NAVAL AVIATION NEWS

AUGUST 1973

NAVAL AVIATION NEWS

FIFTY-FIFTH YEAR OF PUBLICATION

THE STAFF

COVERS — *This month our thanks go to the Atlantic Fleet Combat Camera Group for providing us with all three. On the front, PH1 Rich Pendergist offers his rendition of an F6F Hellcat. At left, is a flight of VF-31 Phantoms taken by PH1 Harold D. Phillips. The father and son scene on the back cover was captured at an air show by PH2 Michael Bruce.*

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EDITOR'S CORNER

PH2 Michael Bruce

PH1 Pendergist at work in aft cockpit of SNJ shooting aerials at air show.

We get by with a little help from our friends.

As we have related to you in a number of Editor's Corners, we are dependent on submissions from the field for most of the information and features that you read on these pages. And two of the organizations that we often call on to do a job that requires the utmost in professional abilities are the combat Camera Groups, Atlantic and Pacific. This month we tip our hat to CCGLant. In addition to the covers, PH1 Rich Pendergist and PH2 Michael Bruce shot the air show which appears on page 32, and PH1 Harold D. Phillips shot the aerials that are a part of the VF-31 history which begins on page 8.

No words of ours can possibly describe their professional abilities, so you be the judge.

Who are these cameramen and how do they operate?

We asked former associate editor, JOC Johnny "Jock" Johnston, now with CCGLant, to give us a bit of background on his fellow photographers:

The mystery is gone from photography.

Television bombards us with visual stimulants. Motion pictures reach out to capture the ultimate limits of the medium. Magazines and newspapers excel in pictorial journalism.

Practically everyone today is a photographer. Every family has at least one camera; the corner drugstore returns prints in 24 hours.

Yet a persisting aura surrounds those of us who practice this craft professionally.

A certain glamour is associated with a sailor who (usually in civilian clothes) grabs a case full of the best cameras and lenses available, an unlimited supply of film and a plane ticket on his way to some far away and romantic place.

When he arrives, he is where the action is. He has access to heads of state, high ranking government officials and admirals. The cameraman is witness to history.

While he is on location, he may live in a good hotel, dine in good restaurants and have the full cooperation of the command who requested his services.

A frequently posed question-statement to Combat Camera Group photographers is: "This is all you do, go around taking pictures? Wow! What a way to live!"

It is indeed.

In reality, this kind of photography is nerve-jangling hard work.

A Combat Camera Group photographer can pack a suitcase in five minutes, then live out of it for as long as necessary. His equipment might be in two cases or twenty, and weigh from 30 to 3,000 pounds.

He has an uncanny ability for making transportation connections where no transportation is available.

When he is working, he is up before dawn and hopefully back to his room around midnight. With luck — or if someone notices — he might get a sandwich and a cup of coffee sometime during the day.

On location, he cares more for his equipment than he does for himself. The elements — dust, rain, snow, salt spray — are his enemies.

He works long and late hours recording data from a day's shooting and cleaning his equipment for another day.

He went through a lot for these simple pleasures — on his way to the top of Navy photography.

The typical Combat Camera Group photographer is a career senior petty officer with a family. He has had at least one year of advanced training in photojournalism (Syracuse) or cinematography (USC), or years of comparable experience.

He has spent half his life, it seems, in darkrooms or on location learning his craft. He has thrown away more pictures than most people will take in a lifetime. He has suffered the indignity of rejection slips, but he has bathed briefly in the satisfaction of seeing ten percent of all his works published — hopefully under a byline.

He has eaten C-rations from the can while seated in the snow in front of his tent on a wind-swept beach. He has waded through water and mud for a picture. He has stood in a 2 a.m. blizzard waiting for an impossible picture. He's been seasick, airsick and frightened out of his wits.

He doesn't pretend to know all there is to know about photography. He is his own worst critic, and he learns from failure more than from success.

Because of the nature of his work, he has come to terms with disaster and suffering. He has learned to appreciate the "good news" assignments.

He believes in the lucky picture, but he knows he creates 95 percent of his luck. He notices little things — the subtle play of light, the lines of composition, the invisible details. He doesn't remember when he started noticing or even that he does notice, but he does.

He probably can't tell you what his last f stop/shutter speed combination was, but he can say whether or not the picture was good. The camera is an extension of his mind, developed and polished through years of experience, hard work and failure.

It isn't all glamour.

PH2 Michael Bruce

Pendergist makes a cover.

NAVAL AVIATION NEWS

1911 1973

Record A-4 Received

PALMDALE, Calif. — The 2,700th A-4 *Skyhawk* delivered to the U.S. Navy by McDonnell Douglas left Palmdale on June 14, 1973, bound for Norfolk, Va. Pilot on the delivery flight was LCdr. Lawrence Deboxtel, Jr., VRS-31.

The delivery came almost on the 21st anniversary of the A-4 program. Douglas Aircraft Company division of McDonnell Douglas received its first *Skyhawk* contract on June 21, 1952. The planes have been in continuous production ever since — a record of longevity unmatched by any other military aircraft.

Three versions of the *Skyhawk* — the A-4M, A-4N and TA-4J — are currently in production.

Helicopter Pilot Cited

NAS LEMOORE, Calif. — Ltjg. Jeff Wallin has been awarded the Navy Helicopter Association's National Search and Rescue Award for "the Navy rescue of the year."

The award, presented at the association's annual banquet, was for a rescue made by Wallin on January 31. At approximately 1800 on that date, NAS Lemoore responded to a request from the Western Search and Rescue Center at Hamilton AFB. A Cessna 182 was down 70 miles east of Fresno at the 11,000-foot level. Three survivors had been spotted and Lemoore was requested to pick them up.

Pilot Wallin, Ens. Phil Griesbach, copilot, and crewmen AA Dennis R. Gaiser, PO Donald L. Occhiline and HM3 G. R. Berndt were dispatched and rescued the crash victims.

Ltjg. Wallin is assigned to the station's search and rescue team.

In recognition of many years of service to Naval Aviation, McDonnell Douglas Corporation's famed illustrator R. G. Smith was made an Honorary Naval Aviator and received his wings from Vice Admiral William D. Houser, Deputy Chief of Naval Operations (Air Warfare). Mr. Smith has painted more than 800 pictures of naval aircraft, including numerous covers for Naval Aviation News and Approach.

Tracers Phased Out

NORTH ISLAND, Calif. — At the end of May, four E-1B *Tracers*, better known as "Willy Fudds," taxied down the runway at the naval air station to bid a final farewell to their squadron, Carrier Airborne Early Warning Training Squadron 110. They were making their final flight, to Davis Monthan AFB, Tucson, Ariz.

On March 27, 1973, the Chief of Naval Operations issued a message that directed all E-1 training terminated due to the fact that the more modern E-2B will soon be available.

May 25, 1973, marked the end of the E-1 era as all E-1 training in the Pacific Fleet was terminated. Those squadrons which now deploy with Willy will soon begin their phase-out programs. All previously qualified E-1 pilots and NFOs are transitioning to the E-2, and many will receive that training from RVAW-110.

An A-4 Skyhawk of VA-45 Det 1, deployed aboard the CVS carrier Intrepid on her last cruise before she was decommissioned, intercepts a Soviet Moss-type aircraft in the North Atlantic.

Three Aircraft Evaluated at Pax River

During June, the Naval Air Test Center, Patuxent River, Md., was busy evaluating three new aircraft — an RH-53D, an E-2C and the first production model of the SH-2F.

The first RH-53D airborne mine countermeasures (AMCM) helo to be tested at Pax River had been undergoing Navy Preliminary Evaluation concurrently with the initial phase of its Board of Inspection and Survey service acceptance trials at Sikorsky's Stratford, Conn., plant when it was ferried to NATC for completion of the weapons systems trials phase.

The follow-on version of the basic H-53 permanently incorporates those kits which adapt the CH-53A/D to the emergency AMCM mission which, when integrated with the specific tow kit installations, provide the capability of dynamic or static towing of barges, ships, vehicles, etc., and sweeping moored, acoustic influence and magnetic influence mines. Without the specific tow kit installations, the RH-53D can perform the same utility mission of troop and cargo transport as the CH-53A/D.

Additional features included to increase the helo's mission capability are auxiliary fuel tanks, air-to-air and ship-to-air refueling, magnetic minesweeping equipment refueling, fuel jettisoning and a rescue hoist for search and rescue.

On completion of the NPE and BIS trials, the first AMCM *Sea Stallions* were scheduled for delivery to HM-12, NAS Norfolk, Va.

The E-2C was also at NATC for NPE and BIS trials. Its evaluation is unique in that NATC, operational test and evaluation force and fleet personnel performed the initial operational test and evaluation trials.

The Grumman aircraft, first flown on September 23, 1972, is an all-weather, carrier-based aircraft that patrols task force defense perimeters to provide early warning of approaching enemy aircraft and vectors interceptors into attack position. In addition, the E-2C can provide strike and traffic control, area surveillance, search and rescue guidance, navigation assistance and communications relay.

The E-2C is the latest in the E-2 series which are powered by two turboprop engines and are easily identified by their 24-foot-diameter rotodome and four vertical tails.

The SH-2F light airborne multipurpose system (LAMPS) helo was also undergoing weapons system and service test trials. The new helo, a major modification of the H-2, incorporates a new rotor system (the 101) and changes in location of the tail wheel for easier landings on destroyers.

Designed to be a weapons system integrated with fleet destroyers, the manned helicopter increases the sensor and attack capabilities of the destroyers in antisubmarine warfare and antiship missile defense.

Primary testing in the second phase involves communications radar, electromagnetic interference and data link testing of the weapons system. The cabin and cockpit environment, Doppler approach and general service suitability of the engineering changes are also being evaluated.

SH-2F

RH-53D

Isbell Trophy Winner

SAN DIEGO, Calif. — On May 30, Commander E. D. Titus, commanding officer of Air Antisubmarine Squadron 29 (VS-29), received the Arnold Jay Isbell Trophy on behalf of his squadron. Vice Admiral W. T. Rapp, Commander, Third Fleet, presented the award on behalf of the Lockheed California Company.

The Isbell Trophy, established in 1958, is given for overall excellence and superior performance in antisubmarine warfare during each 18-month competitive cycle.

This is the fourth time that VS-29 has been so named. Previous awards were in 1965, 1967 and 1971.

Sparrow Shoots Tomcat

NMC POINT MUGU, Calif. — An F-14 *Tomcat* apparently shot itself down during a weapons test over the Pacific in June. According to Navy spokesmen, the aircraft had launched a *Sparrow* missile but it failed to clear the plane and struck the fuselage. The aircraft then caught fire, causing the two crewmen aboard to eject. They were picked up, unharmed, by helo.

The aircraft, which was flying at approximately 700 mph and at an altitude of 5,000 feet when the accident occurred, was the third F-14 to be lost since testing began in 1970.

The last aircraft to achieve this dubious honor was the F11F *Tiger*.

CVSG-53 Disestablished at NAS North Island

NAS NORTH ISLAND, Calif. — As part of the Navy's continuing transition, Carrier Antisubmarine Air Group 53 (CVSG-53) was disestablished on June 1. CVSG-53 had been based at North Island since its establishment in April 1960. At that time, attached units consisted of VSs 21 and 29, HS-6 and VAW-111 Det R. A November 1969 reorganization added VS-35 and HS-2 from CVSG-57.

Squadrons attached to CVSG-53 are being incorporated into fighter and attack air wings as part of the CV concept.

First flight of eight-blade coaxial rotor system on company-sponsored test bed aircraft was made by Gyrodyne recently using Navy-loaned components. Previous widely used Gyrodyne helos had four-blade coaxial rotor systems. Eight blades promise advanced helo concepts.

Orion Deploys to Med

SIGONELLA, Sicily — When Patrol Squadron 45 relieved Patrol Squadron 23, it became the first squadron operating the P-3C *Orion* to be deployed to the Med.

The Jacksonville, Fla., based squadron is under the operational control of Commander, Antisubmarine Warfare Forces, Sixth Fleet.

CCGLant Gets New C.O.

NORFOLK, Va. — On June 22, LCdr. Melvin M. McClure relieved LCdr. Robert D. Baer as commanding officer of the Atlantic Fleet Combat Camera Group. LCdr. McClure was formerly X.O. of the unit; LCdr. Baer, who had been in command for two years, reports to duty with the Naval Photographic Center, Washington, D.C.

CCGLant covers the Atlantic and is a frequent contributor to *Naval Aviation News*.

VXN-8's Safety Record

NAS PATUXENT RIVER, Md. — Oceanographic Development Squadron Eight, led by Commander T. F. Anderson, has completed five years of accident-free flying — 35,000 hours.

VXN-8 was commissioned July 1, 1967, as the Navy's only airborne oceanographic development squadron. Its projects, directed by the Naval Oceanographic Office, Washington, D.C., include *Magnet* (geomagnetic data collection), *Birdseye* (polar ice pack reconnaissance) and *Seascan* (ocean sound propagation and thermal trend studies).

The squadron flies an NC-121K *Super Connie* on Project *Birdseye* and an RP-3D *Orion* on Project *Magnet*. The *Connie* is scheduled for retirement. It will be replaced by two RP-3As, giving greatly increased capability and improved missions.

17th Annual Tailhook Reunion

The 1973 Tailhook Reunion will be held September 7-9 at the Las Vegas Hilton, Las Vegas, Nev., according to Captain Robert E. Gallatin, President of the Tailhook Association and 1973 Reunion Chairman.

An interesting and informative symposium program has been arranged. It includes a POW symposium headed by Rear Admiral Jim Stockdale, a rundown on *Apollo XVII* by Captain Gene Cernan, an industry symposium led by Mr. Joe Gavin, President of Grumman Aerospace Corporation, and, from the Carrier Suitability Branch at NATC Patuxent River, a symposium conducted by LCdr. Clint Smith and Mr. Roger M. Decker.

Cost for the weekend is $62 for double room, $89 for a single and $36 for individuals who wish to participate but do not desire hotel accommodations. A $5 reduction is offered to dues paying members of the association.

Applications for the reunion or for membership may be obtained by writing to the Tailhook Association, P.O. Box 730, Coronado, Calif. 92118. Telephone: 714-437-7924

This C-9B, first of four scheduled for delivery to VR-1, NAS Norfolk, was named the "City of Norfolk" in a salute to the friendship that has long existed between the Navy and Norfolk. The Skytrain II was christened by Mrs. Roy B. Martin, wife of the mayor of Norfolk.

GRAMPAW PETTIBONE

Ricocheting Helo

Two Marine Aviators were scheduled to ferry a CH-46D *Sea Knight* from the overhaul activity back to home base. The ferry flight was to consist of two legs. The aircraft commander had over 400 hours in type and the copilot had more than adequate flight experience.

The first leg was uneventful and the aircraft arrived at its en route stop. The crew chief refueled the main fuel cells and the two internal range extension tanks that were used on this type ferry flight.

During refueling, the pilots were in base operations completing their flight planning for the final leg. They received a verbal weather briefing that minimum ceiling en route would be 2,500 feet. Prior to departing, they received a weather briefing that indicated a front located near their route of flight which was accompanied by a precipitation area, reduced visibility, and lowered ceilings. Based on a 2,500-foot ceiling and with fair visibility, the pilots elected to continue VFR.

As they were leaving base operations, the rain increased, lowering visibility to approximately two and one-half miles. They were given clearance to launch and maintain special VFR while in the control zone. Takeoff was at 1135 and they climbed to 3,000 feet and leveled off at 110 knots in visual meteorological conditions.

Initially, the crew chief concerned himself with crew duties such as checking fuel transfer and the inside of the aircraft. The copilot was concerned primarily with selecting and identifying navigational aids, while the pilot had control of the aircraft.

After a few minutes, a large area of precipitation appeared ahead and the pilot turned left toward a clearer area. This turn took him over the eastern shore of a bay. Initial clue to lowering ceilings was passage over and through several wispy isolated clouds. It then rapidly became apparent that they were about to enter a more substantial cloud formation, and the pilot announced that he was going on the gauges.

On entry into IFR conditions at 3,000 feet, the pilot commenced a level right turn, assuming that upon completion plus a few seconds, they would again be in VFR conditions. After the 180-degree turn completion on a heading of approximately 360 degrees, it was evident that IFR conditions were more extensive than anticipated. Assuming that they were over water or the adjacent coastal plain, they decided to commence a straight ahead descent to regain VFR conditions. Both pilots concurred, feeling that they had just been VFR and there should be visual conditions a few hundred feet below.

A 500 to 700-fpm descent heading

ILLUSTRATED BY Osborn

approximately north was begun while the copilot monitored the gauge and maintained lookout for contact conditions. While passing through approximately 2,000 feet indicated on the barometric altimeter, the copilot observed his radar altimeter low level warning light illuminate. The low level index was set at 100 feet.

The copilot's attention shifted immediately outside (down through the nose plexiglass) where he observed a dark mass of trees and vegetation coming up at them. His immediate response was to add power with the collective to stop descent, while he simultaneously broadcast "look out" over the ICS. At the same time, the pilot became aware of the situation and was increasing power by up collective to try to avoid tree contact.

The aircraft entered the trees and made first impact, heading in a level flight attitude. The time was approximately 20 minutes after takeoff. The flight path was through trees up to 15 feet high and up to six inches in diameter. The rotor blades cut an even swath through the treetops for approximately 20 yards. The aircraft fuselage broke down or bent over trees and bushes in the impact area. The starboard landing gear made a shallow depression in the soil for approximately 12 feet. The entire port landing gear assembly was broken from its mounting point when it contacted a 6-inch-diameter tree.

During this initial contact with the trees, the crew chief, secured by his gunner's belt, lay on the floor of the cabin just aft of the cockpit and covered his head with his arms. The copilot, after realizing that the pilot was already attempting a power recovery, positioned himself in the armored seat to gain as much protection as possible.

This initial impact was on the crest of the ridge and, as power was added, *they became airborne again* over the valley on the northern side of a ridge. The rotor rpm had decreased during impact and recovery, so the pilot lowered the collective to regain rpm and slowed the aircraft as he thought further ground contact was imminent.

He concentrated on slowing his airspeed and rate of descent while still in very low visibility instrument meteorological conditions. They descended approximately 100 feet before second, and final, impact. The crewmen escaped without major injury; however, the aircraft was a total loss.

Grampaw Pettibone says:

My achin' ulcer! I hadda read this report more than once — couldn't believe my eyes. These gents just refuse to believe the "sign" — that is, the increased rain when they were leaving operations. This should'a told them the weather had progressed further than anticipated. Yet they still proceeded on a *VFR flight plan*. Seems to me that this at least violated the spirit of our general NATOPS! Appears that descendin' around mountainous terrain is a poor way to regain VFR, particularly with no one watching the radar altimeter.

I could go on about all the poor headwork involved. Suffice it to say that windin' up richocheting off hilltops may have made believers of our pilots! If they're still on flight status — that is!?

Head in . . . Sand?

An intrepid aviator was assigned to conduct demonstration flights for prospective Naval Aviation Candidates in the T-28 *Trojan*. The pilot, being a relatively senior type, had a considerable amount of experience, with over 6,000 hours in the air. In the morning, he flew approximately three and one-half hours with numerous passengers without difficulty.

While taxiing for takeoff with his first passenger of the afternoon, the pilot was cleared to cross the runway "without delay" because of two aircraft on final. He expedited his crossing of the runway and then turned right onto the parallel taxiway. While taxiing, he made a notation on his kneeboard and then accidentally dropped his pencil. He began to search for the pencil in the cockpit and, while he was doing so, the aircraft left the right side of the taxiway at an angle of about ten degrees. (The shoulders of the taxiway were composed of medium packed sand.)

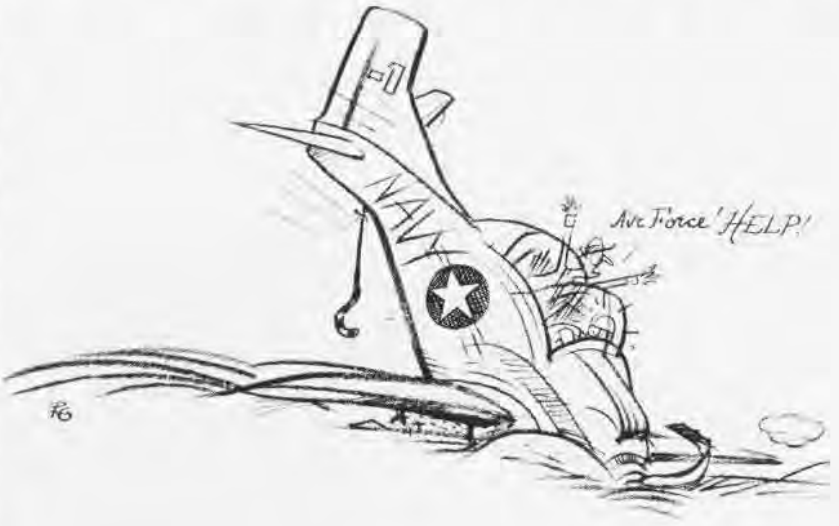
The pilot looked up and, realizing his predicament, rather than attempt to turn the aircraft in the sand, elected to continue straight ahead and stop the *Trojan*. After traveling approximately 40 feet off the taxiway, the nose wheel strut failed. It appears that the aircraft pitched forward on its nose due to the combined effect of its forward speed and the twisting momentum caused as the propeller dug into the ground.

The aircraft came to rest in an inverted position. The pilot encountered some difficulty freeing himself from the cockpit because his head was wedged into the sand; however, he managed to free himself and he and the passenger departed the aircraft without injury. The aircraft sustained major damage.

Grampaw Pettibone says:

Holy Hannah! I, for the life of me, can't imagine an experienced aviator digging around in the cockpit while the aircraft is moving — with a passenger in the back, yet! This really impressed our prospective Naval Aviator who was last seen heading for the nearest recruiting office of our Air Force friends.

Head stuck in the sand — my foot! This gent's head was "stuck" all right; however, it wasn't in sand! Disgusting!



A COMMAND HISTORY

By Clarke Van Vleet, Naval Aviation Historian

The following pages contain excerpts from the 1972 command history of Fighter Squadron 31 submitted to the Aviation History Office (Op-05D2) in accordance with OpNavInst. 5750.12B of May 20, 1971.

The *Tomcatters'* submission is considered an example of a good annual historical report. Other units rated just as high, however, and also received letters of commendation from CNO for their attention to good historical reporting.

The history office has only been able to evaluate some of the over 400 unit command histories submitted for 1972. Units graded include the VF, VA and VP squadrons. The following received outstanding evaluations: VFs 24, 101, 103, 114, and 211; VAs 37, 42, 43, 45, 52, 65, 81, 82, 164, 174 and 196; and VPs 8, 9, 11, 17, 19, 31, 40, 44, 45, 46 and 49.

These excerpts were taken from the VF-31 history and the various documentary annexes sent along as enclosures to the report. If squadron members don't exactly recognize this narrative, it is because it was pieced together from the whole bundle and then edited for the sake of clarity and security. The important thing is that VF-31 followed the intent of the instruction: "the collection and forwarding of existing documents represent efficient means of providing information that otherwise would need to be written into the basic history."

Henry James said, "The historian wants more documents than he can use; the dramatist, more liberties than he can take." VF-31's valuable annexes included separate end-of-line-period, pre-combat training syllabus and other reports required in the course of the year by the squadron's higher administrative headquarters. The VF-31 history package thus amounted to a handsome 64-page submission crammed with lots of facts and figures *as well as problems and recommendations* connected with operations. Many could not be reprinted because of security considerations, but the data is now available and will prove valuable.

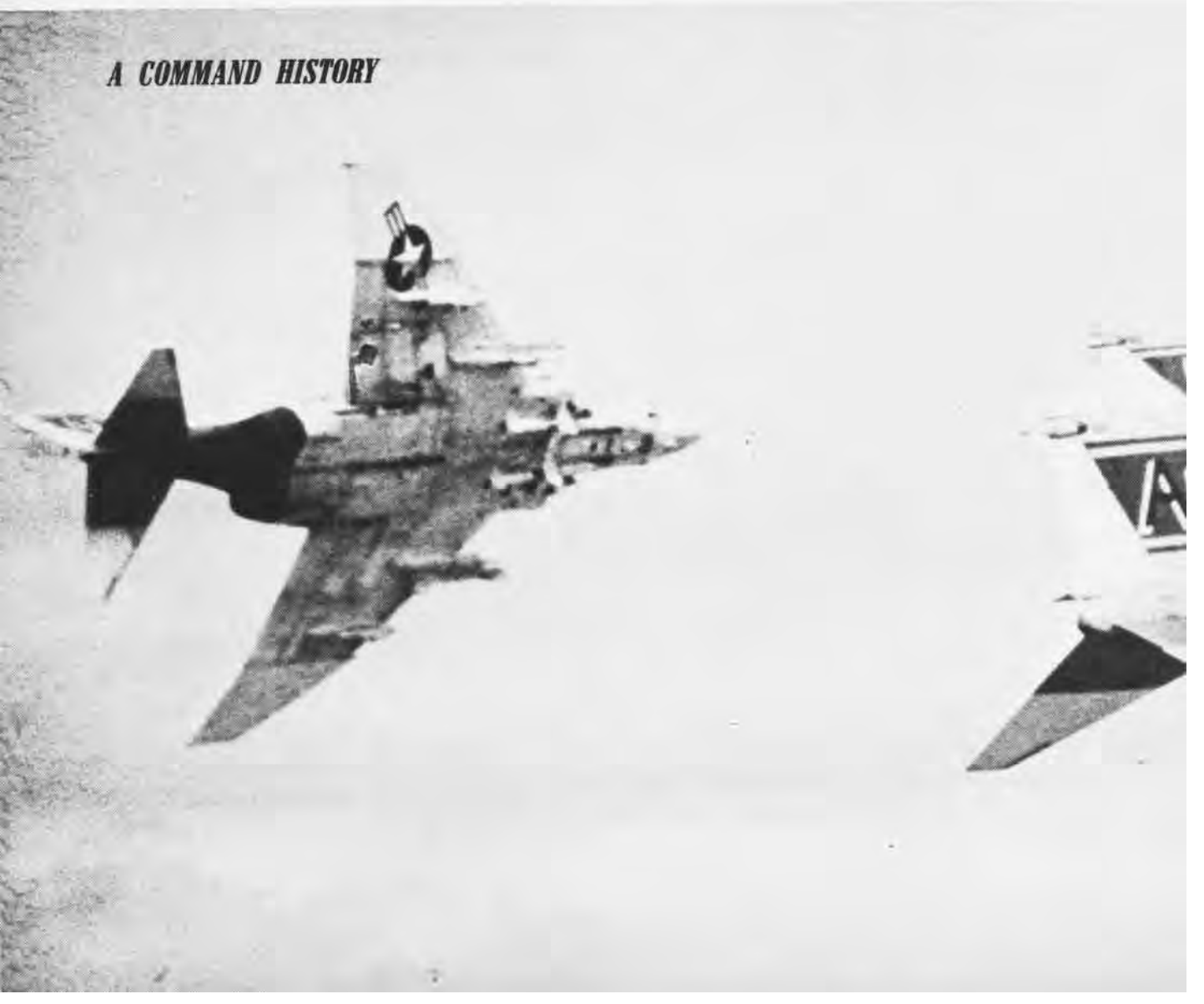
Former CNO, Admiral Arleigh A. Burke, told new flag officer selectees in 1958, "You should remember that a

PH1 Harold D. Phillips

knowledge of the history of problems is essential. In order to make an intelligent assessment of problems, you must know the history of problems." Annual unit histories do not get filed and forgotten to gather dust and cobwebs. Instead, they are continually being retrieved, researched and referenced for background information in connection with current projects performed by Navy's functional divisions working on plans, programs and critiques of past experiences. Ship, squadron and station histories thus serve a contemporary practical purpose. As Vice Admiral Malcolm W. Cagle, Chief of Naval Training, wrote in the preface of his book, *The Sea War in Korea*, "Only by measuring the lessons of the past can we forge a yardstick for the future."

For example, today a Navy office is preparing a critique of the naval air mining operations in Vietnam and squadron history reports for 1972 are an important source of information. Recently the National Research Council, which is studying the possibility of radar-caused cancer stemming from the Korean war period, obtained some valuable data from squadron reports, and the Naval Weapons Systems Analysis Office consulted histories from RVAH units for backup data connected with an analytical study. Patrol squadron histories played a role when DoD's Weapons Systems Evaluation Group needed information on the 1964-69 assignments of P-3s, and the Engineering Facilities Command used historical facts and figures from air station reports in a review of naval bases. These are but a few examples of the utilization of unit histories.

Aviation's archives are also used to provide backdrop data for official naval histories, various types of ceremonies such as changes of command, unit anniversaries or retirements, and for official speeches. For example, when Admiral Thomas H. Moorer spoke before one squadron, the unit's past reports served appropriately in providing historical local color for the address. Command histories also enhance, enrich and extend Naval Aviation's image, because authors, students, aviation associations, aircraft companies, airplane buffs, nostalgic retirees and plain John Q. Public write the Navy for answers to some pretty intricate questions. Some-



one once said, "History has many passages, corridors and issues. . . ." Only the units on the line or in the field, not headquarters, can record and report the real day-to-day happenings and problems. Moreover, since many naval records are subject to destruction, the importance of unit historical reports with their annexes is emphasized because history records are never destroyed.

Unfortunately, there are several aviation units that have still not submitted their histories for 1972. They are asked to recheck their files and report in accordance with the instruction. In addition to the overall guidance accompanying the instruction, here are a few suggestions:

Do

. . . appoint a unit historian well in advance of reporting time and preferably someone interested in the unit's history.

. . . collect data during the year rather than rush to find it at report time.

. . . follow the principles of answering *what, when, where, who, why and how.*

. . . report exact and full names, dates, locations, times, etc., on important exercises, operations, accidents, rescues, serious incidents, etc.

. . . back up your history with appropriate photographs of your aircraft, operations and group shots of personnel. Be sure to identify and date the photographs.

Don't

. . . give your history the superficial treatment spiced with a public relations type approach. Give it "hard sell" historical depth. Forget the golf tournaments and wives' club meetings.

. . . use initials or technical jargon unless they are explained. In future years they may become obsolete and a researcher will not know what you are talking about.

PH1 Harold D. Phillips

A COMMAND HISTORY

Fighter Squadron 31

Nineteen seventy-two proved to be a most productive year for Fighter Squadron 31's *Tomcatters*. They completed one of the most successful of all fighter squadron combat deployments to Southeast Asia. The squadron did not sustain any combat losses of personnel or aircraft while flying over 2,100 combat sorties.

From Hot Pad to Combat Alert

The year began with Fighting 31 spending two weeks performing *Hot Pad* duty at NAS Key West, Fla. Upon completion of its two weeks of *Hot Pad*, VF-31 flew back to NAS Oceana to make preparations for a carrier qualification period that was scheduled in a few days aboard USS *Saratoga* (CV-60). This carqual took place off the coast of Florida and, upon its successful completion, the squadron returned to Oceana and prepared for an administrative inspection.

By April, the *Tomcatters* were preparing for a Mediterranean deployment. The President's announcement that bombing of North Vietnam had been resumed affected the life of every *Tomcatter*. It was only a few days later that *Saratoga* and Carrier Air Wing Three received orders to immediately get underway for the Western Pacific. All VF-31 personnel were recalled from leave and last minute preparations were made to transport the squadron to Mayport for boarding *Sara*. On April 11, all 12 *Tomcatter* aircraft flew aboard to begin the 28-day journey to WestPac.

In the short period allotted to get underway, the *Tomcatters* welcomed aboard 13 new aircrewmen (ten pilots and three RIOs); a new "gunner" and his chief; recalled 75 personnel from distant leaves barely commenced; and repositioned themselves *in toto* aboard *Saratoga*.

Sara, yet to receive her "baptism of fire," and her only faithful plank-owner, *Felix*,* untested since the Korean Conflict, joined immediately with the rest of the air wing and began exchanging combat experiences. The effectiveness of the preparation and the resultant havoc rained upon the enemy by CVW-3 are already part of Naval Aviation's history.

The judicious matching, preparing and monitoring of 13 late aircrew arrivals within the three days preceding our emergency deployment was a challenge. As a result, 15 of the 16 aircrew teams, who flew together for the first time only four days prior to commencing combat operations, had no aircrew coordination problems during the nine months of intense combat and operational exposure, a testimony not only to command attention, but to the quality of replacement training and the philosophy of standardization.

Train, Train, Train

During the 28-day transit, flight crews were exposed to four hours of ground training per day. They were assigned daily reading assignments and frequent quizzes were given to monitor comprehension in vital areas, such as rules of engagement. Training manuals were thoroughly reviewed in a like manner. Combat ground training proved to be thorough in all respects.

The nonavailability of an NAS Cubi Point operations manual hindered initial shore-based refresher operations. This required additional briefings following arrival at Cubi. (It is recommended that all CVAs maintain a library of operations manuals for sanctuary areas adjacent to all potential combat theaters throughout the world.)

* One of the oldest insignia in the Navy, *Felix* joined Naval Aviation in late 1928 when Lt. Emile Chourre drew cartoonist Pat Sullivan's cat, putting a bomb in his paws for the insignia of VB-2B (Bombing Squadron Two, Battle Force). The squadron shared the distinction with another as being the first complete air units to land aboard the old *Sara* (CV-3). *Tom* has represented more than nine lives and about as many squadrons since then.

All aircrews were required to complete jungle SERE training. This was facilitated by a special nine-hour quicky course conducted at the Cubi SERE School — all the best dope presented in the jungle by natives, ending with an actual personnel recovery craft/jungle penetrator pickup of each aircrewman.

Saratoga did not conduct flight operations during the transit. "Back in the saddle" conventional weapons and day FMLP flights were staged during *Sara's* four-day Cubi inport period. FMLP efforts were, however, frustrating because of the heavy volume of traffic at the station.

The period May 13 to 17 was devoted to shipboard refresher operations conducted in the Subic op area. The first day was dedicated to CVW refresher carquals. Three large, broken cycles (Alpha strike type) were launched with at least a division's worth of aircraft from each squadron devoting time to CVW delivery, ACM/ECM,AI, etc., prior to returning to a predetermined Charlie, by division, for four touch-and-go landings and a trap for each pilot. Despite the long transit, the air wing, with over 1,100 landings in three cycles, completed carquals in one day.

On the Line

After conducting support operations in South Vietnam during the last two weeks of May, VF-31 sailed north, arriving on Yankee Station June 2. A change-of-command ceremony took place on May 26 aboard *Sara* in the Gulf of Tonkin. VF-31 received a new Top Cat as Commander James H. Flatley III relieved Commander E. P. Lund as skipper.

On June 21, while on a MiG Combat Air Patrol (MiGCAP) mission, VF-31's X.O., Commander S. C. Flynn, Jr., and RIO Lt. W. H. John engaged three MiG-21s, shooting one down. It marked a first for *Saratoga*, Air Wing Three and an East Coast fighter squadron. It was a fitting con-

clusion for our first and longest line period — May 18 to June 21 — during which 490 combat and combat support sorties were flown, 305 of them strike, 31 recon or recon escort, and 154 combat air patrol. VF-31 returned to Cubi Point for a one-week inport period (made shorter by a two-day cruise to avoid a typhoon) and then it was back to Yankee Station on June 29.

Combat operations resumed July 1. Flight crew and maintenance proficiency remained at a high level of readiness. Approximately one-half of the CVW-3 aircrews benefitted from a carrier touch-and-go refresher period during the fly-aboard. Total aircrew participation was limited due to required SOA returning to Yankee Station. Missions during this line period were exclusively combat and combat support sorties against North Vietnam — 227 of them, with day and night support sorties running to 84 and 57, respectively.

The capability to effectively deliver laser guided bombs was evaluated during this second line period. The system, known as *Paveway*, was acquired by CVW-3 during the last Cubi inport period. Training in the use of the system was conducted by a crew from each of the VF squadrons under the supervision of civilian technical representatives. The system employs the laser designator (illuminator), handheld, aimed and operated by the RIO in the F-4.

Minimum training time was available based on the high priority placed on its immediate employment. Training consisted of lectures on laser theory and five training flights, vice the normal eight, because of time considerations. Because the use of special glasses (for prevention of eye damage due to reflectivity) restricts the pilot's forward and peripheral vision, escort aircraft were assigned as another "set of eyes" to detect enemy threats such as AAA and SAM launches.

The period terminated July 16 with a hung ordnance rate of zero percent, certainly a tribute to a dedicated and conscientious ordnance branch, subjected to all the exigencies of intense flight deck operations.

The additional mission of night MiGCAP was employed by VF squadrons in CVW-3 in support of night

In 1929, Colonel Charles Lindbergh, USA, did a guest shot with Felix, flying an F3B off Saratoga. Felix became VB-2B's insignia in 1928; flew with VF-6's F4B-2s in the Thirties, below. In 1942, Butch O'Hare and Jimmy Thach (foreground) flew with Felix in VF-3, bottom.

Cdr. Flynn and Lt. John paint a MiG-21 on their F-4, the first for VF-31, right. VF-31 Tomcatters, Felix's Finest, below.

strike missions in North Vietnam. Based on the uncertain capabilities and intentions of the enemy air force, the conception of night MiGCAP was employed as a possible deterrent in the event of increased night MiG capability against friendly attack aircraft.

This second operating period was characterized by an extremely high availability rate of the squadron's flyable aircraft. Factually, the squadron flew 97 percent of its scheduled sorties, which points up sound maintenance.

Five More Line Periods

Combat operations resumed July 28 following a ten-day rest and relaxation period in Hong Kong. Missions were dedicated against North Vietnam except for the last day, August 23, in Military Region I, Republic of South Vietnam.

The fourth line period — September 2 to 19 — followed an eight-day inport period at the squadron's standard R&R location at Cubi Point. This relatively short period of 19 days did not produce any significant innovations.

Air operations continued to be directed against targets in North Vietnam in the form of combat/strike support sorties. The average number of combat sorties flown per aircrew by this time was 85 missions, the majority in the North. Approximately 40 percent of these were conducted in the primary role of bomber with a secondary mission as fighter. There were no MiG engagements, but the MiGCAPs received several vectors in fruitless pursuit of airborne enemy aircraft. Enemy aircraft, for the most part, continued to refuse to engage Navy strike/fighter aircraft.

Alpha Charlie 105 took a hit by anti-aircraft artillery near Nam Dinh, on the 16th. Due to extensive damage, Lt. M. D. Corner and RIO Ltjg. S. C. Miller were unable to return aboard. Diverting to Da Nang, they made a field arrested landing in marginal conditions.

Operational aircrew performance remained at an outstanding level during the fifth line period, September 27 to October 22, with constant emphasis being directed to the "trap" of complacency. With the exception of five days devoted to operations in South Vietnam, the greater portion of the line period involved night schedules in the North. Of the 275 total arrested landings logged, 111 were accomplished at night. Night missions included MiGCAP in support of night armed recon in North Vietnam, Force-CAP/MiGCAP in support of massive Air Force night strikes in North Vietnam and BARCAP and air intercept training whenever aircraft assets and time permitted.

F-4s continued to be used as strike bombers during daylight operations to include Alpha strikes, mining evolutions and armed recon. As had been the standard, the number of strikes assigned was limited solely by aircraft assets. The working relationship with the A-7 and A-6 communities in the strike role was outstanding. A working knowledge of the performance of the three types of aircraft was shared mutually and effectively, permitting successful execution of dissimilar type aircraft strikes and armed recon in addition to major Alpha strikes.

The sixth period was preceded by a most enjoyable six-day visit to Singapore. Although initially scheduled to remain in Singapore for nine days, the schedule change found the squadron back in combat early to begin a long 36-day line period. The premature optimism of peace talks and the realization that *Saratoga* would not arrive home for Christmas certainly did not enhance morale; however, good old Navy "can do" resulted in the com-

pilation of 717 combat flight hours despite the emotional setbacks.

Line period six was characterized by restrictions heretofore not experienced by our flight crews: no bombing above 20 degrees north, plain and simple "miserable" weather, reduction in air wing and F-4 strike sorties (and, conversely, more boring BARCAP), increase in level formation bombing utilizing Loran-equipped Air Force F-4 *Pave Phantom* aircraft, and IFR Tacan bomb drops in Military Regions I and II.

A high level of instrument proficiency flying, both day and night, was attained by the flight crews, in addition to frequent exposure to landing on a pitching and wallowing carrier deck, all accomplished without mishap. The current average arrested landings per crew for the cruise had reached 130.

No significant innovations were experienced during the operating period. Maximum emphasis was placed on instrument flying procedures due to the winter monsoon season which arrived in the form of low ceilings and constant precipitation. The inclement weather, however, had little effect on the tempo of flight operations, the only restriction being the limitation in assigned strike sorties to Navy and Air Force. The seventh and last period — December 18 to January 8 — consisted of 124 day and night combat support sorties, almost equally divided, and 92 daylight strikes, most of them combat air patrols.

As Mode I automatic carrier landing system utilization increased, the system's reliability and utilization were attributed to civilian technical assistance and the resultant increased confidence by squadron aircrews. Due to an outstanding safe boarding rate, particularly at night, squadron policy considers night Mode I approaches the norm rather than the exception. Night boarding rates increased considerably as a result of this confidence and reliability. It is therefore recommended that all CVAs with Mode I ACL capability be assigned civilian technical assistance on a permanent basis.

The beginning of one of our periods was marred by a minor taxi accident between two *Phantoms* at NAS Cubi Point during the air wing flyoff to the ship. NAS Cubi Point has been the scene of various ground and/or airborne mishaps involving aircraft deployed in CVAs. It is also not adequately equipped for handling large numbers of high performance aircraft. The taxi accident between one of our aircraft and one from VF-103 emphasized the importance of thorough briefing and constant vigilance when operating in a different environment, i.e., operations around an airfield.

Termination of our competitive cycle found *Felix* and his Fighting Thirty One *Tomcatters* in the process of completing an immensely successful combat deployment to Southeast Asia, the first real test of their battle readiness since the Korean Conflict. The huge "purr" reverberating through the hangar bays and passageways of *Saratoga* was self generated — the result of a sincere and humble knowledge of a job well done — collective effort of every Phelix Phixer and Phlyer.

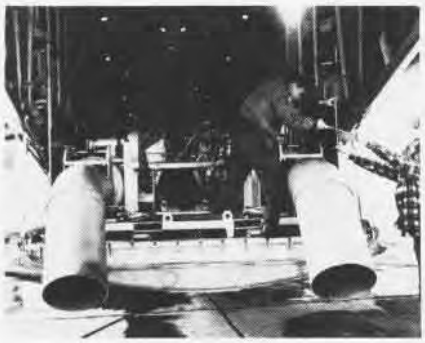
Probably the most gratifying and singularly significant contribution made by the *Tomcatters* was a selfish one, but it also benefitted the ship/air wing team. In maintaining the highest first term reenlistment rate aboard *Sara*, as well as within the Atlantic Fleet fighter community (38 percent through November, 33 percent through December), and 100 percent career retention rate throughout a very long and arduous deployment, the squadron helped sustain its own level of expertise and outstanding maintenance performance. Is there any finer indicator of squadron morale, esprit de corps and intention to accomplish the mission assigned?

Cruise Flight Data

Total flight hours (combat deployment)	Day	3,365
	Night	1,077
Total combat hours		4,216
Total combat sorties scheduled		2,142
Total combat sorties flown (including add ons)		2,165
Overall combat sortie efficiency		100%
Total arrested landings	Day	1,687
	Night	536
Average day landings per pilot		112
Average night landings per pilot		36
Number of days at sea		227
Number of days on the line		206
Number of days in port		47
Number of strike sorties		1,014
Tons of ordnance delivered		1,639
Expended ordnance success rate		99.5%
Total Mode I ACLS		167

Bombers

A Navy A-4 Skyhawk cuddles up to an Air Force Stratofortress on runway at NAS Lemoore, Calif.

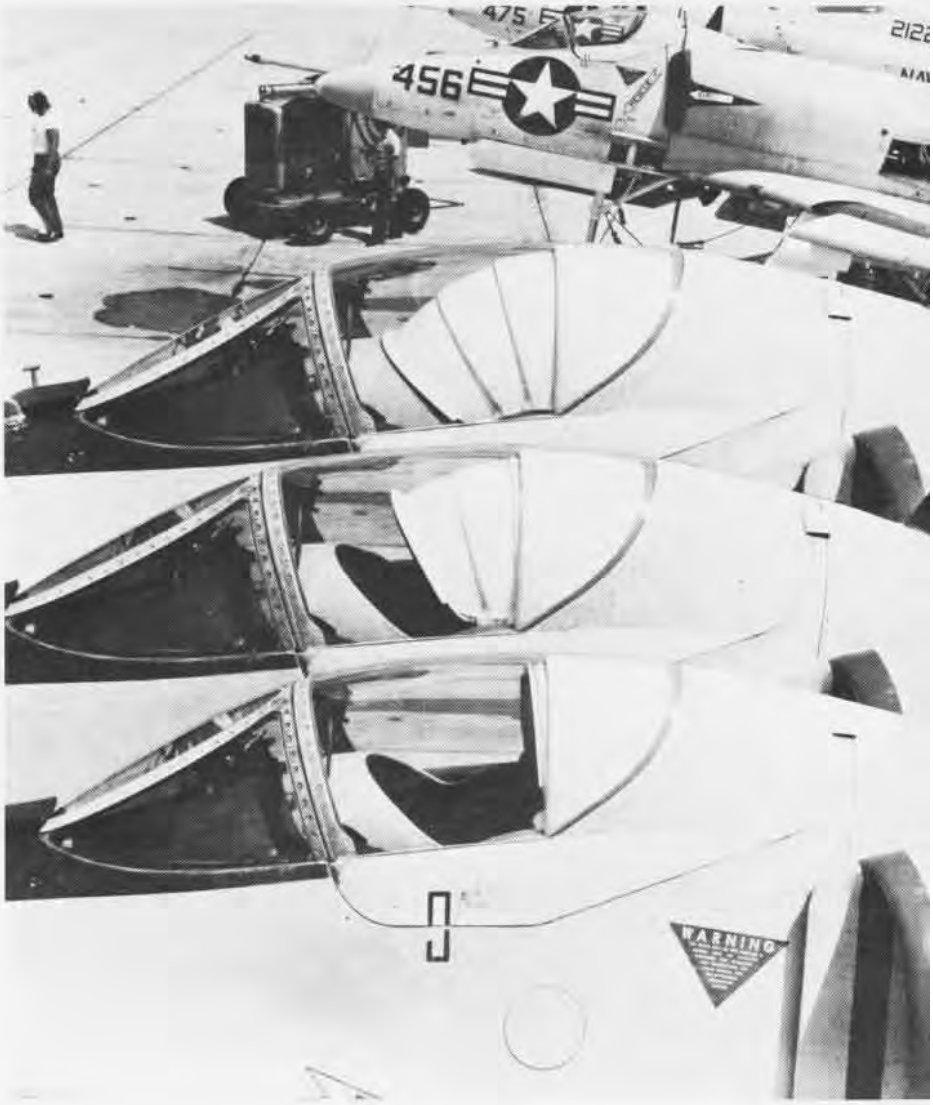


Fire Fighter

USAF C-130 demonstrates new forest fire fighting system. Retardant that coats trees, bushes and grass is discharged from two pipes at rear of aircraft, above.

Worms

This composite view of three nuclear cockpit shields on A-4 Skyhawks looks like a time exposure of a caterpillar stretching out.



Prototype V/STOL?

At Grumman's Calverton plant in New York, NANews' JOC Dick Benjamin's camera caught the F-14 as it appeared to stutter on landing.

At NAS Pensacola

The Hawk and the Wasp

By Rear Admiral George van Deurs, U.S. Navy (Ret.)

The Pratt & Whitney turned up perfectly. I waved the chocks away and rolled the shiny new *Hawk* to the corner of Pensacola's Station Field. When I headed the F6C-4 into the light south wind, my tail was close to the fence and Pensacola Bay was dead ahead at the end of the short clay-over-sand field. I pushed the throttle full open.

For years Pensacola had flown fleet castoffs. Then, in the spring of 1927, policy changed. Students were to finish training in the latest fleet types. On an August Wednesday, I was rolling to take off on the first test flight in the first of a dozen new fighters that boxcars had brought from the Curtiss factory. Fighters did not yet have brakes, but the *Hawks* had several other innovations. A standpipe in the single gas tank saved a few gallons for "reserve." They used a fuel pump instead of gravity feed and their *Wasps* were the first P&W engines the station had ever seen. They were rated at over twice the power of the station's hand-me-down fighter trainers. The *Hawk* was supposed to do 150 knots and stunt like a dream. Ever since I learned the machines were coming, I, who had never flown a 100-knot plane, had been impatient for this moment.

Rolling fast, tail up, the plane felt light on the stick. Then the engine sputtered, quit firing, and scared the daylights out of me. The water was too close for me to stop. I was rolling too fast to ground loop without wrecking a pretty new plane. Frantically I checked and yanked everything within reach. For no reason at all, I snatched the mixture control to full lean. The engine caught and roared. I slammed the mixture back to rich and lifted the plane into the air with less than 50 feet of field in front of me.

The *Wasp* purred smoothly as I circled, climbed and recovered my cool. Somewhere above 5,000 feet, I felt the plane out. It handled easier than anything I had flown up to that time. After a few S-turns, I pulled up into a loop. The engine quit on top of it. I squirmed into a glide, jiggled the mixture and the *Wasp* came to life.

I tried increasingly steep wingovers. Everytime I felt my belt, the engine quit, but came back when I used that mixture control. I nursed the plane back to the field. On the chocks it seemed beautiful. Test line mechanics swarmed over it, found everything according to the book.

I took off again. Had the same sort of takeoff, and went back in a hurry. My mechanics and Bill Chamberlain, Pratt & Whitney's original field service man, spent the rest of the day unsuccessfully hunting the bug.

They were still at it next day when I went up in the second *Hawk*, number 7422. It gave me the same sort of ride. The mixture control got me into the air without a dunking and let me land normally. For over two weeks, beefy, calm, slow talking Bill Chamberlain reported our troubles and actions to his company in nightly telegrams. The replies were all the same: The engines are all right. Change nothing.

A week after my first *Hawk* takeoff, the Bureau of Aeronautics asked Stromberg's help, since we suspected their carburetor.

In the meantime, red haired, always sunburned Mike Avery, the officer in charge of landplanes, joined the act. We ignored Chamberlain's pleas to let the engines alone and tried everything anyone suggested. Nothing did any good. After each slight change, Mike or I flew. Manipulation of the mixture control kept us out of the bay. Each time we landed, disgusted.

On the second Friday afternoon, in zero wind, Mike floated over the tall balloon hangar, sideslipped to the

PW8s

F6C-4s

ground and landed the long way of the field. The plane rolled to the end of the clay and stopped in the sand. We saw Mike climb out, snatch helmet and goggles from his close-cropped red head and fling them as far as he could. He shrugged out of his parachute, threw it after the helmet, hiked directly to the parking lot and took off for home and a drink. His week was complete when a speed cop got him halfway.

Over that weekend, Stromberg's smart, ambitious, young aviation carburetor designer, Leonard S. Hobbs, arrived. He never told us he was on his way home after licking similar troubles in the D-12 engines of the Army's PW8s at San Diego. Hence his quick fix looked like pure genius, or black magic, to me.

That Monday, at his direction, we took a carburetor into the shop. He soldered a solid brass slug into the intake connection, pulled a slide rule from his pocket and pushed it back and forth. Then he used a number 32 drill to puncture the slug. After remounting the carburetor, he adjusted the fuel pressure to exactly two pounds. "Now," he said, "you can fly on your back if you want to."

Next morning I rolled the *Hawk* across the field with my hand poised above the mixture control. I never touched it. I put that plane through all the stunts I had ever heard of. She effortlessly flew through chandelles, Immelmans, loops, snap rolls, slow rolls and vertical wingovers. I spun it and flew upside down till the oil pressure went to zero. I had the time of my life. Hobbs was correct. The *Wasp* never stuttered.

After that day, I never saw him again. Years later, he retired from the chairmanship of United Aircraft. Some time after that, a letter explained his black magic.

Planes always bumped a bit during takeoff in the old days before paved runways, for no field was ever really flat. Nobody thought anything of it for it gave little trouble to planes with gravity feed. A fuel pump and standpipe changed that. When a bump, or a stunt, put negative G on a carburetor, the float dropped and the needle valve went wide open. The standpipe in the tank kept the pump from losing suction and it flooded the engine. At two-pounds pressure, Hobbs calculated the hole in his brass slug to limit the flow from the pump to what the engine could burn at full throttle.

Photos from the collection of Harry Gann, American Aviation Historical Society

F6C-4s

NAVAL AIRCRAFT

SKY

The introduction of nuclear bombs into the U.S. arsenal of weapons opened new possibilities to Naval Aviation. Carrier based aircraft could achieve a true strategic strike capability in addition to their mobile tactical role. Due to the size of the early A-bombs, a large plane was needed to carry them.

Early experimental work was done with prop-driven planes and the first heavy attack squadrons were equipped with the AJ *Savage*. But as jet engine technology improved, a design for a large twin-jet attack bomber was developed. Douglas was awarded a contract in 1949 to build the XA3D-1 prototype, which first flew in October 1952. Re-engined with J-57s, the first deliveries of *Skywarriors* began to VAH-1 in March 1956. The following year, the first A3D-2s (A-3B) went to VAH-2. The A3D-2 featured more powerful engines, inflight refueling system and a modified bomb bay to accommodate a wider range of weapons.

Reconnaissance versions were produced to equip two heavy photographic squadrons (VAPs 61 and 62). These were modified to pressurize the entire fuselage and accommodate two reconnaissance specialist crewmen and up to 12 oblique and/or vertical cameras. This model was designated the A3D-2P (RA-3B). A related model, the A3D-2Q (EA-3B), added four electronic specialists to the flight crew and an assortment of radar and other electronic detection equipment. This variant went to VQs 1 and 2.

A radar/navigation training version, A3D-2T (TA-3B) was also produced which had space for six students.

Subsequently, the *Skywarrior* was adapted as a tanker (KA-3B) and most current service aircraft serve multiple roles (EKA-3B).

WARRIOR

Length		
A-3A		74'5"
A-3B		74'9"
EA-3B		76'5"
Height		22'8"
Wing span		72'6"
Powerplant		
A-3A	P&W	J57-P-6
A-3B	P&W	J57-P-10
Maximum speed		
A-3A		540 kts
A-3B		558 kts
Cruise speed		
A-3A		460 kts
A-3B		460 kts
Service ceiling		
A-3A		39,000'
A-3B		39,100'
Combat radius		
A-3A		1,000 nm
A-3B		1,200 nm
Crew		
A-3A/A-3B		pilot, copilot/bombardier and navigator/gunner
EA-3B		same, plus four electronics crewmen
RA-3B		pilot, copilot, two photo specialists
Armament		
A-3A		8,700 lbs. of bombs, nuclear weapons; two nuclear weapons; two 20mms in tail
A-3B		12,800 lbs. of bombs, mines, and nuclear weapons; two 20mms in tail

At NATC Patuxent River

Flight Test

Sixty-six miles southeast of Washington, D.C., in historic St. Mary's County in the southern part of Maryland, on a green peninsula bordered by the Patuxent and Potomac Rivers and the Chesapeake Bay, lies a 6,400-acre tract of land. The site, selected in November 1941 by a Bureau of Aeronautics investigating board, is home of the Naval Air Test Center with its five divisions (Flight Test, Service Test, Weapons Systems Test, Technical Support and Computer Services) and the Naval Test Pilot School.

On June 29, the Flight Test Division, oldest of the divisions and "father" of both the Test Pilot School and the Technical Support Division, celebrated its 30th anniversary at Patuxent River.

But its geneology spans a few years more than three decades.

Flight Test operated for more than 15 years at NAS Anacostia, D.C. With the growth and development of Naval Aviation, accelerated by the outbreak of WW II, the arrangements for experimental work were considered unsatisfactory. By 1941, Anacostia was doing all airplane performance and general flight characteristics; spins, dives and bombing were done at Dahlgren, Va.; Hampton Roads, Va., was performing rough water and accelerated service tests; and the Naval Aircraft Factory, Philadelphia, Pa., was responsible for catapults and deck landings.

In an effort to attain more efficient operations, it was suggested, in November 1939, that an experimental flight test unit be formed and located where there would be no interference from other activities. This suggestion was temporarily shelved, but the recommendations it contained were later approved and Patuxent River was designated the site for the new Flight Test Center on June 4, 1942.

Although the purpose of the new Flight Test Center had been previously stated, the Chief of the Bureau of Aeronautics felt the need to further

Flies It First

By J. A. Nial

clarify specific policy regarding experimental work at Patuxent River. The result was a memorandum dated January 27, 1943:

"The intent of BuAer in seeking the establishment of the experimental portion of the Naval Air Station, Patuxent River, Md., is to provide aircraft, equipment and personnel a physical location of proper size and scope and necessary facilities for the testing of experimental and developmental material under cognizance of this Bureau. This testing embraces the flight testing of experimental planes and equipment, the tactical test and development section and the ground testing of any equipment or material under cognizance of this Bureau.

"It is not intended that the Naval Air Station, Patuxent River shall be used for the design and development of aircraft and equipment, but rather that aircraft and equipment developed elsewhere be flown, tested and criticized at this station. . . .

"The Bureau particularly desires to avoid the accumulation at the Naval Air Station, Patuxent River of personnel and ground facilities which depend on research, design or development to justify their continued existence. It is hoped that the observance of this general policy will permit NAS Patuxent River to apply its experimental efforts to the testing aspects of the material with which it deals rather than with the development of the material itself, which can normally be more effectively obtained elsewhere. . . ."

(It is interesting to note that the concept of keeping Patuxent a pure test outfit with no development responsibilities was ideal from the standpoint of keeping the operation simple and developing expertise in testing. But it could not be strictly adhered to when faster, bigger and heavier carrier aircraft appeared on the scene. In 1946, Colonel Marion Carl, USMC, then assigned to Flight Test, conducted an investigation of the problem of operating the P-80 jet fighter from a carrier that culminated in actual takeoffs and

landings aboard *FDR*. This early step in adapting jet aircraft to shipboard operations helped open up a whole new realm of development problems whose solutions required the concerted effort of the U.S. and British Navies and the aviation and shipbuilding industries. Testing was essential both in working out promising answers to problems and in validating their adequacy. Testing included a series of redesigns of the catapult, the arrested landing equipment and even the carrier itself.)

On June 29, 1943, the Flight Test Section was transferred from Anacostia to Patuxent River. Since that time it has undergone many organizational and facilities changes. On July 15, 1943, the Experimental Division was transferred to Flight Test from NAS Norfolk, Va., and, on August 15, 1943, the Aircraft Experimental and Development Squadron from NAS Anacostia arrived at Patuxent River, completing the transfer of aircraft test activities.

Two years later, on June 16, 1945, the Naval Air Test Center was established at Pax River. It became responsible for aviation test functions formerly assigned to NAS Patuxent River and Flight Test officially became a division. The first commander of NATC was Captain James D. Barner, who as a lieutenant had been one of three officers and 20 enlisted men originally assigned to the Flight Test Section at Anacostia when it was established in 1927. As a member of the Navy Racing Teams at Anacostia, he had won several trophies and, on April 30, 1927, he established a world speed record for seaplanes carrying 500 kilos of weight.

Flight Test Division, at that time, was made up of 77 officers (including 27 pilots) and 400 enlisted men who were responsible for 84 projects. Seaplane and flying boat projects were numerous at that time and, since many of the flying boats were quite large, two hangars were required.

Although the pilots assigned had fleet experience, most of them lacked a knowledge of fundamental aerodynamics and flight test procedures and techniques. Therefore, in the spring of 1945, Commander S. S. Sherby, then chief engineer of the Flight Test Division, organized a test pilots' school. The fourth and final session of this school (as part of Flight Test) was

Above, the D558-1 Skystreak sets a new speed record at Muroc, Calif., in 1947. At right, the D558-2 Skyrocket is launched from a B-29 at 34,000 feet.

graduated on December 4, 1947. By the fall of 1948, the school had become a full-fledged division of NATC with Cdr. Sherby its first director.

At the end of WW II, there was a mass exodus of officer and enlisted personnel. The engineer shortage became so severe that it became necessary to hire civilian flight test engineers. Several of the engineering officers leaving the Navy stayed on in Flight Test to form a permanent civilian structure which provided needed technical direction and continuity.

In the spring of 1949, two new branches of Flight Test were established — Rotary Wing and Carrier Suitability. They were to provide "the necessary expertise required by the increased use of helicopters and carrier-based turbojet airplanes."

By early 1951, it became apparent that field catapult launches and arrested landings could not realistically predict shipboard performance and it became necessary to test all carrier-based aircraft aboard ship. The Flight Test Division currently schedules approximately ten shipboard trial periods of 14 days' duration each year.

New facilities added that same year included a helicopter landing pad and a thrust stand.

In 1959, because of the significant decrease in the number of flying boats and large patrol landplanes, the Patrol-Trainer Branch was merged with the Carrier Branch to form the Flying Qualities and Performance Branch.

In order to improve operating efficiency and eliminate duplication of facilities, shops and services, all instrumentation groups at the Test Center were pooled in a Technical Support Division in 1967.

The winding down of the war in Southeast Asia and the large cutbacks in military personnel left the Test Center short of aircraft maintenance personnel. To alleviate the situation, all aircraft maintenance was consolidated into two groups and, on September 1, 1972, the Maintenance Branch of the Flight Test Division was disbanded and its personnel transferred to the new maintenance organizations.

Today, as at its inception, the Flight Test Division conducts tests on the basic aircraft as a flight vehicle rather than its systems. Its area of responsibility and expertise is in structural strength, flying qualities, performance

Above is a head-on view of the F4H-1, flown by LCdr. D. W. Nordberg, which climbed to 15,000 feet in a record breaking 114.54 seconds. Flight Test is evaluating the CL-84.

F7U-3 Cutlass, above, comes aboard during carrier qualifications. KC-130F Hercules takes off from USS Forrestal (CVA-59) in November 1963. The Hercules made several full stop landings and free deck takeoffs at gross weights of up to 121,000 pounds, below. Bottom, JRF is tested with hydrofoil devices.

and carrier suitability.

The process of getting a new aircraft to the fleet continues to involve research, design, development, test and evaluation in varying degrees. There are no short cuts if the end product is to perform its design mission satisfactorily and safely. It has been said of new airplanes, "If you want it bad, you'll get it bad."

Since airplane design seems to be more than science, the Navy has found it profitable to procure aircraft under the basic concept of contractor demonstration followed by customer evaluation. After the contractor has demonstrated that the aircraft is safe, the customer evaluates its mission suitability. It is logical that the contractor be the first to prove the soundness of the design, for he is the most familiar with the new design features and therefore in the best position to take the risks associated with first flight and subsequent expansion of the flight envelope.

Navy policy dictates that certain high risk tests must be performed by the contractor before Navy pilots are cleared to perform them. These include: dives to design limit airspeed, pullouts to design limit load factor, stalls, post-stall gyrations and spins, catapult launches to design limit structural loads, arrested landings to design limit sink speed, and helicopter hard landings to define the safe height versus velocity curve for autorotative landings.

The work involved in getting a new aircraft to the fleet requires a joint effort between Flight Test Division and the contractor. The contractor is responsible for the research, design, development and enough test work to prove that the airplane is safe for Navy pilots to fly. Flight Test Division monitors the contractor's test and development work, performs additional test work to evaluate mission suitability, and provides operational data on flying qualities, combined aircraft and engine performance, and shipboard catapult launches and arrested landings.

Flight Test Division pilots are all graduates of either the Test Pilots School, the USAF Aerospace Research Test Pilot School or the British Empire Test Pilot's School. They are operationally oriented by 30-month tours of duty, rotating in and out of the fleet. The fleet experience aids

Above, F-111B prepares for launch aboard USS Coral Sea (CVA-43) during the aircraft's Navy evaluations. At right is the German-built VFW Fokker VAK-191B, an experimental V/STOL aircraft which may be evaluated by Flight Test later this year.

them in evaluating new airplanes from the user's point of view.

Although the organization and facilities of the Flight Test Division have changed over the years to keep pace with changing aircraft designs brought about by new technology and changing world events, the basic mission remains the same — deliver safe and suitable aircraft to the fleet.

Today the Division evaluates new airplanes (U.S. and foreign), witnesses contractor demonstrations, provides operational data for the fleet, performs flight research on test methods, evaluates simulators and automatic flight control systems, conducts special projects to solve fleet problems and helps write demonstration, performance, flying qualities and carrier suitability specifications.

In order for the fleet pilot to do his job, he must be knowledgeable about the flying qualities, performance and carrier suitability of the aircraft he operates. This knowledge can only be obtained through flight testing.

As Capt. John A. Chalbeck, Flight Test Division Director, puts it: "Flight Test work presents a never ending challenge to provide the best possible answers for the fleet." And Flight Test Division meets that challenge.

Since the creation of Flight Test, many notable milestones have been reached and "firsts" performed. The following brief chronology, while certainly not complete, may well provide the reader with some idea of the accomplishments and highlights of Flight Test through the years.

July 21, 1946: The first U.S. test of jet adaptability to shipboard operations was made by LCdr. Jim Davidson in an XFD-1 aboard *FDR* (CVA-42).

November 7, 1949: Captain W. V. Davis, Director of Flight Test, flying a D558-2 *Skyrocket*, became the first Naval Aviator to exceed the speed of sound.

1951: First compound engine was tested by Flight Test in the P2V-4, Lt.Col. A. H. Delailio, USMC, flying an HRS-1 became the first pilot to fly a helicopter using rocket assisted takeoff.

1952: The first contractor's carrier suitability demonstrations were conducted; the XFJ-2 and F9F-5P were the first aircraft demonstrated. First landings were conducted aboard ship without an LSO. An F9F, F-2H and F-3D using DAC glide path light made power-on, touch-and-go arrested landings, constant glide path approaches and "canted deck" landings aboard *Wasp* (CVA-18).

August 21, 1956: First fully automated carrier landing was made aboard *Antietam* (CVS-36) by LCdr. Don Walker in an XF-3D *Skyknight*.

April 9, 1959: First Flight Test pilot selected as a prospective astronaut, LCdr. Alan B. Shepard.

November 21, 1963: Lt. James H. Flatley III and LCdr. W. W. Stovall made several full stop landings and free deck run takeoffs in a KC-130F from *Forrestal* (CVA-59) at gross weights up to 121,000 pounds.

December 30, 1965: Lt. G. W. Mowery became the fastest Navy helo pilot when he flew an XH-51A compound helicopter 238 mph.

1969: Single-engine jet payload record of 15,000 pounds established by an A-7E with TF-41 engine.

December 23, 1972: Lt. T. A. Trotter became the first NATC pilot to conduct testing while under enemy fire when he rescued two downed pilots off the North Vietnam coast while flying an HH-3 armed SAR helo.

at Sea with the Carriers

Constellation (CVA-64)

VF-92, four months into *Constellation's* WestPac cruise, acquired a father-son team in May when it took on a new AZ striker in the squadron maintenance control office, AA Wallace Loper. The elder Loper, Aaron, was already aboard as a first class aviation storekeeper in the material branch. Having the same name is not without problems. One payday, through a computer error, each received the other's paycheck, which was fine for junior but not for senior.

Oriskany (CVA-34)

Commander John Pratt recently received a $672 award for an idea that saves the Navy over $50,000 a year. While Cdr. Pratt was stationed at the Service Test Center, NATC Patuxent River, Md., his suggestion changed the procedure followed by the test center in making ten trips a year to Edwards Air Force Base or to NAF China Lake, Calif., for flame-out engine work. The work was transferred to nearby MCAS Cherry Point, N.C., which has saved a total of $50,500 a year in travel costs and per diem. In addition, test center personnel spend much less time in travel.

Forrestal (CVA-59)

The Human Relations Development Center (HRDC) is one of *Forrestal's* answers to interpersonal conflicts. It evolved from concern and command support into a program to help each man develop an understanding of his fellow crewman. Its open-door policy finds HRDC personnel spending most of their time counseling crew members on human relations problems.

Commanding officer, Captain James B. Linder, began the program by outlining his policy and goals to each department head. A TV call-in show provides lively discussions where a man can call in and participate in a rap session. The ship's newspaper features a daily article called "A Matter of Pride" which contains information on black history and accomplishment. In various locations throughout the carrier, "Questions to the Captain" boxes are accessible for a note to the captain on anything that is making anyone uptight. Instant access via a two-way TV from the C.O. on the bridge to a crewman in the library and a hotline 24-hour telephone recorder system are

A Constellation computer error results in instant paycheck confusion for the Lopers, father and son, above. At right, crewmen of a burning Liberian freighter find safety aboard USS Enterprise.

vehicles for solving aggravation before it develops into a major problem. *Forrestal's* senior officers have had formal race relations training in classes lasting three days.

Various classes and sensitivity sessions help to make the crewmen aware of the racial sensitivities which can lead to conflict; help to make people talk rather than want to punch each other.

There is now a feeling aboard *Forrestal* that, while we may walk to the beat of a different drum, we all walk the same path in life, and *Forrestal's* human relations effort is trying to help her crew make the journey in understanding and harmony.

Forrestal and CVW-17 were represented at the 1973 Paris Air Show by Commander Ken A. Dickerson, VA-81, and a squadron A-7E *Corsair II*. Cdr. Dickerson launched from the carrier near Rhodes, Greece, and made one refueling stop at Naples, Italy.

The A-7E was used as a static display accompanied by briefings on its tactical advantages as the Navy's most advanced single seat attack aircraft.

Message from Lex to NANews

Dear Editor,

In two issues of *Naval Aviation News*, February 1973 (page 23) and May 1973 (page 40), reference is made to *Intrepid* as the oldest fleet carrier. In December 1943, *Intrepid* was the newest carrier in the fleet and was on her way to the Pacific to have her first try at battle. Meanwhile, in the Pacific, Tokyo Rose was reporting the battle-scarred veteran *Lexington* as sunk in the Marshalls. The *Blue Ghost* has been reported sunk many times since then, including a 1972 prediction by Jeanne Dixon, but as recently as last week she was sighted off the coast of Pensacola, Fla., still conducting flight operations. *Lady Lex* no longer has an offensive role (she's the Navy's only training carrier) but she is still carrying out her mission in a most impressive manner. With over 318,000 arrested landings since 1955, each landing is a new world's record.

Since every fleet aviator has probably hit her deck at one time or another, it is surprising that when you speak of veteran carriers you fail to mention the true grand old lady of the fleets — *Lady Lex*.

P. M. McClellan, Ens.
Public Affairs Officer
USS Lexington (CVT-16)

Ed's Note: We agree with *Lex's* claim to fame but she is now officially designated a training carrier.

Ticonderoga (CVS-14)

Ticonderoga, berthed at NAS North Island, Calif., was the setting for a change-of-command ceremony on May 31 when Vice Admiral Robert B. Baldwin became Commander, Naval Air Force, Pacific Fleet. He succeeded Vice Admiral Thomas J. Walker who retired after nearly 34 years.

Independence (CV-62)

Commander F. G. Staudenmayer, commanding officer of VF-33 and a veteran of over 800 carrier landings, recently logged his 500th arrested landing aboard *Independence*. The traditional cake-cutting ceremony followed.

Ranger (CVA-61)

The busy routine of a day at sea was hardly interrupted as hundreds of television receivers throughout *Ranger* were flicked on at 1000 on May 21 so that the crew of 4,600 men could watch a brief change-of-command ceremony. Captain H. P. Glindeman, Jr., was being relieved as commanding officer of *Ranger* by Captain Allen E. Hill. Normally, the ceremony would require the crew to don full dress uniforms and fall in for inspection and speeches, which requires many man-hours of preparation.

Before the conclusion of the ceremony, Capt. Glindeman was promoted to rear admiral. His new assignment is Chief, Fleet Coordinating Group, headquartered in Nakhon Phanom, Thailand. Captain Hill came from a tour as commanding officer of USS *Duluth* (LPD-6).

Ranger left her homeport of Alameda, Calif., in November 1972 on her seventh deployment to SE Asia.

Hancock (CVA-19)

In 1954 *Hancock* was the first U.S. carrier to be equipped with steam catapults. It was on June 1 of that year that she launched the first Navy aircraft by steam. And so it was no ordinary cat shot that came in the middle of flight operations on June 4 when *Hancock's* skipper, Captain Albert J. Monger, as starboard catapult officer, gave the go signal to Commander Bill Greiwe, CAW-21, pilot of the waiting A-4 *Skyhawk* — it was the 29-year-old carrier's 100,000th starboard catapult launch. *Hancock* was in the midst of operations marking the beginning of another WestPac deployment.

Enterprise (CVAN-65)

Enterprise is the eighth ship which has carried that name into battle — from the first, a 70-ton sloop captured from the British in 1775, to the nuclear powered attack aircraft carrier commissioned in 1961. Her current aircraft include the F-4J *Phantom IIs* of the fighter squadrons, A-7E *Corsair IIs* and A-6 *Intruders* of the attack squadrons, RA-5C *Vigilantes* flown as photo reconnaissance aircraft, E-2B *Hawkeyes* for airborne early warning and inflight control of *Enterprise* aircraft, EA-6Bs used in tactical electronic warfare, and SH-3G *Sea Kings* used in rescue and transfer of cargo and passengers. In 1973, the *Big E* will be refitted to accommodate the F-14 *Tomcat*.

Early in June, three of the carrier's *Sea Kings* were used to rescue 32 people from a Liberian freighter that had been on fire for five days in mid-Pacific waters. A P-3 *Orion* from NAS Agana noticed the distress flares and notified *Enterprise*, about 150 miles south. The survivors were brought aboard the carrier where injuries were treated in sick bay and the crewmen ate their first full meal in five days. The freighter was a total loss.

The Making of a Team

Attack Carrier Air Wing Reserve 30 (CVWR-30) recently deployed to NAS Fallon, Nev., for two weeks of active duty for training at the Nevada ranges. Backed by the men on the ground, in offices and shops, and on the line, the squadrons of CVWR-30 sharpened their skills in bombing, rocketry, gunnery, aerial refueling, and search and rescue techniques.

All the efforts culminated in an effective final examination — a coordinated attack on designated targets.

Combining their individual skills and missions were VFs 301 and 302, San Diego, Calif., in F-8 *Crusaders*; VAs 303 and 304, Alameda, Calif., and 305, Point Mugu, Calif., in A-7 *Corsair IIs*; VFP-306, Washington, D.C., with its RF-8s; VAW-307, San Diego, in E-1Bs; and Alameda's VAQ-308 flying KA-3B *Skywarriors*.

It all began when A-7 Corsair IIs, above, arrived at NAS Fallon. At right, PR1 Darrell Peterson, anticipating frosty weather at Fallon, prepares an A-7 canopy cover.

Story and Photos by PH1 Thomas Howser

Each squadron had its own corpsman to help staff the CVWR-30 sick bay, above. Below, AO2s Donald Gilson and David McHron and AO1 Sidney Litman prepare practice bombs for loading. At right, CVWR-30 staff personnel watch and grade a pilot as he carries out his mission.

NAVAL AVIATION NEWS PICTORIAL

OFFBEAT AIR SHOW

LIVELY ENTERTAINMENT AT COMMUNITY PICNIC

By Captain Ted Wilbur

Photos by PH1 Rich Pendergist and PH2 Michael Bruce

How you gonna keep 'em down on the farm after they've eaten all the chow?

When Northern Virginia's Carl Hengen spreads out tables for his annual picnic, he knows just what to do for his thousands of friends and guests. He brings in a flock of spectacular airplanes and puts on an air show. And this year's feast and flight gathering was focused on a "History of Naval Aviation."

It all started some years ago with the area's construction and builders' picnics which became known as the Annual Lawnvale Family Picnic. The "family" in this case is a group of companies involved with construction, real estate and construction supplies. In 1969, aircraft were first invited to fly into the outing located at Carl Hengen's Gainesville, Va., farm, a substantial layout including the Lawnvale Stables for Tennessee Walking Horses — and an airstrip. Impetus for the continuation of the air show came not only from the obvious popularity but also because the family had acquired a new member, Jet America, Inc.

Jet America, a modern charter organization, operates Lear jets out of Dulles International, Washington National and other major airports across the nation. It was natural that the company's contribution to the picnic would be aviation oriented, with successively bigger and better shows. Plans were drawn up in 1971 to expand the activity and invite the general public to observe the flying exhibitions.

Well executed air shows being fairly hard to come by, Mr. Hengen and Jet America's president, John Bridges, decided to engage the creative services of a retired Air Force lieutenant colonel, John Tegler, an innovator in the air racing and sport aviation world. Tegler, an experienced pilot with over 21,000 hours in numerous types of aircraft and with talent in varied directions, developed a new concept in air show production which he incorporated under the name of Aero-Theatre.

Tegler's idea was to *tell a story* — with airplanes. His productions are based on carefully planned scripts, appropriate narration, sound effects, voice dubs of famous figures and carefully chosen period music. His stage is the sky; his performers aircraft, each making its entrance and exit on cue while being supported on the ground by actors in costume, antique autos, props and all the trappings necessary to dramatize the story. In the writing and production of these original shows, Tegler attempts to blend many already established elements of entertainment into the air show concept.

"If God Had Meant Man to Fly" was presented at Lawnvale in 1971 but, due to low ceilings and rain, it was impossible to complete the entire three-hour show. Nevertheless, the reaction from the spectators was enthusiastic and calls came in, in increasing volume, throughout the following year from all over northern Virginia, Washington, D.C., and Maryland inquiring about the picnic and, in particular, the air show for 1972. Due to this, it was decided to repeat the same show the following June so that it could be seen in its entirety. The complete show was presented in 1972 but again suffered slightly from the vagaries of the weather due to high winds which kept some of the older and lighter aircraft from flying.

By now the picnic itself was well established and was looked forward to annually by members of the family. But the Jet America air shows themselves, while being an integral part of the picnics, had become, to a

certain extent, a separate entity and were anticipated not only by the invited guests, but by the public who had seen the previous shows or had heard about them from those who had.

This widespread enthusiasm and interest prompted a question for the 1973 show. "How do we top what we have already done and come up with a new and fresh idea or theme?" Again Tegler had the answer. At a planning meeting in early 1973, he outlined his ideas for a history of naval aviation show entitled "Wings of Gold" which was based on the aerial theater concept and would bring into focus the story of naval air from at least the 1920s to the present. From biplanes to jets with the original cast! With a well researched script, appropriate music and all the other effects, this could be an outstanding presentation.

The staging of the "Wings of Gold" show at the Lawnvale picnic involved one of the largest single presentations of naval aircraft ever assembled. As stated in the program, the "Wings of Gold" show was "an attempt to bring to life a few of the vital moments in the history of Naval Aviation. . . . A brief, but living, documentation of the evolution of air power within the United States Navy and Marine Corps. . . . A story of machines and men. . . . A story rich in tradition in which Americans can take justifiable pride."

The thousands at the Annual Lawnvale Picnic did.

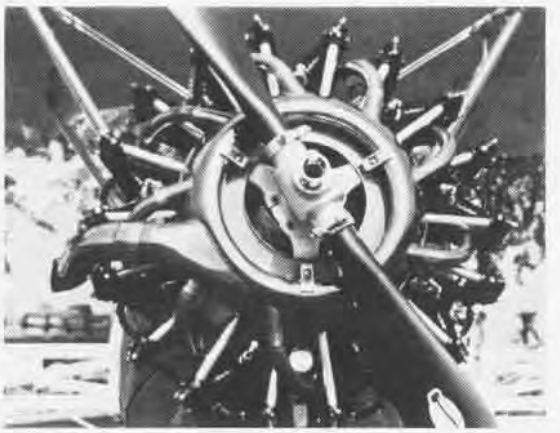
Retired Naval Aviator and vintage aircraft enthusiast, Dr. Phillip Coughlin of Syracuse, N.Y., flies his vintage N2Y past the finish line, above. The Fleet, built by Consolidated, saw Navy service in several capacities, its most famous being when it was equipped with an airship hook attachment and used as a trainer for pilots flying from the rigid airships Akron and Macon. It was stricken from Navy roles in 1938. Dr. Coughlin's N2Y is believed to be the last of the type; he takes good care of it, right.

E. Carl Hengen

In the show's opening salute to Naval Aviation, the aerobatic team of Jim Holland and Debbie Gary performed in Pitts Specials, below. Picture on preceding page demonstrates their precision maneuvers. Jim Holland, a former member of the Royal Canadian Air Force, found 25-year-old Debbie four years ago at an air show at St. Croix, Virgin Islands, and began teaching her aerobatics. They have been together ever since.

Morgan Wilbur

1st Lt. Paul Atanasio, a member of HMA-269 at MCAS New River, N.C., discusses the AH-1G Cobra with a young guest, opposite page. They come in all ages at air shows, left. The Corsair, above, is a Goodyear-built FG-1D It was flown by Commander Dutch Schulden, retired Naval Aviator and Red Ripper. Restored, "Whistling Death" carries authentic Navy colors and markings. The F6F, below, is one of only about five of this type still flying. The Hellcat proved itself in the Marianas Turkey Shoot and in the Battle of the Philippine Sea.



Morgan Wilbur

All the views at an air show are not in the air. Above, restored Stearman N2S engine points up the progress in aviation. Famed Yellow Peril was first delivered to the Navy in 1935; its service life extended through WW II. The primary trainer, normally painted yellow, probably trained more Naval Aviators than any other single type aircraft. At left, a Marine tries on his Huey Cobra. And what would an air show be without kids? As our finale, we present a Wildcat cruising over the Virginia countryside. At the time of Pearl Harbor, many Navy and Marine Corps squadrons were flying Grumman's F4Fs. They saw their first action with the Marines at Wake Island. This later model was built by Eastern Aircraft Division of General Motors.


N315E

Letters

Binders

Since I find *Naval Aviation News* to be one of the magazines I want to retain on a permanent basis for future reference, I decided last year to try to find suitable binders to store my back issues. After checking out a number of sources, I wrote to a bindery in England which provides this service for several British aviation journals I receive. To my pleasant surprise, the British firm agreed to make up on special order, and at reasonable cost, special binders for me. Each is two-tone Navy and medium blue and has the title *Naval Aviation News* on the spine in gold letters. Each of these Cordex binders holds 12 issues which can be slipped in individually. Binders for *Naval Aviation News* are now among the standard orders which this firm fills; so, if any of your readers are interested, they are available at $2.90 each from Mr. H. N. Eastwood, Director, Modern Bookbinders, Limited, Chadwick Street, Blackburn, Lancs., England.

Peter Kilduff
57 Sefton Drive
New Britain, Conn. 06053

Old Carriers

Postscripts to your editorial in the December 1972 issue of *Naval Aviation News* came to light within a week in the middle of June. On June 14, a wire service story noted that USS *Bunker Hill* (CV-17) was sold to a scrap metal firm in Portland, Ore., for $316,999. *Bunker Hill* was the last surviving unmodified *Essex*-class aircraft carrier and, of course, the bearer of a very fine WW II combat record.

A few days after that announcement, *The New York Times* reported that USS *Wasp* (CVS-18) struck a railroad bridge in Newark Bay while being towed to the same Kearny, N.J., shipyard where USS *Lake Champlain* (CVS-39) and USS *Boxer* (LPH-4) were taken for their inglorious ends. *Wasp*, incidentally, brought $505,250 in scrap value.

As noted in your editorial, it's a real shame that at least one of these fine old carriers can't be saved as a Naval Aviation memorial.

Peter Kilduff
57 Sefton Drive
New Britain, Conn. 06053

Five historical aircraft were recently put aboard USS Nashville (LPD-13) and USS Coronado (LPD-11) at Norfolk, Va., and delivered to the Naval Aviation Museum in Pensacola, Fla. Transported were an F6F, PBY-5, F3D-1, FJ-1, SP-5B and four drones. When the LPDs left Pensacola, fifty students from HT-18 made over 600 landings on their decks, qualifying for shipboard landings.

Recruiters Seek Navy Art Works

The Navy Recruiting District, San Francisco is seeking works of art done by Navy men to include in a display that will be placed in shopping centers, banks, libraries and schools throughout California, Nevada, Utah and Hawaii.

Art works done in oil, water colors, acrylic, charcoal or pencil are being sought and each work will be framed and equipped with a brass plate bearing the name, rank and duty station of the artist.

Entries should be sent to Commanding Officer, Navy Recruiting District San Francisco, Federal Building, 1515 Clay St., Oakland, Calif. 94612.

From Where I Sit

As the photojournalist who did the story on "One Navy Pilot at Work," *Naval Aviation News*, January 1973, I feel compelled to comment on the letter written by CWO3 J. D. Lauerman, *NANews*, May 1973, which I feel presents, out of context, quotes that demean the image of LCdr. Smith.

Surely we realize that a pilot of Smith's experience and expertise doesn't *want* to fly under those conditions, nor does he do it *every* day. When duty calls, one doesn't always have a choice.

What I tried to present in my story was an atmosphere during a typical amphibious assault — not an everyday situation.

When I embarked aboard USS *Iwo Jima* for the NATO amphibious exercise near Greece, I began looking for a naval pilot that could relate to a large cross section of the service.

I found that *man* in LCdr. Wayne A. Smith! Without exception, the sailors and Marines I talked to had the highest esteem for Smith's flying abilities, professionalism, attitude toward his fellow men and leadership.

As an aircrewman with several thousand hours flight time in aircraft ranging from two-seater jets to four-engine bombers, I can say, in all honesty, that I would fly with Smith anytime, anywhere, regardless of his eating habits.

John Sheppard, PH1
AFCCG
NAS Norfolk, Va. 23511

FILMS

The following motion picture films are among the latest released by the Film Distribution Division, U.S. Naval Photographic Center.

MN-10984A (unclassified) *A-7E Familiarization — Introduction to Navigation/Weapons Delivery System.* An introduction to the avionic subsystems relative to the A-7E navigation/weapons delivery system (13 minutes).

MN-10984B (unclassified) *A-7E Familiarization — Weapons Delivery.* Function and inputs of the avionic components and subsystems into the weapons delivery system. Basic head up display attack symbology and how it is used in attack modes for computed weapons delivery (17 minutes).

MN-10984C (unclassified) *A-7E Familiarization — Mission Profile.* Operational capabilities of the A-7E navigation/weapons delivery system (17 minutes).

Instructions for obtaining prints of newly released films are contained in OpNav Instruction 1551.1E

SQUADRON INSIGNIA

VP-30, the Atlantic Fleet's VP RAG, recently exceeded 100,000 accident-free flight hours in the P-3. The NAS Patuxent River, Md., unit is led by Cdr. R. A. Martini.

Naval Aviation
NEWS