THE HOOK

JOURNAL OF CARRIER AVIATION

SPRING 2022

Cover: *USS* Philippine Sea (CVA 47) *operating in the Western Pacific, 9 Jul '55.*

Photo: National Archives

Air Plan THE HOOK

VOLUME 50 NUMBER 1 Spring 2022

ISSN: 0736-9220

Page 13

Page 19

Page 33

Page 37

EDITOR-IN-CHIEF
Hill Goodspeed

SENIOR EDITOR
Mark Aldrich

DESIGN AND LAYOUT
ChampCohen Design Associates

PROOFREADER
Phyllis Carter

CONTRIBUTING EDITORS
CDR Doug Siegfried, USN(Ret)
CDR Jan C. Jacobs, USNR(Ret)
CDR Robert R. "Boom" Powell, USN(Ret)
LCDR Richard R. Burgess, USN(Ret)
Barrett Tillman
CDR Jack D. Woodul, USNR(Ret)

NEY ENE SCH printers

Printing by Neyenesch Printers
San Diego, Calif.

Articles and news items are welcome. Submit material for *The Hook* to: Editorial Offices, *The Hook,* 9696 Businesspark Ave., San Diego, CA 92131-1643. (858) 689-9227 or (800) 322-HOOK, email: thookmagazine@gmail.com • website: http://www.tailhook.net
Advertising: Potomac Media LLC, 2125 Observatory Pl. N.W., Washington, D.C., 20007. (202) 363-3741, fax: (888) 325-9943, email: potompub@aol.com

TAILHOOK ASSOCIATION CORPORATE MEMBERS

The following corporations exhibit strong support of Naval Aviation through their sponsorship of the Tailhook Association:

Amentum
ATAC
BAE Systems
The Boeing Company
Cobham Mission Systems
Collins Aerospace
Draken International
General Atomics
General Electric
Hexagon US Federal
Huntington Ingalls Industries
i6 Group
Jacksonville Jet Port
Lockheed Martin Aeronautics
L3Harris
MBDA Missile Systems
McClellan Jet Services
Million Air Victorville
Northrop Grumman Corporation
Omega Aerial Refueling Service, Inc.
Pratt & Whitney
Raytheon Company
Rolls-Royce North America
SAFRAN Aerosystems
The *Skyhawk* Association
Solairus Aviation
TAC Air
Tactical Air Support, Inc.
Talon Asset Management LLC
Trident Home Loans
Tripp Scott, P.A.
University Air Center
USAA
Vertex Aerospace

In appreciation of our advertisers

The Hook relies on advertising to maintain its quality and financial well-being.

We appreciate the loyalty of our advertisers and encourage our readers to support the following advertisers:

AV8RSTUFF.com
A-4 Skyhawk Association
A-7 Corsair Association
LCDR "Engine Eddie" Davidson
The Distinguished Flying Cross Society
Thad Dupper
F-14 Tomcat Association
Friends of Naval Aviation, Inc.
General Atomic Electromagnetics
General Electric
Idloom Events
Intruder Association
JT4
KIHOMAC
Navy Mutual Aid Association
Newport News Shipbuilding
Neyenesch Printers
Omega Aerial Refueling Services, Inc.
Pratt & Whitney
Prowler Association
River Rats
Tactical Air Support, Inc.
Trident Home Loans
VAW/VRC Foundation
Vertex Aerospace

THE TAILHOOK ASSOCIATION

9696 Businesspark Ave.
San Diego, CA 92131-1643
(858) 689-9223 • (800) 322-HOOK

BRIEF

From the Chairman

by ADM William E. Gortney, USN(Ret)

Greetings, Wingmen!

We had a great Hook ’21 in Reno last year, and Hook ’22 will be even better as we celebrate the Centennial of United States Navy Aircraft Carriers! In 100 years, carrier aviation has experienced a remarkable evolution from USS *Langley* (CV 1) to USS *Gerald R. Ford* (CVN 78). Studying the transformation of aircraft carriers and their embarked air wings tells a remarkable story, and we are honored to assist our Navy in carrying that message. Just as important as the hardware are the visionary leaders who developed carrier aviation tactics and procedures, which to this day ensure our Navy puts to sea as the most flexible and lethal weapon system available to our National Command Authority. I encourage everyone to watch the Tailhook Association’s video “Legends of Naval Aviation” to learn more about just a few of these visionary leaders. I guarantee it is time well spent. You can find a link on our website.

Carrier aviation is what separates the U.S. Navy from all the other navies of the world. Personally, I have no qualms with critics who question today’s viability of the aircraft carrier and embarked air wing. Answering critics with fact-based responses continues to be the best retort. I dropped bombs for nearly my entire career, and I speak from experience when I tell them potential targets that move are the hardest to find, fix and finish. No airfield in the world is more survivable than an aircraft carrier and its carrier strike group (CSG). The CSG is not invisible; no platform is. However, tactics combined with technical capabilities prevent adversaries from successfully closing their kill chain against the CSG. Other navies have aircraft carriers, and some are attempting to build more, but none are able to embark an air wing with the lethality of ours. The combination of *Nimitz* and *Ford*-class carriers and their air wings are what separate us from the others. Their mobility and lethality are why our potential adversaries spend trillions of dollars in attempts to target them while concurrently trying to copy them. This is a message the critics fail to comprehend.

ADM William E. Gortney, USN(Ret)

In closing, while writing this the news on the TV reminded me what my leadership taught me when I was a young nugget. “Naval Aviation is not necessarily a dangerous profession, but it is an extremely unforgiving one.” I dearly miss flying off aircraft carriers and am extremely grateful I can still be a part of that profession through the Tailhook Association and Tailhook Educational Foundation.

Looking forward to seeing all of you this year in Reno while we celebrate the past 100 years!

Your loyal wingman and shipmate,
Shortney

Naval History and Heritage Command

USS Enterprise *(CV 6) in Oct ’45 en route to New York City for the fleet review following the end of World War II.*

In 100 years of aircraft carrier operations in the U.S. Navy, there are certain events that stand out as milestones in that storied history. One of them occurred on 18 April 1942, when USS *Hornet* (CV 8) launched one of the most unique and unlikely missions in history as Army Air Forces B-25 *Mitchell* bombers under the command of Lt Col James H. Doolittle roared off the flight deck to attack Japan.

Success depended on integration between the Navy and Army Air Forces, which in 1947 became the U.S. Air Force. Despite longstanding interservice rivalry, there is a long history of the services training and operating together. An enduring example of this is the pilot exchange program, which for more than seven decades has provided the opportunity for officers to fly diverse types of aircraft and gain greater understanding of how the respective services operate. This is the subject of two of our feature articles in this issue. Continuing with that theme, this issue’s On Deck feature highlights an Army Air Forces Medal of Honor recipient who received his first exposure to flying at NAS Pensacola.

From the Editor-in-Chief

Brad Elward concludes his three-part series on the history of the legacy *Hornet* with a focus on the combat actions in which the strike fighter participated during its service. The last F/A-18 *Hornet* carrier deployment concluded last year when the VMFA-323 *Death Rattlers* launched for the final time from USS *Nimitz* (CVN 68). With the introduction of the CMV-22 *Osprey*, another long-serving aircraft in Naval Aviation is in the twilight of its service. Senior Editor Mark Aldrich visited NAS North Island to spend time with members of the VRC-30 *Providers*, one of the two squadrons to operate the C-2 *Greyhound*. For decades, this aircraft has served as the Naval Aviation’s carrier onboard delivery (COD) platform. VRC-30 will soon disestablish, leaving VRC-40 at NavSta Norfolk with the task of sundowning the aircraft that has served as the COD since it entered operational service in 1966.

Hill Goodspeed

Joining submissions from the fleet, this issue’s retro In Marshal highlights what a correspondent might have submitted from USS *Philippine Sea* (CV 47) during the carrier’s participation in *Operation Highjump* in the Antarctic. It was an eventful cruise to the icy continent, one highlighted by the launching of R4D *Skytrain* transports, up until that time the largest aircraft to ever to take off from a carrier flight deck. *Phil Sea* is also the subject of this issue’s cover photograph.

We hope you are enjoying our coverage of the Centennial of Navy Aircraft Carriers. So much of what the modern nuclear-powered carrier represents to our Navy and nation is the result of the efforts of those who manned the carriers of the past and flew from their flight decks. Their prominent place in the nation's defense arsenal is also due to proponents like former Chief of Naval Operations ADM Thomas Hayward. A Life member of the Tailhook Association and regular attendee at Hook, he passed away on 3 March 2022, at the age of 97. Fair winds and following seas to this distinguished officer, aviator and leader.

Naval History and Heritage Command

A pair of VB-83 SB2C-4 Helldivers *over USS* Essex *(CV 9) during operations in Jul ’44.*

Last month we celebrated the Centennial of Navy Aircraft Carriers (CONAC) as one of the greatest examples of American ingenuity, determination and peerless maritime warfighting capability. On 20 March 1922, USS *Langley* (CV 1) was officially commissioned as America's first aircraft carrier. We are celebrating this great legacy throughout the year as we look back at the incredible impact these warships have made in every conflict since their inception. From the pivotal role played by USS *Enterprise* (CV 6) during World War II, to USS *Midway's* (CV 41) exploits spanning from the Cold War to *Desert Storm*, to the Navy's newest and most technologically advanced aircraft carrier — USS *Gerald R. Ford* (CVN 78), our aircraft carriers continue to defend freedom of navigation, reassure our allies and deliver Naval Aviation combat capability whenever and wherever needed.

COMMANDER, NAVAL AIR FORCES

From the Air Boss

by VADM Kenneth Whitesell, USN
Commander, Naval Air Forces

As we move forward, *Nimitz* and *Ford*-class carriers will continue to deliver flexible and lethal options to the National Command Authority as we move deeper into strategic competition with increasingly capable adversaries. We will remain ready to fight — and win — across the spectrum of warfare. Currently, USS *Harry S. Truman* (CVN 75) is on deployment in the Mediterranean Sea providing support to our NATO allies during Russia's invasion of Ukraine. This year our Navy has conducted carrier strike group (CSG) operations in the Western Pacific and the South China Sea, including USS *Carl Vinson* (CVN 70), the first carrier air wing to deploy with the advanced capabilities of the F-35C *Lightning II*, CMV-22B *Osprey* and the upgraded capabilities of the E-2D *Hawkeye*. These new and versatile platforms have integrated seamlessly into carrier operations at sea and the phenomenal work by CVW-2 led to the execution of more than 15,000 fixed-wing and helicopter flight hours comprising 7,791 sorties, 7,702 launches and 7,761 aircraft arrestments.

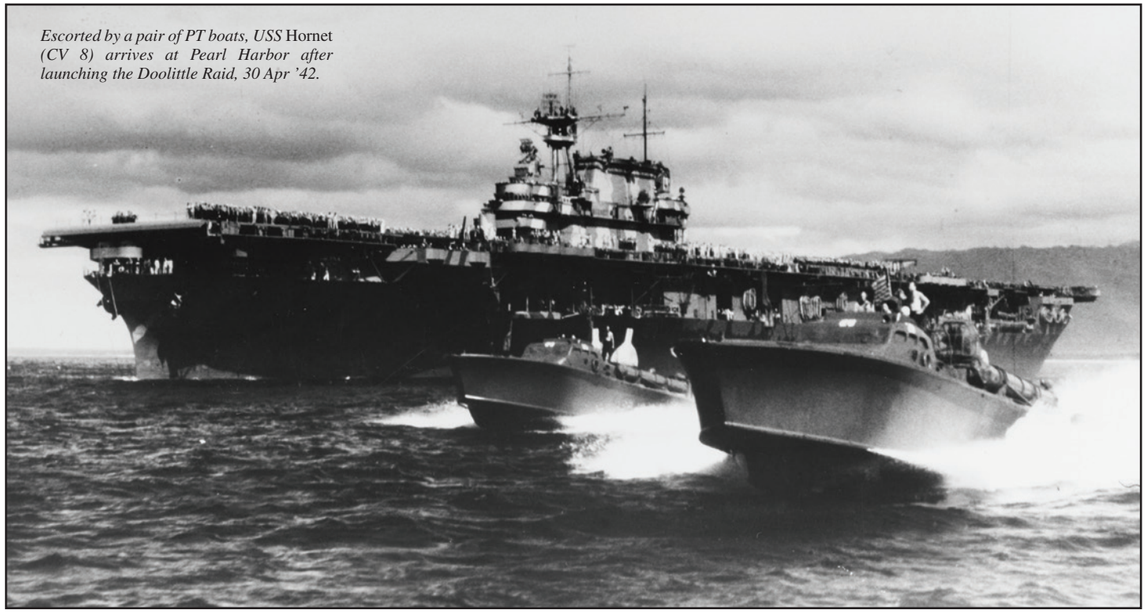
These fifth-generation capabilities, combined with upgraded versions of our fourth-generation platforms, provided a preview of the Air Wing of the Future, which will mature and achieve capability in a few short years when the unmanned MQ-25 *Stingray* refueling platform joins the lineup. As *Vinson* returned home from her eight-month deployment, the baton was passed to the USS *Abraham Lincoln* (CVN 72) CSG. Operating with F-35Cs of the VMFA-314 *Black Knights* along with *Ospreys* from the VRM-30 *Providers*, it will continue to write history as Naval Aviation steps forward into the future. This continued evolution and innovation is absolutely vital to ensure we have the capabilities and capacity we need to win against ever-advancing adversaries.

VADM Kenneth Whitesell

As our competitors invest in artificial intelligence, hypersonic systems and drone technologies to answer our prowess, I assure you that Naval Aviation remains committed to deliver cutting-edge technology to enable distributed maritime operations in highly contested environments. The Next Generation Air Dominance family of systems is developing with industry to move manned-unmanned teaming according to CNO's strategy. With commitment and buy-in across the enterprise, we will remain postured to meet the threat, and our legacy of excellence will continue far into the future.

Our history is replete with examples of the influence and power the carrier brings across the spectrum of operations around the world. From the carrier paradigm shift at the Battle of Midway to USS *Valley Forge* (CV 45) deploying quickly to Korea, the Cuban Missile Crisis, Yankee Station operations off North Vietnam, *El Dorado Canyon* and the last 31 years spanning *Operations Desert Shield/Storm*, *Iraqi Freedom* and *Enduring Freedom*, the carrier and its air wing have controlled the seas and projected power. The carrier and its strike group composition are pivoting into Great Power Competition. We have always excelled as a blue water force — this is in our DNA. With world-class Sailors, civilians and industry partners, we'll decisively rise to compete in this strategic environment. It's the people of Naval Aviation that ensure we are able to deliver combat capability and capacity to win in this era. Because of you, America's Navy will always remain ready to fly, fight, lead and win! As VADM William "Bull" Halsey wrote in Battle Order #1 prior to the Pearl Harbor attack, "It is part of the tradition of our Navy that, when put to the test, all hands keep cool, keep their heads and FIGHT."

National Archives



Escorted by a pair of PT boats, USS Hornet *(CV 8) arrives at Pearl Harbor after launching the Doolittle Raid, 30 Apr '42.*

Navy helicopters deployed with carrier strike groups routinely transport cargo between ships, and these flights can be risky at night or in bad weather.

"This is the kind of mission we could do with an autonomous system," said CAPT Ben Van Buskirk, a career naval helicopter pilot, now the director of NavalX.

Based in Alexandria, Va., NavalX is a relatively unknown organization the Navy created in 2019 to help inject innovative technologies into naval operations. Van Buskirk previously was a Secretary of Defense Executive Fellow and spent a year in Silicon Valley working at the software giant VMware. He has led NavalX since March 2021, and reports to Jay Stefany, acting Assistant Secretary of the Navy for Research, Development and Acquisition.

Washington Report:

Autonomy and Artificial Intelligence Fueling Naval Systems Innovation

by Sandra I. Erwin

"It just makes sense to take advantage of cutting-edge technologies that are commercially available," Van Buskirk said during a recent Center for Strategic and International Studies podcast.

Naval logistics is an area primed to be disrupted by automation, he said. "I think using autonomous systems for logistics is huge. And there's great work going on in the commercial market."

Within a carrier strike group, most of the cruisers and destroyers are within 20 to 50 miles of each other. "And I can think of multiple times when I launched a crew in the middle of the night in bad weather because there was a critical part that was needed on one of the other ships," Van Buskirk said. "I think that's a prime mission that you could do with an autonomous system, and that would mean less risk for the aircrews and less of a burden on the ship."

Van Buskirk is trying to get the word out about NavalX. His key audiences are tech companies developing technologies that could have military applications and the Navy's own research-and-development community that is looking to connect with new players in the private sector.

"What I think is really exciting is what we can leverage from what's going on in industry," he said, especially to support the "the less glamorous missions that we do in the Navy that take up a lot of risk and time and resources."

The Navy and the other military services have employed unmanned aircraft for decades so that technology is not necessarily new. The next wave of unmanned systems technology is to make them "smart" using artificial intelligence. The thinking in the Navy is that intelligent autonomous systems—operating in the air, at sea surface or deep under water—could help enhance the performance of traditional platforms. They could serve in logistics support roles, but also in combat, for example, as wingmen to fighter aircraft.

A key obstacle in bringing the latest technologies into the fleet are the Navy's internal processes and vertically siloed organizations, Van Buskirk said. NavalX is trying to fix that problem by setting up what it calls "tech bridges."

It works to establish partnerships with commercial industry and academia. But one of its main jobs is to build connections between the Navy's own labs, known as warfare centers.

Sandra I. Erwin

There are eight surface warfare and two undersea warfare centers across the United States. Additionally there are three naval air warfare centers at Patuxent River, Md., Lakehurst, N.J., and Orlando, Fla.

The Navy's warfare centers are formidable research-and-development organizations that invest billions of dollars in technology. However, they don't necessarily share information between them, and it's difficult for up-and-coming tech startups to figure out how to work with these organizations, Van Buskirk said. Most people, even inside the Navy, just don't understand what warfare centers do. "As a career aviator and operator, I had no idea what a warfare center was until I got into this environment."

The NavalX "tech bridges" are intended to lower the barrier to entry for startups and innovative tech companies. "We're colocated with our Navy labs, our warfare centers," he said. A huge advantage that the labs have is authority and legal expertise to sign technology-sharing agreements with commercial firms, which is how innovative companies can get in the door.

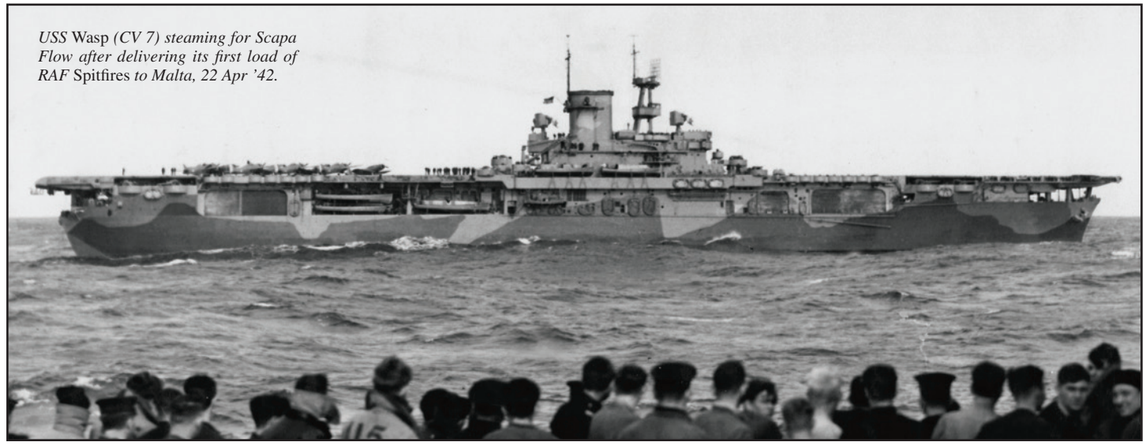
"The most common complaint I get from industry is, 'I don't even know where to start or who to talk to,'" said Van Buskirk. "The way technology is going, if we aren't working with those nontraditional folks, we're not going to win."

To illustrate that point, Van Buskirk offered a recent example of a company that had developed gaming software for driving cars using augmented and virtual reality. The company thought it could be applied to military training and contacted the Navy's undersea warfare center in Newport, R.I.

Newport didn't have a use for that particular technology, but through NavalX's tech bridges the company was put in touch with the naval air warfare training center in Orlando. This command develops aviation training and simulation software that uses augmented reality for formation flying. Van Buskirk said, "We're really working to get people talking to each other and sharing information.

"As a former aviator, that's pretty powerful," he said.

National Archives



USS Wasp *(CV 7) steaming for Scapa Flow after delivering its first load of RAF* Spitfires *to Malta, 22 Apr '42.*

News from the Headquarters

We appreciate everyone's patience and understanding with the late mailing of *The Hook* (Winter 2021). As I mentioned in the newsletter and on our website, the supply chain challenges are real and our printing partner did not have our high-grade paper stock on hand. Options included finding another printer, but we have been with Neyenesch Printers for three decades and relationships are and will remain our priority. Besides, the quality of paper that we use couldn't be found anywhere and other printers were having the same difficulty. Some suggested forgoing a hard copy and just distributing the digital version. We've been printing *The Hook* since June 1973 without a gap. Giving up on printing a hard copy was a non-starter. Again, thanks for your patience.

From the Executive Director

We recently finished the final phase of refurbishing the interior of the headquarters. This has been a multi-year endeavor with most of the work done by the staff. The improvements are too many to list, but I can tell you that every square foot of the building has been touched in some manner. It's *your* headquarters, so please stop by anytime to say hello or see our many priceless artifacts. We have original R.G. Smith paintings; prints signed by Medal of Honor recipients VADM Jim Stockdale and CAPT Thomas Hudner, and much more. Shop for merchandise, update your membership or host a meeting. Our conference room is available for off sites or meetings for up to 20 people. Better yet, swing by and have a beverage of your choice. Yes, we have a full up bar, ready to serve, including a wall menu from the Cubi Point O'Club, thanks to T.R. Swartz.

Video Projects

From our board of directors, our officers and all of us here at the headquarters, everything we do is focused on you, the member. Who we are alone justifies being a member, but we continuously strive to bring increased value to every aspect of your membership. That increased value can be seen in the improvements to our website, enhanced social media presence, the Ships' Store, dedicated membership management and your experience at the Hook symposium. Last year we took things a step further by producing a video of some of our legends. This product, titled "Legends of Carrier Aviation," was made for you and posted on our website as well as Tailhook's YouTube channel. The response has been phenomenal with over 150,000 views thus far on YouTube. This is just the first of what will be a series of film projects featuring us and the next project with generous support from Huntington Ingalls Industries, will be a full-length production celebrating 100 years of U.S. aircraft carriers. For those watching via YouTube, be sure to subscribe when you are on our channel so that you will be notified anytime we post something new.

Oral History Project

Keeping in line with increased value to our members, if you received a postcard referencing an oral history project, it's real and not a scam. Tailhook has partnered with PCI to put our history, stories and experiences into a one-time publication that will align with celebrating 100 years of U.S. Navy Aircraft Carriers. This book will undoubtedly serve as a timeless keepsake and it will be available late this year or early next year. There is no obligation to purchase anything, but we do encourage everyone to share your stories and experiences with us. This project also allows us to update our contact information (name, address, phone and email) and nothing more. So far, over 200 updates have been made. Returned magazines and outdated contact information translates into thousands of lost dollars every year in return postage and lost memberships. Please help us by maintaining accurate contact information.

Local Ready Rooms

Tailhook is more than just three days in September. We encourage members to engage year-round through *The Hook* magazine, the website, social media, the Ship's Store and local ready rooms. The San Diego Tailhook Ready Room recently held a gathering here at the recently renovated headquarters and it was a huge success. With a turnout of more than 80 members, the atmosphere felt a bit like a mini-Bug Roach mixer. There are other ready rooms listed on our website and we encourage all of them to be active throughout the year. Don't have a local ready room established where you live? Give us a call and we can help you get one started.

CAPT Greg Keithley, USN(Ret)

Hook '22

Those who attended Hook last year can attest that it was one of our best ever despite another year of significant challenges. This year we see nothing standing in our way and the word is out, so make your plans now for Hook '22 before it's too late. Every exhibit is sold out and I have a waiting list. The Nugget will likely sell out earlier than usual, so take a minute and book your rooms and register. It's never been easier with our online reservation and registration process. Highlights for this year include:

- Two marquee panels commemorating 100 years of Navy Aircraft Carriers.
- Discussions about the Air Wing of the Future.
- Return of the N98 Panel in addition to the Industry Panel.
- Live broadcast of the panels, briefs, awards luncheon and winging ceremony.
- Expanded exhibit area (over 100 displays).
- 50 percent off registration for Life Members.
- 10 percent discount at the Ship's Store for Life Members.
- Free Hook '22 App for your phone or tablet.

Don't delay, register for Hook and make your room reservations all in one place by visiting our website www.tailhook.net. Historically, active-duty attendees have hesitated to register due to uncertain schedules. We'll have your back. Register now and if your schedule changes due to operational commitments, we will refund you in full. As a reminder, the discount price on rooms is an exceptional value, as the going rates for rooms in the Reno area will average $300 per night during the weekend of the symposium. Hook '22 Polo and T-shirts are on sale now online at the Ship's Store. We will have limited quantities, so get yours now. A reminder that everyone who attends Hook '22 needs to register and have a nametag for security and liability purposes. We hope to see you there.

CAPT Greg "Chaser" Keithley, USN(Ret)
Executive Director
The Tailhook Association

Naval History and Heritage Command

USS Yorktown *(CV 10) during her shakedown cruise, summer 1943.*

TAILHOOK MEMBERSHIP

Janet Warren is your Tailhook Office and Membership Manager. Janet handles every membership need from address changes to membership upgrades and everytime she signs up a new Life Member she rings the ship's bell you can see on the bulkhead behind her.

One of our recent Life Members is Bobby Thomas, a Korean War patrol squadron vet, who sent us the blood chit he carried on those long, cold and vital missions.

Join Bobby and ring that bell!

Lifetime Membership

$795

(Aged 59 and under) Or **$65/month** for 12 months

For plans over 59, please call (800) 322-4665

Quarterly *Hook* Magazine	Tailhook Newsletter	Ready Room Forum Access	Voting Rights	Reduced Price for all Symposia
Participation in active support of Naval Aviation, and the Educational Foundation.	50% off Symposium Registration	10% off Ship's Store at Hook Symposium	Life Member Lapel	Life Member Card

5 Year Membership	3 Year Membership	1 Year Membership
$195	$120	$45

For membership, please visit **www.tailhook.net/membership**

800-322-4665 tailhook.net

TAILHOOK EDUCATIONAL FOUNDATION

CFC Combined Federal Campaign No. 10251

Aloha, Tailhookers,

Your Tailhook Educational Foundation (TEF) is off to a tremendous start this year, and you are the reason. Despite the continued challenges 2021 presented, your annual contributions to TEF for the year outpaced those in 2020 by 17 percent and totaled more than $560,000. Your ever-growing generosity is deeply inspiring for all of us at Tailhook, particularly our TEF board of directors, officers and staff. Please accept our gratitude for your continued support to *your* Foundation, and more importantly, to Naval Aviation's best and brightest children and grandchildren.

As a reminder, each year TEF's scholarship application season opens 15 December and closes on 1 March. Our staff is now sorting, filing and reviewing applications and supporting documents from approximately 500 applicants. This year we will again award four types of TEF grants: High School Seniors, College, Enlisted and "Gold Star" scholarships. To review the scholarship timeline and eligibility requirements, please visit our website homepage: https://www.tailhook.net/tef-home

If you have any questions about the scholarship timeline or the application or grant selectee processes, please do not hesitate to call us at (858) 689-9223.

TEF welcomed another new officer to our board of directors' and officers' team this year. RADM Mark "Guad" Guadagnini, USN(Ret) joined the masthead in February. The full list of current TEF directors, officers and staff is also on our website.

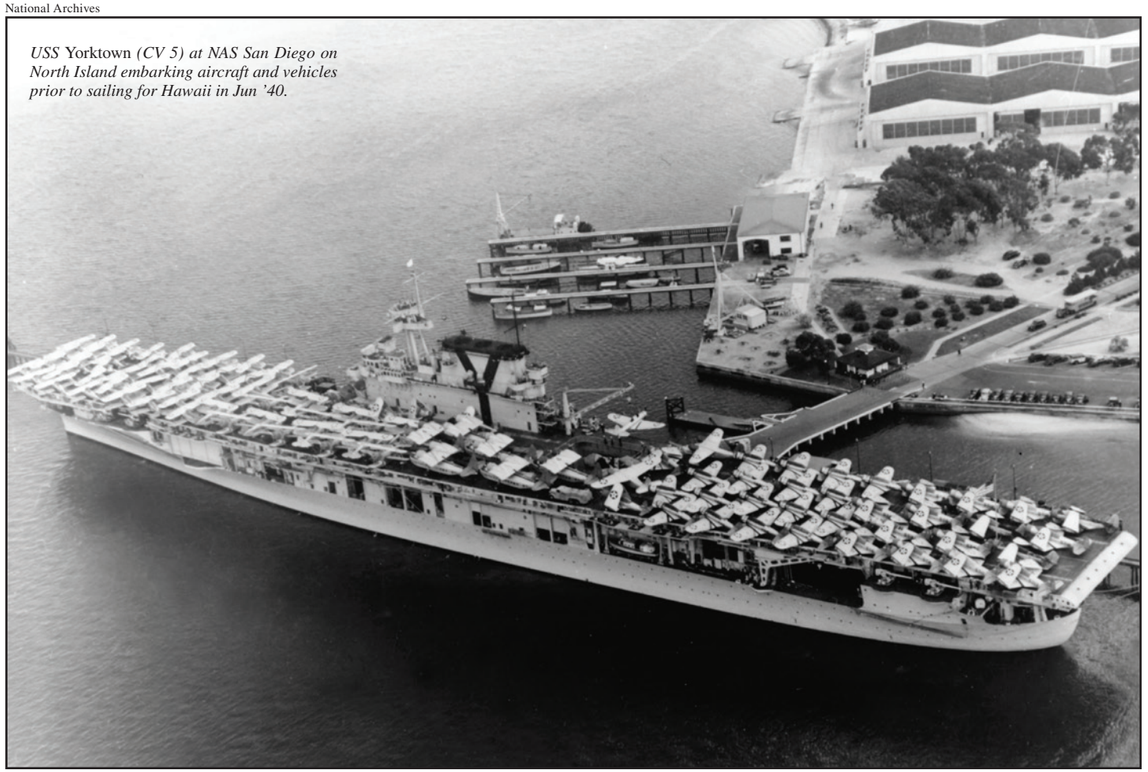
As our Board Chairman RDML J.J. Quinn, USN(Ret) described in his winter remarks for *The Hook*, the TEF 2022 scholarship lineup will include a permanent scholarship honoring CAPT Thomas Hudner, USN(Ret). He was a Medal of Honor recipient and a Life member of the Tailhook Association, and his story is fascinating and truly inspiring. Look for the release of the movie "Devotion" later this year. It tells the incredible story of Hudner and his squadronmate ENS Jesse Brown. If you would like to contribute to this new TEF scholarship, please indicate this on your TEF donation form or in the memo line of your check.

CAPT Rodger Welch, USN(Ret)

All of us with TEF greatly appreciate the steadfast, charitable support from our industry sponsors, like-minded organizational partners and particularly our individual contributors. Your support is at the very soul of our scholarship efforts and remains critical to our ability to fund more than 100 TEF grants each year. *Mahalo Nui* again for your unwavering patronage to TEF and continued 2022 blessings to you all.

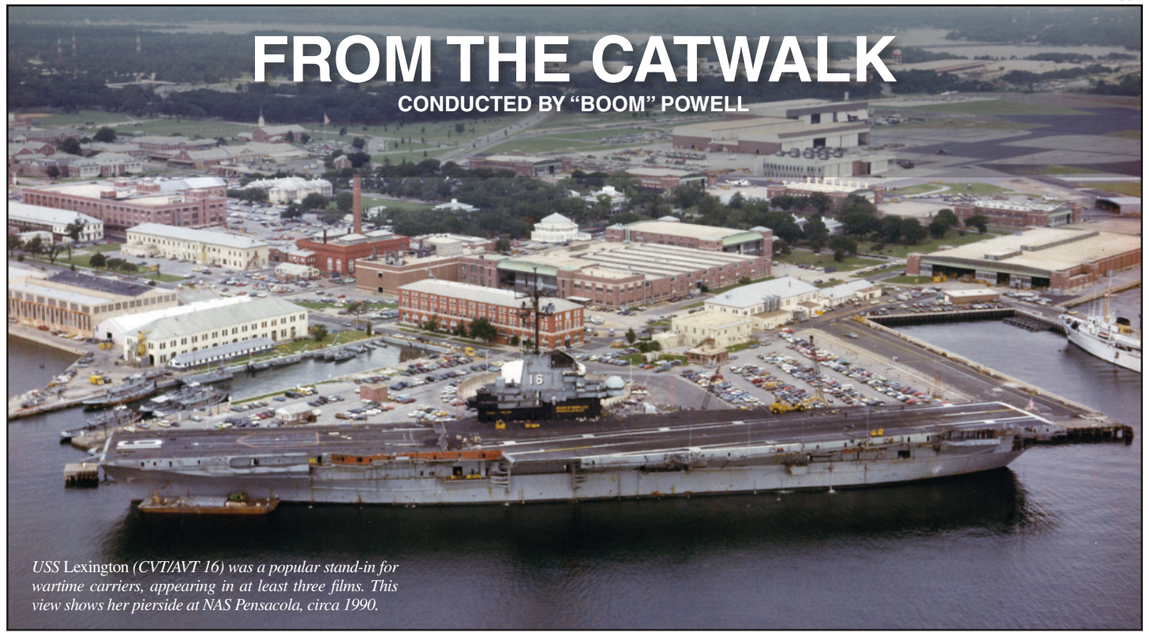
CAPT Rodger Welch, USN(Ret)
Executive Director
Tailhook Educational Foundation

National Archives



USS Yorktown *(CV 5) at NAS San Diego on North Island embarking aircraft and vehicles prior to sailing for Hawaii in Jun '40.*

USN



FROM THE CATWALK

CONDUCTED BY "BOOM" POWELL

USS Lexington *(CVT/AVT 16) was a popular stand-in for wartime carriers, appearing in at least three films. This view shows her pierside at NAS Pensacola, circa 1990.*

Question: *How many Hollywood movie stars became Naval Aviators?*

CARRIERS AS MOVIE STARS

USS *Ranger* (CV 61) and USS *Enterprise* (CVN 65) both appeared in "TOP GUN" (1986).

In 1980 at the time of the filming of "The Final Countdown," USS *Nimitz* (CVN 68) had never been in the Pacific. So, in the best Hollywood tradition, a stand-in was used for the scene in which the ship passes the USS *Arizona* Memorial. Skillful camera angles did not show the island number of USS *Kitty Hawk* (CV 63).

When James Michener wrote *The Bridges at Toko-Ri* (first serialized in *LIFE* magazine in July 1953), the aircraft featured were F2H *Banshees* flying from the fictional carrier USS *Savo Island* (there was an escort carrier USS *Savo Island* (CVE 78)). The movie adaptation of the novel was filmed in 1954 on board USS *Oriskany* (CVA 34) and the aircraft were shifted to F9F *Panthers*; whether this was because *Panthers* looked "sexier" than *Banshees* or only because of availability is unknown. CDR James "Jig Dog" Ramage who was CAG-19 in *Oriskany* during the filming, said that while Mickey Rooney was a big hit with the crew, getting up close with Grace Kelly would have been better.

The deck scenes in "Flight of the Intruder" (1991) were shot in two weeks aboard USS *Independence* (CV 62).

USS *Philippine Sea* (CVA 47) plays USS *Saratoga* (CV 3) in "The Wings of Eagles" (1957).

USS *Yorktown* (CVS 10) played Japanese carrier *Akagi* in "Tora Tora Tora," the 1970 film about the Pearl Harbor attack.

Mark Aldrich collection

The story line of the 1980 film "The Final Countdown" centered around USS Nimitz *(CVN 68), but USS* Kitty Hawk *(CV 63) starred in some scenes.*

Mark Aldrich collection

An F9F-5 Panther *used in the filming of 1954's "The Bridges at Toko-Ri" on board USS* Oriskany *(CVA 34). VF-192 later adopted the name* World-Famous Golden Dragons *based on the set director's artwork for the film.*

The carrier launched replica Japanese *Zeros*, *Vals* and *Kates* at dawn ... off San Diego. USS *Ticonderoga* (CVA 14) rated a cameo as USS *Essex* (CV 9) early in the film.

USS *Lexington* (CVT/AVT 16) had a role in three productions playing herself and her sister ships during their youthful days as straight-deck *Essex*-class ships of World War II: "Midway" (1976), "War and Remembrance" (1988) and Disney's "Pearl Harbor" (2001).

GEORGE DUNCAN'S UNCREDITED MOVIE ROLES

CAPT George "Duke" Duncan graduated from the U.S. Naval Academy in 1939 (along with "Jig Dog" Ramage), and his first combat assignment was flying the biplane SOC *Seagull* scouting and observation plane in the Aleutians. After being shot up by a Japanese fighter, Duncan protested to his assignment officer, "I'm a FIGHTER pilot goddammit!"

Assigned to VF-15 in *Essex,* Duncan and his sometime wingman, LT Wendell "Doz(en)" Van Twelves, were the squadron's second highest scorers—tied at 13—behind CDR David "Dashing Dave" McCampbell, the Navy's top ace. Duncan was an atypical fighter pilot—a quiet, straight arrow Mormon.

In July 1951, the Navy conducted tests aboard USS *Midway* (CVB 41) with still and motion picture cameras recording the action. CDR Duncan was flying an F9F *Panther* when, on his second landing of the day, the airplane dropped at the last second, struck the ramp and exploded. The camera captured footage of the spectacular fireball and cockpit section rolling up the deck.

The first use by Hollywood of the crash sequence was in "Men of the Fighting Lady" (1954), realistically as an F9F. In the 1976 movie "Midway," an SBD *Dauntless* morphed into a SB2C *Helldiver* in the groove and crashed as Duncan's *Panther*! In 1990, "The Hunt for Red October" had a quick cut of Duncan's crash acting as an F-14 *Tomcat*.

Duncan survived the crash with burns and partial loss of one ear. In 1954, Chinese LA-7 fighters attacked aircraft from *Philippine Sea* searching for survivors from a downed Cathay Pacific airliner. AD *Skyraiders* shot down the two enemy fighters. As CAG-5, Duncan was late in the formation and the other pilots remember him yelling, "Wait for me, wait for me!"

Duncan went on to command *Ranger* in 1962–'63, one of five aces to do so (Paul Buie, Noel Gayler, Bill Leonard and Leo McCudden). He became a lawyer after retiring from the Navy and passed away in 1995. Although eligible, he never joined the Screen Actor's Guild.

IMPROVISATION AT 8,000 … AND 50 FEET

In 1954, having recently returned from a six-month deployment to the Western Pacific on board USS *Kearsarge* (CVA 33), VF-112 traded in its F9F-5 *Panthers* for the sweptwing F9F-6 *Cougar*. On 26 March, a flight of four launched from NAS Miramar for air-to-air gunnery practice. As the aircraft climbed heading for the gunnery range north of the Coronado Islands, the tow cable for the banner target parted.

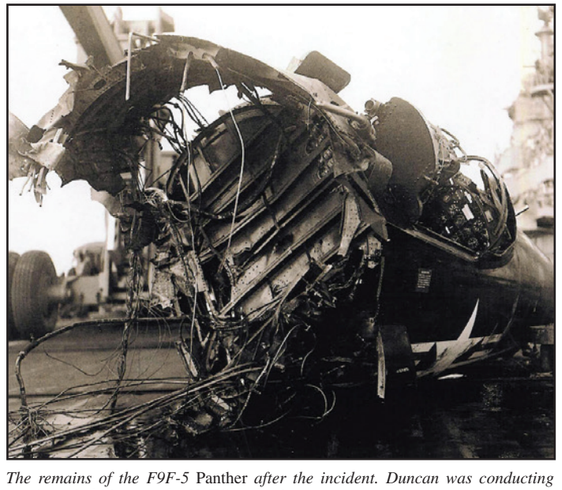
USN

A Russian Tu-16 Badger *gets a close look at USS* Ranger *(CV 61) during the 1980s. The carrier was prominently featured in the hit 1986 movie "TOP GUN."*

USN

The ramp strike that made CRD George C. Duncan famous occurred on board USS Midway *(CVB 41) on 5 Jul '51.*

USN



The remains of the F9F-5 Panther *after the incident. Duncan was conducting carrier suitability tests for NATC at the time.*

Tailhook

An F9F-8 Cougar *assigned to VF-112 pictured on board USS* Essex *(CVA 9) in 1956. The squadron redesignated as VA-112 on 15 Feb '59, and adopted the nickname* Broncos.

Since the event was using gun cameras for scoring, the flight carried on. Flight lead was LTJG Clarence "Van" Vandenberg with LTJG James Maccoun (the son of U.S. Coast Guard RADM William Maccoun) as dash two.

With the target F9F at 15,000 feet, Vandenberg began the first run from 21,000 feet. Maccoun later said, "I started a gentle turn to follow Vandenberg down on a low *g* run with 90 percent power on and an indicated airspeed of 190 knots. As soon as I had approximately 30 degrees of bank, the plane stalled. Forward pressure did not check the stall. I leveled the wings while adding more forward stick. The plane continued in a stall, buffeting as the nose continued in a steeper dive until I was near vertical. After a loss of 5,000 to 6,000 feet, I had just informed the flight leader of my predicament when the plane began spinning to the right.

"I tried forward stick and a slight amount of opposite rudder with no result and then released everything. I noticed my airspeed approaching 250 knots and dropped the speed brakes in order to keep from gaining excessive speed and as a possible method of recovery from the spin. The plane started to spin tighter. I don't know the exact number of spins, but at least three complete before the wrap-up feeling hit me. At this point I called and said I was getting out. I pulled the pre-ejection lever to jettison the canopy, positioned my body and feet and pulled the curtain."

The *Cougar* went from its near vertical dive to a stable climb. Vandenberg had not seen the ejection, so was surprised when he pulled alongside and saw there was no canopy, ejection seat or pilot. The pilotless *Cougar* was in a steady descent heading directly toward the city of San Diego.

Vandenberg closed in and put his wing tip under the errant airplane's starboard wing and let the airflow nudge the *Cougar* into a turn. He repeated the maneuver several times until it was headed away from land and out over the ocean. At 800 feet he pulled away and let the brand-new *Cougar* crash and sink.

The HS-2 *Golden Falcons* had recently been established as the first anti-submarine warfare helicopter squadron on the West Coast. One of its HO4S helicopters was on a training mission from NAAS Ream Field. Hearing the mayday calls, the crew headed over to the downed pilot. In the back the trainee and instructor sonarmen were told to get ready to haul a downed pilot into the helicopter. The problem was, despite repeated requests, the HS-2 helicopters were not equipped with external rescue hoists. Using the sonar gear to bring him aboard was out because it went through an opening in the floor barely large enough for the sonar ball. The resourceful Sailors tied the helicopter tiedown ropes together with a loop at the end.

Maccoun had been in his life raft for a half hour surrounded by neon green dye marker when the HO4S hovered overhead. The crewmen braced themselves on the sides of the sliding door and pulled the pilot up hand-over-hand. After dropping Maccoun ashore, the helo headed back to sea to resume its training mission—just another day at the office.

The event made newspaper headlines across the nation, and Vandenberg was awarded the key to the city. Meanwhile, the helicopters of HS-2 were soon equipped with the much-desired rescue hoists.

—Adapted from "Cougar on the Loose" by Craig A. Thorson

LAST SYNCHRONIZED GUNS?

Early in 1946, one of the torpedo squadrons at NAS Quonset Point, R.I., was equipped with the TBY *Sea Wolf*. Unlike its contemporary, the more successful TBM *Avenger*, it featured a more powerful Pratt & Whitney R-2800 *Double Wasp* engine; and the single .50-cal. turret was hydraulic rather than electric. The gunner entered the turret while on the ground and wore a backpack chute for emergency egress. The TBY's bomb bay was wider than that of the TBM and could carry a torpedo plus a row of 500-lb. bombs. The wing machine guns were inboard of the wing fold and, because they fired through the prop arc, the TBY was the last U.S. Navy airplane designed with synchronized guns.

USN

The Sea Wolf *was an excellent platform, but prolonged development and low priority caused the airplane to arrive too late to play an active role in World War II.*

At the end of WW II, the Navy cancelled contracts for more TBYs and those already completed were briefly used for training.

The last synchronized guns in the U.S. Navy were on the SNJ *Texan*, which had a .30-cal. machine gun in the cowling and was used for student gunnery training. Occasionally the synchronizing gear malfunctioned, and a bullet would go through a propeller blade, passing neatly through to leave a small hole on the rear face of the blade and a jagged edge on the front. Surprisingly, little vibration resulted, but there was a distinct and audible whistle on the ground when the plane returned to land. Mechanics would remove the prop then dress and smooth the hole. If it was not too near a blade edge, it would be balanced, sometimes by drilling a hole in the other blade, and returned to service. Smoothing the hole eliminated the whistle, but not the apprehension of the pilot who was assigned one of the planes for more gunnery. That nagging thought was always there. What happens if the thing malfunctions again and puts another hole in the same blade? In those units regularly using the SNJ for gunnery, it was not uncommon to see a few props on the line with holes in them.

—*Adapted from* Pilot Maker *by Jeff Ethell and Walter Ohlrich*

STRESS RELIEF

Henner Lenhardt was a veteran RA-5C *Vigilante* pilot, who eventually commanded the RVAH-11 *Checkertails*. After night carrier landings he had trouble falling asleep. Hearing that needlepoint was relaxing, the aviator took up that hobby. It worked, but he was the subject of ridicule from fellow Mach types. Professional football player Rosey Greir (the 6-foot-5-inch 284-lb. defensive tackle for the New York Giants and Los Angeles Rams) was famous for also doing needlepoint. Lenhardt was asked to go on "What's My Line," a TV show where celebrities guessed who was telling the truth and who was lying. Me? I fly Navy jets from an aircraft carrier ... and do needlepoint.

BOUNCES

- In late WW II there were 650 regular ferry pilots moving nearly 2,000 aircraft a month.
- Q: What are the differences between British and American aircraft? The British planes have the pilot's seat on the right, and they fly on the left side of the sky.
- Are 200 zeros a lot? It depends on their position. If they are after the decimal point, no. If above Pearl Harbor, yes.

NEVER GETS OLD

In January 2018 the VFA-14 *Tophatters* had 96-year-old, WW II Navy ace CDR Dean "Diz" Laird, USN(Ret) as the guest of honor at a squadron party.

The first night at NAS Lemoore, Diz and one of his host pilots went to the LSO shack to watch night field carrier landing practice. Replacement pilots from the VFA-122 *Flying Eagles* were getting ready to go to the boat for carrier qualifications. The first several guys turned late off of the 180 and were all long in the groove. Each time one did that, Diz would jab his escort with his elbow, saying, "That guy is long in the groove."

"Yep, Diz, I agree."

After five or six of these, with Diz commenting each time, his host finally said, "Yes Diz, but we can't fix it from here. We have to let the controlling LSO do his job."

HERE KITTY KITTY

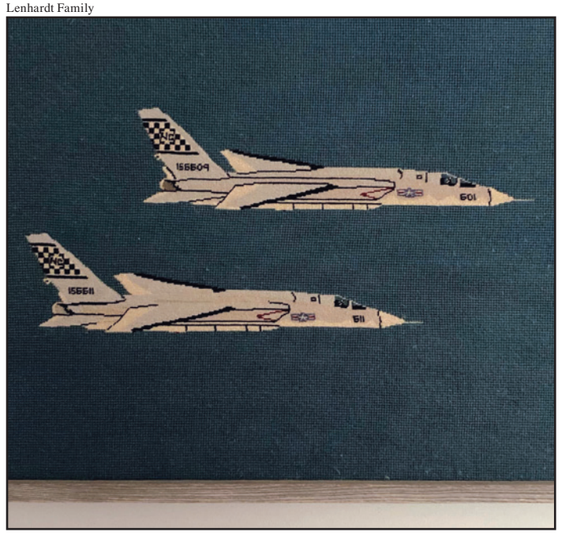
In 1941, the USS *Wasp's* (CV 7) officer of the deck (OOD) and quarterdeck watch were surprised to see their captain come up the ladder carrying a birdcage containing a cat. As CAPT John W. Reeves returned the OOD's salute, he muttered out of the side of his mouth, "If you laugh, I'll throw you in the drink!"

Wasp was leaving Norfolk for Casco Bay, Maine. The skipper's wife was taking the train to join her husband there and had talked him into taking the cat by sea.

The next day, the captain's Marine orderly, who was therefore also the cat's orderly, was on his knees peering under the CO's old-fashioned brass bed with a saucer of milk, saying, "Come outta there, you little son of a bitch," when from behind, he heard a sharp, "The cat's name is Patricia!"

"Black Jack" Reeves was a legend in his own time. It was said that if he had still been in command of *Wasp* when she was sunk off Guadalcanal in September 1942, he would not have let her sink even if he had to hold her up with his teeth.

Lenhardt Family

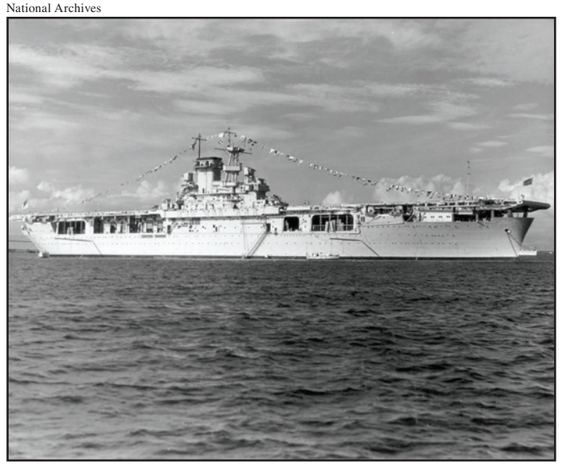


An example of Henner Lenhardt's stress relief work features two RVAH-11 Vigis.

Tailhook

CDRs Diz Laird and Willie Driscoll at the Hook Symposium in 2005.

National Archives



USS Wasp *(CV 7) dresses ship for her portrait on Navy Day, 27 Oct 1940, at Guantanamo Bay, Cuba.*

R.W. Harrison via Tailhook

An A-4B Skyhawk *assigned to the Naval Reserve at NAS New Orleans in May '66. This is the same type flown by LT Bill Bertsch to Davis-Monthan AFB in 1969.*

ALIEN LANDING

In 1969, LT Bill Bertsch was ferrying an A-4B *Skyhawk* from NAS New Orleans to Davis-Monthan AFB, for storage. After a refueling stop at NAS Dallas, the final leg was at night. On ground control approach final at 1,200 feet, the *Skyhawk* suddenly rolled left, and the nose dropped. After two 360-degree rolls, Bertsch ejected. The jet hit the ground vertically directly under him and exploded in a huge fireball. The intense heat burned his boots and melted his *g*-suit. Hot air from the flames lifted the canopy several feet, and wind blew him over a construction compound. He pulled on the risers to avoid landing on an earth-grader and ended up in a muddy ditch. The A-4 had crashed in a vacant lot surrounded by homes. As it burned, various reservoirs and pressure bottles cooked off. A homeowner had come out his back door and was trying to put out the fire with a home fire extinguisher. Muddy, bleeding, wearing an oxygen mask, helmet and charred flight gear, smelling of gunpowder and jet fuel, Bertsch must have looked like some creature from Mars. When he tapped the man on the shoulder to tell him there was no one in the wreck, the man fainted into his arms.

The police and fire brigade soon arrived, and a helicopter from Davis-Monthan took Bertsch to the hospital. The next day a nurse showed him the headline from a Tucson paper, "NAVY PILOT HERO CRASHES JET INTO VACANT LOT SAVING LIVES!"

Answer: Three.

Robert Taylor became hooked on aviation while filming the 1940 motion picture "Flight Command," bought an airplane, took lessons and earned his license. He served as a Navy flight instructor 1943–'45. LT Taylor directed and narrated two flight instruction and training films. After the war, MGM bought him a Beech 18, which he flew regularly into the early 1960s.

USN

LT Robert Taylor while serving as a Navy flight instructor in 1943.

Tyrone Power enlisted in the Marine Corps in August 1942. At the request of 20th Century Fox, he delayed training to complete "Crash Dive," a patriotic war movie in which he played a submarine officer. Since he already had almost 200 hours pilot time, following his commissioning he was given a short, but intense flight training program at NAS Corpus Christi. The Marine Corps considered Power too old for active combat flying, so he volunteered for transport flying in order to get into the combat zone. After training in the R5C *Commando* at MCAS Cherry Point and MCAS El Centro, Power reported to VMR-353 on Kwajalein Atoll in the Marshall Islands. From there, he flew missions carrying cargo in and wounded Marines out during the Battles of Iwo Jima and Okinawa.

Bert DeWayne Morris Jr.—to Hollywood he was Wayne Morris, but to his VF-15 squadronmates he was Bert. While filming "Flight Angels" (1940), Morris developed an interest in flying and became a pilot. He joined the Naval Reserve and earned his Wings of Gold in 1942. The Navy said he was too large to fly fighters. Fortunately, his wife's uncle was CDR David McCampbell and Morris used the connection to ask for fighters. McCampbell said, "Give me a letter." While in McCampbell's Air Group 15 on board *Essex*, Morris became an ace with seven kills. After the war, he played a Navy pilot in "Task Force" (1949), his character flying the TBD *Devastator* torpedo bomber and, ironically, considering his war record, his role was a cowardly officer in "Paths of Glory" (1957). In 1959, he was on board USS *Bon Homme Richard* (CVA 31) as a guest of the skipper, CAPT McCampbell, when he suffered a fatal heart attack at the age of 45.

Chock 'em, chain 'em, and hero tales to the Catwalk.

USMC

1stLt Tyrone Power, USMC, took a break from filmmaking during the war to fly R5C Commandos *in the Pacific.*

Naval History and Heritage Command

Film star and Navy LT Bert DeWayne Morris, first row, fourth from left, poses with members of VF-15 in front of an F6F-5 Hellcat *assigned to CAG CDR David McCampbell.*

LAUNCH

The F/A-18 Hornet: Evolution of Mission Capabilities

by Brad Elward

USN

The "Give Em Hell!" admonition on the nose of this VFA-105 Gunslingers *F/A-18C during* Operation Iraqi Freedom *honors the namesake of the carrier from which it operated, USS* Harry S. Truman *(CVN 75).*

When the F/A-18A *Hornet* first joined the fleet in 1983, its projected role was one that endured throughout its service — in light attack and fighter missions, while serving as a force multiplier for the carrier air wing and the Marine aircraft group. Yet the continuing presence of mission-specific aircraft of that era such as the F-14 *Tomcat* and A-6 *Intruder*, initially relegated the *Hornet* to the roles of the A-7 *Corsair II* filling a specific mission set with its air wing counterparts. As weapons and sensor technologies improved and the *Hornet* became more capable, the F/A-18 became even more lethal. By the early 2000s it carried a flexible arsenal of precision-guided munitions that enabled it to realize fully its multimission capability that endured until its retirement in 2021.

The F/A-18A: The Early Years

During the early years of the *Hornet's* service life spanning 1983 to 1991, the F/A-18A essentially operated as a supersonic A-7 with fighter missions reserved for F-14s and A-6s shouldering medium strike. The F/A-18A lacked an autonomous laser designation capability, which restricted its strike load to iron bombs, cluster bombs, *Walleye I/II* air-to-ground optically guided missiles, High-speed Anti-Radiation Missiles (HARM) and rockets. While the *Hornet* could carry Paveway laser-guided weapons, they required laser designation from other aircraft or forces on the ground.

Even with their inherent ability to self-protect, during the 1980s *Hornets* typically flew as part of larger strike packages (once called alfa strikes and later coordinated strikes), with escorting fighters and attack aircraft, along with EA-6B *Prowlers*. The latter provided suppression of enemy air defenses (SEAD) with electronic jamming assistance and often served as additional HARM shooters.

A typical high-altitude strike during this period might see a *Hornet* carrying the following weapons load: Mk 83 1,000-lb. iron bombs on stations 2, 8, and 1 (two Mk 83s with a vertical ejector rack on the wing stations and a single Mk 83 on the centerline station); a 330-gal. fuel tank on stations 3 and 7; two AIM-9 *Sidewinders* (wingtip stations 1 and 9) and two AIM-7 *Sparrows* (fuselage stations 4 and 6). For larger targets, three 2,000-lb. Mk 84s replaced the five Mk 83s. When flying a SEAD mission, the F/A-18A carried two AGM-88 HARMs, one each on stations 2 and 8. For combat air patrols (CAP), *Hornets* flew with two *Sidewinder* and two *Sparrow* missiles, plus two external fuel tanks (stations 3 and 7); additional air-to-air missiles could be carried on stations 2 and 8 when needed. Surface Combat Air Patrol (SUCAP) missions included *Hornets* loaded with AGM-86 *Harpoon* anti-ship missiles, cluster bombs, HARMs or iron bombs.

USN

A 20-year production run of the legacy Hornet *produced 1,047 aircraft for the U.S. and 431 for seven foreign nations across 21 production lots. The F/A-18 proved very adaptable to emerging weapon systems and technologies, this VX-4 jet evaluating a potent air-to-air loadout.*

Boeing

F/A-18Cs from the VFA-82 Marauders *pictured in April 1989, one with a traditional strike load of eight Mk 83 1,000-lb. iron bombs and one with an air-to-air load of six AIM-9* Sidewinders *and two AIM-7* Sparrows.

Baptism of Fire: *El Dorado Canyon*

In early 1986, the four *Hornet* squadrons of CVW-13 on board USS *Coral Sea* (CV 43), two Navy and two Marine Corps, became the first to take the F/A-18 into combat. Operating in the southern Mediterranean Sea, the U.S. Navy conducted Freedom of Navigation operations in the northern Gulf of Sidra. Libya had claimed the waters, which extended beyond the traditional 12-mile territorial limit established by international law. The nation's dictator, Muammar Al-Gaddafi, established the "Line of Death," an air defense zone extending south from 32º, 30' north latitude. *Hornets* flew CAP stations (along with F-14s) and SUCAP missions protecting the fleet from potential Libyan intrusions. CAP stations were positioned roughly 150 miles from the carriers.

These protective missions continued into early April. On the fifth of that month, Libyan sponsored terrorists detonated a bomb at a Berlin discotheque frequented by American troops, killing two U.S. servicemen and wounding 78 Americans. The U.S. launched retaliatory strikes against Benghazi and Tripoli in Libya on 15 April under the operational code name *El Dorado Canyon*.

Coral Sea's F/A-18s were part of a mixed air wing and played specific roles alongside mission-dedicated aircraft. The *Hornets* flew CAP (all air-to-air missiles and guns), SEAD (AGM-88 plus *Sidewinders*, *Sparrows* and guns), and SUCAP (*Rockeye* cluster bomb units and *Harpoons*, plus *Sidewinders*, *Sparrows* and guns). *Coral Sea's* four HARM-shooter *Hornets* struck air defenses around Benghazi and also provided escort for

National Naval Aviation Museum

Hornets *assigned to USS* Coral Sea *(CV 43) flew numerous intercept missions over the Mediterranean Sea in early 1986 as Libyan MiG-23s challenged U.S. naval forces assembled in the Gulf of Sidra. Here an F/A-18A from the VFA-131* Wildcats *escorts a Libyan aircraft.*

USN

An F/A-18 carries an ordnance load typical for Operation Desert Storm, *one reflecting the aircraft's multimission capability. The four Mk 83 bombs, like most dropped by naval aircraft at the time, were not precision-guided weapons, one of the requirements that emerged from the Gulf War.*

the carrier's *Intruders*, which also hit targets there. *El Dorado Canyon* marked the *Hornet's* baptism of fire; according to reports, the new aircraft performed very well.

The F/A-18 in the Early 1990s

The 1990s were a decade of growth for the F/A-18 community. At its outset the *Hornet* operated largely in its previously defined roles—fighter, SEAD, escort, light attack and SUCAP. Most surface attack missions were flown with Mk 80 series iron bombs. Indeed, it was this *Hornet* that entered the first Gulf War.

Operation Desert Storm, 16 January–30 March 1991

Air operations against Iraq in 1991 yielded two key lessons for the *Hornet* community. They confirmed the idea that a single aircraft could effectively perform both a fighter and strike mission, justifying the strike fighter concept. They also provided a wake-up call to not only the *Hornet* community, but Naval Aviation as a whole that it needed to incorporate more precision-guided munitions into its strike plans.

Nine *Hornet* squadrons participated in *Desert Storm*, operating from six U.S. Navy carriers split (for most of the conflict) between the Northern Arabian Gulf and the Persian Gulf. *Hornets* flew battlefield air interdiction, fighter escort and SEAD missions, with most of the CAPs left to the carrier-based *Tomcats*. F/A-18s played a significant role, as highlighted by the operations of the VFA-81 *Sunliners* and VFA-83 *Rampagers* with CVW-17 on board USS *Saratoga* (CV 60). The two squadrons flew more than 850 combat missions and 3,200 flight hours during the war, striking targets such as airfields, communications and fuel facilities, power plants, bridges, ammunition storage complexes and military industrial facilities in Iraq and ground troops, tanks and vehicles in Kuwait.

For these two squadrons, largely reflective of other *Hornet* squadrons in the conflict, the primary strike mission configuration included four Mk 84 bombs, two AIM-7 *Sparrows* and two AIM-9 *Sidewinders* for air-to-air defense and a centerline fuel tank. Variants saw the 2,000-lb. bombs replaced by four-to-six Mk 83 bombs, or an AGM-88 HARM substituted for one of the bombs. Early in the war *Hornets* tasked with SEAD missions carried three HARMs and a single fuel tank, plus the standard air-to-air defense load. Some *Hornets* were also configured with no wing pylons for dedicated fighter missions. *Saratoga's Hornets* delivered 15 *Walleye I/II* bombs and fired 108 HARMs, two AGM-84 Standoff Land Attack Missiles (SLAMs), 16 Tactical Air-Launched Decoys (TALDs) and 66 *Rockeye* cluster bombs. They further delivered 1,779 Mk 83s and 352 Mk 84s. In total, *Hornets* delivered roughly 60 percent—2.6 million pounds—of the 4.3 million pounds expended by *Saratoga's* air wing.

The *Hornet's* multimission capability was solidified on day one of *Desert Storm* when two jets from VFA-81 shot down two Iraqi MiG-21s while the *Hornets* were en route to strike ground targets. Each aircraft carried a standard air-to-air load of two *Sidewinders* and two *Sparrows*, plus four Mk 83 bombs for use against an Iraqi airfield. Both F/A-18s proceeded to attack the target after the shootdowns, demonstrating the strike fighter's ability to defend itself and continue the offensive mission.

The *Hornet's* mission capability continued to evolve as the war progressed. F/A-18 aircrew were initially assigned a primary mission, but as the war progressed, they received an ancillary mission: to provide self-escort and escort of a strike package while primarily intending to destroy a specific ground target. The self-escort concept was reflected in TOPGUN's teachings after 1991, especially with the formal reincorporation of air-to-ground training that occurred at the school in January 1994, and later with the adoption of the strike fighter weapons and tactics/strike fighter tactics instructor program in March 1995.

One significant takeaway from *Desert Storm* was that precision-guided weapons were the future of strike warfare. Nightly newsreels highlighted a single aircraft, usually USAF, launching a single precision-guided weapon against one target. Gone were the days of seeing a string of bombs landing throughout a target area, as was the case in Vietnam and earlier wars. As noted in a September 1994 United States Naval Institute *Proceedings* article, "The Navy

Got It: *Desert Storm's* Wake-up Call," the sea service's "inventory of bombs did not meet the demands of the desert war, which placed a premium on precision-guided munitions (PGMs)." Indeed, of the 7,400 tons of PGMs dropped during *Desert Storm*, the Air Force delivered about 90 percent.

Members of VFA-87 *Golden Warriors* characterized their operations in a 1991 *Proceedings* article. "The difficulty for the Navy strike/fighter pilot was that the weapons and systems compatible with the *Hornet* were designed for visual acquisition of targets at low or medium altitude, and not at the standoff distances or [higher] altitudes required in the Gulf War." The lack of PGMs in the Navy's arsenal, compounded by insufficient laser designator assets, meant the Navy was largely left out of key strategic missions—roughly half of the approved list of 12 generic target types. While *Hornets* could deliver laser weapons, they were dependent upon other aircraft or people on the ground to do the targeting. While the A-6 was certainly capable of targeting, *Intruders* were often unable to fly with *Hornets* due to mission profiles or surface-to-air missile (SAM) and anti-aircraft artillery (AAA) threats in the target area. It was only when the two-seat F/A-18Ds of the VMFA(AW)-121 *Green Knights* arrived in-theater that *Hornets* possessed any self-designating capability.

The Marine Corps decision to use the F/A-18D in the airborne forward air control mission "was a good decision," wrote LtCol Jay Stout, USMC(Ret), a Marine F/A-18 pilot who authored *Hornets Over Kuwait*. Stout said, "The Ds would primarily prowl around Kuwait, looking for targets in designated areas. On finding the targets, they would call for bomb-carrying aircraft, usually F/A-18s or AV-8Bs, which would be orbiting on station nearby, to come destroy them. As the bombers came within visual range, the two-seater would roll in and mark the target, usually with a 5-inch or 2.75-inch white phosphorous rocket." He added, "during the daylight hours, Ds would usually have a single-seat F/A-18 assigned as an escort. The idea was that the single-seat *Hornet* would carry a HARM or two for self-contained suppression of enemy SAMs and a bomb or two for added effect on target. Most important, though, the escort was to protect high cover and give warnings of enemy hand-held SAMs and AAA."

The New *Hornet* Arrives

The middle 1990s brought the emergence of a more capable *Hornet*. Most Navy F/A-18As were replaced with the F/A-18C and Night Attack variants, and the F/A-18D Night Attack *Hornet* arrived for the Marines. New sensors such as the AAR-50 thermal imaging navigation set (TINS) and the AAS-38A/B *Nite Hawk* were fully integrated, allowing the latest *Hornets* to fly at night in bad weather and provide their own laser targeting. The newer avionics and the new sensors of the C/D allowed for an expanded assortment of weapons, namely AIM-120 AMRAAM and laser-guided precision munitions, the latter of which was a direct result of the 1991 Gulf War.

F/A-18s were involved in both major European conflicts during the 1990s. The first was in Bosnia during *Operations Deny Flight* (1995) and *Deliberate Force* (1995) and the second was in Kosovo in *Operation Allied Force* (1999).

Deliberate Force involved Navy *Hornets* from the VFA-15 *Valions* and VFA-87 on board USS *Theodore Roosevelt* (CVN 71), and Marine *Hornets* from the VFMA-312 *Checkerboards* on board *TR* and VMFA(AW)-533 *Hawks* at Aviano AB, Italy. Unlike *Desert Storm*, all *Hornet* missions were flown as multimission flights, with aircraft conducting their primary mission (SEAD or strike) while providing their own escort against airborne threats. Moreover, due to the AAS-38A/B *Nite Hawk* pods, more *Hornets* were carrying laser-guided PGMs. As a whole and in contrast to *Desert Storm* just four years earlier, *Deliberate Force* was the first U.S. air campaign to predominantly employ PGMs (69 percent of all munitions delivered).

During *Deliberate Force*, Navy and Marine Corps *Hornets* flew about 60 percent of Allied SEAD missions, with 66 flown by VMFA(AW)-533 (nine percent of all U.S. SEAD missions). Navy *Hornets* flew 178 strike missions while USMC *Hornets* flew 94.

LCpl Savannah Mesimer, USMC

A VMFA(AW)-242 Bats *F/A-18D crew conducts preflight cockpit checks prior to a mission from MCAS Futenma on Okinawa, 21 Nov '18. The two-seat variant of the Hornet proved ideal for the early FAC(A) mission during* Operation Desert Storm.

Brad Elward

By 2016, 91 percent of the Navy and Marine Corps Hornet *fleet had flown in excess of 6,000 hours, and 20 percent had more than 8,000 hours. A Service Life Extension Program (SLEP) increased service life to 10,000 flight hours, which allowed the Navy to reach* Hornet *sundown in 2020.*

Operation Desert Fox, 16–19 December 1999

Operation Desert Fox, a four-day bombing campaign by U.S. and British air forces against Iraq during 16–19 December 1998, was launched in response to Saddam Hussein's refusal to cooperate with United Nations weapons inspectors. Strikes targeted Iraqi military targets that contributed to Iraq's ability to process, store, maintain and deliver weapons of mass destruction. USS *Enterprise* (CVN 65) launched 40 CVW-3 aircraft on the first night, but flights were single-cycle and limited to organic tanking to help maintain the element of surprise. U.S. naval air forces were also involved in the second and third night of strikes, but were able to take advantage of USAF land-based tanking. *Hornet* squadrons included the VFA-131 *Wildcats*, VFA-105 *Gunslingers* and VMFA-312. F/A-18s flew escort, HARM and strike missions, with most strikes utilizing laser-guided bombs (LGBs) such as the 1,000-lb. GBU-16.

For one of the strikes on the third night, four strike F/A-18s, each loaded with two GBU-16s, along with two F-14s loaded with GBU-10s (2,000-lb. laser guided bombs), two F-14s as fighter escort and two F/A-18s doubling as HARM shooters and escorts for an EA-6B struck a Republican Guard base, including a headquarters building and three barracks, all two-story structures. The three small buildings were assigned one F/A-18 per building with the remaining *Hornet* and two F-14s assigned the larger barracks.

CAPT Kevin Miller, USN(Ret), who commanded VFA-105 in *Desert Fox*, described its legacy in a 2019 article published in *Living History*. "The operational pace of *Desert Fox* was comparable to *Desert Storm* seven years earlier," he wrote, noting that in just four nights strike aircraft delivered roughly 10 percent of the weapons tonnage of the total expended during 40 days of *Desert Storm*. He added, "*Desert Fox* was a transitional bridge to today's precision, exacting training standards, and command and control connectivity that were among the lessons learned from *Desert Storm*."

Marine Corps F/A-18Ds also deployed in support of *Desert Fox*, flying missions out of Al Jaber AB in Kuwait. Some of the F/A-18Ds deployed were Advanced Tactical Air Reconnaissance System (ATARS)-capable and provided reconnaissance both for *Desert Fox* and later as part of *Operation Southern Watch* in preparation for *Operation Iraqi Freedom* (OIF).

Operation Allied Force, 24 March–10 June 1999

Four years after *Deliberate Force*, *Hornets* participated in the NATO-led *Operation Allied Force*, a sustained 78-day air campaign launched against Serbian ground forces in Kosovo. Navy *Hornets* from VFA-15 and VFA-87 again operated from *Theodore Roosevelt* in the Adriatic while Marine Corps *Hornets*, specifically the VMFA(AW)-332 *Moonlighters* and VMFA(AW)-533, flew missions from a former Warsaw Pact air base in Taszar, Hungary. These Marine two-seat F/A-18Ds logged 220 missions and delivered more than 152 tons of ordnance, flying a combination of deep air strikes, forward air controller (airborne) (FAC(A)), close air support (CAS), armed reconnaissance and anti-air CAP missions. F/A-18Ds also flew a number of reconnaissance flights using ATARS. On many of the deep strike missions, jets flew with 1,000-lb. GBU-16s.

Like 1995's *Deliberate Force*, the majority of U.S. air strikes relied on PGMs, most of which were laser-guided munitions. However, due to the bad weather and cloudy skies over central Europe, many missions were scrubbed and a number of LGBs missed their targets, some dramatically, when their designating laser "lost lock." What did work well was the new Joint Direct Attack Munition (JDAM) employed by USAF B-2 *Spirits*. Although not available to Navy *Hornets* at the time, the impact of JDAM on air operations was significant and soon changed how Navy *Hornet* squadrons conducted strikes.

Hornet Operations in the 2000s

During the 2000s the *Hornet* truly came of age. F/A-18C/Ds equipped most frontline *Hornet* units, with only a few squadrons continuing to operate F/A-18As, albeit updated. Following the successes of the 2,000-lb. JDAM in *Allied Force*, smaller versions were manufactured for tactical aircraft, namely the 1,000-lb. GBU-32/35 and the 500-lb. GBU-38, which significantly increased available firepower, expanded mission scope and enhanced weapons accuracy. Using the Global Positioning System and inertial navigation system guidance, JDAMs offered tremendous accuracy and could be used in all weather conditions. Air assets no longer had to rely on a laser designator or worry about poor weather conditions, fog, sand or even smoke caused by battle damage.

Continuation of *Operation Southern Watch*

The impact of JDAM was quickly felt, as F/A-18s flying missions in support of *Operation Southern Watch* (OSW) began carrying a mixed load of JDAM and LGBs to increase their flexibility for hitting targets. No-Fly Zone enforcement over southern Iraq had begun in late 1991 and then morphed into *Southern Watch* in August 1992. In typical air-to-air OSW configurations *Hornets* carried *Sidewinder* and *Sparrow* missiles, with the latter replaced middecade by the AIM-120 AMMRAM. For strikes against preplanned ground targets as part of a response option mission, *Hornets* carried unguided munitions such as the Mk 82 bomb, PGMs and/or HARMs. After 2002, *Hornets* often carried one or two 1,000-lb. GBU-32/35 JDAM along with a single laser-guided 1,000-lb. GBU-16 for strike and CAS missions.

Of interest, much of the preparatory air interdiction for what would become OIF was conducted before the official opening of hostilities in March 2003. U.S. and Coalition air forces began a substantial effort to suppress Iraqi air defenses after November 2001, named *Operations Southern Focus*, that lasted until just before the opening shots of OIF. U.S. and British air forces flew 21,736 sorties, striking 349 Iraqi air defense targets between June 2001 and 19 March 2003. *Hornets* played a critical role in these operations, which allowed a level of air superiority not enjoyed in any previous war.

Operation Enduring Freedom (OEF), 7 October 2001–mid-March 2002

In response to Al Qaeda's attack on 9/11, U.S. forces began OEF on 7 October 2001, part of which involved a sustained air campaign over Afghanistan that lasted until mid-March 2002. *Hornets* played a significant role in overall air operations. Of the 6,500 sorties flown by U.S. Central Command (CENTCOM) forces through 23 December 2001, the end of the first phase of the war (marked by the collapse of Taliban leadership), U.S. carrier-based strike fighters accounted for 4,900 sorties, roughly 75 percent of the total. Of these, more than half (3,700) were flown by Navy and Marine Corps F/A-18s. A total of 12 *Hornet* squadrons (11 Navy and one Marine) participated in OEF from October 2001 through March 2002, with seven more providing support for various OEF operations post-2002 through 2012 during a total of 12 deployments.

USN

Many Operation Southern Watch *patrols involved* Hornets *like this one from VMFA-251 carrying AGM-88 HARMs for potential use against Iraqi radar or SAM installations, and two AIM-9* Sidewinders *for self-protection. A FLIR is visible on fuselage station 4.*

USN

Hornets *and* Tomcats *often flew mixed sections during* Enduring Freedom *and* Iraqi Freedom. *F-14s typically used their more advanced LANTIRN to laser designate for* Hornets *to deliver laser-guided munitions.*

USAF

Operation Enduring Freedom *missions into Afghanistan necessitated rendezvous with big wing tankers. This F/A-18* Hornet *carries two fuel tanks asymmetrically and three 500-lb. GBU-12 LGBs, plus two* Sidewinders, *a FLIR and AAR-50 TINS pod.*

USN

An underwing view of a VFA-105 F/A-18C on the waist catapult of Harry S. Truman *during* Iraqi Freedom *shows two GBU-12 bombs, an ATFLIR and centerline tank. The open field of view for the ATFLIR is clearly apparent.*

Carrier-based strike fighters flew a combination of preplanned attacks against emerging time-critical targets and CAS. Most of the former came during the initial week of hostilities and virtually all CAS took place in November 2001 during the battles to take Kabul, and later in March 2002 in support of *Operation Anaconda*. As one report noted, by 1 November, "virtually all targets attacked were unbriefed, time-critical targets." Of all Navy munitions dropped, some 93 percent were either JDAM or LGBs. Most missions averaged more than five hours in length and involved average distances in excess of 690 miles from their carriers. Some *Hornet* missions lasted up to 10 hours.

Hornets operating in support of OEF often flew with a mix of weapons, including combinations of GBU-12 and -16 *Paveway* LGBs and GBU-31/32/35 JDAMs, as well as an occasional AGM-65 *Maverick*. A common *Hornet* load was three LGBs, two fuel tanks (typically centerline station 5 and wing station 7), two wingtip *Sidewinders*, a fuselage targeting pod (port side) and TINS (starboard).

Operation Iraqi Freedom (OIF), March–May 2003

The Navy operated five carriers in support of OIF, with USS *Harry S. Truman* (CVN 75) and *Theodore Roosevelt* stationed in the eastern Mediterranean Sea and USS *Constellation* (CV 64), USS *Kitty Hawk* (CV 63) and USS *Abraham Lincoln* (CVN 72) stationed in the northern Persian Gulf. USS *Nimitz* (CVN 68) later replaced *Lincoln*. Over 250 *Hornets* were spread among these ships, including one Marine and 14 Navy squadrons. All of the carrier-based *Hornet* squadrons flew F/A-18Cs except the VFA-97 *Warhawks*, who operated the F/A-18A, and the VFA-201 *Hunters* and VFMA-115 *Silver Eagles*, who operated the F/A-18A+. An additional seven Marine Corps *Hornet* squadrons (two C and five D) operated from Al Jaber, Kuwait.

The Iraqi air campaign offered two different perspectives for *Hornet* pilots. Those in the Mediterranean Sea (referred to as Op Area One), although participating briefly in the early stages of the so-called Shock and Awe air assault, concentrated their missions supporting U.S. special operations forces and Kurdish Peshmerga militia in northern Iraq. *Hornet* squadrons based aboard carriers in the northern Persian Gulf flew large numbers of preplanned sorties supporting Shock and Awe. Then they switched to CAS and traditional strike missions against Iraqi military facilities, strike coordination and reconnaissance and battlefield air interdiction missions.

For some of the Persian Gulf strikes, *Hornets* flew with the 2,000-lb. GBU-31/B JDAM, which worked especially well against larger structures and airfields. For the 72 *Hornets* from CVW-3 and CVW-8 in the Med, most strikes were against targets of opportunity, with laser designation provided by ground forces or F-14s serving as FAC(A)s. Missions flown from the Med were much shorter than those launched from carriers in the Gulf, especially once Turkey permitted Coalition air forces to operate within its air space.

Despite the differing missions, the weapon of choice during OIF was JDAM. Most employed by Navy *Hornets* were of the 1,000-lb. class, which included the GBU-32 and -35, the latter featuring the BLU-110/B with KMU-559/B guidance kit. The GBU-12/B, based on the 500-lb. Mk 82, was also popular. *Hornets* also frequently carried the GBU-16/B 1,000-lb. LGBs, HARMs and employed a limited number AGM-65 *Mavericks*, AGM-154A Joint Standoff Weapons (JSOW) and AGM-84H/K SLAM-Expanded Response, the latter two used against preplanned targets during the early days of the air campaign. JSOW was employed exclusively by *Hornets*. During the air campaign, *Hornets* from CVW-8 on board *Theodore Roosevelt* delivered 65 JSOWs (the VFA-115 *Eagles* delivered three, VFA-25 *Fist of the Fleet* delivered 24 and VFA-113 *Stingers* delivered 38). On one mission, four CVW-2 F/A-18Cs from *Constellation* launched 12 JSOWs against the Al Samoud surface-to-surface missile sites in Baghdad.

Former F/A-18C pilot CDR Vincent "Jell-O" Aiello, USN(Ret), who made OIF deployments with VFA-97 in 2003 and the VFA-94 *Mighty Shrikes* in 2005, recalled, "My squadrons typically flew XCAS or XINT missions, meaning 'show up and be available for almost anything.' Our configuration was typically double ugly [two external fuel tanks], ATFLIR [advanced targeting forward-looking infrared], wingtip *Sidewinders* and generally a 500-lb. JDAM

USMC

An F/A-18C of the VMFA-115 Silver Eagles *taxies on board MCAS Iwakuni, Japan, carrying an AGM-84D-1* Harpoon *for a simulated anti-ship mission, 28 Apr '20. A Marine Corps squadron was the first frontline unit to receive the legacy* Hornet *and will be the last to operate the type.*

and 500-lb. LGB. Anything more than that and bring back was a weight issue at landing if you didn't drop, which we almost never did."

Continuing operations in Iraq after the end of initial hostilities in 2003 gave rise to a number of issues impacting not only the *Hornet* community, but also the F/A-18E/F *Super Hornet* and *Tomcat*, which were also classified as strike fighters. One involved operating at night at low levels and the second involved night strafing. As to the first, tactics were revised for night flying with more emphasis on using night vision goggles in training. As for the second issue, Jack "Bubba" Bolton a Marine *Hornet* pilot who later served as a TOPGUN instructor during the mid-2000s, explained, "The Navy was being asked to do a lot of strafing in-theater on the night vision goggles in a 30-degree angle dive, which is pretty spicy, and they weren't doing it very well." Pilots were having troubling hitting designated targets and "they were also almost flying into the ground doing it. It's not a very safe evolution because when you pull the trigger and you're on night vision goggles, it blinds you because of the rounds going off." New tactics, techniques, and procedures were quickly developed and sent back to theater, where they were employed with much success.

End of the Line for the *Hornet*

On Friday, 1 February 2019, the last fleet Navy F/A-18 *Hornet* squadron, the VFA-34 *Blue Blasters*, conducted their final flight before officially transitioning to the F/A-18E *Super Hornet*. The VMFA-323 *Death Rattlers*, based at MCAS Miramar, concluded the final Marine Corps *Hornet* carrier deployment aboard USS *Nimitz* (CVN 68) on 25 February 2021, before transitioning to the F-35B *Lightning II*.

By the end of its service, the *Hornet* had certainly established itself as the premier strike fighter of its era and one of the most successful of the fourth-generation platforms. Issues with range were largely overcome by creative use of deck cycling and external fuel tanks, and heavy reliance on organic and non-organic tanking. Payload concerns, at least in comparison to the A-6 and A-7, were addressed by advances in targeting as well as the advent of PGMs, the latter allowing a single aircraft to accurately strike multiple targets per mission, rather than carrying large numbers of bombs against a single target. The *Hornet's* flexibility in missions and in weapons carriage to meet those missions, its continued reliability and its affordability provided the solution for Naval Aviation for nearly 40 years.

MC3 Dylan Kinee, USN

The VFA-34 Blue Blasters *CAG bird makes an arrested landing on board USS* Carl Vinson *(CVN 70) during the Navy's final legacy* Hornet *deployment, 20 Mar '18.*

Michael Grove

Providers Approach Sunset

by Mark Aldrich

A C-2A Greyhound *assigned to the VRC-30* Providers *conducts field carrier landing practice at NAF El Centro in Feb '22.*

With the CMV-22 *Osprey* having successfully completed its first deployment with CVW-2 on board USS *Carl Vinson* (CVN 70), the C-2 *Greyhound* will soon end its long career flying from aircraft carriers. One sign of this passing of an era is the disestablishment of the squadrons in which they have been mainstays for decades. The first of these is the VRC-30 *Providers*.

Squadron History

The *Providers* trace their ancestry to VR-5, which the Navy established on 24 June 1943, at NAS Seattle. The squadron principally flew the R4D *Skytrain*, R5D *Skymaster*, SNB *Expeditor* and JA-1 *Norseman* aircraft in regular air service routes between Seattle, Oakland, Alameda, the Aleutian Islands, Fairbanks and Point Barrow on the Alaskan mainland. Due to the wide variety of missions and terrain the squadron covered, VR-5 also operated examples of the J2F *Duck*, GB *Traveller*, GH-1 *Nightingale*, PBY-5A *Catalina* and JRF *Goose*.

VR-5 provided yeoman service during the war, but changes were not long in coming. In 1948 the Naval Air Transport Service and the U.S. Air Force's Air Transport Command merged and became the Military Air Transport Service. VR-5 was placed under the command of Fleet Logistics Support Wing, U.S. Pacific Fleet.

In 1950 VR-5 moved its base of operations from Seattle to NAS Moffett Field, Calif., with detachments (det) established at Seattle and NAS North Island.

On 15 July 1957, VR-5 disestablished and became VR-21 with no break in service, with dets at NAF Atsugi, Japan, and North Island. It was the first squadron to fly dedicated carrier onboard delivery (COD) aircraft, using the TBM-3R *Avenger*, a transport version of the World War II torpedo bomber.

The North Island det made its first COD flight with the C-1A *Trader* on 26 June 1958, trapping aboard USS *Yorktown* (CVS 10). The North Island det soon relocated to NAS Alameda in 1960.

VR-21 also maintained a det at NAS Barbers Point, Hawaii, flying C-118B *Liftmasters* into the early 1970s.

The Atsugi det, VRC-50, and the Alameda det combined to form VR-30 equipped with C-131 *Samaritans* and C-1As. VR-30's mission included logistics support for Commander in Chief, U.S. Pacific Fleet units.

On 9 November 1966, VR-30 made its first COD arrested landing in the C-1A aboard USS *Bon Homme Richard* (CVA 31). The squadron received the Meritorious Unit Commendation for exemplary service for the period 1 January to 30 November 1967. From 1968 to 1973, VR-30 COD dets operated aboard various carriers in support of recovery operations for the Apollo, XI, XII and XVI spaceflights.

Tailhook

VR-5 operated a wide selection of aircraft during World War II, including this camouflaged R5D Skymaster.

National Archives

Another stalwart type operated by VR-5 was the famous R4D Skytrain *or* Gooney Bird. *This aircraft was with the squadron for a year beginning in Jan '45.*

Tailhook

When VR-5 introduced carrier onboard delivery (COD) to the fleet it operated the veteran WW II TBM Avenger *torpedo bomber, modified as a light cargo and passenger aircraft. This photo was taken on board USS* Boxer *(CVA 21) on 20 Apr '55.*

In 1969 squadron C-1As and crews operated from Danang, Republic of Vietnam, in support of Commander, Task Force 77. In 1971 VR-30 joined the jet age with two CT-39 *Saberliners* for high-speed executive airlift. In May 1973 the squadron received the first of four C-9B *Skytrain IIs* to further improve its logistics support capability.

On 12 March 1974, the Navy's first female Aviator, LTJG Barbara A. Allen, reported for duty.

After relocating to North Island, VR-30 disestablished on 1 October 1978, and VRC-30 concurrently established.

In February 1980, VRC-30 added the C-12 *Super King Air*, providing ground and flight instruction for all Pacific Fleet Navy and Marine Corps aviators and aircrew in the UC-12B/F. VRC-30's C-12 Fleet Replacement Squadron acted as the Commander, Naval Air Force, U.S. Pacific Fleet (COMNAVAIRPAC) NATOPS model manager and unit evaluator, in addition to its primary job of flight instruction. VRC-30 retired the last six C-1A *Traders* and transitioned to the C-2A *Greyhound* in late 1985, accepting deliveries of five of the new aircraft. These were later replaced by a newer reprocured version, the C-2A(R).

In 1994 VRC-30 took sole responsibility for Pacific Fleet C-2 operations by absorbing personnel and aircraft when VRC-50 disestablished. VRC-30, Det 5 was established in August 1994 at Atsugi as part of CVW-5 and the Forward-Deployed Naval Forces. Four deployable seagoing dets formed at North Island, supported by a "home guard" shore component. In 1997 VRC-30's Det 3 became the first fully integrated, night capable C-2 detachment when it deployed with CVW-2 on board USS *Constellation* (CV 64).

Mark Aldrich collection

As the squadron focused on the COD mission, VR-5 began operating the TF-1 (later redesignated C-1A) Trader. *This early example was photographed in 1956.*

USN

VRC-30 was able to get seven C-2s in "up" status for a rare formation flight over San Diego on 21 Sep '90.

USN

The arrival of the C-2A Greyhound *in the mid-1980s meant the end of reciprocating piston engines on board aircraft carriers. This undated C-2A photo was taken at NAS North Island.*

USN

In addition to the C-2, the Providers *operated the C-12* Huron, *pictured here near San Clemente Island, and VT-39* Sabreliner *for several years.*

Another banner year for the *Providers* occurred in 1998. Squadron dets continued to set the standard for day/night logistics support with two highly successful deployments. Operating from USS *Abraham Lincoln* (CVN 72), Det 1 posted an impressive total of more than 290,000 pounds of cargo, 175,000 pounds of mail and in excess of 2,300 passengers carried in support of the *Lincoln Battle Group*. While in WESTPAC, Det 1 earned the Golden Hook Award for the best landing grades in the air wing, a squadron first. Det 2 on board USS *Carl Vinson* (CVN 70) followed suit, operating daily in support of *Operations Desert Fox* and *Southern Watch*. In calendar year 1998, VRC-30 was able to accomplish astounding results, compiling 1,356 carrier landings, carrying 14,360 passengers and 1,877,973 pounds of cargo and achieving a sortie completion rate of 99.9 percent.

By December 1999, the squadron had achieved 24 years and accumulated over 149,600 hours of accident-free flight. VRC-30 was awarded the Chief of Naval Operations (CNO) Safety Award six times between 1979 and 1992 and the Meritorious Unit Commendation for exemplary service from October 1993 to September 1994. In 1996 the *Providers* were awarded the squadron's first ever COMNAVAIRPAC Battle Efficiency Award and received the honor again in 1998. VRC-30 again garnered the CNO Aviation Safety Award in 1998. In March 1998, as a result of a 140-person reduction in manning, the command adopted a full det concept. As a result, all five dets remained active throughout the turn-around cycle.

The squadron participated in every major military exercise on the West Coast as well as combat operations in support of *Operations Iraqi Freedom* and *Enduring Freedom*. The *Providers* again earned the Battle Efficiency Award in 2002 and 2003.

In 2004, after more than 60 years of multitasked missions, VRC-30 stood down C-12 operations and has since focused solely on COD duties.

The next few years brought several major developments and upgrades to the C-2A, beginning with the critical Service Life Extension Program (SLEP) in 2006. This increased the airframe lifespan from 10,000 flight hours or 15,000 carrier landings to 15,000 flight hours or 36,000 carrier landings. The program potentially allowed the fleet of *Greyhounds* to operate until 2027. The SLEP was followed by an aircraft rewire in 2008, and the most recent Lot 4 upgrade began in August 2010. Completed in September 2012, Lot 4 provided pilots with a new CNS-ATM glass cockpit. More readily visible was the eight-bladed NP2000 propeller system, which increased performance, reduced airframe vibration and improved maintainability. During this period of change the *Providers* maintained a high operational tempo, earning five more Battle Efficiency Awards in 2005, 2006, 2007, 2011 and 2012.

On 22 November 2017, a VRC-30, Det 5 C-2A carrying 11 passengers and crew crashed into the Philippine Sea 145 kilometers northwest of Okinawa while flying from MCAS Iwakuni to USS *Ronald Reagan* (CVN 76). Rescuers recovered eight people, but three, including the pilot, were lost. It was the first *Greyhound* loss since 2005, and the first fatal C-2 accident since 1973.

Following the 2017 incident, the det underwent multiple inspections and rigorous training in order to prevent further casualties. It won the Battle Efficiency Award in 2019.

Sundown Approaches

Today, VRC-30's days are numbered. New technologies and broadening requirements dictate the retirement of an aircraft conceived as a derivative of the E-2 *Hawkeye* in 1964. Introduced to the fleet in 1966, the C-2 has served more than a half century, and it will be a sad day when the last *Greyhound* takes flight.

In the meantime, the *Providers* have work to do. *The Hook* conducted interviews with several of the squadronmembers in November 2021 to see how they are going about it and what motivates them.

Commanding Officer (CO) CDR Jessica Caldwell has been with VRC-30 twice, the first stint coming as a junior officer (JO) in 2008. Following tours as an FRS instructor at VAW-120 *Greyhawks* and time with VRC-40 *Rawhides*, the Houston native has amassed an impressive 2,400 flight hours, 2,200 of them in the C-2. She has deployed several times aboard three carriers.

Caldwell relates that, in addition to the challenges of keeping an aging airframe airworthy and safe, keeping her relatively large squadron moving forward is her primary focus. Every Sailor interviewed told a similar story. "We are focused on safety." Additionally, the CO explained that "[personal] growth is the key to staying focused on the job and keeping your eyes on what is important helps you attain success."

Mark Aldrich

The C-2 with upgraded eight-blade propellers and avionics. The Greyhound *has delivered exceptional service during its 58 years with the fleet.*

Mark Aldrich

Much of VRC-30's routine maintenance is handled at unit level. This aircraft has had the outer wing panel removed for inspection in the squadron hangar.

In summer 2008, then-LT Caldwell flew a distinguished visitor (DV) flight from North Island to a CVN conducting training off the coast. Her passengers were retired Senator John Glenn and his party. After the visit to the ship and return to North Island, Glenn asked to be introduced to the pilot for his flight. Looking a little surprised at first, Glenn proceeded to introduce her to the press and his entourage as the officer responsible for his flight to the carrier and a fine pilot, creating a memory for a lifetime.

Chief Kami Mayer is one of the most experienced Sailors in the squadron. Originally from Spencer, N.Y., Kami chose a career with the Navy right out of high school. There was some seagoing legacy in Kami's background that may have helped; her grandfather served aboard USS *Enterprise* (CV 6) as a chief watertender during WW II. Kami has been in the Navy for 26 years.

Kami's first fleet assignment was with VRC-30 in 1999. Since then, she has spent 18 years with the *Providers*. The four years she was away culminated with a posting as an instructor at VAW-120. However, before that assignment was completed, she "found out someone else, a person who didn't want to leave the East Coast, didn't want to transfer to California." She jumped on the opportunity to get back, filled out the necessary paperwork and returned to North Island.

Mayer has accumulated more than 3,000 hours, mainly in the C-2, but had some time in the C-12 from a temporary posting to NAS North Island in the squadron's last days of operating that aircraft.

Her most notable DV flight took place in 2001 and is a humorous one. The squadron was tasked with taking a group of cheerleaders for the then-St. Louis Rams football team to a carrier for a day visit. Nearly every male involved plied her with every imaginable tack for introductions. In the end, after the flight the cheerleaders invited Kami to their place for a BBQ … and no one else.

Kami says that she wears multiple hats on duty, but first and foremost she is a senior aircrewman, responsible for training junior Sailors in the job of crew chief for the C-2.

LT Mark Starritt is from Hollister, Calif., and the most recent officer to come aboard. He grew up around aviation; his grandfather was an SBD *Dauntless* pilot during WW II and his father learned to fly postwar. Mark also learned to fly. During college he worked as a line boy, just to stay close to planes. On completing flight school, his father proudly pinned his grandfather's Wings of Gold on his chest.

Mark Aldrich

While there are some new displays in the C-2 cockpit, its vintage is unmistakable. While deployed the aircraft is usually manned by two pilots and two enlisted crew.

When we interviewed him, Mark had accumulated close to 100 hours in the C-2 and 13 traps, all but one in the right seat. He says, "every airplane on the line has a character of its own," and while he does have a favorite, every time he is in flight, he considers himself the luckiest guy in the world.

When asked what will come next, Mark says that there are several options available, including transfer to VRC-40, VAW-120 or perhaps one of the newly formed CMV-22B *Osprey* squadrons. Time will tell.

Operations Officer LCDR Joseph "Face Punch" Swindel has 1,987 hours in the C-2; the only pilots with more are the commanding and executive officers. Like most of those interviewed, Swindel has been with the *Providers* more than once. He cut his teeth on the C-2 as a JO in 2012–'16. From 2016 to 2019, he was an instructor with VAW-120, where he flew the E-2 *Hawkeye* as well as the *Greyhound*. He described the E-2 as a "sporty version" of the C-2.

Swindel has made three operational deployments aboard USS *Carl Vinson* (CVN 70) with CVW-17, USS *John C. Stennis* (CVN 74) with CVW-9 and USS *Theodore Roosevelt* (CVN 71) with CVW-11.

He detached to attend LSO School at NAS Oceana in 2014 and received his wing LSO qualification in 2017. He said he really enjoyed being an LSO because the job made him feel more a part of the air wing instead of an outsider.

After duty at VAW-120, Swindel returned to VRC-30 as a "super JO." After promotion to LCDR, he led Det 3 as officer in charge (OinC) on board *TR* on the 2020–'21 deployment. Swindel related, "COVID deployments are very difficult, especially if you are on and off the boat a lot." But any deployment, perhaps especially for the VRC community, provides an opportunity to experience the rewards of being alone and unafraid. The 40-person det is responsible for maintaining constant readiness for any tasking required by the air wing and strike group. The two-plane det does everything from simulating Red Air to casualty evacuation and delivering mail, critical parts and people. They also handle their own maintenance when on a mission ashore. Each airplane essentially has a "fully qualified maintenance team on board. The four people [two pilots, an AD1 and another qualified aircrewman] in the plane can drastically change the outcome of a mission. If we experience a maintenance need while in Qatar and we need to get back to Bahrain, we can fix it."

On return from deployment, Swindel became the squadron's operations officer and hopes to lead the last VRC-30 deployment on board USS *Nimitz* (CVN 68). He has a deep fondness for the C-2 and attachment to the platform, and takes pride in being a tailhook Naval Aviator. He said, "I hope I get to do one more OinC before we send the old girl down."

When asked about memorable DVs, Face Punch has several, but by far his favorite was television personality Mike Rowe. In early 2016, Swindel flew the cast and crew of the show "Somebody's Gotta Dot It" to *Stennis*. Rowe had barely exited the aircraft and was already engaging with every Sailor who crossed his path. "He loved being out there and hearing people's stories. He was out there for them, not himself." The episode first aired in 2019 and is well worth watching for the engaging way it presents the 5,000 members of the crew and air wing and the difficult but necessary jobs they do.

When asked what is next, Joseph said, "There will be tears streaming down my face when we take the last one of these to the boneyard. I really love my plane and I love being a tailhook pilot, but she's old and she's tired." After VRC-30 sundowns, he hopes to go to VRC-40 "to close them up in 2024 or 2025," but he may end up in with one of the newly formed CMV-22B *Osprey* squadrons.

Maintenance Officer LCDR Scott "Landfill" Seago from Blue Springs, Mo., may be a familiar name to our readers. While serving as the wing LSO for Training Air Wing One (TRAWING 1), he wrote an article titled "Orange and White CQ" that appeared in the Summer 2020 issue of *The Hook*. His father was a Navy pilot, but it was his experience at air shows and watching flyovers at events during the national anthem that had him hooked. Scott has traps on every carrier but *Reagan*, bagging one aboard USS *Ford* (CVN 78) in a T-45 *Goshawk* during CQ.

Mark Aldrich

CDR Jessica E. Caldwell and LT Mark Sterritt, the senior and junior pilots in the squadron in late 2021.

Landfill checked in at VRC-30 in October 2020. Before his tour at TRAWING 1, he was a JO with VRC-40 during 2013–'17, and then went to VT-7 at NAS Meridian as an instructor pilot, eventually becoming the wing LSO. He has amassed more than 2,400 hours, nearly half of them in the C-2.

When asked about the differences between the *Rawhides* and *Providers*, he said the most important one to him was the West Coast lifestyle and the weather. He went on to say that both squadrons are exceptional.

Scott related that his most important event while with the squadron was being detached as OinC to *Vinson* on short notice for "COMPTUEX and Go" in a COVID environment. Assembling 45 people, two aircraft and sufficient spares while maintaining the necessary protocols was challenging, but it was the maintenance department that made it possible.

One of the most difficult aspects for the maintenance officer is keeping the old airplane flying. Unlike newer aircraft, troubleshooting is not computerized on the C-2. The wrench turners have to rely on inputs from the flight crews and work diligently to get to the heart of a problem.

VRC-30 has 11 aircraft, including two with Det 5 in Japan. Two were recently flown to Norfolk as part birds for VRC-40, with two more slated to leave by early this year. When asked about the importance of enlisted crewmembers, Landfill said, "we can't afford to lose them."

His favorite DV was "American Idol" winner David Cook, on a May 2015 flight to *Theodore Roosevelt* to play a concert for the crew. Landfill and Cook went to high school together.

Executive Officer CDR James J. Light is a Naval Academy graduate in the Class of 2004. He was a JO at VRC-30 and has been XO since July 2021. In between, he was a department head at VRC-40, a shooter on board USS *Dwight D. Eisenhower* (CVN 69) and had a shore billet in Germany. He is currently at 2,500 hours in the COD and 2,800 total, and has made three COD deployments. Light spoke highly of his enlisted Sailors, reinforcing the fact that without them, nothing moves.

Sundown for the old *Greyhound* is fast approaching, and the officers and Sailors at VRC-30 are doing their part to make sure the C-2A gets the graceful retirement it deserves. The commitment to success, safety and teamwork was palpable in the squadron spaces. While the end of the era may be sad, there is a great deal of pride in the mission the community has accomplished.

Mark Aldrich

Waiting for its next flight assignment, this VRC-30 C-2A basks in the winter sunshine at NAS North Island.

All photos from George Hrico's collection

USAF Joins the Navy

by Tony Beres

USAF pilots with a VF-71 F8F-2 Bearcat *on board USS* Leyte *(CV 32) in 1948.*

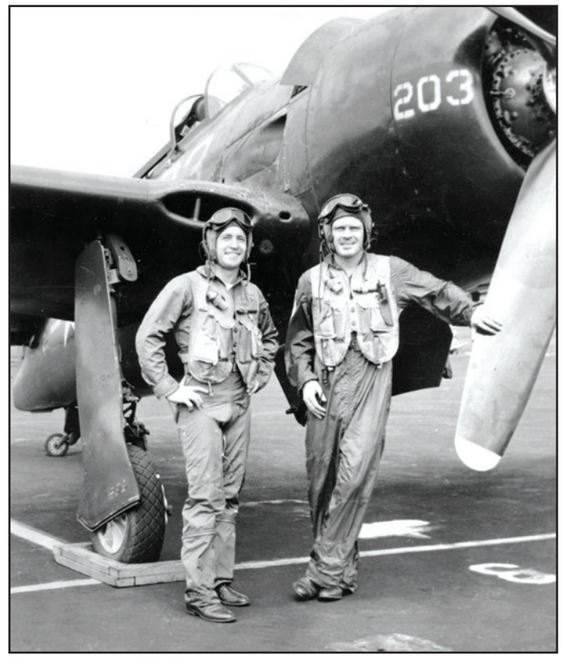
"Each carrier landing was a new thrill and a lot of joy to anyone who hasn't been doing that before. I made new friends during my carrier indoctrination and enjoyed the entire problem," said Maj George I. Ruddell.

On 26 July 1948, nine United States Air Force fighter pilots received orders that would give them the distinction of becoming the first members of that service to officially qualify on board a U.S. Navy aircraft carrier. Pilots had been exchanged between the services prior to this date, but Air Force officers had served only as observers of naval air operations. The lucky nine would spend a month on board USS *Leyte* (CV 32), integrated among *Carrier Air Group Seven's* (CVG-7) fighter squadrons.

Spurred on by a shared desire to keep interservice rivalry in check and create a foundation for future Joint operations, the two services formed a plan to address these concerns. In addition to the pilots assigned to carrier duty, the USAF had additional officers scattered throughout the Atlantic Fleet. Two pilots served in VP-8 for familiarization with P2V *Neptune* operations. One pilot served on the staff of each of the following units: Second Task Fleet, Carrier Division (CarDiv 4), CarDiv 6 and CarDiv 7.

The selection of the nine carrier-bound officers was based on their experience and potential for future leadership. They included:

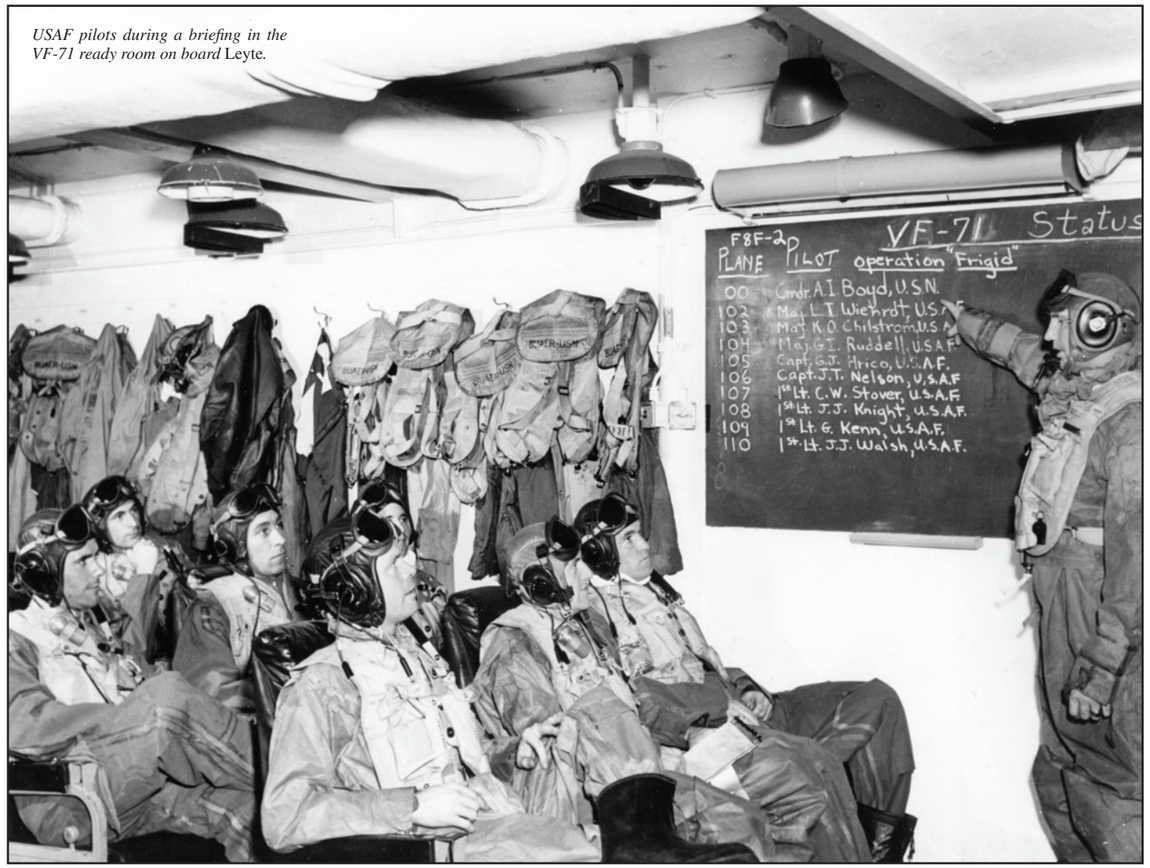
- Maj Kenneth O. Chilstrom from Chicago, Ill., was attached to the Flight Test Division at Wright Field, where he had flown many captured German and Japanese aircraft. His test pilot activities included XP-86 *Sabre* Phase II testing. He was the first USAF pilot to fly the famous jet. During World War II he flew combat missions in North Africa, Sicily and Italy flying P-40 *Kittyhawks* and P-51 *Mustangs*. In 1946 Chilstrom participated in the first documented jet air race and commanded the USAF Test Pilot School in 1950–'51.
- Capt George H. Hrico from Dusquene, Pa., served in the 48th Fighter Squadron (FS), 14th Fighter Group (FG) at Dow AFB in Bangor, Maine, flying P-84 *Thunderjets*. During WW II, he served in the Eighth Air Force with the 505th FS, 339th FG. He flew the P-39 *Airacobra* and P-51 and was credited with four enemy aircraft destroyed.



While many of the USAF officers had flown jets, the sporty little Bearcat *was an exhilarating ride. Capt John Nelson and Maj George Ruddell were assigned to VF-71 and VF-73, respectively while on board* Leyte.

- 1st Lt Gordon R. Kenn of Quincy, Mass., was stationed at Turner Field near Albany, Ga. He had spent the previous year flying P-51s and P-80 *Shooting Stars* at air shows. He was previously a flight instructor for the Peruvian Air Force and during the war he flew B-25 *Mitchells* and B-26 *Marauders* in Europe.
- 1st Lt John J. Knight of St. Louis, Mo., was assigned to the Flight Test Division at Wright Field. He was a qualified P-40, P-47 *Thunderbolt*, P-51, P-80 and P-82 *Twin Mustang* pilot. Knight went on to fly A-1 *Skyraiders* during the Vietnam War.
- Capt John T. Nelson from Bonners Ferry, Idaho, also flew with the 14th FG at Dow AFB, but as a member of the 37th FS flying the P-84. During WW II he flew P-40s in North Africa, *Spitfires* in Italy and *Mustangs* over Germany, France and the Balkans. Nelson claimed three Bf 109s destroyed before being shot down in Yugoslavia. Postwar, Nelson flew P-63 *Kingcobras*, P-47s and P-80s. He also conducted the original service tests for the P-84 at Muroc Army Airfield (later Edwards AFB).
- Maj George I. Ruddell from Riverside, Calif., served as executive officer of the 94th FS flying P-80s. He flew 180 combat missions over Europe and the Pacific in P-40s, P-47s and P-38 *Lightnings* with one kill. Ruddell shot down eight MiG-15s during the Korean War. He later served during the Vietnam War, retiring as a colonel in 1966.
- 1st Lt Charles W. Stover from Portland, Maine, was flying P-82s with the 52nd All-Weather Flying Group at Mitchel Field, N.Y. Stover had flown P-38s and P-51s with the Eighth Air Force during the war.
- 1st Lt John J. Walsh was from Waltham, Mass., and was assigned to the 20th FG at Shaw AFB, S.C., flying the P-84. During WW II, Walsh was shot down over Bastogne while flying a B-26 and spent a year as a prisoner of war. In 1952, he was lost over Korea and listed as missing in action.
- Maj Leonard I. Wiehardt was commanding officer of the Flight Performance School at Wright Field and an associate of Maj Chilstrom and 1st Lt Knight. He flew P-47s in Europe during the war and was killed in 1972 while flying for Air America in Laos.

Maj Leonard Wiehardt was the first Air Force pilot to make an operational trap on a Navy carrier, 2 Sep '48. He celebrated the event with a cake on board Leyte.



USAF pilots during a briefing in the VF-71 ready room on board Leyte.

CAPT Dale Harris, commanding officer of Wright, *congratulates the first eight USAF pilots to make carrier landings during their 1948 training evolution.*

On 28 July the Air Force officers reported to NAS Pensacola and commenced three weeks of basic carrier training in SNJ *Texan* trainers, which the USAF also operated under the designation T-6. The Navy's bounce landing technique contrasted with the USAF field landing style and took some getting used to.

The Air Force pilots' first carrier operations took place in the Gulf of Mexico on board USS *Wright* (CVL 49) commanded by CAPT Dale Harris. A Navy instructor led the fledgling carrier pilots in for their first trap. John Nelson recalled that, "…the carrier looked like a postage stamp. Lead landed ok, number two caught the wire, ballooned and ended up hanging over the side, smoking badly. Number three made a good landing. I came in, caught the wire, ballooned and came down on a wing, which got pretty banged up. I didn't question that the plane would be grounded for repairs, but out came a crew with axes, hammers and such. They waved me off the deck after banging out the wing and crumpled aileron."

The experienced pilots completed training and on 12 August, reported to NAS Norfolk. Four days later, they arrived at NAS Quonset Point for carrier refresher training. While there, the pilots logged their first flights in the F8F *Bearcats* assigned to the VF-92 *Be-Devilers*. The squadron was providing close air support for Marine maneuvers at the time.

The pilots reported to CVG-7 on the 21st and boarded *Leyte*, which was preparing to depart on a four-month deployment off the west coast of South America. Weihrdt, Stover and Nelson went to VF-71 commanded by LCDR A.B. Smith Jr. Chilstrom, Kenn and Knight were assigned to the VF-72 *Bearcats* commanded

One of the USAF pilots traps aboard USS Wright *(CVL 49) during carrier qualifications in the Gulf of Mexico.*

A VF-71 F8F during close-air-support exercises from Leyte.

by LCDR F. Malinasky. Ruddel, Walsh and Hrico flew with the VF-73 *Jesters* commanded by LCDR M.A. Hadden Jr. The air group's other squadrons were VA-74 equipped with F4U-4 *Corsairs* and the VA-75 *Air Barons* flying TBM *Avengers*. The CAG was CDR A.I. Boyd and the skipper of *Leyte* was CAPT C.F. Coe.

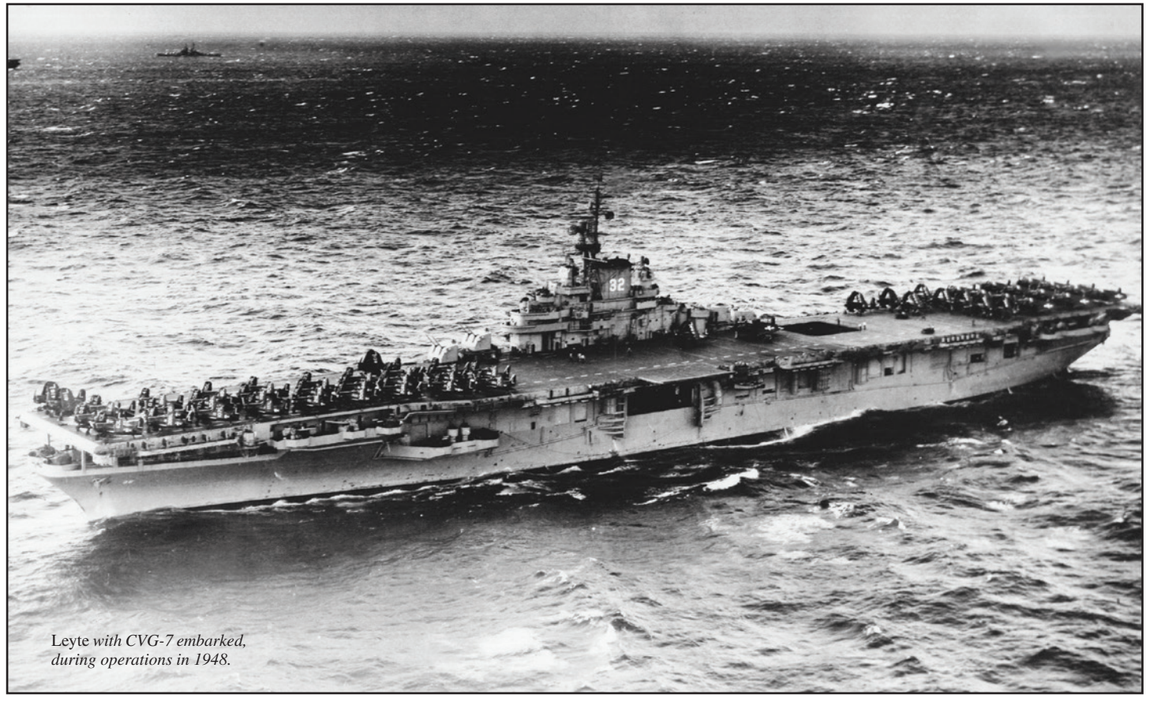
On 2 September 1948, CV 32 arrived at Guantanamo Bay, Cuba. That day, Maj Weinhrdt became the first USAF pilot to land on *Leyte*.

For the next month CVG-7 conducted routine training and operations at sea, which included many air support missions. At the end of the exchange, the nine Air Force officers flew to Norfolk to attend a USN-USAF conference to evaluate the exercise. In roundtable discussion at the conference, each participant contributed his personal opinion of ways to improve and clarified various methods of operations, flight signals and administration to allow for the transfer of USAF pilots into a carrier unit in minimum time. Navy dive bombing was discussed at length and 1st Lt Kenn commented, "the Navy type dive bombing with fighter-bombers is basically the same as that used by the Air Force."

The conference summary indicated the Air Force officers had successfully made the transition to Navy-style operations and tactics, and the future exchanges of this type were highly desirable.

ADM William H.P. Blandy, Commander in Chief, U.S. Atlantic Fleet, greeted the USAF officers at the conference and said, "I am very happy indeed to have had you in the fleet, and I hope you have enjoyed your experiences in operating in another service.

"The more we know about the other fellow's problem and the solution for it, I think the more sympathy we'll have for the other service and a better understanding of it. It will certainly bring the best results when it comes to organization, and it will work itself out if we all know and sympathize with the other fellow's job, better than in the past."



Leyte *with CVG-7 embarked, during operations in 1948.*

SSgt Peter Reft, USAF

Silver and Gold

by Hill Goodspeed

F/A-18E/F Super Hornets *of the VFA-27* Royal Maces *and VFA-102* Diamondbacks *in formation with a USAF 44th Fighter Squadron F-15C* Eagle *during Joint operations over the Pacific Ocean, 16 Feb '17.*

When you scan the names of members of the Tailhook Association, there are a small group of individuals numbering just over 100, who have either "USAF" or "USAF(Ret)" after their names. For many of them, membership reflects a defining period of their military careers as they experienced Naval Aviation. For services that have at various points been pitted in intense interservice rivalry and have distinct ways of doing things, the Navy and Air Force have surprisingly longstanding ties in both training and operations.

One of the earliest photographs from the beginnings of Naval Aviation shows the first Naval Aviator, LT Theodore "Spuds" Ellyson, seated on an airplane flanked by three Army officers and Glenn Curtiss. The mustachioed aircraft inventor, along with the Wright Brothers, was the primary manufacturer of the first aircraft procured by both branches of the U.S. military. The photograph was taken during instruction at Curtiss' winter training camp on North Island in 1911. Long famous as a naval air station, the location was home to Navy and Army airfields for a number of years.

Naval Aviator Number Three, LT John Towers, and pioneer Army pilot 1st Lt Henry "Hap" Arnold forged a friendship in the earliest days of military aviation that endured through their careers developing air power in their respective services.

The shifting focus of Naval Aviation made training with the Army Air Service a necessity. When LCDR Henry Mustin arrived in Pensacola in January 1914 with the first contingent of aviators to establish the Navy's first aeronautic station, he wrote a letter saying that the Navy should focus solely on seaplane operations. Eventually, the advent of aircraft carriers prompted the Navy to send aviators to train with the Army in wheeled aircraft. LTs Virgil C. Griffin, the first to launch from USS *Langley* (CV 1), and Alfred Pride, the prime test pilot for the arresting gear used on board the ship, both received landplane instruction at Carlstrom Field in Florida.

National Naval Aviation Museum

At the dawn of U.S. military aviation, the services had no cadres of instructors. The task of teaching them to fly fell to aircraft manufacturers like Glenn Curtiss, pictured here with pioneer Army pilots and LT Theodore Ellyson, the first Naval Aviator.

Coordination between the two services expanded beyond training with numerous interwar Joint Army-Navy exercises and the procurement of aircraft, with designs delivered in different versions for use by both the Navy and Army Air Service. The famous Norden bombsight, its advertisements claiming it allowed bombardiers to put a bomb into a pickle barrel from 20,000 feet, was initially developed for the Navy even though it achieved its greatest fame on board high-altitude bombers.

The entry of the United States into World War II took the U.S. military to far-flung combat theaters around the globe and created opportunities for unique operations between the Navy and newly renamed Army Air Forces (AAF). The most prominent of these was the famous Doolittle Raid in April 1942. Lt Col Jimmy Doolittle was one of the foremost aviators of the time. He possessed a doctorate degree in Aeronautics from MIT and was renowned for his work in instrument flying and as a record-setting racing pilot. But one thing he did not know how to do was launch in the short distance afforded by the flight deck of USS *Hornet* (CV 8) for an AAF B-25 *Mitchell* twin-engine medium bomber. In stepped a young flight instructor named LT Henry Miller, who with $6 daily per diem traveled down the road from NAAS Ellyson Field near Pensacola to what is now Eglin AFB to train the AAF crews for the strike against Japan. "I want to again thank you for the invaluable assistance you gave us during training and until the final takeoff," Doolittle wrote in a letter to Miller on 15 June 1942.

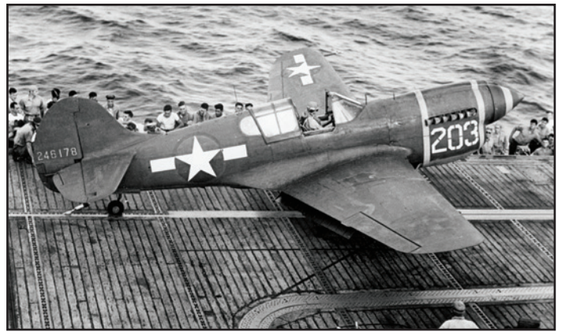
Other pilots wearing Army green had the experience of launching from an aircraft carrier during the war, with flattops that included USS *Ranger* (CV 4), USS *Wasp* (CV 7) and USS *Chenango* (CVE 28) loading P-40 *Warhawk* fighters for transport overseas, primarily in the Atlantic Theater. The pilots received little training in shipboard launches, but it did not take long to appreciate that they were in a much different operating environment. One remembered sitting in the cockpit of his fighter spotted at the front of the pack of aircraft on the flight deck and noting the sharp changes in the rate-of-climb indicator as the ship rose and fell in heavy seas.

Perhaps the most impactful duty with the AAF was that of CDR Frederick Ashworth, who witnessed the extremes of WW II. His first combat came as a squadron commander flying TBF *Avengers* during the bitterly contested Solomon Islands campaign. He later found himself the only Navy man in the crew on board the B-29 *Superfortress* nicknamed *Bock's Car*, his role the arming the atomic bomb dropped on Nagasaki on 9 August 1945.

The advent of nuclear weapons was at the center of a particularly acrimonious period of interservice rivalry. The Navy and newly created U.S. Air Force engaged in a high stakes battle over roles and missions in an austere postwar budget environment. Amid this an unlikely measure of cooperation emerged. In May 1949, while hosting a group of Congressman observing flight operations on board USS *Franklin D. Roosevelt* (CVB 42), Commander in Chief, U.S. Atlantic Fleet ADM William "Spike" Blandy proposed that the two services exchange more pilots for training purposes. By September, the Department of Defense had issued a new policy in which 25 pilots in the grades of O-2, O-3 and O-4 would serve one-year exchange tours each year.

Among the earliest Naval Aviators in the program was future astronaut LT Wally Schirra, who joined the 154th Fighter Bomber Squadron as the most experienced jet pilot in its ranks as the unit transitioned to the F-84E

National Naval Aviation Museum



Above: *Sailors crowd into the catwalk to observe an impending catapult launch of a P-40K* Warhawk *from USS* Breton *(CVE 23) in the Pacific, Dec '43. While they didn't experience traps, some Army Air Forces pilots received the thrill of a cat shot when carriers transported their aircraft to the front.*

Below: *A letter from Brig Gen Jimmy Doolittle to LT Henry Miller in the aftermath of the raid on Japan in Apr '42. The Navy flight instructor trained the Army Air Forces bomber pilots to get their B-25* Mitchell *bombers airborne in short distances.*

National Naval Aviation Museum

ADDRESS REPLY TO
CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D. C.

WAR DEPARTMENT
HEADQUARTERS OF THE ARMY AIR FORCES
OFFICE OF THE CHIEF OF THE AIR CORPS
WASHINGTON

JHD:mf

June 15, 1942

1st Lieutenant Henry L. Miller
TS-2 Ellyson Field
Naval Air Station
Pensacola, Florida

Dear Henry:

Thanks for your note of the 20th which, for some reason or other, I have just received.

No information has been given out, as yet, on our losses, so I will have to ask you to keep the following "confidential": Corporal Factor, who was Gray's Rear Gunner, was killed. He was not hurt in action, but was found dead after the arrival in China. We don't know exactly what happened to him. In addition to Factor, we have four missing, six prisoners (in Japanese occupied China), one badly wounded and five slightly wounded. Thirty-two of the boys are on their way home, and the rest are being used for Combat or Transport Service in the Far East.

I want to again thank you for the invaluable assistance you gave us during training and until the final take-off.

With kindest personal regards and the hope that I may have the pleasure of seeing you again soon, I am

As ever,

J. H. DOOLITTLE

FOR VICTORY
BUY
UNITED STATES DEFENSE BONDS AND STAMPS

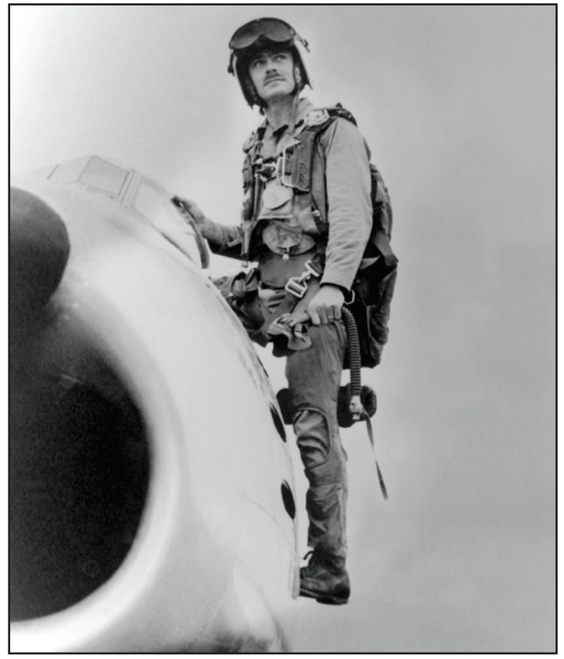
Thunderjet. By June 1951 he was flying combat missions in Korea, which included splashing a MiG-15 while escorting B-29 bombers. On another mission, he took anti-aircraft fire in the starboard tip tank, which curled back over the aileron, causing the airplane to "flutter and buzz. The fluttering was feeding itself through the whole airplane until the whole works was rocking and shaking me up. I finally cut down my airspeed and managed to shake the tip tank loose and drop it … the wing had a whole bunch of wrinkles in it when I landed, and I knew it had been a pretty bad situation."

For Naval Aviators like Schirra, the opportunity to fly in "MiG Alley" was appealing because with rare exceptions, flights in the cockpits of naval aircraft were primarily ground interdiction missions. Flying as exchange pilots with Fifth Air Force squadrons, 14 Naval Aviators received combined credit for 23.5 kills during the war. This group included another future astronaut, Maj John Glenn, USMC. With five MiG-15s to his credit, Maj John F. Bolt, USMC became Naval Aviation's only two war ace, having achieved that exalted status in WW II flying with the famous VMF-214 *Black Sheep*.

For their part, Air Force officers who served in Navy squadrons also had memorable experiences, including logging milestone landings on board aircraft carriers. In July 1950 Maj William H. Powell received the obligatory wardroom cake when he recorded the 24,000th trap on board USS *Wright* (CVL 49). His path to that moment had included years as a prisoner of war following his capture on Bataan in the Philippines. While flying F9F-2 *Panthers* with VF-112 off USS *Philippine Sea* (CV 47) in April 1952, Maj Lee Sarter recorded the 44,000th arrested landing on board the carrier. Another Air Force pilot assigned to fly *Panthers* was Maj John Carpenter, who recorded cats and traps on board USS *Essex* (CV 9) as a member of the VF-51 *Screaming Eagles*. In 1969, he sent a telegram to a squadronmate who flew as his wingman on many combat missions and had become the first man to walk on the moon, telling Neil Armstrong, "As one American to another, my heartfelt thanks for your momentous contribution."

By the end of the Korean War the exchange program was firmly established, providing unique opportunities for

National Archives



Maj John F. Bolt, USMC, was one of the Naval Aviators who logged missions on exchange duty with the Air Force during the Korean War. He did not waste the opportunity to fly over "MiG Alley," shooting down six enemy aircraft while flying the F-86 Sabre.

participants. In June 1954 LT John Sickle, "a level-eyed jet expert who enjoys the distinction of being the only Navy man on deck for a strictly Air Force show," participated in the Air Force's first air-to-air rocket meet held in Arizona. Among the other competitors and staff for the event were 12 pilots who collectively downed 56 MiG-15s in Korea. "The pressure is slightly terrific," Sickle told a reporter. "I've got to stay on my toes to hold up the Navy's end."

In 1965–'66 Capt John Davey, a member of the first class to graduate from the U.S. Air Force Academy, was one of three exchange pilots to deploy on board USS *Independence* (CVA 62) for a combat cruise to the waters off North Vietnam, flying some of the early missions in *Operation Rolling Thunder*. "The roles of the Navy and the Air Force appear to be similar in many ways in the Southeast Asian conflict, and the exchange program is a good way to compare the two services firsthand," he said at the time. Davey, who reached general officer rank, logged more than 300 carrier landings and 93 combat missions flying the F-4 *Phantom II* with the VF-41 *Black Aces*.

In a subsequent assignment Davey worked on the F-111 *Aardvark*, an aircraft intended to serve as a supersonic interceptor for the Navy and multiple strike mission platform for the Air Force. While this effort at a Joint aircraft failed, the two services shared common platforms during the Vietnam War. Most prominent among these was the F-4. On 17 December 1967, while flying with the 13th Tactical Fighter Squadron (TFS), Capt Doyle Alexander, USMC, teamed with his pilot, Air Force 1st Lt John D. Ryan, to shoot down a MiG-17.

An exchange crew flying with the 58th TFS, Marine Capt Lawrence G. Richard and his backseater, Navy LCDR Michael J. Ettel, shot down a MiG-21 on 12 August 1972. *(**Ed Note:** Nearly two decades later during* Operation Desert Storm*, Marine Capt Chuck Magill was also serving with the 58th TFS flying an F-15C* Eagle *when he shot down an Iraqi MiG-29* Fulcrum*.)*

In the latter part of the Vietnam War, a number of Marine Corps aviators destined for the F-4 were offered a unique training program as the service sought to fill more cockpits. They went through the entire flight-training curriculum with the Air Force before reporting to their first Marine squadron. A few of these trainees shared a flight line and classroom with future President of the United States George W. Bush, an Air National Guard officer under instruction.

Another Joint use aircraft was the A-7 *Corsair II*. The USAF adopted a version with a more powerful engine that was designated A-7D. When the Navy deployed its first A-7 squadron to Vietnam in 1967, the ranks of pilots included three from the Air Force in order to gain experience and insights flying the *SLUF*. Work with the light attack aircraft and various weapon systems associated with it was central to the exchange tour of Col George Buchner, USAF(Ret). While a student at the Air Force's Aerospace Research Pilots School (ARPS) at Edwards AFB, he was not excited about the prospects for his follow-on assignment when told by a fighter test pilot that he could look forward to "pace and chase and maybe an altimeter test."

Learning that there was a USAF pilot assigned to VX-5 at NWC China Lake, Buchner was happy to discover that this exchange pilot was due to rotate out in two months. A quick call, followed by an interview and some wrangling with the Air Force bureaucracy and he found himself in the office of CAPT Carl "Tex" Birdwell, who had been the first Naval Aviator to attend ARPS. "I will come see you if I think you are having trouble," he recalled Birdwell telling him. "If you think you are having trouble, come see me. Otherwise, I will see you at Happy Hour." With that he was dismissed and turned loose to fly the A-7s and A-4 *Skyhawks* on the ramp.

Buchner worked on a host of projects, making trips to Ling-Temco-Vought in Texas as he helped develop the A-7E tactics manual and in the cockpit of *Corsairs* delivering CBU-24 and CBU-100 *Rockeye* cluster bombs. He performed barometric bombing and executed over the shoulder and under the hood low-level radar navigation deliveries. He also worked on early laser-guided bombs. In 1972 Buchner traveled with Birdwell and two other officers to brief new weapons on board carriers operating in the Tonkin Gulf. "I tried to look like a Navy jock and pretty

The first A-7D Corsair II *built for the Air Force lands at the Ling-Temco-Vought plant in Dallas in 1967. Learning about an aircraft originally produced for the Navy was the objective of many exchange tours by USAF pilots.*

Lt Col Charles "Chan" Floyd, USAF(Ret)

Capt Charles "Chan" Floyd's Air Force blues stand out in a sea of white as members of the VA-95 Green Lizards *assemble on the flight deck of USS* Enterprise *(CVN 65) during a port call in Singapore in 1989.*

much had fun going from carrier to carrier. At one point I was briefing Commander, Task Force 77 RADM "Hutch" Cooper, when he went to sleep. I thought do I tap him on the shoulder with my pointer or keep talking? I chose the latter."

There was one eventful moment with CAPT Birdwell during Buchner's time at China Lake. It involved evaluating a version of the AGM-12 *Bullpup* missile. "I was given a weekend to test [it] because six of them were needed ASAP to take out a Hanoi warehouse full of surface-to-air missiles. This larger electro-optical *Bullpup* could be controlled after launch with an updated controller. That involved swapping out the controllers, which in turn made it necessary to remove and replace the gear handle. Based on time constraints I told the maintenance folks to take some shortcuts.

CAPT Birdwell and I were scheduled as a two-ship Saturday morning. He carried the *Bullpup*, and I was the launch/control aircraft." When the skipper started to taxi his A-7C, the right main gear suddenly folded, prompting him to shut down and make clear the unwelcome outcome that awaited the person responsible, not thinking it was his wingman. "I said, 'Skipper, let's go to your office. I have something to tell you.'"

Many factors draw individuals to exchange duty. For Lt Col Charles "Chan" Floyd, USAF(Ret), it was the prospect of having to transition to the EF-111A *Raven* after flying the F-111D. Having flown with Navy and Marine Corps exchange officers in the 522nd TFS, he knew about the program and applied despite being a relatively junior O-3.

Col Joe Engle, USAF(Ret) did not even know the opportunity existed until a Navy A-6 *Intruder* pilot joined his squadron, and instantly applied. Having flown A-10 *Warthogs* and F-16 *Fighting Falcons* with combat time in *Operation Desert Storm*, Engle had experience in close air support and the use of night vision goggles that the Navy was seeking at the time and was accepted. He ended up with assignment as an instructor with the VFA-106 *Gladiators*, where he relished the opportunity to fly the F/A-18 *Hornet*. "[It] was a dream to fly. It remains the best 'feeling' jet for flying of all the jets I have flown in the military. It had wonderful flight control harmony and the stick had a natural placement and feel to it. The cockpit ergonomics were the best I have ever flown in the military. The jet was rugged like the A-10, and the C model had outstanding avionics for weapons delivery and

Col Jon "Wulf" Engle, USAF(Ret)

Capt Jon "Wulf" Engle, USAF, at sea during a CQ period during his exchange tour with the VFA-106 Gladiators *during 1993–'96. In a career spent flying the A-10* Warthog*, F-16* Fighting Falcon *and U-2, he says "NOTHING compares to flight operations from a carrier."*

employment. It 'fit' nicely around the pilot and everything seemed to be where you wanted it and would naturally reach to access."

CAPT Eric "Popeye" Doyle, USN(Ret), the son of a career USAF pilot, had a familiarity with that service and received firsthand exposure in flight training as one of a select number of Navy flight students assigned to complete primary training at Vance AFB flying the jet-powered T-37, known universally as the *Tweet*. "It was neat to share some history with my dad, who also flew the T-37s during his pilot training. He may have sat in some of those airplanes I flew, they were so old."

His next opportunity came later in his career when, having the prerequisite qualification as a former TOPGUN instructor, he competed for a slot with the 422nd Test and Evaluation Squadron (TES) at Nellis AFB. "Flying the F-22 [*Raptor*] was a once in a lifetime opportunity and to go do that was very special." Despite some people telling him that it would be a diversion that would impact his career, he welcomed the challenge and "knew how important an exchange tour was, and it proved to be important, not just during the time I was there, but after."

It does not take long for exchange pilots to realize differences between the services from procedural and operational standpoints, probably none as stark as Air Force pilots' exposure to the carrier environment. "Landing is just a phase of flight in the USAF. The mission is everything and landing is just a requirement to be able to turn the jet for the next sortie," Floyd recalls. "The mission is just as important in Naval Aviation, but the landing phase is a different aspect when compared to the USAF."

"One difference was the Navy use of flying AoA [angle of attack] in the pattern," remembers Engle of his experiences in VFA-106. "This took some time to get used to since the Air Force flying relied mostly on computed airspeeds for a given weight. This led to the natural understanding of 'POWER FOR ALTITUDE AND PITCH FOR AoA.' It was something that was not standard in my training up to that point, but something I took with me forever and made me a better pilot because of it."

Heading to the boat for the first time was not soon forgotten. "Needless to say, flying the day pattern around the ship was a feast of beautiful ocean colors, the realization of just how small the flight deck is and trying to focus on all the basics that I had learned in FCLPs," Engle remembers. "My first catapult shot was solo of course and looking back at the ship plowing through the water after launch, was a sight that one cannot fully describe." For Buchner, carrier qualification (CQ) came in an A-7 on board USS *Constellation* (CVA 64) in June 1971. "During my traps and cats, I got comfortable with the process and started catching the 1-wire. God came up on the radio and spoke. 'Major, would you mind catching the 3-wire?'"

And it was not just landing aboard a carrier that proved a challenge. Not having been through the preparation and execution of CQ in the Training Command, Air Force exchange pilots were behind the learning curve in understanding the hand signals used on the flight deck and even the process of getting from the ready room to the jet.

Floyd recalls the spotting of his A-6 on the flight deck of USS *Enterprise* (CVN 65) one dark night. "The deck was moving and rolling, and the jet was sliding across the cats. Coming to complete stops was always a tremendous relief. The yellowshirt kept inching us forward until we were on the stenciled '65' and he wanted me to move forward a bit more. I didn't reply and he directed me forward again. I shook my helmet 'NO.' Using his wands he guided me forward a bit more forcefully, another 'NO' followed by more forward lights until I made the ultimate call by shutting an engine down. He chocked us right there and I shut down the other engine. I had parked our A-6 like a hood ornament on the bow of the *Big E*."

The ramp at Nellis AFB provided a dramatic difference in its own right for an aviator accustomed to the limited confines of a carrier flight deck. Not only did the 422nd TES to which Doyle was assigned operate five different aircraft types, Nellis periodically played host to virtually everything in the Air Force inventory, including the mammoth B-52 *Stratofortress*. Regular detachments to Tyndall AFB and time on the Nellis ranges expending live ordnance were memorable opportunities as was the opportunity to fly the F-22 *Raptor*. "Every aircrew is going to have critiques on an aircraft, but the one thing you will never hear a *Raptor* pilot complain about is the engines or the thrust. To have 70,000 pounds of vectored thrust is remarkable," Popeye recalls. "Doing an afterburner takeoff was hanging on to the stabs trying to keep up with the airplane. You could pull 9 *g's* at the end of the runway and go straight up and just have to put the gear up. Things are happening pretty quickly. It is just a very capable platform that was fun to be a part of and in the air-to-air arena there just wasn't a peer out there."

Reflecting on his time with the 422nd, Popeye remembers the importance placed on the history and heritage of the squadron at "First Friday" gatherings in the squadron bar. A great uncle was the first pilot in the squadron killed in action during WW II, which created a special bond during the tour. Explaining carrier operations to his Air Force counterparts drew comments like "you really do that!" The old saying that the "Navy has a thin book of things you are not allowed to do, and the Air Force has a thick book of things you are allowed to do is a mindset that remains true for the most part," Popeye believes.

His three-year tour paid dividends later in his career. While he served as executive officer of the VFA-113 *Stingers* in the U.S. Central Command Area of Responsibility, the Air Force officer running combat plans at the Combined Air Operations Center was someone he knew from the 422. That relationship facilitated the understanding of aircraft carrier capabilities, terminology and requirements. While leading the *Blue Angels*, Popeye's counterpart in the Air Force's *Thunderbirds* was someone he met during his exchange tour, which led to greater collaboration. "It was good to be able to talk to someone who understood the safety, procedures and practices that keep you up at night when you are flying six jets close together, close to the ground in front of thousands of people."

There were advantages to not speaking the same language. While a cadet at the Air Force Academy, Floyd had separated his shoulder and had to write lefthanded for a time. He took to writing in all capital letters, a practice that continued after his injury healed. "Fast forward seven years and I'm on board the *Big E*. For some reason, my laundry kept coming back to me all neatly folded and uniforms nicely starched and pressed while my roommate LT Alf DalFonso's laundry came back in a crumpled ball, just like every other JO on board. This went on for all our work ups and through about the fourth month of cruise. Then my stuff started returning just like his, all crumpled up in the laundry bag. I guess they finally figured out that CAPT Floyd wasn't some USCG O-6 but some rogue USAF O-3." Popeye recalls receiving many inquisitive looks from his fellow Naval Aviators in the months after his exchange tour as he dropped an Air Force term that had become routine.

From the unique camaraderie only found in a ready room of an aircraft carrier at sea to the opportunities to fly diverse types of aircraft, the exchange program has left lasting memories for those who received the opportunity. "For the most part, we're all cut from the same cloth," says Popeye of what he took away from the experience. "We're on one side in the Navy and they're on one side in the Air Force. We don't often get that opportunity to have personal interaction and understand each other." But some do, able to experience both worlds identified by wings of silver and those of gold.

USAF

CAPT Eric "Popeye" Doyle, USN(Ret) relished the opportunity an exchange tour afforded him to fly the F-22 Raptor *with the 422nd Test and Evaluation Squadron at Nellis AFB, Nev.*

National Archives

USAF Capts Ronald "Taco" Johnson and Michael "Omar" Bradley discuss an upcoming hop in an F-14 Tomcat *during their exchange tour at NAS Miramar in 1988.*

SSgt Joshua Jasper, USAF

LCDR Scott Craig (second from left) joins USAF squadronmates after completing 100 combat missions over Afghanistan in the A-10 Thunderbolt II *in 2007. Craig flew from Bagram AB during his exchange tour with the 354th Expeditionary Fighter Squadron.*

MC3 Julia Casper, USN

USAF Thunderbirds *pilot Maj John Gallemore gets a taste of flying with the* Blue Angels *courtesy of LCDR Jim Tomaszeski during a visit to NAF El Centro in 2011.*

IN MARSHAL

Command Changes

CVW-1
CAPT Patrick W. Hourigan
relieved
CAPT Matthew R. Barr
15 December 2021
USS Harry S. Truman *(CVN 75)*

VAW-121
CDR Robert Whitmore
relieved
CDR Neil Fletcher
7 January 2022
NavSta Norfolk

VFA-102
CDR Timothy Charlebois
relieved
CDR Daniel O'Hara
8 March 2022
MCAS Iwakuni, Japan

HSM-41
CDR Eli Owre
relieved
CDR Kenneth Colman
7 April 2022
NAS North Island

VFA-2
CDR Charles Waltman
relieved
CDR Scott Timmester
4 March 2022
NAS Lemoore

VFC-111
CDR Lee Smallwood
relieved
CDR Derek Ashlock
11 February 2022
NAS Key West

VAQ-130
CDR Matthew Voss
relieved
CDR Benjamin Cooper
21 December 2021
NAS Whidbey Island

VFA-87
CDR Robert Kurrle Jr.
relieved
CDR Robert Marrs
4 November 2021
NAS Oceana

VT-7
CDR Greg Enzinger
relieved
CDR Dylan Porter
21 January 2022
NAS Meridian

MC3 Bela Chambers, USN

USS Harry S. Truman *(CVN 75) transits the North Aegean Sea in the* U.S. Sixth Fleet *area of responsibility, 4 Mar '22.* Sixth Fleet *was created in 1950 under the administration of the carrier's namesake.*

CVW-1 **CVN 75**

USS *Harry S. Truman*
CAPT Gavin Duff

CVW-1
CAPT Patrick W. Hourigan

TEAM TARBOX AND TRUMAN MAKING DEPLOYMENTS GREAT AGAIN

Since embarking USS *Harry S. Truman* (CVN 75) on 1 December 2021, *Team Tarbox* has stayed gainfully employed, diving headfirst into the unique challenges of deploying to a dynamic theater that has not hosted a sustained carrier strike group presence in over two decades. During our initial week in the *U.S. Sixth Fleet* area of responsibility (AOR), our squadrons integrated with the Tunisian Air Force (TAF) in *Operation Major Manar* and supported Tunisian Joint terminal attack controller (JTAC) training with the execution of close-air-support missions at the Ben Ghilouf Range. Following the successful completion of this training, *Carrier Strike Group Eight* (CSG-8) pushed east to begin training with NATO partners in the Adriatic and Ionian Seas.

On 15 December, the staff bid CAPT Matthew R. Barr farewell and celebrated CAPT Patrick Hourigan on his fleet-up to command CVW-1. In addition to welcoming new Deputy Commander CAPT Brad Converse, we were excited to have LT Dennis "Filibuster" Burgart join the team in January. With a few gapped billets still to fill, the staff is thrilled to have a slew of temporary additional duty folks join us for deployment. They include LCDRs Daniel "Dutch" Leahey (VFA-34), Branden "Brick" Tanko (VAW-126), MAJ Ansil Hethcox (USA), LT Kyle Bement (CVW-8), LTJGs India June (CVW-8), Alex Dale (USS *John S. McCain* (DDG 56)) and OSC Jeffrey Thompson (USS *Gettysburg* (CG 64)).

The team enjoyed celebrating the New Year in Crete, Greece—the first true port call for an East Coast carrier since the beginning of the COVID-19 pandemic and an unprecedented success for the air wing and strike group. Following the welcome break from action, the air wing quickly planned for *Neptune Strike 22*, a NATO vigilance activity that marked the first time a U.S. aircraft carrier has been placed under tactical command of NATO since the Cold War. From 24 January through 4 February, the squadrons of CVW-1 conducted 246 sorties working with partner nations, including Italy, Greece, Turkey, the Netherlands, Poland, Latvia, Romania, Hungary, North Macedonia and Croatia.

At the time of this writing, the staff and squadrons of *Team Tarbox* are busy preparing for two training detachments (dets) in support of NATO objectives and looking forward to our next port of call. We also look forward to bringing the power of carrier aviation to bear wherever we are needed and advancing U.S. interests in the *Sixth Fleet* AOR until our return home later this year.

VFA-11 RED RIPPERS

by LT Wade "Boogie" Mann, USN

VFA-11 has enjoyed an action-packed beginning to 2022. In December 2021, the *Red Rippers* and CVW-1 departed for a *Sixth Fleet* deployment on board *Truman*. After a sporty Atlantic crossing, the *Rippers* immediately took part in numerous opportunities to integrate with America's Allies. In the first two months of deployment, VFA-11 operated with NATO and non-NATO partners including Morocco, Tunisia, Albania, Italy, Greece and France. Additionally, the squadron participated in the first genuine port call for an aircraft carrier during the COVID era, when *Truman* pulled into Souda Bay, Crete, to ring in the New Year. After a highly successful visit, the squadron is looking forward to more opportunities to advance American interests with our Allied nations.

MC2 Kelsey Trinh, USN

LT Stephen Warren strikes a shooter's familiar pose sending a VFA-11 Red Rippers *F/A-18F* Super Hornet *down the catapult track on board* Truman*, 4 Mar '22.*

The squadron's busy deployment schedule has not gotten in the way of individual *Rippers* advancing through the strike fighter weapons and tactics (SFWT) syllabus. While underway LTs Will "Beef Blaster" Berkey and Thomas "Foghorn Leghorn" Hobgood completed SFWT Level III. Additionally LCDR Han "Pirate" Ma and LTJG Alex "Big Poppy" Hodges became the squadron's newest division leads by completing Level IV. We believe that Big Poppy also earned the distinction of being the Navy's only Level IV complete LTJG.

The *Red Rippers* welcomed several new additions during the past three months. LCDRs T.C. "Brick" Barth and Jon "BG" Weissberg joined just in time for cruise. Shortly after leaving home, VFA-11 conducted a Change of Command at sea with CDR Matt "(p)" Enos relieving CDR John "Puppies" McGee as the new *Ripper* skipper. CDR Greg "Bogey" Valdez joined as the new executive officer (XO). Whether bolstering our allies, keeping our adversaries guessing or running whole countries out of gin, VFA-11 is ready and willing to advance America's interests anytime, anywhere!

Here's to us!

VFA-211 FIGHTING CHECKMATES

by LT Brandon Gilbert, USN

During the past few months, the VFA-211 *Fighting Checkmates* have been busy on board CVN 75, reinforcing NATO relationships in the *Sixth Fleet* AOR.

During November three *Checkmate* JOs completed SFWT Level III training. LTs Cole "Gerbil" VonDerOhe, Austen "Chugz" Richards and Richard "Stroker" Woods were christened with the Strike Fighter Weapons School, Atlantic (SFWSL) seal of approval and became the Navy's newest combat section leads.

The first month of deployment saw the *Fighting Checkmates* flying in new and exciting airspace. After transiting the Atlantic, including two days of blue-water flight operations, the squadron conducted numerous training sorties in the Mediterranean, Ionian and Adriatic Seas, flying missions with several NATO and other partners throughout the region.

In the latter half of December, the *Checkmates* integrated with the Tunisian Armed Forces, flying several training sorties with the TAF that included close-air-support training on their ground ranges working hand-in-hand with their JTACs. The *Checkmates* and other CVW-1 squadrons expended over 10,000 pounds of live ordnance under Tunisian JTAC control on the Ben Ghilouf Range. Additionally VFA-211 conducted dissimilar air combat training (DACT) with Tunisian fighters, honing both the *Checkmates'* and the TAF's 1-v-1 dogfighting skills.

To end 2021, *Truman*, CVW-1 and the *Checkmates* were able to ring in the New Year with a port call in beautiful Souda Bay, Crete. This was the first of its kind event in over two years. After the welcome break, the *Fighting Checkmates* combined forces with the Hellenic Air Force in air-to-air combat exercises, integrating with Greek F-16 *Fighting Falcons* and F-4 *Phantoms*. To culminate the relationship-bonding events, VFA-211's own Stroker, VFA-34's LT Ryan "Slothar" Raffo and two Hellenic F-16s conducted DACT in the vicinity of Crete.

The squadron's schedule is packed for the rest of the deployment as we continue to train and further hone our skills while stationed in the *Sixth Fleet* AOR. As of January, the *Checkmates* have a newly minted SFWT Level IV JO, LT Josh "Big Mac" Macri, to help lead us to victory.

The coming months will be demanding and exciting for the squadron, but we are ready to excel. VFA-211 continuously trains to solidify its place as the fleet's standard of excellence and stands ready to face adversaries from around the world whenever the Navy calls it to duty … NIKEL UP!

MCSN T'ara Tripp, USN

VFA-211 and VFA-81 Super Hornets *in formation with Hellenic Air Force F-4* Phantom IIs *over the Mediterranean Sea during multinational exercises, 4 Jan '22.*

USN

A VFA-34 Blue Blasters *F/A-18E* Super Hornet *conducts a flyby of* Harry S. Truman *as the carrier operates with* U.S. Sixth Fleet*, 22 Jan '22.*

VFA-34 SETS SAIL

As the weather grew colder in Virginia Beach, the VFA-34 *Blue Blasters* packed our bags and boarded *HST* for the 2022 deployment. On 1 December, the ship set sail and deployment officially began. During the next several days, squadron aviators and their 10 F/A-18E *Super Hornets* flew aboard, and *Truman* turned east. After steaming across the Atlantic Ocean, the first land masses the squadron set eyes upon were the shores of Morocco and Spain during a Strait of Gibraltar transit.

The squadron was not idle during the Atlantic transit passage. For the first time in recent memory, an East Coast carrier air wing conducted true blue water operations. The *Blue Blasters* cut our teeth in the middle of the Atlantic Ocean with no viable divert. Relying on the experience gained during the recent Composite Training Unit Exercise (COMPTUEX), the pilots of VFA-34 rocketed off the pointy end of *Truman* thousands of miles from the nearest dry land. The ability to dominate in both the air-to-air and air-to-surface arenas, regardless of proximity to land, is an impressive feat and certainly demonstrated to the world that VFA-34 and the rest of CVW-1 are ready for any challenge, anywhere on the planet.

CSG-8 spent the remainder of December in the Mediterranean Sea conducting unit level training and multinational exercises. The air wing first trained with the Tunisian Armed Forces, conducting air-to-surface strikes on their bombing ranges and simulating air combat maneuvering with Tunisian F-5 *Tiger IIs*. The carrier then continued east for operations in the Ionian and Adriatic Seas, flying training missions with Greek F-16s. For the New Year, *Truman* made the first European port call for an aircraft carrier since the start of the COVID-19 pandemic. While moored in Crete, Greece, the *Blue Blasters* enjoyed time ashore and returned aboard *Truman* energized and ready for a new year and the rest of deployment. The CSG and VFA-34 started 2022 in the Mediterranean and are prepared to go wherever duty calls. As always, the *Blue Blasters* are up to the challenge as we remain committed to our motto of "Have Gun … Will Travel!"

VFA-81 SUNLINERS

by LTJG Haylee Adams, USN

After completing the work-up cycle, the *Sunliners* finally embarked on our 2022 cruise on board *Harry S. Truman* on 1 December. With our CVW-1 teammates alongside and loved ones back home offering their unconditional support, we are ready to defend life, liberty and the pursuit of happiness wherever our nation calls us.

As the *Sunliners* kicked off cruise, we welcomed aboard ENSs Charlie Klein and Brian Goode, both of whom are ready to maintain the excellence of the squadron's world-class maintenance department. The squadron also celebrated the promotions of LCDR John "Sadness" McKay and LTJG Haylee "Dumps On" Adams. In the middle of the excitement over new faces and ranks, we waved goodbye from the flight deck to CDR Mark "Taz" Kennedy as he handed command of the world's finest fighter squadron to CDR Patrick "DIRCA" Durnin. We wish CDR Kennedy the fairest of winds and following seas as he enjoys a well-deserved retirement. With the Change of Command, VFA-81 welcomed CDR Michael "Slayer" Farley as our new XO, and he is excited to continue in the tradition of tactical expertise and professionalism.

Several personal tactical milestones have also been achieved. The *Sunliners* congratulate LT Bryce "Grumbledore" Hill on earning SWFT Level IV qualification, LT Ethan "Mike Honcho" Williams on earning his SWFT Level III qualification and LTs Nicole "Dee-Zaster" Burdett, Tim "FNG" Walsh and Katie "FNG 2" Arbuckle on earning SWFT Level II qualifications.

The *Sunliners* have been working hard at continuing our tactical education, which would not be possible without the diligent efforts of squadron maintainers, who work tirelessly to keep jets in the air. As always, the *Liners* are ready to take the fight to the enemy, ANYTIME, ANYPLACE!

VAQ-137 ROOKS

by LT Sam "Kramer" Lott, USN

The *Rooks* have deployed with CVW-1 on board *Harry S. Truman* operating in the *Sixth Fleet* AOR. Since leaving port in December, the squadron has conducted daily flight operations, honing readiness and sharpening our skills in the primary mission area of airborne electronic attack.

Notably, CSG-8 recently operated under NATO operational control, the first time for a U.S. carrier in decades. The *Rooks* were proud to take part in *Neptune Strike 22*, a long-planned activity that bolstered the ability of NATO allies to cooperate and integrate effectively. From 24 January until 4 February, the *Rooks* flew training flights in support of *Neptune Strike's* primary objective of demonstrating NATO's ability to integrate the high-end maritime strike capabilities of a CSG to support the deterrence of potential adversaries and defense of the NATO alliance.

On the horizon, the squadron has months of cruise remaining. The *Rooks* distinguish ourselves every day through tactical excellence and stand ready to answer the nation's call anywhere in the world as part of the CVW-1 and CSG-8 team, guided by our mission statement: "Win in Combat!"

VAW-126 SEAHAWKS

The VAW-126 *Seahawks* are proudly flying from CVN 75 as the first *Hawkeye* squadron to deploy with aerial refueling (AR) capability. This addition to our aircraft has the obvious benefit of allowing longer time on station, but also brings unique opportunities to overcome challenges while leading the way for AR in the rest of the *Hawkeye* community.

AR has long been a capability of carrier-based jets. However, it is just becoming a reality for turboprop aircraft. The teams in Patuxent River have rigorously tested the newest *Hawkeye*, but despite thousands of tanking evolutions over the shores of Maryland, the shipboard environment presents unique challenges. The *Seahawks* have come face-to-face with and learned from them. Our experience tanking every day at sea is providing invaluable lessons and helping to pave the way for the future tactics, techniques and procedures for the employment of AR within the *Hawkeye* nation.

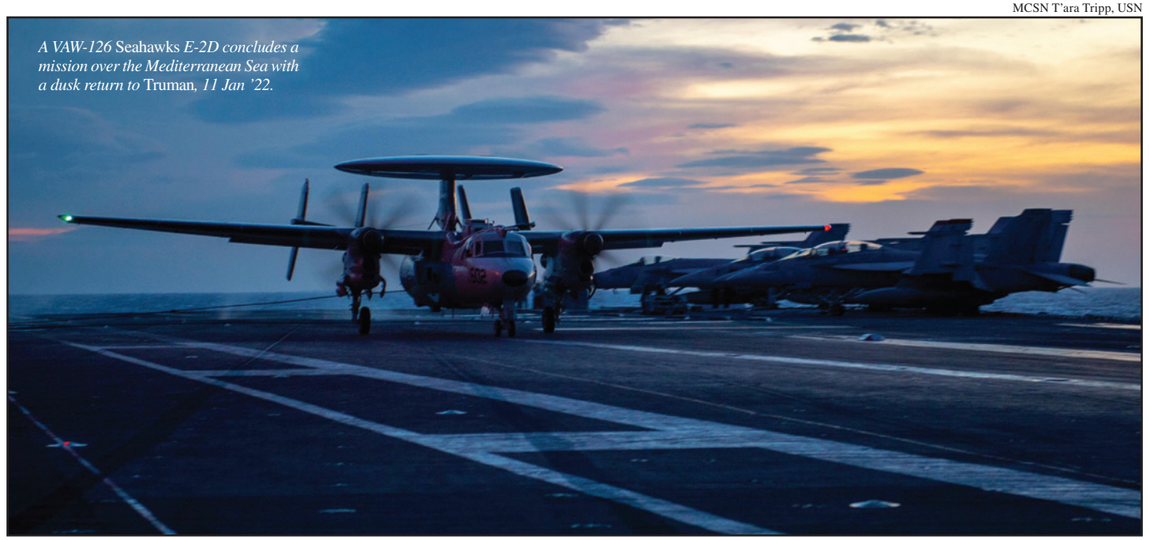
USN

Trailing refueling hoses, a German Air Force A400M tanker pictured with a VFA-81 Sunliners *F/A-18E during a patrol over the North Aegean Sea, 4 Mar '22.*

USN

The Russian invasion of Ukraine prompted enhanced air patrols by CVW-1 aircraft, including this VAQ-137 Rooks *EA-18G* Growler *in flight over the Aegean Sea, 1 Mar '22.*

MCSN T'ara Tripp, USN



A VAW-126 Seahawks *E-2D concludes a mission over the Mediterranean Sea with a dusk return to* Truman*, 11 Jan '22.*

Since crossing into the Mediterranean Sea, we have brought to bear this new capability in force. This deployment marks the first time in seven decades that a carrier has operated under the command of NATO. VAW-126, alongside the rest of CVW-1 and CSG-8, are actively demonstrating their value to *Sixth Fleet* and our Coalition partners. Most recently, the squadron acted as the lynchpin in historic international activities, including *Neptune Strike 22,* working to coordinate the actions of dozens of aircraft from multiple NATO countries.

As the *Seahawks* hone new skills, we are working to become the premiere airborne command and control squadron. The techniques and procedures we are establishing today will undoubtedly assist the carrier aviation enterprise for years to come.

HSC-11 DRAGONSLAYERS

by LTJG Danielle Hughes, USN

The HSC-11 *Dragonslayers* returned from COMPTUEX with the strike group and had the month of November to make final preparations prior to deployment. All hands pushed through training requirements and readied supplies to become qualified and ready for our early December departure with CSG-8 on board *Truman*.

While most of our squadron complement is on board *HST*, HSC-11 provides a det of 65 people on board USNS *Supply* (T-AOE 6) in support of replenishment operations for CSG-8. Thus far, the *Slayers* have flown 580.4 mishap-free hours, performing critical missions including plane guard, vertical replenishment, restricted water transit, surface surveillance coordination, personnel recovery, terrain following (TERF), gun exercises, explosive ordnance disposal support and logistics runs.

In mid-December, HSC-11 received the opportunity to conduct both day and night TERF flights in Northern Tunisia alongside the TAF. The crews involved enjoyed low-level flying through new terrain and building interoperability with foreign forces. The *Dragonslayers* also conducted many missions with HNoMS *Fridtjof Nansen* (F310), one of Norway's four destroyers, which is serving in CSG-8 throughout this deployment.

Over the New Year CVN 75 successfully conducted the first off-pier carrier port call since the beginning of the COVID pandemic at Souda Bay. HSC-11 ran the Senior Shore Patrol and helped ensure this monumental port call was conducted safely with COVID mitigation as the highest priority. All in all, it was a huge success and an enjoyable time for all.

As deployment continues, the *Dragonslayers* continue to train and conduct all missions to *Slayer* standards. Double one, second to none!

Right: *Personnel gather next to an HSM-72* Proud Warriors *MH-60R* Seahawk *during operations with the USMC as part of Fleet Battle Problem 21-3 at NASA's Wallops Island Facility, Dec '21.*

HSM-72 PROUD WARRIORS

The HSM-72 *Proud Warriors* kicked off the first quarter of Fiscal Year 2022 participating in the CSG-8 COMPTUEX on board CVN 75, with dets operating from USS *San Jacinto* (CG 56), USS *Bainbridge* (DDG 96) and USS *Gravely* (DDG 107). COMPUTEX afforded the squadron the ability to fully integrate with CVW-1 and *Destroyer Squadron 28* while flexing its warfare capabilities and refining skills in the primary mission sets of anti-surface, anti-submarine and electronic warfare. In total, the *Proud Warriors* flawlessly conducted 317 sorties encompassing 792 flight hours in what was the final milestone in our work-up cycle prior to deployment.

In December, HSM-72 commenced deployment with combat element (CEL) 3 conducting shore-based operations from NASA's Wallops Island Facility supporting U.S. Fleet Forces Fleet Battle Problem 21-3. Integrating with the USMC's 2nd Marine Expeditionary Force, CEL 3 tested cross-branch interoperability in order to conduct a common mission.

Upon completion, CSG-8 crossed the Atlantic into the *Sixth Fleet* AOR. Operating with four CELs, HSM-72 maintained a 24-hour recognized maritime picture in support of combatant commander tasking while simultaneously promoting freedom of navigation in the global maritime environment.

The heart of HSM-72 continues to be the maintenance team. Their efforts afforded the squadron the ability to conduct 652 mishap-free flight hours in the first two months of deployment, resulting in a 97 percent sortie completion rate in support of operational tasking. Their hard work was recognized with the presentation of the CVW-1 2021 Golden Wrench Award. It recognizes the single unit within the air wing that exhibits exceptional maintenance performance throughout the year.

On the horizon, HSM-72 looks forward to the many challenges presented in a dynamic operational environment as it continues to demonstrate the ability and flexibility to support and execute our commander's intent.

USN

MC2 Haydn Smith, USN

The "tip of the spear" in the Indo-Pacific as CVW-2 and CVW-9 aircraft overfly U.S. carrier strike and amphibious ready groups in formation with Japan Maritime Self-Defense Force ships in the Philippine Sea, 22 Jan '22.

USS *Carl Vinson*
CAPT P. Scott Miller

CVW-2
CAPT Tommy Locke

Following the first successful launch of an aircraft from the flight deck of USS *Langley* (CV 1) on 17 October 1922, the U.S. Navy embarked on a new era of sea power. Constantly evolving through the employment of more advanced aircraft and innovative shipboard systems, the modern U.S. Navy wields the most flexible and lethal aggregate of power projection in the world, the carrier strike group (CSG). As the Navy commemorates the centennial of carrier-based aviation, no other culmination of force represents these capabilities better than CVW-2 as the strike warfare component of CSG-1.

Emerging from a yearlong predeployment training cycle, CVW-2 bore the task of proving the capabilities of two of the Navy's newest carrier-based platforms, the F-35C *Lightning II* and CMV-22B *Osprey*. Both represent the most advanced aircraft of their kind in their respective mission sets. The F-35C is the first fifth-generation platform to deploy as part of a carrier air wing. Through its increased combat radius and cutting-edge onboard systems, the F-35C provides CVW-2 with the ability required to meet the threat of a peer adversary. The recently introduced CMV-22B addresses the requirement for heavier payload delivery, enhanced passenger transport and extended medical evacuation capability. Introducing new assets always uncovers fresh challenges to fully capitalize on new capabilities. CVW-2 accomplished this ahead of schedule through a multitude of international exercises and across multiple areas of responsibility.

With the official date of deployment looming months in the future, the men and women of CVW-2 received their first order. In response to real-world tasking, the air wing, USS *Carl Vinson* (CVN 70) and surface combatants supporting CSG-1 raced to the Hawaii operating area to meet the national demand for presence operations. The compression of the operational timeline, combined with the fact that CSG-1 had yet to complete its Composite Training Unit Exercise (COMPTUEX), meant that deployment was already underway for the Sailors and aviators of CVW-2.

Following a brief in-port period in San Diego, CVW-2 completed the final crucible of the work-up cycle. The previous experience gained from the aforementioned underway, affectionately named SUMMEREX '21, ensured that the air wing already operated at the capacity of a well-seasoned team as it entered the integrated training environment of COMPTUEX. CSG-1 assets, assisted and mentored by the training team of CSG-15, navigated a complex scenario in all dimensions of sea combat through robust air presentations, challenging surface warfare vignettes and inclusion of real-world geopolitical constraints. For the aviators of the air wing, this exercise provided unique training opportunities in the areas of maritime employment and integrated air defense. With the final battle problem of the exercise complete, CSG-1 stood poised and ready to meet the requirements of a dynamic Pacific theater.

Upon entry into the *U.S. Third Fleet* area of responsibility (AOR), CVW-2 aircraft supported Chief of Naval Operations tasking as the strike warfare component during *Large Scale Exercise '21*. This tested the capabilities of naval surface and air assets against a simulated peer competitor. While forward deployed in the *U.S. Seventh Fleet* AOR, CVW-2 played an integral part in strengthening ties with our international partners through multiple iterations of Joint exercises and multiservice operations. In mid-October, CSG-1 engaged in Joint *Exercise Malabar '21* with Australia, India and Japan. During this event Chief of Naval Operations ADM Michael Gilday hosted various dignitaries, including Indian Chief of the Naval Staff ADM Karambir Singh, on board *Vinson*.

Again, combining forces with our Allies in the Pacific theater, CSG-1 participated in a Maritime Partnership Exercise (MPE), further reinforcing a multilateral interest in an open and inclusive Indo-Pacific region. By November, CSG-1 moved on to support operations with the Japan Maritime Self-Defense Force, Japan Air Self-Defense Force and U.S. Air Force through involvement in *ANNUALEX '21*. This exercise served as the first opportunity where ships hosted planning teams from all services and successfully demonstrated the capabilities of international forces in cooperative planning and Joint mission execution. Other noteworthy operations with our Japanese Allies included multiple Joint-carrier exercises with JS *Kaga*, JS *Izumo*, JS *Esei* and their associated strike groups.

After transiting south, CSG-1 engaged with surface forces of the Royal Australian Navy for a bilateral exercise that provided unique training opportunities through the testing of advanced tactics, techniques and procedures. Assisted by a civilian team from the Center for Naval Analyses, the efforts of the CSG/CVW team provided valuable input in furthering the relevance of these dynamic forces in a high-end fight at sea.

Perhaps the most significant demonstration of these capabilities inherent in carrier aviation were many freedom of navigation (FON) operations in the South China Sea. Through several iterations of transit and extended operations in this highly contested sea space, CSG-1 served as the principal challenger of excessive claims and primary champion for freedom of navigation in accordance with international law.

These FON operations often involved multiple carrier strike groups working in concert to provide sustained presence. Leveraging the longstanding partnership with Great Britain, CSG-1 integrated with HMS *Queen Elizabeth* (R08) in a dual carrier transit of the South China Sea. Combining efforts with another nation also employing fifth-generation aircraft and the successful incorporation of these assets on an international level further multiplied the capability of the force.

Bringing South China Sea operations to a close, CSG-1 rallied with its relief element that included USS *Abraham Lincoln* (CVN 72) and CVW-9. Over the course of several days, the combined forces of both CSGs provided nearly round-the-clock operations and readiness while operating in a contested sea space. Upon meeting the requirements of naval leadership and transferring responsibility for *Seventh Fleet* tasking to the *Lincoln Carrier Strike Group*, CSG-1 and CVW-2 began the transit home with countless capabilities verified and unparalleled experienced gained.

Increasing closures of technological gaps between U.S. forces and potential adversaries, combined with further competing interests in the maritime arena, require a capable and adaptable naval force. Through rigorous training and the consummate professionalism of the Sailors and aviators of CVW-2, the air wing remains poised to meet these needs anywhere in the world and at any time. For this reason, *Team Broadsword* remains the Air Wing of the Future!

VFA-2 BOUNTY HUNTERS

The VFA-2 *Bounty Hunters* returned to NAS Lemoore from our 2021–'22 Western Pacific deployment on 14 February, after completing eight months of operational tasking with CVW-2 and CSG-1 on board *Vinson*. Deployment started with an expedited departure in support of tasking in the Hawaii operating area. With only two weeks' notice, the *Bounty Hunter* team embarked all 12 aircraft and 247 personnel, setting sail on 6 June. Shortly thereafter, CSG-1 completed COMPTUEX and officially deployed on 8 August, steaming west into the Pacific.

During the deployment, CSG-1 conducted multiple FON operations in the South China Sea and participated in

USN

The Bounty Hunters *gather in front of VFA-2's colorful CAG bird, whose paint scheme incorporates elements from early aircraft that operated on board USS* Langley *(CV 1).*

several international exercises. Highlights included quad-carrier operations with USS *Ronald Reagan* (CVN 76), HMS *Queen Elizabeth*, JS *Ise* and their strike groups; *Exercise Malabar '21* with the Indian Navy; a trip Down Under for operations with the Australians and one last dual carrier operation with *Abraham Lincoln* in the South China Sea.

The *Bullet* maintenance department continued its exceptional performance maintaining the oldest aircraft in the air wing. From June to February, their outstanding work enabled more than 1,500 sorties totaling 2,655 flight hours, numerous aircrew and maintainer qualifications and the expenditure of 60,329 pounds of conventional ordnance in support of ongoing training evolutions.

But it was not all hard work! Port calls included Yokosuka, Japan, and two visits to Guam, where the squadron enjoyed some welcome rest and relaxation. In October, the *Bounty Hunters* crossed the equator, and 185 squadron pollywogs participated in the time-honored Crossing the Line ceremony, met King Neptune and became trusty shellbacks.

The *Bounty Hunters* welcomed multiple aircrew and ground officers while also saying goodbye to a few more. LTs Joe "Fisheye" Gardetto and Katie "SIS" Waller completed both strike fighter weapons and tactics (SFWT) Level III and forward air controller (airborne) syllabi with the rest of the JOPA hot on their tails. The *Bounty Hunters* remain ready to conduct the nation's tasking with pride as they continue to professionally operate at the tip of the spear. IF YOU'RE NOT HAVING FUN, YOU'RE NOT DOING IT RIGHT!

VFA-192 GOLDEN DRAGONS

The *World-Famous Golden Dragons* spent the fourth quarter of 2021 on a Western Pacific deployment with CVW-2 *Team Broadsword* on board CVN 70. Over the course of deployment, CSG-1 conducted three iterations of FON operations in the South China Sea, supporting the mission to maintain a free and open Indo-Pacific. CSG-1 also carried out flight operations in the Philippine Sea, East China Sea and Indian Ocean. *Dragon* cruise highlights include participation in quad-carrier operations with the *Reagan*, *Queen Elizabeth* and *Ise* strike groups, *Exercise Malabar '21* with the Indian Navy, port visits to Yokosuka, Japan and Guam and an October Crossing the Line ceremony. Six *Golden Dragon* nugget pilots earned their CVN 70 Centurion patches.

VFA-192's maintenance department continued to sustain exceptional performance through by-the-book maintenance, cutting no corners, taking pride in each task and fighting complacency. VFA-192 was recognized for maintaining this standard of excellence with the 2020 Bruce Carrier Award. This honors the squadron exhibiting maintenance program excellence among all West Coast F/A-18E/F squadrons based at NAS Lemoore and MCAS Iwakuni, Japan. The *Dragon* maintenance department also received the FY '21 CVW-2 Golden Wrench, highlighting their sustained superior performance throughout the work-up cycle and on cruise.

MCSA Micheal Mensah

A VFA-192 Golden Dragons *F/A-18E* Super Hornet *returns to USS* Carl Vinson *(CVN 70) operating in the Indian Ocean during the recent deployment embarking the Air Wing of the Future, 17 Dec '21.*

MC2 Haydn Smith, USN

Nose-on view of a VAQ-136 Gauntlets *EA-18G* Growler *over the Bay of Bengal during CVW-2s participation in the multinational exercise* Malabar *'21, 14 Oct '21.*

The *Golden Dragons* bid farewell to a long-standing senior ground officer, LCDR Joe Tullis. Joe departs for a tour at Joint Strike Fighter Wing at NAS Lemoore.

The squadron spent the first quarter of 2022 wrapping up a Western Pacific deployment with CVW-2 *Team Broadsword*. In mid-November, VFA-192 participated in *ANNUALEX*, a 10-day training exercise hosted by the Japan Maritime Self-Defense Force involving the U.S., Japan, Australia, Germany and Canada.

Following *ANNUALEX*, CSG-1 transited to the west coast of Australia for *Advanced Tactics Exercise (ATE) 2021*. Throughout *ATE*, *Dragon* pilots flew test profiles for developmental aircraft carrier departures and arrivals, executed simulated maritime strike missions and integrated with Australian military forces.

Upon completion of *ATE*, the squadron returned to Guam for a welcome holiday port visit. At the start of the New Year, CSG-1 transited to the South China Sea with tasking to escort the *USS Essex (LHD 2) Amphibious Ready Group (Essex* ARG) and the 11th Marine Expeditionary Unit. While operating in these waters, *Dragon* pilots integrated with the *Essex* ARG Marine Air Combat Element, conducting maritime strike training and routine airborne and alert defensive counter air (DCA) missions.

Following its fourth South China Sea transit and return to the Philippine Sea, CSG-1 kicked off dual carrier operations with *Abraham Lincoln*, CVW-9 and CSG-3 through participation in Fleet Battle Problem 2022, a Joint exercise designed to test the integrated strike group's response to high-end naval warfare scenarios. Dual carrier operations culminated with the *Golden Dragons'* fifth and final South China Sea transit of this deployment, during which CVW-2 and CVW-9 conducted 24-hour flight operations with DCA and maritime strike missions. This marked the end of CSG-1's operations in the *Seventh Fleet* AOR and the beginning of the return to home port transit. CVN 70 made a brief stop at Joint Base Pearl Harbor-Hickam prior to terminating deployment at NAS North Island. *Golden Dragon* pilots flew all 10 of their F/A-18Es off and were greeted by families on the NAS Lemoore flight line.

While underway, the squadron welcomed a new Aerospace Maintenance Duty Officer, ENS Nico "The Pebble" Diaz, who joined us in Guam. *Dragon* pilots logged 1,906 sorties, 3,290 flight hours and 1,906 arrested landings over the course of the 2021–'22 Western Pacific deployment. Three *Dragon* junior officers earned SFWT Level III Combat Section Lead qualifications, and two earned SFWT Level II Combat Wingman qualification. As always, the *World-Famous Golden Dragons* stand ready to execute the squadron's mission and operate with professionalism as they transition to sustainment phase and life at home in Lemoore. SSHWFGD!

VAQ-136 GAUNTLETS

The VAQ-136 *Gauntlets* finished out WESTPAC 2021–'22 strong on board *Carl Vinson*. In November, CDR Jason "Coco" Tippett turned over command of VAQ-136 to CDR Nathan "Vili" Barton, and the *Gauntlets* welcomed CDR William "SPIF" Coulter as the new executive officer. Following the Change of Command, the squadron supported operations with naval forces from Australia, Canada, Germany and Japan in the Japanese-led multilateral, multinational *ANNUALEX 2021* in the Philippine Sea.

In mid-January the *Carl Vinson Carrier Strike Group* and *Essex* ARG completed Joint expeditionary strike force training operations in the South China Sea.

CVW-2 then operated alongside the Japan Maritime Self-Defense Force in a fleet battle problem while transiting the Philippine Sea. VAQ-136 ended deployment on a high note, returning to the South China Sea supporting dual carrier operations with *Abraham Lincoln*.

CDR Jared Strout, USN

The pandemic double-pump deployments by USS Dwight D. Eisenhower *(CVN 69) included operations with military forces of partner nations, including the Royal Moroccan Air Force in 2021.*

TWINS! HAPPY 84th BIRTHDAY TEAMS BATTLE AXE and TARBOX

by CAPT Marcos "DB" Jasso, CAG-3

This year the Naval Aviation Enterprise (NAE) commemorates 100 years of U.S. Navy carrier aviation. Additionally on 1 July 2022, the NAE celebrates 84 years since codification of the Air Group Commander (CAG) billet in Navy policy with the establishment of our first two CAGs. Prior to this action, multiple squadrons operating off our earliest carriers were informally referred to as Air Groups. At this time, they simply incorporated the name of their associated carrier in their title (i.e., *Saratoga* Air Group). These squadrons were independent and worked directly for the carrier's commanding officer.

I am a huge fan of our business and did some research to determine which was the oldest carrier air wing (carrier air groups formally designated CVG, but often called CAGs, are now known as carrier air wings (CVW)). This research included reviewing the command histories of our current CVWs, reading several online documents relating to this topic and referencing a couple of aviation books. I'm biased as to which CVW has been around the longest, *Team Battle Axe* or *Team Tarbox*. As we all know, even twins have an older sibling.

I presented my case to the Naval History and Heritage Command (NHHC). Through my research and correspondence with the NHHC, the following historical facts came to light:

Fact One — Our first four carriers were commissioned in the following years: USS *Langley* (CV 1) in 1922, USS *Lexington* (CV 2) and USS *Saratoga* (CV 3) in1927 and USS *Ranger* (CV 4) in 1934. This data is not only important in supporting my case, but also critical in gaining an understanding of the history of the CVW. It was interesting to learn that *Ranger* was the first carrier actually designed and built to be a carrier from its inception. The first three carriers were converted from other ship types to support carrier operations by adding a flight deck and associated equipment.

Fact Two — As mentioned above, the Navy established the first two CVGs in 1938. These newly established commands were officially named the *Saratoga* Air Group and *Ranger* Air Group.

Fact Three — In 1943 Navy policy redesignated the *Saratoga* Air Group as CVG-3 and the *Ranger* Air Group as CVG-4. The numerical designation was reflective of the ship to which the air group was assigned. Another interesting historical detail is that CVW-9 was the first numbered air group in our history when established on 1 March 1942, at NAS Norfolk as CVG-9.

Fact Four—In 1946 the Navy redesignated CVG-3 as CVAG-3 and CVG-4 as CVAG-1. During this period, Navy policy attempted to align air group designations with the changes in our carrier types and missions. The four types included CVBG (battle carrier group), CVAG (attack carrier group), CVLG (light carrier group) and CVEG (escort carrier group). This practice continued for several years after 1946 and ultimately led to where the NAE is today, using the CVW designation for multiple squadrons under one command. I could not find any information on why CVG-4's numerical designation changed from 4 to 1. One of life's mysteries, I guess.

In my effort to get an official ruling that *Team Battle Axe* is the longest standing CVW in the NAE, I sifted through decades of rich history that were fascinating to this novice researcher. I'm compelled to share the most credible website where I spent significant time reading about Naval Aviation. (https://www.history.navy.mil/research/publications/publications-by-subject/naval-aviation-1910-2010.html).

To my disappointment the official ruling from the NHHC was clear and concise. CVW-1 and CVW-3 can both trace their origins back to the same date—1 July 1938—so I'm afraid neither can claim to be the longest operating air wing.

Twins!! So be it. I can accept this ruling. Now having put this controversy to rest, my next research project to be solved … "The chicken and egg" controversy.

"Bomber, You have the Lead Left…"

This is my last *Hook* magazine article as CAG as I prepare to turn over to CAPT Mitchell "Bomber" McCallister. I was blessed to be selected for this prestigious position and honored to be a part of the *Iron Ike/Battle Axe* team for our double-pumped deployments, twice extended, during a pandemic over the last three years. Finally, to those still standing the watch in the fleet, borrowing words from our Air Boss, "We Fly, We Fight, We Win." Keep putting boot to ass for our great nation. Sincerely, CAG, #63 Battle Axe One and informally, part of *Saratoga* Air Group. The *Saratoga* Air Group has been informally standing the watch for 95 years!

Naval History and Heritage Command

The modern CVW-3 traces its origins to the Saratoga *Air Group, pictured here preparing to launch from the carrier just months before the Pearl Harbor attack triggered America's entry into World War II.*

VFA-32 FIGHTING SWORDSMEN

by LTJG Noah "Sr. NIMBUS. PhD" Hotz, USN

The VFA-32 *Fighting Swordsmen*, also known as the *Gypsies*, returned to home station at NAS Oceana in July. We had embarked USS *Dwight D. Eisenhower* (CVN 69) with CSG-2 tasked with supporting U.S. Central Command for operations in the Middle East. Since our return, the *Gypsies* have been in maintenance phase conducting strike fighter weapons and tactics (SFWT) syllabus missions, Joint warfighting exercises with F-22 *Raptors* based at Langley AFB and close-air-support training with Naval Special Warfare Group Two.

The *Gypsies* will continue to conduct training flights in preparation for our next work-up cycle later this year. In February the squadron went on a readiness detachment (det) to St. Louis to participate in an event with Boeing that increased our tactical proficiency. In May the squadron heads to Tyndall AFB to participate in the Naval Weapon Systems Evaluation Program (NWSEP) and *Checkered Flag*, a Joint warfighting exercise with the U.S. Air Force sponsored by Air Combat Command.

Two notable accomplishments this quarter were LT's Dexter "3PEAT" Rowe and Danielle "SHEHADI" Hogland completing SFWT Level IV training and gaining Squadron Mission Commander qualifications.

RAMPAGERS KEEP BUSY

After supporting the withdrawal from Afghanistan during *Operation Final Countdown*, the VFA-83 *Rampagers* are now in maintenance phase, but busier than ever. As the squadron has been flying, maintenance phase feels almost like work ups!

Currently the *Rampagers* are conducting training in the local area and focusing on qualifying SFWT candidates. Most recently, LT Jon "Zika" Riggers completed Level III qualification. Additionally LTs Chris "Senor" Valles and Ross "Dexter" Gamelgaard completed Level IV qualifications. Senor has been selected to attend TOPGUN this summer and then report to Strike Fighter Weapons School, Atlantic.

The squadron's biggest challenge has been finding the balance between flying and performing critical maintenance. It requires constant communication and compromise between the operations and maintenance departments. To make things even more difficult, several of our jets have been loaned to TOPGUN and several more have been turned in to undergo the Service Life Extension Program (SLEP) at Boeing. In return, we have received several "new to us" jets that have just completed SLEP and are returning to the fleet. We're grooming these jets to make sure they're back to operational standards, and we should be back to a full-size roster in no time.

The *Rams* have several exciting dets in the works to wrap up maintenance phase. The squadron will visit the Boeing factory in St. Louis and soon after head to Nellis AFB for two weeks of close-air-support training with USAF A-10 *Warthogs*.

Overall the squadron is enjoying some welcome work-life balance, prioritizing spending time with families while still managing to fly regularly. We even found time to renovate our ready room, which had been neglected over multiple deployments in recent years. We will continue to RAM ON and train to fly, fight and win!

MCSN Kaitlin Watt, USN

A VFA-32 Fighting Swordsmen *F/A-18F launches from* Ike *to support operations in U.S. Central Command during the squadron's most recent deployment. Now in maintenance phase the* Gypsies *are preparing for the next one.*

VFA-105 GUNSLINGERS

The VFA-105 *Gunslingers* have had a busy maintenance phase supporting Strike Fighter Wing Atlantic and its subordinate units. Flying 417 sorties and 562 hours, the squadron completed numerous SFWT flights and participated in multiple large-force employments (LFE) within the air wing alongside Joint assets. As a result, LT Casey "Low-T" Altiser successfully completed SFWT Level IV qualification and LTs Hans "Blowfish" Ofer and Evan "Squints" Goss completed SFWT Level II qualifications.

On 1 December 2021, the *Gunslingers* participated in a combined CVW-3 and CVW-8 LFE designated *Operation Tidewater Shield*. The squadron then participated in a CVW-3 LFE on 11 January 2022, integrating with F-22 *Raptors* of the 27th Fighter Squadron (FS) *Fighting Eagles* from Langley AFB.

Constantly striving to improve aerial combat lethality, the *Gunslingers* coordinated and conducted multiple dissimilar air combat training (DACT) events against various USAF fighter squadrons and aircraft types. On three occasions, VFA-105 integrated with F-22s of the 27th FS for section engaged maneuvering and DACT. On 3 December 2021, VFA-105 conducted DACT against A-10 *Warthogs* of the 104th FS stationed at Warfield Air National Guard Base in Middle River, Md. On 13 and 14 December, the *Gunslingers* organized two air-to-air banner shoots, scoring an impressive 47 hits on the first day and 32 hits on the second.

The squadron bid farewell to LCDRs Brian "BASIL" Jones, Tom "FISTY" Flynn, LTs Aaron "Mathlete" Dougherty and Lee "Monty" Barker this quarter.

With the first quarter of 2022 in the books, the *Gunslingers* are excited to demonstrate why we remain the Navy's preeminent strike fighter squadron. Tonight … We Ride!

VAQ-130 ZAPPERS

by LTJG Jared "Summer" Przelomski, USN

The VAQ-130 *Zappers* continue to conduct currency and training flights throughout maintenance phase. In November 2021, the *Zappers* had the opportunity to integrate with our Air Force counterparts during *Gunfighter Flag* at Mountain Home AFB, Idaho. On 21 December, CDR Matthew "Shakes" Voss relieved CDR Benjamin "Maggie" Cooper during our change-of-command ceremony. We also welcomed CDR Carl "Chex" Ellsworth to the squadron as our new XO.

Upon returning from holiday leave, a small det flew cross-country to NAS Oceana. There, the *Zappers* participated in CVW-3's strike of the quarter and flew with the VFA-32 *Gypsies* and VFA-105 *Gunslingers* in various SFWT syllabus events. In early February, aircrew had the opportunity to attend Warfighter School in Savannah, Ga., hosted by Raytheon, where they learned more about the air-to-air weaponry carried by all the branches of the Department of Defense.

In the near future we look forward to training opportunities with our air wing and Boeing while continuing to conduct syllabus events in Whidbey.

VAW-123 SCREWTOPS

The *World-Famous Screwtops* of VAW-123 at NavSta Norfolk, began the first quarter of FY '22 strong, providing critical airborne command and control (C2) for *Operation Scarlet Dragon*. With every branch of the armed forces participating across four states, this exercise tested the Army's new artificial intelligence (AI) enabled live-fire target identification system, which enables AI to rapidly find, identify and destroy targets. For their efforts, the aircrew who participated have been nominated for the Army Achievement Medal.

During the next several months, the *Screwtops* stayed busy through maintenance phase, controlling over 20 events to aid other East Coast squadrons in upgrading their aircrews. Conducting strikes of the month, the squadron provided world-class airborne C2 for CVW-3, Reserve units and USMC aircraft. Joint events like these allow new aircrew to sharpen their skills in preparation for the next work-up cycle.

In December the *Screwtops* were invited to perform the flyover for the Carolina Panthers vs. Atlanta Falcons football game. This took place over Bank of America Stadium in Charlotte, N.C. A jersey with the number 123 and *Screwtops* name on the back was presented to Commanding Officer CDR Mike Luebkert and the other members of the squadron in attendance at midfield during halftime.

MC3 Jesus Aguiar, USN

With a welcome home from his son upon return to NAS Oceana on 13 Jul '21, LCDR Brian "BASIL" Jones completed his final deployment with the VFA-105 Gunslingers.

USN

CDR Mike Luebkert accepts a special Carolina Panthers jersey on the field at Bank of America Stadium after the VAW-123 Screwtops *thrilled the crowd with a pregame flyover this past December.*

During this quarter, the *Screwtops* conducted more than 217 flight hours, resulting in more than 1,089 hours of aircrew proficiency and training. While supporting flight operations, the squadron maintenance team completed one acceptance inspection, 94 special inspections and 3,433 maintenance actions, culminating in 8,652 man-hours. In November the maintenance team completed a wing removal for a wing center section modification. Lastly, the *Screwtops* had the pleasure to promote two chiefs to the rank of senior chief.

As the New Year begins the *Screwtops* are in an excellent position and ready for an increased operational tempo in Q2! *Fortune Favors the Bold!*

HSM-74 SWAMP FOXES

by LTJG Coby Sartin, USN

During 28–31 October 2021, crews and maintainers from the HSM-74 *Swamp Foxes* supported testing of the AN/WSQ-9 sonar at the Atlantic Undersea Test and Evaluation Center (AUTEC) in Andros Town, Bahamas. This particular system is an active intercept sonar that is retrofitted on a number of U.S. submarines. Flying the advanced MH-60R *Seahawk* helicopter, the HSM community's primary mission is anti-submarine warfare (ASW). Utilizing the AN/AQS-22 dipping sonar, both passive and active sonobuoys and Mk 46/54 lightweight torpedoes, the MH-60R is the ideal platform to localize, track and attack enemy submarines, especially those that might threaten the carrier strike group.

The *Swamp Foxes* returned from back-to-back carrier-based deployments just three months prior. As accomplished between the two deployments, we were able to maintain sustainment phase readiness after our return. This is essential to operating in an extremely dynamic and ever-changing environment.

HSM-74 was set to launch a total of nine exercise torpedoes (EXTORP), simulating the Mk 54 lightweight torpedo. These EXTORPs provide engineers at AUTEC the data they need to further develop the AN/WSQ-9 sonar. At an astonishing rate, the crews successfully launched all nine EXTORPS within a span of 24 hours. This proved to be an extremely impressive feat for the thin maintenance team.

Coming off a recent deployment gave the *Swamp Foxes* a unique advantage. Aside from being at our peak performance levels, the *Swamp Fox* team shared a special bond. We were able to utilize every Sailor to the best of their abilities and feed off of each other's strengths in order to provide mission capable helicopters.

One of the HSM-74 Helicopter Aircraft Commanders, LT Steve Phillips, said it best. "Our success at AN/WSQ-9 testing demonstrates the dynamic capabilities of the HSM community and resiliency of our dedicated maintainers." Flying a total of 50 hours during the evolution, the *Swamp Fox* team effectively advanced ASW capabilities for the NAE and accomplished the mission at hand with focused professionalism.

MC3 Cameron Pinske, USN

HSM-74's back-to-back deployments on board Eisenhower *included a Change of Command with CDR Daniel Murphy receiving the traditional dousing with water following his last flight as squadron skipper, 3 Jun '21.*

MC3 Gray Gibson, USN

An F/A-18F Super Hornet *assigned to the VFA-102* Diamondbacks *taxies across the flight deck of USS* Ronald Reagan *(CVN 76) during operations in the Philippine Sea, 5 Oct '21.*

CVW-5 **CVN 76**

USS *Ronald Reagan*
CAPT Fred Goldhammer

CVW-5
CAPT Michael Sweeney

VFA-102 DIAMONDBACKS

by LT Rob "MAC" Dolan, USN

The *Diamondbacks* marked the end of our historic 2021 combat deployment in October with the safe return of USS *Ronald Reagan* (CVN 76) to NavBase Yokosuka, Japan.

Preparations for the 2022 Indo-Pacific deployment began in February with the *Diamondbacks* welcoming the men and women of Strike Fighter Weapons School, Atlantic to the Far East for the 2022 Strike Fighter Advanced Readiness Program (SFARP). Aircrew at-tended one week of tactical lectures on F/A-18E/F *Super Hornet* weapon systems, employment tactics, techniques and procedures and validation, which was put to the test over a three-week period focused on close-air-support and advanced air-to-air training. SFARP culminates with CVW-5 and *Marine Aircraft Group Twelve* conducting Joint events focused upon fifth-generation integration and capabilities.

March brought the return of CVW-5 to Andersen AFB, Guam, for the predeployment readiness detachment. The focus was air-to-surface training, ordnance expenditure, forward air controller (airborne) generation and large-force employment.

Since the return from deployment, LTs Alex "Todd" Grammer, Erin "LOFT" Overcash and Alexander "BUNG" Walden achieved significant career milestones by successfully earning Level III Combat Section Lead qualifications. Additionally LTs Grammer and Overcash were selected to attend test pilot school in July.

During the turn-around period, the *Diamondbacks* said goodbye to LCDRs Brian "Ms. Sassy Pants" Dietel as he heads off to a department head tour with VFA-103, and Mitchell "TACO" Parmentier, who begins a staff tour with NATO in Norway. Also departing the squadron were LTs Lincoln "C-Bag" Lucas to VT-86, Matthew "MAWi" Pence to VT-9, Patrick "Joey" Sheldon to VFA-122, Andrew "STeW" Chen and Samuel "POPO" Vermilyea to VFA-106 and LTJG Steven "STV" Anderson to *U.S. Sixth Fleet*.

The *Diamondbacks* were pleased to welcome several new additions to the ready room. LCDR Steve "DryRub" Lozano hails from Naval Special Warfare Command, LCDR Vanessa "Sea Bass" Risedorph joins us from the CVW-17 staff, and LT Ryan "Squirt" Shults arrives from TOPGUN. Fresh arrivals to the fleet from the Fleet Replacement Squadron include LTs Ivan Nguyen, Noah Burns and Jeremy Sopoaga.

MC3 Novalee Manzella, USN

USS George H.W. Bush *(CVN 77) underway in the Atlantic, 4 Feb '22.*

CVW-7

by CAPT Thomas "Jethro" Bodine and LCDR Jonathan "Squints" McClellan, USN

"The world is a dangerous place." This statement has been made so many times by so many people that it has lost its impact. And then came 22 February, and the world watched firsthand how one man could make the planet a truly dangerous place for all democracies. Fear not, men and women, all volunteers guard America's grand experiment in democracy. They have chosen a path less followed, one whose hallmarks are shipmate over self, exacting standards and unrelenting fortitude. It is a profession that requires Sailors to leave loved ones far behind in fulfillment of the sworn oath to support and defend the Constitution of the United States of America. This profession's ranks are filled with uncommon individuals like the men and women of CVW-1 and the USS *Harry S. Truman* (CVN 75) *Carrier Strike Group*, who this very day stand the watch, guarding against the violent tide of authoritarianism.

CVW-1's example, executed among the horrors now playing out in Eastern Europe, provides clear focus for *Team Freedom's* Optimized-Fleet Response Plan training. In February, CVW-7 boarded the mighty warship USS *George H.W. Bush* (CVN 77) to complete Tailored Ship's Training Availability, garnering enviable CV NATOPS reps and sets. Prior to the underway period, the CVW-7 strike fighter contingent sent 31 F/A-18E/F *Super Hornets* along with four E-2Ds from the mighty VAW-121 *Bluetails* to NAS Key West in November and December to wrap up their Strike Fighter Advanced Readiness Program (SFARP). Completing their Helicopter Advanced Readiness Program, the HSM-46 *Grandmasters* sent four MH-60R *Seahawks* to the Atlantic Underwater Training Evaluation Center in Andros Island, Bahamas.

High-end aircrew training has become paramount, as adversary threats grow to a level of technology and proficiency heretofore unseen. The training accomplished by squadron advanced readiness programs leverages decades of tactical, technological and intelligence superiority to extend our naval air power advantage into the highly contested here and now. The final warfighting steps that lie just over the horizon are intensive air wing integration at Air Wing Fallon and strike group integration in a Composite Training Unit Exercise.

Throughout, *Team Freedom* will harbor no illusions about which nations are our enemies, nor will we underestimate their capabilities. *Team Freedom* will stand stalwartly prepared to protect the nation's interests amid growing global tension, confident in our ability to Deliver Decisive Combat Victories!

VFA-103 JOLLY ROGERS

by LTJG Caleb Powell, USN

This fall the VFA-103 *Jolly Rogers* began work ups in preparation for a summer deployment. The squadron traveled to NAS Fallon for the air-to-surface SFARP. While there, we expended more than 15,000 pounds of ordnance, including a live-fire exercise of multiple Joint Standoff Weapons and High-speed Anti-Radiation Missiles. Aircrew employed general-purpose, laser and GPS-guided bombs, increasing squadron combat readiness while integrating with Marine units during close-air-support training.

The squadron's increased training afforded the opportunity for several aircrew to receive forward air controller (airborne) qualifications. Congratulations to LTs Andrew "Rhonda" Douglas, Ty "Spacey" Griffin, Jon "Legend" Bressette and Michelle "Turtle" de Vente on a job well done. These Naval Aviators completed the syllabus in conjunction with the detachment and successfully trained for integrating air wing strikes in support of ground forces.

In December the *Jolly Rogers* traveled to NAS Key West to complete the air-to-air portion of SFARP. The integrated air wing training events increased aircrew proficiency and provided invaluable experience to prepare for follow-on work-up events and a future worldwide deployment.

Work ups would not be possible without the tireless effort of the maintenance crew working day and night to prepare the jets. The reliability of our combat systems is crucial to completing our mission, and the failure of one can derail or cancel an entire event. Their efforts in rain or shine, hot or cold ensure that these systems are ready for the rigor that the jets routinely endure.

MCSA Samuel Wagner, USN

The island looms over the VFA-103 Jolly Rogers *F/A-18F* Super Hornet *CAG bird during flight operations on board* Bush*, 15 Feb '22.*

CVW-8 CVN 78

USS *Gerald R. Ford*
CAPT Paul Lanzilotta

CVW-8
CAPT Daryl Trent

FORD IS BACK IN THE FIGHT FOR 2022

by CAPT Paul Lanzilotta, USN

USS *Gerald R. Ford* (CVN 78) completed planned incremental availability (PIA) in February and is back underway in the Atlantic Ocean preparing for our inaugural deployment.

Since September 2021 the crew completed more than 5,900 work packages of depot-level repairs and modernization alteration installations. These included lagging to protect the ship from condensation, the installation of 19,000 square feet of new decking, a remodel for some of our ready rooms and even a complete overhaul of our aft mess decks. Without a doubt, the next time *Team Factory* of CVW-8 or a Fleet Replacement Squadron (FRS) on a training command carrier qualification detachment comes aboard, they are going to be able to see and feel the improvements.

In addition to the ship's force work packages, we also coordinated with Huntington Ingalls Industries and several other contractors to complete some significant system upgrades. We installed a new and improved Consolidated Afloat Networks and Enterprise Services computer system while also upgrading and certifying our Advanced Weapons Elevators. The most visible change of all are the Mk 38 (Mod 3) 25 mm guns mounted on sponsons fore and aft. These weapons are integrated into our ship's self-defense system to enhance our security force, aid navigation and combat identification efforts and benefit our "full bore" and "half bore" force protection teams while at a heightened level of defense.

Ford's teamwork allowed time for required schools, onboard training, crew certification and propulsion and topside test programs. These were a much-needed recharge for the crew before the ship's first tailored training cycle, which began in full force this January with Crew Certification III. The crew's effort and motivation to start actively transitioning from maintenance to operations has been nothing short of impressive.

MC3 Jackson Adkins, USN

Secretary of the Navy Carlos Del Toro and CAPT Paul Lanzilotta, USS Gerald R. Ford's *(CVN 78) commanding officer, during a ship visit in support of the Centennial of U.S. Navy Aircraft Carriers, 10 Mar '22.*

There has also been quite a bit of integration occurring on the deck plates between *Team Factory, Carrier Strike Group Twelve* (CSG-12) and *Team Wolverine* in preparation for the air wing and staff to embark and sail together. Throughout the six-month PIA, *Team Factory* and CSG-12 leaders put in extra effort and made multiple trips to the shipyard to ensure we're able to hit the ground running. Together, we have scoured through hundreds of spaces to ensure a sound operational fit and quality control for each squadron and work center prior to work ups.

As you read this issue of *The Hook*, we have returned to NavSta Norfolk after completing sea trials. Much like the past few years, 2022 is going to be another busy year for the crew of *Ford* and *Team Factory*. In March, we achieved flight-deck certification and carrier air traffic control center certification, followed almost immediately by air wing integration in April. I look forward to showcasing with the Tailhook community what this mighty warship brings to Naval Aviation this summer!

VFA-213 BLACKLIONS

The *World-Famous Fighting Blacklions* continue pressing ahead toward our deployment later this year. Last November VFA-213 participated in *Checkered Flag* at Tyndall AFB. This exercise integrated fourth- and fifth-generation aircraft and focused on aircrew ability to not only work under challenging conditions but to operate confidently and effectively with other platforms in an air-to-air environment. *Checkered Flag* included active-duty Air Force personnel and Reservists along with active-duty Navy personnel. While at Tyndall, the *Blacklions* launched four AIM-9M *Sidewinder* missiles and expended 4,000 rounds of 20 mm against towed targets. It was impressive for our newest aircrew to see our hardware in action.

MC2 Megan Wollam, USN

An F/A-18E Super Hornet *assigned to the VFA-213* Blacklions *on the flight line at NAS Oceana, 20 Oct '21.*

MC3 Jackson Adkins, USN

QMSN Alysia Noyes and QMS2 Landon Sherrill prepare to hoist a broom signifying a clean sweep of Ford's *post Planned Incremental Availability Sea Trials, 28 Feb '22.*

After holiday break, the *Blacklions* were hard at it as work ups for our upcoming deployment entered full swing. Aircrew and maintainers have been diligently preparing for multiple underways on board *Gerald R. Ford* in order to integrate with CVW-8 and CSG-12. Our aircrews have been practicing day and night carrier landings at NALF Fentress while the squadron prepares for operations at sea.

In between preparing for deployment and training exercises, the squadron still had time for some fun. The *Blacklions* were given the prestigious honor of participating in the flyover for the 2021 Army vs. Navy football game, which took place on 11 December and resulted in a 17-13 victory for Navy. The *Blacklions* sent four Naval Academy alumni aircrew to conduct the flyover. The VFA-37 *Ragin' Bulls* and the *Blacklions* put up four F/A-18 *Super Hornets* for the event. Later, all the participating aircrew took the field together. They were ecstatic and very grateful for the opportunity to honor their alma mater with this much anticipated opportunity.

VFA-87 GOLDEN WARRIORS

by LT Daniel "FNG" Burns

After back-to-back deployments on board USS *Theodore Roosevelt* (CVN 71), the *Golden Warriors* returned to NAS Oceana and have seen several changes in the ready room. In November, VFA-87 said farewell to a great skipper, CDR Rob "Gus" Marrs, after an amazing tour. Skipper Marrs was highly respected by his Sailors and led one of the finest squadrons in the Navy. CDR Rob "Indy" Kurrle relieved CDR Marrs as commanding officer, and the *War Party* welcomed new Executive Officer CDR Clifton "Grey Wolf" Lennon.

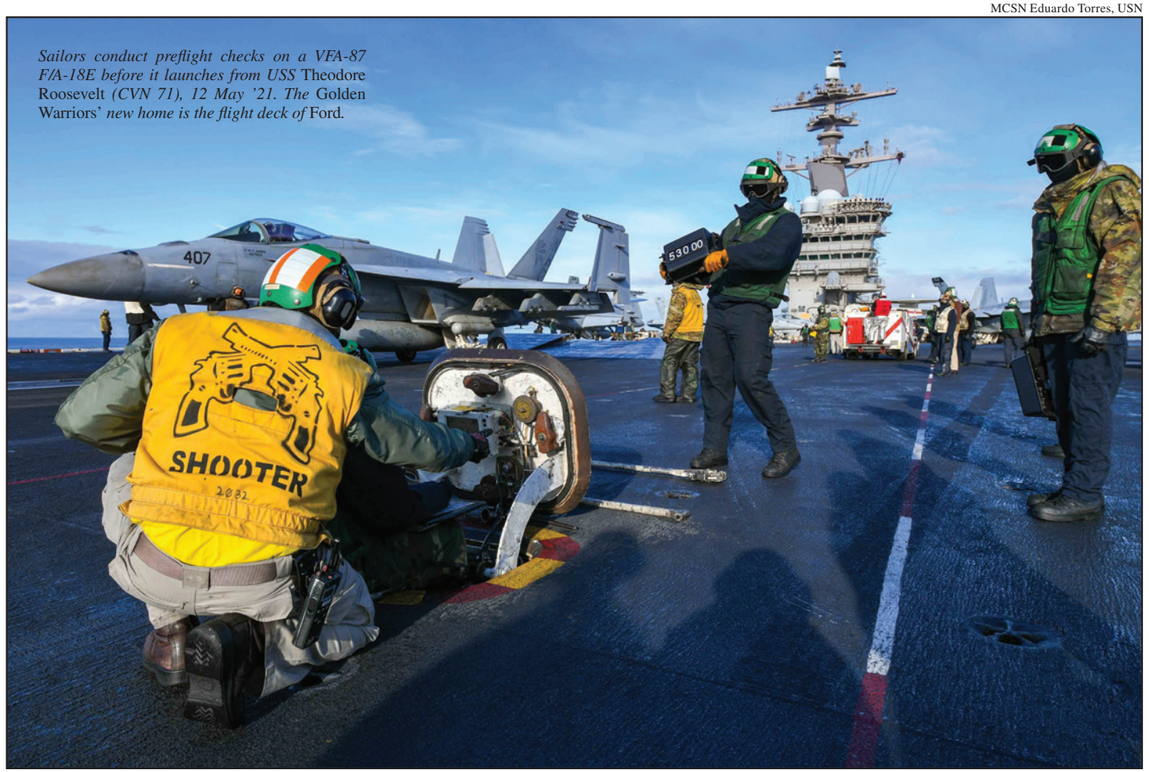
The changes continued as VFA-87 transitioned back to an East Coast air wing in January. With the other squadrons of CVW-8, we will conduct work ups and embark the Navy's newest, most advanced aircraft carrier, *Gerald R. Ford*, for her first deployment. *Ford* will be a showcase of how far Naval Aviation has come in its first 100 years and serve as a symbol of American air power around the world.

Over two deployments, the maintenance department displayed its ability to groom and maintain the finest *Super Hornets* in the Navy. Word spread throughout the VFA community, resulting in frequent requests to borrow *War Party* jets following the squadron's return to home port. The dedication of our maintenance professionals enabled support of the East Coast FRS and TOPGUN at NAS Fallon through multiple aircraft loans.

As the squadron transitioned to maintenance phase, *War Party* aviators continued to hone their skills and tactical prowess. LTs Timothy "Gaston" Myland and Keith "Swamp King" Gordon demonstrated their ability to tactically lead a division of fighters across all mission sets, earning strike fighter weapons and tactics Level IV Combat Division Lead qualifications. LT Matt "Half Deck" Morris qualified as a Level III Combat Section Lead. With the start of work ups in 2022, the *War Party* continues to develop tactically proficient and lethal aviators in preparation for our upcoming deployment.

Throughout the many achievements over the past year, the *Golden Warriors* have prioritized the health and well-being of our Sailors while also ensuring the squadron is prepared to execute combat operations anywhere in the world, day or night.

MCSN Eduardo Torres, USN



Sailors conduct preflight checks on a VFA-87 F/A-18E before it launches from USS Theodore Roosevelt *(CVN 71), 12 May '21. The* Golden Warriors' *new home is the flight deck of* Ford.

USN

CAG-11 CAPT Andrew Mariner, sixth from right, with his staff at NAS Lemoore, 8 Feb '22.

CVW-11 **CVN 71**

USS *Theodore Roosevelt*
CAPT Eric Anduze

CVW-11
CAPT Andrew Mariner

CVW-11 TEAM BARBWIRE

by LT Thomas "Glee" Cullen, USN

In December CVW-11 conducted a Change of Command as CAPT Andrew "Grand" Mariner assumed command of *Team Barbwire*. CVW-11 also welcomed the new commander of *Carrier Strike Group Nine* (CSG-9), RADM Robert Chadwick. As we march into spring, our squadrons are focused on our Fiscal Year 2023 work-up cycle.

BLACK KNIGHTS AND FIST OF THE FLEET

The VFA-154 *Black Knights* are preparing for a spring Change of Command. CDR Timothy "Atoll" Walsh will relieve CDR Aaron "Hot Carl" Carlson. The *Fisties* of VFA-25 are keeping their skills sharp with multiple spring detachments (dets). They participated in a Red Air det at MCAS Miramar with the VFMAT-101 *Sharpshooters* and will also participate in *Red Flag Alaska*.

The two squadrons have been leading the way with CVW-11 "Strikes of the Month," which serve to keep the skills of *Team Barbwire* sharp through maintenance phase. *Barbwire* is excited for the upcoming carrier qualification det in which both squadrons will have the opportunity to practice their carrier recovery procedures while also completing new LSO squadron qualifications.

VAW-115 LIBERTY BELLS

The VAW-115 *Liberty Bells* officially began their transition to the E-2D *Advanced Hawkeye* in January, sending our first group of maintainers to the VAW-120 *Greyhawks*, the E-2 Fleet Replacement Squadron. Through spring and summer, the rest of the squadron will detach to NavSta Norfolk, where they will turn in our four E-2C *Hawkeyes* in exchange for five E-2D aircraft. These aircraft will be receiving the new aerial refueling modifications, which will greatly expand E-2 battlespace management and command and control capabilities for CSG-9.

HSC-8 EIGHTBALLERS

The HSC-8 *Eightballers* conducted a training det to NAF El Centro in March, where they worked on numerous Air Combat Training Continuum events. These included combat search and rescue, aerial gunnery, special operations support and degraded visual environment landing missions. All of these training evolutions are geared toward preparing the squadron for its next deployment.

ENS Drew Verbs, USN

CAPT Michael France conducts his last Hawkeye *flight before retirement in a VAW-115* Liberty Bells *E-2 at NBVC Pt. Mugu, 1 Mar '22.*

USN

Coalition and Joint participants in Resolute Hunter 22-1 *at NAS Fallon, Nov' 21.*

CVW-17 **CVN 68**

USS *Nimitz*
CAPT Craig C. Sicola

CVW-17
CAPT Christopher Hurst

CVW-17 TEAM QUICKSAND

Following a successful out-chop from the *U.S. Fifth* and *Seventh Fleet* areas of responsibility and a long-awaited return to home port, CVW-17 entered readiness sustainment phase, diving headfirst into unit-level training and Air Combat Training Continuum progression for pilots and aircrew.

Maintaining Joint mission execution readiness and lethality, CVW-17 assumed the position of Naval Amphibious Lead Element for the integrated exercise *Pacific Sentry* with the U.S. Air Force's 613th Air Operations Center. As a secondary training audience supporting Fleet Synthetic Training-Joint *Exercise Pacific Thunder*, CVW-17 reintegrated with *Carrier Strike Group Eleven* (CSG-11) warfare commanders, refining cohesion within the strike group prior to the upcoming Optimized-Fleet Response Plan (OFRP) cycle.

Welcoming into the fold the VFA-146 *Blue Diamonds*, the squadrons of CVW-17 detached in February for execution of respective Strike Fighter, Electronic Warfare and Helicopter Advanced Readiness Programs, spearheading the newest air warfare tactics, techniques and procedures while refining mission lethality.

For the first time since a successful return from deployment, *Team Quicksand* once again embarked USS *Nimitz* (CVN 68) for flight-deck certification and carrier qualification operations. Focusing on flight-deck safety and standardization of embarked procedures, CVW-17 enhanced long-range strike capabilities through a thorough familiarization of carrier operations and integration with the *Nimitz* team.

Building the inertia for effective cohesion within CSG-11 as well as with Joint and civilian partners, CVW-17 has begun preparations for a fast-paced, in-depth Tailored Ship's Training Availability and CSG-11 group sail. Encompassing mission sets ranging from long-range strike to personnel recovery, CVW-17 is planning for a high operational tempo during its at-sea period under the mentorship of CSG-15 staff and assessors.

CVW-17 plans to continue OFRP progression through the upcoming dynamic at-sea and ashore comprehensive training periods. The mission effectiveness and enhanced lethality developed over the next few months will ensure the air wing's readiness as we look forward to a critical and unique deployment opportunity.

HSM-73 and RESOLUTE HUNTER 22-1

by LCDRs David "Fishstix" Vasquez and Andrew "BIO" Miller, USN

Detachments from the HSM-73 *Battlecats* and HSM-35 *Magicians* recently participated in the fifth iteration of *Resolute Hunter* (RH) *22-1* at NAS Fallon and NAS North Island. Hosted by the Naval Aviation Warfighting Development Center (NAWDC), the four-week exercise was the largest in the series to date, welcoming for the first time Coalition participation from the Royal Australian Air Force (RAAF) and Royal Air Force (RAF). The pandemic precluded previous RAF and RAAF participation. Additionally, Joint partners from the USAF, USMC, USSF, USCG and units of the Nevada Air and Army National Guards joined the diverse collection of aircraft, crews and intelligence personnel. Spanning three academic and 11 execution days, the purpose was twofold: provide an end-to-end Joint and Coalition Live Fly Exercise designed to enhance battle management (BM), command and control (C2), intelligence, surveillance and reconnaissance (ISR), tactics, techniques and procedures (TTP); and provide a capstone evaluation for Maritime ISR Weapons School (MISRWS) students.

This robust exercise stressed the importance of find, fix and track (F2T). CDR Pete "Two Times" Salvaggio, MISRWS department head, said, "We need a paradigm shift. The Navy needs to focus on the left side of the kill chain because the next conflict will be ISR-led and enabled. We cannot get to target and engage if we're not brilliant at the basics in a contested battlespace."

The first half of *RH 22-1* focused on the Fallon Range Training Complex (FRTC) utilizing overland vulnerability (VUL) windows. Participants were able to execute critical left side kill chain TTPs that allow for mission success in the maritime environment as well as ashore with a Combined Forces Air Component Commander (CFACC) construct. However, in a series of firsts, the introduction of overwater live fly VULs leveraged BM/C2/ISR synergy with the *Abraham Lincoln Carrier Strike Group* (*Lincoln* CSG) against a Great Power Competition-level threat.

HSM-73 and HSM-35's MH-60R *Seahawks* brought essential capabilities to a diverse constellation of BM/C2/ISR assets. Overland Phase 0 and Phase 1 operations included intelligence preparation of the operating environment and focused collection operations utilizing the MH-60R's Multi-spectral Targeting System (MTS) and Electronic Support Measures (ESM) against the FRTC. MTS and ESM provided valuable geographic and electronic intelligence to the MISR Maritime ISR Package Commander, allowing deconstruction and analysis of the operating environment and enabling that supported the commander's decision-making process.

As the overland campaign progressed, fighters and electronic attack aircraft integrated into the exercise to complete the kill chain, combining efforts of *Growler* weapons and tactics (WTI) students and MISR. Following a tactical pause, the campaign transitioned to the maritime domain and shifted from the typical CFACC model to a Combined Forces Maritime Component Commander (CFMCC) model at the San Clemente Island Range Complex (SCIRC) off San Diego. Big-wing ISR platforms operating from Fallon and MH-60Rs from North Island integrated into *Lincoln* CSG's Composite Training Unit Exercise (COMPTUEX) for a series of four VULs. The MH-60R's APS-153 surface search radar was a key enabler in the Joint dynamic targeting cycle and provided essential data for the CVW-9 war-at-sea strikes. Both squadrons provided pilots and aircrew, but students from

the *Seahawk* WTI flew the majority of the sorties. Integrating inorganic ISR assets into the COMPTUEX proved both rewarding and challenging as participating units originated from different locations along the western United States, demonstrating distributed operations in the e-maritime CFMCC environment. For both overland and overwater scenarios, HSM-73 and HSM-35 achieved a 100-percent sortie completion rate.

RH 22-1 highlighted the importance of the left side of the kill chain for future high-end distributed operations and conflicts. It modeled the doctrinal U.S. Indo-Pacific Command structure where the CFACC supported the CFMCC. Future iterations will continue to expand with more assets and partners and evolve as the premier ISR exercise into the 21st century.

CVW-17 AT AIR WING FALLON

Photographer Michael Grove has been a *Hook* contributor for many years and often steps up with topical photos when we really need them. Grove captured this group of aircraft at NAS Fallon on 7 February as CVW-17 prepared for deployment.

Among the adversaries at Fallon was this F-5F Tiger II *assigned to the VFC-13* Saints.

VFA-94 Mighty Shrikes *F/A-18F* Super Hornet.

The tactical camouflage renders this VFA-94 Super Hornet *a little less colorful than the CAG bird.*

VFA-137 Kestrels *F/A-18E* Super Hornet.

USN

A pair of VFA-97 F-35C Lightning IIs *overfly the snow-covered Sierra Nevada Mountains. The* Warhawks *are the second fleet squadron to transition to the Joint Strike Fighter.*

VFA-97 WARHAWKS

by CDR Daniel Kuitu, USN

On 26 February 2021, the VFA-97 *Warhawks* concluded more than 30 years of operating the F/A-18 *Hornet* and F/A-18E *Super Hornet*. Initially flying the A-7A *Corsair II* and assigned to CVW-14, VA-97 departed San Diego on 28 May 1968, for the squadron's maiden deployment to the Western Pacific on board USS *Constellation* (CVA 64). Our legacy comprises more than 50 years of combat missions across three single-seat platforms and allows us to proudly adopt the slogan "Single Seat Since '67."

Spring 2021 marked a profound change for the squadron as we transitioned to our fourth platform, the F-35C *Lightning II*. Despite the challenges of mitigating a pandemic, the *Warhawks* were unwavering in accomplishing the mission. Throughout 2021, the squadron's Sailors trained at Eglin AFB, received on-the-job training from the VFA-125 *Rough Raiders*, completed the Fleet Replacement Squadron syllabus for the six transition pilots and moved into Hangar 6 on board NAS Lemoore.

In February 2022, the *Warhawks* successfully achieved their Safe-for-Flight Certification in the F-35C. This process ensures a squadron is manned with qualified personnel to implement maintenance and safety programs in support of fleet operations. All transitioning squadrons are required to complete the certification prior to independently conducting flight operations. This milestone represents the final step for VFA-97's transition from the *Super Hornet* to the *Lightning II*.

The *Warhawks* take pride in their achievements and look forward to continuing the mission of developing and maintaining combat-ready Sailors, aircraft and pilots to fight and win during sustained combat operations from the sea.

All photos courtesy National Archives

R4D-5 Skytrain *being hoisted aboard USS* Philippine Sea *(CV 47) for* Operation Highjump, *1947.*

BYRD FARM

by Chief Harry Alexander, USN

If ever there were a contrast for a ship's crew, it would be difficult to find one more striking than what greeted us on board USS *Philippine Sea* (CV 47). After spending weeks underway in the warm waters of the Caribbean on our shakedown cruise in September 1946, it came as quite a surprise to receive orders to report to Boston to prepare for a voyage to one of the coldest places on earth.

While we became accustomed to operating F8F *Bearcats*, SB2C *Helldivers* and TBM *Avengers*, aircraft types familiar to many on the flight deck from their service in the war, the news of what type of airplane we would launch in the Antarctic initially left us scratching our heads. Many on board had hitched a ride in a Naval Air Transport Service R4D *Skytrain*, but the prospects of launching a *Gooney Bird* from a carrier was a much different matter.

With a wingspan of 95 feet, space on the flight deck was at a premium as we loaded six of the aircraft. Also reporting aboard to the excitement of the crew was RADM Richard Byrd, a hardy old salt who we enjoyed watching each morning run back and forth the length of the flight deck with his Marine orderly in tow.

Heading south, *Phil Sea* transited the Panama Canal. It was the first time through the big ditch for many of the younger Sailors on board. Their excitement was tempered only by what lay in store as we headed toward the equator and the time-honored Crossing the Line festivities. On the appointed day lowly pollywogs appeared on deck in their undress blue uniforms with everything worn inside out, including turtleneck sweaters in the stifling heat. To great amusement of all but them, they traveled the path of pain and indignity on their way to becoming trusty shellbacks.

A few days later, those in the catwalks, on the flight deck and crowded in Vulture's Row saw their first iceberg—a sure sign that we had left the tropics behind. As more appeared on the water, we called them "growlers" because of the loud sound the ice made as they hit one another.

As temperatures dropped, all on board sensed the excitement brewing as we prepared to make Naval Aviation history. The admiral wanted the crew to have a link to the forthcoming mission and gave permission for Sailors to paint nose art on the transport aircraft. One masterpiece featured a hula dancer wearing a grass skirt dancing beneath a palm tree on an ice floe, the pilot nicknaming the airplane *The Hawaiian Showboat*. Another had a painting of a penguin and the name *Operation Highjump*.

Nearing the launch point on 19 January 1947, 660 miles from the polar ice cap of the Antarctic, a familiar call echoed throughout the passageways of *Phil Sea*— "Flight crews, man your planes." With metal skis affixed to the main landing gear and jet assisted takeoff (JATO) bottles attached to their fuselages, the *Gooney Birds* made ready to launch. A frigid wind whipped across the flight deck as the launch officer waved his flag, signaling CDR William Hawkes at the controls of the lead aircraft to increase power. Sitting in the cabin of the big plane was RADM Byrd. No one knew who decided on the first plane's nickname, *Notre Dame*, but perhaps a bit of divine intervention was in order since an airplane of this size had never before launched from a flattop.

Gooney Birds *crowd the deck of CV 47 during passage through the Panama Canal, 8 Jan '47.*

A reporter captured the scene. "The *Notre Dame* reached full power; its tail lifted into the air and then there burst out huge streams of white JATO smoke that enveloped the ship and catapulted the plane into the air." The scene occurred five more times into the next morning when the final aircraft became just a speck in the sky as it winged its way toward its final destination, the base camp named Little America.

The remainder of the cruise did not hold the excitement of this historic launch, but provided its share of torrid, foggy and frigid weather. Not taken lightly by anyone on board were the 300 icebergs we counted in the ship's vicinity, some as large as city blocks. Believe me, all on board earned our charter memberships in the Order of the Penguin bestowed on those who crossed the Antarctic Circle during *Operation Highjump*. On one of our final days in the area we joined up with other ships of Task Force 68 in the Ross Sea, transferring 100 tons of cargo and 100,000 pieces of mail bound for those on the ice. The carrier took aboard five of six surviving crewmen from a PBM *Mariner* who survived for 13 days after their aircraft crashed into a ridge during a blizzard. It is definitely an unforgiving land!

We returned home after two months at sea, having traveled 19,000 miles, hosted a famous explorer and made aviation history on a cruise to remember.

Postscript: *The author of this fictional In Marshal submission, which might have appeared in* The Hook *if the magazine had been around in 1947, served as a member of the flight deck crew on board USS* Philippine Sea *(CV 47) during* Operation Highjump. *Assigned to a ship in Pearl Harbor on the morning of 7 December 1941, Chief Alexander subsequently participated in seven Pacific engagements, including the Battle of the Coral Sea. He was a Philippine Sea plankowner. CDR William Hawkes, the pilot of Byrd's aircraft, carried another admiral on a landmark flight nearly a decade later. On 31 October 1956, he served as co-pilot of the R4D-5L* Skytrain *named* Que Sera Sera *when it made the first ever landing by an aircraft at the South Pole. On board was RADM George Dufek, who had also participated in* Operation Highjump.

Sailors conduct maintenance on an R4D-5 bound for Antarctica, 8 Jan '47.

One of the R4Ds carried appropriate nose art for the mission.

RESPOT

Letters to the Editor

USS *Hornet* Museum's Exhibit — A Tribute to MIA Plane and Crew

The USS *Hornet* Museum in Alameda, Calif., honored an aircrew that went missing off the coast of Vietnam with a memorial event 56 years to the day of their loss. The museum's volunteer Air Group restored an S-2 *Tracker* as a tribute to the four-man crew of the lost VS-35 aircraft.

During the Vietnam War, USS *Hornet* (CVS 12) conducted anti-submarine warfare operations in Southeast Asia. The carrier's embarked aircraft also assisted in search-and-rescue operations for downed pilots. On 22 January 1966, LTs William Stannard Forman, Erwin Bernard Templin, SN Edmund Henry Frenyea and SA Robert Russell Sennett launched from *Hornet* and never returned.

The restored aircraft is BuNo 136691, which was delivered to the U.S. Navy in 1959 and served until 1982. Sold to a private collector in 1986, it flew at air shows for many years. In 2000, the aircraft was donated to the USS *Hornet* Museum. Air Group volunteers restored this aircraft in the markings of the plane that went missing in 1966. With family members of the missing aircrew in attendance, the aircraft was unveiled to the public in a special presentation with a flag and wreath ceremony by the ship's chaplain.

Russell Moore
Marketing & Outreach Manager
USS *Hornet* Museum

Russell Moore

Relatives and friends of MIA aircrew gather with USS Hornet *Museum volunteers for dedication of the new S-2* Tracker *exhibit.*

Calendar Year 2020–2021 In Review

Complied by LCDR Richard. R. Burgess, USN(Ret) and Tom Kaminski
The following information reflects the official effective dates of actions reported.
Ceremonial dates may differ from the official dates.

Aviation Ships Commissioned
- USS *Tripoli* (LHA 7), 15 July 2020
  (Home port at NAS North Island, Calif.)

Aviation Ships Decommissioned
- USS *Bonhomme Richard* (LHD 6), 15 April 2021

Aviation Units Established
- HSM-50, NavSta Mayport, Fla., 1 October 2021
- VAQ-144 Pre-Establishment Unit, NAS Whidbey Island, Wash, 1 October 2021
- VRM-40, NAS North Island, 28 October 2021
  (The squadron will move to NavSta Norfolk, Va., in 2023.)
- VRM-50, NAS North Island, 1 October 2020
  (ceremony 9 October)
- VUQ-10, NBVC Point Mugu, Calif., 1 October 2021

Aviation Units Activated
- MAG-14 FRD (Fleet Replacement Detachment operated by VMA-223), MCAS Cherry Point, N.C., 29 October 2021
  (assumed AV-8 training from VMAT-203)

Aviation Units Reactivated
- VMA-513, MCAS Beaufort, S.C., 26 June 2020
  (for redesignation to VMFAT-502)

Aviation Units Deactivated
- Fleet Support Unit One, NAS Jacksonville, Fla., 1 April 2020
  (Absorbed by VPU-1)
- VMA-311, MCAS Yuma, Ariz., 15 October 2020
- VMAT-203, MCAS Cherry Point, 29 October 2021
- VMFA-251, MCAS Beaufort, 23 April 2020
- VMM-166, MCAS Miramar, Calif., 1 October 2021

Aviation Units Redesignated
- VMFA(AW)-225 to VMFA-225, MCAS Yuma, 29 January 2021
- VMFA(AW)-242 to VMFA-242, MCAS Iwakuni, Japan, 16 October 2020
- VMA-513 to VMFAT-502, MCAS Beaufort, 26 June 2020
  (see VMA-513 above)
- ***Note:*** *All Carrier Airborne Early Warning Squadrons (VAW) were redesignated Airborne Command & Control Squadrons in 2019. The VAW acronym was retained for the new designation.*

Aviation Units Relocated
- HSM-46, from NavSta Mayport to NAS Jacksonville, 1 April 2021
- HSM-60, from NavSta Mayport to NAS Jacksonville, 1 April 2021
- VPU-2 from MCAS Kaneohe Bay, Hawaii, to NAS Jacksonville, 1 April 2020

WAVEOFFS & BOLTERS

What is It?

by Mark Aldrich

Last quarter's mystery plane was delivered to NAS Anacostia in 1933, but its concept really lay in the closing stages of World War I. Late in the conflict some combatants achieved success with two-seat fighters. Some designs were marginally larger than single-seat planes, could carry more fuel and double as observation aircraft. Postwar designers and military planners were slow to realize that as performance increased, the benefits of the second crewman became a liability. As a result, a whole class of interesting aircraft designs failed to live up to their goals. The Berliner-Joyce XF2J-1 was an example of the breed.

Tailhook

The XF2J-1 fighter at NAS Anacostia on 26 Jun '33, with underwing bombs. Delivered with open cockpits, an enclosed canopy was later added.

The XF2J design drew heavily on Berliner-Joyce's two-seat Y1P-16 but utilized a closely cowled Wright R-1510 radial engine in place of the Army's preferred inline water-cooled Curtiss *Conqueror*. The upper wing was low mounted and gulled into the fuselage, eliminating the usual fuselage struts. Even though the designers made a conscious effort to reduce drag, the prototype exhibited poor visibility and performance lagged behind other fighter types already in service. Rivals for the Navy requirement suffered the same challenges and also failed to reach production. During the interwar years only a pair of two-seat fighter designs reached the fleet: the Curtiss F8C-1 and Grumman FF-1.

Gianni Fiamma of Turin, Italy, was our top spotter this time.

This time we are going to move the mystery calendar up four decades and into the jet age. You must have the correct designation for this otherwise familiar type and will get extra points if you can name the officers whose names appeared under the canopy.

To overcome some mailing difficulties, we are changing the award to a year's membership and a gift surprise from the Ship's Store. Please keep your informative cards, letters and emails coming (Tailhook Association, 9696 Business Park Ave., San Diego, CA 92131-1643; thookmagazine@gmail.com). Please, no phone calls.

What is It?

THE LAST CUT

CAPT Eugene W. Albrecht, USN(Ret), Life
Capt Jerry D. Bible, USMC(Ret), Life
CDR Philip M. Budinger, USN(Ret), Life
CAPT Gene M. Clemens, USN(Ret), Life
CAPT Grant F. Haggquist, USN(Ret), Life
ADM Thomas B. Hayward, USN(Ret), Life
CAPT John Hickey, USN(Ret), Life
CDR James R. Hoffman, USN(Ret), Life
CAPT Ronald J. Johnson, USN(Ret)
LTJG Phillip F. Kelly, USN, Life
LT Paul Malone, USN
CDR Jim R. McClure, USN(Ret), Life
CAPT Malcom McInnis, USN(Ret), Life
AE2 Paul Michelette, USN, Life
Mr. John O. Miller, Life
Mr. John B. Mowell, Life
LCDR Kenneth A. Olsen, USN(Ret), Life
CDR John Olson, USN(Ret), Life
Mr. Thomas M. Pace, Life
LCDR Elton C. Parker III, USN(Ret), Life
CAPT Paul A. Polski, USN(Ret), Life
RDML Tommie F. Rinard, USN(Ret)
CAPT Paul M. Schaller, USN(Ret)
LT Stephen C. Shoemaker, USN
Maj James C. Stokes, USMC(Ret)
CAPT Bob C. Thompson, USN(Ret), Life
CDR Elmer M. Tollgaard, USN(Ret)
Maj John O. Vasilchin, USAF(Ret), Life
CAPT Ralph E. Whitby, USN(Ret), Life
CWO Henry G. Zatarain, USN(Ret), Life

ADVERTISERS, *The Hook* Spring 2022

ON DECK

An Inauspicious Beginning

by Hill Goodspeed

Few aviators have qualified to wear both Naval Aviator wings and those awarded by the U.S. Air Force and its predecessor services. For one of them, qualifying to wear Wings of Gold was not a sure proposition. "This student is of a retiring disposition," wrote LTJG J.W. Byng, "and does not seem to have the self-assurance a Navy pilot should have." It was hardly a ringing endorsement, one made worse with a checking of the box next to "Below Average" on the Aviation Cadet Fitness Report of James H. Howard.

His path to NAS Pensacola began in an unlikely location, but one that foreshadowed his future service. The son of a doctor, he spent the first 14 years of his life in China, while his father headed the eye department at a college there. Returning to the United States, Howard completed high school in St. Louis before enrolling at Pomona College in Claremont, Calif. During his senior year he attended a presentation by a recently graduated Naval Aviator in his service dress blue uniform. He cast aside plans to study medicine and follow in his father's footsteps and enlisted in the Navy. Six months after his June 1937 graduation, having passed Elimination Base training at NRAB Long Beach, Calif., he found himself as a member of Class 109-C at NAS Pensacola.

LTJG Byng's comments reflected difficulties Howard experienced in the air and on the ground. Between 15 August and 17 December 1938, he accumulated 80 demerits, from the minor offense of bedding not properly turned back to the most serious offense of intoxication and conduct unbecoming a cadet. Unlike today's training pipelines, the curriculum in the 1930s exposed flight students to aircraft as diverse as floatplanes, fighters and flying boats. The latter presented a challenge, with Howard recalling in his memoir that he couldn't do anything right in the airplane. Standing in front of a review board to determine his fate, he stated, "The two down checks are not exemplary of my ability to fly." He received the gift of extra flight hours to improve, the news delivered by LT David L. McDonald, a future Chief of Naval Operations.

He passed that stage and entered Squadron Five, single-engine combat planes, where one instructor noted that he was "strong on offense" and "scissors well on defense." His highest flight school grades came in this stage of training, which likely influenced his selection for fighters after receiving his Wings of Gold in January 1939. Eventually, he joined VF-6 flying from the famous USS *Enterprise* (CV 6) during a cruise engaged in fleet exercises around Hawaii. He was also part of the squadron's support of the filming of the movie "Flight Command," which starred future Naval Aviator and fellow Pomona graduate Robert Taylor.

With war clouds on the horizon, an opportunity to get into the fight appeared in 1941, when new VF-6 skipper LCDR Wade McClusky, who later received the Navy Cross for actions at the Battle of Midway, called the pilots together to hear a secret presentation by CDR Rutledge Irving, USN(Ret). A former racing pilot in the Navy, he now worked for the Central Aircraft Manufacturing Company, which with approval from the highest levels of the U.S. government was recruiting pilots and ground personnel to serve in China. "The chance of returning to my boyhood home, while defending the interests of America at the same time, was the opportunity of a lifetime." The salary and potential bonuses paid by CAMCO using funds provided by the Chinese government also far eclipsed his Navy salary. Howard submitted an application and on 12 June 1941, received his release from active duty to join the American Volunteer Group, more famously known as the *Flying Tigers*.

Flying P-40 *Tomahawks* adorned with shark mouths, Howard joined other former Navy, Marine Corps and Army Air Forces (AAF) pilots prowling the skies over Burma and China. He eventually rose to the position of squadron leader and received credit for shooting down six Japanese aircraft. The AVG flew its last combat missions on 4 July 1942, and while a small number of its personnel signed on with the AAF and stayed in theater, most returned to the United States. Receiving an offer from the Navy to return to service, Howard also had the opportunity to accept commission in the AAF. He chose the latter and eventually assumed command of the 356th Fighter Squadron.

On 11 January 1944, he was leading a flight of P-51 *Mustangs* escorting 8th Air Force bombers on a mission over Germany when Luftwaffe aircraft attacked the massed bomber formation. Howard shot down one of the enemy fighters, becoming separated from his squadronmates in the process. When he returned to the altitude of the bombers, he saw 30 enemy aircraft attacking them and unhesitatingly entered the fray, single-handedly shooting down five more enemy aircraft in a pitched battle that lasted a half hour. For his actions, he became the only fighter pilot in the European Theater of Operations to receive the Medal of Honor.

So much for a "retiring disposition" and lack of "self-assurance!"

USAF

Lt Col James Howard, USAAF, in his P-51B Mustang *at RAF Boxted, 25 Apr '44.*

VRC-30 DETACHMENT PATCHES

The VRC-30 *Providers* have conducted hundreds of detachments (dets) to aircraft carriers and shore stations and most had a unique patch. Many of the dozens of colorful examples in our collection are undated. If you have information on any of them, please send us an email to help fill in the blanks.

VRC-30 *Providers*

Det 2, USS *Constellation* (CV 64), 1994–'95

Det 3, *USS Constellation*, 1997

Det 1, details welcomed

Det 1, details welcomed

We Deliver, details welcomed

C-12 *Huron* Det

Unidentified Det, 1993

Det 4, USS *John C. Stennis* (CVN 74), 2011–'12

Det 5, details welcomed

Battle E and Safety Awards, 1998

Det 1, details welcomed

GO BEYOND

F135

ENHANCED ENGINE PACKAGE

COST EFFECTIVE. CAPABLE. LOW RISK.

As the air vehicle evolves, so must the engine. That's why we developed F135 EEP — the only variant-common modernization solution for the F-35 that can enable full Block 4 capability while reducing billions in sustainment costs.

LEARN MORE AT: **PRATTWHITNEY.COM/F135EEP**