

THE A-4 EVER

SKYHAWK ASSOCIATION JOURNAL VOL 26-1



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Besides, Its Fun to Fly, Part II

Annual Skyhawk Luncheon

11 September 2020

Nugget Casino, Sparks, NV

Spring 2020

<http://skyhawk.org>



THE PREZ SEZ

By Steve "Dwarf" Linder

Greetings Skyhawk Association Members

Recent Skyhawk Association Board Meeting

Your Skyhawk Association board met in Savannah, Georgia, on Friday, February 28. It was a great meeting and fun touring Savannah afterwards. Here is a quick summary of the meeting:

- Reports were presented from all committees. Your association is running well.
- Our membership is holding steady at 780. Each year we lose a few members and gain a few.
- Our finances for last year were reviewed and we finished the year in the black.
- We are working on a replacement for one of the members on the website committee who has resigned due to health considerations.
- We make donations to worthwhile A-4 projects/museums upon request. This year we are supporting the Aerospace Museum of California (to repaint the A-4 in Blue Angel livery) and the POW/MIA Memorial at Cecil Field in Jacksonville – each for \$1,000.
- There are currently 46 A-4s still flying. Director Todd Frommelt has prepared a comprehensive report on this subject. It is available upon request.

Memorials and Restorations



If you would like to help with the A-4 restoration mentioned above, please contact the museum: Aerospace Museum of California, 3200 Freedom Park Drive, McClellan, CA 95652;

Marked: A4D restoration only

Featured Speaker at the Annual Skyhawk Luncheon

(Tailhook, 6 September 2019)

The annual Skyhawk luncheon was held at Noon after the board meeting. The speaker was LtCol Jim "Waldo" Walsh, USMC, the last POW captured in Vietnam. He gave a most engaging summary of his six grueling months in captivity. If you missed the luncheon, his speech is on the home page of our website (<https://skyhawk.org/>). It's a great video (Thanks to Ken (Bruiser) Brust for suggesting that we videotape Waldo's talk for all to see!)



Steve "Dwarf" Linder

SDOs

Our Squadron Duty Officers (SDOs) are key people in keeping us connected and helping to get the word out when required. The official list of squadron SDOs is posted on the Skyhawk website 'FAQ - Research - Contact' page (<http://a4skyhawk.info/page/faq-research-contact>) and, while the majority of these are filled, there are still some units that need an SDO. Once again, I ask all members to please review the list on the website and see if there are any open units for which you would consider accepting the SDO responsibility. Several of our SDOs have agreed to host more than one unit, and we greatly appreciate their additional efforts. For Navy units, please contact George Blosser, SDO coordinator (george.blosser1@gmail.com). For Marine units, please contact Bill Egen (bill.egen123@gmail.com).

Reminder

If you have an upcoming reunion planned, please send me or the Journal editor an announcement to be included in this segment. Also, if you hold a reunion, send us a short debrief to immortalize the event in the A-4Ever Magazine.

Next Skyhawk Association Board Meeting

Our next Board meeting will at Tailhook '20 in Reno on 11 September 2020. The Skyhawk Association annual luncheon will again be in the Chalet Terrace Room on the fifth floor (same as last year). Our guest speaker this year for the luncheon will be POW/Motivational Speaker Captain Charlie Plumb (you don't want to miss him - <https://charlieplumb.com/>).

Thanks to our editorial staff lead by Bob "Raven" Hickerson for all their efforts in putting together this issue of the A4Ever. Dave "Hide" Dollarhide is Co-Editor, and Gene "Blade" Atwell is the Webmaster. It takes a lot of work, so let them know how much you appreciate their time. You can see the other Feature Contributors under the banner "Journal Staff" to the right.

A-4s Forever!

Dwarf sends



IN MEMORY OF
M. DAVIS "WHIZZER" WHITE, D.D.S
(1939-2007)

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BOMBS AWAY!

• Spring 2020 •

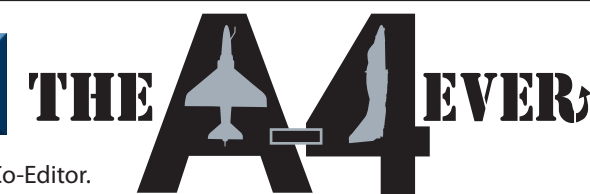
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Dave "Hide" Dollarhide – Co-Editor.

Gene "Blade" Atwell – Webmaster.

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Contributions

We actively seek contributions from members, including news, photos, historical documents, anecdotes and other items of interest. Submissions may be edited due to space limitations in the newsletter. Contributions may be emailed to the Journal Editor at sa-journal-editor@skyhawk.org or mailed to Bob Hickerson, 1222 Balcones Drive, Fredericksburg, TX 78624.

Stephanie Davis, graphics, skyhawk@nflight.com. Printed by Acculink, Greenville, NC.

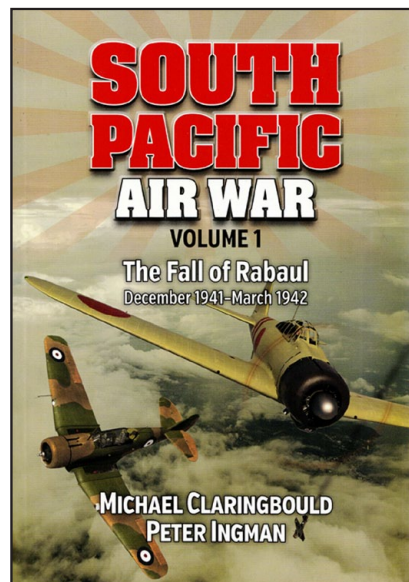
On the Cover: 142869 A-4B, VA-152 Fighting Aces aboard USS Forrester, 1969, CO CDR Phillip Johnson and XO CDR Elmer Sheeley. Photo from David Sheeley.

Read?

you think
we *read*?

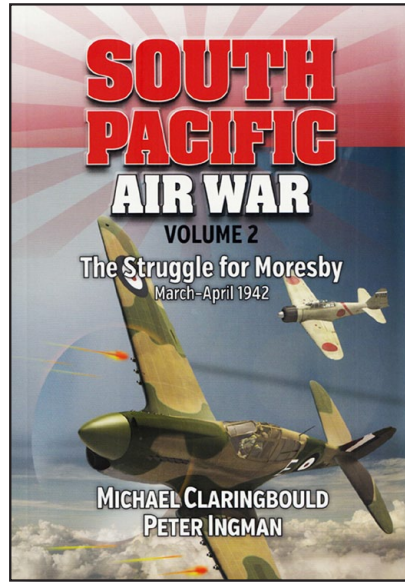
SOUTH PACIFIC AIR WAR, VOLUME 1, THE FALL OF RABAU, DECEMBER 1941-MARCH 1942

Claringbould, Michael and Ingman, Peter.
Avonmore Books, South Australia
2017. 252 pp, Ill, \$44.95.



SOUTH PACIFIC AIR WAR, VOLUME 2, THE STRUGGLE FOR MORESBY, MARCH-APRIL 1942

Claringbould, Michael and Ingman, Peter.
Avonmore Books, South Australia
2017. 252 pp, Ill, \$44.95.



SOUTH PACIFIC AIR WAR, VOLUME 3, CORAL SEA & AFTERMATH, MAY-JUNE 1942

Claringbould, Michael and Ingman, Peter.
Avonmore Books, South Australia
2017. 252 pp, Ill, \$44.95.



by Peter Mersky

A most unusual trilogy to which we are devoting much of this issue's space, from a very unusual duo of authors, a pair of experts in their country's early air war history that is perhaps not that well known in the U.S. As far as American readers may be concerned, immediate post-Pearl Harbor activity was limited to a few reprisal raids on Wake, and then the two climactic battles of the Coral Sea in May 1942,—which, admittedly helped save Australia, or at least the northwestern coast of Australia, from Japanese invasion—and a month later, Midway, which might be argued to have stopped the Japanese advance across the Pacific at a very crucial time of the war and deprived the Empire of many of its most highly experienced

carrier aviators and their prize carriers. While true, there's a lot more to this epic story, and these two Australian authors take that story much farther than we in the States might know.

Each of these closely-related books feature new photos as well as well-done artwork and maps that ably support the authoritative text that presents new facts and background to the story of those little-known post-Pearl Harbor days when, though much of the world had been engulfed in conflict, the war was separated by geographic boundaries. The Germans were fighting to conquer as much of the European mainland the so-called new war of blitzkrieg could give them. In turn, the Japanese with their ultra-militaristic society were eagerly bent on

bringing all of Asia into its sphere of influence, the better to create a proper society that would bring them out of the conflict between the whites and their own groups, the better to find their level of financial superiority. Little did people think there would soon be a meeting of the two warring factions that would, indeed, engulf the world.

Volume 1 describes the circumstances of how Australia, the island continent down in the South Pacific, little known by the greater world population, with its own truly unique origins, both flora and fauna, stood alone, much like its mother country of England half the world away in northern Europe battled against the prospect of German invasion in 1940 in the legendary Battle of Britain.

There were no heroic utterances about “the few” of the Royal Australian Air Force (RAAF) who proudly stood or flew alone in obsolescent aircraft such as the Wirraway, basically an armed version of a two-seat American trainer against the best the Japanese put into the sky. Or the almost nomadic existence of the RAAF squadrons that based themselves in out-of-the-way one day to the next in featureless points on maps to launch in meager strikes against the on-coming enemy, their dwindling resources of Lockheed Hudsons from America patrolling along the coasts or raiding the opposition with what were really light bombloads, often encountering interception by Japanese fighters whose pilots were in reality among the best in the highly competitive world of combat aviation.

Along with some aircraft from the U.S., early USAAF B-17Es and a few A-24 Banshees, basically Navy SBD Dauntless dive bombers flew missions to defend Australian territory with several American airmen being lost. The U.S. aircraft carrier, USS *Lexington* (CV-2), which had escaped the disastrous damage at Pearl Harbor, had reached the general area. The Lex's VF-3 with F4F-3 Wildcats were in operation against the Japanese, the most famous actions involving CO LCdr Jimmy Thach and Lt. Butch O'Hare, who received the Medal of Honor for his defense of his carrier on February 20th, which is well illustrated in Volume 1's outside back cover.

Volume 2 begins to focus on what became Australia's concentrated defense of its northwestern territories, which began to feel the effects of initial Japanese sorties probing the Aussies' ability to defend themselves. Again, B-17s, now aided by Bell P-39 Airacobras, Martin B-26s, and Curtiss P-40s that were beginning to arrive from the U.S., raided Japanese facilities. The authors' combined research is fascinating, coupled with their selection of photos and graphics make all three of these books excellent accounts of these important but little known desperate actions when Australia stood alone so far away from the main conflict in Europe and the growing and, at the time, the overwhelming momentum of the Japanese oceanic steamroller.

Those of us who read early accounts of the Japanese side such as *Samurai!* can recall the early pages where the ace Saburo Sakai, who has seen early action in China, comes to the island fortress of Rabaul, expecting to see a lineup of Zeros, then the most dangerous fighters in the Pacific. However, when he and his squadron land, many of them ill from the effects of the long voyage, they are distressed to see examples of the aging A5M Claudes they had flown over China more than five years previously. Actually a name given by the later Allied code-name system, the name Claude has stuck with WWII Japanese aircraft for ease of identification. It is true that in the early months of

1942, A5Ms still flew from Japanese flight decks as well as from shore bases, and the Australians give us rare coverage of the open-cockpit, fixed-landing gear fighters, in one of the more unusual aspects of these books, again supported by photos and now *de rigueur* displays of profiles.

Volume 3 describes how the meager RAAF and USAAF forces continue to build up as they confront the Japanese armadas bent on conquering New Guinea, close to the northwest coast of Australia. In-depth accounts of the Battle of the Coral Sea May 7-8, 1942, with an Australian twist are quite interesting, and give an almost daily story of the engagements between USAAF (not USAAC as written) P-39s, B-25s and B-26s against Zeros and the few remaining Claudes and various floatplanes as the Japanese mounted their somewhat disorganized invasion of New Guinea.

All together or separately, these unusual books represent a great history of a six-month period whose story has never been told in such detail, especially for American audiences. It might be said, however, that Osprey has published two related books: *Darwin 1942* by Bob Alford, in their Campaign series (no. 304), and P-39/P-400 *Airacobra vs A6M2/3 Zero-sen, New Guinea 1942 (Duel 87)* by one of the trilogy (reviewed here) authors, Michael John Claringbould. ✈

SCHEDULING

Reunions & Requests

PLAN AHEAD

■ **Marine Corps Aviation Association National Symposium 2020**, May 12-16 at the Hyatt at Aventine, La Jolla, CA

■ **Tailhook Symposium (Hook'20)**; 10-12 September 2020, plus **Skyhawk Association Annual Meeting and Luncheon**, at noon, 11 September at The Nugget Casino and Resort, Sparks, NV. Watch for details on the Skyhawk Association home page.

List your reunion or event with Skyhawk Association, both print journal and website.

Contact the editor at sa-journal-editor@skyhawk.org.



TAKE NO PRISONERS

Letters to the Editor

sa-journal-editor@skyhawk.org



■ Letter from Duke Stanton
Steve (Linder),

I need your assistance. I am a 30-year retired Marine colonel and a member of the Skyhawk Association. I recently wrote a story and submitted it to the email address for the Journal Editor but received no response. Several weeks later I wrote to Dave Dollarhide (co-editor) at the address provided in the Skyhawk Association magazine. Got a kickback as "no such address".

Can you provide me Bob Hickerson's email (co-editor) so I can find out if my story was received?

Raven and I know each other as I have sent several stories and pictures in the past, and we served together at one point. If they don't want to print it, that is up to them, but I would like to at least know if it was received.

Thank you,
D. R. "Duke" Stanton, Colonel,
USMC (Ret.)
<dpstanton@verizon.net>

Steve answered:
Duke:

Thanks for reaching out to me. I am copying Bob Hickerson and Dave Dollarhide.

We have had some issues getting the journal magazine published (including the printer going out of business), so please forgive the tardy response. I'm

sure Dave or Bob can reply whether or not your article was received.

Sometimes, as an all-volunteer organization, we hit bumps in the road, but we want to keep our members engaged and have them contribute as you have. We are working to cover each other's six. The geographic separation of our staff does not help either. Hide is in Jacksonville, FL, Raven is in Fredericksburg, TX, and I am in Las Vegas, NV. Somehow we manage to make it all happen. I hope the email addresses above will work to get you an answer.

Thanks for being a member of the Skyhawk Association and for your contribution.

Semper Fi,
Dwarf
Prez of the Skyhawk Assn.
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Send your letters to sa-journal-editor@skyhawk.org

SIZE DOES MATTER

Modelers' Corner

By Joe Turpen

From Joe Turpen, Skyhawk Association's modeling guru, this Hasegawa 1/48 scale A-4C displays the markings of VA-15 and squadron commander CDR James Snyder, during the squadron's 1968-9 cruise to the Mediterranean aboard USS *Forrestal* (CVA-59).



Visit [<http://skyhawk.org/article-modeling/modelers-hangar-bay>]

Accepted by the Navy on 07/17/1961, Bu. No. 148543 served with the Navy and Marine Corps, with typical assignments ashore and afloat, active and reserve. What makes this aircraft special is that it continues to serve at the Richmond, VA, Virginia Aviation Museum, now marked as Bu. No. 148442, VA-216 (NP-694), the aircraft piloted by LTJG Paul Galanti when he was shot down and captured while operating from USS *Hancock* in 1966.



ODE TO GRUMP

By LtCol Mike Ashworth USMC (Ret) and Major Phil Marrie USMC (Ret)

Lieutenant Colonel Richard Herbert (Dick) Ulm was a quiet man, relatively short of stature and definitely short on words. Because of his demeanor and his "Get the Job Done & Quit Talking About It", he naturally inherited his callsign, "Grump." He was the C.O. of VMA-331 Bumblebees in 1976-1977 at Cherry Point, and unequivocally the best stick in the squadron, particularly in the bombing and landing patterns. He disdained the Line of Sight (LOS) to Target solution of the ARBS, opting for the fixed reticle in the HUD. I saw him hit 12 out of 12 bulls with that fixed piper.

As his wingman, you were expected to go cross country from east to west coast and never say a word, acknowledging frequency changes with two mike clicks. In fact, as some more talkative wingman found out, you'd best put a lid on it or be on the receiving end of some very definitive guidance when you landed. At some point in his career, probably as a Captain, he had been an LSO and was obviously carrier qualified. When the squadron was practicing FMLPs, most of us were happy to get a couple of "OK" passes during the session, while Grump flew center ball for an "OK" on every pass. He was a "Lead by Example" type and one helluva pilot!

In 1977, the A-4M, was modified with a self-starter (JFS). While that might

sound like a great modification, at the time, all the bugs had not been worked out, so it provided for some rather exciting starts. It was not uncommon, to see the reflection on the plane captain's face of a fire in the hell hole, resulting a false start on the JFS! Grump didn't like fires when he was starting his airplane.

As a Captain, I had the dubious fortune of serving as Grump's AMO. His expectations were high, and his communications were short and sweet, "Keep 'em flying, Bluechip," (my callsign). Captain Phil Marrie, aka, "P" (callsign, Boomer), was writing the flight schedule and trying, (occasionally succeeding) to pair up suitable wingman with Grump. Grump didn't cotton to weak sticks or motormouths; P had his work cut out for him.

Those of us who could hack it, both respected and loved him, not only because he was a great A-4 Driver, but a very fair and consistent C.O. Those non-hackers lived in fear and usually didn't last long before they found themselves on the Group staff.

"P" on Grump:

Some time in 1976, several of us Captains and Lieutenants were sitting in the ready room, discussing Pat Conroy's book, *The Great Santini*. It was a real hoot for us Marine aviators, to have 'one of our own' the subject of a story, in print.

Our skipper, Grump, overheard us and asked what book we were discussing (Marine aviators discussing books??... Now, there's an interesting picture). I asked, the skipper, if he had heard of the book. He said, that he'd read it and knew who the character 'Bull Meachum' really was....Don Conroy, an A-4 pilot. He had been Grump's skipper, I believe, at MCAS Beaufort...and I think it might have been our own squadron, VMA-331. LtCol. Don Conroy was the CO of that squadron for a couple of years.

Grump said that Don Conroy was a 'prince of a man' and that he would be devastated to be portrayed as the bullying father-figure, Bull Meachum. What went on in the Conroy home, during that time frame is a mystery. Grump did tell us that many of the stories attributed to the 'Bull' were composites of many stories from the units at MCAS Beaufort at the time the novel's setting described.

After retiring, Grump served as a professor at Embry-Riddle Aeronautical University.

Lt. Col. Richard Herbert Ulm, of Port Orange, Florida, passed away peacefully at the age of 74 on December 25, 2011. He was a loving husband, respected teacher, strong and straight-talking man and an outstanding Marine Officer and pilot. He will be missed by everyone who knew him.



TAPS notices may be Emailed to:
Bob Hickerson, Journal Editor at
sa-journal-editor@skyhawk.org

Or mailed to:
Bob Hickerson,
1222 Balcones Drive
Fredericksburg, TX 78624



For lists of A-4 KIA and operational losses, members can sign into <http://skyhawk.org> and go to the "Ready Room."

Wendell Alcorn, 3/20, Brevard, NC
David Collier, Stuart, FL
William Isenhour, Goldsboro, NC
Thomas Lackovic, Los Gatos, CA
William 'Bill' Perry, 5/18, Melbourne, FL
Alfred Rome, Cordova, TN
Ken Curry, Pensacola, FL

What was that? Hmm... Probably nothing serious...

1968 PUNCH OUT



Photo by Curt Ayres, VA-76

By Dave Dollarhide

We'd lost our VA-46 A-4Es off the coast of Vietnam after the disastrous Forrestal Fire in July of '67. Shortly after returning to NAS Cecil a month later, ten "Bravos" began arriving for us to fly until our A-7B transition next spring.

The short nose A-4B was an older model I'd not flown, but I instantly loved it. It was simpler, weighed quite a bit less than the Echo and was a turning machine... a good trait for those impromptu hassles over Ocean Pond. We flew the hell out of them, often with no drop tanks or just a 150 gallon center-line tank, and life was good.

The next January, my good friend and "squadronmate," Tom Brownsey, was killed west of Albuquerque, NM, when he ejected due to loss of oil pressure. When the chute opened, the ejection seat was in free fall close by and managed to hit Tom on his helmet,

breaking his neck. It was another sad loss following so many other deaths on the Forrestal.

We deployed to NAS Fallon the next month and our ten airplanes seemed to never breakdown. Each pilot must've flown close to 35 hours and a fun time was had by all.

Back at Cecil two weeks later, a Saturday inspection was begun on all ten airplanes, requiring the ailerons to be removed. Joe Halsmer and I spent that Sunday flying the required functional flight checks on each airplane. On one of those launches, he led, and I flew wing as we proceeded south at around 10,000'.

Between Pine Castle Target and Ocala, FL, in very smooth air, I suddenly felt two or three almost imperceptible thrust surges. They came and went, but it got my attention, and I quickly checked the *Engine Performance*

Indicator (EPI), but RPM, EGT oil pressure and fuel boost were rock solid. "Joe, do you feel any unusual turbulence?" "Nope, smooth as silk." It must've been my imagination, I thought, but then a wisp of smoke came through the eyeball vents and cleared as fast as it had appeared. Hmmm! I took the flight lead from Joe and turned back toward Cecil Field as a precaution, while thinking a drop of oil must've gone through the *Air Cycle Machine*. After all, that thing spins at 36,000 RPM to keep the cockpit cool. The ride was perfectly smooth as we turned back north and I was fairly confident nothing was really wrong.

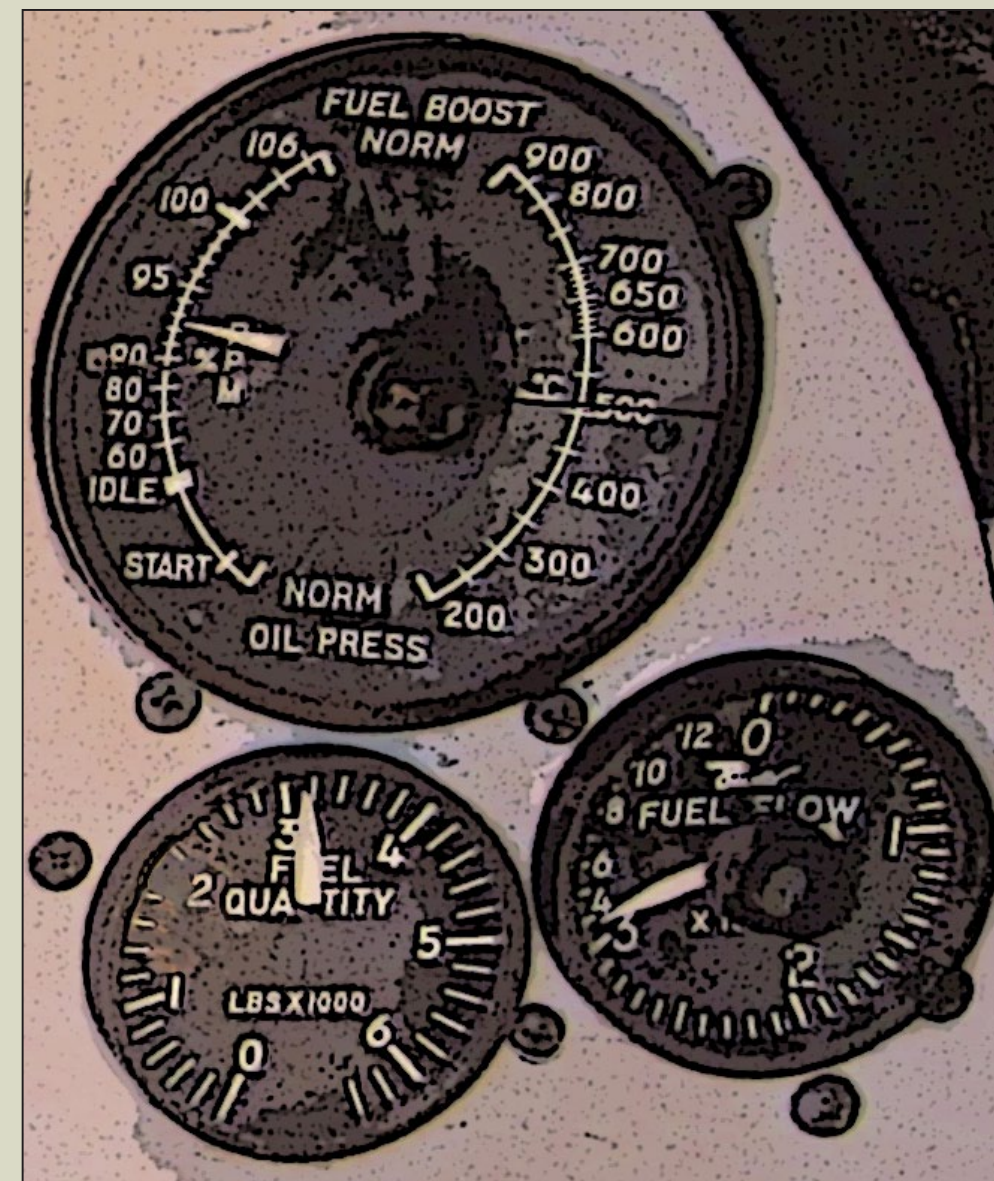
I keyed the mike to check in with Pete Taylor, our "SDO", back in the "Clansmen" ready room, to let him know we were returning. He wondered if maybe heavy rain from a storm last night had been an issue. I decided to

try the manual fuel control and brought the throttle back to idle, then flipped the *Fuel Control* switch from *Primary* to *Manual* and began moving the throttle back to cruise power. As the RPM increased, there was a very slight and momentary airframe shudder, but the J-65 immediately ran smoothly again. "Hmmm, I must've moved the throttle too fast," I thought. I then powered back, selected *Primary* again and all was perfect as we returned to base at cruise speed. The gauges looked normal. "...nothing to worry about", I thought.

Approaching Cecil with the landing gear and flaps down to land straight in from the south, Joe advised Cecil Tower that his "flight leader had an engine problem." He was just ten feet away from my left wing as I looked over at him raising my open palms in the air, a bit miffed and thinking "What the hell! I should be doing the talking here!" Besides, we don't need no "steenkn'n" fire trucks and an ambulance racing out to the runway, as I continued my denial mode."

Looking back inside, I was taken back to see the EGT at 660 degrees. My mind raced as the temperature was a bit high. This was suddenly looking like a real problem and sure enough, the EGT continued to climb! We were at 1,000', and I pulled the landing gear up for less drag, then removed my kneeboard and called the Tower, as the EGT approached 800 degrees. "I may be jumping out of this thing. My temperature is rising," I transmitted.

The cockpit suddenly filled with smoke as the EGT needle pegged on the 900 degree mark and the airframe began to shake. It was time to go, so due to the lower altitude, I looked down at the *Alternate Ejection Handle* between my legs and pulled it with my left hand, while my right stayed on the stick for wings level. ...all good except I failed to put my head back against the head rest first. There was an 18 "G" "pain in the neck" as the "RAPEC" seat and I banged out of the smoke and flame filled cockpit. My mind flashed to Tom Brownsey's ejection and the seat hitting him, then my vision cleared for a split second to see the chute streaming above as I fell head first. My feet snapped



feet down for me to see that beautiful parachute open above. I was now facing south as the seat fell by close aboard, with flames still licking from the rocket. I pulled the risers away from my helmet and twisted around to see the airplane crash into a ball of fire in the woods behind me.

I began surveying my feet, arms and legs to see the leather ripped off the toe of my left flight boot. The steel toe was dented where it had hit the bottom of the "Bravo's" unpadded instrument panel. I then saw Joe finishing an aggressive right turn around me, very close aboard, with vapor trailing his wingtips. I began waving an OK, but before I knew it, he was gone and the ground was coming up. I landed uneventfully just past a log in a grassy clearing.

I was safely down, but my upper back and neck quickly began to lock up and I could barely move. A nearby resident approached me in the meantime, saying, "What were you flying? You sounded like a helicopter." The duty Search and Rescue helicopter never got the word, but a Marine Reserve H-34 heard the radio chatter and picked me up 30 minutes later.

One overnight in the Cecil infirmary and four days later, I was on the flight schedule for a bombing mission at Townsend Target. Three G pullouts were all I could stand on my upper back... but I was "back in the saddle."

Afterthoughts: The "DIR" engine inspection done on Tom's J-65 had reported his failure as a result of crushed walnut shells, used to clean compressor blades, found blocking an *continued...*



1968 PUNCH OUT CONTINUED...

oil channel. Other investigators looking at the ejection, proposed that he had been hit by the seat, as he kept a lot of equipment in his survival vest, creating a high center of gravity. The inspection done on my engine showed that the center main engine bearing was not torqued on one side, causing it to eventually seize. It had been installed in 144997 before our trip to NAS Fallon

and failed at .5 hours after we returned to Cecil. One pilot and two airplanes had been lost as a result of human error at the NAS JAX Overhaul facility. I've always wondered if any accountability and corrective action was taken, but as normal...not for squadron ears.

Setting and leaving the throttle at 87% may have saved the day on the trip back to Cecil, but I obviously

failed to put the little puzzle pieces together and understand the issue. The EPI was giving me no indications of the engine seizing...until it was time to **PUNCH OUT!** I had survived despite myself!

If you're lucky enough to still be flying a Scooter and find yourself in doubt, set the power and look for the nearest suitable airport.

A-4 Maintenance Nostalgia - Douglas Service Information Summary

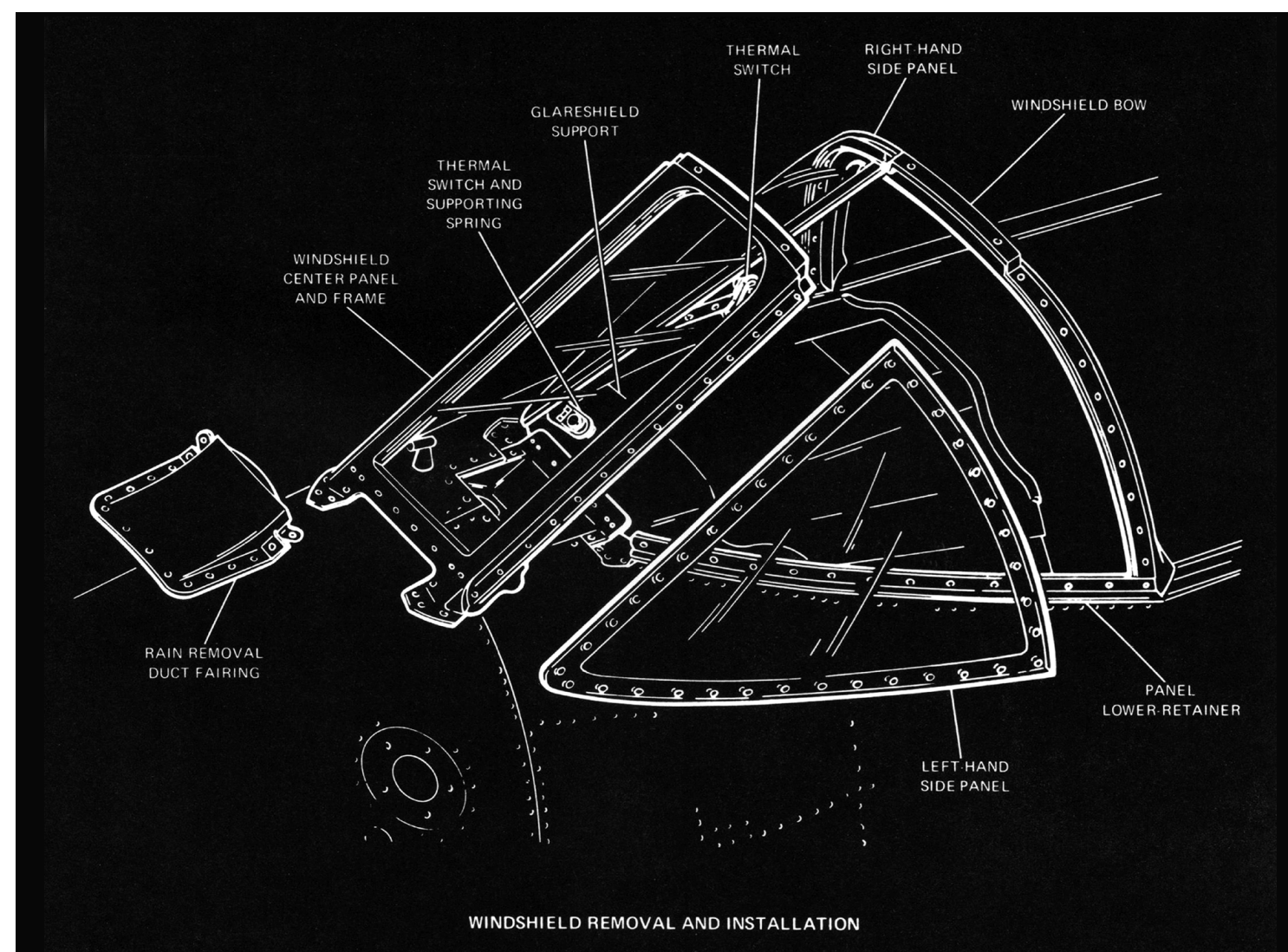
TA-4 CENTER WINDSHIELD REPLACEMENT PROBLEMS

Operating squadrons have reported unsuccessful attempts in removing the TA-4 center windshield using the instructions contained in, NAVAIR 01-40AVD-2-2 which states that the center panel can be removed without removing either side panel. Douglas has investigated and confirmed that it is not possible (without removing at least one side panel) because of the cockpit structure located directly below the lower end of the center panel frame and the requirement to move the panel aft and up to clear the structure and rain removal duct fairing.

In addition to including revised information pertaining to the above, a future revision of the MIM will also include the following regarding center windshield replacement.

After drilling attachment screw holes in the replacement panel assembly, domed nutplates (new ones or old ones transferred from old frame) must be installed on the forward lower portion of the replacement frame.

Prior to installation of the rain removal duct fairing, clean off old sealant and apply RTV 1016 sealant to the surface of the fairing. After fairing is secured to the structure, apply a bead of sealant around the outer periphery of fairing.



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JUST ANOTHER MISSION

By Col. D. R. Stanton, USMC (Ret.)

The date was 5 March 1969, and Major Charlie Robinson was lead for a two-plane, 5-minute alert launch. I was his wingman. We were attached to VMA-223 flying the A-4E Skyhawk. I was also a Major at the time. It was 1445 and the two of us were slowly baking in our respective cockpits. We were hooked up to external power with the radios on and the “huffer”(ed) attached, waiting, just waiting. The pre-flight was complete, and I was wondering just how long it would take me to turn into a casserole. My flight suit was soaked, and I bet that Charlie’s was also. Charlie and I had served together earlier in the 60’s with VMA-214 and were very familiar and comfortable with flying together.

I'm sure that there are many stories of heroism that far surpass this one, and that is why this is entitled as it is. Like the old radio show started out: "There are many stories in the big city, this is one of them."

All of a sudden the radios came alive and Hellborne Flight 236 (us) was told to scramble and contact Vice Squad (TACC) on red frequency. Our engines were started in short order, and we taxied to the arming area where the arming crew pulled pins and ran their final checks for the napalms that we carried on station 1 and 5, the four Snake eyes we carried on MERS on both the 2 and 4 stations plus 200 rounds of 20 mike mike.

As we departed Chu Lai, the weather was clear and the visibility was 15 miles plus. Vice Squad vectored us toward the DMZ and turned us over to Vandergrift DASC who vectored us to an area approximately 16 miles west of Dong Ha and turned us over to our controller, Seaworthy 97-5, an airborne FAC. As we approached Danang, we climbed to 10,000 ft. as a solid cloud deck greeted us that ran from 500 AGL to 6,000 AGL. Seaworthy, briefed us that a Marine company was taking multiple casualties from mortars on a 300 foot hill less than 250 meters west from the Marine’s landing zone, and whenever they attempted to bring helicopters in to pick up the dead and wounded, the NVA would rain down additional mortar rounds causing the helicopters to abort. Seaworthy stated that the weather in the area was bad with a low ceiling and limited visibility.

Knowing that we could not penetrate the ceiling safely in the target area, lead called us to go back to Vice Squad. He informed Vice Squad that we desired to turn east and for Vice Squad to inform us when we were “feet wet.” Shortly thereafter, Vice Squad informed us that we were “feet wet” and lead said we were going down. While he was solid on his instruments, I tucked in, overlapping his wing, as the clouds were extremely solid and losing sight of him would not serve us well at all. As we approached 500 feet AGL, lead, being entirely on the gauges called and said, “We’re going back up!” As we started back up I informed lead that I had glimpsed the water just as he started back up. Lead said, “Going back down,” and made a smooth transition to start back down.” We broke out at 500



TINS!*

By Dave Dollarhide



TINS comments from member Dan Clarke:

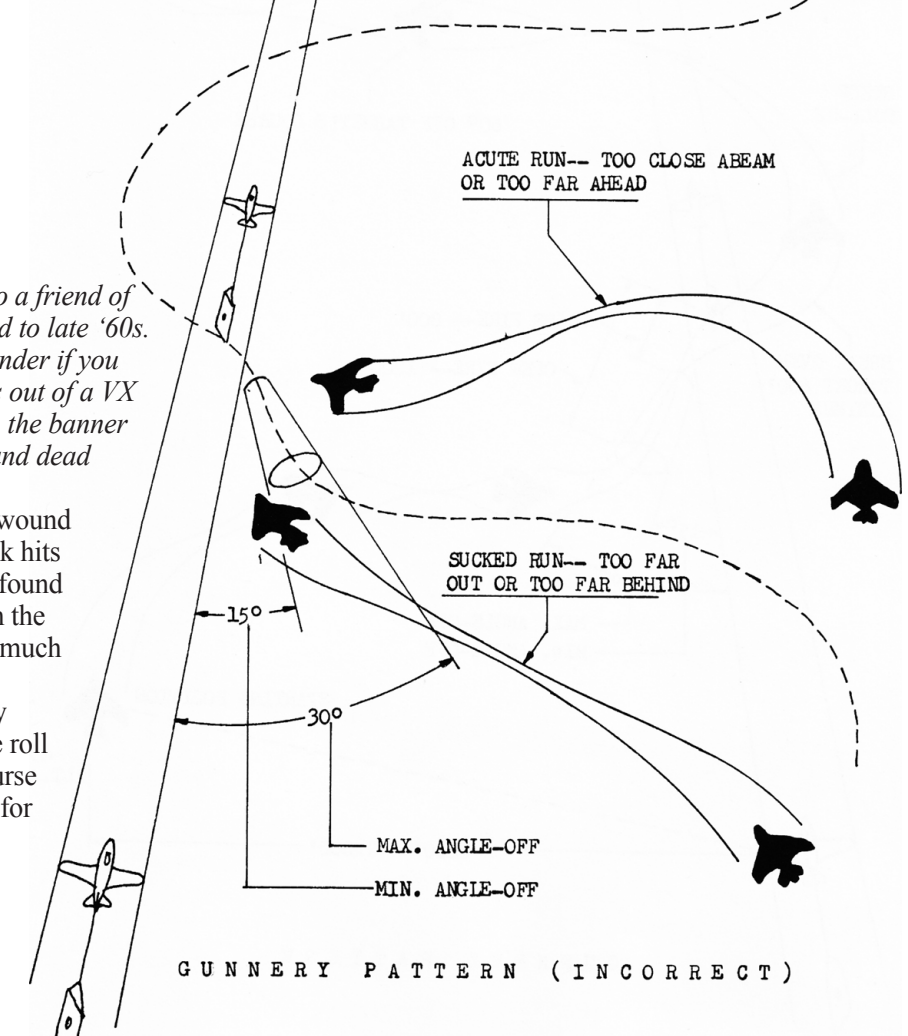
“I just thought of an incident that happened to a friend of mine over the Salton Sea sometime during the mid to late ‘60s. He was flying an A-4 banner tow plane, and I wonder if you ever heard or have knowledge about this. He was out of a VX squadron, I believe and one of the pilots firing on the banner put a 20mm right up his tailpipe. He flamed out and dead stuck his A-4 into El Centro safely.”

Of course, this is not the first time a tow bird wound up being the target, but the ones who actually took hits meant for the banner are few. How many rounds found their way into engines on the gunnery range, with the pilot landing on a runway without power? Pretty much unheard of!

Remember what it was like flying the gunnery pattern in training? The challenge was to time the roll in from the “perch” and while diving, reverse course at the exact time to find the optimum “angle off” for hits on the banner. ...and not on the tow bird.

Does anyone know about this Skyhawk gunnery incident? Who was the tow pilot? Dan has lost track of his fortunate friend. (Any info? Contact Dave Dollarhide at davedollarhide@msn.com.)

SUCKED IN THE GUN RUN



feet AGL, dropped down to 400 feet AGL to give us a little wiggle room, and started back to the west.

Contact was reestablished with Seaworthy who had been orbiting the Rock pile, which was just east of the target area. As we crossed “feet dry” we picked up Route 1 and turned north. Shortly thereafter, Seaworthy picked us up visually and by that point I had begun to drop back and take interval on lead. Seaworthy said that he would like each of us to drop two napes or Snakeeyes at a time in order to remain over the target as long as possible, so as to allow the helicopters, which were now orbiting to the east, to get in and

out. With the ceiling at 500 feet AGL, us at 400 AGL and the NVA on the crest of a hill at 300 AGL, it meant that we would have to use a flat race-track pattern, passing directly over the target at 100 feet. Seaworthy did a sharp turn and fired a Willie Pete right into the hill. With the hill positively identified, lead turned in on his run to drop his napes first. As he was in his final run the whole side of the hill opened up. Charlie (lead, not the short term for the bad guys) passed over the hill at 100 feet, AGL. By then I was into my run. Seaworthy adjusted my target from where Charlie’s napes had hit and so I did. Charlie and I continued our racetrack, now changing

our mil setting to adjust for the Snake eyes. We continued pounding the hill and overflying it by 100 feet until we were out of ordnance, except for one final strafing pass. As Charlie made his final pass, he pulled up and disappeared into the low ceiling. I followed with my pass, pulled up into the clouds and rendezvoused with Charlie at 10,000 feet while proceeding back to Chu Lai. Thank the Lord, neither one of us was hit and the flight back to Chu Lai was uneventful. Another mission completed.

After completing 30 years in the Marine Corp, Colonel Stanton and his wife retired and now reside in Berryville, Virginia.

BESIDES, IT'S FUN TO FLY

• Part II •

By Harry Gann

Dual-Seat Skyhawks

During the continual exchange of discussion between Douglas and the Navy, the subject of a two-place model (referred to as the A4D-5T) of the *Skyhawk* was constantly being raised. It was suggested that this configuration would be ideal for advanced navigational instruction, in-type training or familiarization, as well as some combat missions where an additional pilot might be needed. However, budget limitations precluded any orders for such an aircraft until 1964 when the Navy convinced the Department of Defense that money should be allocated to buy a two-place version. The convincing argument, in addition to the obvious training advantages, was that single-place *Skyhawks* used in training could be released for combat duty in Vietnam where they were sorely needed at that time. As a result, the existing A-4E contract was altered to specify that the last two single-place *Skyhawks*, BuNos 152102 and 152103, would be taken off the production line and modified to two-place aircraft and designated TA-4E.

In addition to the 28-in fuselage plug added for the second seat and the necessary dual controls as well as instruments, it was decided to also add a few other improvements at the same time. Probably one of the more important improvements was the installation of the new Douglas-designed ejection seat, the Escapac IC-3. The rocket-driven seat provided a capability of allowing either one or both of the two crewman to eject from a disabled aircraft while at ground altitude and with zero forward velocity. This feature greatly improved the chances of a safe egress of the crewman from a malfunctioning aircraft.

Another improvement added to the TA-4E was the installation of wing lift spoilers on the upper trailing edge of the wing. Because of the geometry of the earlier *Skyhawk* landing gear arrangement, the crosswind characteristics could be a problem to neophyte pilots when forced to use runways not aligned

"I have great confidence in its ability to stay up there in combat; besides, it's fun to fly."

- Navy Vietnam aviator in reference to the McDonnell Douglas A-4 Skyhawk.



First 2-seater to fly, BuNo 152102 was one of two A-4Es converted to the T-model configuration. Originally designated the TA-4E, designation was quickly changed to TA-4F. Shown here in Jan 1966 as test-bed for HARM missile at China Lake.



Originally proposed as the A4D-5T, a dual-seat version of the Skyhawk was not ordered until 1964. On right, original Douglas mock-up of the TA-4E. (Photo by Douglas)



H&MS-32 OA-4M 154306, circa 1983.

with the direction of the prevailing wind. The use of the lift spoiler allowed the pilot to remove the lift component which provided greater effectiveness of the brakes. As a bonus, the added drag of the spoilers in the airflow reduced the landing rollout.

Nose-wheel steering by the pilot also was added to allow for better control during crosswind taxiing and ramp or carrier deck maneuvering. As with standard Echoes, the Pratt & Whitney J52-P-8A was selected to power the aircraft.

BuNo 152102 first flew 30 June 1965, designated TA-4E. However, the designation was shortly changed to TA-4F in view of the many improvements to the basic A-4E airframe. The TA-4F became operational in May 1965, with the West Coast A-4 replacement air group squadron, VA-125 at NAS Lemoore, Calif. The production run of TA-4Fs totaled 241, including the two aircraft originally ordered as TA-4Es.

Many of the TA-4Fs were later converted to the TA-4J configuration during a PAR cycle and assigned to the training command to supplement the advanced trainer *Skyhawks*.

Another modification of the basic TA-4F was requested by the Marines to fulfill their requirements for the

fast forward air control mission (Fast FAC). During 1978, NARF Pensacola began reworking 23 aircraft, updating the avionics similar to that of the A-4M, including the installation of the aft avionics pod. Despite the designation OA-4M, the modification did not include replacing the A-4M's J52-P-8 with the J52-P-408 engine. These aircraft were operated by

Marine Headquarters and Maintenance Squadrons (H&MS) later to be changed to Marine Aviation Logistics Squadrons (MALs). Some TA-4F aircraft were re-designated as EA-4F and assigned to VAQ-33 to serve in an ECM mission. These aircraft were modified by deleting wiring and components to allow the installation of ECM and target missile launching gear as well as special stores.

Enter the Foxtrot

Continued usage of the A-4 as a prime Navy and Marine attack aircraft in Vietnam resulted in an increase of losses from combat and operational causes. To replace these aircraft, the A-4F was ordered in 1965. The A-4F was similar to the A-4E except that it incorporated the nose-wheel steering, lift spoilers, Escapac IC-3 ejection seat and up-rated J52-P-8A engine introduced in the TA-4F. The first A-4F (a revised A-4E airframe) flew 31 August 1966.

A further improvement was later added to the "Foxtrot" in the form of an upper avionics pod. Kits were supplied for aircraft already delivered to the fleet and those aircraft not delivered were so modified at the plant. *continued...*



Section of A-4Fs of VA-164 over Sierra Nevada. CVW-19 A-4Fs were retrofitted with the more powerful J52-P408 engine between 1972 and 73 cruises on USS Hancock.

The pod consisted of a compartment added to the top of the fuselage aft of the canopy which provided for installation of special electronics gear dictated by requirements of the Vietnam War. This location was selected because internal space of the compact *Skyhawk* was so completely occupied that the addition of any more equipment was near impossible to install or, more importantly, to access for maintenance. The pod also was retrofitted to all operational A-4Es and some A-4Cs as part of the A-4C-to-A-4L modification.

Production A-4Fs were initially delivered to VA-23 and VA-192 of Carrier Air Wing 19 which deployed to WestPac and Southeast Asia in late 1967 on board *Ticonderoga*. The A-4F brought to a close the carrier-based deployments of U.S. Navy *Skyhawks*. VA-55, VA-164 and VA-212 took their A-4Fs to WestPac in *Hancock* (CVA-19) 18 March-20 October 1975, where they participated in the evacuation of Phnom Phen and Saigon. This deployment ended 19 years of U.S. Navy A-4 carrier tactical service. Including one aircraft originally ordered as an A-4E, the A-4F production run totaled 147.

The Blue Angels A-4F

During the 1973 Blue Angels show season, a decision was made to re-equip the flight demonstration team with the A-4F *Skyhawk II* to reduce the amount of funds needed to sustain operation of the unit. Expected savings were to be made in maintenance and operational cost, especially in fuel usage. In addition, a tragic accident had taken the lives of three team members in a mid-air collision of two of the McDonnell Douglas F-4J *Phantom II* aircraft that had been the Blues' assigned aircraft since 1969. This accident hastened the change to the lighter, more easily maintained A-4.

The timing was just right for the switch. McDonnell Douglas had supplied 147 A-4Fs to the Navy and had provided 100 kits to replace the Pratt & Whitney J52-P-8 engine with a J52-P-408 power plant resulting in a thrust gain of about 2,000 lbs., obtained without the use of a fuel guzzling afterburner. At this time, the Navy was replacing the A-4s in the carrier air wings with the LTV A-7 *Corsair II*, making the A-4Fs available.



Blue Angel A-4F 155029, circa 1975. These aircraft were modified specifically for the flight demonstration mission, and the team operated the Skyhawk from 1974 to 1987, a run of 13 years.

Airframes were identified and eight were sent to the Douglas plant in Long Beach in late 1973 for the modification to Blue Angels' requirements. The changes were of a minor nature and consisted of:

1. Deleted aft avionic package.
2. Added drag chute.
3. Added additional load feel bungees to provide demonstration flight stick force.
4. Added smoke system.
5. Added inverted fuel system.
6. Added foldable ladder for crew entry at left gun position.
7. Revised pilot restraint harness.
8. Revised horizontal stabilizer actuator to provide three degree nose down trim.
9. Bolted wing slats in the closed position.

A new TA-4J also was delivered to the team to provide for the narrator's flight program and various logistical duties. Other than the drag chute, the foldable ladder and Blue Angels markings, this two-seat A-4 was similar to training command aircraft.

The A-4s provided yeoman service for the squadron. (The team was officially designated a squadron in early 1974 under the leadership of CDR Tony Less). They were not replaced until the 1987 season, spanning 13 years of operation, being relieved by another McDonnell Douglas product, the F/A-18A *Hornet*.

The A-4G and TA-4G for the Royal Australian Navy

In January 1966, after a thorough evaluation of existing aircraft, the Royal Australian Navy selected the A-4 for an air defense role for HMAS *Melbourne*, an antisubmarine warfare (ASW) carrier. The *Skyhawks* were to provide a proven counter against hostile reconnaissance aircraft, and at the same time provide a limited strike capability against a surface force attack.

Eight single-place A-4Gs and two TA-4Gs were delivered starting in July 1967, for use by 805 Squadron. The "G" series of *Skyhawks* was essentially the same configuration as the U.S. Navy A-4F and TA-4F without the upper avionics pod.

In mid-1970, the Australian government announced the procurement of



A-4G 155061 of Royal Australian Navy. (Photo courtesy of John Bartels)

an additional ten *Skyhawks*. They were obtained from the U.S. Navy inventory of A-4Fs and TA-4s and modified to the "G" configuration; eight aircraft being the single-place versions and two 2-place trainers.

The Israeli Air Force A-4H and TA-4H

The existence of the A-4H for Israel was first acknowledged in May 1968, during a public flyby over a parade to celebrate the 20th anniversary of the founding of the State of Israel.

The A-4H was basically an A-4F with certain deletions, mainly black boxes. The lack of the aft avionics pod being the most evident of these changes. Additions included an IFF antenna in the vertical fin which squared it off and the installation of a drag chute under the aft fuselage. In addition, some aircraft substituted 30mm cannons for the normal 20mm guns.

Seventeen TA-4J(H)s and ten TA-4Hs which were similar to the TA-4Js and TA-4Fs also were delivered to the Israeli Air Force, along with 90 of the single-place A-4Hs.

continued...



With "boards" (speedbrakes) out, an Israeli A-4H taxis in following a mission.

(Photo courtesy of Peter Mersky)

TA-4Js Replace Training Command's Cougars

The Advanced Training Command's requirement for a replacement for their aging Grumman TF-9J *Cougars* resulted in the 1968 purchase of the TA-4J to train pilots for the Navy and Marine Corps. Since the TA-4F combat trainer had already been operational since 1966, it was relatively simple and inexpensive to tailor the two-place *Skyhawk* for the advanced training function.

The adaptation consisted of deleting the tactical weapon systems such as the air-to-air and air-to-ground missile launching equipment, low altitude bombing system, radar and associated gear and in-flight refueling tanker capability (the in-flight refueling probe was retained).

The resulting deletion reduced the aircraft empty weight by 230 lbs. The lower-rated J52-P-6 engine rated at 8,500 lbs. was installed in place of the J52-P-8A. A red-orange and white paint scheme in line with Navy specifications was substituted for the gull gray and white of fleet *Skyhawks*.



TA-4Js, such as 158076 shown here over South Texas, began replacing U.S. Navy Training Command TF-9J Cougars in 1969.



TA-4K bound for New Zealand cruises over Yosemite National Park with Half Dome in background.

The TA-4J first flew 17 December 1968, and entered service with VT-21 in mid-1969. A mass delivery of 50 aircraft to NAS Kingsville, Texas, was made from the final assembly plant at Palmdale, Calif. Factory-to-training command deliveries of the TA-4J amounted to 226 aircraft. This number was later supplemented with many TA-4F airframes that were converted by the deletion of certain ordnance equipment.

Of the total of 2,960 *Skyhawks* built, 555 were two-place configuration. This figure also includes some foreign deliveries.

The Kiwi A-4 and TA-4Ks

In mid-1968, the Royal New Zealand Air Force became the fourth offshore nation to select the *Skyhawk* to equip its air unit when it ordered ten single-place and four two-place A-4s. While similar to the A-4F, some additions and deletions were made to the basic configuration. Added was a 14-ft.-diameter drag chute to reduce landing rollouts and the installation of an IFF antenna on the vertical fin which altered the vertical tail to a squared-off appearance. Another change that affected the appearance of the aircraft was the application of a four-color camouflage paint scheme identical to colors of USAF Tactical Air Command aircraft. Deleted were provisions for Bullpup and Shrike air-to-ground missiles and some avionics.

These aircraft were delivered to Number 75 Squadron in early 1970, replacing *Canberras* in the strike role.

The A-4L Conversion for the Reserves

As a result of the Vietnam War, the Naval Reserve pushed for an upgrading of its *Skyhawks* to include the tactical and ECM equipment similar to that installed in fleet A-4s. When plans were finalized in 1970 to form two Reserve carrier air wings that would be fully combat ready, approval was given to Douglas to flight test one modified A-4C (BuNo 148307) and fabricate 99 kits to allow A-4Cs to be modified at Naval Air Rework Facilities (NARF). The first of the reworked A-4Cs came



A late-60s requirement to upgrade reserve capability led to conversion of 100 A-4Cs to A-4L configuration.

off the Navy line in December 1969, and were delivered to the Naval Air Reserve Training Unit (NARTU) Jacksonville, Fla.

The A-4L, as the modified A-4C was designated, had an uprated J65 engine and relocated electronic gear in the newly installed upper avionics pod located on the upper center fuselage. Wing lift spoilers, first introduced on the TA-4F, were included in the modification package. The initial A-4L was flown 21 August 1969, and was the first of 100 aircraft so modified.

A Skyhawk for the Marines

In 1968, an engine development by Pratt & Whitney was to be instrumental in extending the already long life of the *Skyhawk*. In production 14 years at that time, the versatile A-4 had stayed equal to the task imposed on it by constantly upgrading the detail features of a basic airframe that reflected its excellent design. But how far could a good design be stretched?

Pratt & Whitney provided the answer when it developed a new version of its J52 engine with a rating of 11,200 lbs. static thrust, a 20% increase over its J52-P-8A predecessor. The cost of this thrust increase was a one percent weight increase and no significant

increase in specific fuel consumption. Smokeless burner cans were also installed to reduce the level of visible exhaust. This engine was designated as the J52-P-408.

Other changes added to the A-4M included a larger canopy to improve pilot visibility especially in the rearward direction. This was accomplished by using a windscreen similar to those installed on the trainer versions and increasing the width of the canopy some three inches. To complement the added short field capability provided by the increased engine thrust, a ribbon-type drag chute similar to that installed on the A-4H and A-4K was added to slow the aircraft after touchdown. Thus, routine operations from relatively short 4,000 ft. runways were possible, a feature that matched a Marine Corps requirement for operations on short strips in close air support of ground troops.

Two other recognition differences were the squared-off tip of the vertical tail and the dog-legging of the in flight refueling probe. Installation of an IFF antenna was the reason for the tail geometry, while the refueling boom canting was made to allow a wider-angle target acquisition system (Shrike) that was being installed. *continued...*

To accomplish the A-4M flight tests, two A-4Fs (BuNos 155042 and 155049) were returned to the factory and re-worked into the A-4M configuration after authority to proceed was given in May 1969. Test pilot Walt Smith flew the first aircraft 10 April 1970, before many eager Marine officials at the Douglas assembly and flight test facility at Palmdale. Fleet deliveries began 26 February 1971, to VMA-324, normally based at MCAS Beaufort, SC, but then on deployment to MCAS Yuma, Ariz.

(Ed. Note: the first deliveries of the A-4M to VMA-324 were in April 1971. I was in the squadron at that time, and my first A-4M sortie was April 15th, 1971, in 158154.)

Including the two revised A-4Fs, a total of 160 A-4Ms were procured. The "Mikes" served the active-duty Marines until 27 February 1990, when VMA-211 transferred its last *Skyhawk* (BuNo 158428) to MAG-42's VMA-133, an NAS Alameda Reserve squadron. This move ended the operational career of the A-4 with active duty tactical units after 35 years. VMA-211 operated A-4s for 34 years of that time.

Development of the A-4N for Israel

With the success of the A-4H in the Middle Eastern conflict, discussions were held in the early 1970s concerning an improved *Skyhawk* version based on the A-4M, with the exception of two 30mm guns replacing the 20mm cannons, an Elliott HUD and a new navigation/weapons delivery system.

The A-4N first flew 8 June 1972, and was the first of 117 of this version delivered to the Israeli Defense Force under a U.S. Navy monitored contract.

Argentina's A-4P and A-4Q

In 1970, the U.S. Government agreed to sell used A-4 *Skyhawks* to the Argentine Armed Forces from surplus stock. Fifty A-4Bs were initially re-worked by the Douglas Aircraft facility at Tulsa, Okla. In 1976, an additional 25 A-4Cs were remanufactured by Lockheed Aircraft Services at Ontario, Calif.

Those aircraft used by the Argentine Air Force were designated A-4P and the

Argentine Navy's were A-4Q. It was reported that 19 of these *Skyhawks* were lost in action during the 1982 Falklands War.

The A-4Ku and the TA-4Ku for Kuwait

In 1975, the McDonnell Douglas Corporation was awarded a contract with the government of Kuwait for 30 single-seat attack and six two-seat trainer/attack aircraft. The attack configuration was based on the A-4M, while the trainers were unique in that they were powered with the J52-P-408 engine, the only two-place *Skyhawks* to carry this installation. The trainers also had the aft avionics package fitted.

These aircraft were delivered from April 1977 through July 1978, to form two squadrons. In 1984, it was reported that the approximately 30 aircraft still operational would be traded back to the U.S. as partial payment on an F/A-18 replacement order. However, the recent invasion by Iraq has clouded that issue. It has been reported that the surviving Kuwaiti A-4s were flown to Saudi Arabia after operating from roads when their runways were damaged.

Skyhawks That Never Were: The A4D-4 and A4D-6

Douglas, as well as the other aircraft manufacturers, constantly strive to update their aircraft to be competitive, as well as to satisfy the stockholders on the balance sheet. Not all are winners. One of these was the aforementioned A4D-3 cancelled in favor of the less ambitious and more economical A4D-2N.

The A4D-4 was a 1958 proposal as a long-range, all-weather attack aircraft with the primary purpose of delivering a special weapon at low altitude. The wingspan would have been increased ten ft. which would have required folding wings, a feature not found on the standard A-4. The longer fuselage was to have carried more avionics and fuel for the intended mission. Seven store positions were to be available on wing hard points to carry a varied quantity of ordnance and special stores. The A4D-4 design only gathered dust in the engineering vaults.

To compete for the VAL (light attack competition) requirements for the U.S. Navy in 1963, Douglas proposed the A4D-6. The designation was changed in-house to A-4F to conform to the then-new DOD standardized designation system but is not to be confused with the later (1966) production A-4F.

This *Skyhawk* would have been slightly larger and would have had almost four times the range of the A-4E. The Pratt & Whitney TF30 was the intended power plant with a military rating of 11,350 lbs. of static thrust.

LTV brought in the successful bid with its A-7, and the A4D-6 did not make it beyond the design stage.

Design Features and Construction

The basic structure of the *Skyhawk* is in three major assemblies: a one-piece wing, a forward fuselage and an aft fuselage. The low wing is a modified delta plan form of low aspect ratio, with ailerons, split flaps, aerodynamically-operated leading-edge slats, and spoilers. The wing has three one-piece spars with span-wise stiffened skin, continuous from tip to tip. Most of the wing area between the spars contains an integral fuel tank with a 560-gal.capacity. The fuselage structure is of all-metal, semi-monocoque construction, and is built in two major assemblies. The forward fuselage assembly includes the electronic compartment, cockpit, engine support sections, and a self-sealing fuel tank aft of the cockpit and between the engine air ducts. The fuselage aft section includes the empennage and speed brakes. It houses the engine tail cone, tailpipe and the drag-chute housing on some versions. The fuselage aft section is easily detached for engine removal.

A wide variety of ordnance, cluster and separate bombs, gun pods, air-to-air missiles, rockets, fuel tanks and special mission stores can be carried on three or five store stations. Two 20mm or 30mm cannons are installed in the wing roots.

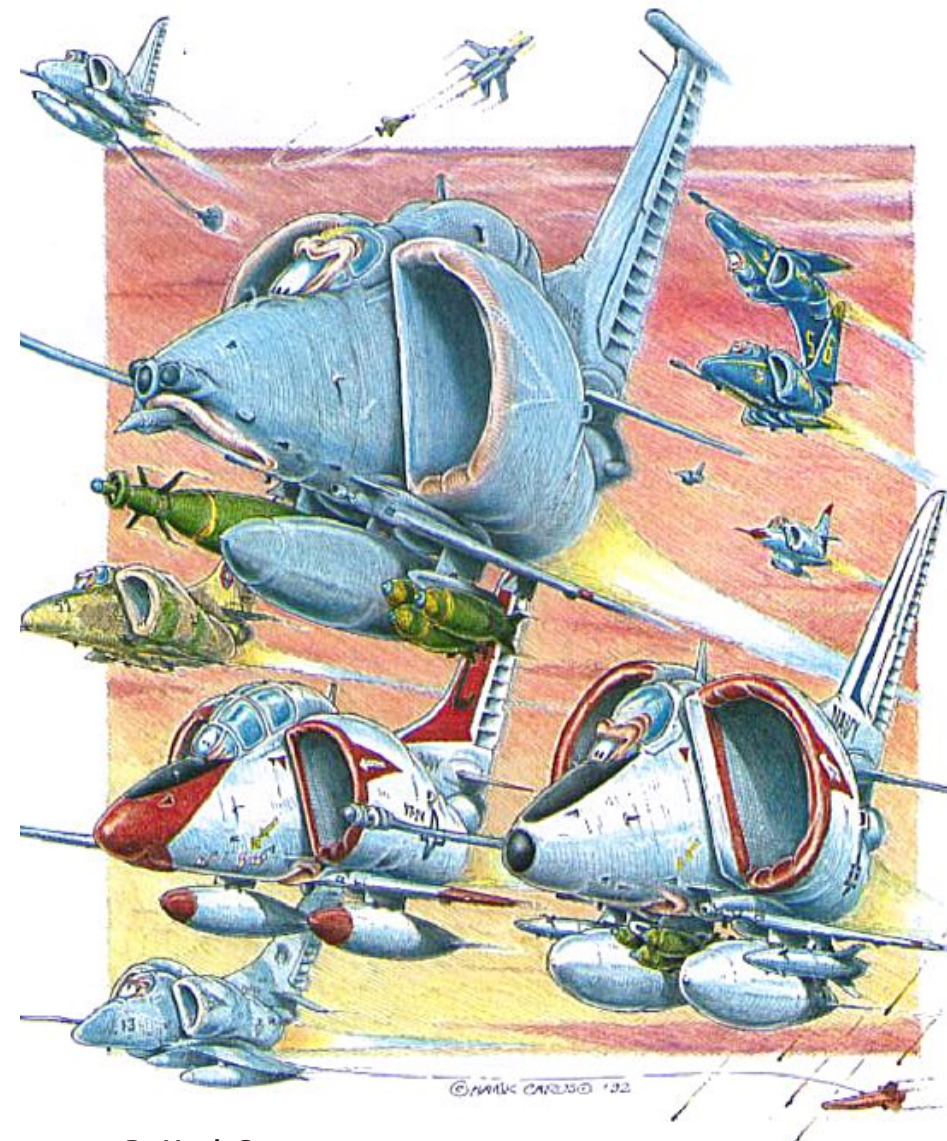
Wing spoilers reduce landing roll and provide excellent crosswind landing characteristics. Use of JATO provides the capability to carry additional loads from short airstrips.

All *Skyhawks* are fully aircraft carrier capable. They retain the catapult and arresting hooks for land-based operation; thus they are equipped for the Marines' Short Airfield Tactical Support (SATS) operation.

The tricycle landing gear, nose gear, nose-wheel steering, flaps, spoilers and fuselage speed brakes are hydraulically operated. An electrically operated, fully adjustable horizontal stabilizer is used for longitudinal trim. Flight controls are irreversibly powered by dual hydraulic systems, however flight control is possible through direct mechanical linkage. An air-driven drop-out emergency generator is available in case of power failure.

The ejection seat is the Douglas Escapac IC-3. It provides safe escape at all operating speeds and altitudes including zero-zero. On the ejection stroke, vertical acceleration of the seat and pilot is accomplished by a catapult system which does not impose excessive peak forces on the pilot's spine. Cockpit environment control is provided by a combination air conditioning and pressurization system. Breathing oxygen is supplied from a ten liter LOX system. Windshield demisting, defogging and rain removal systems are also incorporated.

With the installation of the J52-P-408 engine in the A-4M, A-4N, A-4Ku TA-4Ku and the retrofit to 100 A-4F aircraft, Douglas Aircraft Co. chose to unofficially refer to these aircraft as *Skyhawk IIs*.



By Hank Caruso

The Future of the A-4

(Ed. Note: remember, Harry Gann wrote this in 1990)

Many A-4s have been updated for foreign usage by companies other than McDonnell Douglas. These include the A-4S for Singapore (Lockheed Services), the A-4PTM for Malaysia (Grumman) as well as re-engining to the General Electric F404 by Singapore. Many A-4Es, in addition to A-4H and A-4Ns, supplied to Israel during the Seven-Day War have now been sold to Indonesia.

The U.S. will continue to operate the *Skyhawk* as advanced and adversary trainers for some time. Reserve squadrons still fly the *Skyhawk IIs*. There is much more history to be written before the A-4s retire from U.S. Naval and foreign service.

In the 36 years since the *Skyhawk's* first flight, the "Scooter" has probably been flown by more naval Aviators than any single airplane since World War

Two. If any aircraft ever deserved the appellation: "A legend in its own time," that aircraft is certainly the A-4 Skyhawk.

The longevity and the success of the *Skyhawk* is a memorial to the genius of one individual and his design team. Ed Heinemann was not a one-time flash. From the SBD to the AD, the A3D, the A-20 and the A-26 attack aircraft, as well as the F4D fighter, not to mention streamlined stores, bomb racks, ejection seats and in flight refueling systems, his designs were practical as well as visionary.

It is hoped that others like him are in the pipeline.

Ed. Note: This article was first published in The Hook, Winter 1990. Part I was reprinted in The A-4Ever, Summer 2009. Used with permission.

Puresome Unplugged

~ YP's Excellent Adventures ~

From The Hook magazine, Spring 1993

The Further Adventures of
YOUTHLY PURESOME

by CDR Jack D. Woodul, USNR(Ret), artwork by Carl Snow



Jack "Youthly Puresome" Woodul

OF TEENY, TINY, TINKER TANKERS

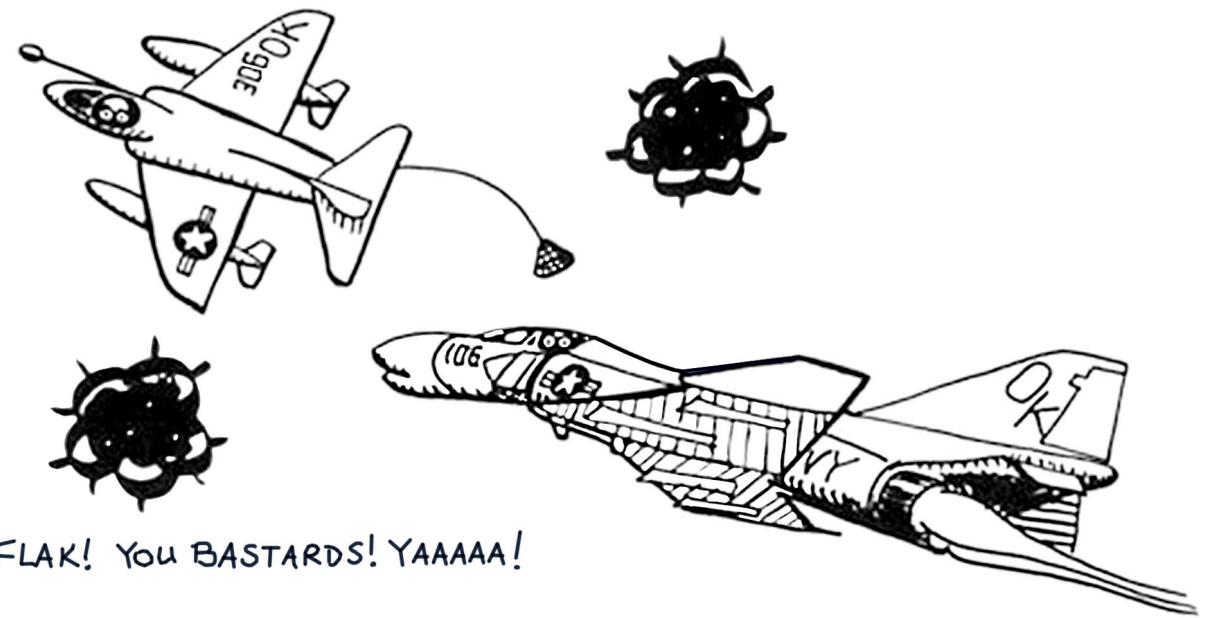
"And the second thing I'm gonna do when I get back off cruise," Puresome wrote on his kneeboard, "is set down my suitcase!" Somehow, he knew such tender words written on the back of a kneeboard card would touch the heart of the Child Bride, who appreciated subtlety in such matters. Puresome's teeny, tiny, tinker tanker was on autopilot at 20,000 feet, lazily circling USS Boat plowing through the wine dark sea below. The rest of the launch was off doing their thing and nobody had come back to the ship for practice plugs. The sun beamed in through the canopy, and Puresome actually started drowsing like a fat, yellow dog on a porch until he remembered his squadron mate, Jig Dog, liked to sneak back to the ship and zoom up just in front of unsuspecting tankers, tumping them over and causing cockpit stains. So Puresome had cranked the temp down, aimed the cold air out of the eyeball vents at his face and started a letter, warily looking out the windows every now and then.

Puresome knew better than to get complacent, even on a beautiful, sunny Med day. Besides Jig Dog's, he had enjoyed some of the better furballs of his life over the ship. Everybody tried to get back to the ship with enough gas to jump someone/anyone/everyone before recovery. Puresome never let an extra 2,000-pound blivet like a tanker package stand in his way. Once, oxygen mask comfortably in his lap and camped at the six of a mighty double-demon F-4 Phantom jet, he had followed the twisting smoke trails into the stratosphere. Puresome

was having a hell of a time until he realized the F-4 had activated his cloaking device and caused most of the world to disappear, and it was getting hard to see. Fortunately, he realized the F-4 was luring him into the Land of No Oxygen Atoms. He slapped on his mask and sucked up the oxygen, thus foiling the devious ploy.

He had even jumped the really evil-looking RA-5C Viggie once. Screaming down in a classic pursuit curve, Puresome watched the wing come up and the Viggie start to turn into him. "Uh oh, here we go!" he thought. And absolutely nothing happened.

"Two turns, and I can be at anybody's twelve," its pilot told him later.



"It's a good thing you can go like scat," was the best Puresome could offer. Puresome still cringed watching them come aboard — he had a great deal of respect for them and wouldn't be a Viggie driver for nuthin'!

But the worst affront to tankerism had happened to Puresome on another bright and shiny day in the VaCapes operating area off Norfolk. He had again been lazily circling the boat at twenty thousand and was writing the usual letter. A flight of Phantoms had called in on tanker frequency for practice plugs and were inbound. It was time to look out the window, and he saw...black puffs around him. Flak! Yaaaaaaa!

Puresome punched off autopilot and went into his 100 percent adrenaline jinking mode as the Phantom flight started screaming at the ship over the radio, "Flak! You bastards!"

"Yaaaaa!" Puresome joined in.

The ship had scheduled a gunnery exercise and, as often happened, hadn't told anybody. They said they were very sorry indeed.

And it didn't even count for another Air Medal or Distinguished Jinking Cross.

But today continued hot and dusty, and Puresome bored holes in the sky. Finally, a section of Blue Hawk A-4s from the other squadron showed up across the circle and rendezvoused for practice plugs. Puresome dutifully streamed the drogue; the section leader

gave him a thumbs up and slud in.

"Jest another walk in the park on a day in May, hooray," Puresome thought, watching the Blue Hawk wingie flying formation off his left wing and giving the tanker pilot the holy mystic sign even as his leader was poking away. He recognized the fingerer as Uncle Carl, who had gone through the RAG with him, and nodded his head vigorously.

Finally, Blue Hawk lead got tired and backed out, moving off to the starboard for a simulated cigarette, bowl of wheaties and a nap. Uncle Carl moved in.

What fun Uncle Carl was having plugging away, right up to the time he backed out. The drogue valve stuck open and a stream of fuel ran into his engine, which had the bad manners to blow up!

"Mayday! Mayday! Mayday!" Hollered Uncle Carl, who had shut stuff down and dropped his rat so he could holler, "Mayday! Blue Hawk Two over Guntrain at 20,000 with an engine fire and I've shut it down!"

"Say, whut?" thought Puresome.

"Roger, Blue Two, lead's with you, starboard side, you ok?"

"Everything but the part about not having an engine," Carl responded.

"Say everything after 'Mayday!'" said Guntrain.

After that, everything sorted itself out a bit, and Puresome followed the Blues down, keeping them in sight, and

watched Uncle Carl eject at 10,000 feet, his Scooter smack the water and the helo come and pick him up. The rest of the recovery was routine.

Back on board, Puresome visited Uncle Carl, who was in fine shape after his dunk in the ocean and was participating in medicinal whiskeys furnished by Quack Doc. Carl found it in his heart to thank Puresome for facilitating his trip out of his nice airplane for a bit of a swim and helicopter ride. Puresome allowed that it was not nice to frabb with your tanker pilot and admitted he was mildly disappointed not to get to bid on Uncle Carl's brand new 100-watts-per-channel-shiny-Sansui stereo setup.

The next morning found a small crowd on the hangar deck watching Puresome paint something on the canopy rail of his tinker tanker. Uncle Carl wandered up, noticed it was Puresome, and, sensing nothing good was afoot, edged closer.

Puresome was painting a little American flag on the canopy rail, symbolically making him one-fifth an ace.

"Puresome, you insensitive sumbitch, you can't doooo that!"

"A kill is a kill!" Puresome righteously snarled back.

And Wusses wept, and Manly Men said "Yayus!" For it was Truth its Ownself.





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