FALL 2022
NUMBER 158

Rotor Review

PAST INFORMS THE PRESENT

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Fall 2022
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About the cover: Early Boeing Fact Sheet with artist's rendition of CH-46E

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Rotor Review supports the goals of the association, provides a forum for discussion and exchange of information on topics of interest to the rotary force and keeps membership informed of NHA activities. As necessary, the President of NHA will provide guidance to the Rotor Review Editorial Board to ensure Rotor Review content continues to support this statement of policy as the Naval Helicopter Association adjusts to the expanding and evolving Rotary Wing and Tilt Rotor Communities.

FOCUS: Past Informs the Present

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GOUGE that Was and Always Will Be WRONG!

By RADM D.H. "Dano" Fillion, USN (Ret.)

Sea Story: As a brand-new Naval Aviator in 1986, during my first week at HS-1 (the H-3 FRS at the time), my classmates and I were at the JAX O'Club, on a Friday afternoon with Ensign Bars and gold wings on our flight suits. Life was good. That night, for the first time, I heard that (1) "Helo Pilots don't have callsigns," (2) "a #2 ticket in the Air Wing is the best a Helo Guy can do," and (3) "a #2 in the Air Wing trumps a #1 in HSL and HC on a board." Truth be told, at that time, I really had no idea what the comments about #1 or #2 tickets meant - and it was Friday at the O'Club!

The aviator who shared the three bullets of gouge to our group of newly winged aviators was a Helo Department Head (DH), so we listened in awe. At the time, he knew what he was talking about, he was not lying to us. Thankfully for a group of legends in our community, men and women who fought back and paved the way, none of the gouge I heard that night remained accurate and all of it was dispelled and changed! PAST INFORMS THE PRESENT!

As an Ensign, I could already dispel the first piece of gouge since my future squadron, VC-8 in Puerto Rico (a composite squadron of A-4s and H-3s), had already contacted me to let me know that if I got a call sign at the FRS, I could not put it on any name tags because I would get a callsign once I got to my new squadron. And low and behold, after arriving at VC-8, I earned the callsign "Dano." Unfortunately, the story behind that is not fit for this esteemed publication, but now that I am retired, if interested, see me at Symposium, it is a surprisingly good story!

As my career in the Navy progressed, I heard more and more bad gouge. Often, it was not some DH, but a very senior Admiral, who despite being a good guy, believed that his gouge was 100% accurate - when it was not. At an NHA Symposium as a Lieutenant, the Airboss was asked when there was going to be a Rotary Wing CAG? The frustrated (in my opinion) Admiral, with a very forceful delivery, stated, "There will never be a Rotary Wing CAG, period!" Admittedly, I am taking you down a road you have traveled before, but it is to stress to all of you young warriors in uniform, and respectfully to our Helo Flags, that we need to still be asking the questions and through sustained superior performance, make it harder for anyone to believe any gouge that limits a Rotary Wing Aviator's potential! The gouge that was wrong during most of my career does not exist anymore. PAST INFORMS THE PRESENT!

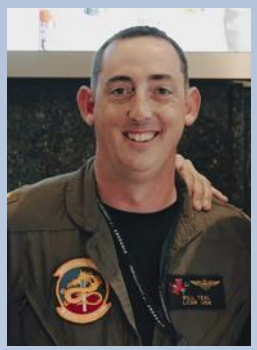
"There will never be a Helo Commodore who makes Flag… there will never be a Helo Pilot who commands a carrier... and there will never be a Helo Pilot who becomes CAG! There will never be a Helo 4-Star… there will never be a Helo VCNO." All statements I've heard. All bad gouge. Why? Because the folks in the Past Informed the Present by doing what every board precept states being the "Best and most fully qualified." Leadership is what qualifies folks, regardless of community, to senior leadership positions!

You have heard me say this while I was in uniform, and now that I am not, one of you reading this will be the Airboss someday; that is GOUGE you should take to the bank! Like so many of these things that were not available to the Rotary Wing Community while I was growing up, I shared the list of things that allegedly would never happen, and we proved them wrong–all those items got put in the shiitake mushroom can!

You - the young aviators, AWs from all rotary platforms, maintainers, and the families who support you - are the ones at this moment who can make a difference. Make it count for your generation today, so in the future you all will be the PAST that INFORMED the PRESENT!

"An arrow flies one way, a thought another. Yet a thought, when it is aimed with care and circumspection, speeds to its target no less directly." From: The Emperor's Handbook, Marcus Aurelius

As always, I am,
V/r and CNJI (Committed Not Just Involved),
Dano



Whiting Field: the Past and the Present

By LCDR Bill "WYLD Bill" Teal, USN

When thinking about how the past informs the present, there is no better place to go then back to the beginning. The beginning where you first strapped on a helicopter, where you first broke free of gravity's bonds and where you hovered for the first time (mostly inside the box). Of course I'm talking about Whiting Field, and for many of us, we wouldn't have gotten to the present without our past in those little orange and white helicopters, the mighty TH-57 Sea Ranger.

The past provides perspective, context and sometimes wisdom (even in Naval Aviators). You have that perspective, some a little more than others, but as an NHA Member you have committed to share that perspective with the next generation. You share that through sea stories at the I-Bar or in the ready room, maybe through an article in Rotor Review, or maybe you have a chance to share it on the back-porch at Whiting Field.

But, as we look to the present and the Fleet Fly-In at Whiting Field, a new orange and white helicopter is ready to mold future Rotory Wing Aviators. The TH-73 Thrashers are starting to fill up the lines on the tarmac, and the first class of students have already started. The future is now, and it comes with different experiences, different procedures, and a different future for those who learn to fly in it. But no matter what platform we fly, our connections to each other, and the past, makes us stronger today and will make us stronger in the future.

So join us for the next NHA event, whether it is the Gulf Coast Fleet Fly-in at Whiting Field or your next regional event. But make sure you find that nugget and impart some of your wisdom, or at least a good bar recommendation for their next cross country event.

Keep your turns up,
WYLD Bill

Rotary Force / NHA HIT Check Improving

By CAPT Jim Gillcrist, USN (Ret.)

As an MH-60 Romeo or Sierra Pilot, performing daily HIT Checks on the first flight of the day is standard operating procedure, serves as an indicator of engine performance, and establishes a baseline against which future engine performance can be measured. Similarly, NHA Staff Members routinely perform organizational HIT Checks at helicopter community events (by seeking feedback from JOs / Aircrew) to assess our value proposition. My takeaway is that the health of the Rotary Force and NHA is trending in the right direction. Here are a few data points:

- Post COVID, regions are hosting NHA Regional Events again such as Region 2's Nationals vs Cubs Baseball Game, Region 3's Wild on Wings Golf Tournament, and Region 4's Tides Baseball Game.
- The 2022 Symposium in Norfolk was different and less traditional with a number of "first evers" as HSC-2 JOs leaned in and tried new things.
- For the first time, active membership exceeded 3,000 members.
- VCNO championed for NHA right up to his recent retirement by conducting JO and DH Calls at Symposium and authoring the "On Leadership" column in the Summer Issue of Rotor Review.
- The first Annual Loosefoot 616 Memorial Run created a powerful sense of community across the Rotary Force (San Diego, Norfolk, and virtually).
- HSC-4 JOs planned and executed the Helo Admin at Hook '22 and crushed it.

Lifelong Service Award presentation (left to right) CAPT Charles Deitchman, USN (Ret.), CAPT Shawn Malone, USN (Ret.), RADM Dan Fillion, USN (Ret.) and ADM Bill Lescher, USN

- HT-8 JOs are spearheading Gulf Coast Fleet Fly-In with a theme of "Next Gen."
- HSM-41 and HSC-3 JOs and Aircrew established the theme for the 2023 Symposium: "Forging Legacy – Legends Past and Present."
- Lifetime Membership reaches 677 Lifetime Members.

Membership is the lifeblood of the organization. It is also a team sport – as we need every member to help promote our professional organization. More JO and Aircrew involvement will help grow the organization and keep it vibrant and interesting – this is our "human advantage."

Other notable events include:

- ADM Bill Lescher receives NHA Lifelong Service Award sponsored by Sikorsky.
- VADM Jeff Hughes becomes newest "Golden Helix" (oldest active-duty unrestricted Naval Aviator).

Lastly, please keep your membership profile up to date. If you should need any assistance at all, give us a call at (619) 435-7139 and we will be happy to help – you will get Linda, Mike, Allyson, or myself.

Warm regards with high hopes, Jim Gillcrist.

ADM Lescher passes the "Golden Helix" to VADM Hughes

Congratulations to Our Newest Lifetime Members

AWF1 Tim Saye, USN / VRM-50
LTM #615

LTJG Adam Angelino, USN / HSM-41
LTM #652

LCDR James "Grumpy" Stranges, USN
HSM-78 /LTM #619

CDR Eli "Whiz" Owre, USN / HSM-41
LTM #741

CDR Dick Barr, USN (Ret.) / HA(L)-3 / LTM #650

Every Member Counts / Stronger Together

National President's Message

The Past, Present, and Next Gen

By CDR Emily "ABE" Stellpflug, USN

This is an exciting time for NHA as we gear up for the Gulf Coast Fleet Fly-In (GCFFI)! This year's event is themed "Next Gen," as we focus on our next generation of aviators, flying the next generation of Advanced Helicopter Trainer (TH-73), and look toward future vertical lift.

Thank you to Training Wing FIVE, the HT-8 Team, NAS Whiting, and NAS Pensacola for their support to make this a successful event. Special thanks to CDR Annie Otten, LT Connor McKiernan, LT Andrew Ireland, and LT Chris Stuller for their efforts to plan and execute Fly-In!

This Rotor Review Issue is themed "Past Informs the Present" as we reflect upon and celebrate many Naval Aviation milestones. There are three milestones that I specifically appreciate, because they have directly informed my present: Sikorsky Aircraft 100th Anniversary, 50 years since the first six women earned Wings of Gold, and 40 years since Bell-Boeing was awarded the development contract for the V-22.

It is hard to believe that much time has passed since each of those events and it's easy to lose sight of how many people have gone ahead of us to carve the path for Naval Aviation. This issue aims to share some sea stories and highlight legends who have come before us. Happy reading!

Fly Safe!
V/R ABE, NHA Lifetime Member #481

The GCFFI is two packed days, featuring:

- Orientation flights for future aviators in various Fleet aircraft
- 5K Run / Walk
- Welcome BBQ for participants
- PERS-43 brief for Instructor Pilots
- Aircraft Static Displays
- Industry booths featuring "Next Gen" hardware & training systems
- Community Introductions from each of the Rotary Communities

The Navy Gouge

LT Alden "CaSPR" Marton, USN

Every day we use our neighbor's experiences to sidestep landmines. Whether that's after a particularly rough TACSTAN eval or after your H2P board, most of us are keen to turn right around and tell our peers about the trials and tribulations. What did you get right? What was unexpected? But most importantly, what would you have done differently? The aircrew coming after you are hugely invested in avoiding mistakes and what better way than to talk to someone who just went through it?

Modern tactics have been largely shaped by the sorties of our brothers and sisters before us. Vietnam, Korea, Desert Storm. In each of these, our fellow aviators had to adapt to a new adversary – an adversary with more modern weapon technology, unique topography changes, cultural obstacles, etc. Unfortunately, we lost aircraft and some of the best Naval Pilots our country has ever seen. But every scar has imprinted on our community. Every engagement analyzed, every video feed dissected. We don't tolerate losses. Our tactics manuals are written through the lens of the aviators before us. Where were we bested? Where did we make mistakes? We spend years and thousands of flight hours each practicing the lessons of prior engagements. We will not fall victim to the same circumstances, both as a promise to those who are no longer with us and contractually to our brothers and sisters in arms every time we walk to the aircraft.

A few of us had an opportunity to grab a beer at the I-Bar with CAPT Mike O'Connor, CAPT Gene Pellerin, and Chief Gary Ely from HAL-3–the most decorated Squadron in the Vietnam War and arguably in all of Naval Aviation history with five NAVY Crosses awarded, 31 Silver Stars, 219 Distinguished Flying Crosses, 15,964 Air Medals, and multiple Presidential Unit Citations. As they shared their colorful sea stories, we couldn't help but notice that everything from NATOPS to Personnel Recovery linked to something that had happened to them personally. We discussed max gross weight takeoffs where their crewchief had to run alongside until passing through translational lift and then jump on board. While our Maneuver Description Guide doesn't condone "trainhopping" as a technique at the FRS, this is precisely the reason we practice our max gross weight takeoffs the way that we do. Every wardroom "There-I-Was" conversation exposes our pilots and aircrew to problem-solving beyond the book. Every sea story is a vignette to why we fly the way we fly. The past informs the present whether deep in the pages of NTTPs or over a beer at the I-Bar.

Learning from our past is crucial, but our goal is to be proactive. So how do we take these lessons and shape the future fight? We write the HAZREP, we analyze the causal factors, and we train the fleet through briefs and publication rewrites. We sit down with our industry partners, admitting our community weak points, and organize a technological way forward.

2023 marks a number of historic benchmarks for Naval Rotary Wing Aviation. Sikorsky celebrates it's 100 year benchmark of helicopter development. HSM-41 celebrates 40 years of training some of the best aviators in the fleet. Helicopter aviation has come a long way and it's time we pause to reflect on the impact of that storied history. Join us for the 2023 NHA Symposium this Spring "Forging Legacy: Legends Past and Present!"

Fly Navy!
LT Alden "CaSPR" Marton

Past Informs the Present

By LT Annie "Frizzle" Cutchen, USN

Esteemed Readership,

"Past Informs the Present" resonates deeply with me because my very decision to pursue this line of work was heavily influenced by those who came before me. Not only do I have the honor of being the third generation Navy pilot in my family, but with that came heaps of mentorship from family and friends of the family alike including one RADM KJ Norton, USN (Ret.). I sport his old Combat Search and Rescue patch to this day. You'll see his name appear again in a few pages as the author of our "On Leadership" column.

RADM Norton is one of those exceptional rotary wing pilots whom RDML Fillion references in his piece. These helicopter pilots broke through artificial barriers that had existed in the naval helicopter community. We are grateful for those visionary and steadfast helicopter aviators who paved the way for us current helicopter pilots.

As important as remembering our roots and those who came before us is remembering that we are that previous generation for our successors in the community. How do we ensure our actions make everything we touch better? How do we aid the next generation in breaking through any glass ceilings it encounters? The best we can do is strive every day to honor the lessons learned of our predecessors and continue to add to this rock solid foundation they have set.

RADM Norton writes about his divisional LPO and the influence that AO1 had on his outlook. We must remember that lessons learned can come from any level of the Navy organization.

Our hope is that this issue has set the scene for Gulf Coast Fleet Fly-In. Gulf Coast Fleet Fly-In is aptly themed "Next Gen" and presents a unique opportunity to showcase how incredible this Naval Helicopter Community is and start making connections with that next generation. I look forward to you in South Whiting!

Happy reading!

V/r,

LT Annie "Frizzle" Cutchen

From left to right: LT Annie "Frizzle" Cutchen, LT Max Cutchen (brother), RADM Bryan "Clutch" Cutchen, USN (Ret.) (father), CDR Paul Cutchen, USN (Ret.) (grandfather)"

Letters to the Editors

It is always great to hear from our membership! We need your input to ensure that *Rotor Review* keeps you informed, connected and entertained. We maintain many open channels to contact the magazine staff for feedback, suggestions, praise, complaints or publishing corrections. Please advise us if you do not wish to have your input published in the magazine. Your anonymity will be respected. Post comments on the NHA Facebook Page or send an email to the Editor-in-Chief. Her email is annie.l.cutchen.mil@us.navy.mil, or to the Managing Editor at rotorreview@navalhelicopterassn.org. You can use snail mail too. Rotor Review's mailing address is: Letters to the Editor, c/o Naval Helicopter Association, Inc., P.O. Box 180578, Coronado, CA 92178-0578.

RADIO CHECK
Tell Us What You Think!

The theme of upcoming issue #159 is "Mastering the Machine."

Tactics, techniques, procedures, and technology have all developed immensely since the beginning of rotary wing aviation. We develop with the times, technological advancements, and to the adversary we are facing to name a few contributing factors.

What groundbreaking advancements have you seen in your time? How have you seen mission sets develop over the course of your career? Where do you see room for improvement in how we operate today?

We want to hear from you! Please send your responses to the Rotor Review Editor-in-Chief at the email address listed below.

V/r,

LT Annie "Frizzle" Cutchen
Editor-in-Chief, Rotor Review
annie.cutchen@gmail.com

Rotor Review

Articles and news items are welcomed from NHA's general membership and corporate associates. Articles should be of general interest to the readership and geared toward current Navy, Marine Corps and Coast Guard affairs, technical advances in the rotary wing / tilt rotor industry or of historical interest. Humorous articles are encouraged.

Rotor Review and Website Submission Guidelines

1. Articles: MS Word documents for text. Do not embed your images within the document. Send as a separate attachment.
2. Photos and Vector Images:_ Should be as high a resolution as possible and sent as a separate file from the article. Please include a suggested caption that has the following information: date, names, ranks or titles, location and credit the photographer or source of your image.
3. Videos: Must be in a mp4, mov, wmv or avi format.
   - With your submission, please include the title and caption of all media, photographer's name, command and the length of the video.
   - Verify the media does not display any classified information.
   - Ensure all maneuvers comply with NATOPS procedures.
   - All submissions shall be tasteful and in keeping with good order and discipline.
   - All submissions should portray the Navy, Marine Corps and Coast Guard and individual units in a positive light.

All submissions can be sent via email to your community editor, the Editor-in-Chief (annie.l.cutchen.mil@us.navy.mil), or the Managing Editor (rotorreview@navalhelicopterassn.org). You can also use the USPS mail. Our mailing address is
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Lessons Learned, Fleet Fly-In, 1988: Sea Stallion, Sea Dragon, Sea Hudson

By CAPT Arne Nelson, USN (Ret.) / President
NHA LTM #4 RW#13762

In 1988, as a seasoned LCDR in HC-2, the Skipper tasked me to take one of our CH-53Es and crew to Whiting to participate in the Fleet Fly-In, giving young 1390s a spin in the pattern in a fleet aircraft – in this case, the Big Iron. Along with me and the CO of HC-2, the HELTACWINGLANT Commodore and H-53 FRS CO were there to fly…and talk about the Wing, its various missions, squadrons, and aircraft. We were ready to share some flight time with SNAs in a big Fleet Aircraft.

We arrived in the late afternoon and with post-flight complete, we cocked and loaded the giant helicopter for the next day, joining our fleet and TRACOM counterparts for a beer and barbeque before calling it a night.

Next morning, the flight schedule gave us time for breakfast. The CO and I joined up with the Commodore and RAG Skipper for a meal with the added benefit of some professional schmoozing before heading to the flight line to get on with the day.

Though only a 5-minute walk from Sikes Hall to the flight line, the Commodore offered us a ride to the base auditorium for the welcome and preflight brief. Taking him up on his generous offer we jumped into the back seat. As we entered the road, the Commodore looked back at me and said," Arne, you know we just got approval for the MH-53E's name."

"No sir, I did not know that. What was decided?"

Both the Commodore and the CO looked back, and with obvious pride said, "Well, the 'Sea Dragon', of course. What do you think?"

"Well," I said, pondering the effect my answer might have on the two senior H-53 community leaders… and thus on my career. "I think you got the name wrong."

The Commodore stopped the car and he and the RAG CO, said, "Oh, and what do you think it should be…?" I looked at the two Captains, and then to my CO, and said, "The Sea Hudson…look at the fenders on that big helicopter!" Following an epic ice-stare from the FRS CO, I admit I almost had to walk home to Norfolk, while my Skipper almost fell out of the car laughing. My proposed name never stuck, just as well. And 'Sea Dragon' did fit both the patch and the mission. But I had an opportunity to tweak the Dragon's tail!

Hudson Hornet

NHA Scholarship Fund - 2023
Thirty Years and $.5M of Scholarships

Giving Tuesday is the first Tuesday after Thanksgiving – 29 November This year we are aiming at fifteen $4,000 scholarships. Please help us meet our goal! Over the past 30 years, the NHA Scholarship Fund has awarded more than $.5M in scholarships to more than 400 recipients. Most recently, in 2022, we had over 50 highly qualified candidates apply, and awarded 16 scholarships ($56,000 total). Our fund sources included individual gifts, corporate donations, and investment accounts.

This year, sticking with our strategic plan's annual challenge for growth, we intend to award a minimum of fifteen $4,000 scholarships. Additional numbers and levels of scholarships may be awarded annually depending on our fundraising success. Your donation supports the current year scholarship winners and allows us to continue to build our investment portfolio, ensuring both long-term growth and sustainment. As you reflect on donating, please consider giving to or establishing a Memorial or Legacy Scholarship (for example, the General Memorial Fund, the HS-5 Night Dipper Legacy / CAPT Bill Roop Memorial, or the H-53/Big Iron Legacy) to preserve the legacy of our communities and heroes with either an annual "pass-through" or a scholarship in perpetuity.

The 2021 campaign brought in approximately $19,000 in extra donations for the year. With those extra funds, we increased our scholarship amount to $3,000 for the first fifteen scholarships without pulling extra funds from the investment account and awarded six additional scholarships of $1,500 each. This year we are aiming at fifteen $4,000 scholarships. Please help us meet our goal!

Donate

Your donation supports the 2023 scholarships and continues to ensure growth and sustainment. Thank you for your continued support and keep your turns up!

Apply

Prescreening began on 1 September and must be completed no later than 24 January after which the prescreen process is closed. Applications shall be completed online per guidance contained on the Scholarship Fund website at https://www.nhascholarshipfund.org/prescreening/. The online application portion must be completed, and all required documentation received by the January 31st deadline.

As we approach Giving Tuesday 2022, I want to thank in advance those of you who have helped spread the word … and encourage our shipmates to join us in making our 2023 fundraising campaign a success.

Arne Nelson Captain U. S. Navy (Ret.)
NHA Scholarship Fund President
LTM #4 Rotary Wing Number - 137562
P.O Box 180578 Coronado, California 92178-0578
619 435-7139 Office 619 607-0800 Cell
www.navalhelicopterassn.org www.nhascholarshipfund.org

To learn more about NHA or become a member of NHA, please visit www.navalhelicopterassn.org or contact NHA Headquarters at (619) 435-7139.

Happenings at NHAHS

By CAPT Bill Personius, USN (Ret.) / President, NHAHS
LTM#46 / RW#16213

There is a lot happening in NHAHS! In keeping with the theme for Rotor Review #158 Fall Edition "Past Informs the Present" here is a summary and update concerning everything that NHAHS currently has in work:

CDR Clyde E. Lassen, USN Medal of Honor Memorial SH-60F

During the week of September 12, RADM Brad Rosen, USN CNRSW signed off on the gifting letter requesting authorization for NASNI to accept the aircraft donation from NHAHS and USS Midway Museum. RADM Rosen will "bird dog" the package until it is signed by (ASN EIE) the Honorable Meredith A. Berger. We are working toward a 16 June 2023 Dedication Ceremony at the NASNI Front Gate. To learn more or donate, visit our NHAHS Website Page at https://sh60fhoas.navalhelicopterassociation.org.

H-3 Sea King Restoration Project at Flag Circle

Work is being completed by HSC-4, USS Midway and NHAHS personnel. The Air Boss personally thanked all involved that worked on the project and said keep up the great work.

Chief Selects Community Service Project Helicopter Wash

On Saturday 8 Oct, the Base CMC washed the A-4 Skyhawk while 122 Chief Selects and their sponsors washed the display aircraft at Flag Circle

Jackrabbits to Jets - The Centennial Edition

This is the updated book about NASNI Base history. The third edition was published in 1984. NHAHS is helping promote the book and fact check it. To order a copy, visit the NHAHS website page: https://www.nhahistoricalsociety.org/jackrabbits-to-jets-centennial-edition/

Hank Caruso - Helicatures Book Venture

NHAHS is currently in negotiations to co-sponsor a book of drawings by Hank Caruso about Navy, USMC and USCG helicopters We are planning to a preview the book at the 2023 NHA Symposium. The book will be available for purchase after Symposium.

Region One Veterans Day Weekend Golf Tournament 10 Nov

To sign up for this event, visit www.navalhelicopterassn.org or stop by the office.

HC-7 Movie for Television - NHAHS is Still Collecting Donations

Leave No Man Behind – The Untold Story of HC-7

A documentary about Navy helicopters and combat SAR during the Vietnam War

Two-hour movie will be told from perspectives of the pilots, aircrewmen, maintainers and survivors.

The script has already been written and we've started interviews. The movie's expected release date is Summer of 2023.

All donations are welcome and tax free.

For more info and to donate, go to https://www.nhahistoricalsociety.org/hc-7-sea-devils-movie/

Help Bring the Lassen SH-60F Home to NASNI

"Helicopter on a Stick"
VADM Stockdale Gate
Master Helicopter Base

Make a Donation

Give Today!

Computer Rendition of NASNI Stockdale Entrance with SH-60F on a Pedestal

Mail Checks to: Naval Helicopter Association Historical Society, Inc. (NHAHS)
NASNI SH-60F Project
PO Box 180578, Coronado, CA 92178-0578

To donate with PayPay visit https://www.nhahistoricalsociety.org/indexphp/donations/ and click on the PayPal icon or copy and paste this link in your browser https://www.paypal.com/donate?token=dUz7iSsDDUkFxuXCIsSpZE5lRrmAZ7M5diK1LRJ315ULqrs-nyvU3nuz4WHPu0z4ZBCW7xiw34NubTIs

"On Leadership" is a feature column in which Rotary Wing Flag Officers submit articles on leadership topics of their choosing.

Do Your Sailors Want to Be Here?

By RDML Kenneth "KJ" Norton, USN (Ret.)

Greetings Rotor Review Readers,

Past informs the present is a very personal topic for me as I was professionally involved in the revolution of rotary wing operations from the perspective of a carrier based helicopter pilot. During my career, I was either directly involved with or personally witnessed the transformation of rotary wing operations from solely a blue water anti-submarine warfare (ASW) mission with an emphasis on the always important plane guard/search and rescue (SAR) mission, to the current Anti-Access Area Denial (AAAD) freedom of navigation operations in international blue/brown water as well as in littoral and overland maritime regions with today's myriad of operations. And I will be the first to salute the visionaries who understood the value and force multiplier effects of carrier based rotary wing squadrons. We, as a fighting force, are strengthened by this diversification in our warfare mission competencies.

But, I'm not here to rehash the specifics on how we got to our current ROC/POE and manning documents. Nor am I going to wax poetic on a "there I was" story boring you with some inane exploit. What I would like to do is toss out a few comments about leadership that I think are as important today as they were when I was still standing the watch.

In an attempt to be brief, I will quote Maya Angelou (a poet and civil rights activist), who wisely observed that "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel."

At this point I would like to propose that a quick overview on the three unique phases of my Naval Aviation career is probably in order.

Phase 1: I enjoyed a pretty typical helo bubba career path for my era that eventually led me to command a Helicopter Anti-Submarine (HS) Squadron. During that time I transitioned from the SH-3H Sea King to the Seahawk Family including the SH-60B followed by SH-60F/HH-60H.

Phase 2: Post squadron command, I became a ship driver for the navy via the nuke program and stayed mostly operational for the next ten years. This phase culminated with me serving as a nuclear aircraft carrier Commanding Officer (CO).

Phase 3: Post CVN command, I served on 6th FLT Staff (N5) and had shore-based Command (Naval Safety Center).

During the course of my career, I was honored and humbled to be in command for four different tours of duty. Command sizes varied from squadron level manning to CVN. Various command leadership responsibilities included not only leading Sailors, but Government Service Employees (GSE) during my time at the Safety Center.

So based on these career experiences and direct observations, I want to re-emphasize, per Maya Angelou's quote from above, that people never forget how you make them feel. Why do I say this? Because in my various leadership roles beginning as a Division Officer (DO) at my first operational squadron, this particular characteristic seems to have always been a key factor in either motivating Sailors or, conversely, disincentivizing them.

It was during this first operational squadron tour that I had the privilege of working with my first Leading Petty Officer (LPO), AO1 Cicerello. Now in those days, as a newly assigned nugget in the squadron, your initial DO job was usually not very glamorous. In fact, this was my experience threefold. I concurrently divided my non-flying duties among being the DO of the 1st Lieutenant Division (think heads/beds) and publishing squadron related articles, familygrams, and hometown news releases (pre-internet) as the squadron Public Affairs Officer (PAO). And if that wasn't enough to keep me out of trouble, I was also the Urinalysis Coordinator. What a lesson that was in humility. It seemed I was spending an inordinate amount of time in various heads whether it was at our squadron spaces ashore or onboard the ship.

So back to AO1 Cicerello. Now you have to realize that almost everyone was transient in the 1st Lieutenant Division due to the policy of assigning newly arrived airmen (E-3 and below) TAD for their first six months. And most of these young Sailors were none too happy to be assigned there as they were often cleaning out heads and performing other mundane duties not related to their A-school rates such as scraping/chipping/re-applying paint. Ergo almost all were transient working outside their rates and not too happy about it, all except AO1 Cicerello that is. Why was this? AO1 Cicerello actually volunteered to be the 1st Lieutenant LPO due to his recent promotion to First Class Petty Officer and his Ordnance Division already having LPOs assigned. He could thus take advantage of being in a LPO position as a very young and hard charging First Class even if that meant being away from the ordnance shop. In other words, he was positively motivated to take on increased responsibilities. What an attitude to exhibit, not only to me, but more importantly to the young impressionable airmen assigned.

I remember he had a very simple philosophy of always saying "yes." What I mean is that with an upbeat attitude he would go about his duties regardless of the tasks–intuitively knowing that whatever the 1st Lieutenant Division was doing, it was contributing to the overall readiness of the squadron. He said to me one day: "If it isn't illicit, immoral, or sometimes fattening, we're going to say yes." In retrospect, looking back on my career success, I realized I not only adopted and applied his philosophy, but even to this day I still apply this simple school of thought in my post-Navy endeavors.

As to shaping attitudes, I must say that through my many direct interactions among them, the Sailors working temporarily in the 1st Lieutenant Division were always treated with respect and dignity by AO1 Cicerello. He made an effort to get to know them, he authentically cared about them, and he looked out for them as their initial mentor in the fleet. AO1's can-do attitude was infectious and permeated the division and his Sailors respected that he valued their work because he told them that he did. In my humble opinion, this second leadership characteristic of recognizing the contributions of the people working for/with you is vital for success.

So ask yourself a simple question: What attitude are you portraying to your folks? Are you clearly understanding that though mission focus is paramount, it is the hard work of your people that leads to mission success? I surely hope so. When was the last time you communicated to your Sailors that their hard work and selfless sacrifice is meaningful and valued? Additionally, are you saying "yes" when it comes to mission accomplishment? I maintain that unclogging a toilet in enlisted berthing is as much of a contributing factor to overall mission success as is launching an FMC aircraft from an Alert-30 profile to perform a successful SAR mission.

Perhaps I can conclude and encapsulate my thoughts by sharing some feedback I got from my CAG when I was the CO of my squadron. Observantly he said to me, "your Sailors want to be here." What a terrific compliment to receive from the boss. And still to this day, I remember how this comment made me feel!

Leadership Style Matters

By CAPT Edward Weiler, USN
Commander, Helicopter Sea Combat Wing, U.S. Pacific Fleet

If there was a recipe for the perfect leader, someone (by now) would have bottled it up and sold it in liquid or powder form. Certain to be a millionaire, they would sell it to all civilian and military organizations alike. Unfortunately, there is no perfect pill or potion and we are all forced to learn, adapt, listen, and observe our environment to ensure success in each situation and organization.

The finest leaders understand that people are the greatest resource within an organization. They understand their own strengths and weaknesses as well as the strengths and weaknesses of the people working around them. You are not leading machines, assembly lines, weapon systems, or budgets; you are leading warfighters and influencing your Sailors to achieve a common set of goals. We see leadership in times of a crisis, amongst friendships, on sports teams, even among young children who don't understand yet that they are exhibiting those skill sets.

Leadership truly comes in every shape, size, and situation. It can vary by age, job, role, audience and environment and is a core trait within our military. The day we join we make a very clear statement to those around us that we are choosing a path less taken, willing to lead and serve in any AOR or threat level to protect and serve our country.

We begin our military career as young leaders and each and every day we are given an opportunity to learn, build, and strengthen our skills. Our personal leadership style is groomed and molded with each changing job, whether you are an LPO, CPO, Junior Officer, Department Head, or Commanding Officer, you will be afforded the opportunity to observe and lead at sea. I have been in the U.S. Navy for over 25 years and have worked for many different bosses. I have seen leadership in combat operations, training commands, major commands, and at sea. Each job presents different stresses and challenges to your team. Not everyone is a great leader, nor is everyone a good leader, but we have just as much to gain and learn from the bad as we do the good. I have been extremely fortunate in my military career to have worked for and learned from some fantastic individuals. It is imperative that you watch and observe all. As you move your way through different jobs and ranks, pay close attention to your own leadership style and take the time to develop it. Focus on your strengths, develop your weaknesses, and build on the lessons learned from experiences and mentorship to ensure you bring the very best to your people.

We always use the expression, "know your people"… but what exactly do we mean by that? "Knowing your people" means more than knowing where they live, what they like to eat or their spouse's name. It is recognizing what drives and motivates a person to perform at their best. Knowing their capabilities, limits, and how to exercise and highlight their specific traits and qualities is essential for the advancement of the individual as well as the organization. What makes your Sailor tick? Do they need an extra push or a softer, more comforting approach? Understand what drives them and more importantly, understand what YOU need to do to help them accomplish their assigned task.

I have an older brother and a younger sister, we had the same upbringing, same parents, we lived in the same house, but we are completely different and we are absolutely motivated to perform in different ways. Every service member is different

and each one has their own "switch"–a switch that motivates them and simultaneously can set them up for failure. Running a division, department, or squadron is not like 'Texas Hold'em'–you can't swap out the people. Just about everyday someone new is assigned/checks in to the organization and you must understand and assess their potential. You need to identify their strengths, their weaknesses, and determine what kind of "hand" you are dealt. It is your responsibility to mentor, help them grow as individuals, and guide them to reach their professional and personal goals as they serve the squadron, the Navy, and our country.

This is no easy task as we work in an incredibly dynamic environment. Stress and pressure certainly bring out the best and worst in all. The intense workload associated with being at sea on a Navy warship can certainly test your leadership, ability to balance your personal stress, and aptitude for managing the stress of your subordinates. Everyone is watching and you are constantly being evaluated. Day-to-day activities are part of that evaluation, but far more telling is how you perform under pressure.

As a Commanding Officer, I certainly knew that all eyes were on me when a challenge arose and my reaction would set the tone for the squadron. Stressful times for you are some of the best opportunities to establish the culture you want within your division, department, or squadron. Your mannerisms, your actions, and how you deal with the change and stress permeate throughout your spaces. If you exhibit excessive emotion, more than likely the command will echo those behaviors.

This is a golden opportunity to show your Sailors, while in the storm or fog of war, that you remain calm and are smooth and methodical in your decision making (and maybe even throw in a smile or two). Keeping calm under fire is imperative; it is more difficult and more impressive. If you can't control your emotions, how can you expect your subordinates to? You can talk to your leadership style during case studies but that is the "classroom." When the whistle is blown and the game is on, know your environment and take advantage of the moment. As Naval Aviators, we compartmentalize in the air, prioritizing each emergency and I would offer there is goodness to applying those same skill sets on the ground in front of your Sailors. Lastly, enjoy your time in the Navy – you have the greatest job on the planet! You will never work with a more talented, motivated group of individuals. Fly Navy!

Technician 2nd Class Travis Murphy, assigned to Helicopter Sea Combat Squadron (HSC) 3, Southern California Offshore Range (SCORE) Detachment, directs an MH-60S Sea Hawk helicopter down the flightline after the completion of flight operations on San Clemente Island, California.

Staying Present: The Best Preparation for the Future

LCDR Rob "OG" Swain, USN

Otukaresamadesu(おつかれさまです), Naval Helicopter Association! I'm penning this article while embarked on the rolling USS Ronald Reagan. Five decks above CAG OPS, the carrier bridge team vigilantly attempts to find winds and seas for night flight ops while balancing on the edge of Super Typhoon, Nanmadol. My wheeled chair, struggling to detach my hands from the desk, reminds me of stormy first-tour JO days aboard flat-bottomed amphibs. Despite the looming tempest, strike group planners scrutinize weather patterns, brainstorm courses of action for pending requirements, and forecast follow-on tasking in the dynamic and evolving Indo-Pacific strategic milieu. All levels of military planning spend energy and resources when focusing on the future. This may occur at the tactical level while preparing for your next ACTC gradesheet or at the operational level while weighing indications and warnings of adversary activities. However, this article is not about the future. This article is about focusing on the present.

The Forward Deployed Naval Force enjoys professional and personal opportunities to explore foreign culture and history in a uniquely intimate and interactive way. In my own few months in Japan, I came to appreciate how Japanese culture values reflection, expressed architecturally through the beautifully preserved temples of various schools, disciplines, religions, and sects. The temples do not just adorn the austere coasts, mountainsides, and bamboo forests, they function as social nexuses in each major city. They provide sanctuary for mindfulness and pause from the speed of modern life. In a word, Japan is very "Zen."

The concept of Zen Buddhism first came to Japan in the seventh century, but took five hundred years to penetrate established social norms. Samurai culture gravitated toward the Zen concept and applied the ideals of awareness, balance, and the importance of embracing change. The introspection from Zen amplified their Samurai ethos of facing death without fear and acting with intuitive spontaneity. Whether steaming through the South China Sea, Arabian Gulf, Mediterranean, or Caribbean, anyone who has experienced a Navy deployment understands the uncertainty of shipboard operations and the inevitability of change. Weather, material readiness, the geopolitical climate, adversary maneuvers,, and countless other variables compel maritime forces to shift course when required. Understanding the flexibility and adaptability necessary in this operating environment reinforces the personal benefits of "putting first things first" and embracing the present.

Embracing the present is not a new concept for the Navy. Students of naval history will find storied examples of leaders who came to appreciate the importance of living in the now. Between 1967 and 1973, VADM James Stockdale endured

Super Typhoon, Nanmadol.

over seven years in captivity, executing the duties of senior ranking prisoner-of-war at the "Hanoi Hilton" in Vietnam. In this crucible of physical torture, stoic leadership, and self-discovery, VADM Stockdale messaged to his fellow American POWs, "keep the faith while accepting the brutal facts of your current reality." Deployed Navy aircrew today are indeed not prisoners of war (though polling any number of ready rooms or aircrewmen shops may refute this). That does not, however, absolve the modern-day Sailor from wrestling with personal anxieties, home-front obligations, or professional stressors. Unique to the sea service, a ship represents an ideal setting to exercise mindfulness in order to overcome these preoccupations.

Practicing being "present" is not a finite task, nor does it occur passively. Keeping your stride on deployment demands habitual moments of self-care. Dr. Sukhraj Dhillon captures this advice with humor: "you should sit in meditation for twenty minutes a day…unless you're too busy…then you should sit for an hour." Whether found through meditation, prayer, physical training, breathing exercises, Chaplain or trusted confidant counsel, journaling, or writing a quarterly column in Rotor Review, your personal health and professional satisfaction demands balance and sometimes, a shift in perspective. Changing your approach to the task at hand can, in fact, pay dividends in accomplishing the tasks to come.

Proactive focus and pride in even the most mundane or monotonous tasks will improve your performance. A rise in performance improves the positive perception and trust of the people around you. An improvement in trust expands given responsibilities. An expansion of responsibility offers new opportunities to explore, learn, and grow. In turn, focusing on the present while "trusting in the process" equips you with new mental, professional, and social tools to resiliently navigate each shift in course with fortified confidence. It took five hundred years for the benefits of Zen mindfulness to permeate Japanese culture. Don't let it take that long for you to reap the personal and professional benefits of living in the now, putting first things first, and attending to the present energized and enthusiastic! Enjoy this moment reading NHA's Rotor Review and standby for future Reports from the Rising Sun!


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Past Informs the Present

By CAPT George Galdorisi, USN (Ret.)

Our Rotor Review editors have teed up a great topic that blends our rotary wing history, our present operations, and our future possibilities. The tack I'd like to take in this column is technology (no surprise there). As we see technology moving forward for manned and unmanned systems in our rotary wing world, it is worth saying that while we should embrace new technology that can help support our multiple missions, we should also be "smart buyers" and not get all liquored up with every shiny new object that comes along.

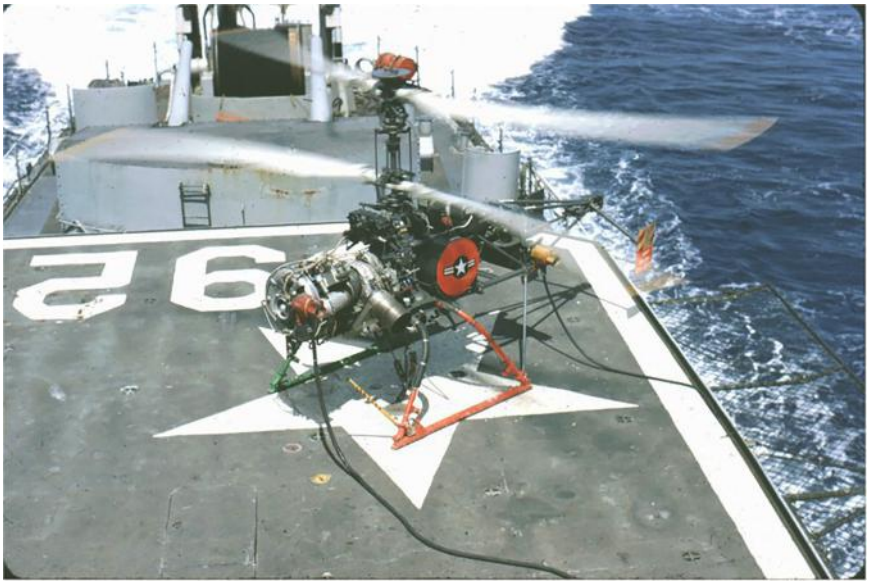
While there are many positive and negative examples of embracing new technologies, one that stands out for me, and likely for most rotary wing aviators, aircrewmen, and maintainers, is an unmanned system called DASH, which stands for Drone Anti-Submarine Helicopter. If there were ever a case where "aspiration" didn't meet performance, DASH was likely the poster child.

Walking this back a bit, the U.S. Navy has a rich history of Unmanned Systems (UxS) development. During the early years of the last century, the Navy and the Army worked together to attempt to develop unmanned aerial torpedoes. However, this was a bridge-too-far given the state of technology during those years and the project was ultimately abandoned. Other attempts to introduce unmanned systems into the Navy and Marine Corps occurred in fits and starts throughout the first half of the last century, but these were met with limited success.

As the United States became involved in the Vietnam War during the early 1960s, the Navy renewed its efforts to find a way to field unmanned systems to meet urgent operational needs. At that time, all sea-based aviation was concentrated on the decks of Navy aircraft carriers and large-deck amphibious assault ships. Surface combatants (cruisers, destroyers and frigates) had no air assets at their disposal.

The solution was to adapt a technology that had been in development since the late 1950s to field the QH-50 DASH. In April 1958, the Navy awarded Gyrodyne Company a contract to modify its RON-1 Rotorcycle, a small coaxial rotor helicopter, to explore its use as a remote-controlled drone capable of operating from the decks of small ships. The Navy initially bought nine QH-50A and three QH-50B Drone Helicopters. By 1963, the Navy approved large-scale production of the QH-60C, with the ultimate goal of putting these DASH units on all of its 240 FRAM-I and FRAM-II Destroyers.

In January 1965, the Navy began to use the QH-50D as a reconnaissance and surveillance vehicle in Vietnam. Equipped with a real-time TV camera, a film camera, a transponder for better radar tracking, and a telemetry feedback link to inform the remote control operator of drone responses to his commands, the QH-50D began to fly "SNOOPY" missions from destroyers off the Vietnamese coast. These missions had the purpose of providing over-the-horizon target data to the destroyer's five-inch batteries. Additionally, DASH was outfitted with ASW torpedoes to deal with the rapidly growing Soviet submarine menace, the idea being that DASH would attack the submarine with Mk-44 homing torpedoes or Mk-57 nuclear depth charges at a distance that exceeded the range of submarine's torpedoes.



QH-50 DASH

But by 1970, DASH operations ceased fleet-wide. Although DASH was a sound concept, the Achilles heel

of the system was the electronic remote control system. The lack of feedback loop from the drone to the controller, as well as its low radar signature, accounted for eighty percent of all drone losses. While apocryphal to the point of being a bit of an urban legend, it was often said the most common call on the Navy fleet's 1MC general announcing systems during the DASH-era was, "DASH Officer, Bridge," when the unfortunate officer controlling the DASH was called to account for why "his" system had failed to return to the ship and crashed into the water.

Compared to today's technologies used to control unmanned systems, the technology of the 50s, 60s and even the 70s was primitive at best. In many cases, what was being attempted with drones was, literally, a bridge too far. After the Vietnam War, the Navy continued to experiment with unmanned systems. In the 1980s, I was involved with testing Pioneer unmanned aircraft launched and recovered from USS New Orleans (LPH 11). Sadly, the technology was still primitive, and we lost two of the three Pioneer unmanned aircraft we took to sea during a one-week test event.

For one of the most complete descriptions of the U.S. Navy's DASH Program, see an article by one of our fellow rotary wing aviators, Benjamin Armstrong, "Unmanned Naval Warfare: Retrospect and Prospect," Armed Forces Journal, December 20, 2013, accessed at: http://armedforcesjournal.com/unmanned-naval-warfare-retrospect-prospect/.

I think you see the point. The Navy wanted DASH and Pioneer so badly, that they bet on technology that was too immature to meet the mission requirements for these systems. The immediate results were clear, but these technology speed bumps also slowed down development of other promising technologies as Navy officials experienced buyer's remorse, and became skeptical of unmanned systems of any kind.

As you all know, by the turn of the century, the technology to control unmanned systems had finally matured to the point that the U.S. Navy believed it could successfully field unmanned systems in all domains—air, surface, and subsurface—to meet a wide variety of operational needs. As with many disruptive and innovative ideas, the Chief of Naval Operations Strategic Studies Group (CNO SSG) was tasked to attempt to determine the feasibility of introducing unmanned systems into the Navy inventory.

In 2022, we have a number of unmanned systems – Fire Scout, Triton, Stingray, and others – in the Naval Aviation inventory. This is a good start. That said, one of the key takeaways of the 2021 NHA Symposium came during the Flag Panel when the Air Boss noted that 40% of Naval Aviation would be unmanned by 2035. This is a huge sea change and we should anticipate more potential UAS coming down the line. We just need to be prepared to be smart buyers.

A Safety Perspective on how the Past Informs the Present (and Future)

By VADM Dean Peters, USN (Ret.)

I really appreciated an article in the Summer 2022 Rotor Review by LT Gonzo Gregory, "The Importance of Saying Something." It took courage, humility, and a time investment to write that article. As Gonzo notes, we don't want to waste people's time with another near-miss story. Those stories, however, are how the aviation community gets better – and safer. And how the aviation community will ultimately eliminate preventable mishaps from human error and material failures.

Regarding the aspect of human error, I think back to my time as an H2P in 1986. At the time, I was reluctant to discuss any aspect of flight operations that was dangerous or even unusual. This was the era before crew resource management and well before the concept of flight debriefings. The old adage of "better to die than look bad" was unfortunately in full effect, and it was not unusual for near-misses to become real mishaps. Only then would procedures be changed or training altered to address unnecessarily dangerous scenarios. Because of the advent of CRM and flight debriefings, there now exists a formal venue to bring forward concerns and observations, no matter how small. But it still takes courage, humility, and a time investment to bring forward these observations and concerns. As a squadron CO, I understood the value of "True Confessions" and made it an important topic of weekly wardroom training. In all honesty, I was reluctant to share my own close calls that might cast my image in a poor light. I was the CO and had to set the example. I could not be seen as having failed, as that would constitute weakness. Only later would I overcome this false perception and start setting the right example by admitting mistakes so that I and others could learn. Setting this "right" example also opens the door for others to be more transparent, and in this way, the team, the squadron, the organization all get better.

Regarding the aspect of material failures, such as the damper line that caused the tragic Loosefoot 616 mishap, I can only say that there is a deep support structure of engineers and logisticians primed to attack suspected material issues. A few years ago, NAVAIR began attacking quality issues on both new components and repaired items, as reported in quality deficiency reports. Filling out the maintenance action form (MAF) is the first step. And if a condition exists that causes alarm, it's important to get the word out through all available means. A call to PMA-299, the H-60 Program Office, will also start the process moving.

An example from the fixed wing community highlights the use of the latest technology for solving material failures, and also illuminates the power of providing feedback, however small. A few years ago, physiological episodes (PE's) were Naval Aviation's number one safety concern. Marine Corps and Navy fighter squadrons were experiencing historic numbers of PE's, degrading mission completion, and driving

readiness issues. The aviators were at risk of serious medical issues and confidence in the aircraft was a real problem. A coalition of stakeholders across multiple organizations finally produced solutions that drastically reduced PE's in the fighter squadrons and in the training command. Although there were many factors to this reduction, one important element was the use of machine language and artificial intelligence. There is a NAVAIR command in Orlando, FL – Naval Air Warfare Center Training Systems Division – that had established a machine learning and artificial intelligence team and they took on the task of analyzing PE's for the F/A-18E/F Community. Their efforts involved the ingestion of every known MAF associated with the environmental control system (ECS). Squadrons participated by increasing their documentation of all possible material failures, and by providing as much information as possible on flight regimes and material condition. Through machine learning algorithms, the engineers at Orlando were able to reliably predict when components of an ECS System would fail, by squadron, by bureau number. The F/A-18 Program Office coordinated the feedback of this information to CNAF and the fleet with increasingly beneficial results. I share this case study because it highlights the importance of maintenance-related feedback. It is not a waste of time. In fact, it is essential – with or without slick techniques like artificial intelligence.

Ultimately, I'm confident that the rotary wing community will adopt an increased focus on feedback, both for the human side of near-misses and for the material side. There was another article in the Summer 2022 edition of Rotor Review that reinforces the power of learning through transparent self-assessment and the imperative to build learning teams that embrace frank discussions of performance in order to build a winning culture and high-performance Navy. The article was from the On Leadership series by Admiral Bill Lescher, then Vice Chief of Naval Operations. Like Admiral Lescher, I am confident that today's generations of aviators and maintainers will build a learning culture and take the rotary wing community to the next level.

Hot Pit From Hell

By CDR Ed Berry, USN (Ret.)

It was a beautiful spring day and the ship was three days out of Charlestown, SC. I was on my third cruise in HSL-34 and was the Maintenance Officer on Det 8. This was also the third cruise with this detachment on this ship. It was a winning combination. We had scheduled a day of DLQs with a hot pit and a crash on deck drill at the end. I was taking our new LTJG out for the first round of DLQs, followed by some general "what if" drills to keep us both sharp.

U.S. Navy crewmen aboard the destroyer, USS John Hancock (DD 981), prepare a Kaman SH-2F 'Seasprite' Helicopter (BuNo 151303) of Detachment 8, Helicopter Anti-Submarine Squadron Light 34, for a mission.

At 600lbs of gas, we called for the hot pit, we had been in the air for two hours. We received a green deck and landed with about 440 lbs. I gave the signal to start the hot pit. I watched the hose played out by the crew, the nozzle plugged in, and a signal that we were ready to start. I saw the gate valve turned and waited for my fuel gauge, now at 220lbs, to begin to increase.

I saw a positive rise in the fuel quantity and glanced out the rearview mirror just in time to see the hose pop out of the nozzle. Luckily, the Sailor was holding the hose and leaning on it a bit when it popped out. He glanced up at the jet exhaust (1200 Centigrade) and pulled the hose to the deck and started crawling back to the end of the flight deck. It was forming a pool and I needed to get off the deck as soon as possible. I motioned for the chocks and chains and no one moved. They hadn't seen what happened yet. I motioned again and said NOW. At this point, the Chief realized what was wrong and I got untethered and took off without permission.

I, once again, had 440 lbs of gas. I told the copilot to get out the ditching checklist and called the ship. Once I was off the deck, the crash crew saw the problem and began washing the fuel off the flight deck. I asked the Captain to man the lifeboat, but not lower it unless I had to ditch. He'd already taken care of that and I stayed on the starboard side of the ship, about a quarter mile behind the ship, so as not to have any parts of the helo hit the ship if I ditched.

It looked as if the deck was clear of fuel so I asked for a green deck. "Not yet" was the answer, as fuel had gotten on the deck below the flight deck. The Captain and the Det OIC were afraid of a cloud of fumes I'd have to fly through that might be catastrophic. Needless to say, I was able to get safely aboard. It was strange to see the nozzle still attached to the helo when I landed. Further flights were canceled for the day as we all had to let what happened sink in and think about what we could have done better.

A number of features of the helo and the ship need to be understood. Shutting the fuel on or off was not instantaneous. The fuel got to the flight deck under pressure and was turned on and off via a gate valve. It took about 20 turns to open or close. Had it been a ball valve it would be almost instantaneous. The ship had about a three degree list to starboard due to the sea state and course. This pulled the fuel into the starboard rear corner of the flight deck. It pooled at the coaming and started to wash down below to the main deck as the pool overflowed the coaming. When I landed, I had 225 lbs of gas left.

This was the only time I have ever had this happen and haven't heard of it from anyone else. The hose was brand new and I personally inspected it before we departed CONUS. But, this is how you go from "It's a great day to fly" to the "Hot Pit From Hell."

Leveraging the Full Potential of CH-53E Helicopter Air-to-Air Refueling

By Major Nolan Vihlen, USMC

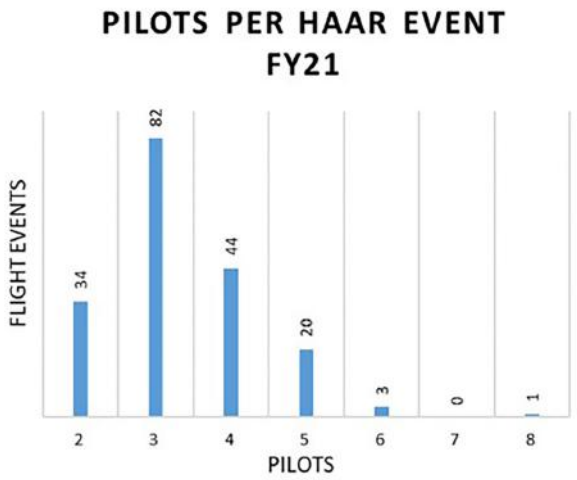
On 17 December 1965, an Air Force CH-3 was fitted with a mock refueling probe and successfully contacted a fuel drogue attached to a Marine Corps KC-130 over the coast of North Carolina. This proof of concept flight would ultimately prove revolutionary for the utilization of rotary-wing aircraft during long range or high endurance operations. For the Marine Corps, specifically the CH-53E provides extensive capabilities that present tangible benefits to the Marine Air Ground Task Force (MAGTF). The ability to transport heavy equipment and mass combat power remains critical to the Marine Corps as it shifts its focus to great-power competition and Expeditionary Advanced Base Operations (EABO). The extreme ranges inherent to the Pacific theater require specific skills to ensure our ability to meet assigned tasking during potential operations to counter near-peer adversaries. While the CH-53E remains the only rotary-wing platform capable of aerial refueling within the Aviation Combat Element (ACE), Pilot Training Officers across the Fleet have lamented the scarcity of helicopter air-to-air refueling (HAAR) training and its negative effect on proficiency. This shortfall is due to limitations on HAAR training, a fundamental lack of understanding of HAAR doctrine, and underutilization of resources available to augment HAAR training. The distances that will be required to transit as well as the contingencies we must be prepared to meet during EABO demonstrate the importance of relevant and realistic HAAR training throughout the Fleet.

Identifying Shortfalls In HAAR Training

Chapter 1 of the CH-53 Training and Readiness Manual identifies the need to conduct eight hours of HAAR a week during TAC/Mission stage training to "effectively train CH-53 combat ready crews."[1] The primary factor in not meeting this weekly benchmark is the unavoidable dependence on the high demand, low density externally sourced KC-130. Moreover, HAAR training by Marine Corps KC-130 squadrons represents only a fraction of their required tasking on any given week. Force Design 2030 (FD2030) identifies perceived shortfalls of the current ACE structure and increases the size of active component KC-130s by 33 percent.[2] Despite a 24 percent reduction in total tiltrotor and rotary-wing aerial refueling receivers by 2030, FD2030 will do little to alleviate the scarcity of organic Marine Corps HAAR training. One less resource will be available for HAAR receivers in CONUS by activating VMGR-452 – the reserve component KC-130 squadron currently stationed at Stewart AFB, NY – and moving it to MCAS Kaneohe Bay, HI.

With this in mind, limited HAAR opportunities must be maximized without sacrificing overall training value. Flight data logged by the CH-53E Community data suggests that when squadrons are presented with the limited opportunities to conduct HAAR, the number of pilots per event may result in diminishing returns. In FY21, 184 HAAR flight events were logged by CH-53Es outside of the Weapons and Tactics Instructor Course.[3] An average of 3.3 pilots and 1.4 hours were logged per pilot on each flight event during this period. This is seemingly adequate time to train, but does not account for the actual average time conducting HAAR training when considering transit and hot seat times. Significant outliers in number of pilots per event underline challenges in demonstrating HAAR as a complete evolution. With 82 percent of all HAAR events requiring a hot seat, a pilot's opportunity to conduct all five HAAR positions is significantly curtailed with no guarantee that a non-aerial refueling instructor (ARI) will ever see all four stages of HAAR. Data further suggests that when HAAR occurs, tactical training is frequently absent as a result of limited refueling assets and the need to maintain HAAR proficient crews for readiness reporting,

Effectively integrating HAAR into a tactical flight event requires more than just movement between the observation and refuel positions. As difficult as the contact/fuel transfer stage of HAAR can be, friction can arise when transitioning between HAAR tracks and objective areas. This highlights the risk of unrealistic HAAR training. In FY21, only 29 percent of all flight events were logged in conjunction with any tactics event. These difficulties extend beyond the cockpit as movement of door guns by crew chiefs and aerial observers typically occurs on deck when HAAR training is not conducted within a tactical scenario. Any delay in the movement of weapons in flight due to inexperience translates to unnecessary delay in the conduct of time critical assault support aviation operations.



More specifically, only 12 percent of all flights during the previously mentioned twelve-month period utilized HAAR in a Tactical Recovery of Aircraft and Personnel (TRAP) scenario. Planning for TRAP without integrating HAAR significantly limits the MAGTF commander's area of influence by restricting ACE assets to a radius the recovery vehicle can reach without range extension. The additional time required to authenticate, land, and recover the isolated personnel further reduces this range. For this reason, coupling HAAR with TRAP is not just an administrative means of ensuring HAAR training is conducted throughout the Fleet. In fact, HAAR was specifically developed and utilized to overcome these challenges and the TTPs established have remained relevant in the over fifty years since the inception of HAAR.

HAAR Development and Enduring Relevance

In 1981, the CH-53E became and continues to remain the only aircraft within the ACE capable of HAAR. However, the development of HAAR is owed entirely to the mission of the Air Force rescue service during the conflict in Southeast Asia. Involvement of American aircraft and aircrew in Southeast Asia steadily increased after the fall of French Indochina throughout the exponential and overt increase of airstrikes after the Gulf of Tonkin Incident in 1964. The commitment of resources to recovering downed aircrew was present from the earliest stages of advisory aviation operations in Laos and South Vietnam. Air Force Air Rescue Service (ARS) squadrons – Aerospace Rescue and Recovery Service (ARRS) after 1966 – were the only aviation units dedicated to combat search and rescue (CSAR) throughout the war and were initially equipped with a helicopter totally unsuited for this task. The Kaman HH-43's range of 125-140nm was more suited to aircrew recovery in the immediate vicinity of friendly airfields but proved inadequate in reaching a preponderance of the areas targeted by American air strikes.[4] Laager sites were established to pre-stage these aircraft, but the unpredictable nature of CSAR, coupled with the limited power of the small rotorcraft, demonstrated that the existing rescue force structure was wholly untenable.

The solution was two-fold: introducing the more powerful, larger, and longer-range H-3, and developing the ability to refuel helicopters inflight with C-130s. In only eighteen months, the Air Force went from demonstrating the viability of HAAR with a dummy probe bolted to a borrowed helicopter to conducting the first inflight transfer of fuel to a HH-3E during combat.[5] "From the earliest days of the air war in Southeast Asia, it was apparent that search and rescue had to be timely and well organized to succeed."[6] Ultimately the timeliness of inflight contingency holding proved the difference between aircrew returning to their squadron or languishing in a POW camp for the remainder of the war. The ARRS ensured responsiveness by strategically establishing four HAAR tracks across the AO where HH-3 (HH-53s began arriving in 1967) and HC-130Ps could conduct immediate CSAR standby during scheduled American air strikes. CSAR packages composed of A-1E RESCORT, HC-130P RMC, and various FAC(A) platforms played a significant part in saving 3,883 lives throughout the course of the conflict.[7] It quickly became apparent that the benefits of HAAR could be applied to other rotary-wing assault support missions. The Son Tay Raid that aimed to rescue American POWs would dramatically demonstrate this fact in 1970 during an operation that was impeccably planned, skillfully executed, and largely facilitated by the range and on-station time provided by HAAR.

The United States Marine Corps is not structured to nor can afford to permanently allocate aviation resources for CSAR or TRAP. While HAAR was initially developed for this mission, the CH-53E benefits markedly across all mission essential tasks from a capability that only limited rotary-wing platforms possess throughout the world. Aligned with the ability of the Marine Corps to rapidly respond to a myriad of global crises, the CH-53E has enabled the MAGTF to support operations at ranges that would be impossible without HAAR. During Operation Eastern Exit in January 1991, two CH-53Es launched from the USS Trenton and inserted a 60-man security force to the US Embassy in Mogadishu, Somalia. The 450 nautical mile ship-to-shore transit required two night HAAR evolutions to facilitate a successful non-combatant evacuation operation (NEO).[8] A decade later, the longest range amphibious assault in the history of the Marine Corps utilized HAAR to insert the first conventional forces of the war from the coast of Pakistan 371.5 nautical miles into Camp Rhino, Afghanistan.[9] Although emerging threats present a global environment significantly divergent from the counterinsurgency fight of the previous two decades, HAAR remains a skillset critical to ensuring the enduring relevance of heavy lift assault support in such emerging concepts as EABO.

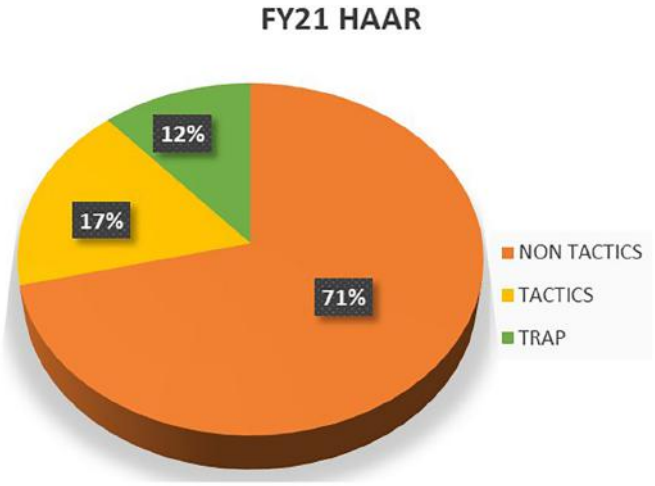
Recommendations

There are multiple ways to maximize HAAR training across the Fleet. Minimizing the amount of hotseats required in a flight event will enable more time per pilot to hone this perishable skill while enabling flight planners to integrate HAAR into tactical scenarios. Aircrew should avoid cutting allocated HAAR training short to meet an L-Hour for a

notional tactics scenario, but every effort should be made to prepare pilots for conducting HAAR in a combat environment. This is easier said than done as availability of Marine KC-130s to conduct HAAR training is largely dependent on supporting unit availability. Executing a deployment for training (DFT) focused specifically on improving overall squadron HAAR proficiency could reduce required pilots per event. Early coordination and a DFT site in close geographic proximity to joint HAAR capable refuelers maximizes the likelihood of meaningful training. For example, a DFT based in northern Florida could leverage three Air Force units within a 170nm radius.

The joint force provides options for conducting HAAR through Air Force Rescue Squadrons (RQS) HC-130s or Special Operations Squadrons (SOS) MC-130s. Between active duty, reserve component, and Air National Guard, four such squadrons exist along the east coast, three squadrons in the western United States, and an additional three squadrons at various OCONUS postings. The primary customers of these units are RQS and SOCOM aircraft respectively, but as a consequence of the Air Force C-130 specialized force structure, HAAR training represents a significantly larger portion of squadron tasking that may be tapped by receivers to supplement Marine tanker availability.

The simulator affords another means of augmenting HAAR proficiency. It is by no means a substitute for actual aerial refueling, but as a training aid it allows pilots to rehearse all stages of HAAR, associated communications, and transitions between phases of flight in a tactical scenario. Immediate reaction to adversary aircraft when preparing to refuel can be discussed and conducted in the simulator to expose aircrew to a contingency that is difficult to create in training. Due to the limited opportunities available to conduct HAAR in the aircraft, any means available to a squadron to minimize friction in flight will inevitably translate to more meaningful training.



Conclusion

The Marine Corps is experiencing a monumental period of change not seen in decades. Assault support aviation will be required to conduct intensive, long range and high endurance operations to support the Marine Corps in EABO.[10] Fortunately, HAAR provides a critical capability to succeed in such challenging environments. An increased threat environment must not prevent our ability to utilize this skill in support of the MAGTF.[11] While a near-peer adversary's air threat capabilities will incur risk, it is appropriate to recall that HAAR was developed and utilized successfully against an adversary whose air force was formidable enough to force the advent of the United States Navy Fighter Weapons School while possessing, "the heaviest air defenses ever seen in the world."[12] To maintain our community's relevance in an evolving force structure, we must improve the quality of limited HAAR training, reinforce and advertise the capabilities that HAAR provides the MAGTF, and leverage all means available to ensure we are fully prepared to exercise this unique capability when called.

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Leadership the Hard Way

By CAPT Mario Mifsud, USN (Ret.)

The following is an excerpt from a speech given by CAPT Mario "Stallion" Mifsud, USN, (Ret.) at the HSC-21 Change of Command held on 02 June 2022 where CDR Mike Silver was relieved by CDR Ian Adams.

Mike, thank you for that introduction. I am truly honored and humbled to be standing in front of you all as your guest speaker. Let alone the chance to be amongst my people in a place I spent a number of years, but I get to watch two former JOs of mine transfer the authority of command in my old squadron. Man, I feel like I hit a trifecta.

Let's talk about leadership. Why? Well, it's why we are here today right? In the U.S. Navy we think it's so important to recognize the change in command leadership that we stop what we are doing, put on dress uniforms and formalize it in a ceremony for everyone to witness, so once it's over there is no question who is in charge.

The Navy Regulations dedicate a whole chapter to regulations regarding the "Commanding Officer" that's 22 pages alone on duties and role responsibilities of the CO. While it only mentions leadership in one paragraph, that paragraph does say a lot as to the relative weight and importance leadership should play. Let me read it to you.

"The commanding officer and his or her subordinates (applies to everyone in the command) shall exercise leadership through personal example, moral responsibility, and judicious attention to the welfare of persons under their control or supervision. Such leadership shall be exercised in order to achieve a positive, dominant influence on the performance of persons in the Department of the Navy." The description of leadership as a positive dominant influence on performance sets quite an expectation, doesn't it?

In my mind, leadership is what makes a great command great and, when done poorly, a not-so-great command not so great. It can be the difference in completing a mission or not, bringing everyone home with all their fingers and toes, and whether a young LTJG like Mike Silver sticks around to one day become CDR Silver and earn the title, Skipper.

As a start in this exploration, a quick review of what the Blackjacks have accomplished under Mike's leadership reveals a list of firsts and a performance on the level of a first-class Navy organization. Clearly, none of these things would be possible without the leadership that the Navy Regs call for, right? Leadership exercised at all levels of the command from the skipper on down to the newest qualified plane captain.

USS Charleston (LCS 18) conducts night flight operations with the MH-60S Seahawk helicopter "Gunsmith 74" from Helicopter Sea Combat Squadron (HSC) 21, Detachment 8 during Exercise Noble Vanguard.

But let's take it a step further and explore how we get the most out of our dedication and investment in leadership. What I would call "leadership the hard way" or maybe "long haul leadership" and what comes down to prioritizing long term potential gains over potential higher-probability, shorter-term outcomes. And I'd like to start that discussion with a story.

A Real No-Sh*tter

Sometime in the 2003-2004 timeframe the Army asked the Navy to support the air ambulance mission in Kuwait during Operation Iraqi Freedom, commonly known as MEDEVAC, medical evacuation, or by Army tradition and call sign, Dust-Off. Between Operation Iraqi Freedom & Operation Enduring Freedom they had rotated all of their air ambulance units to the fight, many of which were reserve units, and they were essentially out of Schlitz, so they called on the Navy to help.

I happened to be in the right place at the right time in my career, coming into HSC-21 as the XO and got the opportunity to lead the 2515th Naval Air Ambulance Detachment or NAAD for part of its 7-year existence.

After months of preparation and workups, our wave deployed in the Fall of 2006. A couple of months into the deployment, we received a call directly from an Australian unit which had been patrolling in the Southern Iraqi desert northwest of our base, which sat about 25 miles south of the Iraqi border. In the dark of the night, their lead vehicle hit a berm and the gunner up in the gun tub sustained a broken back in the collision.

The Aussies had initially called for a MEDEVAC and an Army unit based out of Tallil Air Base, which is about 12 miles southwest of Al Nasiriyah, was tasked with the mission. The Army crew launched, but enroute encountered heavy ground fog, could not continue, and returned to base. That's when the Australians literally picked up a satellite phone and called us directly, not going through the normal medical regulator channels which were used for mission tasking.

It just so happened that on that night our two alert crews standing their routine 25-hour duty happened to be a line-up of some of the most junior pilots in the unit. The crews collected their 9-line information and started their aircraft as we got permission to launch them across the border into Iraq.

If that wasn't enough, enroute to the point of injury, the crews encountered the same fog that the Army crew had run into on their attempt. Both crews started to experience vertigo, known as the "leans," because it feels like you are in a turn when in fact you could be flying straight and level.

Both crews fought that off and arrived in the area, still socked in by fog. They searched and searched and couldn't find the convoy through the weather. When they were just about to call it quits and RTB (or return to base), they saw the flash of a strobe light through the fog. Now they had to make the decision whether one of the crews would attempt to make a landing through the fog and then through the inevitable dust cloud which, even during the day, produces what is known as a "brown out" condition due to the blowing dirt and sand.

The lead aircraft crew decided to attempt the landing and made a nice approach to a touchdown on their first attempt. The SAR Med Tech and one of the crewmen got to the injured Aussie, got him stabilized, packaged him up, loaded him on the aircraft, and successfully delivered him to Camp Arifjan's U.S. Military Hospital – Kuwait. They saved that soldier's life. The co-pilot of the bird that night who did the landing was none other than our very own LTJG Mike Silver.

Leadership is the Answer

Now granted, Mike Silver is a special case and would have achieved success in the long run even if he was surrounded by poor leadership his whole career, but the question is how do we make more Mike Silvers? How do we consistently achieve mission successes even when faced with extremely difficult circumstances as Mike and the crews on his mission did? How do we aid every command to be able to achieve a list of firsts and accomplishments like our Blackjacks have?

You won't be surprised to hear my answer is through leadership, but a kind of leadership that takes a little more effort, one that requires more time and one that might mean more risk. As I alluded to earlier, this is leadership the hard way. There are no shortcuts or hacks. It requires discipline, planning, a commitment to building a greater organization and the belief that as a group, you can get better and achieve more.

To simplify the approach, I'll break this down into two components: the first is investments in the system and the second is investments in the individual.

Investments in the System

When we talk about investments in the system, we are really talking about building resiliency into how we do what we do and building a better system. In Nassim Taleb's, "The Black Swan: The Impact of the Highly Improbable," he takes on the topic of extremely rare and unpredictable events and how we try to find simplistic explanations for them in retrospect, calling it the Black Swan Theory. Why? Well without getting too much into the statistical concept, the simple analogy is that while we believe black swans are rare, they are actually more common than you would think.

You see, Taleb argues that instead of trying to predict these events where we really don't know what the probability distribution looks like (i.e., it might not be the bell-shaped normal distribution we imagine everything falling into), we should just build a robust enough system to handle the disruption. And think about it, if your system is built to handle extreme disruption how will it handle everyday operations? I'd argue pretty well.

So as a Navy leader how would you apply this? First, I'd suggest, don't make you or any one individual essential to a process, completing a mission or any singly important matter. Sure, roles have responsibilities, but don't build reliance on a "Superman or Superwomen" into how you do things, especially if you set that superhero up to be you.

If you, as the leader, need to be involved in every decision, in every process, in every hard mission, you are setting yourself and your organization up for a fall and it won't take a black swan event to happen.

For example, in my mind the organization should function properly on a day-to day-basis whether the leader is present or not. Everyone in the organization should know your commander's intent, priorities, guiding principles and vision and then you should get out of their way. Now of course some things need to be set in place for this to be successful, but that would be the goal.

*Don't F&*k It Up*

Central to this approach is how you view training, preparation, delegation, empowerment, and trust. When I was the Blackjack CO, when folks achieved a major qualification or were assigned a particularly challenging mission, I was known to say to those folks, "Don't mess it up." But normally this phrase was delivered with a more adult verb inserted in there. I bet you Sailors can guess what it was. Now, for the moms out there, and especially in the Silver and Adams families, I feel I owe you an explanation.

I didn't come up with the phrase, but I chose it because I really believed how strongly it captured the position these stellar individuals assuming. Did it have a dual effect of making people laugh, creating a connection and easing the weight of the event? Sure, but that wasn't the main intent. Could it be perceived as crass, yes. But, perhaps only by those who didn't get the point.

I said it because I believed we provided them all of the training and preparation they would need to be successful. I said it because I thought they were personally ready to take on the challenge and trusted them because the unit had prepared them and now it was on them to get it done, do it right, and bring everyone back in one piece.

COs cannot fly on every flight with their junior aircraft commanders, nor should they. Will that junior aircraft commander continue to grow and improve? You bet, but that's where your system takes over to accomplish that. With that in mind, why would you not apply that philosophy to all that you do if we know it works in the way we train and lead in combat?

I could go on giving examples of how to make these investments and build robustness into your systems, but I think you get the idea. Will it cost more in resources, time, and commitment? Yes. Will it be worth it? Yes.

A Personal Investment in your People

The second element of the approach is making investments in your people. While this is really an extension of the first concept, it's much more personal. I'm talking about making a personal investment in your people, to the point you have skin in the game.

What do I mean by that? As a leader, are you willing to accept greater risk to help an individual grow? Will you make a bet that the time and resources you pour into an individual will make them better in the long run and therefore the organization stronger? Are you willing to put short term success and your reputation on the line to achieve it?

Look, there is no doubt Naval Aviation is full of type-A individuals who want to win. As a matter of fact, it's the American way. We don't like second place. So, what do we do as leaders to achieve the win? Anything we can! Some examples might be putting our most experienced pilots on the schedule to get the tough mission done, stacking the deck when recruiting that top weapons school instructor to be the squadron SWTI and aiming to get the best performer in the key job.

We do this to lower risk and create a higher probability for the win. We are creating our own luck. But what if we trade a guaranteed win for some slightly lower probability of winning in the short term and an even bigger win in the long term? We accept a little more risk now, where we can control it, to build a stronger organization and a greater chance of success in the future.

I know what you're thinking. That all sounds well and good, Stallion, but how do we put it into practice? OK, here's an example. You have to fill a maintenance officer role on a detachment. You've got two good candidates both with operations and training experience, but one is really not good with people and needs work in that area. Well, there are certainly challenges with that choice, but there's also an opportunity.

Are you willing to make that personal investment of time and energy to help that individual get better for the sake of their next job? Well, what does the risk look like? What if the individual is most certainly capable of doing the job? Can you work with your senior maintainers to get some grace and help in this project? Are you personally willing to lead by example, provide mentorship and coaching to get the win?

It's up to you, but you can make the difference in someone's career and life for that matter. In investing, you'd say risk equals reward. Well, the potential for reward for the organization is many times the risk in this case, and personally you will find no greater satisfaction with a job well done.

I guess my point is, that's what leaders are paid to do. To lead. That is your job. If you want to test this theory, look at the extremes. OK, in this case the opposite extreme would be to fire everyone until the right person fills the job. That doesn't sound right, does it? Why, because that's not why you were put in that leadership position in the first place. You were put there to get the job done, yes, but also provide the people who do the real work the opportunity to develop. Don't cheat the future of your organization and the Navy out of that result.

A Non-Stereotypical Closing

In closing, I'd like to make a comment here to offer a bit of clarification and wisdom to all those aspiring leaders out there. While I leveraged the stereotypical ego pilots are known to have to make an attempt at humor during this talk, the advice I'd like to give is don't be stereotypical.

Lead with strength but be humble. Give credit to those who do the real work, provide your guidance, step back and let them get the win. God bless the Blackjacks of HSC-21 and God bless America. Thank you.

About the Author

CAPT Mario "Stallion" Mifsud, USN (Ret) was a former HSC-21 Blackjack Commanding Officer, Commanding Officer, USS Denver (LPD-9) and Commanding Officer, Atlanta Region NROTC. He is currently the Associate Lab Director, Electro-Optical Systems Laboratory, Georgia Tech Research Institute (GTRI). He is an NHA Trustee and sits on the NHA Board of Directors as a Director-at-Large.

Giving Old Glory New Life

By CAPT Jim Gillcrist, USN (Ret.)

In this NHA business, I have the distinct privilege of meeting, chatting, and working with many members of the organization we love, each and every day. When civilian friends ask me what I am doing, I tell them that I am back in the Navy interacting with Officers and Sailors who wear gold or silver wings on their chests – each one of whom earn my immediate trust and respect. Interestingly, many of these great Americans continue to serve their country, their local community, and / or NHA well beyond their time in service.

CDR Tom Pocklington, USN (Ret.) and CAPT Jim Gillcrist, USN (Ret.) with one of the flags available for any squadron to request.

CDR Tom Pocklington, USN (Ret.) is one of these impressive individuals with whom I have collaborated these past few years to give new life to retired American flags. You see, Tom has been invested in the San Diego community most of his adult life, first as a Naval Officer and Aviator flying H-3s at NAS North Island over a 24-year career, and then as a Real Estate Broker and Adjunct Professor at National University after transitioning from the Navy.

During this same time, Tom took an active part in keeping the San Diego community a desirable and safe place to live. Activities include his membership in the Sweetwater Valley Civic Association (1985-2012) where he also served as President, and his appointment as Chairman of the Citizen Law Enforcement Review Board (CLERB) by the San Diego County Board of Supervisors. CLERB serves to provide citizens with an independent overview of the San Diego Sheriff's Department, Juvenile and County Jails, and Corrections Officers (1999-2004). Additionally, Tom was elected to the Board of Directors of the Bonita-Sunnyside Fire District in 1990 and re-elected for eight additional terms, resulting in a total of 32 years of service. Notably, the Bonita-Sunnyside Fire Department is regarded as one of the best departments in all of San Diego County.

Lastly, of all Tom's professional accomplishments, he is most proud of helping to establish the Bonita Veterans Memorial in 2005 (right in front of the Bonita Library) in tribute to local veterans. On its plaque is inscribed … "IN HONOR OF THOSE WHO SERVED - IN MEMORY OF THOSE WHO DIED." Year round, a 15 by 25 foot flag flies over the memorial as a constant reminder to all that this country is the land of the free and home of the brave. Every nine months, these flags are retired and presented to a person, or organization that will continue to honor veterans, active military, or citizens of America. Tom began finding homes for these flags to continue to be flown and NHA has become a regular recipient. These days, NHA offers retired flags that are still serviceable to Navy units to hang prominently on a wall in a hangar or against a bulkhead aboard a ship for ceremonial purposes. To date, these retired flags have been given new life as they have found homes with HSC-3, HSC-14, HSC-21, HSC-23, HSM-40, HSM-41, HSM-49, HSM-71, VRM-30, VRM-50, and USS San Diego (LPD 22).

Should a command be interested in obtaining one of these flags as a gift, contact the NHA Office (619-435-7139) or myself (executivedirector@navalhelicopterassn.org) and we will be happy to see that you get one.

To my good shipmate and Lifetime Member, Tom Pocklington, the NHA Staff and NHA at large salute you for enriching our San Diego Community and making it a better place in which to live and raise our families – keep your turns up!

Last Flight Flown

By LT Dale "Hannibal" Lescher, USN
U.S. Navy Test Pilot School

On August 26th of this year, Admiral Bill Lescher, the Navy's Vice Chief, first four-star helicopter pilot, and longest serving naval aviator and helicopter pilot, flew the traditional Last Flight Flown (LFF) at the U.S. Naval Test Pilot School (USNTPS). With USNTPS being the setting of much of his, and others, formative learning on how to develop and employ the full capability of aircraft for mission success, this LFF at USNTPS provided a fantastic opportunity to share his experience with our current test pilots under instruction, instructors, staff and maintenance team… the present and future of Naval Aviation. As Admiral Lescher and I briefed and manned up the school's UH-60L Blackhawk, I sensed that the flight also provided a fantastic opportunity for me to reflect on the path to my passion for flying, and how this event so clearly symbolized the past informing the present, as I flew with my dad.

U.S. Navy photographs by Erik Hildebrandt"

The Past

My father's operational experience spanned decades of flying the H-2 and H-60 off of destroyers and frigates; supporting MH-53E's flying mine countermeasures missions as Executive Officer of the Mine Countermeasure Command and Control ship USS Inchon, and flying each of the rotary wing aircraft in the Marine Expeditionary Unit Air Combat Element, as well as the HSC detachment aircraft while commanding Expeditionary Strike Group Five in Bahrain. During his three years of developmental test work at the Naval Air Warfare Center Aircraft Division (NAWCAD), his experience ranged from identifying the hard limits that defined destroyer day and night recovery envelopes in the winter seas off of Vancouver to launching the first guided missiles from a Navy helicopter.

The adventure, challenges, and team spirit that he experienced shined brightly for me. Seeing my parents come home from work every day in flight suits, along with countless viewings of Top Gun, left a strong impression of what the "coolest job in the world" was. (My mother, a Naval Flight Officer, served 20 years in the TACAMO community). From a young age, my brother, Billy and I saw the appeal of the Naval Aviation community first-hand. As I grew older, mostly oblivious to the finer details of my dad's job outside of whatever his rank was at the time and that most days he still wore a flight suit, I nurtured and developed my own passion for aviation. It was no surprise to anyone that I wanted to attend the Naval Academy and begin my own journey of naval service as an aviator.

Having the full support of my father while we served concurrently was an added bonus. Our conversations about what makes up a strong character became more nuanced as I gained my own leadership skills, flying experiences, and grew as an officer. For my junior officer friends and me, my dad set the example for staying true to oneself and pursuing jobs in the Navy that one feels strongly called to do.

The Present and Future

My USNTPS classmates of Class 162, like my father's in USNTPS Class 91, continuously inspire me with their work ethic and their vast range of operational experience and platforms flown. We all share the drive to explore the uncertain and look forward to the day we can contribute to our communities' futures through testing.

As for my dad's LFF, anyone who knows my dad knows he chose to beat up the pattern. We had a great flight and enjoyed the brief convergence of our shared time in the Navy.

My dad's time in the Navy left a remarkable impression on his many co-workers and friends. For my brother and me, it was a roadmap for how one puts their whole heart into whatever they do in life, be it in the military or as a civilian. I have seen first-hand all that the Navy means to people and how to leave the organization better for the next generation, as my dad has been able to do.

I look forward to continuing my own journey in the Navy, as the helicopter community advances the work done by those before us. Thanks, Dad. We have the controls!

Passing of the Golden Helix Award

By LCDR Patricia A. Kreuzberger, USN

ADM Bill Lescher passed the Golden Helix Award to VADM Jeff Hughes during an unofficial ceremony at Naval Air Station Patuxent River, home of the U.S. Naval Test Pilot School, August 26, 2022.

The Golden Helix Award honors the Naval Aviator on active duty with the earliest date of designation as a naval helicopter pilot. ADM Lescher serves as the Vice Chief of Naval Operations and Hughes serves as Deputy Chief of Naval Operations for Warfighting Development. He was designated a Naval Aviator in 1981, flew in the HSL/HSM Community, and has flown every helicopter in the Navy and Marine Corps inventory since. Hughes was designated a naval Aviator in 1989 and has flown MH-60R and SH-60B Seahawk Helicopters throughout his career in the HSL/HSM Community.

ADM Bill Lescher passes the Golden Helix award to VADM Jeff Hughes.

"It has been an honor to represent this community for over 40 years," said ADM Lescher. "Passing this award to Jeff Hughes is awesome because I can think of no better role model for rotary-wing pilots. His commitment and service to the country are unsurpassed."

"It's the honor of a lifetime to represent the Naval Rotary Wing Community in this capacity. I've had the privilege of serving for ADM Lescher since my first operational squadron tour and will strive to support our aviators, aircrewmen and technicians as ably as he has over his four decades of distinguished service," said VADM Hughes.

"It is particularly meaningful to pass this award at the home of Naval Test Pilot School," continued ADM Lescher. "The Naval Aviators and Test Engineers trained here conduct some of the most consequential flying impacting the future of Naval Aviation."

AWS1 James Philip Buriak, USN, died 31 August 2021 in a Naval helicopter crash off the coast of San Diego. Where he served as a Naval Aircrewman Rescue Swimmer (AWS) with HSC-8. The legacy of a hero is the memory of a great name and the inheritance of a great example. This foundation was created in the wake of Jimmy's death as a way to honor him and his memory but also keep his purpose alive - to help others. Jimmy served as a rescue swimmer whose motto is, "So others may live." We've embraced this motto for the foundation and its purpose of being there everyday, but on your worst possible day, knowing that we are here to walk that journey with you. Our mission is to ensure the sacrifices of those in the aviation community are honored and those who are left behind are supported, empowered and continue to be part of the community.

We are an all-volunteer, military and military spouse organization dedicated to providing pre-mishap education and immediate post-mishap support for the Navy and Marine Corps Aviation Community and their families. We offer three programs.

Program 1: PreMishap Education: Pre-mishap education includes talking to squadrons, commands, and families about important "need to know" information and how to best prepare a service member and a family. We discuss POA's, wills, commercial life insurance policies, etc.

Program 2: Post Mishap Support: Post-mishap support includes providing immediate financial relief for the service members' children, such as childcare, diapers, wipes and formula, in the month following the mishap.

Program 3: 90 Day Road Map and Advocacy: The Foundation will provide families with information of what is needed, and an overall picture of what the first 90 days will look like. The Foundation also strives to provide support, information, resources, and advocacy as needed during these times.

Loosefoot 616 Memorial Run Unites

by CAPT Jim Gillcrist, USN (Ret.)

On Saturday, 27 August 2022, The AWS1 James Buriak Foundation hosted the first ever Loosefoot 616 Memorial Run at Tidelands Park in Coronado, Virginia Beach, and virtually. 784 registrants (comprised of 443 runners in San Diego, 116 in Virginia Beach, and 225 virtually) participated in what turned out to be an extraordinarily successful event which united pilots, aircrewmen, and families from across the Rotary Force in honor of shipmates who perished aboard Loosefoot 616 one year ago.

Skipper Jimmy Dalo, HSC-8 Commanding Officer, and Ms. Megan Buriak, Founder and President of The AWS1 James Buriak Foundation.

Seeing active-duty personnel and their families gather to support this event made the day special from the start. To get a feel for the moment, Skipper Dalo, HSC-8 Commanding Officer, consented to share his "prerace opening tribute" with NHA Members as follows:

"Good morning everyone, One year ago, on the 31st of August 2021, the nation lost five incredible, beautiful, and unique people in a helicopter mishap off the coast of Southern California. Each of them was the very best this nation has to offer. They lived wonderful lives, and they were the masters of their craft. They had genuine love stories and were amazing family members. Brad Foster, Paul Fridley, and Jimmy Buriak were incredible sons, husbands, and fathers. Sarah Burns was a devoted wife and a loving sister while Bailey Tucker was a wonderful son and a friend to many. But their loss united many and serves as a reminder of the gift we are given every day. So today, I would ask that, as you run, please reflect on the life you live. Carry on their spirit, one of Love, Honor, Compassion, Courage, Dedication, Service and Joy. Run just a little harder, a little further, and a little faster in their honor and memory."

The James Buriak Foundation Team led by Megan Buriak ran a well organized and orchestrated event with proceeds going to support the mission: "To ensure the sacrifices of those in the aviation community are honored and those who are left behind are supported, empowered, and continue to be part of the community."

The foundation is an all-volunteer military and military spouse organization dedicated to providing pre-mishap education and immediate post-mishap support for the Navy and Marine Corps Aviation Community and their families. The motto is Prepare, Respond, and Remember.

Founder and President, Megan Buriak, says that the date next year for the 2nd Annual Loosefoot 616 Memorial Run for San Diego, Virginia Beach, and virtually will be held Saturday, 19 August 2023, and intends to host a run in Washington D.C. as well. Furthermore, the foundation will be seeking sponsorship support for next year's event so please pass the word far and wide.

If you wish to make a donation, purchase merchandise, or contact Megan Buriak to find out how you can be more involved, then please visit the foundation's website at https://theaws1jamesburiakfoundation.org. The team updates this social media platform regularly with events, shares resource information from other foundations similarly aligned in doing good, and offers outreach, help, and support if a rotary wing member is in trouble. Megan's goal is to have this Memorial Run become a legacy event from CONUS to FDNF in support of our rotary wing aviation community. The foundation is currently mission capable, mission ready, and looking forward to actively briefing commands and squadrons on their program of pre-mishap education. This entails how to best prepare military members for a worst-case scenario while keeping a positive perspective and how to ensure family members are educated and aware of things they could encounter if they are not. As Megan puts it, my focus is "educating people and bringing awareness to what can and could happen by shining light on what did happen to our family after we lost Jimmy. I thought we were prepared, but little did I know there were so many things that I had to learn the hard way. I want to use our lessons as a way forward so others may have it easier, be better prepared, and find stepping-stones from our journey!"

Hometown Recruiting and Understanding the Future Generation of Naval Personnel

By LT Geoffrey "Milk Man" Fries
HSC-2 Fleet Angels

At the onset of the new fiscal year, I was lucky enough to travel back to my home state of Oklahoma to recruit future Naval Officers through the Navy's Officer Hometown Area Recruitment Program (OHARP). During my travel, I reflected back on what was important to me as a 17 year old high school student seeking a commission in the U.S. Navy. At the time, in 2010, I was focused on having zero student debt, a guaranteed job, and a way out of my Oklahoma town to "see the world." I didn't ask many questions, and I didn't care to ask. I was focused on the opportunity and willingly signed up without much understanding of what I would experience. Well, fast forward 12 years and I received a commission, completed flight school, executed multiple deployments, and enjoyed a shore tour. I am amazed how different the high school students of this generation are. My experience with OHARP exposed how I need to shift my perspective in order to become a more effective Naval Officer.

Navy's Officer Hometown Area Recruitment Program (OHARP).

During my time in Oklahoma, I was able to sit down with over 80 high schoolers interested in receiving a commission across five different public schools throughout the eastern half of the state. I was struck by how specific and detailed these students' questions were. They wanted to know the intricacies of my commitment, the details of each available service selection, the differences between Restricted and Unrestricted Line Officers, and the typical experiences while deployed. All of these were questions that I never thought to ask as a rising high school senior.

This reminded me of my time as a Division Officer working alongside my Senior Chief. We frequently chatted about how these new Sailors were always asking the question, "Why?" to nearly any task presented. Upwards of 10 years ago, the answer was always, "Yes, Sir," and the leader's command was never answered with a question. Times are changing.

At first, both as the young Division Officer and as the Officer Recruiter, I was surprised to hear these responses. But after getting to know the junior Sailors and prospective Naval Officers, I have come to appreciate the thoroughness of both groups. The desire to understand and evaluate a decision is something that should be celebrated. It breeds confidence in all the ranks, and creates a more cohesive unit that is aligned from the top down. I am not saying that commands should be questioned, and there are plenty of time-critical commands that must be executed immediately. However, these questions have highlighted a generational difference that I see playing out within the Navy. As a selfish introvert, I often ask, how does this affect me? This experience has taught me that making decisions that affect personnel, regardless of the severity, must always have a solid foundational reason. By doing this, I have seen the younger generation gain even more confidence in what the Navy is doing. After the high school visits, multiple students are now seeking Navy commissions who otherwise would not have.

It is no secret that the Fiscal Year 2022 Goal for DOD enlistment fell well short of expectations. There are many factors that contribute to this shortcoming and I believe a lack of understanding of the generational differences is one of the key pieces to understanding this problem.

I am grateful to have had the opportunity to go back to my home state and engage with the younger generation. The experience helped change my perspective, has shaped how I will interact with Sailors, and how I will lead as an Officer. It is time to embrace the conversation. Instead of seeing these differences as a hindrance to efficiency, I value them as an invitation for cohesion in order to build a more effective force.

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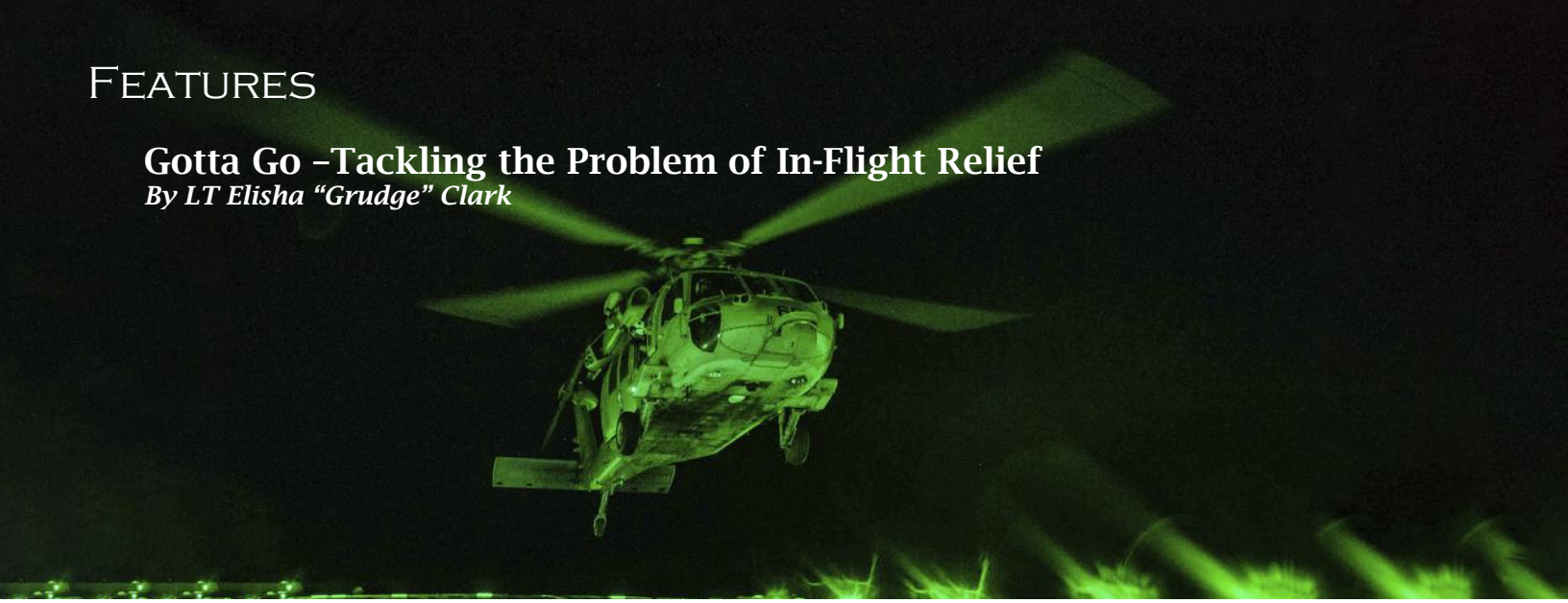
Gotta Go –Tackling the Problem of In-Flight Relief

By LT Elisha "Grudge" Clark



The Problem

The availability of a bathroom isn't something most people think about on a daily basis. On-demand restroom access is a luxury often taken for granted by most. Typically it's considered a first-world basic human right. Even most campsites and motorhomes are outfitted with comfortable commodes, or at the very least a privy. Workplaces across America ensure a bathroom for employees.

But what about a helicopter? For me, it wasn't until a dark night in the middle of the South China Sea when I started to think really hard about in-flight relief.

We were about 7 months into our 8.5-month deployment with the USS Antietam (CG 54) when we launched for this routine flight. I had almost a year as a Helicopter Aircraft Commander (HAC) under my belt. The plan was for it to be a short flight (only a 4-hour single bag) and, to break up the monotony, we were going to the carrier to pick up a part and some fuel.

As we landed, the cloud-filled skies opened up as we drove straight through a rainstorm. I asked if anyone needed to use the bathroom, since this would have been a good opportunity. As the HAC, I didn't want to leave the aircraft, since I wasn't sure how long the rain would last and didn't want to abandon my crew for too long. I remember looking out from the waist and realizing I could not pick out a horizon through my goggles. *Yikes.* After hearing from a Sierra in the delta that the skies ahead didn't look too bad, I decided to continue holding on deck for a bit until we cleared the rainstorm.

After another 30 minutes or so, I decided to give it a shot. The weather was definitely good enough to take off, but possibly not good enough to do our mission. I reasoned that we had the ability to safely check the ceilings, and if they weren't good enough, we'd stay below the clouds and go back to the cruiser.

On climbout, the visibility was good enough for us to pick out the Sierra in the delta, and the horizon was starting to peek out of the low cloud layer. Things were looking pretty good, so I decided there wasn't any harm in climbing up and getting some more radar coverage. I can't recall the exact reason why, but somehow our flight got extended another two hours. My crew and I weren't thrilled about being extended, but things were fine for the time being.

Then things began to fall apart, starting with our radio failing. When I looked up, I started to realize that the clouds were getting thicker around us. Through my goggles, all I saw was green TV static. When I peeked underneath my goggles, it was complete darkness. Just as I'm thinking of how we should get back and get down below the clouds, I hear a piercing beeping sound and see red X's where our radar altimeter (RADALT) should be.

Well… that sucks.

After a few minutes troubleshooting, I decided to accept that the RADALT was gone and work on descending safely without one. I figured my options were asking for a Carrier Controlled Approach (CCA), or descending normally relying on the barometric altimeter (BARALT). Taking into account how much I didn't want to land on the carrier unless I absolutely had to, potentially causing a lot of unnecessary excitement, I decided to descend to 500 feet on the bar alt. If we weren't able to visually see the water by then, I'd ask for a CCA and figure out the rest later. I put this to the crew, and everyone was on board.

We couldn't see anything at 500 feet. I barely had a horizon at this point, and the lack of a RADALT made me even more untrusting about what I was seeing outside. This is where the luck comes in. Out of the corner of my eye, I noticed a blindingly bright light blooming me out on goggles. I CAN SEE THE OCEAN! The light was so blindingly bright that it illuminated the entire water space around it. Excitedly, I directed my 2P to fly toward the bright object. It ended up being a fishing boat's flood light that would guide us safely to 200 feet on the bar alt. Thankfully, this seemed to match up with what we were seeing on the water.

As exciting as this was, we weren't out of the woods yet. We still had to land back on the ship with no RADALT, one working radio, and zero illumination. On top of all this decision making and stressful troubleshooting, I really had to pee. We had been flying around for at least five hours at this point and had started up the aircraft as well, so in total it'd been about six hours since I'd been able to use a bathroom. I let the crew know just so that there were no secrets, and my copilot asked if I wanted him to fly the approach. "Not a chance," I said. I knew this wasn't going to be an easy landing, and I was sure with my experience I was still the best person to handle it.

About thirty minutes later we had gotten the winds and sea state information from the ship and were setting up to land. I forget exactly what the sea state was, but I remember it being a little sporty due to the bad overall weather. As I put the ship's course into the TACAN course needle, I remembered that the calibration was about ten degrees off, which makes a huge difference when you're as close as we were. Up to this point the weather hadn't been bad enough for it to be a cause for concern, but it became one now. As if that weren't making this approach disorienting enough, when I started transitioning to searching for the blurry ship through my goggles, I realized that the overhead forward structure light's NVD filter was not functioning. Since those lights are situated directly over the hangar, it was shining into my face as I looked for the ship. I tried to surpress the increasing sense of panic I felt. We were about ¾ of a mile from the ship. My stomach should have been in knots based on what I was seeing, but all I could think about was getting me and my crew on deck safely and getting to a bathroom.

At about ¼ mile from the ship, I called for a wave-off and started my climbing turn back to 200 feet on the BARALT.

Everyone seemed comfortable with trying a second approach after the LSO coordinated shutting off the lights, so we pushed ahead. I know I said that I would have gone back to the carrier, but in my mind that just wasn't going to happen. I felt like my bladder was going to explode.

As we came in for our second approach, things were looking much better. While the flight deck was considerably darker, it was much easier to pick out the lines and shapes of the hangar face. The TACAN offset was no longer an issue thanks to a precision fly-to-point, which was helping with the disorientation.

We were now at half a mile again. This was where I needed to make the decision: do I wave off and go back for a CCA, or do I commit? The lighting was good enough, I could see the ship so the TACAN wasn't an issue anymore, and I still really had to pee. "Starting my descent," I announced to the crew." We were committed.

I don't remember the numbers exactly, but it was higher than your standard pitch 1 roll 2 (for you "exped" folk out there).

"You've got this, Grudge," my 2P said encouragingly.

Yep, piece of cake…

We make it over the deck, and my eyes are completely outside. "Nose over the missile deck," I hear. I'm trying not to squirm. "Nose over the flight deck." Eyes with the HRS bar. Look for the butt lines. Try not to squirm. I know if I move too much I can become disoriented. The deck is pitching. Try to be still.

"Forward 3…2…1… right 2… left 1… in position, in position, in position."

I lower the collective and feel the tension in the cockpit melt away. We wait for chocks and chains for what feels like an eternity, and I'm already unstrapped. As soon as the next 2P comes out to take my seat, she opens the door and I'm so desperate to get out that I practically shove her out of the way. When I came back out to do the turnover the HAC had already decided to just shut down, a call I stood behind 100%. I'd narrowly avoided falling victim to swiss cheese on this one and didn't want anyone else to go through what I just had.

The Case For In-Flight Relief

I thought a lot about the things that went wrong in this scenario. Yes, we could talk all day about the problems I was having during the flight. But all in all, they were eventually addressed. This was enough of a push for the ship to finally get the TACAN and overhead forward structure lights fixed. My failed RADALT and radio were fixed with no issues by the next flight. I want to talk about one issue in particular that wasn't resolved. It's an issue that's been on my mind during countless other flights. It's an issue that is as human as it gets. The things that happened in that flight were stressful on their own, but the stress I felt increased significantly as the bathroom situation became worse.

Let's review a typical Cruiser walk-preflight-fly timeline. This was during "vampire ops," so as a first go, the flight takes off at midnight. You wake up before the brief and are forced to play the game of drinking a ton of water so you won't be dehydrated, and then start to taper down after the brief. This practice of controlling water intake to prevent the urge to pee is commonly referred to as "tactical dehydration." Ridiculous? Yes. Necessary? Also yes.

Especially on a first go, The timeline for a flight on a cruiser does not leave much time for bathroom breaks. Right after the brief, you're constantly doing things. Even if you can manage to sneak one in before preflight, after that you're holding it until a scheduled hotseat or hot pump time. We walk an hour prior to take off for a start-up, and with the standard flight being over three hours, that's at least five hours between bathroom breaks. I got unlucky for this flight. My actual timeline was worse than a typical one, and it ended up being

a total of six hours between bathroom breaks. We were only scheduled to fly for three-hours, with a parts-run in between. When it turned into a five-hour flight with things going wrong, the situation became dire. It turns my stomach to think about what would have happened if I hadn't landed that last approach. Among all the things that were happening in my aircraft, a full bladder shouldn't have been a consideration.

Tactical Dehydration vs. Flight on a Full Bladder: An Impossible Choice

Having to constantly think about using the bathroom due to the lack of in-flight relief devices isn't just a painful distraction. It leads to tactical dehydration. Tactical dehydration, as I mentioned previously, is intentional dehydration for the purpose of preventing bathroom breaks or the urge to pee.

Dehydration can become dangerous over time, especially in a high-stress environment. Specifically for jet pilots, dehydration can lower G-tolerance by up to 50% according to an article published by flyingmag.com in December of 2021. The article also mentions a decrease in "physical and cognitive performance, decreased situational awareness, headaches, and altered vision," all of which would negatively impact aviators of any platform (Johnson 2021). A study conducted by the U.S. Army Biomedical Research Command found a significant difference in the cognitive abilities of participants who had lost 1-3% of their bodyweight in water (Lindseth 2013). I couldn't find more recent studies conducted on this subject, but the results make perfect sense.

As anyone who has deployed to the Arabian Gulf or the South China Sea can tell you, you'll lose about a pound of weight in sweat per flight with how hot it gets in the summer months. Tactical dehydration is used to combat the need to stop during long flights, so continued dehydration on a regular basis is common. Long term effects of dehydration can impact future health. According to the Mayo Clinic, the more serious complications from repeated dehydration include urinary and kidney problems such as urinary tract infections (UTIs) and kidney stones (MAYO 2021).

If you're drinking plenty of water and don't suffer from the above due to dehydration, you're probably holding in your pee for too long. Typically, the muscles in your body get stronger as they're used. However, the pelvic floor muscles actually weaken if you hold in urine for long periods of time. This can lead to incontinence or a stretched and weak bladder. Similar to the effects of frequent dehydration, holding your pee for too long can also lead to kidney stones and UTIs. The least likely but most severe result of holding in urine is a ruptured bladder. It's a rare occurrence just on its own but is a more common occurrence in sudden traumas (such as a car or plane crash) when someone has a full bladder (Simon 2022).

Whether or not you think the distraction of a full bladder in the aircraft is a cause for concern, a lack of bathroom options can be seriously harmful to the health of aviators and deserves consideration. The products I'll introduce in the next section are used frequently by men as well as women. Some products are currently in use as the standard for in-flight relief, while others are just beginning to gain mainstream use. Part of the problem is that people aren't educated on what in-flight relief options are, and a lack of demand for more options is the result. My goal is to get more information out there, with the hope that it leads to more pressure on Naval Aviation to procure equipment that will allow pilots to focus on their missions. We can never be free of our bodies' natural processes. But if there are options to create an environment as unencumbered by physical limitations as possible, let's explore them.

"Piddle Packs"

The most commonly seen solution to in-flight urinary relief is the piddle pack. This device, as most aviators are familiar with, is a disposable "unisex" (according to the ability-one website) leak-proof vinyl relief bag that traps waste and odor. These packs look like plastic bags with compressed sponges or hydrophilic granulated powder. The idea is to use either the sponge or the powder to absorb the liquid and turn it into a solid gel, thereby making disposal an easier task.

The benefits of Piddle Packs are pretty straightforward. They're cost effective at only around $10 for a single-use bag, easy to dispose of, and less difficult to procure than new systems since they're well established in the military supply system.

That being said, the reasons piddle-packs are problematic aren't just limited to the obvious issues with female anatomical incompatibility. The NSN description on nationalstocknumber.org (yes, that exists) claims it doesn't have a shelf-life, but most aviators will tell you that anecdotal evidence suggests otherwise. While they're cost effective, the small detail of female anatomy makes them next to impossible to use on their own. However, they do make for a halfway decent solution when paired with the devices discussed in the next section.

"Piddle Pack" Hydrophilic Granulated Powder System (left) and Compressed Sponge System (right).

"The Lady-J," "Go-Girl," and Other Female Urine Collection Devices

These devices, popular for other uses such as camping, attempt to act as an "adapter" to the female anatomy, making it possible for women to use the piddle pack as described above. Sporty's pilot gear website describes the Lady J as a "specially designed portable funnel," which "allows women to get relief anytime." It is compatible with the "little john," which resembles a water jug (sold separately, of course).

The "Lady J" Adapter (for Little John Pilot Urinal)

Another option that is popular with avid campers is the "Go-Girl," developed in 1995 by a Minnesota oral surgeon for women and is "designed to contour to the female anatomy." The Go-Girl website claims that with the help of gravity and the texture of medical grade silicone, almost nothing is left behind, similar to the claims made about the Lady J. If gravity wasn't a requisite, it could be a convenient solution to cockpit relief. Unfortunately, the female anatomy doesn't quite conform to the positioning required for expulsion while strapped into a seat. This device requires female aviators to unstrap completely, stand on the seat, and squat into the device.

The "Go-Girl" Female Urination Device

Why do women need to squat in the first place? An article published in the Journal of Aviation Technology and Engineering (JATE) goes into great detail about the challenges of female in-flight relief. They describe the physiology of urination for women, in that the "pelvic floor muscles must relax, thereby reducing pressure on the urethra." Doing this requires a woman to stand or squat to completely engage the correct muscles to achieve a "complete and effective relief process" (Schultz 2021).

While the article is very thorough in some ways, the discussion is limited to fighter aircraft. Gear is cited as an issue, as the ejection handle and flight controls can impede access. Female pilots have to go a step further and unstrap from the seat completely, making a safe ejection impossible. Research on the challenges of in-flight relief for rotary-wing platforms is sparse or non-existent, and the last study the JATE article cites on the subject in fighter aircraft was from 1993 (Schultz 2021).

The Lady-J and Go-Girl use isn't limited to piddle packs. The MH-60S has a relief system built into the helicopter that is seldom used by women. It's essentially a funnel attached to a plastic tube under each seat well in the cockpit. While convenient, this system has some glaring issues. The tube itself is short, so you have to lower your seat all the way to use it, rendering the aircraft single piloted for the time relief is occurring. Additionally, if the seat is all the way down, it is unable to absorb the impact of a crash the way it was designed to. The system is also susceptible to being clogged from debris, so pilots report having to test out the system to make sure the waste will actually make it to the outside of the aircraft. Some female Sierra pilots report being issued a Lady-J to make using the system possible, otherwise they don't use it or bring their own adapter. Going back to the pelvic floor discussion, this system requires women to squat over the tube while they're using it.

These solutions are the Navy's current answer to in-flight relief, at least for helicopter pilots. More official research is required to really determine their measured effectiveness, and if the benefit of using these systems outweighs the risks involved. These solutions, imperfect as they are, remain a cheap and easy alternative to the more expensive option I'll discuss next.

"Skydrate" (AMXD Max)

First introduced as the "Airborne Mission Extender Device" as early as 2002, the Skydrate was designed by OMNI as the second generation device jointly funded by the Navy and Air Force. Skydrate acts "specifically as a force multiplier to enhance and sustain the performance of aircrew of Military Aircraft." OMNI has options for both men and women, utilizing two different systems to adapt to the needs of different anatomies. The device is designed for both fixed and rotary-wing aviators.

The Male Skydrate System

Female Skydrate System

OMNI Defense Tech describes each system as "male" and "female" specific. The male system comes with a control unit, a urethane cup designed to fit under a 5-point harness, an in-line hose switch, and a disposable collection bag. The female system has an inflatable pad that is worn in the "deflated" configuration, its own control unit, an in-line hose switch, and a disposable collection bag. Both the female and male system come with a similar control unit that pumps urine at 2.25 liters per minute from the pad to the collection bag. The 1600 ml collection bag is odor proof and has a polymer gel, with an emergency over-capacity limit of an additional 500ml.

The Skydrate is a completely hands-free operation, allowing the pilot to have his or her hands on flight controls and other cockpit switches during the relief process. While this system is the ideal solution to an aviator's hydration and bathroom issue, the funding for it appears to be non-existent on the squadron level. It comes at a steep price-tag of almost $4K for a starter kit, and that is not taking into consideration the maintenance or consumables required to keep the system operational. In order to keep the system sanitary, the products marked "disposable" need to stay disposable.

Female (and Male) Naval Aviators Pay the Price

I'm going to take a second to address the "elephant in the room" of this subject: women's bodies are different from men's bodies. It is simply easier for men to relieve themselves. On average, men are better at holding their pee (Jones 2017), and women are more susceptible to medical problems having to do with relief. It's hard to take the temperature of aviators on this subject. The opinions vary, and the differences in experience based on an individual's gender explains why. When I ask male rotary-wing pilots about in-flight relief, they usually either cite the piddle pack or Gatorade bottle as a fine solution, and some even mention that they can't imagine how difficult it must be for women. When I ask female rotary-wing pilots, a few are indifferent or satisfied with the status quo, but most would like to see an improved solution to this issue. The anatomy piece is hard to deny- men have a longer urethra and are generally larger than women, therefore they also have larger bladders. Because women have a shorter urethra, they are ten times more likely than men to suffer a urinary tract infection, or UTI (Jones 2017). As mentioned previously, this can lead into a slippery slope of health issues.

I know I only have anecdotal evidence to offer in this context. But again, in the absence of scientific evidence that would normally be provided through research, it's what I can offer. Despite seeing the Piddle Pack, Lady J, and Go-Girl as options in several aviation magazine and journal articles, I've yet to have been offered any of these devices by the five squadrons to which I have been attached, and didn't know to ask because I didn't know they existed. I'm not convinced all squadrons are aware that an in-flight relief device is a CNAF requirement. The first time I'd ever even heard of these devices being issued was during my discussion with MH-60S pilots. Even male pilots have to sometimes tip-toe around the supply system to procure piddle packs that may or may not have a shelf life. Could a lack of awareness of potential in-flight relief solutions explain the absence of research and development on this issue?

Neither men or women can do their jobs well while dehydrated or painfully ignoring full bladders for long periods of time. They shouldn't be forced to operate this way. It is imperative that we solve this problem once and for all, for the sake of all aviators.

Let's Take This to the Aircraft

In 2020, LCDR Jess Cameron wrote an article in Approach Magazine titled "Making Bio Relief a Number One Priority." In her tongue-in-cheek presentation, she makes the argument that what Naval Aviation needs is a "safe" and "effective" solution for in-flight relief. She argues that safe includes a device that has the ability for use without removal of restraints, and effective meaning easy to use, hygienic, and cost effective (Cameron 2020). That device simply doesn't exist right now. You could argue that the Skydrate device mostly fits the bill, but the hefty price-tag hardly makes it cost effective.

A solution she offers is to create more awareness, positing that "aviators shouldn't arrive in the Fleet untrained and ill-equipped for bio relief." For immediate relief, we can use the tools we have now. As it stands, the cost-benefit analysis of unstrapping to use these relief devices is currently left up to the individual aviator; more options can only stand to improve the process. One potential solution is to issue female adapters and piddle packs for routine flights, and save expensive systems such as the Skydrate for longer missions that may not allow for a bathroom break, such as a long strait transit. Even if this is only an 80% solution, it's arguably better than nothing.

The awareness, training, and procurement process should start at the Fleet Replacement Squadron level. Male and female aviators need to be well-informed on what their in-flight relief options are, as it is the key to success on mission. For MH-60R/S pilots, this introduction would fit nicely into the Level A Adjunctive Training Class (the ALSS brief that is usually combined with Spatial Disorientation) taught by Aeromedical Safety Officers, since they're already introducing and refreshing aviators on how to properly use their gear.

Once aviators are trained up, the next step is being issued the correct gear. This involves procurement, which is another in-depth and tired conversation. We never have enough stuff, and when we do, it's never the right kind. The laws of supply and demand must apply here, and the solution involves putting the right people to work. This includes squadron COs, AMSOs, Flight Surgeons, Instructor Pilots, and anyone else charged with advocating for a younger generation of aviators.

In my conversation with LT Luke "Double Tap" Scripture, the HSM Wing Pacific AMSO, he pointed out that CNAF states specifically "an approved system selected by individual aircrew shall be made available to aircrew. Not required for aircrew flying on non-ejection seat aircraft with platform urinary relief systems." In the strictest interpretation of this rule, an aviator of an E-2 or MH-60R could demand any type of approved system.

However, in some cases, said aviator is currently being held responsible for procuring said system. If you want some kind of in-flight relief device, you have to first know to ask, request the gear, and if your front office doesn't think it's worth the investment, you're on your own.

MH-60S pilots are at an even greater disadvantage, with the Lady-J and Go-Girl in conjunction with the relief tube serving as an "already existing" cheap alternative to funding a more robust system. Double Tap explained that right now money only exists in 7F funds, which is the pot of money that replaces ALSS clothing and items. Squadron COs get to decide what the money is spent on, and Skydrate's $4k price tag on a single piece of equipment for one person is a tough sell. LT Scripture advocates for finding other funding to fill those gaps, so that 7F funds can be used to maintain existing systems, as it is intended. When asked about how to incorporate these solutions, Double Tap explained that "the right answer is to make these things part of the initial gear issue for all females at the FRS."

The last step is buy-in. LT Scripture also mentioned in our interview: "there needs to be more advertising and briefs. Money exists for it, and the R/D is happening." In my own conversations with my peers, it's apparent to me that there's a lack of recognition when it comes to the potential solutions there are to this problem. People need to believe in and be willing to ask for the quality of life improvements to which they are entitled.

Meaningful change doesn't occur overnight. Flight gear will always be a challenge, and building awareness isn't just limited to educating newer pilots on their options. Commanders and higher echelon folks should also be aware of the issues those with "boots on the ground" are facing. The old adage "the squeaky wheel gets the grease" is how this significant problem does eventually become a smaller one. Continuing to document by writing ASAPs and HAZREPs about near misses or bathroom accidents on flights is a great way to force the issue on the squadron level. Until the slow churn of procurement stops meeting resistance, continuing to complain up the chain and educating our future Fleet pilots on the current options and their associated risks is the responsible thing to do. So, drink water, don't hold your pee, and stay squeaky friends.

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The 'Unforgettable' Saberhawks Celebrate 35 Years of Service (1987-2022) Honoring the Past – Celebrating the Present – Preparing for the Future

By Shawn Malone, Jack Olive, Chip Whitfield, and LT Andrew "LG" Smith, USN

Following the thoroughly enjoyable 35th anniversary celebration of The Wolfpack (HSL-45 / HSM-75) at the Naval Helicopter Association (NHA) Symposium in October 2021 (rescheduled to the Fall due to COVID) at the Viejas Resort & Casino in Alpine, California, a group of Saberhawks conspired to determine whether another praiseworthy milestone could be achieved for HSL-47 / HSM-77 – namely, holding the first ever helicopter squadron reunion at a Tailhook Association Symposium.

Despite lingering COVID related concerns and the challenges of bringing Saberhawks together from across the generations and the many miles that separate NAF Atsugi, Japan from Reno, Nevada, a small but enthusiastic Saberhawk reunion group gathered at The Nugget Resort on 9 September 2022 to celebrate the 35th anniversary of HSL-47's / HSM-77's establishment at Naval Air Station North Island in San Diego, California on 25 September 1987.

35 Years of "Unforgettable" Excellence!
#PTPRTHFTS
Protect the Patch – Respect the Hawk – Fear the Saber
Fix – Fly – Fight – Win!

Following a moment of silence to remember and reflect on the Saberhawks who could not answer the roll call – to include CAPT Jack McAfee, USN (Ret.) (Saberhawk #1 who passed in 2008) and CAPT Jeff Campbell, USN (Ret.) (Saberhawk #8 who passed in 2018) – the group enjoyed a hearty breakfast while discussing the squadron's role in preparing the modern Helicopter Maritime Strike Community for operations with Carrier Air Wings, and Carrier and Expeditionary Strike Groups.

The Early Years (1987-1997)

Jim Boyer and Tim Naple painted a vivid picture of how the Saberhawks of HSL-47 laid the foundation for the squadron's future success as the fourth Pacific Fleet Light Airborne Multi-Purpose (LAMPS MKIII) SH-60B Squadron to be established at NAS North Island. Building upon the SH-2F Seasprite LAMPS MKI Culture, the new squadron inculcated Marine Corps and Army pilots who completed inter-service transfers – as well as HC / HS / HM aviators, aircrew and maintenance personnel – into the Helicopter Anti-Submarine Squadron (Light) Community's ethos and standards. Overcoming new aircraft delivery schedules, as well as training and simulator issues, the Saberhawks prepared our new "nugget" aviators, qualified Officers in Charge, and set out to sea onboard guided missile cruisers, destroyers and frigates at the end of the Cold War. During this critical period of history, squadron detachments were forward deployed to Japan (along with other HSL detachments before the full establishment of HSL-51) and involved in maritime missions. Following the Cold War, the Saberhawks distinguished themselves during Operations DESERT SHIELD / DESERT STORM in the Arabian Gulf in 1991, as well as subsequent operations to enforce United Nations sanctions against Iraq for its aggression against Kuwait and its neighbors and to help maintain no-fly zone enforcement throughout the 1990s.

The 'Bravo to Sea' Era (1998-2007)

Matt Pringle led an engaging discussion about the years at the end of Millennium (to include Y2K computer software concerns at the New Years' time zone rollovers from 1999 to the year 2000). He also highlighted the squadron's support to the Helicopter Concept of Operations (CONOPS). Helo CONOPS evolved into the Helicopter Master Plan which envisioned reducing seven (7) Type / Model / Series (TMS) helicopters in the Navy at the time, to potentially two (2) multi-mission helicopters – the MH-60S and MH-60R (which combined the capabilities of an SH-60B and SH-60F with upgraded and advanced sensors and datalinks). This plan led to the deployment of an HSL-47 SH-60B Detachment onboard USS Constellation (CV 64) with CVW-2 in 2001. Matt, Chip Whitfield, and Shawn Malone also discussed the squadron's "surge" response following the terrorist attacks in September 2001. Embarking SH-60B (Core B FLIR and Hellfire Missile Capable) detachments on surface combatants and Constellation (2001, 2002, and 2003), and then deploying the entire squadron onboard Lincoln Carrier Strike Group ships (2004, 2005, and 2006) with CVW-2, the Saberhawks participated in Operations ENDURING FREEDOM and IRAQI FREEDOM, as well as UNIFIED ASSISTANCE (the relief efforts following the 2004 Indian Ocean earthquake and tsunami that devastated Sumatra, Indonesia).

The Saberhawk Reunion Group breakfast on 9 September 2022 in the "I-Bar at Tailhook" suite at Hook '22. From Left to Right: Sandy Clark (Wolfpack #1 – NHA VP for Trustee Affairs), CAPT Chris "Jean-Luc" Richard (Deputy Commodore, Helicopter Maritime Strike Wing, Pacific (HSMWP)), CAPT Ross "JR" Drenning (Deputy Commander, CVW-11), Randy Biggs (former CO, HSM Wing Weapons School, Pacific (HSMWSP)), Commodore Brannon "Bick" Bickel (CHSMWP), Rich "Chip" Whitfield (Saberhawk #22), Matt "Madman" Pringle (Saberhawk #13), Shawn "Shrek" Malone (Saberhawk #17), CAPT Brent "Hollywood" Gaut (Saberhawk #21 & CO, CVN-73), RADM (Ret) Dan "Dano" Fillion (NHA Chairman), Jack "Jabba" Olive (Saberhawk #18), Jim Boyer (Saberhawk #3), Tim Naple (Saberhawk #4) and Jim Gillcrist (NHA Executive Director). Present but not shown in the picture: RADM John Gumbleton (OPNAV N82 (FMB) / Director, Fiscal Management Division), Frank Michael (Saberhawk #15), CDR Nick "BD" Cunningham (Saberhawk #29) and LT Josh "Cheesey" McGarvey – a former AWR and now a VAQ-139 Electronic Warfare Officer (EWO) – and Josh's spouse Jill McGarvey.

The Transition Years (2008-2017) – "Go West!"

Jack Olive, the last SH-60B and first MH-60R Commanding Officer, then discussed the SH-60B sundown cruise in 2008, and the squadron's successful transition to a Carrier Air Wing based HSM Squadron. Capitalizing on the lessons learned during the "Bravo to Sea (B2C)" Era, the Saberhawks pushed forward with numerous initiatives and proof of concept proposals to quickly become a fully combat ready Helicopter Maritime Strike MH-60R Squadron.

Working with our Wing leadership and staff, and an increasingly capable Wing Weapons School, the Saberhawks grew tactically while also focusing on maintenance excellence and readiness. CAPT Brent Gaut and Chip Whitfield reflected on this period – as they highlighted the major milestone achieved in 2012 when HSM-77 was awarded the prestigious "Phoenix" Award – as the best maintenance unit in the Department of Defense (DoD). This was the first time a Navy squadron was selected for this distinction – which marked a multi-year effort led by innovative and driven professionals across all ranks and specialties to include the superb support provided by staffs and planners, and supply leads and logisticians throughout Naval Air Forces. This also marked the squadron's transition from NAS North Island to serve with Forward Deployed Naval Forces (FDNF) when the Saberhawks conducted a home station shift to NAF Atsugi, Japan in 2013. During this period, the Saberhawks assimilated themselves into Carrier Air Wing 5 (CVW-5) as quickly as possible where the squadron became integral to network / datalink operations, and supported 7th Fleet deployments and international exercises such as VALIANT SHIELD and TALISMAN SABER 2017.

The Modern Era (2018-2022)

CDR Nick Cunningham briefly highlighted the information he and current Skipper Schallenberger provided for the reunion breakfast that described the squadron's ongoing evolution and integration with Japanese Maritime Self Defense Forces (JMSDF). Key milestones included continued annual 7th Fleet deployments and Western Pacific exercises, the COVID-19 deployment in 2020, "Surge" Week (the deployment to 5th Fleet in 2021 with Ronald Reagan Strike Group for Operation INHERENT RESOLVE which was the first FDNF deployment to the Central Command area of responsibility since USS Kitty Hawk (CVN 63) deployed in 2002 for IRAQI FREEDOM), and the return to standard operations in 2022.

The Future of the HSM Community

RADM John Gumbleton (Director, OPNAV N82 / FMB) and CAPT Ross "JR" Drenning (DCAG, CVW-11), a former CVW-2 HSL / HSM Staff Readiness Officer and HSM-77 Department Head, underscored the strength of the HSM community's culture and wished the Saberhawks much success in the future. Deputy Commodore Chris "Jean-Luc" Richard periodically reinforced the value of the HSM Community to

the future of the Navy through our roadmap to the next generation of systems and capabilities. Lastly, Commodore Brannon "Bick" Bickel (Commander, Helicopter Maritime Strike Wing, Pacific (CHSMWP)), provided the reunion group with an outstanding overview of the health of the HSM community and a deeper peek into our future (it's bright!) through Foreign Military Sales (commonality and advanced capabilities), anticipated obsolescence upgrades, and our continued integration into the Air Wing of the Future (AWF).

CDR Nick "BD" Cunningham (Saberhawk #29) and CDR Blade Schallenberger – the newest Saberhawk CO and "Buteo Regalis" – conducted an in-flight change of command over USS Ronald Reagan (CVN 76) on August 1, 2022.

Dénouement – LAMPS Legends & HSM Warfighters – a Powerful Combination:

For thirty-five years the Saberhawks have stood the watch – in peace and armed conflict. Today the men and women of HSM-77 stand on the shoulders of the pioneers who came before them – as we former squadron members look with immense pride on the modern Saberhawks.

CAPT Michael Sweeney, left, Commander, Carrier Air Wing (CVW) 5, presents the Phoenix Award to CDR Nick Cunningham (Saberhawk #29) at Naval Air Facility Atsugi, Japan in March 2022. The Saberhawks were the first naval aviation squadron to be recognized with the Phoenix Award – as the best maintenance unit in the Department of Defense in 2012 – and were subsequently honored with the Phoenix Award a second time for maintenance excellence in 2021.

The only aspect of the event that would of course have made the reunion better – and complete – would have been the in-person attendance by active-duty Saberhawks, and the interaction between the generations of naval aviators, naval aircrew and maintenance personnel. It is perhaps fitting though that the Saberhawks of HSM-77 are currently deployed with Carrier Air Wing 5 and the USS Ronald Reagan Carrier Strike Group conducting operations and maritime security patrols as members of the best trained and most capable naval helicopter force in the world!

Many thanks to the Naval Helicopter Association and Viking Association for sponsoring the 'I-Bar at Tailhook' – and to RADM (retired) 'Dano' Fillion (NHA Chairman), Jim Gillcrist (NHA Executive Director), and special guest Sandy Clark (Wolfpack 1) – for joining the Saberhawks and making for such a memorable reunion at Hook '22 in Reno. Hope to see everyone at the 40th Reunion in 2027!

About the Authors

Shawn Malone is a business development leader with Sikorsky, a Lockheed Martin Company. He is an NHA Trustee, and the first helicopter pilot elected to the Tailhook Association Board of Directors. Chip Whitfield is a Senior Systems Engineer at Lockheed Martin and an NHA Trustee. Jack Olive has served in government as a program manager and as the CEO of a private company. He is currently a Program Executive with General Atomics in San Diego, CA. LT Andrew Smith, USN is the HSM-77 Public Affairs Officer.

Redefining the HSC Expeditionary Model: LCS MCM Mission Package, RIMPAC, EABO and More!

By LT Austin "Junkie" Toombs

HSC expeditionary squadrons are no stranger to the difficulties of producing ready detachments for deployment. The summer of 2022 was no different as it brought a higher than normal op-tempo for the Blackjacks at HSC-21. With Detachments Two, Seven, Eight, Nine, and the Hawaii RIMPAC Armed Helo Det either deployed, underway, or conducting workups, one can appreciate the scope and magnitude of expeditionary detachment cycles. That's not mentioning the impressive work that Homeguard did to support, train, and qualify these detachments, while taking part in several high exposure exercises themselves.

With the recent removal of the Airborne Mine Countermeasures (AMCM) mission from the East Coast HSC squadrons, the Blackjacks are presently the sole HSC squadron conducting this mission. Amidst the large lift of supporting these detachments, Homeguard did an incredible job of executing three significant AMCM events over the summer: Littoral Combat Ship (LCS) MCM Mission Package Initial Operational Test & Evaluation (IOT&E), Southern California Rim of the Pacific Exercise (SOCAL RIMPAC), and Naval Surface Warfare Development Center's (SMWDC) Mine Warfare Readiness and Effectiveness Measuring (MIREM) Mine Live Fire Exercise (LFE). These three events showcased HSC's role in AMCM and forged a pathway to enhanced capability via shore-based Expeditionary Advanced Base Operations (EABO) and platform agnostic Vessels of Opportunity (VOO). When looking at the 7th Fleet AOR and the challenges China poses with restricting key maritime areas, leveraging HSC expeditionary assets in the EAB and VOO environments will allow for a more rapid AMCM response force, free up rotary wing assets to more efficiently enable Carrier Strike Group operations, and provide geographic combatant commanders an additional resource to confront the challenges of area denial.

LCS MCM Mission Package IOT&E was the evaluation of the LCS MCM mission package by the Navy's Operational Test and Evaluation Force. The LCS MCM Mission Package is a CNO Priority One Program, which led to an all hands effort from the Blackjacks. From April to August, the IOT&E Detachment had four underways flying a total of 103 flight hours, as they tested the first organic detect-to-engage sequence for LCS MCM Systems. The first step in this process was to test the LCS's ability to support Airborne Laser Mine Detection System (ALMDS) flight operations in detecting, classifying, and localizing volume and near-surface mines. The LCS crew then used their AN/AQS-20C Minehunting Sonar System to detect bottom mines, close-tethered moored mines, and volume-moored mines. After a configuration change for the helicopter, the mine contacts were passed off for identification and neutralization with the Airborne Mine Neutralization System (AMNS). Throughout their testing, the aviation detachment and LCS crew collaborated to detect and neutralize 16 near-surface, 18 volume, and 12 bottom training mines.

An MH-60S from HSC-21 in ALMDS configuration takes off from USS Cincinnati (LCS 20) during the LCS MCM Mission Package IOT&E.

In addition to operating MCM systems in sequence, this was the first time the LCS demonstrated the key performance parameter to provide launch and recovery of three LCS MCM Systems. The detachment also developed an improved C2 structure through a shore-based MCM Commander and successfully connected a JMPS laptop to the ship mission planning network, allowing seamless data flow between ship MINEnet Tactical (MNT) Consoles and JMPS. Overall, it was a successful operational vignette integrating MH-60S AMCM capabilities and the LCS MCM Mission Package, which is a critical piece in replacing the aging Avenger-class MCM Ships. The mission package, in its entirety, will most likely be declared Initial Operational Capability (IOC) in the coming months after further testing using the AN/AQS-20C Sonar from their Unmanned Surface Vessel (USV).

SOCAL RIMPAC is the Mine Warfare component of the well-known RIMPAC Exercise—the largest maritime exercise in the world. Held in Southern California throughout July, over eight nations and key US MCM stakeholders participated in the month-long exercise. For HSC-21, it was a learning experience in many ways, particularly exploring how the shore-based AMCM mission should be conducted. Currently, the AMCM mission for HSC-21 consists of a

single aircraft embarked on the LCS, with ship / air teams distributed theaterwide simultaneously. HSC-21 is manned, trained, and equipped for that footprint, and is therefore not resourced to conduct any semblance of a shore-based AMCM detachment. However, throughout the exercise, the Blackjacks had the opportunity to learn from HM-14 and HM-15, who have been the Navy's subject-matter experts on shore-based AMCM detachments from their years of experience in Korea and Bahrain. Despite all of their experience though, exercise planners tasked HSC-21 to be the Airborne Mine Countermeasures Commander (AMCMC) for the first time in HSC Community history.

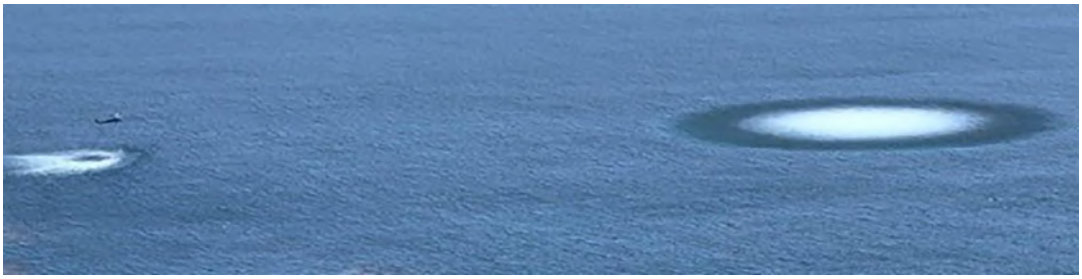
An MH-60S from HSC-21 lowers AMNS gear into the water to conduct MCM operations against mine contacts found by HM-14 and HM-15 Sonar. **U.S. Navy photo by MC1 Sara Eshleman.**

HSC-21 was in tactical control of all aviation assets including two MH-60S aircraft, four MH-53Es from Norfolk, and all the Sailors and gear that came with them. Why would the community that is less experienced and equipped be in charge of the one that clearly has more knowledge and assets? Well, the answer is simple: to see if HSC could do it. As HM-14 begins their sundown this year, and HM-15 is not far behind, the reality is that someone must take over the AMCM role from HM as the force transitions. Admittedly, HSC alone cannot currently replace HM and what they bring to the water column—they have different airframes with different gear and capabilities. However, with emerging technology like Single-system Multi-mission Airborne Mine Detection (SMAMD) and system improvements to ALMDS/AMNS, the capability gap can be decreased. With the continued integration of other assets in the "MCM Triad" like the LCS MCM Mission Package, the recently established USMC Littoral Explosive Ordnance Neutralization (LEON) Program, and Navy Explosive Ordnance Disposal (EOD) with their Expeditionary MCM (ExMCM) Model, that capability gap can be eliminated altogether. Regardless, one thing is clear: before HM fully sundowns, HSC must learn from their decades of experience, use their time wisely to NARG for tomorrow's AMCM technology, and continue to build relationships and integrate with the other UMCM and SMCM assets.

SOCAL RIMPAC was split into three phases that closely modeled the well-known "crawl, walk, run" mantra. These were: Harbor Phase, FIT Phase, and Tactical Phase. During Harbor Phase, HSC-21 had the opportunity to work with the Royal New Zealand Navy EOD to train their sailors on how to deploy their Unmanned Underwater Vehicle (UUV) from a helicopter–a first for them. Additionally, the Blackjacks conducted mine pounce operations with U.S. Navy EOD and performed cast & recovery with Japan, UK, Germany, New Zealand, and Australian EOD Forces. During FIT Phase, HSC-21 started to become familiar with the AMCMC role, as they learned how to operate within the confines of the chain of command and understand what tasking and reporting looked like. Finally, the exercise reached the Tactical Phase which was all gray space with white cell inputs. The AMCMC (HSC-21 CO) and UMCMC (EOD Mobile Unit 11 CO) met nightly with the Commodore of Mine Countermeasure Group THREE (MCMGRU-3), acting as the MCM Commander, to determine how to best task their available assets to satisfy commander's intent. What resulted was the full detect-to-engage sequence as the forces of the CTG "peeled the onion" of the water column. It looked something like this: HM would use their Q-24 Sonar to hunt for mines in the volume and on the bottom, while EOD was doing the same task with their Mk-18 UUV in another area of waterspace. Once they found a mine, they passed the contact off to HSC-21 to ID and neutralize using AMNS via Mk-65 training neutralizers.

The motto of RIMPAC 2022 was "capable, adaptive, partners" and that rang true in Southern California as much as it did in Hawaii. Although there was an incredibly steep learning curve, HSC-21 created strong bonds with HM, EOD, LEON, MCMGRU-3, and even the partner nations—relationships made here will certainly carry forward in future events. However, this wouldn't be a true after action report without pointing out areas of improvement. For starters, the

HSC-21 uses a MOCVAN to conduct AMCM EABO.



An MH-60S from HSC-21 uses a Mk-64 to neutralize a Mk-63 mine dropped by VFA-192.
U.S. Navy photo by MC1 Storm Henry.

Mineman (MN) Rate is critical to assisting in Post Mission Analysis (PMA), message traffic writing, and mine contact management. It became quickly clear that help was needed in those areas and MCMGRU-3 answered the call by lending a few MNs to assist. On the LCS, MNs are part of the ship's crew–HSC is not billeted for them. If shore-based AMCM is truly a desire, MNs and even mine-focused Intelligence Officers attached to the squadron will pay dividends, such as is established in the HM Community. Secondly, for as good as HSC is at using the ALMDS and AMNS Systems to conduct AMCM, it was clear that there is room to improve on the knowledge and understanding of how other assets play into the big picture MCM environment. New programs like the AMCM Tactics Officer Course stood up by HSCWSP, continued incorporation with other SOCAL MCM assets, and the NAWDC-led AMCM WTI Course are all attempts to create an 'MCM Center of Excellence' in San Diego. These are necessary steps in the right direction to increase the community's understanding of how HSC fits into the MCM machine with other assets.

SMWDC's MIREM Event, Live Fire was a strategic mining message campaign and served to test the joint fires process, while increasing lethality through confidence and proficiency of dealing with live mines. In layman's terms, it was a five day exercise off the coast of San Clemente Island that consisted of an aerial lay of live Quickstrike mines by either F/A-18 or B-1; detection and classification by EOD expeditionary MCM Mk-18 UUV; and reacquisition, identification, and neutralization with live AMNS Mk-64 neutralizers by HSC-21. One of the highlights of this exercise was taking the lessons learned from shore-based AMCM operations at SOCAL RIMPAC and running with them by conducting an AMCM EABO proof of concept. HM-15 was gracious enough to leave behind the Mobile Operations Center Van (MOCVAN) they brought out for SOCAL RIMPAC. While EABO seems to be the new buzz word on the seawall, it turns out that HM has been doing this for decades! The MOCVAN is a modular conex box designed with air conditioning, secret storage, UHF/VHF radios, NIPR/SIPR capabilities, and can be deployed anywhere in the world within 72 hours. Seabees from Amphibious Construction Battalion 1 loaned HSC-21 a 60 kilowatt generator required to power the MOCVAN, and EOD Expeditionary Support Unit ONE supplied a PRC-117 man-portable SATCOM suite with antennas and trained personnel. SATCOM was a necessity throughout the exercise due to the beyond line of sight distances from where MCMGRU-3 was acting as OTC in Point Loma to where the action was happening out on the range. Although it wasn't the most austere environment, HSC-21 worked exclusively out of the MOCVAN the entire week, proving that AMCM EABO is not only possible, but a reality given the right support equipment.

Throughout Live Fire, HSC-21 built on the relationships with MCMGRU-3, EODMU-11, and SMWDC that they had established a month earlier in SOCAL RIMPAC. HSC-21 launched live Mk-64 neutralizers every day a Quickstrike mine was successfully dropped. Not only did the exercise flex the C2 and joint fires process, but it also was a key source of data collection and TTP validation. Everything from AMNS neutralization TTPs to underwater wave propagation and plume blast was recorded, analyzed, and will be used to update publications in the future. Overall, the exercise was a huge success and everyone from the OTC down to the AOs loading Mk-64s benefited from the lessons learned of employing live ordnance in the waterspace.

In summary, it was a busy summer for the Blackjacks and the lessons learned were invaluable. It reenergized and refocused the squadron's efforts in the mission area, but also served to be quite eye-opening. The void left by HM and the Avenger Class MCM Ships will be significant. If HSC is truly to do their best job filling in the gaps, they need to be resourced and trained to conduct operations outside of the current LCS construct. This could be from shore-based EABO, like the squadron learned in SOCAL RIMPAC and Live Fire, or from Vessels of Opportunity, such as the Expeditionary Sea Base (ESB) and L-Class Ships. Regardless, further integration with EOD expeditionary MCM and USMC LEON forces in these environments give geographic combatant commanders a rapid response, minimal footprint, and full detect-to-engage MCM package without LCS involvement. By not being limited to operate from the LCS only, HSC expeditionary aircraft and assets can be used more efficiently to enable Carrier Strike Group operations and the challenges that come with area denial in the 7th Fleet AOR. In the meantime, HSC-21 will strive to expand their knowledge, refine procedures, and improve integration in the MCM enterprise as they continue to redefine the HSC expeditionary model.

First Student Naval Aviators Begin Training in the New Helicopter System

By Julie Ziegenhorn, NAS Whiting Field Public Affairs Officer. Photos by LTJG Nelson Chandler, USN

HT-8 instructors

Twelve student Naval Aviators at Naval Air Station (NAS) Whiting Field in Milton, Florida, began advanced helicopter training in the new TH-73A Thrasher aircraft in early September.

NAS Whiting Field accepted the first TH-73A in August 2021 as a replacement for the 40-year-old TH-57 Sea Ranger aircraft. The TH-57 Sea Ranger provides basic helicopter training and advanced Instrument Flight Rules training to hundreds of aviation students a year at NAS Whiting Field. The current TH-57B was introduced in 1981, followed by the TH-57C in 1982, which will be phased out as the TH-73A comes onboard.

"Training students in the TH-73A has been years in the making, and I'm excited on behalf of everyone who has helped get us to this point," said CDR Annie Otten, Commanding Officer, Helicopter Training Squadron (HT) 8. "I'm especially excited that the HT-8 "Eightballers" are the ones helping transition the students and instructors to the new aircraft. We are all on this journey together, and I can't wait to get the students up in the aircraft."

CDR Otten commented that the TH-73A will make student training more reflective of Fleet helicopters, thus streamlining the training. Students in primary aviation training initially fly the T-6B Texan II aircraft, which has a glass display cockpit. If selected for helicopters, students move into the current TH-57, which has older digital or analog displays.

Upon graduating from advanced helicopter training, students will then move out to Fleet aircraft, which use glass display cockpits. Thus, they are required to transition several times using different technology during training. The TH-73A has glass screens that are representative of, and mirror more closely, what pilots will see in the Fleet.

"The first thing we are going to see with the students is that the glass cockpit they have trained to and the scan they developed in the T-6 are going to flow to this aircraft (TH-73A), and we will see them picking things up sooner than in the TH-57," Otten said.

Additionally, Training Air Wing Five and Chief, Naval Aviation Training personnel have been working over the past several years to develop efficiencies in the training program in preparation for the new helicopter.

"Academic engineers and multiple PhDs gave input, and we looked at the theory of learning to affect a more effective syllabus so the students can use the information," said Capt. Jack Waldron, USMC, TH-57 & TH-73A Pipeline Officer. "For the instructor pilots (IPs) – we started to train on the Leonardo AW-119, which is a bit different than the TH-73A. We had to replicate maneuvers, validating and adjusting so there was a well-designed and well-thought-out, safe program. Our goal was to make this as safe and effective a program as we could."

Getting to the point where Instructor Pilots could fly the TH-73A and then begin training the students was a process in itself.

HT-8 students

"First we had to learn to fly the aircraft so we could teach the IPs," said Maj. Luke Zumbusch,USMC, who is one of the first cadre of instructor pilots to convert to the TH-73A. "Our job was to validate and verify that we could teach the maneuvers safely. For example, a normal approach, steep approach, and formations for the IPs who will eventually teach students in the TH-73A. Validating that the syllabus flow is good, the pace and type of training and the media in which the training was presented was the instructors' under training (IUT) job. Their job was to validate those maneuvers and profiles."

Before students begin flying the new helicopter, they will complete a rigorous course of groundwork in virtual reality and flying simulators to get them ready for the more powerful helicopter.

"We took this time to do an entire cultural change (in transitioning to the TH-73A)," Waldron commented. "There is the concept of having iPads with access to course content and aviation-specific apps for flight planning, briefing or in-flight navigation. We're not just changing the method of delivery, we're changing the actual media they're using. Virtual reality environment also provides a mixed reality environment. Students will ask questions. It's a philosophy change."

From start to finish, the aviation students spend approximately 38 weeks in the advanced training regimen at Whiting before they graduate and move to larger operational helicopters in the Fleet, such as the H-60, H-53 and AH-1 helicopters.

"This transition will bring the next generation of Naval rotary aviators to the Fleet," Otten commented. "For the students themselves, their time to train is fairly close to the TH-57. We're hoping they are able to maintain that same time to train. With the efficiencies the team has built into the new syllabus, along with taking advantage of the new technology and power that the aircraft brings, I think we're going to be able to produce a stronger student. The years of effort put into getting us to this point is probably what's most exciting-- it's actually here."

According to Waldron, CNATRA and Wing personnel have been planning and developing the new Advanced Helicopter Training System for five years, to include infrastructure and maintenance for the new TH-73A.

"With every transition to a new airframe there are going to be challenges," said CAPT Jade Lepke,USN, Commodore, Training Air Wing Five. "What we've seen in the end is the team has really come together. I've been proud and impressed with how far we've come with the ability to affect change and improve training. We are all working together and everyone is invested in making this training program the safest and most effective in the Navy."

Training Air Wing Five based at Whiting Field is the largest aviation training wing in Naval Air Training Command (CNATRA). It is responsible for training 60% of primary aviation students in the T-6 aircraft, and 100% of all Navy, Marine and Coast Guard helicopter students.

Maritime Environments Require Versatile Solutions for Combat Logistics

By CAPT Christopher "chet" Misner, USN (Ret.)

The latest U.S. National Defense Strategy continues to recognize the importance of the Indo-Pacific region to our global security posture. If deterrence turns out to be untenable and a sustained conflict occurs, the U.S. will require the ability to supply its forces over vast maritime distances. This presents a significant Naval challenge as the current force structure does not match the new strategic outlook.

The Navy must be able to move personnel, parts, munitions, medical supplies, foodstuffs, and the world's most advanced fighters' powerplant around the Pacific (quickly) during a sustained conflict, and they will need to reassess their intentions as demand for vertical lift aviation assets will quickly outpace the Fleet capability. There will just not be enough to go around. This is an avoidable strategic procurement reality.

The Navy's recently acquired CMV-22 Osprey Tiltrotor delivers exactly the type of operational flexibility with the speed and range to move cargo and forces around the battlespace to support combat logistics for a distributed force in a contested environment across hundreds of miles. However, while the Navy and its Marine Corps brethren clearly recognize the unique capability provided by the V-22 platform, they have not matched their acquisition programs with the realization in multiple National Defense Strategies that maritime combat environments require versatile airborne solutions for logistics.

The Navy does not have enough CMV-22's to sustain the Fleet and win the logistics fight in a contested environment, and this is something Navy leadership must take seriously and determine a solution for now. The currently planned V-22 procurements are ending at the same time the logistic demand signal during major combat operations will require an additional CMV-22B force structure.

If you consider what assets would be required in a Western Pacific conflict, the Navy will likely require a force consisting of five Carrier Strike Groups (CSG), nearly as many Amphibious Ready Groups (ARG), and several Surface Action Groups (SAG). This force would be supplied from several forward logistic support sites and expeditionary advance bases dispersed throughout the theater. When you consider the amount of personnel and cargo that would be required to support such an effort, it becomes clear that the Navy's current CMV-22 Program of Record (POR), originally designed to fulfill the peacetime Carrier on Board Delivery (COD) logistics role of the C-2, will fall short. The Navy will require more CMV-22s to support sustainable combat logistics while conducting Distributed Maritime Operations (DMO) and Expeditionary Advanced Based Operations (EABO) throughout the Pacific.

The problem of resupply is not just a Navy problem – it is a "Naval" problem. Marine Corps Commandant General David Berger has spoken about the logistical challenges that need to be resolved. "We've got ground to make up" on logistics, Berger said. "Because if you're going to fight as a dispersed force, you've got to sustain that force. And our supply lines have not been challenged in 70 years. We have not worried about what's behind us. We need to focus on that now because they're going to try to sever our lines."

There is still time for the Navy to realize the CMV-22 has value for a variety of mission areas that would make it a force multiplier in the Pacific, should we find ourselves in such a conflict.

The speed, range, and aerial refueling capability of the CMV, coupled with its ability to concentrate and respond rapidly, offers versatility to Strike Group and Joint Force Commanders beyond its day-to-day logistics missions. The V-22 has already proven itself as a capable personnel recovery platform in Combat Search and Rescue (CSAR) missions around the world. This is an asset ready to quickly seize and maintain the initiative. The CMV-22 is far more efficient, safe, and versatile than any traditional rotary wing aircraft and provides a faster recovery which significantly increases survivability rates.

The integration of the CMV-22 into the Navy Tactical Grid could significantly increase the number of contacts and provide Strike Group Commanders another useful ASuW asset. With added networks and data links, the Osprey could expand awareness beyond a conventional helicopter's capability, creating a more informed common operating picture and improving the Navy's, and even Joint Force's, tactical picture. The CMV-22 improves the economy of force by reducing ship and helicopter support requirements. Advanced Naval capabilities may not reach their full potential without a fast, long-range, tilt-rotor aircraft like the CMV-22B serving as a key component of the tactical grid. Robbin Laird once wrote, "At the same time, technology changes can drive operational art, where a technology enables a solution that, when integrated, could change how you conduct your operations."

The Osprey's multi-mission flexibility and ability to be dynamically re-tasked from intra-theater aerial logistics to CASEVAC and long-range patient transfer will be unmatched. The ability to provide en route care of patients and rapid patient movement will save lives. This has already been demonstrated by the CMV-22 during its first two extended deployments. Casualty evacuations without the CMV-22 will take days vice hours to move injured personnel from damaged ships to sea- or shore-based hospitals.

While adding mission-sets is worth exploring, the current core logistics mission requires additional CMV-22B aircraft to support sustained combat operations at a minimum. Helicopter assets diverted to CSAR, CASEVAC, MEDEVAC, ASW, NSW, and ASuW missions will be unable to support combat cargo and personnel delivery missions and will further challenge an overburdened combat logistics system.

When conflict comes, the Navy must have a survivable and sustainable combat logistics plan in the Pacific and the CMV-22 is key to successfully executing that plan. The Osprey is unique in that it can support and sustain the Fleet and Joint Force while simultaneously being able to augment their combat capability. The sooner Navy Aviation comes to grips that the CMV-22 Community has far more potential value to the force, than the two aircraft C-2 Det model it is replacing, the better.

About the Author

Christopher "chet" Misner is a retired Navy Captain who flew the SH-60F, HH-60H, T-45, and commanded the "Red Lions" of HS-15, Naval Air Station Kingsville, UVA NROTC, and is employed as a Senior Manager at Bell. These are his personal opinions.

The King Stallion's First Exercise

By Cpl. Lauren Salmon, USMC 2nd Marine Aircraft Wing

Arid, hot air sits heavy over the mountains. Soon, the autumn winds will sweep the lands to chase away the heat, but before they can, the chop of helicopter rotor blades can be heard through the valleys. Marine Heavy Helicopter Squadron 461 has been here before, but never with the latest innovation in Marine Corps aviation: the CH-53K King Stallion.

U.S. Marines with Marine Heavy Helicopter Squadron (HMH) 461 carry a cargo container with a CH-53K King Stallion at Mountain Home Air Force Base, Idaho, Aug. 11, 2022. **Photo by Cpl. Adam Henke for U.S. Marine Corps Photo.**

This is the first Fleet exercise the Marine Corps' King Stallion deployed to conduct, marking a step forward for the Marine Corps.

"The CH-53K is more powerful, safer and an easier-to-maintain helicopter. That'll allow each wing commander more capacity to sustain the Marine Air-Ground Task Force in an austere environment," observed Lt. Col. Adam Horne, HMH-461 Commanding Officer.

With three times the lift capability of its predecessor, the CH-53K is the new heavy-lift solution for the naval force. "The benefits are endless," said Staff Sgt. James Ganieany, Airframes Division Chief for HMH-461. "We practice our external lifts with a Light Armored Vehicle, and we never have power issues. HMH-461 had its first operational flight for the CH-53K in April 2022, and has been training with it ever since."

"Routinely training with an LAV for an external load, to me, is absolute mind boggling," said Staff Sgt. Dakota Schneider, a Crew Chief Instructor with Marine Aviation Weapons and Tactics Squadron 1. "It's got power for days; you can do anything you want."

Mountain Home, Idaho was chosen as the first deployment for training for the King Stallion because it provided a new climate and terrain features distinct from North Carolina, HMH-461's home state.

"We have a lot of environmental flying that we don't get to do in New River, North Carolina" said Ganieany. "Canyons, mountains, desert, it's a complete 180 of what we're used to flying."

The CH-53K can fly at higher altitudes, for longer distances and in hotter conditions than the CH-53E. HMH-461 used these qualities at Mountain Home to assist in future CH-53K production and employment.

The Marine Corps continues its long legacy of innovation with this test of the CH-53K King Stallion. The lessons learned by HMH-461 during the deployment for training support the Marine Corps' modernization efforts.

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CH-53K King Stallion Logs First Successful Fleet Mission

NAVAIR Press Release

The CH-53K King Stallion successfully recovered a Navy MH-60S Knighthawk Helicopter from Mount Hogue in the White Mountains of California on Sunday, Sept. 5. The two-day operation was the first official Fleet mission for the Marine Corps' new heavy lift capability, which is in the midst of Initial Operational Test and Evaluation with Marine Operational Test and Evaluation Squadron One (VMX-1) at Marine Corps Air Ground Combat Center Twentynine Palms, California.

"VMX-1 received a request for assistance from the Naval Safety Center about an MH-60S Knighthawk that suffered a hard landing near Mt. Hogue, Ca., at an elevation of 12,000' Mean Sea Level (MSL) in July," said LtCol Luke Frank, CH-53K Detachment Officer in Charge for VMX-1.

The MH-60S Knighthawk was sitting on a high altitude ridge in very rugged terrain near the California-Nevada line on July 16 following a hard landing. The helicopter was supporting a search and rescue effort for a lost hiker. All four crewmembers survived without injury and were rescued the following day.

According to Frank, both the MH-60S Unit and the Naval Safety Center had exhausted all other resources for recovery, including Army National Guard, Navy and Marine Corps Fleet squadrons. "They all lacked the capability to lift the aircraft without an extensive disassembly," he said.

VMX-1's CH-53K Detachment examined the environmental conditions and conducted a quick feasibility assessment of support and determined that the CH-53K could conduct the lift. The CH-53K fulfills the heavy lift mission of the Marine Corps as it greatly expands the Fleet's ability to move equipment and personnel throughout its area of operations.

"After two weeks of exhaustive planning and assembling a team of more than 25 Marines and Sailors from VMX-1 and 1st Landing Support Battalion from Camp Pendleton, California, we deployed two CH-53Ks to Bishop, Ca., and got to work," he said.

The CH-53K was designed to lift nearly 14 tons (27,000 lbs) at a mission radius of 110 nautical miles in high and hot environments; a capability that expands the service's range in supporting joint and coalition forces against potential adversaries. The MH-60S weighed approximately 15,200 lbs.

A Marine Corps CH-53K King Stallion lifts a Navy MH-60S Knighthawk Helicopter from a draw in Mount Hogue, California, Sept. 5, 2021. **Photo taken by Cpl. Therese Edwards for U.S. Marine Corps.**

and was positioned in a tight ravine at nearly 12,000' MSL and needed to be transported over 23 nautical miles to the Bishop, Ca. airport.

"After six months of flight operations with the CH-53K, the detachment had every confidence in the aircraft's abilities to conduct the mission safely. Our main concern was the environmental factors ground support personnel would have to endure," said Frank.

"This is exactly what the K is made to do," he said. "Heavy lift is a unique and invaluable mission for the Marine Corps. Horsepower is our weapon system and the CH-53K is armed to the teeth. The entire team of Marines at VMX-1, 1st Landing Support Battalion, and NAS Fallon Search and Rescue were extremely motivated to execute this mission and we are all very proud to have completed this one flawlessly. To be the first group of professionals to complete a real-world, heavy lift/high altitude mission in support of a unit that thought all options were off the table is extremely rewarding," said Frank. "This is sure to be the first of what will be many, many successful missions for this aircraft and for heavy lift squadrons."

Helicopter Sea Combat Squadron 5 (HSC-5) Changes Command

NAVAIR Press Release

CDR Erik "Gus" Gustafson relieved CDR Thomas "Princess" Van Hoozer as Commanding Officer of HSC-5 during an in-flight change of command Sept. 1, 2022. CAPT Tomas Bodine, Commander, Carrier Air Wing 7 (CVW-7), presided.

"CDR Van Hoozer is leaving HSC-5 a better, more lethal fighting force," said Bodine. "I have no doubt CDR Gustafson will further his predecessor's progress and make the Dippers, Team Freedom, and the entire strike group a far more capable combat weapon system in the process. HSC-5 is in good hands."

CDR Van Hoozer graduated from the United States Naval Academy in 2003 where he earned a Bachelor of Science in Systems Engineering. He assumed command of HSC-5 in July 2021 and led the 'Nightdippers' into their 2022 deployment with CVW-7 aboard the Nimitz-class aircraft carrier USS George H. W. Bush (CVN 77).

"Working alongside the men and women of HSC-5 and supporting their development has been the most rewarding tour of my career," said Van Hoozer. "The 'Nightdippers' are strong, resilient, and lethal. With Gus at the helm, I know they stand ready to rescue, protect, and deliver on any mission our nation asks."

CDR Gustafson graduated with merit from the United States Naval Academy in 2005 where he earned a Bachelor of Science in Systems Engineering. He joined the 'Nightdippers' in July 2021 as their Executive Officer.

"Princess prepared us through a challenging workup cycle, and we wish him fair winds and following seas," said Gustafson. "I've had the privilege of growing alongside our truly impressive team as we've coalesced into the combat-ready squadron we have today. I look forward to deepening our bond throughout what will certainly be an exciting and fulfilling deployment."

Carrier Strike Group 10 (CSG-10) is on a scheduled deployment in the U.S. 6th Fleet area of operations, tasked with defending U.S., allied, and partner interests.

CSG-10 is comprised of its flagship George H.W. Bush, Carrier Air Wing 7 (CVW-7), Destroyer Squadron 26 (DESRON-26), the Information Warfare Commander, and the Ticonderoga-class guided-missile cruiser USS Leyte Gulf (CG 55).

The ships of DESRON 26 within CSG-10 are the Arleigh Burke-class guided-missile destroyers USS Nitze (DDG 94), USS Truxtun (DDG 103), USS Farragut (DDG 99), and USS Delbert D. Black (DDG 119).

The squadrons of CVW-7 embarked aboard George H.W. Bush are the "Jolly Rogers" of Strike Fighter Squadron (VFA) 103, the "Pukin Dogs" of VFA-143, the "Bluetails" of Carrier Airborne Early Warning Squadron (VAW) 121, the "Nightdippers" of HSC-5, the "Sidewinders" of VFA-86, the "Nighthawks" of VFA-136, the "Patriots" of Electronic Attack Squadron (VAQ) 140, and the "Grandmasters" of Helicopter Maritime Strike Squadron (HSM) 46.

Helicopter Sea Combat Squadron (HSC) 3 Welcomes New CO

By Mass Communication Specialist 1st Class Sara Eshleman

The "Merlins" of HSC 3 welcomed a new commanding officer during an official change of command ceremony held aboard Naval Air Station North Island, Aug. 5, 2021.

During the ceremony, presided over by CAPT Edward Weiler, Commodore, Helicopter Sea Combat Wing, Pacific, CAPT David Ayotte relieved CDR Loren Jacobi as the 46th Commanding Officer of HSC-3.

"I'm honored to turn over command to my Naval Academy classmate, friend and HSC Community superstar CAPT Dave '3D' Ayotte," said Jacobi. "Leaving command is always bittersweet, but I am beyond excited to see CAPT Ayotte as my relief. His servant leadership, deep understanding of community challenges and prior experience as an FRS instructor will be a great match for this high-functioning command. I look forward to seeing the Merlins continue to lead the HSC Community during his command tour."

During a change of command ceremony for HSC-3, CDR Jacobi introduces his guest speaker, Mr. John Miley, a former HSC-3 commanding officer, by presenting a plaque that was found in a thrift store which details an operational deployment of HC-3 in 1980. **U.S. Navy photo by MC1 Sara Eshleman.**

CDR Jacobi led the Merlins from August 2021 to August 2022. He stepped into the role as HSC-3's 45th Commanding Officer during an unprecedented time in Naval History, and in the wake of the COVID-19 Pandemic. The squadron was operating within the constraints and limited capacities of prescribed health protection conditions (HPCONs), and shortly after Jacobi assumed command, the Department of Defense COVID-19 mitigation measures were relaxed. The squadron took full advantage.

The year prior, under the leadership of CAPT Will Eastham, currently serving as Deputy Commodore of HSC Wing, Pacific, HSC-3 met the highest Chief of Naval Air Training Command production goal in the history of HSC-3, sending 76 Fleet Replacement Pilots (FRP) and 72 Fleet Replacement Air Crewmen (FRAC) to follow-on commands. During his time as Merlin CO, Jacobi saw 110 FRPs and 92 FRAC candidates to the finish line and subsequently, the Fleet.

"The students we graduate and the ready aircraft we produce are not abstractions," said Jacobi. "It's not an exaggeration to say that HSC crews daily play a leading role in emergencies big and small across the globe. None of that happens without HSC-3."

Maintenance process was another facet of squadron life that underwent major changes in the post-COVID era, and under Jacobi's command, HSC-3 met all Commander, Naval Air Forces (CNAF) mission capable readiness goals while drastically reducing the number of long-term down aircraft assigned.

"Ladies and gentlemen – you are members of your nation's warrior class and you've answered your nation's call over the last 12 months," said Jacobi. "We've successfully clawed our way back to an incredibly healthy state of maintenance readiness, completed all carry-over students from last year and are on track to complete all students for this year."

With overall aircraft health on the upswing, Jacobi - with his extensive background in unmanned aerial surveillance (UAS) and DOD manned-unmanned integration - saw the squadron through to another significant milestone with the triumphant MQ-8 Return to Flight and follow-on Fleet deployments.

As Chief of Naval Operations Search and Rescue Model Manager (SARMM), Jacobi and the Merlin Team developed new procedures for personnel recovery, raft deployment, open water mass-recoveries, and deep-sea submersible rescues. Additionally, in the past year, the Southern California Offshore Range Environment (SCORE) Support Detachment launched and recovered 160 mobile training targets and torpedoes. These actions enabled completion of Anti-Submarine and Anti-Surface warfare training for 3rd Fleet assets.

After receiving a Meritorious Service Medal from CAPT Weiler, CDR Jacobi addressed the nearly 700 Sailors of HSC-3 for a final time.

"At the end of the day, it isn't about the numbers, it's about the mission and the culture of this great squadron with a storied history going back to the very advent of rotary aviation," said Jacobi. "That culture of cohesive cooperation, acceptance of Sailors across all walks of life and bias for action doesn't come by accident and it's not something that I did. You did it. Despite all our headwinds, you came together and created the most holistically healthy squadron I've ever seen in over 20 years in this business."

"Thank you for supporting this Change of Command," echoed Ayotte, as he addressed the squadron for the first time. "This is my fourth visit to HSC-3 and I am honored to be on this side of the podium. HSC-3 was the first logistics helicopter squadron on the west coast and your heritage spans all the way to 1967. Thousands of Sailors who have fought in multiple conflicts and served our country gallantly, have been trained in those sturdy hangars and on those flight lines."

CAPT Ayotte is joining the Merlins from his position as the Military Assistant to the Assistant Secretary of Defense for Indo Pacific Security Affairs. A classmate of Jacobi's, he graduated from the United States Naval Academy in 2001, earning a degree in Systems Engineering, and was designated a Naval Aviator in 2002. He also earned an Executive Masters in Business Administration from the Naval Postgraduate School in Monterey, California.

CAPT Ayotte's previous assignments include tours with the "Chargers" of Helicopter Combat Support Squadron (HC) 6 in Norfolk, Virginia, and aboard the amphibious assault ship USS Bataan (LHD 5) and Kilauea Class Ammunition Ship USNS Mount Baker (T-AE 34) in support of combat operations in Iraq during Operation Enduring Freedom. He was stationed at HSC-3 previously as an MH-60S Flight Instructor before reporting as Executive Assistant to Director of the Office for the Administrative Review of Detention of Enemy Combatants (OARDEC) in 2009. Following completion of his orders to OARDEC, Ayotte served as Flight Deck Officer, Aircraft Handler and Mini Boss aboard the amphibious assault ship USS Peleliu (LHA 5), before reporting to the "Ghost Riders" of HSC-28 as Officer-in-Charge (OIC) and Department Head. In 2014, Ayotte reported to PERS-43, and in 2017, he became the Executive Officer to the "Blackjacks" of HSC- 21.

"The impact of HSC-3 is felt on EVERY rescue mission that returns a father or mother to their kids," said Ayotte. "It is felt by the ships and Sailors who can continue their vital mission because of a critical part that helo delivered. It is felt by our Special Forces who receive invaluable helicopter training to keep their readiness sharp. It is felt by the operational commanders that integrate Firescouts into their C2 structure. It is felt by the combatant commanders that plan for mine warfare. It is felt by a country whose families trust that their sons and daughters will return home after defending our country because the standard of maintenance and aviation training are the highest standard of safety for our Fleet to emulate. It is my honor and privilege to be a part of the Merlin Team again."

HSC-3 is the Navy's West Coast MH-60S Fleet Replacement Squadron, responsible for training pilots and aircrewmen by providing the most capable warfighters to the Fleet. HSC squadrons deploy expeditionary helicopter detachments to carry out naval special warfare, search and rescue, theater security cooperation, strike coordination and reconnaissance, anti-surface warfare, humanitarian assistance, and disaster relief missions.

Marco Monoplane (Part 2)

By Maj. Jean F. Rydstrom, 0-429182, August '45

Story Continues from the Summer Rotor Review #157

As background information, find below from a Recommendation for Award of Air Medal letter dated August 1945 written by Col. R. W. Munson, Commander, India Wing – China India Division: When the Central-African Division of the Air Transport Command was being closed in the spring of 1945, information was received from the India-China Division that a small aircraft was needed for administrative purposes in that division. One AT-6C aircraft, a single-engine advanced trainer, was available. Movement by air shipment was impossible since, even partially disassembled, it was too large for a transport plane. Complete disassembly was deemed impracticable, and the matter was at a standstill until Major Rydstrom volunteered to fly the aircraft across Africa and the Middle East to India. Subsequently, in July/August of 1945, Major J.F. Rydstrom wrote the following story, "Marco Monoplane," addressed and mailed specifically to his son, "Master J. Eric," then a year and a half old and living in Cleveland, Ohio.

I'd been pounding across the wilderness for three hours, and though I'd found a French town, I still didn't know that it was Ati for there was no airport. I circled the town and checked the roads running out of it with those shown on the map as running out of Ati, and they were the same. It had to be Ati--ah-- and there was the airport, merely two strips in the sand cleared of brush, the name written in little white rocks. I soon would have run out of gas and I was glad to be out of that country of dry scrubby trees, wadis, and sand – good lion country, I'm sure. I've heard how lions like to play with old auto tires, and I didn't fancy having my nice new tires buffeted about by a lion.

Such gasoline I got in Ati – it was dark red and full of sediment. The drums had not been opened for three years and the last plane into that field had been six months prior. Chamoises had to be washed, pails cleaned, and then the gasoline drums dumped into a bucket and poured through a funnel into my tanks because there was no pump.

I was as glad to leave there after refueling as I had been to arrive, for it was a hot place out there in the desert with a dry wind blowing and the sun beating down. My next destination was El Geneina, an hour and 40 minutes away in British territory, Anglo Egyptian Sudan. I corrected for the wind drift from the right rear (that which had earlier blown me off course and ahead of schedule). The ground was higher out there and I had to climb in order to pass safely between the mountains, but by following my compass course with the wind drift correction, I arrived at El Geneina without event.

What a miraculous device is my compass. In a little Bakelite case with a window is a fluid in which a magnet floats. This magnet always swings free so that one end can point north and numbers are attached to it indicating the directions. By following it I can always tell which way I am going and it carries me in a straight line to where I want to go. Without it as a guide I could not travel at all.

Having arrived hot and dirty at El Geneina, the British cleaned me up with gasoline and old rags so that I shone in the sun like an aluminum sauce-pan. A British radio man worked on my radio, trying to tune it up so I could call British towers. Green gas I got there – such a business, this gasoline.

I was up and away at 0630 on the fifth of June. Flying at 3,500 feet between craggy mountains, I could see Camels Peak off to my right, a huge tower of rock running up to a point 6,000 feet high. There was a well-defined road running to El Fasher and I wasn't afraid of becoming lost. I tried following this road down through some mountain passes, but went off on the wrong fork and came out in a strange place on the other side of the mountain where I shouldn't have been according to the map. I turned left following my compass instead of the road which tempted me and soon came upon the correct road and reached El Fasher in an hour and 45 minutes. Naturally, I couldn't hear the British tower there – I hadn't expected to, anyhow, even after my radio had been carefully set in El Geneina. I don't think the British usually stand by on their tower radios.

I stayed only long enough to get gas, and cool off, and for my passengers to stretch their legs. They always became cramped and impatient after sitting motionless in the cockpit for two hours, squirming, adjusting their parachutes, and griping to no end. But they knew I couldn't help my size. The next hop to El Obeid was only an hour and 40 minutes and the air was cool although the desert was parched, for the monsoon rains hadn't set in. Following the main road, I passed several huge camel caravans, one of which was more than a mile long and must have held 3,000 camels.

Having landed at El Obeid I discovered that the R.A.F. had abandoned the airport and it was now only a British cavalry post where native soldiers for the Sudanese Army were being trained. Pink gas from a civilian contractor I got there, and of course, received only 55 gallons but was billed for 70. These small stops always did that since the contractor needed a little extra gas for his car; I always accepted the overage without question since I figured it was worth it to Uncle Sugar to pay a little extra for gas in the middle of nowhere. I hadn't noticed any weather brewing, but there was an odd grayness in the western sky behind me. I was parked with my nose into the west and two hours later was glad I had been for a terrific desert rain and dust storm blew up – the first in 8 months in this area. Buckets poured down but for only 15 minutes. It's rain like that which makes wadis.

Leaving the next day in a leisurely fashion for the two-hour flight to Khartoum, I was concerned over the weather for all the forecasts I could get was that Khartoum was having intermittent dust storms. These had been hanging along the Nile for weeks. There was nothing to do but push ahead, and if they became too bad, return to El Obeid or land in the desert. Delay would have been pointless since weather reports in El Obeid would have been no more reliable the next day, or the next month. I passed a huge thunderstorm on my right as I flew east toward the White Nile. It was a comfortable feeling to be again flying toward an obvious landmark like the Nile which I knew I couldn't miss, for as soon as it appeared I had only to turn north and follow it to Khartoum. Actually, I was to follow the Nile River for some 1,500 miles before reaching Cairo.

East of El Obeid, there were open sand hills with occasional scrubby trees; the rainy season had started and there was a green down on the sand hills which was very attractive. I arrived at the Nile, turned to follow it, letting down to river level, and buzzed the entire 150 miles to Khartoum at 50 to 100 feet above the water. It was interesting to note that the fertile Nile valley extended only 20 to 100 feet or so back from the Nile, mainly on the west side of this area. Where the silt had been deposited the soil was black and fertile though full of cracks due to the heat, but in many places the desert came down to the edge of the river. Except for that river cutting through the desolate desert, it would have been a land totally uninhabitable. Thousands of goats and sheep were grazing along the banks where there was grass, fleeing as I roared past. Nile boats, or feluccas, were traveling up and down with the stiff breeze that blows in the desert. As I neared Khartoum, I climbed up to look down at the junction of the White and Blue Niles. Their color proved to be a disappointment, since the White Nile was a muddy grey and the Blue Nile brown.

The visibility at Khartoum proved to be adequate, and I had no trouble in finding the airport. I rested in the lee of a hanger and watched a huge dust storm blow up several hours after I had landed. I was thoroughly impressed at the sight of the sky darkening and visibility cut to zero by waves of billowing dust; I was glad I'd arrived at the airport first. That evening after the day's heat had dissipated. I was thoroughly inspected and many things about me were found wrong: my tail strut wouldn't hold air, my starter often didn't catch the engine to start it, my fuel pump didn't feed quite enough gas to my engine, and one aileron trim tab was cracked. There were no spare parts there, however, so none of the necessary repairs could be made, and I received only minor attention such as water in my battery, oil on my cables, pulleys, and bell cranks, and a thorough cleaning of the accumulated oil and grease off the fins of my cylinders. My engine hadn't sputtered once, however, and that was the important thing.

On day-break of the 8th, I left for Atbara, still in Anglo-Egyptian Sudan, where I wanted to get gas. I buzzed the little civilian Airport there, and finally a voluble Egyptian came out and filled me up with blue gas. I left there following the Nile in a northern direction, noting that the banks of the river were infertile and uncultivated. Soon the river bent back around to the west and I headed out over the biggest beach I had ever seen. Nothing but sand and sand-dunes in that desert – nothing living, moving or growing, nothing existing except a railroad that I followed. It made me dizzy to look at that glistening yellow expanse and I was very thankful for the railroad track to guide me. That railroad also gave me a chance to be rescued in case of a forced landing. Almost the entire trip had been over wasteland with much sand and

little life, but this desert was all sand and no life. On and on I went, keeping the tracks on my right, and came to the Nile again as it twisted and plunged through a rocky bed. I found Wadi Halfa in Egypt after flying 3 hours and 30 minutes from Khartoum and landed amidst a little excitement. The desert heat had made my prop throw a lot of oil on my windshield and I couldn't see the end of the runway which was just a sand strip outlined in the general sand. My wheels struck about 50 feet short in loose sand where it was bumpy. I immediately realized where I was and, as I bounced, managed to stagger up to the runway.

The Old Jehrico Road

More gas and then on to Luxor, Egypt, following the Nile. The "fertile" Nile valley was still narrow – there were stretches of 20 miles where the river cut directly though desert and rocky promontories without any bank at all. A strong headwind was blowing up the Nile and the afternoon air was hot and bumpy. It was an unpleasant flight, and I was glad of the river to guide me. 40 minutes late in getting to Luxor, I had started to worry that I had overshot it. A desert haze was forming and when I finally reached a large city two hours and 50 minutes later, I wasn't sure I'd found Luxor until I circled it carefully. The British at the airport were worried that I was lost, and when I started to turn away from the airport, they started sending up a mad shower of green flares which I naturally didn't see. I merely wanted to look over the Valley of the Kings and the temples in and around Luxor of which I had heard so much.

I had trouble landing in Luxor, too, for the oil was again all over my windshield. This time I didn't land short, but when I got down into the three-point position on the runway I couldn't see where I was going and had to blindly roll ahead hoping it was straight down the runway. It wasn't, and I got a cut in my tail from a runway light which I straddled. The Britishers were upset, too, because I knocked over several more lights before I came to a stop.

I left there on the 10th flying at 4,000 feet. The air was cool and my temperatures stayed down so I could enjoy the flight. I was again following the river, which by now looked smaller, but had broad fertile fields stretching on either side with many irrigation ditches. This looked more like the Nile Valley which raised the ancient Egyptians to such eminence some 4,500 years ago. Nearing Cairo, I saw my first pyramid on the left side of the river (I later learned that the Egyptian religion taught that the soul should rest on the west side of the river where the sun set). There were four pyramids in a group, one large one and three smaller ones. I couldn't see the Sphynx at first because it was so dwarfed by the pyramids.

Cairo is surrounded by airports and I had quite a time finding Pyne Field where I wanted to land after some three hours flying. I was glad to get on the ground, for here I could get the necessary repairs which I'd been trying to overlook as I flew.

For a day and a half I was worked on, an extra delay being caused by my left aileron which was found warped. I finally left Cairo late in the afternoon of the 12th, heading northeast toward the Holy Land 2 hours away. Soon the Suez Canal came into sight, joining the Mediterranean Sea to the Red Sea. It was a small ditch for being such an important strip of water; several lakes through which it passed must have eased the burden of the builders considerably. I continued flying northeast and soon came in sight of the shores of the Mediterranean, with the hills of Palestine showing in the distance. How blue the sea was, just as I'd heard it should be. Heading to Jerusalem, I flew up over the 4,000 foot hills which surround the Dead Sea and saw Bethphage, Bethlehem, Jericho, and other biblical towns. The country-side was covered with farms and groves and even the tops of some of the hills were cultivated. However, there was a surprising amount of arid, rocky, and untillable land in the area. Then I turned back and landed at the airport at Lydda near Tel Aviv, a modern Jewish town on the shores of the Mediterranean.

I waited all the next day to leave, and waited all the second day – and for five days. I thought I had been forgotten. Finally on Monday the 18th, I took off again up into the haze and over the hills surrounding the Dead Sea. When I could look down at the sea, temptation was too great and down I went, to fly below sea level. My altimeter approached zero but I could see I wasn't about to hit the water. Down, down, I flew, lower than I had ever been before, all the way to minus 1,250 feet before I leveled off skimming over the water. Around the sea, I could see no vegetation nor wildlife, for the salt of the sea is so concentrated that it kills or drives everything away.

It was a long climb out of there to get over the rocky slopes on the east side of the sea, and what barren and desolate country it was on that side – the wilderness in which Biblical prophets wandered and prayed. I passed over hill country with blackened soil (perhaps oil or a tar substance) and my next checkpoint was a hi-way and pipeline which runs from the Iranian oil fields to ports in the Mediterranean. Following this steel beam for two hours brought me to LGH 3, the R.A.F. (Royal Air Force) designation of one of their small stops out in the desert. This time I was filled with green gas.

From here, the blackened ground gave way to desert, yellow and dry. No more checkpoints, but in two hours I saw the Euphrates River glistening ahead, and Lake Habbaniya. The river flows within one-half mile of the lake but not through it and the lake is reputedly more salt than water. This country is historically famous, for the area between the Tigris and Euphrates Rivers is thought to be one of the seats of civilization. I landed at the Habbaniya airport which is in Iraq and was almost overwhelmed by the atmosphere – oppressive desert heat and stifling humid air from the river and lake.

On take-off my cylinder head and oil temperatures ran way above normal and I had to climb very gradually. I just couldn't help it, there was not enough of that hot air to cool my engine. Good weather had been predicted ahead, but 30 minutes out the haze became pronounced and I could see waves of dust rolling up off the desert. In a few minutes more I could see only straight down, but kept pushing ahead. I was glad I had good flight instruments because before I decided to go back, I'd lost sight of the ground in the sandstorm.

I stayed overnight at Habbaniya and the next day, the 19th made an early start for the two hour flight to Abadan, hoping to beat the dust storms which kick up as the morning wind rises. At first there was no dust, but halfway there the waves were already rolling along the desert and were being carried aloft by the thermal currents. Fortunately, they hadn't yet reached Abadan when I arrived there.

Abadan is in Iran (or Persia) near the junction off the Tigris and Euphrates Rivers at the west end of the Persian Gulf. After I'd been gassed up I left with a dust storm on my tail, skirting the southern shore of the Gulf. My passengers had drawn Mae Wests in case of a forced landing in the water, but I had none; I guess they'd have let me sink so I was glad to stay near shore. In three hours I came to Bahrain Island whose runway is only one foot above sea level and my first experience at landing on a steel mat. My tires made a pleasant hum as they rolled on the steel. Leaving there I crossed more water and then again followed the coast over the desert and more desert. It was hotter than ever and my engine temperatures were way up.

Two hours and 40 minutes later, Sharjar, in Arabia, came into sight where it was again hot and very humid. (What unpleasant country it was along this Persian Gulf). In the evening an inspection was pulled on me and it was decided that I needed new plugs. My old set was OK, I'd gotten used to them and to show my disapproval I ran very rough after the plug-change. And my next hop was to be the most dangerous of all – over the Gulf of Oman from Arabia to the Asiatic continent and India. Well, they tinkered with my engine, reset my magneto, cleaned my new plugs, and I ran a little better though still not as well as I had been running. I stayed there a day and finally got off late in the morning of the 21st. On the climb my temperatures ran all the way out of sight, but there were mountains up to 6,000 feet and I had to get to 9,000 feet so that in case of engine trouble I could glide to a safe place. I forced myself to go on climbing toward those murky mountains on the shore of the gulf.

It was a nasty flight. In addition to the water ahead, there was a haze limiting visibility to 5 miles, through which I could see the mountain tops. I knew I had to keep running those 90 miles across the water and mountains, for there was no rescue equipment in Sharjah and if I went down, "I'd had it." How oppressive was the sight of the bluish-black water of the Gulf and the gray rocky crags jutting up out of the water along the Arabian coast. No beach at all there on which to land nor swim to – nothing but cliffs against which the waves smashed incessantly.

In a few minutes, I couldn't see land on either side. Twenty minutes after leaving the Arabian coast, I picked up the haze of the opposite shoreline and started to let down. With a sigh of relief I followed the other coast past more desert, to Jask, an emergency R.A.F. refueling stop. That hop had taken only an hour and a half – it seemed more like a year and a half.

In the afternoon, I pressed on to Jiwani flying now over the water, now over the desert, to straighten the shoreline without ever getting dangerously far out over the water. Jiwani came in sight in two hours and I stayed there overnight. I wasn't running properly and knew it, but I didn't care for I believed I could land anywhere on the coast from there on, in case of trouble. As I flew the next day, however, I found how wrong I was; low mountain ranges run all the way down to the edge of the Indian Ocean and there were long stretches entirely impassable due to rock outcroppings. I was glad to see Karachi some three hours later that day, children, for I was tired and ready to rest. My passengers, too, had had their fill of traveling. I arrived at the end of my journey on 22 June 1945.

Early in the trip, one of my passengers had put a little carved wooden horse inside my interphone junction box and refastened the lid. He apparently valued this little item highly, for he put it in there for safe keeping. However, he forgot it when I arrived in Karachi and left it where it was. Every time I feel that little horse kick up his wooden heels back there in his radio-stable, I feel a warm glow in my engine for the passenger whom I carried so far across Africa and the Middle East to India.

The Kronenbourg Express

"Earle, this is the most fun I have had since 1947!"

By CAPT Arne Nelson, USN (Ret.)

In the mid 1970s, Helicopter Mine Countermeasures Squadron Twelve's (HM-12) mission statement included maintaining two four-aircraft detachments ready to deploy world-wide within 96 hours of notification for up to 90 days.

To exercise the detachment concept, in early August 1977, HM-12's Detachment Two set out to the Mediterranean for four months of shore-based operations and three multi-national mine warfare exercises with the Italian, French and Spanish Navies. After loading four RH-53D Helicopters, a couple of AMCM sleds, a handful of CONEX boxes full of minesweeping gear, tools and spare parts onto a small squadron's worth of C-5A Galaxy Transports, we were bound for our staging airfield, NSA Naples, Italy.

Making a few unexpected stops along the way, the final C-5 arrived on 16 August 1977 (when we learned that Elvis had permanently left the building). Over the next five days, we rebuilt the helos, prepped the pack-up for ground transportation, planned our flight, and commenced our Southern European liberty. Our earliest lesson learned was finding out that Pepinos was not Pepperoni, rather it was the name of the restaurant and therefore their deluxe "harbor-dredge" pizza. First liberty lesson learned.

Our first operating site, the Italian Naval Helicopter Station, Luni, near La Spezia, was an easy 320-mile flight up the coast. For us though, abeam Italy's flagship airport, a steady BIM light on our lead aircraft required attention. Italian Air Traffic Control vectored the flight straight into runway seven, diverting airliners from every corner of the earth. Boldly noted on charts and directives, Leonardo Da Vinci International Airport is "military-prohibited." An armed escort (and hundreds of other vehicles) escorted us to a well-guarded parking ramp. Phone calls to ASCOMED and the American Embassy…and dozen Zippos and ballcaps later… we were taxiing to the duty runway. We finished our flight without further incident.

While operating in the Mediterranean was great, liberty was even better. In October, we relocated to the French Naval Helicopter Base, St Mandrier, a sleepy village next to a French Navy helicopter base across the bay from the Port of Toulon. The flying was challenging, the weather nice, the liberty, superb. Our crew found the lifestyle at the village a bit sedate but that water taxis made hourly runs to the port of Toulon. There the national beer, Kronenbourg, was cold and plentiful, and the food, though different was equally good. The nightly liberty barge earned the name the 'Kronenbourg Express.'

About that time, our squadron XO visited the detachment to fly and see how we were doing. Concurrent with his visit, a senior naval civilian writer and editor (Proceedings and NWC Review) was on a sweep of Europe, talking to senior officers in London, Stuttgart, Gaeta, and Naples. He had heard that a US Navy unit was in the middle of a French mine warfare exercise, so as an expert on naval strategy, decided to link up with Det 2 and see our capabilities for himself. The XO and OIC welcomed him, briefed him on the exercise, toured the aircraft and AMCM equipment, and talked to the crew. After a full day with us and in the late afternoon, he asked about dinner plans. Knowing that he had been wined and dined with Admirals and Generals, one of the JOs explained that the best food was across the harbor, where the beer was cold, the baguettes were fresh, and the music was loud. We called it the "Kronenbourg Express" and it was just a water taxi ride away. With a hearty "Let's do it," they embarked on the next water taxi.

The next day, the XO and OIC escorted the gentleman to the Nice airport for his flight back to America. At the gate, after all the handshakes and au revoirs, the gentleman looked at the XO and said "Earle, this is the most fun I have had since 1947!"

November found us in Rota, flying and sweeping. Finally, in early December 1977, we packed up all our AMCM stuff and sent two birds home via C-5A. The other two birds, the IMRL and AVCAL flew to Sigonella… to join VR-24, thereby establishing the VOD Squad, paving the way for the establishment of HC-4 Heavy Lift Black Stallions in May 1983.

But like our admirer, being part of HM-12, VR-24 and HC-4 and operating throughout the Med, Africa and Middle East…it was more fun since …well, there has been nothing like it.

Flight of Survival

By David Koontz, USS Midway Museum

On March 14, 1964, the Beatles "I Want to Hold Your Hand" became the number one song in America, "Bonanza" was the country's top-rated primetime TV show, and Navy LT Dick Bradley was fighting for his life.

What started as a routine night training flight off the coast of Southern California, turned into an aviation nightmare in a matter of seconds. Bradley, an SH-34 Seabat Pilot with Helicopter Anti-Submarine Squadron 773 (HS-773) based at Naval Air Station Los Alamitos, had to summon all his skill, training and experience when his aircraft experienced a catastrophic flight-control failure.

"We were flying as safety plane for another SH-34 that was practicing night sonar dipping about three miles off Huntington Beach," said Bradley, a St. Louis native. "We'd climbed to 500 feet and just as we reached that altitude, the helo jolted. There was a snapping sound, and the plane pitched and started skidding."

From the helicopter's contorted flight profile, Bradley and his co-pilot, Lt. Jim Cuff, knew they had lost control of their tail rotor. Though they tried valiantly, they were unable to regain complete control of the aircraft and knew they would never safely make it back to the airfield.

"The aircraft was shaking so much it was almost impossible to read the instruments," recalled Bradley, who has been a USS Midway Museum volunteer since 2005. "Things were going downhill fast. We knew we had to ditch in the ocean."

Bradley and Cuff started implementing their emergency-response procedures, radioed a mayday call to controllers, and continued to struggle to keep marginal control of the helicopter. It was a dark night with no moon and no visible horizon, which made attempting an emergency autorotation landing in the ocean very difficult. "It was about as tough as it could get," said Bradley, a 1961 graduate of UCLA. "No horizon and no instruments, just built-in instincts and timing."

An autorotation is an attempt to safely land a helicopter in the event of an engine failure or, as in Bradley's case, when the aircraft has a tail-rotor failure. Bradley entered the autorotation by lowering his collective pitch control to reduce the angle on the main rotor blades of his helicopter. This started a rapid and steep rate of decent. His goal was to flare the helicopter by raising its nose and pulling up on the collective to arrest his decent rate and decrease his airspeed just before the aircraft hit the water.

"Without my training, I wouldn't be here today," said Bradley, who made two naval deployments to the Western Pacific in the late 1950s. "We practiced full autorotations a number of times. I was mentally counting out 1,001, 1,002,

1,003 in order to time correctly pulling up the collective. We flared just in time to drag the tail."

The helicopter's tail hit first and dragged along the surface of the ocean before breaking off. Then, the fuselage slammed into the water."It felt like somebody kicked me in the ass real hard twice," remembered Bradley, a 10-year Navy veteran. "The H-34 floats like a 10-ton safe, so as soon as the rotors stopped splashing, we were sinking."

Both Bradley and Cuff were able to get out of the helicopter just as the cockpit went under water. One of his crewmen, Fred Esophi, surfaced a few seconds later, while the second crewman, William Grumer, who was initially caught in some cargo webbing, was last to emerge from the sinking wreckage.

"I was very happy we all made it out," said Bradley, who worked in the government and corporate sectors after leaving the Navy. "As the pilot, the final responsibility was mine.

Having survived the ditching, Bradley and his crew now found themselves in frigid 55-degree water. It was 30 minutes before a search and rescue helicopter reached them. As the helicopter began hoisting Bradley's crew out of the water, another swimmer appeared on the scene. Bradley initially thought it was a rescue swimmer from the helicopter, but to his surprise, it was a Huntington Beach Lifeguard.

"The person I assumed to be a crewman swam over to Cuff and me," said Bradley, who retired in 2001. "He told me he was a lifeguard and had swum out from the Huntington Beach Pier."

John Freenor, a lifeguard for only six months, was parking his car on the Huntington Beach Pier when he heard Bradley's mayday call over his radio. He grabbed a rescue buoy, jumped into the ocean from the pier and swam more than a mile to try to help.

"He wasn't certain where we were when he left the pier, he just started swimming out to sea," said Bradley, who has more than 7,100 volunteer hours on Midway. "I thought he was very brave."

Treated at the base medical clinic, neither Bradley nor his crew sustained life-threatening injuries, mostly cold and bruised. "The Navy Doc gave Cuff and I a couple brandies, then it was off to the O-Club for a few 'warm-us-up-toddies,'" said Bradley, with a smile. "We knew what to do and we did it. Fortunately, we made the right decisions that night."

Get Started Telling Your Stories

By CAPT George Galdorisi, USN (Ret.)

Lights, Camera, Action!

In previous columns, I've talked about two of the primary elements of any successful novel, especially thrillers: plot and characterization. Now it is time to emphasize the third element that you will want to address, action. Simply put, no action = no thriller.

In "How to Write a Thriller," Ian Fleming said this: "There is only one recipe for a bestseller and it is a very simple one. If you look back on all the bestsellers you have read, you will find they all have one quality; you simply have to turn the page."

Plot (what happens next?) and Characterization (how is our protagonist doing?) do help you want to turn the page, but it is action – breathless action – that really makes a book a page-turner. Think about it this way. You are walking down a city street. You know where you are going (plot) but don't think much about it, you are doing it almost on automatic. You walk by scores of people (characters) but don't think much about them either unless someone strikes you as especially beautiful, or incredibly well dressed, or otherwise particularly eye-catching.

But what happens when you hear that ambulance siren? Most of us (except, perhaps the most jaded big-city dweller) at least stop and listen, and then search the streets for the location of the ambulance and for even the most basically curious, look on until it disappears. And we wonder: Where is it going? Is the person in it okay? What happened? An accident? A shooting? Something else? I think that you get the point; action is what interests us most.

To emphasize this point, I return to the advice offered by screenwriter Bill Bleich: "You can distill any drama – a Greek tragedy, a Shakespearian play, a modern novel, a TV drama or comedy, whatever – into a simple equation: What do these guys want, why do they want it, and what's keeping them from getting it?"

What's keeping them from getting it is pretty straightforward. It is the conflict between the protagonist and antagonist (along with their helpers and allies). Each wants something and the other takes actions to thwart that person. I think you can see how that sustains the action throughout the thriller.

Are you thinking: "It can't be that easy." I get it. There are some tactics, techniques and procedures for writing action scenes, but these can't be forced. If you make your antagonist sufficiently powerful, and your protagonist begins his journey, it won't take long for the antagonist or one of his allies to sniff this out and, boom, the action begins.

I acknowledge the fact that different kinds of thrillers lend themselves to different kinds of action. The action in The Godfather is vastly different from that in The Hunt for Red October and substantially different from that in The Da Vinci Code. I think we can all agree with that premise.

One tactic that most successful thriller writers use is this: If riveting, hold-your-breath action is anywhere in your thriller, put it up front. That hooks the reader. Think about any James Bond movie you have seen and that's likely enough said.

As you write the eighty thousand words of your thriller, aim high with action, that is, work in all the action that flows naturally from the plot and from the characters doing what they must do. Once you are done, do an audit. Is there too much action (think of any Steven Seagal movie you've seen) or too little (did you not have your protagonist and antagonist even encounter each other until Page 117?)

With this as background, let's get in the nuts and bolts of actually writing an action scene. As I hinted above, sadly, few well-established and award-winning writers offer writing advice, and those who do usually focus mostly on plot or characterization because if action has to flow more-or-less organically, it is extraordinarily difficult to teach someone how to inject action into their stories.

First and foremost, action is one of the best – perhaps the best – ways to channel Ian Fleming and cause the reader to "have to turn the page." If you do it well, you'll hit your readers in a visceral way and get their adrenaline pumping and their fingers flipping or scrolling because they just have to know how the encounter turns out.

A word of caution is in order before you try to make every action scene in your novel as kinetic as a Steven Seagal movie. Action does not always mean military jets fighting it out at thirty thousand feet, or a police car chasing a van full of bank robbers, or a full-on assault on a medieval castle.

One way that emerging writers get tripped up is that they get so focused on making the action in their book exciting that they get into almost cartoonish action scenes. Think about Wiley Coyote and the Roadrunner. There is plenty of action, but there is also a huge step away from reality.

There must be realism to the point where your thriller almost reads like a documentary. As the action flows, everything that happens – even if it surprises – must be completely plausible to the reader to the point where he or she says: "Oh yeah, I get that."

An action scene can simply be a place in the thriller where the pacing increases and the reader is drawn more deeply into the story because something – and something that has consequences – is actually happening.

Importantly, an action scene must incite an emotional response from your reader: "Oh, no, the antagonist is going to kill the protagonist." "Ouch, the antagonist just rounded up powerful allies." "They bombed the city, how will those poor people escape?" "She just walked up to her fiancé (of two years), slapped him and said she'd never marry him." You get the point; can you feel your blood pressure rising?

First and foremost, don't put your protagonist in an action scene where he or she might be injured or killed until you get your reader invested in that character. Your reader must care – and often care deeply – about what happens to that person before any action scene evolves. Build the picture carefully and thoughtfully so that your reader likes the character. If you do that successfully, they will actually care about what happens to your protagonist or his or her allies and helpers.

Not to slow you down further, the next bit of advice regarding writing action scenes may sound counterintuitive, but it's not. You have to do a bit of research in order to make your action scenes believable. If you want to take on a story where fighter jets duke it out for mastery of the sky, unless you have flown those aircraft, you need to dig in and get the details of how they work. Start with the internet, as well as other friends and colleagues who might know more about it than you do. And here is the inside baseball hint. Most people are flattered to be queried by a writer, knowing that something they share might find its way into an actual book. So find a fighter pilot in your neighborhood and bring your notebook.

The more violent or kinetic the action, the more research you should do. What is the range of a gun of a certain caliber? How much damage will it do to a person or to a building? Many action scenes involve something crashing. If it is a car crash and you never have been in a serious one, you would be well-served to talk with someone who has.

Your action scenes should have a natural rhythm and an actual choreography. Things don't happen in isolation, they flow. If you have a group of Navy SEALs assaulting a terrorist hideout, walk through that scene yourself. How far from that hideout do you switch from running, to walking, to maybe crawling? What part of the house do you approach, and why? When and where do you stop and listen for sounds from inside? When you turn a corner, how are you holding your weapon? What is your immediate reaction when you hear gunfire from inside the house? Don't make your reader guess – it will put a dent into the suspension of disbelief that you are trying to create and nurture.

Provide details that you know that the reader will wonder about. If your protagonist is a police detective chasing the bank robbers who have put the pedal-to-the-metal to escape at any cost, what sounds are happening? There are likely screeching tires, an engine roaring at high RPM, perhaps metal shearing as the car sideswipes other vehicles, or maybe plinks of bullets fired by the robbers hitting the detectives' car.

There are visuals you can leverage as well. Talk about other vehicles swerving to get out of the way of the two crazed drivers. Show the pedestrians jumping out of the way. Tell the reader about the traffic lights changing color. Describe another police vehicle that is joining the chase. Your readers have likely watched many movies with car chases (think, The French Connection). Your challenge is to take those sounds and sights and convert them into prose.

As riveting as you make your French Connection car chase scene, it is not happening in isolation. Are the fleeing bank robbers calling their confederates to have them come attack the detectives' car? Is the detective radioing the station house to get more police into the chase? Is he thinking about a fellow officer he knew who died in a car chase?

Make sure that you circle back to the character descriptions you produced to create authentic emotions for the people in the scene. If the detective is nearing the end of his long career, he or she may be questioning their skills and their ability to drive at such high speed. If the detective is young and just had his or her first child and the bank robbers are shooting back with heavy weapons, does he or she really want to risk it all to leave the child without a parent? Even the bank robbers have emotions. Do they really want to drive at such high speed and risk death, or are they considering stopping and surrendering?

With those macro thoughts in mind, we can now turn to the micro. Think of this line of advice and guidance as the basic blocking and tackling you need to take on to help the reader get into the action you are presenting and stay with it. Think of this as what you are doing that the reader is likely unaware that you are doing.

Importantly, use only active voice. While this may sound self-evident, too many emerging writers slow things down by inserting passive voice to describe consequences, describe the character(s)' inner emotions, or create other speed bumps that take the reader out of the action. Keep the momentum coming – and building.

As you present your scene in active voice, remember to use action words. If the house is on fire, the character should bolt through the door, not just run. If the solider is ambushed by an enemy, he should dive for the deck, not just crouch down.

If the police car is about to be tee-boned by the criminal's large truck, he should jerk the wheel of this car to get out of danger, not just turn it.

Use short, punchy sentences, not long-winded, flowery prose. Shorter sentences get to the point more simply, delivering the visual quickly and efficiently and pace the narrative, forcing the reader to read more quickly and keep the adrenaline flowing.

In a similar manner, ensure that there are no wasted words. In action scenes you must put every word on trial for its life. Avoid like the plague any windy explanations. Don't use shouting dialogue, superlative adjectives or exclamation points. Keep it natural, just like you would react in the ambulance scene I described above.

This is not the place to use any words that the reader is unfamiliar with. If he or she has to stumble over a word – or God forbid look up its meaning – your action scene will grind to a halt. My writing mentor and friend, Dick Couch, is fond of reminding me: "Doggy, piggy, horsey."

Also, your action scene is not the place to discuss character motivations or lengthy descriptions of the characters or settings. All of those have (or should have) already been established earlier in your book and now all you need to do is to let things happen.

While I cautioned you above not to force the action, you can certainly milk one "action event" along an extended timeline. Perhaps the best way to explain this is to use the example above of the takedown of the terrorist hideout.

This is a fairly simple and straightforward example. The U.S. sends special operators (U.S. Navy SEALs in this case) to a compound in some foreign country where intelligence sources believe a terrorist and his associates are hiding and perhaps planning an attack. The goal is to capture or kill the terrorist leader.

At first glance, the action is a one-off. The SEALs assault the compound and are successful. There is a great deal of action, kinetics, heart-stopping action, and everything we have come to expect from such action scenes. That is good as far as it goes; but it under-leverages what this one event can provide vis-à-vis action. Consider what other action you can have along the way:

- The SEAL team meets to plan the event. It is a hard target with no readily apparent easy solution as to how to do the mission. They talk, they argue, they interrupt each other (short, punchy sentences) before finally reaching a consensus as to what to do.

- The SEAL team does one (or many) rehearsals for the mission. This comes with all the drama and kinetics of an actual mission. However, it does not go well. Perhaps the junior SEALs carry out their roles well, but a senior, well-respected leader fouls up. Now they have a conundrum as to how to proceed. Perhaps there are heated arguments (short, punchy sentences) and this leads to another rehearsal.

- They transit to the objective area by plane. Plenty of opportunities for action here. The SEAL team might have to scramble to leave because the timeline has been moved up abruptly. Maybe there is a radical change of route to evade radars or other sensors. The weather could change dramatically causing a major adjustment in what altitude they parachute out of the aircraft or where they must choose to land.

- Finally at the objective area, there are any number of things that have changed from what the initial intelligence reports indicated. There may be more guards. There may be dogs. The compound may be more-or-less illuminated than anticipated. The SEALs must regroup and adjust their plan (short, punchy sentences).

- The attack on the compound kicks off. This is likely the easiest part to write. We have seen this in innumerable movies and other media. Mine those events, but make yours different and better. Don't make the SEAL supermen and the terrorists pathetically inept.

- The takedown is complete, the terrorists are subdued, but the leader isn't here. This leads to more action scenes later in the book. But for now, the SEALs gather all the phones and laptops and discover plans for the feared terrorist attacks. There is more action and heated dialogue as they rush to tell their chain of command what they have discovered.

- We can't leave the SEALs there on the ground in a foreign country (perhaps one that didn't give the United States permission to conduct the mission). Don't make their exfiltration easy.

I think you can see that this continuum of action is more believable (because it mirrors "real life") than just a multi-page, hyper-kinetic, one-off action scene. This milking of just one action event gives you multiple action scenes in your story.

One way to sum all this up is to suggest that your action scene must include facts and circumstances and little else. What happens must unfold in a direct and logical order to create a clean and powerful scene for the reader.

Now that you have your arms around the three primary aspects of every thriller – plot, characters and action – as the Nike commercial suggests, just do it!

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12 O'Clock High

Reviewed by LCDR Chip Lancaster, USN (Ret.)

I chose this movie because of my father, who flew B-26 Marauders with the Ninth Air Force out of England and France in 1944 and '45. He said that this depiction of the Army Air Forces bomber operations out of England was the most accurate one he had ever seen. The film is more about command leadership problems rather than the details of air combat.

The movie starts on a London Avenue some years after the end of World War II where a gentleman is exiting a haberdashery having purchased a stylish new bowler. From his conversation with the owners, it's obvious he's an American. The man is Harvey Stoval, a key player in the upcoming story, played by veteran character actor Dean Jagger (in hundreds of appearances from 1929-80). Down the street he passes a curio shop with a pirate faced stein in the window. He recognizes it and immediately purchases it even though it's damaged. Harvey is next seen riding a bicycle in the English countryside where he stops beside a wood pole fence. Through the fence, he walks to the tarmac and dilapidated buildings of the abandoned airfield of Archbury. With airy music and war tune singing in the background, Harvey's taken back years to 1942 where his reminiscing fades into the throaty cranking of a radial engine and a flight of B-17 bombers returning from a mission.

The returning planes are from the 918th Bomb Group with many damaged aircraft and wounded not including several lost with their crews. One of the severely damaged aircraft makes a gear up landing next to the runway. The crash crew and ambulance arrive as the crew is stumbling out with the wounded. The aircraft commander has a severe head wound from a 20mm projectile. The copilot took over and got the damaged ship back to the field. COL Keith Davenport, the Group Commander is out of his aircraft and there to meet the crew. When Davenport, played by Gary Merrill (renowned actor and author from the '40s to the '80s) learns of the situation, he recommends the copilot for the Medal of Honor. After the mission debrief, the group is ordered to fly again the next day only at the dangerously low altitude of 9000 feet vice their normal 19,000 feet. LTC Ben Gately, the Air Exec (XO) played by Hugh Marlow (The Day the Earth Stood Still, Elmer Gantry) is enraged, telling Davenport that it will be suicide at that altitude. Davenport drives to 8th AF Bomber Command to protest to Assistant Chief of Staff BG Frank Savage, played by Gregory Peck (Moby Dick, To Kill a Mockingbird, MacArthur). Frank and Keith are old friends and when Keith leaves, Frank goes in to talk to his boss LTG Pritchard, played by Millard Mitchell (renowned character actor from the '30s to the '50s).

Frank tells the general that he thinks Keith is on the verge of a breakdown from the strain of leadership. He thinks that he has become too emotionally close to his men such that the heavy losses are depressing him with that attitude flowing down to the crews. Despite his close friendship with Keith, he thinks he needs to be relieved of his command. The two generals go to Keith's quarters that night to confront him about his command. They let him know their concern that he's so close to his men, he can't even reprimand the group navigator who threw the day's mission timing off, and his "bad luck" attitude is infecting his men. LTG Pritchard knows that Bomber Command is on the edge of failure and can't tolerate a Group Commander with emotional attitude issues. He relieves Keith, makes him his CSO and puts Frank in his place as Group Commander.

Frank arrives the next morning, canceling all leaves and liberty and sending the MPs out to retrieve everyone who's not on base. He puts the group on a daily bombing and training mission schedule riding the crews until they're ready. The difference between easy going Keith and hard-riding Frank is stark, causing all the pilots to put in for transfers. Frank, however, needs more time to get the Group ready. In steps the Group Adjutant MAJ Stovall, a prior lawyer, who understands Frank's problem and knows how to work the military bureaucracy to drag the paperwork out to get extra time. They finally get a mission, but when the entire bomb command is recalled in flight due to weather, Frank's group ignores the call claiming radio failure. They press on, bombing the target with good results, the only group to do so. Pritchard is upset but recommends the group for a Distinguished Unit Citation. Frank continues leading the group, despite his boss wanting

him to return to Bomber Command staff, until leadership pressure reaches the boiling point. That's the rest of the story. You need to see the movie to see the inflight action and if and how things resolve.

The film is adapted from the 1948 novel 12 O'Clock High by Sy Bartlett and Beirne Lay who based the circumstances, units and characters on actual WWII servicemembers, units and events. Academy Award winning producer Darryl Zanuck (Tora! Tora! Tora!, The Longest Day) assembled an award winning director and cast. With Academy Award winning director Henry King (The Bravados, King of the Khyber Rifles) and an award winning cast of Peck, Marlowe, Merrill and Jagger, Zanuck insured success. The Air Force fully supported the movie enabling production to use actual inflight combat camera film as well as Air Force and Luftwaffe gun camera footage. The film was purposefully shot in black and white to accommodate this effect. The military also allowed the use of Eglin AFB to simulate Archbury as well as other outlying Florida airfields. Twelve B-17s, pulled from drone service and the depot, were recovered and restored to 1942 conditions and paint schemes. This was well before the advent of any Hollywood computer tech, everything depicted was accomplished with actual aircraft and flying. The wheels up landing at the beginning was a real B-17 flown solo by veteran Bendix Trophy air-racer and Hollywood stunt pilot Paul Mantz (God is My Copilot, The Flight of the Phoenix).

12 O'Clock High was nominated for several motion picture awards, winning the Academy Award for Best Actor in a Supporting Role (Dean Jagger) and Best Sound Recording. USAF GEN Curtis LeMay, Commander of the Strategic Air Command, attended the premiere remarking that he "couldn't find anything wrong with it." The film was made required viewing for all the service academies and the officer candidate programs for the Air Force, Navy and Coast Guard as an example for situational leadership. It has also been used in the civil, police and corporate world to teach leadership principles. My neighbor, a retired SDPD Officer, said it was required viewing when he went through the police academy. This beautifully made film not only focuses on leadership but represents an historically accurate picture, selecting it for preservation in the National Film Registry by the Library of Congress as being "culturally, historically, or aesthetically significant." I give it two enthusiastic thumbs up. You can see the whole movie on YouTube, however, get your popcorn, drink of choice, and watch it on a big screen with surround sound for the best experience. You won't be disappointed.

Chip's List of 10 Best Aviation Movies

You probably had your own plans for vegging out at home during the holidays. If you don't have anything better to do, and we know you probably don't, here's our top ten aviation flicks for your consideration:

1. Midway (2019)
This got bad reviews, but we don't care. The Navy flying action more than makes up for it.

2. Planes: Fire and Rescue (2014)
Seriously, you will love this one. The boss is a helicopter.

3. Red Tails (2012)
WWII Tuskegee Airmen with plenty of aerial combat action with Mustangs and ME's.

4. Always (1989)
Firebomber action with an all star cast, including Holly Hunter and Richard Dreyfuss.

5. Flyboys (2006)
WWI aerial combat with amazing sound, your favorite drink, special effects, and a zeppelin.

6. Black Hawk Down (2001)
Gritty graphic Army helo action in Somalia.

7. Pearl Harbor (2001)
Bad reviews again, but we don't care. Great WWII aerial combat action.

8. Air America (1990)
Vietnam aviation dramedy from another point of view.

9. The Aviator (2004)
Great flying with Howard Hughes and the Spruce Goose.

10. Apocalypse Now (1979)
You'll definitely want to flathat (but don't do it!) after this powerful Vietnam flick.

There's ten for you or maybe you have your own list. Let us know if you do. Whatever the case, grab some popcorn and sit back with a good flick. Have a good one from all of us at Rotor Review.

Radio Check

The theme for Rotor Review #158 is "Past Informs the Present." Those of us who currently have the privilege of spending our days with rotors turning overhead couldn't operate as knowledgeably, safely, and efficiently as we do if not for the foundation set by those who came before us.

Naval Aviation as a whole has an incredible history which can be broken down further into squadron, aircraft, and even individual history. "There I was," "lessons learned," and "open kimono" conversations happen in wardrooms and messes across the world. From these we learn from our Shipmates and fellow Marines about how to be better in and out of the aircraft.

What are some historical events that have set the stage for what rotary wing aviation is today? What mission sets have you performed that you have seen grow and develop into modern day operations? Is there any particular historical event, big or small, that has made an impact on you and the decisions you have made? What is your "there I was" that impacted you and your career? Do you have advice for the next generation of rotary wing aviator to make them better based on your experiences?

From CAPT Ted Sholl, USNR (Ret)
HS-2, HS-1, HS-75, HS-85, HAL-4 (1956–1983)

In the Spring of 1961, 30 intrepid helo drivers, plus necessary aircrew, maintenance, and admin folks descended on HS-1, then in Key West, for 6 months of training in the transition of the new helo for the ASW squadrons on both coasts. Pilots from two Fleet squadrons, HS-2 and HS-3 and two Compass, Radar, and Global Positioning System Technicians from HS-1 and HS-10 attended and they were permitted to take wives and families.

Evidently no one mentioned to HS-1 that we were coming, so they gave us a rather cool reception. We added a tremendous burden to that squadron who continued their full time mission of training East Coast pilots and aircrew in the HSS-1 and HSS-1N (SH-34). So, we stayed in their hair all summer, finally leaving them alone in September.

The new aircraft arrived from Sikorsky flown by Sikorsky pilots who served as our instructors. They brought the planes down from the factory in Stratford.

The Navy pilots pretty much bonded with the Sikorsky instructors, with one or two exceptions, as they were mostly ex-military guys now working for Uncle Igor. Mine was a Marine and we got along great.

We learned over the summer how to fly the new JET HELO and how to have lots of fun with the Sikorsky guys and our hosts, HS-1. We learned to love the small club called AeroPalms right next to the helo hangar. The helo spaces were in the old seaplane base spaces and the hangar was huge—made for P5Ms.

By August most of us were at least marginally qualified in the new plane and we were ready to fly home except the Navy decided "how about the Sonar?" It had the new AQS-10 gear but we hadn't dipped much and the experts at Pax River wanted more data, so we spent another month out there dipping. Of course, we didn't have much submarine opposition, except for 2 relics at the Fleet Sonar School, so we didn't prove much (except that the sonar didn't seem that much better than the AQS-4 in the HSS-1), but it did have longer cable so finally the Navy bought it and we all headed home.

After that, the new experts went back to the factory and brought the birds back to the squadrons. I got to pick up 2 new ones, and each trip was an adventure.

HS-10 started training new guys in the new plane, but still had the old syllabus for pilots going to squadrons that still had the HSS-1s. HS-2 did the first West Coast deployment in 1962 on the USS Hornet (CV 12). We learned on the cruise that there were a lot of things we didn't know that could go wrong with the new bird and we got to watch a lot of movies. Fortunately, we also brought a couple of SH-34s to do plane guard and they were usually available.

From Ralph Deyo, SCPO USN (Ret.)

Let us start by saying, not only was I impacted by an event, but it also pointed me in the direction I went. Now I am one of those old guys to whom the young guys will say, "oh hell, another sea story." However, since this starts on land in a forest, there was truly little sea around.

It was in 1954 (see an old guy) and I was at the ripe old age of ten. I was living in Bamberg, Germany as my father was an Army Warrant Officer with a field artillery unit. As he oversaw the forward observers, he had some privileges that you would not normally expect.

One day I was invited to accompany him to the black forest as maneuvers were happening, so I jumped into the jeep (a real olive drab jeep) and off we went. After about four hours, we arrived at a split in the road. There at the split, was a corporal in a foxhole. My father said "get out and join the corporal," so I did. He instructed the corporal to watch out for me which he did as best he could with a 10-year-old.

Shortly after the corporal got bored with me and I got bored with him, it started to rain. Not a lot, just a light mist. Then, the clouds decided to open, and it was not too bad as the corporal shared his poncho with me and I stayed relatively dry. Oh, now comes the good part. We all know what happens when you mix rain with dirt. That is right, it becomes a child's favorite plaything, MUD.

By the time the rain stopped, the foxhole had about six inches of water in the bottom which eventually became about ten inches of mud.

I would guess that it was an hour later when a jeep came by and brought us lunch. Ah yes, an Army gourmet specialty, K-RATIONS. Do not ask what it was, for those of you who have eaten MREs, after trying these you would have loved MREs. At this point, I was wet, muddy, still hungry when my father came up in the jeep and said "get in and we headed back home."

So where does all of this lead to? Well it is 1962, just graduated high school, no one wants to hire you as there is a thing called the DRAFT. So, I started looking at going into one of the services.

First was the Marine Corps. It took 30 seconds with the recruiter to decide no way. Next is the Air Force, but I did not think I wanted to look like a bus driver. Even the Coast Guard, but it did not have enough draw. Then, it was the Army, but I remembered my experience in Germany.

Now, the Navy had a great line, "Three hot meals a day, a bunk every night, and a solid roof over your head." Well with that kind of incentive, it was a no brainer. Navy here I come. So there I was, being sworn into the Navy on 8 July 1962 standing next to my father in his Warrant Officer uniform, six years after he retired.

So in hindsight, I can honestly say that my father, a 20-year army combat veteran, wounded four times not only instilled a dedication to duty, honor, and country, but impacted my choice of service branch and career.

The photo is of the time in Germany with my mother Nina Deyo, my sister Barbara Berends and my father Ralph F. Deyo.

From CAPT D. A. Yesensky, USN (Ret.)

I did my first cruise in 1972 in Vietnam, mostly in the North Tonkin Gulf during the bombing to end Vietnam and it did. Kick off Easter Offensive/Operation Rolling Thunder.

1975 was our HC-1 Det 2's USS Midway's amazing night aerial evac of Saigon. More on that in Rotor Review Number 89 published in the Spring of '05 in my article…"Unarmed SH-3G's." Hint no NVG's and so on, small decks, dark, and limited vis t-storms, rain like a cow pissing on a flat rock.

Might fill some of editors' thoughts above–we are becoming more and more operationally regional and need to re-think like a Marine regarding maritime Navy-Marine OPS.....Power from the SEA!

Romeo and Sierra are what we got, wonderful....what's next coach?

From Doug Schoen

Past Informs the Present:

HAL-3: Incredible success in Vietnam
HAL-4/5 converting to HCS-4/5: Keeping the capability alive in the Reserves and also providing SME and training support to the Active Duty in the interim years
HCS-4/5 and HSC-84: Incredible success in Iraq and elsewhere in CENTCOM
HSC-84 Decommissioned
HSC-85 Successful support of SOF in INDOPACOM

Now HSC-85 is on the chopping block due to budgetary choices. Lessons from the past are not being heeded. This would be a great topic for input from the members. Full disclosure, I was the CO of HCS-4 and HSC-84 so I am biased, but I think this is a relevant question for discussion.

NEXT RADIO CHECK QUESTION
The theme of upcoming issue #159 is "Mastering the Machine."

Tactics, techniques, procedures, and technology have all developed immensely since the beginning of rotary wing aviation. We develop with the times, technological advancements, and to the adversary we are facing to name a few contributing factors.

What groundbreaking advancements have you seen in your time? How have you seen mission sets develop over the course of your career? Where do you see room for improvement in how we operate today?

We want to hear from you! Please send your responses to the Rotor Review Editor-in-Chief at the email address listed below.

V/r,

LT Annie "Frizzle" Cutchen
Editor-in-Chief, Rotor Review
annie.cutchen@gmail.com

Change of Command

Vice Chief of Naval Operations

ADM Lisa Franchetti, USN
relieved
ADM William Lescher, USN
September 2, 2022

VRM-50
Sun Hawks

CDR Emily Stellpflug, USN
relieved
CDR Eric Ponsart, USN
October 6, 2022

HSMWSP
Honey Badgers

CDR Kevin Shikuma, USN
relieved
CDR Devon Hockaday, USN
October 6, 2022

HSC-5
Nightdippers

CDR Erik Gustafson, USN
relieved
CDR Thomas Van Hoozer, USN
September 1, 2022

Congratulations to the next generation of Naval Aviation warfighters who received their Wings of Gold at NAS Whiting Field. These aviators will move to the Fleet to learn their designated platforms. A special thanks to the Naval Helicopter Association for donating their first set of Gold Wings from Chief of Naval Air Training (CNATRA) Training Air Wing 5. See you in the skies!

Congratulations to the New Naval Aviators
September 30, 2022

Congratulations to the New Naval Aviators
September 16, 2022

Congratulations to the New Naval Aviators
August 26, 2022

Congratulations to the New Naval Aviators
August 12, 2022

Congratulations to the New Naval Aviators
July 29 2022

Congratulations to the New Naval Aviators
July 15, 2022

Congratulations to the New Naval Aviators
June 24, 2022

Congratulations to the New Aircrew of HSC-3
October 21, 2022

Congratulations to the New Aircrew of HSC-3
September 30, 2022

The new Sailors, and where they are headed now that they are officially Naval Aircrewmen (from left): AWSAN Calvin Beck (going to HSC-21), AWSAN Brendan Bietila, AWSAN John Fowlie, AWSAN Andrew Hicks, AWSAN Ryan Nolan, AWSAN John O'Neil (going to HSC-6), and AWSAN Led Soto (going to HSC-23).

Congratulations to the New Aircrew of HSC-2
September 21, 2022

Congratulations to the New Aircrew of HSC-3
August 26, 2022

The new Sailors, and where they are headed now that they are officially Naval Aircrewmen (from left): AWSAN Jalen Hernandez (going to HSC-85), AWS3 Mohamed Mamlouk (going to HSC-12), AWS3 Trent Shelton (going to HSC-14), AWS3 Marcus Sherwood (going to HSC-21), AWS3 James Thomas (going to HSC-6), AWS3 Wyatt Williams (going to HSC-4).

Congratulations to the New Aircrew of HSC-2
August 5, 2022

CAPT Dick Catone, USN (Ret.) following a memorial service for a fellow helicopter pilot, is credited with the following statement: "I guess we are all in the starboard delta waiting for Signal Charlie." Starboard Delta is the holding pattern for the airborne Search and Rescue helicopters on the starboard (right) side of the aircraft carrier. They fly at a low altitude so as not to interfere with the fixed-wing aircraft recovery pattern, and only land when the last fixed-wing aircraft is safe on board. When tower calls the helicopter to pass "Charlie" to a landing spot, the crew knows the fixed-wing recovery is complete, all is well, and it is time to come back. Hence, the statement appears appropriate that someday we will receive our own "Signal Charlie" and will be called home for a final landing.

Signal Charlie has been created to inform our membership and honor the passing of fellow unrestricted aviators. It is only as good as the information we receive. If you have an obituary or other information that you would like to provide concerning the passing of a shipmate, co-worker, or friend of the community, please contact the NHA National Office at signalcharlie@navalhelicopterassn.org and we will get the word out.

CAPT Paul Anthony Pensabene, USN (Ret.)

LTJG Pensabene became a Naval Aviator on June 8, 1990 at HT-18, NAS Whiting Field, Milton Florida. LTJG Pensabene was Navy Helicopter Designator Number R-21080.

CAPT Pensabene was a former Commanding Officer of HS-4, a graduate of the US Naval Academy, Class of 1988 and a lifetime member of the Naval Helicopter Association (NHA), #99.

Paul Anthony Pensabene, 56, was born in Brooklyn, New York on August 4, 1966 and passed away surrounded by his loved ones on August 20, 2022 after a courageous two-year battle with cancer. A New Yorker at heart, he enjoyed New York pizza, the New York Yankees, Corvettes, Bruce Springsteen and collecting fine watches. Paul considered San Diego home and his greatest joy was traveling and spending time with his family.

His childhood years were spent in Canarsie, Brooklyn with neighborhood pick-up games of stickball, football and running track where he established lifelong friends. He excelled in academics and graduated from South Shore High School in 1983. He was selected to attend the U.S. Naval Academy and earned a commission as a Naval Officer in May 1988. Following flight training in Pensacola, Florida he was designated a Naval Aviator in June 1990.

Paul retired from active duty after 30 years of faithful service in May 2018 at the rank of Captain, having accumulated over 3200 flight hours in the SH-60F and HH-60H helicopters. Highlights of his naval career include tours with Helicopter Anti-Submarine Squadrons 6 and 10; commanding officer of Helicopter Anti-Submarine Squadron 4, and deployment aboard USS Carl Vinson (CVN 70) where he was among the first units to respond to the 9/11 attacks. He served on the Joint Chiefs of Staff at the Pentagon and on the Secretary of the Navy Council of Review Boards. His final sea tour was as Air Boss for USS Boxer (LHD 4), from 2008 to 2010, where he participated in the planning and execution of the rescue of CAPT Richard Phillips of the Maersk Alabama.

His final shore tour was with Naval Surface Force Pacific, where his efforts were critical to the successful integration of the F-35B Joint Strike Fighter into the Amphibious Force and improving overall Surface Force Aviation Readiness. Following his retirement from active duty, he continued his service as a Navy civilian working with Naval Information Warfare Systems Command as the Joint Strike Fighter Air Ship Integration lead.

His military awards and decorations include the Legion of Merit, Defense Meritorious Service Medal, Meritorious Service Medals, Strike/Flight Air Medals, Navy and Marine Corps Commendation Medals, the Navy Achievement Medal, Joint Meritorious Unit Awards, the Navy Unit Commendation, Battle "E" Awards, and other Campaign and Expeditionary Medals.

His education includes a Bachelor of Science Degree from the United States Naval Academy, a Master of Science in Quality Systems Management from the National Graduate School, and completion of the George Washington University's Elliot School of International Affairs National Security Senior Manager's Course.

He is survived by his wife, Leona and their son, Anthony, and step-son Brandon Smith of San Diego, CA; his parents, Donna and Anthony Pensabene of Brooklyn, New York, and mother-in-law, Ruth Romo of Santee, CA; sisters Donna Young (Tom) and Teresa Pensabene; brother, Thomas Pensabene; and nephew and nieces, Joseph, Mia and Olivia.

The funeral for CAPT Pensabene was held on on August 25, 2022 at East County Mortuary Chapel, 374 North Magnolia Avenue, El Cajon, CA, and a service on August 26, 2022 at, Our Lady of The Rosary, 1629 Columbia St., in San Diego.

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