are expanding this capability to 1st and 4th MAWs to integrate Marine Aviation platforms and systems into a common training environment.

Marine Aviation will connect to the Marine Corps Training Enterprise Network (MTEN) and Navy Common Training Environment (NCTE) to support naval training. ADVTE is interoperable with the Air Force's Distributed Mission Operation Network (DMON) and has been used in joint training exercises such as VIRTUAL FLAG training events.

Integration & Way Ahead

Marine Aviation will continue to work with Commander Naval Air Forces (CNAF), Fleet Forces Command (USFFC), Commander Pacific Fleet (USPACFLT), and NAVAIR to develop the capability and capacity to link live aircraft on ranges to Virtual/Constructive aircraft simulators in the same virtual range environment to present a more complex operating environment.

Marine Aviation Training Ranges

Range Training Systems

TECOM is the service lead and sponsor for Marine Corps Ranges. The Marine Corps is reliant upon the DoN for the procurement (OPN/APN) and operations and maintenance (OMN) of equipment and systems that provide the aviation training capability on those ranges. This DoN support includes mission coordination, instrumentation and communications/datalink, management of the exercise control facility, EW and surface-to-air threats, Class III property engineering and infrastructure support, weapons scoring and mobile targets, ground truth data and debrief products, blue/red range training officer stations, and cyber security. Marine Corps Air Stations and sites that require DoN support for Range Training Systems include Cherry Point Range, MCAS Beaufort, Townsend Bombing Range, MCAS Yuma, Yuma Training Area, and MCAS Miramar. Program management of those systems resides at USPACFLT and USFFC.

Marine Aviation is coordinating with the Naval Aviation Training Systems and Ranges Program Office (PMA-205) to modernize Marine Aviation ranges with realistic threat emitters to support electronic warfare training. A key modernization priority is the enhancement of our East Coast training ranges. Currently, these ranges lack the necessary infrastructure and safety footprints to support the live employment of modern, long-range PGMs. Addressing this capability gap is critical for providing units with realistic, high-end training scenarios that ensure combat lethality and readiness for future conflicts.


U.S. Marine Corps photo by Cpl. Thomas Mudd

Townsend Bombing Range

Townsend Bombing Range (TBR) is our newest and premier East Coast air-to-ground training range. Located in coastal Georgia, it serves as the primary training location for 2d MAW and various other military units. TBR provides the capability to deliver advanced weapons and practice complex tactics that previously required deployment to West Coast ranges. TBR is a primary candidate for the modernization efforts required to support the employment of long-range PGMs.

Yuma Training Area

The Yuma Training Area (YTA) is our premier aviation training range, located in Southwestern Arizona. Its vast airspace and maneuver areas allow for the use of the latest weapons and tactics, enabling aviators to train as they will fight. MCAS Yuma supports a significant portion of Marine air-to-ground training and is home to the Marine Corps Weapons and Tactics Instructor (WTI) course.

3.10 CHIEF OF NAVAL AIR TRAINING (CNATRA) AIRCRAFT

The CNATRA enterprise, a critical partnership between the Marine Corps and the Navy, is committed to forging the next generation of high-quality, combat-ready aviators. CNATRA, TECOM, and Marine Aviation together are relentlessly focusing on the quality of instruction while simultaneously reducing time-to-train. We are also aggressively optimizing the training pipeline by integrating advanced aircraft and immersive simulators. This ensures the enterprise produces skilled and adaptable pilots, fully prepared for the complexities of the modern, Joint Operating Environment.

T-6A Texan II

The T-6A Texan II is one component of the Joint Primary Aircraft Training System (JPATS) along with simulators, computer-aided academics, and a Training Integration Management System (TIMS).

TH-73A Thrasher

The TH-73A is the aircraft portion of the Advanced Helicopter Training System (AHTS). AHTS brings the training tools needed to produce the next generation of rotary and tiltrotor pilots for the Marine Corps with current and relevant training platforms.

T-44A Pegasus

The T-44A is used for advanced turboprop aircraft training. The T-44 is equipped with deicing and anti-icing systems augmented by instrumentation and navigation equipment to allow for flight under instrument and icing conditions.

T-54 Marlin

The T-54A is used for the advanced portion of the Navy/Marine Corps multi-engine pilot training program, replacing the T-44A. T-54A updates and modernization include a "glass cockpit" with advanced avionics that better represent modern fleet aircraft.

T-45 Goshawk

The T-45 is used for intermediate and advanced portions of the Navy/Marine Corps aircrew training program for jet carrier aviation and tactical missions. The T-45 aircraft are currently undergoing a SLEP to ensure continued service until a replacement aircraft can be fielded in the mid-2030s.

Undergraduate Jet Training System (UJTS)

The UJTS will replace the aging T-45. The program's goals are to train more capable aviators faster, with improved platform readiness, in integrated LVC environments, and to develop the advanced skills required in the Joint Operating Environment. In early 2026, the DoN will send a Request for Proposals (RFP) to industry with the intent to select a vendor and sign a contract by January 2027.

SECTION 4: MARINE AVIATION ENABLERS


U.S. Marine Corps photo by Sgt. Mitchell Austin

4.1 AVIATION EXPEDITIONARY ENABLERS

Marine Air Control Groups (MACG) and Marine Wing Support Squadrons (MWSS) form the backbone of Marine Aviation's expeditionary capability. Together, they deliver a uniquely integrated Aviation Command, Control, and Ground Support (AC2GS) system unmatched across the Joint Force.

Value To The MAGTF

AC2GS enables the dynamic control of aircraft and missiles, supports aviation operations from austere environments, and enhances the lethality and agility of the MAGTF. Our enablers are undergoing an aggressive modernization effort across various areas:

- Tactical Air C2 (AC2)
- Ground-Based Air Defense (GBAD)
- Marine Air Traffic Control (MATC)
- Meteorology and Oceanography (METOC)
- Aviation Ground Support (AGS)

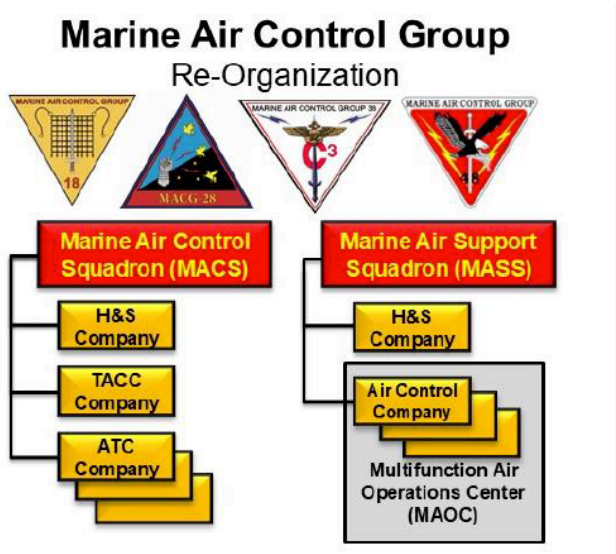
Air Command and Control

The Marine Air Command and Control System (MACCS) is undergoing substantial modernization, driven by the integration of advanced equipment and the implementation of a new operational concept for its tactical components.

Multifunctional Air Operations Center

The Multifunction Air Operations Center (MAOC) enhances the MAGTF's lethality, operational depth, and flexibility compared to legacy air C2 models. The transition to MAOC is currently underway and will culminate in FY29 with the full reorganization of the MACG. Key milestones include:

- **FY26:** All Direct Air Support Center (DASC) and Tactical Air Operations Center (TAOC) Marines will consolidate into a unified cadre of MAOC Marines.
- **FY27-28:** Active component MACGs will restructure to establish Marine Air Support Squadrons (MASS) purpose-built for MAOC employment and Marine Air Control Squadrons (MACS) optimized for ATC and Tactical Air Command Center (TACC) missions.
- **FY29:** Reserve Component reorganization.



Air C2 Systems

As the MACCS modernizes and reorganizes its formations, it is simultaneously fielding modern equipment that will focus it for future combat operations. These integrated systems enhance air battle management, strengthen air and missile defense capabilities, and enable multi-domain command and control for our 5th Generation ACE; they include:

- **Common Aviation Command and Control System (CAC2S)**
  - 50 systems (FOC FY18 / fully fielded)
- **CAC2S Small Form Factor (SFF)**
  - 42 systems (IOC FY25 / FOC FY29)

- **TPS-80 Ground / Air Task Oriented Radar (G/ATOR)**
  - 57 systems (IOC FY18 / FOC FY28)
- **Medium Range Air Defense Radar (MRADR)**
  - 40 systems (IOC FY26 / FOC TBD)
- **Composite Tracking Network (CTN)**
  - 17 Systems (FOC FY26 / 11 systems fielded)
- **Theater Battle Management Core System (TBMCS)**
  - 17 systems (FOC FY06 / fully fielded)

Ground Based Air Defense

Low Altitude Air Defense (LAAD) Battalions provide ground-based surface-to-air fires to protect the MAGTF and other designated critical assets. The Marine Corps fields three LAAD Battalions, each aligned to an active MAW, and a Reserve LAAD Battery (+) programmed for activation in FY29. These units are being fielded with the Marine Air Defense Integrated System (MADIS), Light Marine Air Defense Integrated System (L-MADIS), and Medium Range Intercept Capability (MRIC).

Littoral Anti-Air Battalions (LAABs) conduct anti-air warfare and integrate aviation operations with organic and joint fires in support of the maritime campaign. The Marine Corps currently fields two LAABs, both assigned to 3d Marine Division's Marine Littoral Regiments (MLRs), which will also employ MADIS.

Additionally, the Marine Corps is implementing self-defense measures against the small Unmanned Aerial Systems (sUAS) threat by fielding capabilities like Organic C-sUAS and Installation C-sUAS. These systems will play a major role in defending elements operating outside the protective umbrella of the air defense battalions, aligning with the broader strategy of the DoW's Joint Interagency Task Force (JIATF) 401 to counter this pervasive threat.

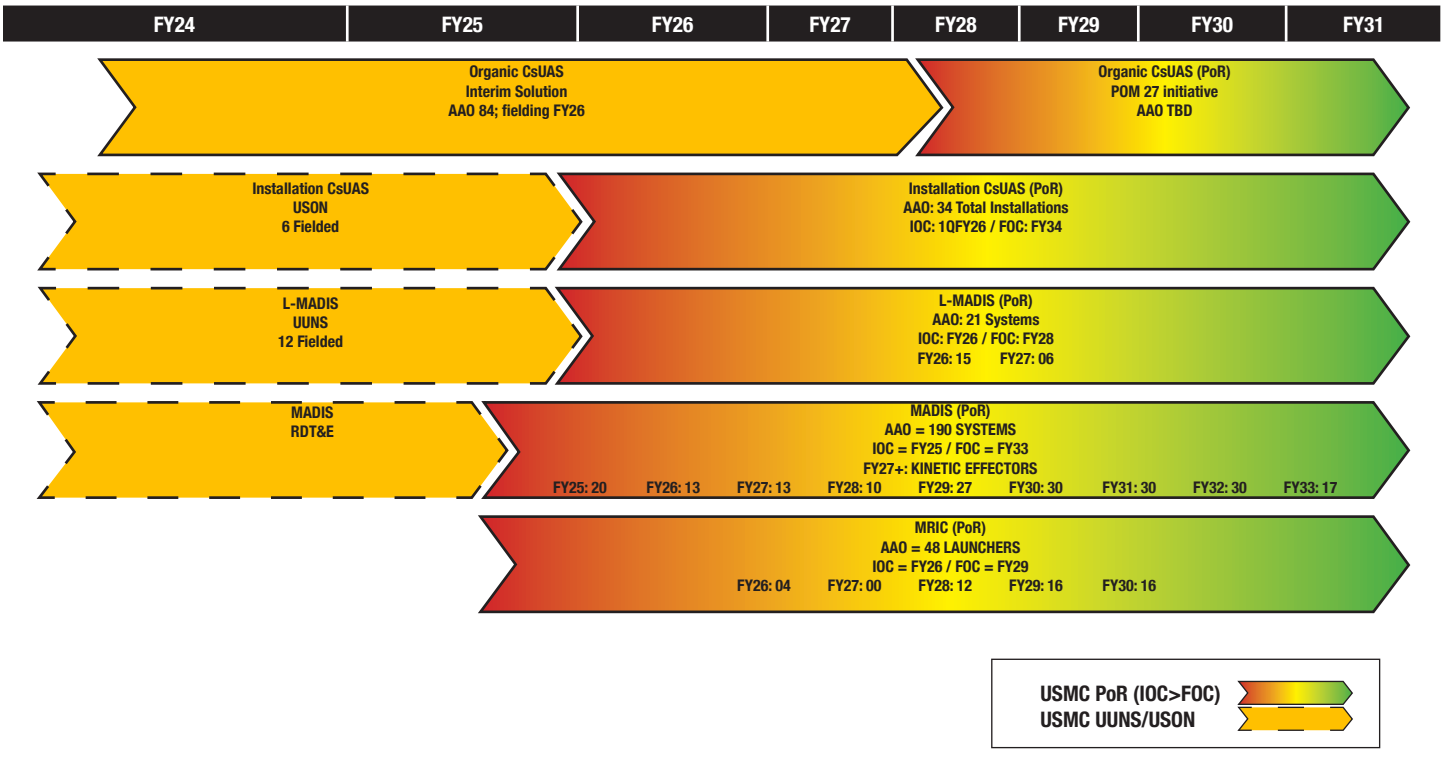
Marine Air Defense Integrated System

The MADIS is the foundational capability of LAAD Battalions and the LAABs. Each system consists of complementary capabilities integrated on two Joint Light Tactical Vehicles (JLTVs).

- **MADIS:** 190 Systems (IOC FY25 / FOC FY33)

As part of ongoing modernization, the MADIS C-UAS Engagement System (CES) enhances lethality by integrating an autonomous effector for Group 1–2 UAS and an economical effector for Group 2–3 UAS and fixed- or rotary-wing threats. Both are mounted on a JLTV trailer, enabling employment with existing systems. Future efforts focus on integrating CES and MADIS subcomponents onto unmanned ground vehicles. The Marine Corps is also investing in emerging technologies such as directed energy, low-cost kinetic effectors, and the Army's Next Generation Short Range Interceptor, which will begin replacing the Stinger missile in FY29.

GBAD and CsUAS Roadmap




U.S. Marine Corps photo by Cpl. Maurion Moore

Light Marine Air Defense Integrated System

L-MADIS complements MADIS by providing a lighter, more rapidly deployable option for distributed and maritime operations, ensuring Marine forces can defend against aerial threats in austere and forward environments.

- **L-MADIS:** 21 Systems (IOC FY26 / FOC FY28)


U.S. Marine Corps photo by Cpl. Michael Bartman

Medium Range Intercept Capability

The MRIC provides LAAD Battalions with the ability to defend MAGTF assets against cruise missiles, UAS, and other advanced aerial threats. MRIC complements MADIS and L-MADIS by extending engagement options to more advanced threats, integrating with Marine Corps radars and C2 systems to provide a mobile and expeditionary medium-range defense.

- **MRIC:** 3 Batteries / 48 Launchers (IOC FY26/ FOC FY30)

Marine Air Traffic Control

MATC provides positive and procedural control of aircraft via surveillance and precision radars, ATC towers, navigational aids, and terminal instrument procedures development. These services are provided for MAGTF, Joint, Coalition, and friendly aircraft. MATC's capabilities are critical enablers of sortie generation ensuring MAGTF all-weather aviation operations. Each MATC company is trained and equipped to simultaneously provide ATC services at one main air base and two remote air sites. The continued development of MATC and Landing Systems has ensured MATC's ability to meet mission requirements across the ROMO with increasing interoperability and functionality as an AC2 node within the MACCS.


U.S. Marine Corps photo by Lance Cpl. Alyssa J. DeCrane

Marine Air Traffic Control and Landing Systems

- **AN/TPN-31(v)7 Air Traffic Navigation Integration and Coordination System (ATNAVICS)**
  - 14 systems (IOC FY23 / fully fielded)
- **AN/TRN-47(v) 2 & 3 Tactical Air Navigation (TACAN)**
  - (v) 2: 13 systems (IOC FY21 / fully fielded)
  - (v) 3: 37 systems (IOC FY25 / FOC FY26)
- **AN-TSQ-120D (ATC Tower)**
  - 14 systems (IOC FY22 / fully fielded)

Expeditionary Airport Surveillance Radar (EASR)

EASR is expected to achieve IOC in FY28 replacing the surveillance function of the ATNAVICS, while bringing increased capability to MATC. Aligned to the fielding of EASR, efforts are underway for precision recovery and landing capabilities to support operations in any environment.

Expeditionary Precision Approach Landing Capability (E-PALC)

Efforts are underway to enable ATC operations in contested environments. E-PALC establishes a common precision landing capability, whether ship or expeditionary, for use in contested environments critical to DAO.

MATC Digital Interoperability

MATC has begun integration of MANGL/MAGTAB within its formations to enable scalable, interoperable situational awareness at remote air sites and Forward Arming and Refueling Points (FARPs).

Meteorology and Oceanography

The METOC occupational field has undergone substantial changes in recent years, including doctrinal shifts towards intelligence, changes in sponsorship, enhanced clearance requirements, and the transition to man-portable/packable equipment by 2027. By FY28, METOC capabilities and structure will move from the MATC Company to the MAW AC/S G2 and MAG S2 to support the overall Intelligence framework in aviation and align with Marine Corps Intelligence, Surveillance, and Reconnaissance (ISR) Enterprise operationalization. This realignment will enable METOC personnel to play a more active role in planning and directing support for the MAGs, fostering greater mission familiarity, improved training, and the ability to deliver streamlined, scalable, and task-focused support to MAW priorities.

U.S. Marine Corps photo by Lance Cpl. Manuel Alvarado

METOC Programs

- **Meteorological Mobile Facility (Replacement) MetMF(R) Next Generation (NEXGEN) V3**
  - 8 systems (FOC FY27 / 5 systems fielded)
- **Naval Integrated Tactical Environmental System (V)4 (NITES IV)**
  - 14 systems (FOC FY03 / fully fielded)
- **NITES Next Software**
  - 42 systems (FOC FY22 / fully fielded)
- **Naval Integrated METOC System (NIMS)**
  - Future system (FY29-31)

Aviation Ground Support

AGS consists of the tailored engineering and logistics capabilities required to sustain air operations (excluding aviation supply, maintenance, and ordnance) at aviation expeditionary shore-based sites and is the critical enabler that makes Marine Aviation truly expeditionary.

Provided by the MWSS, its capabilities include landing zone survey and construction, contingency airfield support, airfield assessment and repair, aircraft salvage and recovery, and FARP operations that directly support the employment of all functions of Marine Aviation. AGS is a capability unique to the Marine Corps that answers the demands of EABO and DAO in support of a Naval Campaign.

Marine Corps AGS continues to adapt its capability set, structure, and equipment to be more agile and expeditionary and better support distributed Marine, Naval, and Joint aviation operations in austere environments, firmly establishing its role as Marine Aviation's seventh function.

Aviation Ground Support Systems

- **Vertical Take Off and Landing (VTOL) Surfacing Systems:**
  - 52 systems (IOC FY22 / FOC FY26)
- **Aircraft Arresting System Replacement:**
  - 25 systems (IOC FY29 / FOC FY33)
  - 1 P-V mobile arresting system purchased; testing to begin FY26

U.S. Marine Corps photo by Lance Cpl. Julian Elliott-Drouin

- **Airfield Lighting Systems:**
  - 3 systems (1 per MAW) (FOC FY26)
- **C-130 Transportable Aircraft Rescue and Firefighting (ARFF) Apparatus:**
  - 68 systems; program currently unfunded (IOC FY28 / FOC FY29)
- **Tactical Aviation Ground Refueling System (TAGRS):**
  - 78 systems (6 per MWSS) (FOC FY26)


U.S. Marine Corps photo by Lance Cpl. Samantha Devine

Future AGS Capabilities

The AGS community is developing requirements for the following capabilities to enhance the agility and responsiveness of the MWSS in support of Distributed Aviation Operations (DAO):

- **Rapid Intervention System (RIS):** A compact, MV-22 transportable firefighting solution that enhances MWSS ARFF capabilities at FARPs—boosting aircraft and crew safety while reducing operational risk in austere environments.
- **Expeditionary Fuel Truck:** A C-130 transportable refueling asset that integrates with TAGRS and expeditionary fuel systems, supporting FARPs and airfield ops with multi-modal fuel intake, high capacity, and tactical mobility.
- **Expeditionary Dust Abatement System:** A C-130 transportable water and soil palliative distribution system to replace a legacy system nearing end of service life. Supports horizontal construction, soil stabilization, and dust abatement required for expeditionary landing zones and airfields.
- **Automated Airfield Damage Assessment System:** A sUAS equipped with multi-spectral imaging and LiDAR, powered by AI-driven damage and hazard analysis, enables rapid, low-risk assessment of airfield damage—reducing response time from hours to minutes and accelerating sortie recovery while minimizing Marine exposure.


U.S. Marine Corps photo

AC2GS Funding Priorities

Air Traffic Control

1. Expeditionary Precision Approach Landing Capability
2. ATC Facility Modernization
3. Initial Entry Navigational Aids (NAVAID)
4. Expeditionary Tower

Aircraft Launch and Recovery Equipment/AGS

1. Aircraft Arresting Gear
2. Airfield Lighting System Modernization
3. VTOL Surfacing

Green Dollar Air C2 / Air Defense Programs

1. Maintained Force Design Investments
2. Prioritized Investments enabling Joint/ Naval C2 and Kill Webs

Green Dollar Aircraft Rescue Firefighting / AGS

1. Family of Vehicles
2. Family of Rescue Tools and Equipment

4.2 MILITARY CONSTRUCTION

Effective facilities which are appropriately sized, configured and maintained are critical for Marine Aviation. Military Construction (MILCON) encompasses facility planning, new construction, sustainment, repairs and host-nation-funded projects with our Allies.

MILCON requires congressional approval and can take 8-10 years from initial identification to completion. Capable facilities enable readiness and power projection, supporting the National Defense Strategy.

Our focus includes integrating new platforms and advanced warfighting capabilities. High priorities for Marine Aviation infrastructure include the following:

- Planning and project development for MUX TACAIR fielding with focus on operational testing at MCAS Yuma
- Expeditious completion of F-35 hangars at MCAS Cherry Point, MCAS Miramar, and MCAS Beaufort
- Award and groundbreaking of MCAS Kaneohe Bay projects initiated during Force Design flightline optimization
- Sustainment and repair of airfield pavements, especially those in the Indo-Pacific
- Flightline improvements enabling West Coast CH-53K introduction, Pacific deployment, and reserve component integration

MCI-Pacific	**MCAS Kaneohe Bay**
	FY28 P983 C-130 Washrack
	FY28 P995 IIIMEF Cons Comm, Intel & Info Fac
	FY29 P985 MACG-18 Ops Complex
	MCB Camp Butler
	FY27 MCAS Futenma Runway Repair
MCI-West	**MCAS Miramar**
	FY28 P202 F-35 Aircraft Maint Hangar
	FY28 PTBD CH-53K Hangar Upgrades
	MCAS Yuma
	FY29 P531 Cons Aviation Ops Center
	FY29 P321 Runway 3R/21L F-35 Upgrades
	FY30 PTBD MUX TACAIR Facility Improvements
	MCAS/MCB Camp Pendleton
	FY28 P137 Aircraft Corrosion Control Facility
	FY30 P120 2-Module Modified Type-II Hangar
MCI-East	**MCAS Cherry Point**
	FY28 P258 2D LAAD Maint & HQ Facility
	FY29 P260 KC-130J FUT/WST Facility
	FY30 P250 2-Module Type-II Hangar (VMGR)
	MCAS Beaufort
	FY28 P476 Cons Comm Complex
	MCAS New River
	FY29 P666 3-Module Modified Type-II Hangar
	FY31 P380 2-Module Modified Type-II Hangar

SECTION 5: MARINE AVIATION RESERVES

U.S. Marine Corps photo by Lance Cpl. Carlos Paz-Sosa

4TH MARINE AIRCRAFT WING

Value to the MAGTF

4th MAW is a critical component of our total force, providing depth and experience. With global threats on the rise, it is more important than ever that this force maintains a high level of readiness. It serves as a professional aviation force in reserve that is ready, lethal, and responsive to combat any threat.

Organization

4th MAW integrates aircraft operations, AGS, and AC2. It deploys units and individual augmentees across the ROMO worldwide.

Command and Control

4th MAW's operational capability is growing with activations of VMFT-402, VMU-4, 4th LAAD, and VMFA-134, along with the relocation and transition of VMFA-112 and the growth of HMH-772 to 16 CH-53K aircraft. The reactivation of MAG-46 at MCAS Miramar in FY29 to improve C2 across 4th MAW's geographically dispersed units is also under consideration.

Aviation Readiness Integration

4th MAW integrates its aviation logistics Marines with active-duty units across the Marine Corps. It has enduring support relationships with 2d and 3d MAWs, and MALS-49's relocation to MCAS New River further strengthens these ties.

Tactical Aviation Integration

VMFA-112 supports the TACAIR Transition Plan. 4th MAW will continue to provide a legacy TACAIR platform as a Reserve capability until the Reserve component 5th Generation transition begins.

Mobility Integration

VMGR-234 continues to be a key piece in the Marine Corps Total Force. In their reserve capacity, they provide support to the reserve force and active force on a regular basis through the support of active component assault support requests or deployment augmentation.

Tiltrotor Integration

Both reserve component VMMs are co-located with active component MAGs. This streamlines the logistics supply chain and increases interoperability with other tenant fleet squadrons in the MAGs.

Rotary-Wing Integration

In FY24, HMH-772 completed acceptance of its eighth aircraft bringing the squadron to full Table of Organization and Equipment strength. It is now poised to provide GFM support. HMH-772 will further grow and transition to 16 CH-53Ks in FY32. Infrastructure, basing, and personnel requirements for this transition are under analysis.

U.S. Marine Corps photo by Sgt. JVonnta Taylor

Unmanned System Integration

VMU-4 will reactivate in Yuma in FY28 to provide mission crew augmentation to the active component, posture to capture transitioning critical UAS talent, and receive future UAS equipment solutions as Service priorities dictate. Additionally, Selected Marine Corps


U.S. Marine Corps photo by Cpl. Marc J. Imprevert

Reserve (SMCR) structure is being placed at VMUT-2 in FY27 to provide immediate reserve affiliation opportunities for UAS Marines leaving the active component.

Expeditionary Aviation Enablers Integration

4th MAW's MACG-48, along with MWSS-471/472/473 round out the total force AC2GS capability. The reserve component has not undergone the same changes to its task organization as the active component. Namely, the MWSS retained their pre-Force Design T/O of 571 personnel and the MACG retains the Marine Corps' only Marine Tactical Air Command Squadron. These robust capabilities and formations serve as a highly effective backstop for the active component and often augment them during exercises and operations. MACG-48 reorganization is targeted for FY30 to mirror ongoing implementation within the active component MACGs.

The long standing gap of a LAAD capability in the reserves to augment the active component and catch talented LAAD Marines leaving the force is being addressed via the re-activation of 4th LAAD in FY29 with an intended FOC of 12 MADIS systems in FY33.

Adversary Aircraft

Value To The MAGTF

The F-5N/F provides a professional fixed-wing aggressor training resource for TACAIR, assault support, GBAD, and MACS T&R requirements. Professional adversary support enhances the combat readiness of Marine Aviation and other elements of the MAGTF.

Organization

The Marine Corps has 13 F-5s assigned to VMFT-401 at MCAS Yuma and VMFT-402 at MCAS Beaufort. Currently, the adversary PoR is planned to increase to 22 F-5s with the delivery of upgraded aircraft being spread over the next four years.

The F-5 community continues to support the Marine Corps' growing demand for adversary sorties. As the Marine Corps continues its transition to the F-35, VMFAT-501 and VMFAT-502 aircrew training requirements will grow to nearly 1800 required adversary sorties. Annual fleet adversary requirements are also expected to increase for transitioning squadrons from 12,000 air-to-air sorties to 17,000 sorties per year to meet fleet training requirements.


U.S. Marine Corps photo

Initiatives & Way Ahead

The F-5 fleet is funded for life-limited components including upper cockpit longerons, wings, horizontal stabilator pairs, and vertical stabilators that will enable the F-5 to achieve its planned 6,000 (F-5F) / 9,000 (F-5N) hour life.

Repatriated Swiss F-5s are currently undergoing structural and avionics upgrades known as the Avionics Reconfiguration and Tactical Modernization for Inventory Standardization (ARTEMIS) program that will improve aircraft safety, sustainability, and flyability. Further advancements in Adversary Mission Systems (AMS) will also increase the situational awareness and capability of the adversary fleet via encrypted Tactical Combat Training System (TCTS) I and TCTS II. HQMC Aviation will continue to pursue "Adversary Next" with the goal of replacing the F-5 over the next 10-15 years as the F-5 reaches the end of its service life.

SECTION 6: TACTICS, TEST, & TECHNOLOGY DEVELOPMENT

U.S. Marine Corps photo by a courtesy asset

6.1 EXPEDITIONARY AND MARITIME AVIATION - ADVANCED DEVELOPMENT TEAM (XMA-ADT)

Mission

The XMA-ADT, established in August 2023, works with the military, industry, and acquisition experts to advance Marine Aviation in alignment with Project Eagle and Force Design. The XMA-ADT focuses on accelerating the transition of new technologies into capabilities. It coordinates with Aviation PEOs for program transitions. XMA-ADT focuses on enhancing and accelerating the successful acquisition of technologies through the employment of operational prototypes in coordination with MCWL Science and Technology Division. In coordination with the Cunningham Group, XMA-ADT informs service-level decisions on the transition of technologies into PoRs to fill critical capability gaps.

2025 Project Review

In 2025, the XMA-ADT focused on four key capabilities for Marine Aviation: MUX TACAIR, Aerial Logistics Connector (ALC), Precision Attack Strike Munition (PASM), and Future Attack Strike (FASt).

MUX TACAIR seeks to enhance F-35 effectiveness in the peer/near-peer fight by providing a low-cost, risk-worthy capability. The Marine Corps demonstrated Manned-Unmanned Teaming (MUM-T) between the F-35 and XQ-58 during the last of four experimentation flights conducted to date. Upcoming project milestones include taxi testing and first flight of the Conventional Takeoff and Landing variant. HQMC Aviation established the MUX TACAIR Transition Task Force, which will oversee the fielding of this brand-new capability in January 2026.

ALC is nested within the Unmanned Logistics Systems-Air (ULS-A) FoS as the large air vehicle. ALC is being designed to sustain the SIF within a contested First Island Chain through autonomous airborne logistics. ALC conducted WTI Tactical Demonstrations with multiple vendors to better inform concepts of operations and requirements development.

PASM, as part of a Joint Capabilities Technology Demonstration, completed initial design and aircraft integration on H-1 aircraft and supported captive flight test and a live fire launch.

FASt capability is being developed to provide long range fires and Close Air Support (CAS) to the ground force and to be a Joint Force kill web enabler. FASt continues to evolve through Weapons Integration Risk Reduction (WIRR) trade studies to drive innovation and experimentation. Conceptual solutions are being analyzed to inform requirements and acquisition pathways. Enhanced capabilities such as kinetic/non-kinetic launched effects, long-range precision fires, advanced survivability, DI, and EW will be further developed.

U.S. Air Force photo by 2nd Lt. Rebecca Abordo

U.S. Marine Corps photo by Cpl. Micah Thompson

6.2 MARINE AVIATION WEAPONS AND TACTICS SQUADRON ONE (MAWTS-1)

Mission

The mission of MAWTS-1 is to provide standardized advanced tactical training and certification of unit instructor qualifications to support Marine Aviation training and readiness. MAWTS-1 also aids in the development and employment of aviation weapons and tactics in coordination with HQMC Aviation, the FMF, and VMX-1.

Weapons and Tactics Instructor Course Overview and Update

The modern WTI course is designed to train aviation leaders to succeed in the challenging environments envisioned in future conflicts. The course is defined by four key themes: it is distributed across vast distances; contested by thinking adversaries; conducted across multi-domains; and constantly evolving to meet new threats.

The course's area of operations is staggering, stretching across 318,000 square miles of airspace and challenging terrain. This expansive battlespace allows for the rehearsal of Large-Scale Combat Operations and scenarios across the ROMO. The current WTI course actively incorporates service concepts, ensuring that emerging doctrine is tested and refined in a realistic setting. It also fosters extensive Joint and Coalition partnerships, with regular participation from U.S. Navy THIRD FLEET combatants and Joint Naval Aviation platforms, which is critical for rehearsing maritime strike and anti-submarine warfare. The training scenarios are OPLAN-informed and high-threat, preparing students for the pacing challenge while also integrating scenarios in permissive or uncertain environments that incorporate elements from the Department of State. Reflecting the modern battlefield, there is an increasing incorporation of deception, aggressive integration of sUAS, and robust C-UAS training. WTI leverages cutting-edge simulation, exemplified by venues like the Joint Simulation Environment at NAS Patuxent River and includes several embedded programs, such as the Sector Air Defense Command (SADC) Operations course, which add layers of value and capability to the MAGTF.

The WTI course is as relevant as it has ever been, preparing aviators for 5th Generation adversaries, robust integrated air defense systems, and the challenges of over-the-horizon targeting, all while maintaining a focus on mastery of the basics. The capstone event, Strike 4, demonstrates the pinnacle of distributed operations, involving the movement of live ordnance via tactical airlift to a FARP where F-35s are hot-refueled and hot-loaded before conducting an integrated live-fire night strike against live 4th and 5th Generation adversaries.

The WTI course functions as a critical laboratory for advancing emerging concepts and experimenting with new technologies, a mission MAWTS-1 executes in close collaboration with HQMC, MCWL, and industry partners. This commitment to innovation is demonstrated through numerous initiatives designed to solve the challenges of modern warfare. The course is actively rehearsing complex distributed operations, pioneering TTPs for over-the-horizon targeting, and advancing both sUAS integration for offensive action and integrated C-UAS development. Simultaneously, MAWTS-1 is developing new training to enhance EABO capabilities, honing overwater personnel recovery with the MV-22, implementing Aircrew Enroute Casualty Care for distributed forces, and experimenting with MV-22 Anti-Submarine Warfare to bolster joint sea denial in the littorals.


U.S. Marine Corps photo by Lance Cpl. Alexandria Serrano

6.3 MARINE OPERATIONAL TEST AND EVALUATION SQUADRON ONE (VMX-1)

Mission

VMX-1's mission is to conduct operational test and evaluation of all Marine Aviation platforms under the authority of Director, Operational Test and Evaluation Force (OPTEVFOR) or Director, Marine Corps Operational Test and Evaluation Activity (MCOTEA). In coordination with MAWTS-1 and HQMC Aviation, VMX-1 supports concept development and refinement of Marine Aviation TTPs. Finally, the VMX team coordinates and conducts government-sponsored experimentation and tactical demonstrations as directed by the Deputy Commandant for Aviation.

Organization

VMX-1 is the center point for Marine Aviation system test, technology demonstration, and tactics development. The Marines, Sailors, and civilians of VMX-1 execute as experts in military aviation systems and technologies, Marine missions and tactics, and enemy capabilities.

FMF operators benefit from the detailed characterization of new systems and execute the vetted, lethal tactics evaluated by VMX-1. The service makes informed aviation fielding, procurement, manning, and disposition decisions based on thorough, independent, and accurate evaluations of candidate systems and technologies conducted at VMX-1.

In addition to conducting formal operational test, VMX-1 collaborates with XMA-ADT, MAWTS-1 ADT&E, the Cunningham Group, MCWL, and numerous DoW innovation centers to ensure Marine Aviation is at the forefront of warfighting modernization. These partnerships enable VMX-1 to rapidly iterate and inform DAO concepts, as well as provide a test bed for our predictive maintenance, dynamic aviation supply, and optimized operations initiatives. VMX-1 also integrates across the Joint and Partner Force to increase interoperability and expedite the development of new technologies and tactics for the FMF.

2026 VMX-1 Lines of Effort

In 2026, VMX-1 will lead Marine Aviation into a new era of warfighting capability and technological overmatch. The squadron will conduct operational test and evaluation on systems and weapons for the F-35B, MV-22B, CH-53K, AH-1Z, UH-1Y, MQ-9A, and AC2 to proof test all aspects of the Marine AVPLAN in a fully informed and threat-relevant environment. Together, these efforts will ensure emerging aviation capabilities are operationally relevant, combat credible, and ready for integration into the next generation ACE.

U.S. Marine Corps photo by Lance Cpl. Alexandria Serrano

"AVIATION PROVIDES THE LION'S SHARE OF KILLING POWER ON THE BATTLEFIELD…WE MUST MAXIMIZE THIS CRITICAL MAGTF CAPABILITY." – 39TH COMMANDANT OF THE MARINE CORPS

Marine Aviation remains globally engaged, forward-deployed, and expeditionary—operating from Navy ships, austere sites, joint locations, and strategic main operating bases. This posture enables the MAGTF to compete, assure Allies and Partners, deter adversaries across the spectrum of conflict, and win if deterrence fails.

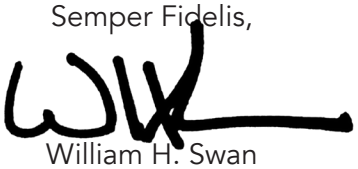
Our mission is clear: **to maintain** and **deliver the most ready, lethal and combat-capable Aviation Combat Element—today and in the future**. Our Marine Corps' **AVPLAN**, nested within **Project Eagle**, lays out how we will do this. Across platforms, enablers, logistics, digital modernization, training, and sustainment, **we are on path** to build the ACE our Nation and Corps requires.

At the center of all progress remains our **Marines**, **Sailors**, and **aircrew**—the **T-E-A-M** that powers Marine Aviation. Their professionalism, grit, and dedication remain our decisive advantage. Continued investment in their training, equipment, and quality of life preserves the warfighting edge our Nation depends on.

Our priorities are clear: take care of our people, stay ready for combat, and modernize fast with purpose. We will **maintain the crisis-response readiness** our Nation demands while **driving the modernization required for tomorrow's fight**. With this balance, the ACE will remain lethal today and prepared for the future distributed fight. And yes—**when it comes to modernizing our aviation combat power, we always need more cowbell!**

Throughout its history, Marine Aviation has always delivered when the Nation called. We will advance that legacy by fielding the most lethal and combat-capable ACE possible. With this AVPLAN, Marine Aviation will remain a decisive force: **ready for crisis, prepared for future conflict, and committed to defending America's interests and way of life**.

Semper Fidelis,



William H. Swan
Lieutenant General, U.S. Marine Corps
Deputy Commandant for Aviation

NOTES

NOTES


DEPARTMENT OF THE NAVY
UNITED STATES MARINE CORPS