

[View this email in your browser](#)



Happy New Year!



As we welcome a new year, we extend our deepest gratitude to our supporters, donors, volunteers, and friends who continue to make the Flying Leatherneck Aviation Museum possible. Because of your commitment, we are moving closer each day to opening our new permanent home at the Great Park in Irvine.

This past year marked major milestones, from continued progress on our museum design and construction, to the remarkable work of UCI students restoring the historic Curtiss Jenny, to hosting meaningful community events that honor the legacy of Marine Corps aviation. The momentum is strong, and the year ahead promises even more exciting developments as we bring this world-class museum to life.

As we look ahead, we invite you to remain part of this historic journey. Your support, through donations, aircraft sponsorships, or museum membership, directly helps preserve rare aircraft, expand our education programs, and inspire future generations with the courage, innovation, and service of Marine Corps aviators.

Thank you for standing with us as we preserve the past and build the future. We wish you a happy, healthy, and prosperous New Year.

Board Member Spotlight: James ‘Jim’ Harker



The Flying Leatherneck Aviation Museum is proud to highlight **James “Jim” Harker**, a dedicated member of the Flying Leatherneck Historical Foundation Board of Directors and an active contributor to our **Education and Fundraising Committees**. Jim’s lifelong commitment to service, leadership, and education reflects the very values the museum strives to preserve.

“It is an honor to serve on the Flying Leatherneck Historical Foundation Board of Directors and our Education & Fundraising Committees,” Jim shares. “Building a permanent home for the Flying Leatherneck Aviation Museum and supporting youth education are goals which are dear to my heart.”

Jim is the founding partner of **Harker, Campbell & Belfield LLP**, an Orange County law firm celebrating more than 48 years of representing entrepreneurs in business, estate, trust, and litigation matters, with offices in Santa Ana and Newport Beach. A native of Wisconsin, Jim graduated from the University of Wisconsin in 1970 and was commissioned as a **Second Lieutenant in the United States Marine Corps Reserve**, having completed Officer Candidate School during the summers of 1967 and 1968. He served on active duty from 1970 to 1973 as a **Naval Flight Officer**, flying as a Bombardier/Navigator aboard the **A-6 Intruder**.

Following his military service, Jim worked with the Orange County Employees Association while attending law school at night, developing expertise in employment

California Bar in 1977, and founded the private practice that same year. In addition to his legal career, Jim is the co-owner of **SoMa Cellars**, a producer of fine wines in California and Bordeaux, and has long supported charitable organizations throughout the community.

Jim has been deeply inspired by the generosity of the Flying Leatherneck community and the shared passion for preserving Marine Corps aviation history. “I have been moved by the level of support which we have received from our Flying Leatherneck donors,” he says. “People want to be a part of this great endeavor. Their donations—whether small, medium, or large—are universally heartfelt and clearly impactful.”

A strong advocate for hands-on learning, Jim is especially enthusiastic about the Curtiss Jenny restoration project underway with UCI students. “Seeing students use 21st Century technology to build an early 20th Century aircraft is a sight to behold,” he notes. Jim also emphasizes the profound historical connection between Marine Corps aviation and Orange County. “MCAS El Toro was open and operational in less than one year after the attack on Pearl Harbor,” he reflects. “Orange County grew into an urban powerhouse while the 3rd Marine Aircraft Wing was serving here. It is meaningful that this aviation history has returned to this hallowed ground—now the Irvine Great Park—to contribute to Orange County and beyond and to inspire our youth to achieve greatness in their lives.”

We are grateful for Jim Harker’s service, leadership, and continued dedication to the Flying Leatherneck Aviation Museum and its mission to educate, inspire, and preserve the proud legacy of Marine Corps aviation.

Collections Needs your Photographs for our Museum Library!!



Hello from Hangar 297! As we start to build out our archive and library, Collections is looking for specific donations. We are looking for combat, deployment or tour photographs, photographs of MCAS El Toro and MCAS Tustin, photographs of life on either or both bases. As well as H-34, CH-46, B-25J, and R4D-8 NAVAIR/ NAVWEPS Manuals. Please reach out to Katherine at kgarcia@flyingleathernecks.org if you are interested in donating any of these items, it will be greatly appreciated!

Hangar 297 Welcomes OC Supervisor Don Wagner



We had the honor of hosting **Orange County Supervisor Don Wagner** for an in-depth tour of the Flying Leatherneck Aviation Museum project. General Aguilar delivered a compelling briefing on our mission, preserving Marine Corps aviation history while advancing hands-on STEM education for the next generation.

Supervisor Wagner, joined by **District Director Scot Voigts (also Mayor of Lake Forest)** and **Community Engagement Director Sage Conroy**, spent time with our team and student builders. The group was especially struck by the educational impact of the Jenny build and the vast historical legacy our museum will protect.

As we continue toward opening our new museum at Great Park, we are encouraged by this visit and look forward to further conversations and collaboration.

Spotlight on Electronic Warfare: one of the Seven Functions of Marine Aviation

Written by: Patrick J. Gough, Colonel USMC (Retired)
Weapons and Tactics Instructor
Marine Aviation Weapons and Tactics Squadron one AH-1 Division Head



The fourth in the series of articles that delve into the reason the United States Marine Corps Aviation exists, and building on "The Seven Functions of Marine Aviation" generic article featured at the beginning of this series, this month the Flying Leatherneck Aviation Museum Newsletter, will provide a snapshot into **Electronic Warfare (EW)**.

Electronic Warfare (EW) focuses on controlling the electromagnetic spectrum (EMS) in support of the Marine Air-Ground Task Force (MAGTF) operations. It protects friendly forces' use of radios, radars, and datalinks while degrading, disrupting, or deceiving the enemy's use of the same systems. EW is the military use of the EMS to enable friendly operations and deny enemy advantage. It focuses on communications equipment, sensors, weapons guidance, data links, and other emitters in the air, on land, and at sea.

Electronic Attack (EA)

Electronic Warfare Support (ES)

Electronic Protection (EP)

These subdivisions together allow aviation units to sense, attack, and shield within the EMS.

Electronic Attack (EA) uses electromagnetic energy, directed energy, or antiradiation weapons to degrade, neutralize, or destroy enemy combat capability. Typical EA tasks for Marine Aviation include:

- Jamming enemy radars and communications to blind air defenses and disrupt command and control.

- Using antiradiation missiles to physically destroy enemy radars and associated systems.

EA directly supports suppression of enemy air defenses (SEAD) and offensive air support (OAS) by opening corridors for friendly aircraft and protecting Marine ground forces from enemy sensors and weapons.

Electronic Warfare Support (ES) consists of actions to search for, intercept, identify, and locate sources of radiated electromagnetic energy for immediate threat recognition. Key ES contributions within Marine Aviation include:

- Detecting and geolocating enemy radars and emitters to build the electronic order of battle.

- Providing real-time threat warning and targeting data to both air and ground elements.

ES directly feeds intelligence, surveillance, and reconnaissance (ISR) and helps EA and kinetic fires against high-value enemy systems.

Electronic Protection (EP) are actions taken to ensure friendly use of the EMS despite enemy or environmental interference. For Marine Aviation, EP typically involves:

- Techniques and procedures (e.g. emission control, frequency agility, encryption, low-probability-of-intercept waveforms).

- Platform self-protection suites as radar warning receivers, countermeasure dispensers, and onboard jammers.

EP preserves the effectiveness of friendly aircraft, networks, and other weapons, allowing the other six functions of Marine Aviation to operate reliably in a contested spectrum.

including the delivery of kinetic ordnance, decoy flares and chaff, active jammers of all kinds, and/or sensors to detect enemy activity in the ESM.

Some of the kinetic ordnance used for EA include the AGM-88 High-speed Anti-radiation Missile (HARM) launched from the EA-6B Prowler and the AGM-122A Sidarm missile launched from the AH-1W Super Cobra. Newer, more capable missiles have been or are being developed, such as the Red Wolf family of long-range missiles launched from the AH-1Z Viper.

Most other aviation delivered kinetic ordnance has been and can be used to perform SEAD missions, including precision missiles such as Hellfire and JAGM as well as simple ballistic rockets and guns.



Do you have a special connection to a Marine Aircraft? Your support can help!

Each of our aircraft has a rich history and a story to tell. By supporting our restoration efforts, you contribute to preserving these flying legends for future generations. Your donation helps cover the costs of materials, labor, and expertise required to bring these historic aircraft back to their former glory.

Your support ensures that these iconic aircraft's legacy lives on. Together, we can honor the past and inspire the future.

[CHECK OUT THE AIRCRAFT AVAILABLE FOR SUPPORT](#)

Your Support Is Bringing the Flying Leatherneck Aviation Museum to Life



Thanks to your incredible generosity, the Flying Leatherneck Aviation Museum is one step closer to becoming a reality. Your commitment ensures that the bravery, sacrifices, and achievements of Marine Corps aviators will continue to be honored and remembered for generations to come.

Here's how your support is already making an impact:

- **Preserving rare aviation artifacts**—including historic aircraft like *Lady Ace*.
- **Advancing the design and development** of our state-of-the-art museum at the Great Park in Irvine.
- **Inspiring future generations** through powerful stories of courage, innovation, and service.

As we prepare to open the doors to the new museum, we invite you to deepen your connection by becoming a member. Our membership plans offer unique benefits for aviation enthusiasts, families, veterans, and supporters alike.

America's freedoms.

Thank you for helping us honor the past and inspire the future.

JOIN TODAY!



FLYING LEATHERNECK AVIATION MUSEUM MEMBERSHIPS

MEMBERSHIP BENEFITS	FIRST LIEUTENANT	MAJOR	COLONEL	GENERAL
FREE ADMISSION	✓	✓	✓	✓
DISCOUNTS AT MUSEUM STORE	✓	✓	✓	✓
SUBSCRIPTION TO MUSEUM NEWSLETTER AND UPDATES	✓	✓	✓	✓
FREE ADMISSION FOR YOUR FAMILY (2 ADULTS, UP TO 4 CHILDREN)		✓	✓	✓
RECOGNITION IN MUSEUM PUBLICATIONS		✓	✓	✓
INVITATIONS TO EXCLUSIVE MUSEUM EVENTS			✓	✓
SPECIAL DISCOUNTS AND VIP ACCESS TO MUSEUM EVENTS/TOURS				✓
NOV. 10 FOUNDATION MARINE CORP BIRTHDAY TICKET				✓
BEHIND THE SCENES TOUR FOR 8 ONCE A YEAR & MORE!				✓

You Won't Want to Miss....

Each month you'll discover the latest milestones we've achieved, meet some of the dedicated individuals making this vision a reality, and get a glimpse of what to expect when we open our doors. Your support and enthusiasm fuel our journey, and we can't wait to share more with you each step of the way.

Thank you for being a valued part of our community. Stay tuned for exciting news and exclusive previews!



Copyright (C) 2026 Flying Leatherneck Aviation Museum. All rights reserved.

Our mailing address is:

Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe](#)

