

NAVAL AVIATION

NEWS



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COVERS -- Harry Gann of McDonnell Douglas shot VT-22 TA-4s on the front cover. Gann also filmed Navy Skyhawks, Marine Phantoms and Corsair at sunset on back cover. Grumman provided Tomcat photo in the centerspread and this photo of A-6s, as well as Tracker and Intruder on the back cover. The other pictures are from the files of Naval Aviation News.

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EDITOR'S CORNER

Mail bag. A retired Navy commander helo pilot who still flies whirlybirds as a civilian had some free time at work the other day and wrote us a note commending the magazine. His writing was legible, but barely so. He explained at the end: "...writing shaky - am in helo now sitting on deck writing this 40 miles off the Los Angeles coast."

What was that? *NavNews* had an intriguing headline the other day: "Submarine's 100th Bottoming." Turns out that LPSS-574, USS *Grayback*, the world's biggest diesel-powered sub, had in fact performed her 100th bottoming. The ship is especially configured for resting on the ocean floor while swimmer "lock outs" and swimmer delivery vehicle (SDV) launches and recoveries are conducted.

Big, beautiful and close. *Aerospace Safety Magazine* related the story of a Canadian aircraft which was flying over the Atlantic at 37,000 feet. All was normal and the night skies were clear. Suddenly, the plane's radio altimeters jumped to a reading of 1,900 feet. Altitude warning lights flashed on and remained illuminated for five eternal seconds. The crew rapidly scanned the surrounding airspace. They then spotted a Boeing 747. The giant airliner had passed below the Canadian plane at 35,000 feet, causing the altimeter jump.

Who said *NANews* is not with it? A chief petty officer who works in an air station's intermediate maintenance department told us, "I enjoy Grampaw Pettibone more than Ann Landers."

From the history file. We heard from a former Navy stunt flyer who recounted his squadron's highlights at the National Air Races held in Chicago in 1930. In addition to the pylon races, which involved mostly civilian participants, Navy, Marine and Army aviation units demonstrated a grab bag of aerial skills. The writer asserted that his squadron performed an event in



which "we flew with our wings tied together" - which prompted a search of the files to verify such goings-on in the air.

The following is quoted from liaison officer F. D. Wagner's memo to the Chief of Naval Operations, dated September 10, 1930.

"The most effective flying by the Navy from the viewpoint of the spectators was the accurate formation flying by a nine-plane division 'roped' together within the sections. This division flew perfect formation. The only non-military formation flown was the letter N by 17 planes. On one night flight, the Navy planes formed the letter N and, when in this formation, each plane ignited one wing-tip flare. The result was very effective."

Later in the memo, Wagner described accommodations for the Navy contingent. "Field facilities...hotel accommodations, etc., were satisfactory and were much better than at Cleveland. The Navy and Marine Corps officers were given the privileges of the University Club...for swimming and physical exercise...personnel was sufficient and the advisability of having a doctor and paymaster accompany the participants was proved beyond doubt."

Also found in the same file was a "Program of Events for Fighting Squadron Six" (Felix the Cat) for the National Air Races held in Cleveland four years later.

Day Program: 18 Planes

1. Cat's Meow - Split dive
2. Cat Walk - Step up and down, division vee
3. Felix, Ophelia and their descendants - Stack
4. Cat-chup - Squadron echelon of vees, maneuvering
5. Cat's Whiskers - Razzle dazzle (crazy formation)
6. The Kats - Squadron vee of vees, breaking up over center of field
7. Back Fence Serenade - Snake dance

Night Program: 9 planes

1. Catnip - Maneuvers and changing formation
2. Crossed Cats - Radical turn in ABC formation
3. Cat-o'-nine-tails - Snake dance with flares
4. Cat's Pajamas - Finish

Did someone say those old-time PAOs didn't have imagination?

Back to the present. In the July issue of *NANews*, Captain Charles Smith, Jr., former skipper of USS *Independence*, was featured in the article "Carrier C.O. at Sea." Capt. Smith was pleased with the story and sent a thank-you note: "You will be pleased to know," he wrote, "that, since reading the article, my father no longer asks me when I am going to get out of the Navy and get a job."

Aviation Awards

Commander, Naval Air Force, Pacific Fleet, Vice Admiral Robert B. Baldwin, has announced the winners of the Battle Efficiency and departmental awards for fiscal year 1974.

The attack aircraft carrier USS *Enterprise* won the Battle engineering and maintenance Es.

Aircraft squadrons taking top honors were: VFs 51 and 101, VAs 153, 94 and 145, VPs 22 and 40, VAQ-133, VS-37, VAW-115, HS-6 and HC-3.

Other departmental award winners were USS *Midway* for combat information, the communications green C for USS *Hancock*, USS *Kitty Hawk* for both air department and antisubmarine warfare and USS *Oriskany* for weapons and supply.

USS *Kennedy* won the Atlantic Fleet Naval Air Force Battle Efficiency Pennant for the third consecutive cycle — along with the communications C. She also won the engineering E and medical M for the second consecutive time.

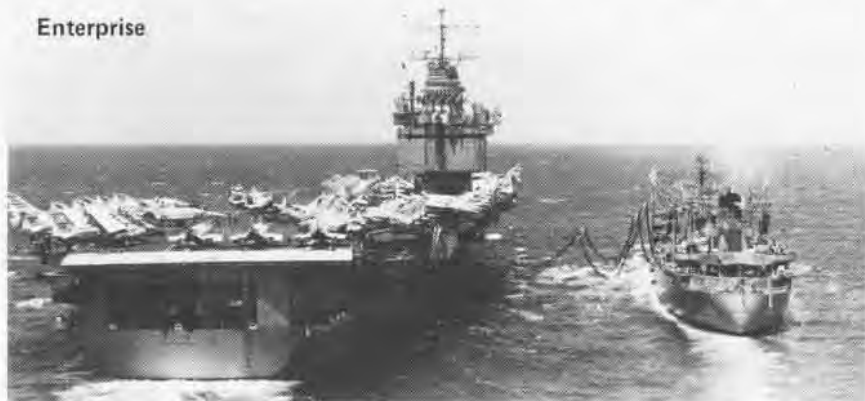
Aircraft squadrons taking Es were VF-74, VAs 81 and 85, RVAH-5, VAW-126, VS-28, HS-5 and HM-12.

Other departmental award winners were USS *Roosevelt* with the operations green E, USS *Forrestal* with the air yellow E, USS *Independence* with the weapons black W, USS *Roosevelt* with the supply blue E, for the third consecutive time, and USS *America* with the AIMD black E.

Kennedy.



Enterprise



New Seat and Lights

A new ejection seat has been tested for the AV-8A *Harrier* at VMA-231, MCAS Cherry Point, N.C., where fitting will begin for on-hand aircraft during 1975.

The new seat has a pressure-packed parachute which requires repacking every 210 days and has a more reliable sequence of events during ejection. At low speeds, the main parachute is pulled out by a small rocket motor while a ballistic-spreader gun opens the chute. At higher speeds, a drogue chute provides deceleration and stabilization.

In another development, one of VMA-231's *Harriers* is being equipped with electro-luminescent, two-dimensional Capsul lights. The glowing green lights provide good short-range visibility in fog, haze or at night. The lights will be situated to indicate the plane's shape and heading direction. The pilot can turn these lights on or off, and dim and brighten them at will, to create his own flying night lights.

Wing Wake

Hazardous coil-like cylinders of rapidly spiraling air trailing from the wing tips of moving aircraft can interfere with smaller aircraft flying close behind. This wake turbulence has posed serious problems at airfields. Additional spacing between aircraft, to reduce this hazard, limits the number of takeoffs and landings in a given time.

The National Aeronautics and Space Administration is investigating methods to suppress the formation of these high-intensity wake vortices or to dissipate them once they are formed.

Flap modification is aimed at reducing the strength of the wing-tip vortex and turbulence may be used to break up the vortex with redirected engine blasts and the addition of finger-like protrusions behind the wings, called trailing plates and splines.

Super Link

A newly developed flight training system for pilots was unveiled in October at NAS Chase Field, Beeville, Texas.

Officially known as the 2F101 T-2C simulator, the unit consists of four simulated cockpits and four instructor stations, each equipped with three cathode-ray tubes on which student pilots' performance may be monitored.

A digital computer is provided for each cockpit, linking it with the instructor station and driving the system in accordance with the instructors' commands and the trainees' responses. According to the designer, each unit will enable the Navy to train four students simultaneously and independently, in all-weather instrument, emergency and normal flight procedures.

The simulators will be used to train pilots of the Navy's two-place, twin-jet training aircraft for both carrier-based and land-based missions.

New NRL Seamarker

A team of Naval Research Laboratory ocean science researchers has developed a chemical sea marker package for use in search and rescue operations. The sea marker forms a one-molecule-thick, highly visible, wave-damping film when spread on water. Carbon dioxide gas bubbles gradually transport the slick-forming chemical, oleyl alcohol, across the sea.

When used in combination with the standard Navy dye marker, the result is greater than either component alone. In addition, the NRL sea marker may provide nighttime all-weather detection by radar systems which are sensitive to the small waves damped by the sea marker slick.

Space Antenna

A collapsible umbrella antenna that can beam a walkie-talkie message more than 50,000 miles has demonstrated the dramatic potential of space satellites for search and rescue missions. A simple walkie-talkie with a typical range of only five miles has shown that it can summon help from nearly any point on earth.

In October, a five-watt radio sent a message in Morse code from the National Aeronautics and Space Administration to the ATS-3 geostationary satellite. The signals were then relayed to General Electric's radio-optical observatory near Schenectady, N.Y. The observatory transmitted voice signals back through the satellite to show that downed pilots and shipwreck survivors could receive information from a search and rescue station.

A global search and rescue system would require only six geostationary satellites to blanket the entire earth, with the exception of the polar regions. The satellites would be monitored by three ground stations which could dispatch assistance by using only a thousandth of any satellite's transmission power.



Microfilm Manuals

A microfilm procedure called maintenance information automated retrieval system (MIARS) is being taught to students entering Aviation Maintenance Officers School and Class A Enlisted Schools at the Naval Air Technical Center, Memphis, Tenn. MIARS is designed to save space and expedite research for fleet units involved with aircraft maintenance.

Microfilm cartridges, designed to replace bulky technical publications, are placed in a reader which automatically advances the film to the preselected area of interest. This information is then shown on a built-in screen. An internal printer allows the maintenance man to make a print of the needed information. If data is needed on a specific hydraulic system, for example, a printed diagram of the precise area is quickly available without research through cumbersome, space-consuming publications.

When users receive new tapes, the old ones are returned, revamped and reissued. The system is in nearly full operation for the A-7 Corsair and the F-4 Phantom.

Detachments of the Naval Air Maintenance Training Group are headquartered at Memphis. A maintenance operator's course for the readers and printers is also available at Norfolk, Va., Miramar, Calif., and Whidbey Island, Wash.



GRAMPAW PETTIBONE



The Kiss

A Naval Aviator and Naval Flight Officer (RIO) were scheduled for an area FAM in their F-4J Phantom. Preparation for the flight was uneventful and the crew departed home plate and climbed to 10,000 feet en route to a nearby offshore island.

Upon arriving over the island, they

circled for a short period and then let down to 2,000 feet. Slightly west of the island, the pilot descended further, to 1,000 feet, then continued his descent over the water to just under 100 feet. The pilot rolled in some nose-up trim, checked his radar altimeter at 75 feet, and noted 350 knots indicated airspeed. There was a haze layer at approximately 100 feet. But it was a beautiful day with a glassy smooth sea state and excellent visibility beneath and above the haze layer.

The pilot climbed slightly to 100 feet, which placed him in the haze layer. He then descended again, at which time there was a thump and vibration in the aircraft as if it had hit something. The pilot's first thought was that the *Phantom* had struck the water.

The RIO asked if they had centerline transfer and the pilot affirmed that they did. They then climbed to 10,000 feet, checked engine instruments, which were reading normal, and circled the area looking for boats and debris in water. None was noted.

They turned north toward home field and slow-flighted the aircraft. Flaps and gear came down, locked and retracted normally. The RIO again asked about centerline transfer. Now

there was no centerline transfer indication.

They landed and taxied to the pits and shut down the port engine. The RIO got out and inspected the aircraft. There was no centerline tank. The pilot taxied to the line and shut down the aircraft. The *Phantom* sustained minor damage.

The accident board clearly determined that the aircraft had, in fact, struck the water tearing off the centerline tank.

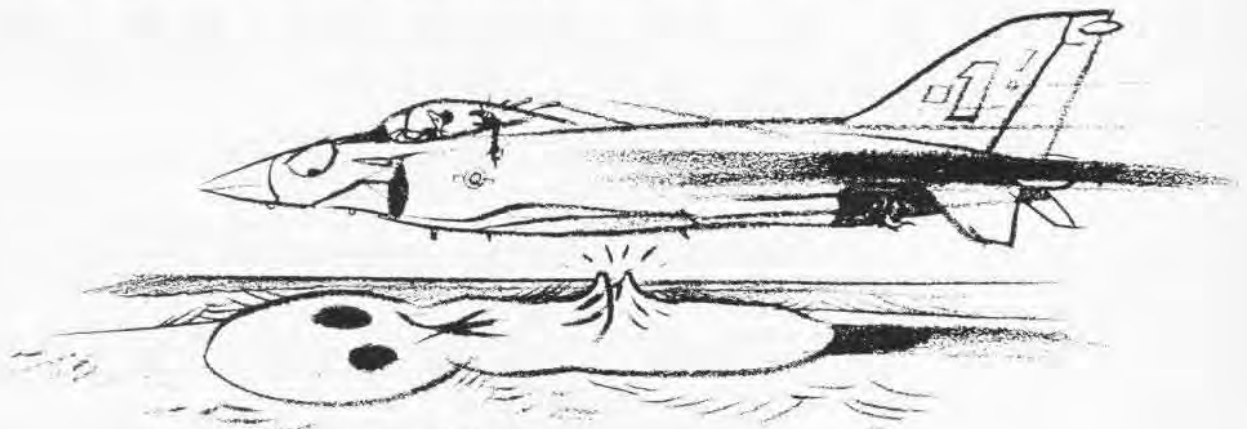


Grampaw Pettibone says:

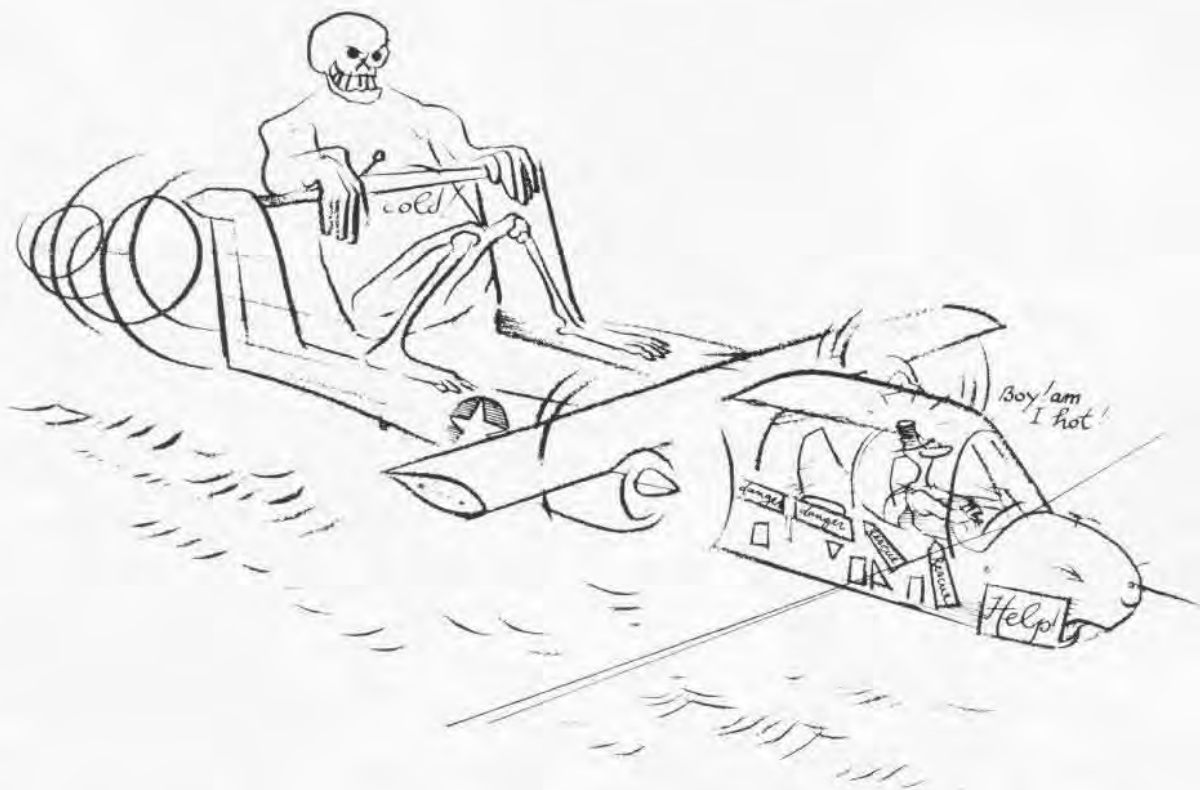
Great gallopin' ghosts! If you want a close shave, see a barber! This "kiss" was inches away from causing the loss of two lives and an aircraft.

This is a clear case of violation of existing regs and, most of all, a violation of plain common sense. To top it all off, this gent is supposed to wear his glasses when aviating. You would think that if he is going to "cheat" and fly at low altitude over a glassy sea, he would at least be smart enough to wear his specs!

As I have repeated many times - the survivors of this type of mishap have a tough road ahead to stay on flight status. I say again, "Is it worth your wings?"



The Kiss of death!



Caught at the Wire

Two pilots arrived at operations to prepare for a three-hour cross-country flight in an OV-10 *Bronco*. The first leg of the flight was uneventful. Following an RON, the crew departed the following morning to drop off the copilot at an NAS en route to the next destination. This flight went as planned and the *Bronco* pilot arrived at the destination AFB. There the pilot spent the night with some relatives who lived near the base.

Next morning he arrived at operations and inquired about a special VFR clearance for a local flight. He was told he would have to talk with the tower. Tower informed him that special VFR for military aircraft was not permitted. (The weather was IFR at the time.)

Additionally the pilot was advised that there was real light weather 70 to 90 miles to the north but that the east, west and south looked bad. A short time later, it was reported that the weather was VFR.

Tower next heard from the pilot

when he asked for taxi instructions. Tower told him they had no flight plan on him and he would have to contact pilot dispatch.

The pilot complied and filed (over his radio) a VFR flight plan. The estimated time en route was three hours. The pilot departed the airfield and approximately 20 minutes later the *Bronco* was observed flying at an altitude of about 50 feet over a local lake and performing wingovers.

He was next spotted over another lake performing the same maneuvers. About one hour after takeoff, he was seen over the first lake again, performing similar maneuvers and flying at low altitude (50 to 150 feet).

Following a series of these maneuvers, he made a left turn to proceed up a small finger of the lake. While proceeding up this finger, he impacted power lines at an altitude of about 100 feet. The aircraft was then observed to nose up slightly, then nose down and glide into the lake. The crash occurred one hour and thirty minutes from takeoff time. The pilot was killed instantly.



Grampaw Pettibone says:

Jumpin' Jehoshaphat! I no sooner put my pencil down after writin' up one of these stories, and the same incident, with different players, happens again. It's amazin' that these foolhardy mishaps always end in one of two ways: the death of the pilot or the loss of his wings, if he survives. In this case, the pilot was "had" on his first maneuver since he was observed by an Air Force officer (aviation safety type at that) who was fishing on one of the lakes. Rightfully so, he would have reported that first incident.

On occasion you may hear a few aviators claim that this type of incident is part of the necessary aggressive nature of pilots — Bull Hockey! The place to be aggressive is not on an unscheduled "buzz job." Pilots who "pull" these jobs show me nothin' but stupidity and, if they survive, they should be "boarded." We don't need aviators around to teach us expensive object lessons. Neither do we need aviators who lack self-discipline. You will have to excuse my ramblin', but needless loss of life and machine just gets to me.





SOLILLOQUY

The helmet is buried deep in the attic now. Stuffed it into the foot locker along with the three log books, a couple of sweat-wrinkled flight suits, and the burnished and bent kneeboard which somehow survived all those hours in the air.

My flying days are over. But there are the memories.

Contributed by
an ex-Spad Driver

My instructor at Saufley looked like Abraham Lincoln without a beard. I felt like a midget trailing him out to the T-34, an aircraft which he "wore" like a glove. He inked an awful lot of check marks in the below average column of my grading record but OK'd me for a safe-for-solo check.

I drew a lieutenant named Krazinski. Crew cut, huge shoulders, thin lips. He looked like a left tackle for the Minnesota Vikings. It was springtime in the south but I shivered through the brief and the first 45 minutes of flight. In the air he hardly spoke. At training field "Eight-Able," he directed me to land and park the aircraft with the engine running.

"All right," he said. "I'm gonna get out now. Make four landings, then come back and get me."

I took position and pushed the throttle full forward. Speeding across the grass runway, I restrained the urge to shout. As the plane and I rose slowly above tree level, I glanced back

at the empty seat as if to ensure that I was, in fact, alone.

I was. "I can fly!" I yelled, "I can fly!"

Later my left tackle was more like Old St. Nick. "Good luck in your next stage," he said.

A few flights later, with a haughty tilt to my chin, I packed the car and drove to Whiting Field. I checked into the BOQ as another student was checking out. He told me, "The difference between the T-28 and the T-34 is like that between a Cadillac and a VW."

I was to hear similar words each time I transitioned to a new airplane.

I struggled through the early stages at Whiting, nearly faltered at formation work and was really on the ropes when it came to CQ — carrier qualifications.

Skimming low over the ground in the "field carrier" landing sequence, I lost all sense of dimension — couldn't get the picture. Cross and quartering winds were my enemies. The T-28 was flying me, rather than the other



way around. After more “downs” than I cared to count, and a second “extra-time” hop, an instructor socked me with words I would never forget: “I don’t believe you can hack it, Dad.”

I was long-jawed all Friday afternoon waiting for the C.O.’s ultimate recommendation. He must have been a relative of Old St. Nick at Sauflley.

“Look,” he said. “Get away for the weekend, forget about the Navy. Loosen up. Come back Monday morning ready to go!”

I wanted those golden wings more than anything else in life. I had concluded that failure to earn them would carry with it a stigma for the rest of my days.

I didn’t take his advice. I moped around the BOQ, but I also studied notes on the CQ pattern. Using a chair and desk for a cockpit, coke bottles for throttle and control stick, I “flew” the pattern in my room.

This endeavor didn’t help much. After a dismal exhibition of flying on Monday, however, my instructor decided to give me one more chance. His must have been a good weekend.

I improved just enough to be continued in stage. Later I was OK’d for a crack at the boat — two touch and go’s and six arrested landings.

In retrospect, despite the frustrations and sleepless nights, those were good days. We’d bus out to Bronson Field, near the water, where the seasoned LSOs, stripped to the waist, fished in the sun between flights. Rusted and empty gas drums were stacked in the weed fields not far from the runway. A romantic in our group likened Bronson to a way stop on the Burma Road in World War II.

Our flight was transferred for a

showdown at Sauflley: a rendezvous with USS *Antietam* in the Gulf of Mexico. We *all* had haughty tilts to our chins by then. But they were far less dominant than those on the pilots returning from successful sessions at the carrier. The blue Pensacola skies seemed to be filled with canary yellow T-28s shuttling back and forth from *Antietam*.

On the big day, we plodded across the ramp to our birds, parachutes slung low on our backs. A student had dismantled his T-28 after qualifying and flashed us a jack-o’-lantern smile. He tossed a thumbs-up and shouted, “Piece of cake!” Sure.

In finger-four formation we crossed

the sandy coast of Florida. It occurred to me that this would be our first flight over the sea. It was a little unsettling not to have that column of smoke from the paper mill as a reference.

At first *Antietam* looked like a toy boat in a wading pool. We arrived overhead and began a holding pattern, which seemed to last for eternity, as others went about qualifying below. Closer in, the carrier became the Coliseum. I felt like I was going up against the lions. I was as nervous as a poker player letting it all ride on a pair of nines.

Finally we got our Charlie. We swung down abeam the ship, broke the flight and entered the necklace-shaped pattern. I don’t know about the



others, but the moment I banked down-wind and began to concentrate on driving the bird on speed and altitude, the jitters dissipated — like steam from a tea kettle when the flame is turned off.

"Two Sierra 405, abeam, gear and flaps down," I transmitted to Paddles. I turned, searching for the figure of Van Winkler, the LSO. There he was, a puppet-like figure in beige coveralls emblazoned with strips of bright cloth. In his outstretched arms he held the paddles, illuminated by brilliant panels of fabric. The puppet's arms fell to his knees.

I was low. Add power. The puppet's arms rose slowly and his body formed a "Y." Now I was high.

Talk to me, Van Winkler, I muttered to myself. I need all the help I can get.

He was speaking with his body. The arms lowered. The gray flight deck loomed larger. I dipped a wing for line-up. I was still a bit high, but the puppet's right arm whipped across his chest as if swatting a fly.

I chopped the throttle and made an abbreviated high dip. We sank to the deck, the T-28 and I, and struck it roughly.

Instantly, I rammed the throttle forward.

I rose quickly off the angle. Out

of the corner of my eye, the superstructure and an audience of human figures capped by oval faces blurred by. I felt a hundred pairs of eyes on me.

Another touch and go. No better but no worse than the first. Van Winkler's voice boomed in my head set.

"OK, four oh five, drop your hook!"

Joy! He was going to let me trap.

I drove around the pattern gathering confidence — like a football team with momentum on a long drive.

At the cut I slammed onto the deck. It was like watching a movie when a sudden break in the film freezes a single frame on the screen. I felt a hefty jolt against my shoulders.

Hook up. Power on. Right brake. Watch that taxi director.

Quickly my T-28 was lined up abeam the island. The director passed me on to a tall sun-tanned man wearing a yellow jersey. "Flight Deck Officer" was printed across his chest in large black letters. He held the black and white checkered launch flag in his right hand.

For a moment I was bewildered. The man was laughing. Why was he laughing?

He formed some words with his mouth. It dawned on me that this was his way of saying "Welcome aboard!"

That wasn't so bad, was it? Enjoy yourself! You're a carrier pilot now!"

He raised the flag, waved it furiously, and I went to full power. The T-28 shuddered beneath me and I held the brakes so hard I thought my feet would tear through the cockpit deck.

The checkered flag swung forward. Off came my feet and away I went. . . across the deck then up and over the bow. The calm sea was as blue as the field in the American flag.

Walking back to the hangar at Saufley that afternoon, I saw another group of qualifiers heading toward their planes. I gave them a thumbs-up but wasn't about to say "Piece of cake."

That night, sated with the success of the showdown, I relived the moments at *Antietam*. Those first carrier landings in a Navy pilot's life have to rate at the top of the most exciting experiences a man can have.

There are other pursuits — climbing a mountain, sailing alone across an ocean, somersaulting through the upper atmosphere of a circus tent — which equal the personalized drama of flying an airplane, by yourself, onto a moving runway at sea.

But for me it was a glorious mental and physical test — and I'd always be grateful to the Navy for letting me have the chance to face it.



Reid and I got lost flying from the carrier to Gitmo Bay. We blamed it on unusually strong head winds as we flew above an overcast. Late, running low on fuel, we poked through the clouds, saw land, but couldn't match the terrain with our maps.

Reid spotted a P-2 Neptune. Like children separated from Mamma at the department store, we scrambled quick-

ly alongside the patrol plane. With hand signals we found a mutual frequency.

"We're lost," Reid said, considerable resignation in his voice. "Could you lead us to Gitmo?"

Embarrassed, humiliated—but dry—we slunk into operations minutes before search planes were to launch and look for us.

I'd requested assignment to jets. Instead I was routed to *Skyriders*. I was disappointed initially, but the A-1 had a single seat and one engine and could be rolled on its back.

Flying the *Spads* at Corpus Christi, I finally realized I might make it all the way to those golden wings.

Our flight had a helluva time learning how to dive bomb but Moranville saved us. He was one of those supremely skilled flyers who could project his teaching into a student's cockpit and make it pay off. He'd circle low over the concentric circles of the practice target and talk us through our runs until we got the picture and could do it on our own. We'd roll in high and mechanically respond to his calls. "Raise your nose five degrees," he would say, "drop your right wing. . . level out. . . release."

By graduation time we were far from being the Wyatt Earps of Naval Aviation but we could usually put the practice bombs within the 300-foot circle.

Another instructor, Lt. George, had a Texas draw and looked like Sterling Hayden. He was also the resident expert and principal investor in the ready room pinball machine which was allowed in those days.

He took us up one cloudless night. After several division maneuvers, he called us on the UHF.

"All right, Alpha Deltas, turn off all your navigation lights. Fly on the exhaust flames." I sensed the collective question "What was that?" race through the minds of my ship-mates.

We obeyed silently and for half an hour we were roaring phantoms in the Texas night. It was surprisingly easy to maintain position by using the glowing fingers of flame as they shot out from alongside the nose sections. "You might have to fly like that some night," George explained later.

Twenty-six out of thirty-six months at sea — the Mediterranean, the Caribbean, the Atlantic. Glad I was a bachelor then,

The flying was good, so was the

liberty. There was Spain, Mallorca, Italy, the south of France.

Wow! The south of France. Full of anticipation, we'd ride the liberty boats ashore, lured by intrigues which surely awaited us — beaches, bikinis and casinos. At night Cannes looked like a magic land — as if a master designer had tossed a dark velvet blanket over the rolling hills and shoreline, then sprinkled it with jewels which sparkled all colors of the rainbow.

Still there is no beauty like that of the good old U.S. of A. when you see it for the first time in seven months on a squadron fly-in from the carrier.

As *Spad* drivers, we complained about the long hours in the saddle. Our jet counterparts would single-cycle from the ship, often getting two traps to our one in a day's operations. But we would remain aloft for greater lengths of time which made deck-spotting easier for the flight deck crew.

In a way, this set us apart from other pilots. Carlton and Bingham came back one day after a *Spad* specialty, a low-level strike flight, the "Sandblower."

They had been airborne for 11 hours and 40 minutes. They had flown 200 miles to "feet dry," then navigated over a large portion of the Atlantic states and 200 miles back to the carrier. It's difficult to imagine sitting in a

chair without rising for that span of time, much less flying without relief permanently affixed to an aircraft seat. A box lunch offered some deviation but, in the end, it was a fatiguing work period.

They arrived in a rain shower, certain they'd be promptly taken aboard.

"Your signal, Delta," directed the Air Boss. For another 45 minutes the pair circled overhead while a flock of jets was recovered. Finally they came aboard. Parked on the bow, the odyssey over, we expected them to be fuming.

They were laughing. Bone-weary, limp-eyed, flaccid as banana peels, but laughing. It seemed to them, they later explained, like the best thing to do at the time.

We prided ourselves on those Sandblowers, but I don't recall laughing like Carlton and Bingham after one of them.

Shortly before dawn during a three-day strike exercise, when flight operations were being conducted round-the-clock, the phone rang in my stateroom.

"Good morning," said Watson. "This is your friendly air intelligence officer. If I told you that air ops would like to have a single A-1 launched on a four-hour, do anything, go anywhere flight, sans restriction, would you believe it?"



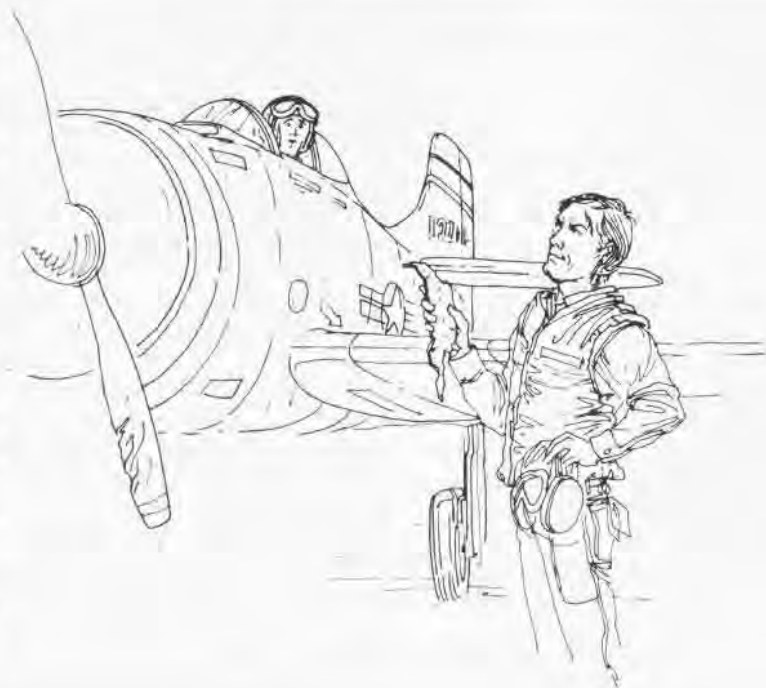
It was a rainy winter night. We wore exposure suits. I had landed and was parked on the slippery bow waiting for the plane captain and blue shirts to chain me down. My feet grew numb on the brakes. I sensed no movement but the A-1 inched forward. Suddenly I heard a terrifying sound, metal tearing metal. I chopped the throttle, secured the switches, unstrapped and climbed out.

I had slid into the A-1 ahead of me. My prop ripped a foot-long chunk of metal from its rudder. My God, I thought, I may have killed somebody!

Prothro, my plane captain, was waiting, a trace of a smile on his face. In one hand he held a jagged piece of gray metal. I saw a red, pencil-thin scratch above one eye.

"Just grazed me, sir," he said calmly, "like in those western movies."

Whew!



"Nope," I replied.

"Believe it," he said. "If you can man-up in one hour, the hop is yours."

It was a rare, once-in-a-lifetime sortie. To no one in particular, throughout a tour of Sicily and just about every island off its northern coast, I repeated the words: "Thank you, thank you, thank you."

There were the rocks spewing from the fiery mouth of Mt. Etna, the coal-black slopes of Stromboli, the enchanting villages on a score of emerald green islands, and always the wine-dark sea.

I was reminded of Lorfano the day he came down from a hop. We were walking toward the island from the bow after a practice bombing mission. He was smiling from ear to ear. Suddenly he stopped. As if to embrace the carrier and all its planes, he opened his arms.

"They're paying me for this!" he exulted. "I'm doing the thing I love most, and they're paying me to do it."

Then came the Cuban missile crisis. A grim audience in the wardroom lounge watched a videotape replay of President Kennedy's speech on removing the missiles.

For several days we waited out the

global tension knowing that the dues for all our training up to now might have to be paid. But affairs quieted and I eventually went ashore for a couple of years of desk duty.



Second flying tour. I was assigned *Spads* again, this time out west.

The war was on. Third day on the line, the Skipper was lost following an attack near Vinh. He was racing away from the beach. A *Sam* swooped downward from its high arc like a gigantic silver bullet. With fierce precision it tracked him, guided by unseen hands a few miles inland.

The surface-to-air missile struck. There was a horrible explosion of red and black and white.

If we had not been before, all of us became keenly aware of our own mortality on that day.

So many good men paid the ultimate sacrifice. One day, reading the message traffic, I came across the name of my Abraham Lincoln from primary. I hadn't seen him since those T-34 days. He'd been killed on a raid over the North.

The *Spads* lacked sufficient maneuverability against the proliferating complex of *Sams*. So we were eventually restricted from heavily defended targets. There were armed reconnaissance missions along the coast, ResCaps, and some good close air support and bombing hops in other theaters of the conflict.

Still, it was as if we'd been relegated

to the bench for much of the contest, while *Skyhawks*, *Intruders*, *Phantoms*, *Crusaders*, *Vigilantes* and *Corsairs* flew their costly way through incredible showers of triple A and Sams into the heart of North Vietnam.

I could never respect anyone more than those gentlemen of the Alpha strikes who braved a labyrinth of enemy fire surpassed in no other war.

One night Nichols and I dropped flares over a well traveled highway hoping to find trucks. I dove too low and got under one of the parachute-supported lights just long enough for keen eyes on the ground to see me. Tracer fire erupted from a battery of guns. The shells rose like neon probes, wavering back and forth in the night. For a crazy moment, it seemed like the probes were searchlights prowling the sky during the London blitz.

We escaped to the sea.

On a rescue patrol one placid afternoon, Marcus and I sneaked our way across the glossy stillness of Haiphong Harbor. We stayed low, under 200 feet,

and far enough out to be relatively safe from enemy guns but close enough to view the terrain and a complex of islets which sprawled east of the harbor. These islets, some hardly big enough to support a single building, poked through the water like weirdly shaped nodules. There was a stark beauty to them. Villages near the buff-colored beaches along with a few magnificent looking homes, perhaps symbolic of a colonial past, overlooked the sea in pastoral calm. It was a startling paradox.

Not far from this panorama, which in other times might grace the pages of *National Geographic*, a growing roll call of brave American men languished in prison camps.

There were many memorial services in those days. A young ordnanceman from our squadron died when a rocket pod fell from its mounting during a loading evolution.

For him, and for the others who gave their lives, the men of the carriers would don clean uniforms and from

corridors below climb ladders and go topside to pay final respects.

Slow in the water, the carrier would creak and roll gently as men in ranks swayed in unison with the ship. The voices of chaplains reached across that unlikely church, the flight deck.

But if there was the war, there was also Hong Kong, and Japan, and the Philippines—for resting up after 30 or more days on the line.

Unpopular as those hostilities were—have there ever been popular ones—we all felt we were part of something important.

Post-combat duty was tamer, to be sure. I finally got into jets and, in those first few hops, marveled at the simplicity of a single power control—no prop lever to adjust or mixture handle to set. A-4s were great. So were the A-7s—marvelous machines.

But most of my hours were in the *Spad* and I developed a special infatuation for it. The feeling was less than the love a man has for a woman but more than the fondness for a favorite old sweater.

En route to the ship for carquals, we became curtained off from the carrier by a black and billowing squall line. Divert fields were socked in. I'd practiced inflight refueling before but never actually "needed" to transfer fuel.

Our A-4s were precariously low on petrol. We lined up impatiently for drinks from an A-3. Adrenalin was pumping. My groping stabs at the drogue were embarrassing. Finally I made the plug. The fuel quantity needle slowly arced away from the low-fuel mark. A very comforting sensation.

A carpet of fog had rolled in prematurely and shrouded the western fringe of the northern California coast. The Family Day Cruise plan had to be altered. The carrier anchored in San Francisco Bay and the jets launched from Alameda for flybys. Because there was little wind and the ship couldn't generate its own, it was left to the Spads to demonstrate takeoffs and landings. The show must go on. Vultures row was packed.

Nichols, Marcus and I each made a couple of cat shots and landings for

the shipboard audience and presumably for a good portion of the population on either side of the bay.

After we shut down on the bow, the visitors were allowed to approach the planes. I was climbing out as my wife arrived. I established the old haughty tilt to my chin. "Nothing to it," I told her.

Stone, our ship-based AI, was briefing a combat flight. A .38 caliber bullet fell from a pilot's belt. It struck the deck, exploded and ricocheted crazily in the space. Stone hit the deck and stayed there till the bullet was spent. No one was hurt.

When people began breathing again, a veteran of 120 missions stood up in the rear of the room.

"Stone," he said, "you now have the distinction of being the only AI in WestPac to be shot at!"

I rolled down the Quonset Point runway on a frigid winter night. At liftoff the A-1's port wing fell sharply. My heart leaped to my throat. Somehow I righted the plane. Stupid, stupid, stupid! I had accepted an unbalanced fuel load, one well beyond

the acceptable limits, and got away with it. The title of that World War II book flashed through my mind: God is My Copilot.

I approached the Dodecanese Islands at daybreak on a solo Sandblower. Beautiful. Stunning. The islands glowed pure white, like ivory, against the dark sea as the sun rose on the horizon like a burning copper coin.

I was diverted to Pisa one morning with a rough-running engine. Word came from the carrier. "Crew on the way by COD; remain ashore to supervise repairs."

Are you kidding me? Two weeks in another town. The glory of totally unexpected shore duty, in the sunshine of northern Italy, no less.

Hughes and Roland, the mechs, arrived along with a metalsmith and an electrician. We stayed at a small hotel and were transported through narrow streets to and from the airfield in an open jeep by a fearless Italian private. He had to be a frustrated Mario Andretti. Those daily journeys were discomforting but we forgot all about them each noon as we dined in the

Italian Sergeants' mess hall. We relished multi-course meals replete with fresh baked bread, wine and all the seconds you wanted served up by robust and smiling ladies—all for 50 cents a person.

Roland, who must have had little to eat as a child, was devouring a fourth plate of pasta one day when we noticed a nearby group of Italian servicemen scrutinizing him with awe. As Roland finished, he leaned back in his chair, patted his stomach and smiled at the Italians as they rose and rendered him a spontaneous ovation.

Our hotel was half a block from the Leaning Tower.

"That thing's gonna fall over one of these days," declared Hughes.

In the evening, we sat at an outdoor cafe table across from the piazza which surrounded the Tower. Toward midnight Italians of all ages emerged from unseen homes and began ritualistic and serene strolls around the piazza and the enchanting structure which had brought eminence to their land.

"This is a very peaceful place," said Roland.

We did not miss the ship at all.

"All good things must come to an end," I said later, trying to console the foursome as I bid them farewell to fly the repaired aircraft back to the ship.

As I manned up, I found a note signed by Hughes, pasted to the instrument panel. "Sir," it said, "tell them not to hurry to pick us up."

We were rehearsing for a fire power demonstration. NATO VIPs were coming aboard to view carrier operations and the air wing in action.

In event number four, my job was to join up with Benson in his F-4 Phantom. We were to dirty up—gear, flaps and hook down—for a formation flyby. As we passed the flight deck, upon which the guests would be seated, we were to add power simultaneously, clean up and demonstrate waveoff techniques.

At the same time, the announcer was to describe how much more powerful the newer Phantom was, compared to the aging Spad. On signal, Benson was to scream impressively away leaving me chugging along—alone. However, jet engines don't always accelerate as rapidly as reciprocating engines. Before the hop, he took me aside. "Look," he said, "the Phantom may be a world-class speedster but for short sprints, the A-1 can stay with anybody . . . If you cheat a little, raise the gear a hair quicker than the F-4 and pour the coal to that R-3350 a second or two ahead of him, you can stay with the Phantom till you're out of the audience's view. Don't let the Skyraider be humiliated out there!"

"I'll do it," I said.

We approached the ship in parade formation at about 130 knots—the sleek, highly polished fighter and my Able Dog, stained with oil along the fuselage and marred with greasy footprints on the wings.

"Now you will observe the Phan-

tom go to full power," said the announcer, "and demonstrate its ability to accelerate quickly."

I rammed the throttle forward and rapidly raised the gear, flaps and hook. So did Benson. But I stayed right with him for the next six to eight seconds. Together, we passed the ship. Benson threw me a perplexed, annoyed look and flicked his hand as if he were swatting a bug from his shoulder.

About a quarter of a mile past the carrier, the Phantom had gained full momentum and pulled sharply away. Benson lit the afterburner, perhaps in anger, and went into a high performance climb.

At the debrief, the CAG was furious. He singled me out first thing. "Never," he said, "never, ever do that again!"

Instant silence filled the ready room. Then the CAG smiled. "At least not when the official audience is looking on!"

There was a good round of laughter and Benson came up and shook my hand.



Ah well, it's been a good journey. It had its ups and downs, its good times and its bad times. In the long run, there were far more highs than there were lows . . . and there *are* the memories. But I'm sure going to miss strapping in, starting up and rollin' down that runway.



NAVAL AVIATION NEWS BRIDGES THE GENERATION GAP

Rear Admiral Joseph L. Coleman has been a strong advocate of *Naval Aviation News* for many years as these photographs clearly reveal. We don't know if he exercised prerogative of rank in "directing" his daughter and granddaughter to read the magazine, but we like to think they enjoyed its pages of their own volition.

RAdm. Coleman is the Commandant, Fourth Naval District in Philadelphia. His daughter is now Mrs. Sherry Millichap. Granddaughter Laura, ten months old, hasn't expressed her future career plans yet. However, there is a sneaking suspicion in certain quarters that she has the eyes, stamina and disposition to join a growing number of young ladies flying Navy planes today.



Top left, Sherry Coleman's dad was a lieutenant junior grade in 1949 when this picture was taken. Sherry is perched on her father's desk perusing the April 1949 issue of NANA News. Twenty-five years later, Sherry's daughter, Laura, strikes a similar pose as she prepares to digest NANA News' April 1974 issue, top right. Daughter and mother, now Mrs. Millichap, are at dad's desk again in a true personification of bridging the generation gap.



A North American T-28, N100JE, returned from the annual Experimental Aircraft Association Convention in Oshkosh, Wisc., with the **Grand Champion Award** in the warbird division. T-28s were first built in the early 1950s and are used by the Navy as transitional trainers. The owner, John M. Ellis III, a former Navy fighter pilot, obtained permission from the *Blue Angels* to use their paint scheme and logos.



GySgt. Frank Ross, who has been working around the *Skyhawk* for the last 15 years, salutes the A-4 on its **20th anniversary** with the Marine Corps. A member of VMFAT-203, Cherry Point, N.C., GySgt Ross checks maintenance work as NCOIC of the quality control section. He says, "The *Skyhawk* is the greatest close air support weapon we've had. It's always simple to work on — no elaborate systems in the plane. It's right there in front of you."

Improvements through the 20 years have kept the *Skyhawk* modern. Height is 15 feet, wingspan 27.6 feet. Length is about a foot longer at 40 feet. Maximum weight is up from 20,000 to 24,500 pounds. Empty weight has increased from 8,400 to 10,465 on the A-4M and engine thrust has risen to 11,000 pounds from 7,700. Today's models, including the two-seat version, TA-4, have inflight refueling capability, automatic pilot and radar and can carry 10,000 pounds of armament, about 3,500 pounds more than the older A-4C.

If you think the French Riviera isn't a good place to reenlist, just ask AMS1 Ronald J. Fecteau, attached to **Attack Squadron 17F** of the French Navy under an exchange program. Living in Hyeres on the French Mediterranean Coast with his wife Mary and their two sons, Louis and Ronald, Fecteau reenlisted in front of his squadron's *Etendard* on September 17. Lt. Andersen, attached to 17F as an exchange aviator, administered the oath.

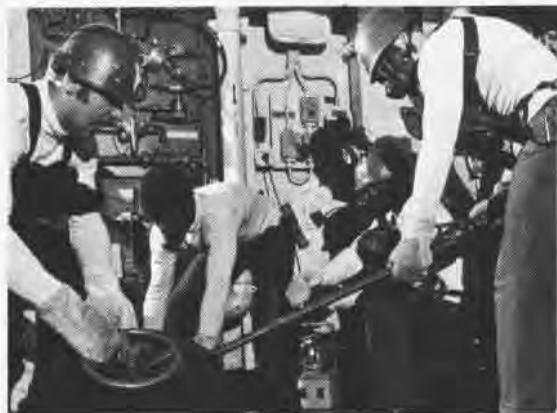


Fire — fire in compartment alfa-two-zero-two-alfa! Away the Flying Squad! The words are scarcely an echo from USS *Midway's* general announcing system before the **21 sailors of the Flying Squad** scramble to the fire.

Midway's damage control officer, LCdr. Herb Colburn, says a team of professional fire fighters can normally bring a fire under control faster than it takes an entire crew to man general quarters stations.

Squad members, under CWO M.R. Goracke, include welders, carpenters, shipfitters, hull technicians, pipefitters and sheet-metal workers. But their specialty is fighting fires. Having attended basic Navy fire-fighting schools, the men train aboard *Midway* in damage control, flooding, dewatering and de-smoking. Classes are held on each piece of equipment twice a week. If one man is injured, another can replace him.

The squad wears a distinctive white jersey bearing a black Maltese cross — the symbol of fire-fighting efficiency in the Navy.





During a three-day celebration of the 50th anniversary of the founding of the **Parachute Rigger's School**, now the Aircrew Survival Equipmentman School, PRC Harry Gorick made the 50,000th parachute jump at the Naval Air Technical Training Center, Lakehurst. Three hundred active duty and retired PRs and their families were in New Jersey to watch the event.

It might not look like much right now but the pile of gear in the north end of Moffett Field's Hangar One is the beginning of construction of a \$400,000 flight simulator building. It will house two P-3C **flight simulators** and a visual display system to be used by VP-31 and Moffett's operational P-3C squadrons.

Trainers being built now by the Singer-Link Company represent the latest concepts in flight simulation, providing P-3C pilots with a complete takeoff-to-landing, realistic "aircraft in a room."

The Moffett device will have every degree of motion of a real plane plus the effect of environmental forces such as wind, haze and air pockets. It can be coupled with the existing P-3C tactical trainer so that an entire *Orion* crew can "fly" an ASW mission in Hangar One. A visual display board will be housed in a room adjacent to the cockpit trainer, providing a lifelike horizon for in-flight conditions and a real "airport" for takeoffs and landings.

The trainer will be able to accomplish five to six touch-and-go landings in the time it now takes to fly one at Moffett Field and will also cut down flight operations over surrounding communities.

The first trainer should be ready by late 1975 and the second soon after.

With concern for the community in mind, NAS Miramar, Calif., has been in search of effective sound abatement for the last six years. Now it hopes to solve that problem with the construction of the **hush house**, a sound-suppression facility. Aircraft undergoing high speed turn ups will be placed totally inside so that sound will be markedly hushed outside the facility.

When high speed turn-ups occur, the sound and heat generated during normal and afterburner power funnel into an augments 90 feet long. The distance within this giant muffler and the material used in its construction absorb the sound and heat as they travel into the final stage, the baffle area, which is also made of material designed to withstand sound and heat.

The hush house is being built as a service to the community in keeping with Navy's interest in preserving the environment.

Four PRs who work in the parachute loft at the Keflavik, Iceland, aviation intermediate maintenance department sewed **reflective tape, free of charge**, on a thousand jackets of dependent children to make them easier to spot by motorists during the long winter nights.

The sole enlisted pilot in the Navy, Rob Jones, logged his 10,000th flight hour in October at Rota, Spain. Champagne, congratulations and a few reminiscences afterwards marked the event. Jones, a Master Chief Air Controlman, is the last enlisted Naval Aviation Pilot on active duty in the Navy. His career as a Navy pilot began in 1945 during the final months of WW II.



Lt. John S. "Chip" Drury of the Point Mugu, Calif., Naval Missile Center Threat Simulation Department, flies the QT-33 (circa 1949), the QF-86 (Korean War vintage) and the QF-9 (early 1950s). The Q preceding the aircraft designator denotes the aircraft as a target drone which can be controlled without a pilot aboard. But Lt. Drury flies the drones to see that the autopilot is working properly for **pilotless flight**. A variation of drone operations is depicted by this 1957 picture of an F9F-2KD being guided by a pair of FJ-30s.



Command of the Navy's largest facility in Europe passed from Captain Paul T. Corrigan to Captain Richard J. Camico, during a ceremony at **Naval Station Rota, Spain**, on September 20.

Rear Admiral F. Taylor Brown, an engineering test pilot at the Naval Air Test Center in the early 60s, took command of **NATC Patuxent River, Md.**, on August 30. He succeeds RAdm. Roy M. Isaman who retired from active duty after 34 years.

RAdm. Brown, a fighter pilot, won the Bendix Trophy Race (Jet Division) in an FJ-1 *Fury* in 1948 and later set a world's record in an F4H-1 *Phantom*.

USS *Enterprise* has sailed out of NAS Alameda, Calif., on her way to the Western Pacific as the flagship for Rear Admiral Owen Oberg, Commander, Carrier Group Seven. The first two **F-14 Pacific Coast operational squadrons** were aboard. VF-1 is commanded by Commander F.J. Thaubald and VF-2 is skippered by Commander J.A. Brantaus. *Enterprise*, with her accompanying ships, will spend at least half a year operating out of Cubi Point, R.P. The *Tomcat* will be run through the whole gamut of carrier operations.

Ens. Mike Norman **completed his jet training** with his father, Captain Robert D. Norman, riding in the back seat of a TA-4J *Skyhawk*. The flight took place during Norman's last training hop with VT-25 at NAS Chase Field. After receiving his Wings of Gold, he left for VF-124, NAS Miramar, to fly F-14s. His father, an F-4 pilot, returned to OpTEvFor, Norfolk, Va., where he is director of air warfare.

Major Luis Denis, an exchange instructor from the **Venezuelan Air Force**, qualified on USS *Lexington* (CVT-16) with one touch and go, six arrested landings and six catapult launches. The Venezuelan is a flight instructor with VT-26 at NAS Chase Field, Texas, teaching night operations, two-plane formation work and aerobatics.

Lieutenant Colonel Michael P. Sullivan was honored as the **Marine Aviator of the Year** at the Marine Corps Aviation Association's third annual banquet in October. He was presented the Alfred A. Cunningham Award for making the most outstanding contribution to Marine Aviation while serving as C.O. of VMFA-323, MAG-11, from February 1973 to July 1974. The 3d MAW colonel is the third El Toro, Calif., F-4 pilot to win the Cunningham Trophy in the past four years.

Secretary of the Navy **J. William Middendorf** took his first flight in an F-14A at the Naval Air Test Center, Patuxent River, Md., in September. The *Tomcat* was airborne almost 90 minutes with Secretary Middendorf helping run simulated intercepts on targets and monitoring radar for other aircraft in the area under the direction of the pilot.



Captain Daniel S. McCormick III became the **ninth commanding officer of USS America**, relieving Captain Thomas H. Replogle on September 29, at Portsmouth, England, after CVA-66's participation in the NATO exercise *Northern Merger*.





ON THE ROOF

It's a dangerous place to work. It can be very noisy and windy. It can also be hot enough to keep a man drenched with sweat from head to toe or cold enough to numb the body so it hurts to move. It measures nearly 200,000 square feet and can handle 80 airplanes. It's the flight deck of an aircraft carrier.

From vultures row on the 08 level, flight deck operations resemble a hill of ants stirred with a stick as men in colored jerseys hurry from one place to another. Each color has a special meaning — a specific job that must be done. All flight deck jobs are difficult and require constant alertness. During a launch cycle, aircraft turn up with the hazards of jet intakes, engine blasts and turning propellers. On recovery, aircraft come in faster than 100 knots, catch a wire, stop abruptly and maneuver to a parking spot. Other times, planes are refueled, ordnance loaded and aircraft preflighted. The flight deck is dangerous.

It is also captivating — to those who work there and to those who view it from up on vultures row.

Photos by JOCS Dick Benjamin





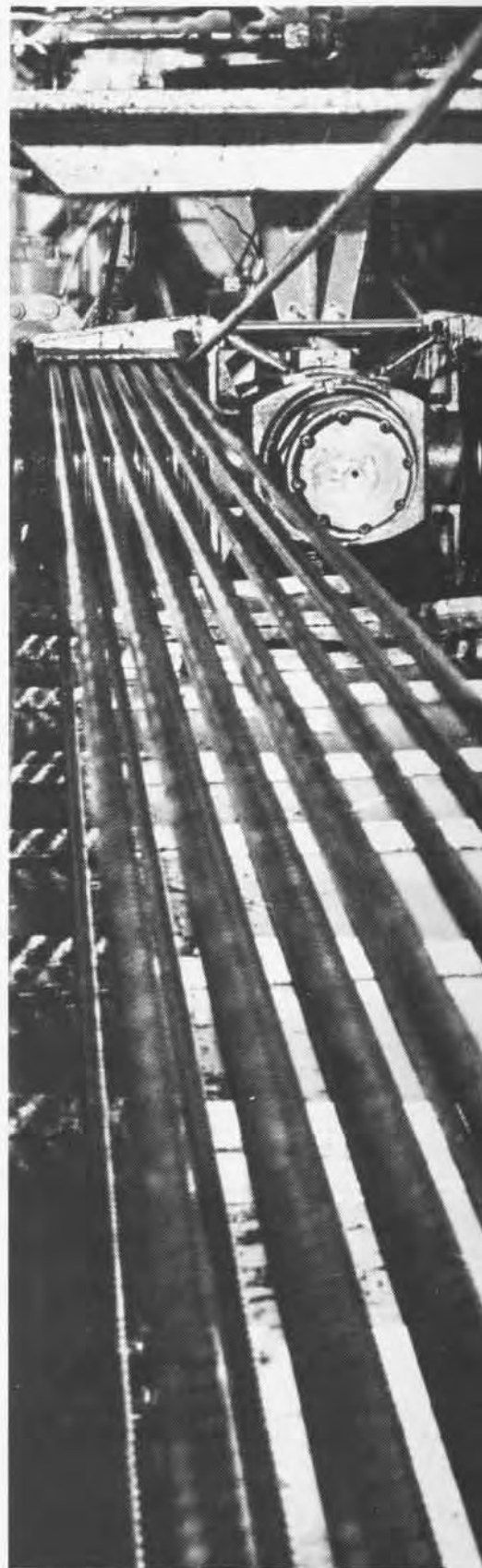
Flight deck operations on USS Independence are the same as on any other CV. Blue shirts handle tie-down chains, launch officers send aircraft on their way.

Catapults must be made ready for launch by green shirts before a yellow shirt can direct an aircraft into place. As many as 40 airplanes must be moved within 20 minutes during cyclic operations.





Green shirts must make sure that the right tension is on the launch cable before an aircraft is shot into the sky. A blue shirt finds that automation has not reached into all aspects of today's work as he pushes around an aircraft tow bar. About 500 aircraft movements are made on the hangar and flight decks in a full day of scheduled flight ops.





The Ouija board in flight deck control keeps the aircraft handling officer up-to-date on the location of the carrier's planes. Interesting patterns can be found almost anywhere on the flight deck, such as the folded wings of F-4 Phantom IIs. The same is true of a catapult retraction and tension engine with its array of cables and pressure accumulator and piston. Brown-shirted plane captains talk to pilots with hand signals, each fully understanding the other.



Purple shirts make sure that the aircraft are refueled promptly and safely, which keeps squadrons such as the Scorpions flying.



Changing a tire on an aircraft is quite a bit different than changing one on a car, yet it is a routine task. Man and machine working together, one as important as the other.



ONE BY AIR

By Helen Collins



A pioneer in both Naval and Hawaiian Aviation was honored on September 10 when the airfield at NAS Barbers Point was officially named John Rodgers Field. Commander Rodgers attempted the first nonstop flight across the Pacific from San Francisco to Hawaii on August 31, 1925.

Up to then no Navy aircraft had flown beyond 1,200 miles nonstop. But after years of preparation, the Navy was ready to attempt a flight across the Pacific between the mainland and Hawaii. Army flyers on their way around the world the year before had chosen the northern route from Alaska to Siberia, flying around the Pacific rather than over it.

Carrier aviation was under way by that time and the question was whether or not the seaplane could be updated to keep pace with rapid advances in aeronautical technology. Rear Admiral W. A. Moffett, Chief, Bureau of Aeronautics, called for a feasibility test which would decide the future of the seaplane.

He established a task unit of two PN-9s and one PB-1 to make the test flight: PN-9s No. 1 and No. 3 were versions of the twin-engine PN-7 and PN-8 flying boats. They had larger center hulls and an engine on either side of the biplane's centerline. The

PB-1 was a five-place flying boat biplane.

Cdr. Rodgers, who was to command the venture which would draw world attention and open up a new future for Hawaii, was Navy's second man to earn pilot's wings. In the first group of naval officers to receive aviation instruction, Rodgers was ordered to Dayton, Ohio, in March 1911 for instruction from the Wright brothers. He soloed in April as the school's first Navy pilot — following Lt. T. G. Ellyson at the Curtiss School. He qualified as a pilot in August under the regulations of the Federation Aeronautique Internationale since the Navy had not yet set up its own pilot qualification system. Rodgers was later designated Naval Aviator No. 2.

He was to be navigator for the flag plane PN-9 No. 1, which also carried Lt. B. J. Connell, pilot; Chief Aviation Pilot S. R. Pope, second pilot; Chief Radioman O. G. Stantz; and Aviation Mechanics Mate 1/c W. H. Bowlin.

The eyes of the world turned toward the body of water lying between California and Hawaii and to the men attempting to fly that distance for the first time. Ten Navy ships were strategically positioned along the course at 200-mile intervals as checkpoints, for emergencies and to give the planes radio bearings. At night

their searchlights and, during the day, their smoke clouds, would mark the proper path. Each plane had a radio transmitter and receiver, working only on 550 kc. The planes were not equipped with radio compasses but the guard ships were, allowing them to take bearings on the planes on 550 kc.

On August 31 both PN-9s were ready, but the PB-1 had to drop out when one of its engines developed trouble in the oil system. With difficulty, the two huge PN-9s became airborne. When at first the heavily loaded No. 1 could not get off, Lt. Connell moved the flagship into shallower waters closer to the lee of the shore, while Rodgers got out of the navigator's cockpit and crawled aft to lighten the nose. Chief Pope had already left the copilot's seat and made his way aft. This time Connell ran the engines up to their full 2,300 rpm and kept them there until the plane lumbered into the sky, built up speed and headed into the sun for Hawaii. "We were so heavy," Connell later recalled, "that we had to go 50 miles before we could climb to 300 feet."

The plan had called for three planes to make a flight into history. One was already eliminated. For a brief time it looked as if the remaining two seaplanes would complete the trip but, only 300 miles from the starting point,



Seaplane PN-9 No. 1, left, carried Rodgers and crew on historic flight over the Pacific. PN-9 No. 3 is airborne over San Francisco Harbor and headed toward Hawaii, above.

PN-9 No. 3 suffered a broken oil-pressure line and was forced to land on the sea. Positioning ships along the route paid dividends as the helpless seaplane was taken in tow by the *William Jones* and its disheartened crew taken aboard. On September 2, while being towed from Crissy Field to Mare Island, the plane capsized and sank.

Rodgers and his crew doggedly flew on. When the aircraft began to run low on fuel about 1,400 miles out, Rodgers informed the aircraft tender *Aroostook*, some distance ahead, of his intention to land and take on fuel. (This was the same *Aroostook* which, as the mother ship of Seaplane Division One, served as the base ship for NCs 1, 3 and 4 in May 1919 when they attempted the first flight across the Atlantic — the flight that was successfully completed by the NC-4.) Rodgers searched for the ship until the

fuel was gone. The search was in vain.

Rodgers' own figures had placed him to the north. However, he accepted *Aroostook's* radio compass bearings, which were incorrect. As a result, he was flying directly away, widening the distance between them. Connell brought the plane down to a perfect landing, without power, in heavy swells after it had been airborne 1,870 nautical miles, establishing the world's seaplane record for distance.

Langley and guard ships *Farragut* and *Aroostook* headed for the area, joined by patrol planes, ships and submarines. But these units were unable to find the plane. No. 1's crew was unable to transmit since power for sending depended on a wind-driven generator on the wing which operated only in flight. The receiving set functioned on battery power. It was tantalizing to hear the radio traffic around them and be unable to reply.

Once they heard a report that they were presumed lost, but the search continued.

The crew was sure their plane would soon be in the air again, expecting to see the *Aroostook* at any moment. They were so confident, in fact, that no one thought to conserve food or water. Lt. Connell tossed some unpalatable ham into a corner, while Chief Stantz tossed orange peels in the bilge. A few days later, both were busily retrieving castaway items. Pope said that he never knew an orange peel could taste so good.

On the third day, Rodgers and his crew decided that if they were to be saved they would have to sail the plane to its destination. They carefully removed fabric from the lower wings, ensuring that it could later be replaced. Next they rigged a sail by lashing the fabric to the struts between the wings. The aircraft headed into

'Darius was clearly of the opinion that the air is also man's domain and that with paddle or fins or pinion we soon or late shall navigate the azure as now we sail the sea.'

John Townsend Trowbridge (1827-1916),
Darius Green and His Flying Machine



B.J. Connell, PN-9 No. 1 pilot, remembers flight of years ago as he scans front page of September 8, 1925, Honolulu Advertiser, left above. Commander Rodgers, above, just a few days before flight. Traditional Hawaiian welcome awaits PN-9 No. 1 crew, left.



the wind, sailing backwards. Removal of the fabric lessened wave damage to the lower wings by allowing the sea to wash freely through the ribs. A portion of the fabric was used to catch rainwater. One of the crew manned the controls at all times and steered a compass course, using the rudder. The course, however, was limited by the direction of the wind.

The unique sailing rig moved the plane about 50 miles a day. On the ninth morning, Oahu was seen in the distance. Excitement replaced exhaustion. As the men approached Kauai Channel, they rigged an artificial keel with some metal floorboards and control cable to get more underwater surface for better steering across the channel.

About 10 to 15 miles offshore, at Nawiliwili Bay, the submarine R-4 steamed full speed toward them,

signaling, "What plane is that?" "PN-9 No. 1 from San Francisco." They had made it.

Although invited aboard the sub, Rodgers and his crew remained with their plane all the way and, although tired, allowed themselves to be taken off only after they had moored it.

During their days on the water, while Cdr. Rodgers joked with the men to keep their spirits up, he was inwardly disturbed by his failure to fly nonstop as planned. He and his crew were therefore overwhelmed when, safe ashore, they were enveloped in an instantaneous heroes' welcome.

Although they had splashed down short of their destination, the fact that the flagship stood the buffetings of the open sea for nine days proved to RAdm. Moffett and the Navy Department that flying boats were practical.

Their journey to Hawaii set a

world's record for the longest over-water flight to that date. It was also the first aircraft transit of the Eastern Pacific, a crucial flight that rejuvenated the Navy's seaplane program. Rodgers' seaplane blazed the trans-Pacific trail for commercial airlines which began with the Pan American Flying Clipper boats.

Thus, these brave men reached Hawaii from the Pacific Coast — 1,870 miles by air and 450 miles by sea.

Cdr. Rodgers lived only one year after the transPacific flight. While serving as Assistant Chief of the Bureau of Aeronautics, he was killed in a single-engine plane crash in the Delaware River near the Philadelphia Naval Aircraft Factory on August 27, 1926.

In accordance with OpNavInst 5030.13, the airfield at the Naval Air Station, Barbers Point, Hawaii, has now been named John Rodgers Field.

'Who durst be so bold with a few crooked boards nailed together, a stick standing upright and a rag tied to it, to adventure into the ocean. . . .'

Thomas Fuller (1608-1660),
Holy and Profane State: "The Good Sea Captain"

TWO BY SEA

A downed crewman contemplating his chances of survival at sea may be somewhat heartened by the 54-day odyssey of two men which took place last summer. The pair, Navy Lieutenants Charles Gore and George Sigler, are naval air reserve flyers at NAS Alameda. They were strongly cautioned against making the voyage across the Pacific in their 15-foot rubber boat "Courageous." But they undertook the journey as a private venture to test survival kits they manufacture for use by castaway mariners or downed aircrewmembers stranded at sea.

Courageous left Oakland, Calif., for Hawaii on July 5. The boat was equipped with only a small sail, the survival kit of Gore and Sigler's own making, and emergency rations. The kit consisted of a styrofoam container approximately 18 inches by three inches by six inches, an inflatable solar still for distilling sea water, water storage bags, sponges, signal flares, flashlight, first-aid package, first-aid handbook, diver's knife, compass, laminated chart, vitamin pills, and fishing line and hooks.

Two days out of Oakland they faced the greatest danger of their long journey when rough seas flipped the boat and they lost part of their equipment and all the emergency rations. Sigler was asleep when the boat turned over. He woke up underwater and swallowed a lot of salt water, which left him seasick and dehydrated. It took the men two exhausting hours in chilling waters to



Gore and Sigler (right) after their 54-day journey.



Courageous comes aboard.

right the boat, having to partially deflate it in order to turn it back up.

For the next 40 days they existed on some pieces of hard candy, vitamin tablets and 10 to 15 ounces of water daily, made from the solar still. "After that," said Gore, "we had only the water."

The adventurers had expected to catch fish but failed in all their attempts until two days before the voyage ended. Suddenly there were dolphins all around them and, with hook, line and spear, they added fish to their meager fare.

On August 28, 54 days out of Oakland, Sigler and Gore were picked up by the U.S. Coast Guard cutter *Cape Corwin*, 140 miles northeast of Oahu. A Coast Guard helo later ferried them to the Tripler Army Medical Center in Hawaii where a Navy doctor attached to the Clinical Investigative Center (CIC) carried out medical tests over a 72-hour period. They had lost about 40 pounds each but, generally, were in excellent shape.

CIC is a research organization at the Oakland Navy Regional Medical Center funded and manned jointly by the Office of Naval Research and the University of California Medical Center. The tests were made to study the effects, on the metabolism, of such an extended period of stress.

While planning their trip, Sigler and Gore approached the staff at the Oak Knoll Naval Hospital in Oakland for advice on fluids and electrolyte physical requirements for such a journey. Commander John D. Wallin, MC,

Director of the CIC, gave them basic information on minimum intake requirements of water and salt. He also advised them that such a trip was extremely hazardous and cautioned against it.

LCdr. Peter Lee, MC, of CIC was on the Coast Guard helo which ferried the men from *Cape Corwin* to the hospital. "We were amazed," said Dr. Lee. "After almost two months of confinement on a small rubber boat, I didn't really expect them to even be able to walk, but they were in amazingly good shape. And hungry. They astonished hospital staff members with their voracious appetites.

"In many cases," pointed out Dr. Lee, "it is extremely difficult to begin normal intake of food after such a long period without. In the case of Sigler and Gore, there was no evidence of this at all."

Lieutenants Sigler and Gore fly with VAWs 208 and 308, reserve squadrons operating A-3s. Their interest in survival at sea began when they flew *Skywarriors* on active duty. At one time or another, both held the job of safety/survival officer in their squadrons and both have attended Navy survival schools.

CIC personnel are studying test results on Sigler and Gore. The Navy and the two flyers hope that Courageous' journey and the tests being evaluated will result in greater chances of survival at sea for future castaways.

"Neither of us would want to do it again," says Gore, "but we set out to prove something... I think we did."

Remember Pearl Harbor



Above, Arizona was hit, rose, broke in two and went down. Far right, Arizona Memorial floats above sunken tomb. Right, USS West Virginia burning in battleship row.





By Clarke Van Vleet,
Aviation Historian

The dawn of the "day that will live in infamy," December 7, 1941, was shattered by a devastating attack from Japanese carrier aircraft against the U.S. Pacific Fleet berthed at Pearl Harbor.

About 350 *Kates*, *Vals* and *Zekes* made the raid from six Japanese aircraft carriers which launched their planes at a point some 275 miles from Oahu. As the first wave of enemy aircraft sped to the surprise attack, the flight leader, Commander Itaya, noted that "Pearl Harbor was still asleep in the morning mist."

Two hours after the bomb-laden *Vals* and torpedo-carrying *Kates* struck, four U.S. battleships were sunk or sinking, four had been damaged. Three cruisers and as many destroyers were crippled and other Navy ships were gutted or set on fire. Fortunately,

the Pacific-based carriers *Enterprise*, *Saratoga* and *Lexington* were not at Pearl Harbor at the time of the attack.

Over 150 Army and Navy planes, of nearly 400 on the island, were destroyed. Over 2,000 Americans were killed and more than 1,000 were wounded in the surprise onslaught that Sabbath morning.

American officers and men reacted valiantly, exerting herculean efforts, often combating the aerial enemy with improvised methods. On the airfields they wrenched guns from damaged planes, mounting them on work benches or trash cans. On one badly listing ship, double rows of ammunition handlers were formed — one man to pass the ammo, the other to hold up the passer. Commander R. H. Hillenkoetter, aboard *Tennessee*, said

after the battle that "Throughout the entire action there was never the slightest sign of faltering or of cowardice; no panic, no shirking, no flinching."

Confusion, rumor and excitement naturally existed in the battle-charged atmosphere. The NAS Pearl Harbor radio log, a portion of which is reprinted here (for what is believed to be the first time), relayed reports of enemy paratroopers descending and invasion forces landing on the island, which fortunately proved false.

Bill Miller, now a civilian research specialist with the Navy Recruiting Command, was a QM3 aboard the ammo ship *Castor* at Pearl when the Japanese struck. He recalls, "I was on the fantail at 0755 waiting to hoist the ensign. I realized this was no drill when the Japanese planes started

Below are first two pages of Pearl Harbor radio log. There was a ten-and-a-half-hour difference between GCT (Greenwich Civil Time) and local time, thus 1816 GCT was 0746 Hawaiian time.

PAGE # 1

U.S. NAVAL AIR STATION
PEARL HARBOR, T. H.

FREQUENCY	OPERATOR	DATE
		7 Dec 1941
TIME	TRANSMISSION	
<i>GCT</i>		
1816	F2D V W7L	O BT PEARL HARBOR AREA UNDER HEAVY BOMBARDMENT BY JAPANESE AIR ARM AUTHENTIC
1820	TO ALL UNITS	PLANES HEADED FOR PEARL HARBOR NUMBER UNKNOWN
1844	D8N V F5L	O 1842 BT HOSTILITIES WITH JAPAN COMMENCED WITH AIR RAID ON PEARL
1845	Z TORY HUNT	000 BT HOSTILE JAPANESE AIR ATTACK X HICKAM FIELD BOMBED X STAY CLEAR OF THIS AREA AS LONG AS GAS PERMITS X KEEP IN CONTACT THIS STATION
1846	FROM: CINCPAC	LOCATED EENEY FORCE
1900	ALL HANDS V KANEOME	BEING ATTACKED BY FIFTEEN JAPANESE PLANES
1906	PLANE EASY SAIL G1 G2 V 002 BT:::	SORTIE IN ACCORDANCE WITH PLAN EASY SAIL
1917	FLASH V AF1	TWO PARACHUTIST ARE COMING DOWN OVER KALIHU VALLEY
1920	V F5L	L Z SUBMARINE REPORTED IN PEARL HARBOR FOR SECTOR CO4DRS
1928	HICKAM FIELD TO PEARL HARBOR:::	PEARL HARBOR THIS IS HICKAMFIELD IS COL E HALL THERE HUH CAN U LOCATE HIM US MARINES
1928	ALL HANDS V ND	PLANES REPORTED COMING IN FROM BARBERS POINT
1937	ALL HANDS V ND	DO NOT FIRE ON OUR PLANES COMING IN
1940	ALL HANDS V PM	L Z SNOW 07109 /142 RAFT P CR 6 BT EXECUTE WPL FORTY SIX AGAINST JAPAN
1948	FIELD CLEAR	COME IN PLEASE TELL COMBATS FROM COAST TO COM IN FIELD IS CLEAR
2025	0PX V F5L	P CR 8 BT I MUST HAVE INSTANTANEOUS RELAY FOR MY DISPATCHES
2026	ALL HANDS	PLANES REPORTED COMING FROM BARBERS POINT
2028	ALL HANDS FROM KANEOME:::	BEING ATTACKED BY FIFTEEN JAPANESE PLANES
2030	ALL HANDS FROM CINCPAC:::	DONT SEND ANYMORE TRAFFIC UNLESS PERTAINING TO BOMBING THIS INCLUDES WEATHER
2030	ALL HANDS FROM WHEELER FIELD:::	THREE SHIPS PREVIOUSLY REPORTED BY RADIO 33 MILES OF 299 ARE TROOP SHIPS ESCORTED BY ENEMY PLANES
		DATE 7 DEC 1941
2038	Z 008 2023 HUNT Q 0F2 O BT:::	IS FORD ISLAND AVAILABLE RESERVIC AND REARM CARRIER PLANES IN CASE OF NECESSITY.
2058	Z HUNT 2057 008 Q 0F2 O BT:::	YOUR 2023 AFFIRMATIVE
2102	ALL STA V HP	OUR PURSUIT PLANES RENDEZVOUSING AND TAKING OFF FROM HICKAM BETWEEN 1100 AND 1115 END
2110	ALL STA V COM14	ENEMY PLANES COMING OVER PEARL HARBOR FIRE AT WILL
2114	NTM V AF7	WHAT ANTI AIRCRAFT DO YOU HAVE

coming in, banking about 50 feet from our ship to begin their run against the big ones on 'battleship row.' Men who had never fired our .30 machine guns began manning them on the bridge. One of the men, a painter, got so excited he started spreading rumors such as: paratroopers are landing; enemy transports are outside the harbor; don't drink any water, it's probably poisoned. But the mournful thing I remember vividly was the

screams of the men across the stream on the *Arizona* when that ship exploded, rose maybe 30 feet in the air, broke at the amidships point and then started going under."

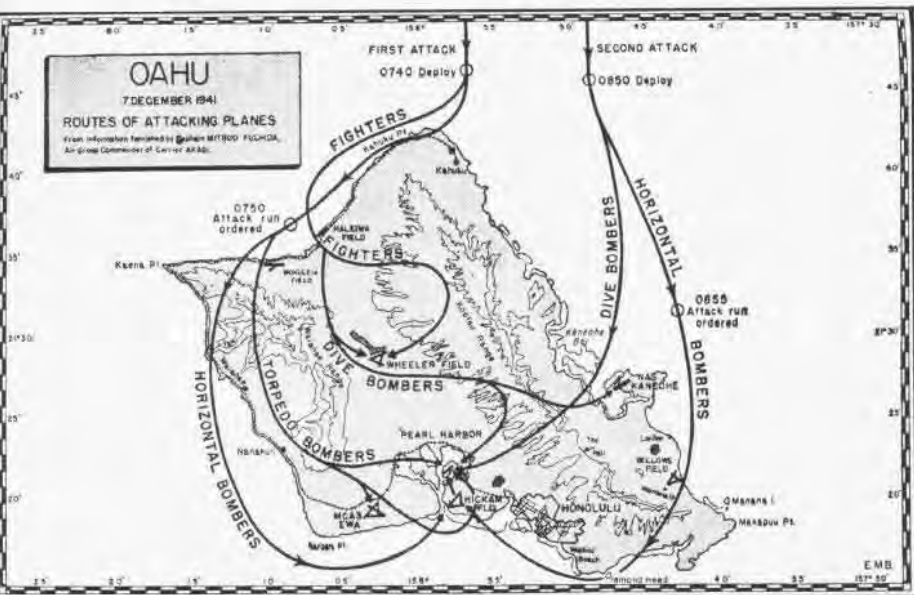
A simple, touching memorial now floats above the sunken battlewagon, spanning the hull which lies on the bottom, a tomb for the many men who went down with her.

The plot against Pearl Harbor was conceived in January 1941 by Admiral

Isoroku Yamamoto, CinC of the Japanese Combined Fleet. It became a part of the greater comprehensive plan for Japan to take over all of East Asia.

As the U.S. Navy's official historian for WW II, Admiral Samuel Eliot Morison wrote, "Never in modern history was a war begun with so smashing a victory by one side, and never in recorded history did the initial victor pay so dearly for his calculated treachery."

Kate bombers, right, were in the first wave of attackers on the Day of Infamy. About 350 Kates, Vals and Zekes launched from six carriers 275 miles from Oahu.



Above left, Japanese planes pull up from initial runs on Ford Island. First bomb explosion of attack is in upper center of photo. After the attack, harbor was in shambles, above. Left, chart depicts attack routes flown by Japanese.

Subject	Issue	Page	Subject	Issue	Page	Subject	Issue	Page
A - B								
Above and Beyond			Airships, Helium Horse	May	10	Drones, target practice	Jun	30
Cdr. C.M. Earnest	Sep	33	<i>Shenandoah</i> , 50 years	Oct	30	Earnest, Cdr. C.M.	Sep	33
Aeronautical engineering duty	Mar	32	Alcoholism	Mar	8	Eyes in the sea, HS-5	Oct	10
Aeronautical maintenance			AMD	Apr	34	Flatley, Cdr. James III	Sep	18
duty officer	Apr	34	<i>Apollo-Soyuz</i> , test project	Sep	4	Fleet Tactical Support Wing One	Nov	34
AEW system, E-2C	Nov	8	ASW, HS-5	Oct	10			
AICUZ	Nov	30	subhunters	Oct	8			
Aircraft			Automatic aircraft landing					
A-4F, for <i>Blue Angels</i>	Apr	3	system	Jun	3			
A-6E, TRAM	Jun	5	Awards			G - L		
AV-8A, ejection seat	Dec	4	Above and Beyond	Sep	33	GCA, Norfolk	May	26
ejection seat tested	May	29	Battle Es	Dec	3	Golden Eagles	Aug	30
CH-46, new engine	Oct	4	Britannia	Aug	33	Ground electronic maintenance,		
CL-84, Canadian	Jun	4	Burke, Arleigh	Feb	3	Kaneohe Bay	Jan	24
<i>Corsair</i> , 3 models	Oct	19		May	31	<i>Harpoon</i> , tested	Oct	4
<i>Corsair II</i> 2, A-7B/C			CNATRA safety	Oct	28	Headgear, history of	Apr	8
conversion	Sep	4	CNO safety	Nov	3	Helicopter escape system	Jan	4
E-2C, mission	Nov	8	Flatley	Nov	3	Helicopter trap	Jan	3
rescue	Mar	5	Forrestal, Adm. Moorer	Mar	5	Heliops	Apr	16
F2H, refurbished	Sep	14	Golden Mike	May	5	Helium Horse	May	10
F2H-4, to Naval Aviation			Gray Eagle, RAdm. Swanson	Aug	32	Houser, VAdm. William	Sep	25
Museum	May	4	Kitty Hawk	Mar	4	Icing tests, aircraft	Jun	32
F4F-4 <i>Wildcat</i> , from			Readiness Through Safety	Nov	3	<i>Indy</i> flight deck	Dec	22
Guadalcanal	Oct	31	Wright, Orville	May	5	Insignia		
F4U-5N, to museum	Sep	20	Balsa Wood and Thermals	Oct	22	CTSW-1	Sep	C3
F8F, to museum	May	31	<i>Black Panthers</i> , history	Jul	40	CVW-7	Jul	C3
P-11, inflight thrust control	Sep	3	<i>Blue Angels</i> , new aircraft	Apr	3	CVW-17	Dec	C3
F-14, carrier suitability	Feb	25	Buff, insignia (Ginsberg)	May	38	HC-6	Nov	C3
to VFs 14 and 32	Jun	25				HM-12	Oct	C3
to VFs 1 and 2	Jul	3				HML-771	Jun	C3
HH-3A, combat SAR	Aug	22				HMM-263	Jun	C3
LC-130, <i>Deep Freeze</i>	Feb	3				HS-3	Dec	C3
N3N-3, to museum	Sep	20				HS-5	Jul	C3
OV-10A, record	Sep	3				HSL-31	Sep	C3
P-3, Maverick	Aug	27				RVAH-6	Dec	C3
IMP	Mar	3				RVAH-9	Jul	C3
subhunters	Oct	8				RVAH-11	Sep	C3
P-3A, <i>Harpoon</i> fired	Jul	4				RVAW-120	Sep	C3
P-3C, updated	Jul	5				VA-37	Apr	C3
P5M, to museum	Sep	20				VA-65	Jul	C3
PBY, to museum	Sep	20				VA-66	Jul	C3
R4D, to museum	Sep	20				VA-81	Dec	C3
S-2, ASW	Oct	8				VA-83	Dec	C3
S-3, carrier suitability	Feb	25				VA-85	Dec	C3
to VS-29	Jun	26				VA-94	Oct	C3
SH-3, ASW	Oct	8				VAQ-33	Nov	C3
<i>Skymaster</i> , last	Jun	5				VAQ-132	Jul	C3
SNJ, to museum	May	31				VAQ-133	Sep	C3
TBM, to museum	Sep	20				VAW-122	Jul	C3
TD2C-1, to museum	Sep	20				VAW-125	Oct	C3
TF-9J, last training at VT-4	May	4				VAW-126	Dec	C3
UF-1, to museum	Sep	20				VC-2	Apr	C3
UH-1N, combat SAR	Aug	22					Nov	C3
VFW-Fokker, VAK-191Bs	Oct	5				VC-6	Nov	C3
YA-7H, prototype	Sep	4				VF-11	Dec	C3
YCH-53E, first flight	Apr	3				VF-13	Jul	C3
test flights	Nov	4				VF-33	Jul	C3
YF-17	Jun	4				VF-51	Apr	C3
Aircraft condition evaluation	Jun	4				VF-74	Dec	C3
Aircraft icing tests	Jun	32				VF-102	Jul	C3
						VF-301	Mar	C3
						VMFA-333	Jun	C3
						VMGR-152	Jun	C3
						VP-5	Aug	C3

C - F

Carrier C.O., <i>Independence</i>	Jul	8
Carriers		
<i>Belleau Wood</i> (LHA-3)		
commissioned	Jun	5
CVN-70, named	Apr	5
<i>Da Nang</i> (LHA-5)		
commissioned	Jun	5
<i>Independence</i> - Carrier C.O.,		
Carrier X.O., ComCarGru		
4	Jul	8
flight deck ops	Dec	22
LSO	Aug	15
maintenance	Aug	8
<i>Intrepid</i> , decommissioned	Apr	30
<i>Nassau</i> (LHA-4)		
commissioned	Jun	5
<i>Oriskany</i> , Burke trophy	Feb	3
<i>Tarawa</i> (LHA-1)		
commissioned	Mar	26
<i>Ticonderoga</i> , decommissioned	Jan	26
<i>Yorktown</i> , to Charleston,		
S.C., museum	Jun	3
Circular runway	May	8
Conrad, Capt. Charles	Sep	26
Cunningham, Lt. Randy	Sep	22
<i>Deep Freeze</i>	May	34
Denton, RAdm. Jeremiah	Sep	24
<i>Derby VII</i>	Jan	9
<i>Derby VIII</i>	Aug	32
Driscoll, Lt. J. G. William	Sep	22

Subject	Issue	Page	Subject	Issue	Page	Subject	Issue	Page
VP-8	Aug.	C3	NATSf	Apr.	26	SEPTAR, Mark-35 boats	Oct.	3
VP-17	Aug.	C3	Naval Academy, aerospace			Skeet for the fleet	Jun.	30
VP-45	Jan.	C3	engineering department	Feb.	32	Soliloquy	Dec.	8
VP-47	Aug.	C3	Naval aircraft series			Squadrons		
VQ-4	Oct.	C3	Airlifts	May.	20	HC-6, mission	Nov.	38
	Nov.	C3	<i>Demon</i>	Mar.	20	safety	Apr.	16
VR-1	Nov.	C3	Ford Tri-Motor	Oct.	20	HC-7, combat SAR training	Aug.	22
VRC-40	Nov.	C3	<i>Helldiver</i>	Jan.	20	HS-5, ASW	Oct.	10
VRE-31	Nov.	C3	<i>Seamaster</i>	Jun.	22	HSL-31, FRAMP	Nov.	28
VS-22	Apr.	C3	<i>Skytrain II</i>	Feb.	20	VA-35, history	Jul.	40
VS-31	Jul.	C3	<i>Ventura/Harpoon (PVs)</i>	Aug.	20	VA-65, middleman	Aug.	9
VT-9	May.	C3	Vought SBU	Apr.	20	VA-195, history	Jan.	30
VT-22	May.	C3	Naval air stations			VAQ-33, mission	Nov.	40
VT-25	May.	C3	Quonset Point, history	Oct.	36	VC-2, mission	Nov.	40
VT-27	May.	C3	Sangley Point, history	Aug.	34	VC-6, mission	Nov.	37
VXN-8	Nov.	C3	Naval Aviation Museum,			VQ-4, mission	Nov.	38
Insignia collector	May.	38	see Museum			VR-1, mission	Nov.	36
Jaws of life	Aug.	4	Navigation satellite system	Oct.	14	VRC-40, mission	Nov.	37
Leyte Gulf, battle of	Oct.	32	Noise abatement	Nov.	30	VRF-31, mission	Nov.	36
Lightning	Nov.	22	Osborn, Robert, interview	Jun.	8	VXE-6, in Antarctic	May.	34
LSO, CVW-7	Aug.	15	Pacific Missile Range			VXN-8	Nov.	39
			surveillance	Jun.	28	Stations		
M — Q			Paddles (LSO), CVW-7 on			Alameda, NARF safety	Jun.	24
Maintenance			<i>Independence</i>	Aug.	15	Barbers Point, Rodgers		
VA-65	Aug.	8	Pearl Harbor anniversary	Dec.	34	Field named	Dec.	30
training, NAMT Dets.	Feb.	26	Pilot's reminiscences	Dec.	8	Ellyson Field, flight		
Manual aircraft data input			Pirie, VAdm. Robert Burns	Sep.	28	ops cease	Mar.	5
system	Jul.	5	Quonset Point, decommissioned.	Oct.	36	Fallon, SAR training	Aug.	22
Maverick, P-3 program	Aug.	27	R — S			Glynco, closed	Nov.	29
McCampbell, Capt. David	Sep.	19	Radar control	Jun.	28	North Island, maintenance		
Men and Machines	Sep.	15	Research			training	Feb.	26
Metric system	Jun.	34	<i>Apollo-Soyuz</i>	Sep.	4	Quonset Point, history	Oct.	36
MIARS	Dec.	5	arresting system (Mark 14)	Jun.	4	Sangley Point, history	Aug.	34
Middleman, VA-65 on			ATS-3 satellite			Stations, Marine		
<i>Independence</i>	Aug.	9	communications	Dec.	5	Kaneohe, GEMO	Jan.	24
Minesweeping	Sep.	34	balloon, <i>Skyhook</i> program	Nov.	4	<i>Stormfury</i>	Jan.	34
	Nov.	5	beartrap	Jan.	3	Subhunters	Oct.	8
Mini-RPV	Nov.	5	ejection seat, AV-8A	May.	29	Suez sweep	Sep.	34
Missiles, <i>Harpoon</i>			escape system, helo	Jan.	4	Surface effect ship	Oct.	31
first fired from P-3A	Jul.	4	F-11 inflight thrust control	Sep.	3	Survey report	Nov.	16
tests	Feb.	4	<i>Harpoon</i>	Feb.	4			
Model meet	Oct.	22	helo launch/recovery tests	Aug.	4	T — Z		
Moorer, Adm. Thomas H.,			icing tests	Jun.	33	TACRons	Mar.	28
retired	Jul.	32	launching pendant	Aug.	4	Target practice, drone service	Jun.	30
Museum, new building	Feb.	3	polar automated weather			Targets, Mark-35 boats	Oct.	3
aircraft to:			station	Aug.	3	Thach, John S.	Sep.	16
F2H	May.	4	sea marker	Dec.	4	The High and the Mighty?	Mar.	8
	Sep.	14	<i>Skyhook</i>	Nov.	14	Training		
F4U-5N	Sep.	20	space shuttle orbiter	Oct.	3	helios	Apr.	16
F8F	May.	31	test crashing	Oct.	5	maintenance at North Island	Feb.	26
N3N-3	Sep.	20	TRAM, A-6E	Jun.	5	Naval Academy, aerospace		
P5M	Sep.	20	wind shear measurement	Feb.	5	engineers	Feb.	32
PBY	Sep.	20	wind tunnel	Nov.	3	SAR	Aug.	22
R4D	Sep.	20	Review of 1973	Feb.	8	water survival	May.	32
SNJ	May.	31	Rodgers Field	Dec.	30	<i>Unitas XV</i>	Nov.	3
TBM	Sep.	20	RPV-mini	Nov.	5	V/STOL, VFW-Fokker	Oct.	5
TD2C-1	Sep.	20	SAR training, NAS Fallon	Aug.	22	Womanpower	Feb.	22
UF-1	Sep.	20	Satellites, steering by	Oct.	14	Women flight surgeons	Mar.	3
see also Men and Machines	Sep.	15	Sentinel in the sky, E-2C	Nov.	8	Yellow gear	Jan.	22
Naval Aviation Museum	Sep.	8						
Why	Sep.	2						

Letters

A Helping Hand

I have just received a copy of the March 1974 issue of *Naval Aviation News* with Commander J. A. Pursch's article "The High...and the Mighty?" It is the most natural and one of the best articles on alcoholism and the role that the Navy is playing in dealing with this problem that I have ever read.

I would like to throw my "white hat" in the ring to help the Navy and my shipmates with more information and facts about this illness when they visit Barcelona, Spain.

I am a USN (retired) E-6, also a recovering alcoholic. I am living in Barcelona and in the past 20 months have learned how to really live without alcohol.

Any of the ships which visit Barcelona can write or call me and I will cooperate with them in the alcohol awareness program.

Many of the men (enlisted and officer) have found it easier to talk with me about their drinking problem than with someone from their ship. If you have any doubts or questions about your drinking habits or a friend's drinking habits, just pick up a phone when you get to Barcelona, dial 214-7401 and ask for Fred.

It doesn't hurt near as much to stay sober as it did to stay "up on the step."

Fred G. Bure
San Eudaldo, 41-43
A/Atico, 1.^a
Barcelona (6) Spain

Pressure and the Flyer

We saw a film recently which we strongly recommend to everyone in the Naval Aviation community. It has special appeal for those who aspire to Navy wings. Produced for the Recruiting Command, *Pressure Point* is a 15-minute look at pilots under stress punctuated by flashbacks to preflight training. The role Marine drill instructors and regimentation play in the making of a Navy flyer is graphically presented. A convincing, high impact script complements the photography.

Produced by John J. Hennessy Motion Pictures in collaboration with the Naval Recruiting Command, the featurette was photographed by Frank Stokes and written and directed by Mike Ross. Marine SSgt. Dave Penn portrays the DI with all the proper elements of ferocity.

The film has received six awards including ones from the New York Film Festival, the Information Film Producers Association and the Public Relations Society of America.

Contact the local recruiting activity to make arrangements for viewing *Pressure Point*.

Help

I am assigned to the nuclear carrier acquisition desk at NavSeaSysCom, Washington, D. C. There is a need to indoctrinate the "ship" types with the proper perspective of their role in support of Naval Aviation. As the NavSea Duty Aviator, I consider this educational process a part of the challenge of the job.

I would appreciate your assistance in obtaining Naval Aviation-oriented materials such as decals, posters, contact points, etc., to assist in the her-

culean task of squaring away this group of black shoes and guiding them in their efforts in support of Naval Aviation.

Noel S. Flynn, LCdr.
PMS 392F
NavSeaSysCom
Washington, D.C. 20362

Ed's note: All aviation units, please help this friend in need.

Credit Where Due

Your article "Loaders and Launchers," on pages 4 and 5 of the July issue, is very impressive. Congratulations to VX-1 at Patuxent River; however, in all fairness, the P-3 is a Naval Missile Center aircraft and an NMC crew participated. When a pat on the back is due, let's give all involved an "atta boy."

You've got a great magazine, keep up the good work. Hope you don't mind the nit-picking.

Thomas Aitken
Naval Missile Center, Code N400-1
Point Mugu, Calif. 93042

Ed's note: We'll go along with that.

Yorktown Museum

The Patriots Point Development Authority, Box 634, Charleston, S. C. 29402, desires any naval aviation organization interested in advising, counseling or assisting in developing a naval museum around the former USS *Yorktown* (CV-10) to contact Rear Admiral Herman J. Kossler, USN (Ret.), at the address above.





Attack Carrier Air Wing Seventeen's aircraft include: F-4J Phantoms, flown by VF-74 and VF-11; A-7E Corsair IIs operated by VA-81 and VA-83; A-6E and KA-6D Intruders used by VA-85; E-2B Hawkeyes flown by VAW-126; RA-5C Vigilantes operated by RVAH-6; and SH-3D Sea Kings flown by HS-3.



VF-11



VF-74





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