

# NOTAM

*Notice to Airmen*

PEARL HARBOR AVIATION MUSEUM • FORD ISLAND, HI

WINTER 2021 | ISSUE #43

**BLUE ANGEL #4 ARRIVES  
AT PEARL HARBOR!**



# EXECUTIVE DIRECTOR'S REPORT



As the new year settles in, the uncertainties of 2020 linger on. The expected slow but steady return of tourism and increased Museum admissions will help us stabilize our operations. While we remain vigilant in our control of expenses, we do plan to build on the learnings gained during our shutdown. Online programming provided tremendous virtual engagement, a connection to Members and friends around the world that we plan to continue. Your support as Members and donors, along with our board members, our staff, and our volunteers, helped us manage through a 97% decrease in Museum admission revenue and a 56% reduction in staff.

Just when we thought we could do no more to counter the impact of COVID-19, the Ray Foundation stepped in, offering to match every donation up to \$500,000, to support our Museum operations during this challenging time! Amazing support, this challenge gift lifted our spirits and helped us remember the power of philanthropy...and you helped us answer the call! We are thrilled to share that the Ray Foundation challenge has been met, doubling your support. December 2020 will be a month we will never forget. Our NOTAM theme this quarter is one of deep gratitude, dedicated to each of you.

Gratitude. There is an old Vietnamese proverb, “When eating fruit, remember the one who planted the tree.”

Such was the impact of our founders, visionaries who realized that “This Place Matters.” These volunteers worked hard to ensure that the hallowed grounds of America’s WWII battlefield here at Pearl Harbor have been preserved and used to educate and inspire all who visit. On January 11th, news of the passing of one of our founders and our Chairman Emeritus, Admiral Ronald Jackson Hays, jolted us back to those early years of determination and focus. Admiral Hays remained steadfast in his commitment to this vision. Though Admiral Hays will be missed, his legacy will live on.

Gary Meyers, whose tribute to Admiral Hays appears in this NOTAM, shared a poignant memory. “I was his horse holder in many different post-military situations and the experiences always made me recall the words of Samuel Johnson: ‘The true measure of a man is how he treats someone who can do him absolutely no good.’ Admiral Hays always treated everyone with the greatest respect whether that person was cleaning his room, was serving him coffee, or was a Head of State. More importantly, when he listened, he always made the speaker feel like the only one in his universe.”

That is what I will remember. When I was a new member of the Pearl Harbor Aviation Museum team back in 2013, Admiral Hays offered his support and guidance, his counsel and his ear. He was a mentor and a friend who wisely observed that one should never assume that their message went unheard, even though those around them appeared to be not listening.

I leave you with inspiring words from former President John Quincy Adams,  
*“Courage and perseverance have a magical talisman, before which difficulties disappear and obstacles vanish into air.”*

Mahalo,

A handwritten signature in black ink that reads "Elissa". The signature is fluid and cursive, written in a professional but personal style.

Elissa Lines

# NICKNAMES, LETTERS, AND NUMBERS FOR U.S. MILITARY AIRCRAFT

By Rod Bengston, Director of Exhibits, Restoration, & Curatorial Services



There is a system of numbering and lettering designations for U.S. military aircraft known as the Mission Design Series (MDS). The MDS was initiated in 1962 by the U.S. Department of Defense to replace the letter-number systems of the U.S. Air Force, Navy, Marine Corps, Army, and Coast Guard.

The system assigns a letter or number for six designations—the aircraft’s status prefix (SP), the modified mission of the aircraft (MM), the basic intended mission of the aircraft (BM), the type of aircraft (VT), the aircraft’s design number (DN), and finally the aircraft’s series letter (SL). Identification of a specific aircraft is presented as a set: SP MM BM VT – DN SL. The hyphen separation is the key to “reading” the designation. Reading from the hyphen to the left (VT BM MM SP), then reading to the right of the hyphen (DN SL) gives you the proper sequence for identifying the aircraft.

## Reading to the left of the hyphen:

**VT (type of aircraft):** this designation is for any aircraft other than an airplane—unmanned aerial system, glider, helicopter, spaceplane, vertical takeoff and landing or lighter than air. If the aircraft is none of these, the space is left blank.

**BM (basic mission of the aircraft):** this identifies sixteen separate types of missions; A = Ground Attack, B = Bomber, C = Transport (Cargo), E = Special Electronics, F = Air Combat Fighter, H = Search & Rescue (Hospital), K = Tanker, L = Laser-equipped, M = Multi-mission, O = Observation, P = Patrol (prior to 1962, P indicated combat pursuit), R = Reconnaissance, S = Anti-submarine, T = Trainer, U = Base Support, and X = Special Research.

**MM (modified mission of the aircraft):** A = Ground Attack, C = Transport (Cargo), D = Drone Detector, E = Special Electronics, F = Fighter, K = Tanker, L = Cold Weather Operations, M = Multi-mission, O = Observation, P = Maritime Patrol, Q = UAV or drone, R = Reconnaissance, S = Anti-submarine, T = Trainer, U = Utility (base support), V = VIP (Presidential Staff Transport), and W = Weather Reconnaissance.

**SP (status prefix):** C = Captive (rockets / missiles incapable of launch), D = Dummy (rockets/missiles used in ground training), G = Permanently Grounded (often for ground training), J = Special Testing (temporarily installed test equipment onboard), N = Special Testing (permanent alteration of original aircraft for

testing), X = Experimental, Y = Prototype, and Z = Planning phase (not actual aircraft).

## Reading to the right of the hyphen:

**DN (designation number of the aircraft):** aircraft are numbered in a strict numerical sequence—F-15, F-16, F-18. There are exceptions. For instance, the X-35 became the F-35, even though it should have been numbered F-24.

**SL (series number):** A = the first model, subsequent letters indicate progressing models. The letters “I” and “O” are avoided since they can be confused with the numbers “1” and “0.” There are also anomalies like the letter “N” which usually indicates Navy (as in F-16N).

Manufacturers often assign aircraft names to carry on a tradition. The F-14 Tomcat, for instance, carries on the distinguished series of historic Grumman fighters reaching back to WWII fabled F4-F Wildcat and F6-F Hellcat fighters.

Block numbers are sometimes added to indicate specific aircraft variations (Block 20, or with a hyphen, B-20A). Finally, a manufacturer’s code letters may be added, indicating the manufacturer’s plant location.

Codes in numbers and letters on an aircraft’s tail stabilizer indicate unit and/or base, year of the aircraft’s manufacture, and the last digits of the aircraft’s serial number.

The Pearl Harbor Aviation Museum collection includes sixteen U.S. F-Series aircraft. Now you know what the “F” designates. Four of those aircraft, the F-14, F-15, F-16 and our latest addition, the Blue Angels F/A-18C are highlighted in this issue of NOTAM. Written by pilots of these legendary fighters, this issue shares their remarkable perspectives, with descriptions ranging from the moment of exhilaration they experienced during their first flight to their assessment of a specific fighter’s contribution to the continuing story of U.S. military air superiority.

In subsequent issues, we will highlight other F-series planes in our collection at the Museum, including the F-111, F-104 and F-105.

## Test yourself:

1. What is the MM and SL designation of a F/A-18A Hornet?
2. Of the following aircraft MDS designations, which aircraft is the later model?
  - a. The F/A-18F Super Hornet Bureau Number 166449, Lot XXVI, Block 57
  - b. The F/A-18A Hornet

# FLYING THE F-14 TOMCAT

By Adm. R.J. "Zap" Zlatoper, USN (Ret)



Pearl Harbor Aviation Museum has a dozen historic U.S. fighter planes on display in its two hangars. Among the most modern are the F-16 Fighting Falcon, the F-15 Eagle, and the F/A-18 Hornet. But only one of our modern fighter aircraft, the F-14 Tomcat, has been the star of a world acclaimed movie...*Top Gun*. While Tom Cruise ostensibly had the leading role, the Tomcat was the real sensation, and after flying it for four years while serving as an air wing commander, I know why.

On three extended deployments to the Indo-Pacific and the Middle East regions, I learned to love and respect the Tomcat while flying it from the deck of two different aircraft carriers. The Grumman F-14 was a supersonic, two-seat, twin-tail, variable swing-wing fighter aircraft, originally built to save the fleet from missile firing swarms of Soviet bombers. With its 90-mile Phoenix anti-air missiles, radar guided Sparrow missiles, and heat seeking Sidewinder missiles, it was a fleet-defense workhorse.

The Radar Intercept Officer in the back cleared the skies out to 150 miles, identifying potential threats before they even knew they had been detected. The RIO also provided an additional

set of eyes in those regular turning air combat maneuvering engagements we executed while training at sea.

Although I spent most of my naval aviation career flying the carrier-based all-weather attack jet, the A-6 Intruder, I always marveled whenever the catapults hurtled my Tomcat down the rails from 0 to 150 knots in 300 feet and the afterburners accelerated the airborne aircraft at a neck wrenching pace.

During its time, the F-14 was among the most capable fighters in the sky. I recall the day when I was able to push a clean Tomcat past Mach 2.2, trying to reach the advertised top speed of Mach 2.4. Tom Cruise wasn't the only one with a "need for speed." With its 2GE-F110 engines feeding the top speed and a rate of climb of around 45,000 ft/min, the F-14 would leave today's current top-of-the-line F-35 in the dust if they were to drag race.

I will never forget those Tomcat flights with the VF-1 Wolfpack, the VF-51 Screaming Eagles, the VF-111 Sundowners, and the VF-102 Diamondbacks. Their legacy lives on in Hangar 79.

## FLYING THE F-15 EAGLE THE EXPERIENCES OF MUSEUM CHAIRMAN CLINT CHURCHILL

By Rod Bengston, Director of Exhibits, Restoration, & Curatorial Services



*Clint Churchill, one of the Museum's co-founders, served thirty years in the Air National Guard, including two years of U.S. Air Force active duty for undergraduate and advanced pilot training. The F-15 on display at our Museum is one of four former Hawaii Air National Guard jets on display inside Hangar 79. Churchill's story provides a personal perspective on this incredible aircraft.*

Churchill flew the F-102A Delta Dagger, F-4C Phantom, and F-15A Eagle. He retired in 1995 as Commander, Hawaii Air National Guard (HIANG). He says he was fortunate to experience three generations of technology improvement, from tubes to silicon. A military pilot ranks his aircraft in many ways, but Churchill sums up his characterization of the F-15 in one word: “lethal.” And clearly his favorite of the three.

Having advanced from the single-seat F-102 to the two-seat F-4, piloting the F-15 was a huge step forward. The F-4 was designed with a weapons system operator in the back seat, which brought about crew communication and other challenges. The F-15 introduced a wide array of “aids to the pilot” for situational awareness, target lock-on, track-while-scan, and weapons employment. A new generation of air-to-air missile, called the AIM-120 AMRAAM, gave the F-15 the edge over its adversaries. In the previous AIM-7 (but still essential) Sparrow missile, the weapons system required the pilot to maintain “lock-on” to the target as the missile “rode the beam” to the target. This required the pilot to fly in a predictable and vulnerable flight path during the employment of the missile. With the AIM-120, at a certain point in missile track, the F-15 pilot could rapidly turn away and thus avoid that vulnerability. With its own tiny radar, the missile would complete the task. For close-in dogfighting, a whole host of “across the circle” radar lock-on options, where quickness is everything, also gave the F-15 pilot another advantage over potential adversaries. Adding to the lethality, the F-15 had a 20 mm Gatling-style gun that was built into the plane, which was capable of firing up to 100 rounds per second—a virtual stream of lead.



Churchill's most challenging moment as an F-15 pilot was during USAF's Red Flag exercise in 1991. These war game exercises are staged in the vicinity of Nellis AFB in Nevada, north of the infamous Area 51 and east of Reno. Designated “Blue Force” attackers and “Red Force” defenders conduct complex air war engagements involving the full array of aircraft types—fighters, bombers, tankers, reconnaissance, rescue, and others. The daily exercises occur over a period of two weeks with, typically, two full-on training battles per day. The HIANG would deploy six or eight fighters to participate, frequently supported by 154th Wing tankers and cargo planes. Churchill participated in three Red Flag exercises and was honored to be the mission commander of a 56-aircraft Blue Force mission comprised of some 125 pilots and crew. As commander, Churchill was responsible for front-end mission planning, a mass briefing, execution of the mission, and back-end evaluation of performance. The main job of the “bad guys,” in their designated aggressor aircraft, was to disrupt the Blue Force plan. At the end of both the morning and afternoon encounters, hours-long debriefings of the air battles were presented on a huge screen for all the assembled pilots and crew to analyze, and to take away lessons learned.

Fighter squadrons long for “dissimilar air combat training,” flying against aircraft types other than their own. Before they were relocated to California in the early 1990s, Marine Corps Base Kaneohe Bay hosted three USMC F-18 squadrons. According to Churchill, a well-flown F-18 was a very capable plane, so the aerial battles were “awesome.” And when Navy aircraft carriers would transit the Pacific, a stop to “fight against the HIANG” was frequently planned. The F-18 was, and is, a very adaptable platform for the Navy—one aircraft type for several missions, resulting in a reduction of inventory for several different mission types and focusing the training of the support crews on one aircraft type.

We hope everyone will have the opportunity to come to the Museum and see both the F-15A, and the fabulous F/A-18C Blue Angel #4, up close and personal and, of course, the other F-series aircraft on display.

# FLYING THE F-16 FALCON

## LEADERSHIP: FORGED BY FIRE AND BLESSED BY FREEDOM

By Brad Ball, Pearl Harbor Aviation Museum Board Member, 475th Foundation President



Gen Gary North – PACAF/CC 2009-2012



F-16 90-0778 aerial victory marking



Lt. Col. North with Crew Chiefs  
SSgt Roy Murray and SrA Steve Ely

It's one thing to read a book or see a film about military personnel who dedicate their lives to protect and defend our freedoms, but to see it through the lenses of those who lived it, gives the reader a front row view of leadership in action. Like a visit to the hallowed ground of Pearl Harbor Aviation Museum, the reader gains an appreciation and greater respect for our military and the generations that have answered our nation's call and continue to selflessly serve.

General Gary North, USAF (Ret.) spent 36 years in uniform, as a Weapons Systems Officer (WSO), Fighter Pilot and Commander, leading units from fighter squadron, a two-time wing and unified air component commander. He ultimately commanded the Pacific Air Forces stationed in Honolulu, responsible for air operations ranging over nearly half the globe. From the F-4 Phantom, F-15 Eagle and primarily in his beloved F-16 (originally built by General Dynamics now Lockheed Martin), Nordo, (his tactical callsign) retired with over 4700 flying hours with 83 combat missions in Operation Desert Storm, Southern Watch, Iraqi Freedom and Enduring Freedom.

Looking back at his 36-year career, North simply said, "What I accomplished in my career is what all our men and women are trained to do and it is the reason our nation's security and strength is so important...if you give our military members the right tools and training to do their mission, they will always surprise you with how good they are and their commitment to their oath of office, to their teammates, and ultimately, to their mission."

As his photo (in uniform) depicts, he is like that jock you knew in high school who lettered in everything except bragging.

Following the defeat of Saddam Hussein in Desert Storm, North, then an F-16 Squadron Commander, deployed his unit to Operation Southern Watch. The UN Security Council's implementation of the

no-fly zone became the focus to protect the Kurds and Shia from extinction by their Sunni leader. In the fall of 1992, Hussein was hell-bent on embarrassing outgoing President George W. Bush by snubbing his nose at the UN no-fly zone and attempting to shoot down American fighter pilots, charged with enforcing the resolution.

These were the thoughts of then Lt. Col. North, Sunday, Dec. 27, 1992, as he and his wingman were in a deadly "cat and mouse game" in the skies



Tail #778 with AMRAAM Aim-120 Missile

## Inspiration from General Gary North's 3+ decades of military service, standing up to aggression and why the best team wins!



*F-16D back at Shaw AFB, SC, post-deployment*

“Those 40 minutes were tactical validating points carried into my future leadership positions. They validated years of training and practice,” he said. “Continuous training, the best equipment provided to our warfighters, unwavering respect for the rules of engagement, trust and confidence in your unit and higher leadership authorities along with the excellence of our maintenance professional and industry partners...they were all in my cockpit and our formation that day...The team got that

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**“Someone was going to die within the next two minutes and it wasn't going to be me or my wingman.”**

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shoot down...I was just the one at the end of the long line that morning.”

North further reflected that his time in both combat operations and senior staff positions shaped his leadership perspective and operations as the Air Forces Central Commander, as a lieutenant general from 2006-2009. “My senior staff and I knew our directives and decisions were life and death delineations. We had to ensure our airmen

and the joint/coalition forces had every tool and guidance they needed to successfully execute their missions and come back home.”

General North's time as the PACAF Commander brought him back to the islands, having served earlier as the director of operations (J-3) of then the Pacific Command. His return drew him back closer to Pearl Harbor Aviation Museum. He supported Pearl Harbor Aviation Museum efforts to receive an F-111 from Australia. Later he helped the Museum receive a F-16 from the USAF.



*Dr. Tseu and General North, USAF (Ret.) at PHAM F-16 dedication ceremony, September 27, 2017*

But it was another patriot and generous supporter of Pearl Harbor Aviation Museum, Dr. Lawrence Tseu, a former USAF F-86 fighter pilot himself, who, in the spirit of aloha for which he is so well known, donated the transportation costs for the F-16 from the mainland to the Museum. Through the exceptional efforts of the Museum restoration staff, the F-16 now wears the livery of the famed 8th Fighter Wing, the “WolfPack.” North's name, once the 8FW/CC himself, is on the canopy frame, a fitting tribute to his leadership in the Pacific and the USAF.

General North, USAF (Ret.) continues to serve, and works with Lockheed Martin Aeronautics and as he says, enjoys “keeping his hand in it.” Drawing on his decades of service “forged by fire and blessed by freedom,” he focuses on the education and necessity of a strong military as a key part of our national strategic efforts to protect and defend our nations freedoms. Like this snapshot look into a slice of time in his career, he reminds others of the power of teamwork and that “none of us are as good as all of us.”



Read more about General North, USAF (Ret.) by scanning the QR code.







## MUSEUM'S BLUE ANGEL F/A-18 ARRIVES

*By Greg Waskul, National Development Director*

The U.S. Navy's Blue Angels F/A-18 Hornet #4 aircraft, carrying its historic blue-and-gold color scheme, arrived at Ford Island in February. It will join three legendary contemporary U.S. fighters—the F-14, F-15 and F-16—in Pearl Harbor Aviation Museum's collection.

The F/A-18 was adapted from Northrop's YF-17 prototype and is produced by prime contractor Boeing. The first jet aircraft designed to be optimized for both air-to-air and air-to-ground missions, the Hornet first flew in 1978 and entered active duty with the U.S. Navy and Marine Corps in 1983. The Marines ordered it as an F-18 fighter and the Navy as an A-18 attack aircraft, hence its designation as F/A-18. Commanders and pilots love that it can switch roles easily and can also be adapted for photoreconnaissance and electronic countermeasure missions.

The F/A-18 is 56 ft. long with a wingspan of 37 ft. 5 in. Powered by twin GE F404 afterburning turbofan engines that each provide 16,000 lbs. of thrust, its top speed is Mach 1.8. It pioneered graphite composite materials in its wings and tail as well as fly-by-wire flight controls.

After replacing the A-4 Skyhawk in the Blue Angels fleet, the F/A-18 made its Blues debut in 1987. The Hornet's straight wing and "all-glass" cockpit provide maximum controllability for Blues maneuvers, just as they do during slow-speed approaches to carriers in naval operations.

"The Blue Angels fly 36 inches apart from each other. That's closer than your feet are to your head," said former Blues lead solo pilot John Foley, who also flew in the movie *Top Gun*. "Imagine looking out of your canopy and seeing an airplane 36 inches from your wingtip!"

As the Blues celebrate 75 years as Navy Ambassadors of Goodwill in 2021, the Super Hornet will carry their colors as the earlier-generation F/A-18s are retired from service after building a tremendous legacy of success.

Now, after flying in myriad precision formations that drew cheers from show audiences across America, Blue Angels Hornet #4 is now proudly displayed at Pearl Harbor Aviation Museum where it will thrill the hundreds of thousands of people who visit the Museum each year. You won't want to miss it!



## FLYING THE F/A-18 HORNET

*By Dean Shults, Board of Directors*

It all started in 1988 when I married my T-2 Buckeye flight instructor in Beeville, Texas. We both got orders to fly A-7s on the West Coast, I to VA-27 and Tammie Jo to VAQ-34. We were living the dream, flying the Navy's premier light attack jet, and the dream was about to get even better. The Corsair II was getting long in the tooth, having entered Navy service during the Vietnam War. It was an awesome jet, but it was headed to the boneyard which meant we were both headed to fly its carrier replacement, the F/A-18 Hornet!

I made the transition with my squadron first and then Tammie Jo followed, putting her in the first Hornet class with females, and history was made. Tammie Jo became one of the first female Hornet drivers, and we became the first Hornet couple.

While we both loved the A-7, the Hornet was all that and a whole lot more. It added afterburners and air-to-air combat, or dog fighting, to the mission. It was a magic jet that replaced the round dial gauges of the A-7 with state of the art computer screens and a stick and throttles bristling with buttons and switches. As Tammie Jo is fond of saying, "It required organizing and taming a thousand details into an economy of mind and motion." I couldn't agree more. On the rare occasions we got to fly a completely slick Hornet, it was absolutely eye watering. With a push on the throttles into full afterburner and a pull on the stick to swing the nose into the vertical, it would, for a moment in time, defy gravity and accelerate towards the moon. There was simply nothing like it in the world.

The only thing better than getting to fly the Hornet was getting to share the experience with the love of my life.



# FIGHTER JET WORDSEARCH

Put your knowledge to the test!

Find 24 fighter jet words and phrases in this fun word search activity.

M 8 8 1 I M 8 9 4 N 8 S I 0 5 1 F  
F 3 F I G H T E R A A F I T E J V  
1 3 9 I 8 1 A F V M I S S I L E O  
9 9 5 V E X T 6 C M J S J L 7 G 0  
7 1 8 I 9 C 2 0 I U V E P F 8 6 T  
R 6 8 P P 8 I U N R Y G N A F Y A  
A 3 1 E J O 1 3 O G C 2 V S E O I  
G 3 5 R 9 H O F S F I 2 V T L S R  
N E U 9 H I T X R 4 8 F 1 O I P F  
A M 4 7 X H A U E 2 R M 4 P X J O  
H M Y P 9 R C A P 8 L O 3 G 1 G R  
P 9 4 R P 5 M 8 U R G M R U O J C  
E F H V X A O Y S O 6 1 F N 2 4 E  
7 2 3 0 7 1 T N A V Y 9 6 N X 1 Y  
P F I G H T I N G F A L C O N F P  
0 T E N R O H R E P U S A H 4 7 I  
6 J 4 6 G 6 1 I C 6 0 7 8 4 8 6 C

F35  
F16  
F4  
TOMCAT  
FIGHTINGFALCON  
JET

GRUMMAN  
NAVY  
F22  
F14  
RHINO  
VIPER

FIGHTER  
AIRFORCE  
HANGAR79  
MISSLE  
F15  
FA18

F18  
TOPGUN  
SUPERHORNET  
FELIX102  
SUPERSONIC  
F86

See page 13 for the key

# OUR 14TH ANNUAL FOR LOVE OF COUNTRY GALA

Guests gathered online to Honor 75 Years of Hope & Heroes at last year's virtual *For Love of Country Gala*



On Saturday, December 5th, 2020, thousands of friends and supporters from all over the country tuned in online and on-air for our first ever virtual For Love of Country Gala. Together, our community raised more than \$250,000 during this event. And, each dollar raised was matched in full by the Ray Foundation!

Viewers had the option to enjoy fine dining provided by Chef Chai, Zingerman's, and Flourish by Chef Holly Peterson with wine provided by Carneros Della Notte of Napa Valley. The evening's entertainment included performances by a number of local entertainers and celebrity tributes by Jon Seda, Treat Williams, and Tony Orlando. Our heroes of distinction, whose

stories we shared throughout the evening included Maj. Richard "Dick" Bong, Col. Jack DeTour, Col. Perry "PJ" Dahl, and Adm. Chester Nimitz.

Thank you for your incredible generosity this year and always. Your support helps protect a WWII American battlefield, allowing us to use the impact of history to inspire and to prepare young people to meet the challenges of the future.

We hope you will join us again this year as we look to brighter days! Call us today at (808) 379-3818 to reserve early bird tickets to this year's event on Saturday, December 4th.

## A very special "thank you" to the following Gold Sponsors:

Mr. and Mrs. Robert Bellas Jr.  
Lt Col Linda & Lt Col Henry P.  
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## LET'S GO TO SAN FRANCISCO!

By: Danielle Bowers, Director of Development



A number of our closest supporters have activated their participation in our 1941 Club-- an exclusive network of friends who are committed to sustaining our history at Pearl Harbor.

We're pleased to announce plans for our Annual Meeting of Platinum Level 1941 Club Members, October 8th- 10th, 2021, pending COVID-19 travel

advisories. This gathering will provide a weekend of aviation entertainment in San Francisco, watching our US Navy Blue Angels soar overhead during Fleet Week. Enjoy the air show from our private event area within the Presidio Park, complete with views of the Golden Gate Bridge. Stay tuned for the full itinerary. A limited number of rooms are reserved at Cow Hollow Inn. \*Call us at (808) 824-3505 to reserve your spot today.

It's not too late to become a Founding Member of the 1941 Club! Enroll before June 1 at [PearlHarborAviationMuseum.org/give-now/join-the-1941-club/](https://PearlHarborAviationMuseum.org/give-now/join-the-1941-club/).

\*Please note, travel and lodging are not included.

## TRIBUTE TO ADM RONALD J. HAYS

*ADM Ronald J. Hays was a beloved military leader who served as Vice Chief of Naval Operations from 1983 to 1985, and as Commander in Chief, United States Pacific Command from 1985 to 1988. He was instrumental in the opening of Pearl Harbor Aviation Museum and served as Board Chairman and Chairman Emeritus for many years. ADM Hays passed away on January 11, 2021. The following are tributes from four special people who represent the countless others whose lives were touched by his example, his kindness and his leadership.*



In such limited space, how do you capture perhaps the finest gentleman I've ever known? Several words come to mind — each preceded by the word “great” — pilot, warrior, leader, patriot, founder, mentor, faithful servant, husband, dad, and friend. His exemplary life made an indelible impact on so many, showing us a whole new meaning of the word integrity.

Ron and Jane settled down in Hawaii after his retirement in 1988. We first crossed paths in the 1990s as members of the Military Affairs Council of the Chamber of Commerce. The MAC would annually take a list of Hawaii's military needs to the Pentagon, Congress, and Hawaii's CODEL; Adm. Hays always brought great credibility to the group seeking Congressional support. On one such trip many years later, Ron would be instrumental in getting Pearl Harbor Aviation Museum launched with an \$8.2 million grant secured through Sen. Daniel K. Inouye.

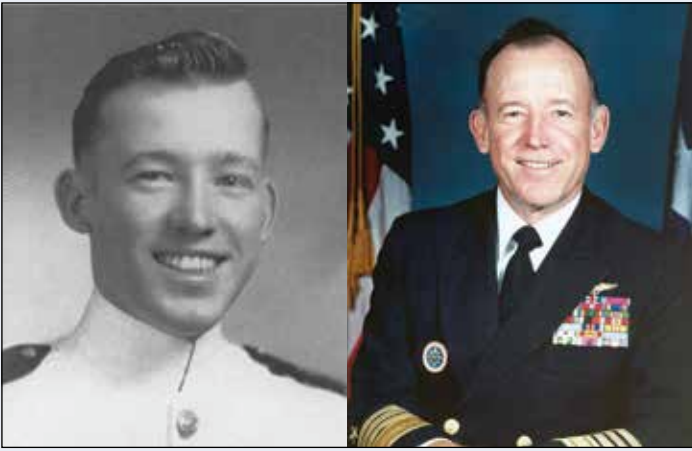
At a 1998 lunch, his compelling “I'm in” as one of four co-founders of the Museum provided the commitment that helped assure successful development. I fondly recall his excitement and impish grin upon achieving fundraising success when calling on many of Honolulu's corporate leaders. His insistence on six words at the beginning of our first mission statement established our overriding purpose: “To educate young and old alike.” He would wax eloquent at our annual galas explaining “why we need an aviation museum at Pearl Harbor.”

Ron served for 13 years as our chairman, only stepping aside in 2013 when health issues so required. His appreciation, pride, and excitement (that grin again!) would overflow every time I would brief him on the Museum's progress in subsequent years. While it may sound trite, it is ever so true that Pearl Harbor Aviation Museum stands as his legacy. The Museum extends its sincere condolences to Jane and the family along with a heartfelt thank you for sharing so much of Ron with us over the years.

**Clint Churchill**

*Pearl Harbor Aviation Museum Board Chairman*

**PearlHarborAviationMuseum.org 12**



*Midshipman Ronald J. Hays, U.S. Naval Academy and ADM Hays.*



*Jim Nabors, Clint Churchill and ADM & Mrs. Hays at Museum Gala.*



*ADM Hays with Museum Board of Directors, 2011.*



*ADM Hays was a legendary A-6 Intruder pilot and tactician.*



*ADM Hays opens National Memory exhibit, 2015.*



*With Donn Parent, Gary Meyers, Mizuki & Fifi Tanaka.*



*With Richard May, Jr. & RADM Dixon Smith, 2011.*



*ADM Hays relaxing in Kunming, China, 2011.*

## TRIBUTE TO ADM RONALD J. HAYS

As I recall, over 30 or more years, I was fortunate to know Admiral Ron Hays as a subordinate, a business associate, a golfing partner, and most importantly, as a friend. There is much about him to admire.

Perhaps my most lasting memory is the almost uncanny way he was able to bring out the best in those people associated with him. I experienced this often throughout our association (although not generally on the golf course where I was lucky to play evens) and several diverse examples come to mind.

As a subordinate staff officer, I witnessed him as the Commander-in-Chief of all armed services in the Pacific and Indian Ocean areas initiate and oversee the planning and conduct of the largest joint and combined military exercise yet held in those areas. He brought planners and operators from all services together and convinced us that we could only realize our full effectiveness by working together (a capability not always evident today). Subsequent to his retirement in Hawaii, he remained very active in community and national affairs, which ranged from “representing CINCPAC” in the Philippines during their celebration of MacArthur’s landing in Luzon, to pulling the Pacific Aerospace Museum out of bankruptcy and overseeing its subsequent merger with our Museum here on Ford Island. He also, along with other community leaders, assumed the lead in bringing the Battleship Missouri to Hawaii and its subsequent operation as one of the four WWII memorials here in Pearl Harbor.

The foregoing are but a few instances that demonstrate the initiative, drive, foresight, and persuasiveness that enabled Ron Hays to assume and lead endeavors throughout the 30 years I worked with him. As a friend and mentor, he cannot be replaced. His accomplishments will be his legacy.

### Donn Parent

*Former Director of the Pacific Aerospace Museum*



One sentence I recently read describes the Ronald J. Hays I knew: “Admiral Hays was a perfect gentleman who always led from the front and always set an example of duty over self.” For a career military officer, there can be no greater compliment.

My relationship with Admiral Hays was essentially as an aide. We worked, traveled, played golf, and attended functions together. We even cut wood together once on his family tree farm in Louisiana (he was indefatigable; I ached for a week!).

His self-effacing manner and unfailing courtesy endeared him to the Japanese. I can say with certainty that he was singularly responsible for laying the foundation upon which our network of bilateral relationships was built. The successful initiatives included:

- Promoting international peace and reconciliation by building a successful friendship bridge linking the Museum with the Unabarakai, a fraternal organization of former Imperial Japanese Navy airmen, thereby proving that yesterday’s worst enemies can indeed become today’s best friends
- Supporting Dr. Hiroya Sugano and the Blackened Canteen Recognition Ceremony, a story and symbol of ultimate humanitarianism in war and peace, receiving increased recognition worldwide

- Preparing and coordinating applications from Shizuoka and Usa, Japan, to the U.S. State Department in connection with their Friendship Blossom Dogwood Initiative, a program commemorating the centennial observance of the gift of cherry trees from Japan to the United States
- Establishing a path and guiding the city officials of Usa, Japan, to achieve “Friendship City” status with Honolulu
- Nurturing business and personal friendships with Japanese businessmen whose generous resources have subsequently enhanced the quality and authenticity of our exhibits

In summary, by rising to the highest rank in the U.S. Navy in command of all U.S. forces in the Pacific, Admiral Hays proved that a talented youngster from a humble home in a tiny Louisiana town can achieve great accomplishments if the will and determination are adequate to the challenge.

**LtCol Gary Meyers**

*USMC (Ret.)*



John Paul Jones, Chester Nimitz, Bull Halsey... past U.S. Navy leaders and heroes all... Admiral Ronald J Hays joined that list when he passed on January 11, 2021. He left us a U.S. Navy legacy of leadership, honor, courage, commitment, and dignity that set standards for all in uniform. After 42 years on active duty, he retired with a documented legacy of valor from 30 combat awards, including three Silver Stars and seven Distinguished Flying Crosses in 162 combat missions, to service at the highest levels of national security.

I first met Admiral Hays, then the Commanding Officer of VA-85, in 1965 when I was a junior pilot in another A-6 squadron. Like hundreds of other officers and Sailors, I benefited from his personal mentorship and leadership for the next three decades. Admiral Ron Hays “did it all“... service on a destroyer, test pilot school, numerous operational flying tours in the A-1 Skyraider, the F-8 Crusader, the A-4 Skyhawk, and the A-6 Intruder.

In addition to assignments in Washington, DC, and the Seventh Fleet staff, he commanded the US Naval Base Roosevelt Roads Puerto Rico and Carrier Group FOUR. Then it was off to Europe as Commander in Chief US Naval Forces Europe, back to DC as Vice Chief of Naval Operations, and ultimately, Commander in Chief US Pacific Command in Hawaii.

In his operational commands, Ron Hays was known among the Naval aviation community for always “leading from the front,” flying the most dangerous missions and setting an example of leadership that was invaluable to we junior officers. He was a combat leader nonpareil (without equal).

As a Flag Officer he was a diplomat, strategic thinker, and statesman. During every portion of his life in uniform he was the perfect gentleman, but still renowned as a hard charging officer who got things done. Soft spoken and possessed of genuine humility, he was an inspiration to my entire Naval aviation generation. He was a true hero, and we all benefited from his service and courage.

**ADM R.J. “Zap” Zlatoper**

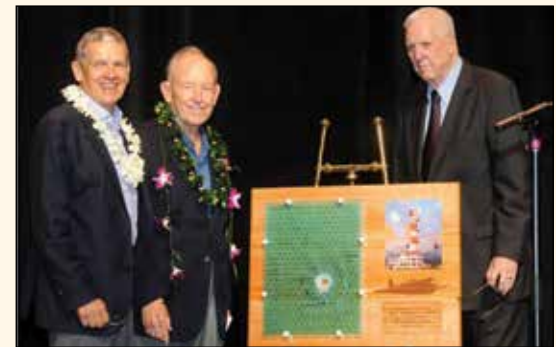
*USN (Ret.)*



*Gary Meyers & ADM Hays with friend, Chengdu, China.*



*American Patriot Honorees Ron Hays & John Henry Felix.*



*ADMs Zlatoper & Hays with David Hartman, 2014.*



*ADM Hays with Si Robin at 2014 Museum Gala.*



*ADM and Mrs. Ronald J. Hays.*

# 2021 VISION OF MUSEUM EDUCATION PROGRAMS

By Monica San Jose, Senior Manager, Education Programs

**“Share the lessons of the past to educate and inspire those destined to lead our future.”**

This mantra from the Museum mission statement defines the focus for the Education Department as we work with our community of teachers, students, and schools.



## TEACHERS

We continued our partnerships with Chaminade University of Honolulu (CUH) and the U.S. Naval Academy’s STEM Outreach Center. We encourage CUH pre-service teachers to use resources they can find in their local community as a context for their instruction. Our Museum provides a model for them to use in their future instructional practice, which, hopefully, will bring them back to our Museum and other local partners for future lessons. This year, we modified our lesson plans to address the teachers’ need for high quality, engaging, and research-based distance learning resources.

To support STEM lesson development, our Museum educators served as mentors to the pre-service teachers, who gained additional support through a workshop hosted by Dr. Angela Moran from the USNA STEM Outreach Center. Facilitators modeled how to effectively modify and present science experiments in a distance learning environment. Combining efforts with these two organizations helped us meet the challenge of moving education programs to the virtual realm.

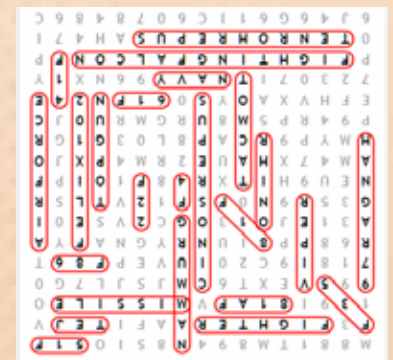


To see an example of one series of STEM lessons, go to <https://newtonthirdlaw2020.weebly.com/> or scan the QR code with your phone’s camera.



For more information, see the CUH blog article on “Experiential Learning in the time of COVID.”

Key for Word Search from page 6







Mary Wenstrom, HTA Director of Innovation and Partnerships, shared this,

*“We are honored to partner with such a special organization that serves not only as a significant tribute to history, but as an authentic space to educate our students and communities.”*

## SCHOOLS AND THE FUTURE OF OUR MUSEUM EDUCATION

The Education department opened Virtual Classroom Visits (VCVs) to classrooms in Hawaii and around the country to host STEM, history, and leadership lessons. One teacher commented,

*“My class absolutely loved this virtual field trip! They learned so much through analyzing different types of planes and their colors. I can’t wait to take my class to the museum! Huge Mahalo!”*

Thanks to grant funding, we can offer our programs at no cost to our local public schools and Title 1 schools from the mainland United States. Teachers are grateful!

*“The educators did a great job of smoothly presenting the information. My students enjoyed the photos and STEM activity. Overall, it was very well done, and having the fee paid for by the Freeman Foundation Scholarship was extremely helpful. Thank you!”*

Check out our website at <https://www.pearlharboraviationmuseum.org/virtual-classroom-visits/> to find out more about these VCVs!

Our plan for Virtual Programs in 2021 is to include a continuation of quarterly webinars and VCVs, as well as an introduction to podcasts and STEM and history videos. Stay tuned for these new programs!

## STUDENTS

The Museum Education Department hosted five students from Hawaii Technology Academy (HTA) as part of their work-based learning (WBL) program. Students were presented with the challenge of keeping the historic museum interesting and relevant, even when people weren’t able to visit due to coronavirus restrictions. HTA students were tasked to build virtual exhibits around aspects of the Museum that interested them. Museum educators guided them as they pitched creative ideas, presented written proposals, and created a website as their virtual exhibit. One intern stated,

*“Having the extra pressure of working with real people and museums is scary, but it also adds a layer of professionalism that you can really only experience by doing it.”*

After a fully virtual semester, students were able to come to the Museum where they, experienced a tour of both hangars, visited the restoration shop, and received one-on-one mentoring with restoration experts.

## IN MEMORIAM: GEORGE ARNOTT JR.



On October 25, 2020, the Museum lost a dear friend and invaluable member of our restoration team – George Arnott Jr.

George’s love for education and serving his community brought him to Pearl Harbor Aviation Museum as a volunteer. His skills as a successful engineer, coupled with his lovable personality, instantly made him the perfect fit for our restoration team. He spent many days in Hangar 79 – restoring planes, meeting World War II pilots, and “talking story” with the guys – but most of all, George loved sharing his excitement for history with our visitors.

The Museum is incredibly grateful to have had his insight, support, and friendship throughout the years. Especially missed will be his easy-going nature and ability to complete the most complicated tasks with precision and humility. The entire Museum staff will miss those days and the man who came to be known as a great volunteer and true friend.

George’s legacy of giving continues through his wife and daughters, who have created a GoFundMe page raising funds for the Museum in his memory. If you would like to make a donation in his honor, please visit <https://www.gofundme.com/f/george-arnott-legacy-fund-for-stem-education>.

To read our full tribute to George Arnott Jr. please visit <https://www.pearlharboraviationmuseum.org/blog/in-memorial-george-arnott-jr/>

# 2020!

INSPIRING THINGS HAPPENED DURING

## 2020 GRATITUDE REPORT

### The Lessons of Our Past Continue to Inspire Our Work

It was March 2020, a year ago this month, when the full impact of the COVID-19 pandemic became clear. It launched a year of change and challenge. In the midst of horrific loss, there is much to be grateful for. We are reminded daily of how interconnected we are; how what we do as individuals and as communities can protect the lives of our loved ones and our neighbors. The lessons of our past truly helped us find our strength, our resilience to overcome.

Thank you! Though each of you faced the challenges of COVID-19 in very personal ways, our museum family was uplifted by your ongoing support and commitment. It is with our deepest gratitude that we report on what you helped us achieve.

As we begin 2021, empowered by your support, we feel ready to face the challenges ahead of us. We will not forget the lessons learned throughout 2020, nor will we forget your support.

Mahalo



Elissa Lines, Executive Director

### THEN:



**STEAM 2020**  
READY FOR TAKEOFF

The first quarter of 2020 included our first ever STEAM Day, a free, public program, made possible because of your support, welcoming more than 1,300 students and families to engage in science, technology, engineering, arts, and mathematics activities.

### NOW:



On March 18, 2020, we closed the Museum, following orders from federal and local officials. While our doors were closed and we were all stuck at home, life shifted online! Pearl Harbor at Home was born, providing Museum activities at home. And, our Monthly Webinar program launched, providing a means to connect “face-to-face” with Museum exhibits, historians, veterans, and leaders. Community participation in these programs has been overwhelming! In November, we reopened to the public, welcoming visitors through our historic hangars five days a week.

# YOU ENSURED OUR WORK CONTINUED

Because of your support, our work continued. Here are a few of the ways we continued our mission to preserve and inspire our community during the past year.

## Commemorating 75 Years since the End of WWII



Over the summer, our community commemorated 75 years since the Instrument of Surrender was signed, ending WWII in the Pacific, in a ceremony that took place on the deck of the USS Missouri. Thousands of you, including 60 WWII veterans, tuned in for the ceremony from home. During these events, 15 WWII warbirds completed 3 historic flyovers of Pearl Harbor and the USS Missouri.

## Pearl Harbor, delivered at Home



In addition to our new weekly newsletters and monthly webinars, our Education team unveiled a new virtual field trip program, Virtual Classroom Visits. These programs engage schools all over the

country in STEM learning, deepening their experience using the leadership and historical resources available through the Museum. Throughout the past year, most of these offerings have been provided free of charge, when they were needed most, thanks to the support of our donors and members.



*"[The digital programs] are a wonderful extension of the Museum's preservation and commemoration effort, and will surely inspire listeners, wherever they are."* —Museum Member

Thanks to you,  
we completed a  
**\$500,000 matching challenge from the Ray Foundation, raising**  
**\$1,000,000**

## For Love of Country

During our virtual For Love of Country Gala on December 5th, we announced a \$500,000 matching challenge from the Ray Foundation. Today, we are pleased to announce that you completed this challenge in full, providing \$1,000,000 in support to protect America's first Aviation Battlefield of World War II. Because of you, we will continue to honor the global peace that arose from the end of conflict, and remember the exemplary men and women of our Greatest Generation, who banded together to ensure their legacy was one of hope. Our deepest gratitude for making this work possible.



Historic Ford Island | 319 Lexington Blvd. | Honolulu, HI 96818

# PEARL HARBOR AVIATION MUSEUM

For more information please visit our website  
[www.PearlHarborAviationMuseum.org](http://www.PearlHarborAviationMuseum.org)

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## Join Today!



Becoming a member of Pearl Harbor Aviation Museum directly supports our mission and efforts. Members get free admission to the Museum and special events, discounts at our Museum Store and Laniākea Café, and much more.

Questions? Ready to join? Contact us by mail, phone, or by email at: 808-379-3818, [Members@PearlHarborAviationMuseum.org](mailto:Members@PearlHarborAviationMuseum.org)

**PEARL HARBOR AVIATION MUSEUM — HONORING OUR PAST AND INSPIRING OUR FUTURE**

Historic Ford Island, 319 Lexington Blvd. Honolulu, Hawaii, 96818  
[www.PearlHarborAviationMuseum.org](http://www.PearlHarborAviationMuseum.org)

