NAVAL AVIATION

NEWS

A-1 *SKYRAIDER*

49th Year of Publication

JULY 1968

NavAir No. 00-75-3

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END OF AN ERA

'The horizon will be more empty as the familiar profile fades from view, but the deeds of men and this plane will remain on the pages of history, a source of hope and courage.'
—Cdr. John W. Berger, CHC, at retirement ceremony of the A-1.

NAVAL AVIATION NEWS

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Take a good airplane, throw in a dash of need and the know-how to meet the need, and you come up with a modernization program for the A-7A Corsair II that enables it to meet all requirements that the Fleet may place on it in a combat situation.

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This is how it was in WW I with Ens. Charles Hazeltine Hammann and the American fliers at Porto Corsini in Italy.

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In the longest feature of its kind ever to appear in the magazine, NANews takes a nostalgic look at a venerable airplane which has finally left the Navy's combat ranks; we also tell of those who created it, the missions it flew—and flew exceedingly well—and the breed of men who took it into the air.

THE STAFF

■ COVERS

The covers feature the Skyraider: (front) farewell at Cubi Point and two over the *Constellation;* (above) launch from *Coral Sea,* and (back) A-1 begins flight from USS *Kitty Hawk.*

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NAVAL AVIATION NEWS

VA-27 Aviator is Honored

Receives Britannia Award for 1967

In a ceremony held at NAS LEMOORE, Rear Admiral Louis Le Bailly, O.B.E., British Naval Attache and Commander British Navy Staff, Washington, D.C., presented the Britannia Award for 1967 to Ltjg. Richard A. Powell, VA-27.

The award is presented annually to the Naval Air Advanced Training Command student with the best overall weapons score. Established in 1956, it consists of a scroll and trophy. The scroll is presented to the selected student and his name is inscribed on the permanent trophy which is retained by CNAVanTra.

Ltjg. Powell was selected on the basis of his performance while a student with VT-22 at Kingsville.

ON YANKEE *Station aboard the USS Oriskany (CVA-34), LCdr. Pete Peters of VF-111 receives a plaque, honoring his 2,000 hours in the F-8 Crusader, from his commanding officer, Commander Robert Rasmussen (R).*

Fuel Research Contracts Let

Increased Fire Protection is Sought

Three contracts have been awarded by the Federal Aviation Administration's Aircraft Development Service for additional research on the use of thickened safety fuels as a means of reducing the chances and severity of post-crash fires in survivable aircraft accidents.

The three contractors are McDonnell-Douglas, Long Beach; the Western Company, Richardson, Texas; and the U.S. Bureau of Mines, Pittsburgh.

Late in 1966, FAA successfully completed ground tests of a J-47 jet engine at its National Aviation Facilities Experimental Center near Atlantic City. The test showed that a jet engine could be started and operated at various power levels on gelled fuel.

This led to more advanced jet engine component research which is being conducted by the Naval Air Propulsion Test Center, Aeronautical Engine Department, Philadelphia, Pa., under an interagency agreement with Federal Aviation Administration.

FAA seeks to establish an optimum thickened fuel which offers the greatest fire protection advantages along with the fewest aircraft system and engine component problems.

THE FIRST *U.S. Navy TH-57A makes its maiden flight at Textron's Bell Helicopter Company facilities in Fort Worth, Texas. The Bell 206A JetRanger was selected as the Navy's primary light turbine training helicopter. Forty of the trainers are to be used by the Naval Air Training Command at Pensacola, Fla., succeeding a fleet of 36 Bell TH-13M's. The TH-57A is powered by an Allison 250-C18 turbine engine. Deliveries are scheduled to be made later this year.*

Want Award Nominations

To Honor Significant Contributions

The Naval Air Systems Effectiveness Advisory Board (NASEAB) is accepting nominations from naval activities and contractors for the Rear Admiral L. G. Coates Award. This annual award, named for the board's first chairman, honors an individual who makes a significant contribution to development of naval air weapons.

Last year the award was made to Lt. E. A. Lansdowne, USN, VF-124, for developing an armament change which greatly improves the efficiency of several types of aircraft.

NASEAB provides the Commander of the Naval Air Systems Command with recommendations concerning the effectiveness of naval air systems.

Nominations for the 1968 award should include a full description of the nominee's contribution and be sent by August 2 to the Executive Secretary, NASEAB, Air 5205A, Naval Air Systems Command, Dept. of the Navy, Washington, D.C. 20360.

VT-29 Has Unusual Group

Grandfathers are Flying at Corpus

The *Celestial Pathfinders* of Training Squadron 29, NAS CORPUS CHRISTI, have taken on a new look. They have in their midst seven flying grandfathers. The granddaddies are LCdrs. James A. Dean, Douglas Barlow, Robert E. Edward and Al Wilking, Lt. M. M. Steiner, ADRC Uvaldo T. Garza and ADCS Vernon E. Edson.

One of their number, LCdr. Wilking, with 20 years in Reserve aviation, retired from his civilian occupation to come on active duty. He says, "My children were all grown and away from home, so my wife and I decided it might be fun to travel around and do something I really enjoy."

New Recon Units Assigned

One at Agana; Other at Pax River

As of the first of this month, Fleet Air Reconnaissance Squadron Three (VQ-3) and Fleet Air Reconnaissance Squadron Four (VQ-4) have been established.

VQ-3, administratively assigned to ComFairWest Pac, is now stationed at NAS AGANA, Guam, while VQ-4 at NAS PATUXENT RIVER is administratively assigned to ComFAirPax.

AW Class A School to Open

Memphis to Hold 16-Week Course

The Naval Air Technical Training Center, Memphis, Tenn., is opening a new Class A school for the Navy's new AW rating.

The Aviation Antisubmarine Warfare Operator (AW) training will consist of a 16-week, three-phase course providing instruction in the basics of electronics, organized maintenance and operation fundamentals.

Applicants for the AW school must be E-4 or above and should be aircrewmen or be in aircrew training and hold any NEC between 8267 through 8279 except 8277.

The new rate will open from 2,500 to 5,000 new billets, approximately two-thirds at sea and one-third ashore.

RIO Becomes Naval Aviator

Pilot Achieves it 'the Hard Way'

Fighter Squadron 124 reports that Lt. Russell O. Berry is a Naval Aviator who made it the hard way and is now flying *Crusaders* at NAS MIRAMAR. He received his Navy Wings of Gold earlier this year.

THAT PART *of the problem of assessing bomb damage (NANews, April 1968, p. 36) has been solved is evident in this photo taken by a rear-facing camera mounted on the underside of an A-6. A direct hit by a carrier-based Intruder's 500-lb. bomb destroyed the highway bridge about 15 miles northwest of Vinh.*

Lt. Berry's naval career began in 1963 when he entered the service as an officer candidate airman. He had always wanted to be a Naval Aviator, but "since the Navy urgently needed radar intercept officers at that time," he explains, "I chose to be part of a pilot/RIO team because this was as close to being a pilot as was then possible."

Trained with VF-121 and designated a Naval Flight Officer, he reported to VF-114 and deployed with that squadron as part of CVW-11 aboard USS *Kitty Hawk* for a WestPac tour which lasted from October 1965 to June 1966. At the completion of the cruise, he had flown 155 combat missions. On his return, he began flight training.

LT. BERRY NOW FLIES THE F-8 CRUSADER

For his skill and airmanship during combat missions, Lt. Berry was awarded the Distinguished Flying Cross, 12 Air Medals, the Navy Commendation Medal with Combat V, the Navy Unit Commendation, the National Defense Medal, the Vietnam Service Medal with two bronze stars and the Republic of Vietnam Campaign Medal.

Now at long last, he is flying the F-8, his first choice, "because I wanted to fly the 'Last of the Gunfighters.'"

Refueling Probe is Tested

Speeds Hookup and Breakaway

USS *Enterprise* (CVAN-65) is one of several ships that are testing a new refueling probe. The device allows ships engaging in alongside refueling to connect and break apart in seconds rather than the minutes required by the present method.

The probe, similar to that used by aircraft during inflight refueling, requires no physical contact with the fuel hoses. A valve automatically opens when the probe is engaged and closes when disengaged. It is made of brass, which, if struck against a hard surface, will not create a spark. These features prevent fuel spillage and lessen the danger of fire.

In an emergency, the probe may be disconnected by the receiving ship by means of a manual release and the supply ship may break away by backhauling on a stress wire attached to the probe.

Ens. Lee E. Schaude, *Enterprise's* OinC of a recent refueling operation with USS *Ponchatoula* (AO-148), said of the device, "Emergency breakaway time during the tests cut the standard rate fom 90 to 21 seconds."

Orion System Under Trial

Relays Position of Downed Plane

The Navy is testing a new, crash-position indicator/flight data recorder for the P-3 *Orion* at NATC PATUXENT RIVER. The small, lightweight device records flight data and, at the time of a crash, automatically ejects from the aircraft and transmits a distress signal on the standard international distress frequency. It is encased in an airfoil-type package and mounted flush on the port side of the aircraft's vertical stabilizer.

If accepted for service use, the system will be retrofitted on all P-3's.

GRAMPAW PETTIBONE

Eerie

The night was very dark when the *Skyhawk* driver manned his aircraft on the flight deck for a scheduled night mission. The engine start and all post-start checks were normal. However, five minutes before launch, squadron maintenance personnel signaled to him that his plane was now "down." He had no indication why, so he double-checked inside the cockpit for a possible cause.

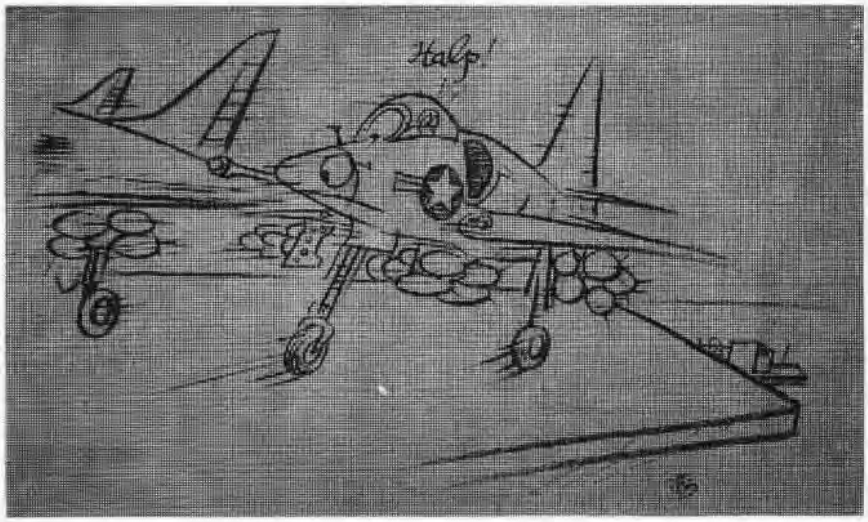
When he looked outside the cockpit, he had the sensation that he was rolling backwards from his position in the middle of the flight deck towards the port side of the angled deck. His first reaction was to step firmly on the brakes. When he continued to believe he was still moving, he dropped the tailhook and secured the engine to signal flight deck personnel to chock the plane's wheels. After there was no indicated change in rate of motion, he felt he was about to go over the side and pulled the override switch and raised the gear handle. The next thing he noticed was that the nose wheel had collapsed.

It was at this time that the *Hawk* pilot realized that he hadn't moved at all, but had mistaken the movement

of other aircraft for the movement of his own A-4 *Skyhawk*.

Grampaw Pettibone says:

Great heavenly days, what a predicament! If your first reaction to this lad's plight is to smile, you'd better think twice. This sort of optical illusion can descend on the best of us. It takes real discipline to overcome it.



Down and Out

With the rest of the air wing, a flight of four A-7's rendezvoused on the 180-degree radial at 9,000 feet, 15 miles from the ship, to perform in an air power demonstration for visiting foreign dignitaries. At 0900, under excellent weather conditions, the A-7's executed a division run, dropping their bombs on a point 3,000 feet from the port beam of the ship.

This portion of the flight proceeded without incident and the *Corsairs* rendezvoused with the rest of the air wing in preparation for a fly-by. The A-7's took position on the port wing of the A-6 division (air wing lead) and a flight of four F-4's took the starboard wing.

As the group rolled out on course for the fly-by, approximately ten miles astern the ship and at an altitude of 1,500 feet, the second section leader of the *Corsair* flight experienced a PC-2 hydraulic failure from an unknown cause. He punched out the master caution light and informed his division leader of his difficulties but decided to remain in formation as they were inbound to the ship.

No more than a half minute later the *Corsair* jockey experienced a complete flight control failure. The aircraft began a slow descending roll (fortunately away from the other aircraft in the formation) which the pilot could not control. He glanced at his instruments and noted the PC-1 hydraulic pressure was not normal and, in this predicament, did not consider deploying the emergency power package. At this time, the A-7 was indicating 320 knots at 800 feet and the driver decided to eject. He glanced briefly into the cockpit, then over his shoulder to make sure he was clear of the slot aircraft and the remainder of the division, and pulled the curtain.

The ejection went smoothly. After a short time in the water, the uninjured pilot was retrieved by the ship's rescue helicopter.

Grampaw Pettibone says:

Great horned toadies, somebody could'a got hurt! Ole Gramps realizes things happened pretty fast to this youngster, but even so, I can't understand why he even thought of staying with the fly-by when the hydraulic system told him it was gettin' sick.

It was darned lucky that machine decided to roll left, away from the rest of the flight. It could'a gone the other way and really made a mess of the entire operation.

Of course, we all want to please and impress the audience with precision formation but never at the expense of an accident or a near-miss.

Crowded

Two TA-4F's took off at 1810 heading for home after an extended flight. Within 100 miles of their destination and minutes of each other, both aircraft experienced constant speed drive failure and lost all external lights. The *Skyhawks* continued on their way and at about 2025 contacted their home base tower to say that they were commencing the ten-mile arc on the TACAN approach.

Earlier, at about 1920, two F-4's had taken off from the same home field for a local ordnance flight, but, owing to rain showers and poor weather in the target area, they were unable to drop ordnance. The F-4's were now in the process of burning down fuel for their return to base and contacted the tower for GCA's. The F-4's were passed to GCA frequencies to be controlled separately.

GCA could not maintain radar contact with the first F-4 because of the rain, so the pilot decided to terminate the GCA and land VFR. The second F-4 then commenced his GCA. (This evolution transpired at the same time the *Skyhawks* were entering their ten-mile TACAN arc.)

The A-4's encountered VFR conditions at about 5,000 feet MSL and the leader notified the tower that he elected to cancel his IFR flight plan and continue to the field VFR. He also informed the tower that he and his wingman would be without external lights and would lose their radios after touchdown. The tower acknowledged the information, cleared them for a straight-in and instructed the *Skyhawks* to report three miles with gear.

After clearing the A-4's, the tower passed landing clearance for the F-4 to the GCA coordinator as follows: "Cleared to land number three behind two unlighted A-4's." The GCA coordinator passed the information to the final controller who was a student, but does not recall passing the word that the A-4's were unlighted. The final controller in turn passed the clearance to the F-4 as he received it, so that no information about the unlighted *Skyhawks* was received by the F-4 driver.

The A-4 flight continued its approach but failed to report three miles. The *Hawks* made a section landing, with the wingman taking a longer than normal interval due to the weather, and rolled out to the end of the runway.

The F-4 on GCA landed close to GCA touchdown (shortly behind the A-4's) and noticed the runway was slick from the rain showers. He considered taking the arresting gear, but as he approached the "3,000 feet remaining" marker, he noted his airspeed indicating zero and felt he could slow down to turn-off speed.

With approximately 1,000-2,000 feet of runway remaining, the F-4 pilot saw what appeared to be two objects suspended above and near the end of the runway. At about 600 feet from the bitter end of the runway, the F-4 driver's suspicions were confirmed and he veered right in an attempt to avoid a collision with the A-4's. The *Phantom* entered a mild sideways skid to the left and collided with one A-4 which caused him to enter a clockwise spin and proceed off the runway backwards.

Fortunately, there were no injuries and the other A-4 and F-4 made it without incurring any damage.

Grampaw Pettibone says:

Great balls of fire! It was a sad day when this crowd mustered. It's quite clear that everyone involved but the F-4 jockey contributed to this needless mishap. If it's gonna be a safe operation, the necessity for being exact and precise can't be tempered with any assumptions or superstitions.

Memo from Gramps

From time to time, I see somethin' that really makes sense and good readin'. Take this bit from an article by Captain F. W. Ault, USN, published in the MAW-2 *Hot Dope Sheet*. It was entitled, "Safety and Command Responsibility."

"Many people have searched for years for some sweeping change or some major program calculated to reduce the safety problem to manageable proportions. Even the most expensive ideas have achieved only moderate success, however, and none of these can be entirely successful until we fully realize that success lies primarily in meticulous attention to even the smallest detail.

"One contention is that safe operations evolve automatically from establishing how a thing can best be done, insisting that it be done that way and checking to see that it is.

"One final word: Almost invariably the highest states of readiness are characterized by low accident rates in those organizations where safety is viewed—not as an end—but as a by-product of a sound doctrine."

'Warning Stars' on Guam Scout WestPac Weather

With the words, "This is Rainproof Five, on-station," a 12-hour, night-long vigil begins for one crew of Airborne Early Warning Squadron One (VW-1), based at NAS Agana, Guam.

VW-1 is responsible for typhoon and tropical cyclone reconnaissance from the International Dateline west to the Malay Peninsula and from the equator northward. To gather the vital weather data, aircrews fly a "double fix" on all storms in WestPac. This means penetrating the eye of a typhoon twice each night at between 700 and 1,500 feet.

During the fixes, the combat information center officer (CICO) navigates the aircraft through the least turbulent areas into the eye of the storm. He is assisted by another CICO and six enlisted scope operators. A crew like this has been over the Gulf of Tonkin nightly since August 1964.

VW-1 uses the Lockheed WC-121 *Warning Star*, the Navy's 70-ton, radar-configured version of the *Super Constellation*, which carries a crew of approximately 23 on AEW missions.

Commissioned in 1952, VW-1 has never had an accident. The year 1967 put the squadron over the 120,000 accident-free hours mark. VW-1 is led by Commander F. H. Roth.

VW-1'S WARNING STARS *work extensively with Yankee Station CVA's. Above, left, an aerographer preflights his dropsonde receiver prior to a "double fix" for a weather observation. Radarscope operator shows fatigue on patrol; each flight lasts about 12 hours.*

WHAT DOES *a typhoon look like? This question has been more easily answered since the development of radarscope photography which is widely used in research in this country. At left, LCdr. Ralph Chenoweth, aircraft commander for Crew 8, stands near his aircraft before going on a twelve-hour patrol.*

Metamorphosis

Webster's multiple definition of the adjective* thoughtful—*and similarly its counterpart, the noun* thoughtfulness—*as being characterized by serious, heedful, careful thoughts (as well as consideration of others) is appropriate when applied generally to the Navy's newest aircraft, the A-7* Corsair II. *This article, one of two in this issue dealing with the A-7 and work being done to make it an even better airplane, should help to explain why this is true.

By JOCS Lee Blair
Naval Air Systems Command

THE VARIED processes by which a fine Navy airplane is transformed into an outstanding weapon system—devastating, diversified and dependable—are chargeable to a single common denominator: the thoughtfulness of man. To prove this assertion you need go no further than the Navy's newest light attack jet aircraft, the A-7A *Corsair II*.

When the A-7A first rolled off the Ling-Temco-Vought production line in Dallas in 1965, both customer and contractor were already looking for ways to improve the breed. Their search was predicated on the philosophy that a fine edge becomes even keener when it's honed just a little bit more—by experts.

The experts honed away, and by the time *Corsair II* number 128 was ready to start its journey down the LTV assembly line, a major Navy-instituted modernization program was in progress. It continued until the last Alfa model—number 199—was rolled out of the Dallas plant, and it encompassed:

- Installation and rework of the plane's electronic countermeasures systems,
- Minor structural changes that included the relocation of a bulkhead aft of the cockpit to install more and better avionics equipment,
- Rerouting of hydraulic lines to make them less susceptible to combat damage,
- Installation of more than 400 pounds of armor plate and ballast, and
- Dozens of other less extensive, but equally important, changes.

The modernization program met the Navy's needs for improvement nicely. But there remained one big question: What do you do about the 127 *Corsairs* turned out earlier in the production run and already operational in the Fleet?

Having the work done by squadron personnel was out, because the amount of the required modernization was far too extensive for implementation at the organizational level. And since LTV was by now deeply involved in development and production of subse-

Photos by PH2 Earl Hicks
NAS Jacksonville, Fla.

WHILE *Cdr. Everett Garrett, NavAirReworkFac Jax production officer (left, in photo above), looks on, Capt. Cyril T. Faulders explains A-7 modernization program to author. Photo at right is of A-7A's on production line. Once they have entered the hangar to undergo required changes, they are not moved until work is done.*

quent *Corsair II* models, the planes couldn't be returned to the plant for partial disassembly and incorporation of changes.

But the changes had to be made, at least in some of the early A-7A's. Attack Squadron 147, the first operational unit to deploy to Yankee Station with *Corsair II's*, was enjoying considerably more than moderate success with its factory-updated planes as pilots made air strikes over the beach from the USS *Ranger*. But more of the planes would be needed—in a hurry. The other existing *Corsairs*, without the modifications, were not considered desirable or wholly adequate for combat duty.

So it was not long before Captain Cyril T. Faulders, Jr., and his staff at the Naval Air Rework Facility, NAS JACKSONVILLE, Fla., began to hear rumblings from the Naval Air Systems Command in Washington, the facility's management controller. The rumblings were followed quickly by a round of conferences that brought together some of the best aviation minds from the systems command, LTV, Atlantic and Pacific Fleet Naval Air Force Commands, the rework facility and other interested agencies. And a decision came hot on the heels of the conferences: Since NavAirReworkFac Jax was then phasing out of the helicopter PAR (progressive aircraft rework) business, all the A-7A modernizations would be done at Jacksonville.

The conferences had begun just before the second quarter of fiscal '68 yawned its way into oblivion as the holiday season rapidly approached. When the decision was handed down that the rework would be done at Jacksonville, the target date for the prototype aircraft to enter the barn was January 15. In other words, there would not be much "lead time."

But Captain Faulders' response was as straightforward as it was succinct: "If it must be done, we can do it and we will do it." This statement came even after he had carefully considered the fact that few of his 3,500-plus civilian employees and military personnel had ever *seen* a *Corsair II*, let alone *worked* on one.

Initial estimates of the number of man-hours and changes to be made in the modernization program began to proliferate with astonishing rapidity until, finally, LTV arrived at the figure of 7,723 hours per plane. Another requirement, imposed by NavAirLant and NavAirPac agreement, was that each *Corsair* would be completed within 60 calendar days. There would be precious little time to do the job, none of it to waste.

Aerospace engineer Mickey T. Newman of NavAirReworkFac Jax was appointed to chair a committee charged with ironing out the details of the project. Aided by representatives of engineering, management control, production engineering, quality assurance, production planning and control and the shops department, Newman met with the committee to establish processing procedures for the modernization. What had begun with a relatively uncluttered airframe change (AFC-15) soon expanded into a voluminous pile of additions and addendums and, before it was solidified, it stretched through AFC-33 and an infinite variety of minor changes. All were designed to make the Alfa model more versatile and, of course, safer.

IN THE formative stages of program development, suggestions for improving the A-7A came not only from the manufacture but from the pilots whose lives would depend on the performance of the aircraft and its systems in combat. Maintenance, ordnance and avionics personnel also had a voice in the proceedings. Many of the recommendations were bought by the Naval Air Systems Command and were later incorporated into the LTV-prepared master plan that was to become the *Corsair II* "bible."

This bible proved to be an invaluable aid but it was not without need of interpretation, so three LTV technical representatives were dispatched to Jacksonville. They carried the paper framework around which the final modernization program would be built. These were men who had closely followed the design, development and construction of the A-7A; they were well versed in its peculiarities. Their knowledge proved valuable, since most of the initial drawings and specifications were those used by LTV in the factory's production line modernization and many needed substantial revision to conform to the Jacksonville facilities.

As this work moved forward, so did time — inexorably. Commander Everett Garrett, production officer, turned relentless overseer as he followed the progress of every detail. Bill Gentry, assembly line supervisor, scanned his rolls for the most capable men to work on the prototype. More than 90 percent of the work would be done on an assembly line in Hangar 101W, and only the best men could tackle this job. The initial selection of workers comprised the nucleus of a force that was later expanded to 135 men—metalsmiths, electricians, painters, electronics technicians and other craftsmen.

With January 15 fast approaching, a smattering of the more than 6,800 individual parts, assemblies and related accessories needed for the project began to filter into Jacksonville in dribs and drabs. Despite the effort by LTV Dallas to insure that each component, tool and jig arrived in quantity and on time, it was soon apparent that all of the equipment would not be on hand when the prototype A-7A completed its in-processing and entered Hangar 101W.

Improvisation became the word. What was not available would have to be fabricated locally or, if that were not possible, work would have to move on to other areas until the materials arrived. It was a workable solution to the problem; each step in the program had been designed to move independently of the others, and work stoppages owing to unavailability of parts were minimal.

Management officials at NavAirReworkFac Jax realized the need for, and allowed for, the necessity of a learning curve during the prototype modernization—the time required for basic familiarization, application, adaptation and experimentation. One vital question, though, remained unanswered even as work on the prototype began: Was the 7,723 manhour-per-plane time frame realistic?

As it turned out, the time frame was most realistic. In spite of engineering and production pitfalls, the absence of parts and a lack of support and test equipment, A-7A production line number one was ready for final test flight in 57 days, or three days and 700 man-hours ahead of schedule.

By mid-April, six *Corsair II's* had undergone modernization, with each production number after the prototype finished with a substantial reduction in man-hours. That time has now dropped to about 5,500 hours

per aircraft. Current schedules call for the completion of an average of ten planes each month until all the existing A-7A's have been modernized. The program should be completed before December 31, 1968.

To the untrained eye, the reworked A-7A looks much like the original. But there are ways to tell the difference: An ECM antenna is fitted just below the top of the vertical stabilizer; it protrudes slightly aft of the trailing edge. Other antennas have been installed around the lip of the engine intake. There is a fitting aft of the cockpit for an ammunition loading ladder. Other changes, such as the beefed-up nose gear strut, are not so easily recognized. But they are all very definitely there.

There is more to the story than these changes, too: Many of the aircraft slated for the modernization program will also simultaneously undergo their first PAR beginning in FY '69. The PAR, combined with the modernization, is programmed for 12,600 man-hours.

Many knowledgeable experts at NavAirReworkFac Jax, however, feel the work can be done in much less time, perhaps closer to 8,500 hours. At any rate, the prototype PAR plane entered the barn at Jacksonville last September, and work is progressing on this phase at both Jacksonville and the NavAirReworkFac at NAS ALAMEDA, Calif., which is sharing this load.

Not all of the aircraft slated for the PAR modernization program will receive the full treatment. Avionics up-dates will be provided only for those planes destined for service in operating Fleet squadrons. Aircraft not in this category will require only about 8,000 man-hours to complete. This is another substantial saving in time and money.

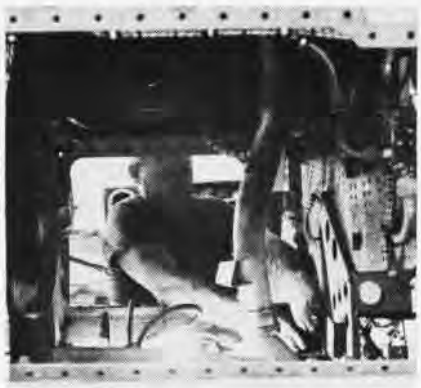
Despite the obvious success of the PAR/modernization program, there have been some drawbacks—even though they are not apparent. E. C. Cuendet, NavAirReworkFac Jax production controller, spoke of what amounts to an annoying frustration to the production engineering staff: "There are times we cannot put our hands on every component that goes into the A-7A because front-line units necessarily have priority. Our men have had to make sheetmetal and plywood mockups of some of the gear to insure a correct fit when the black boxes are shoved into the slots later on. Sure, we do all the wiring, install all the brackets and make every 'fail-safe' check we can. But somehow, some way, we wish we could do more. We want to check out everything."

Frustrations notwithstanding, the attitude of Cuendet's men toward their job can only be called outstanding. In order to expedite the work during the early stages, they designed and built a number of work stands in the shops, expressly for the A-7A. Shelving was installed to preclude the necessity of storing removed components away from the aircraft. Compressed air lines were built directly into tail stands so there would be no dangling hoses to create a safety hazard. Hydraulic aircraft jacks, not available in the quantity required, were borrowed from the carrier *Saratoga* while the ship was undergoing upkeep in Norfolk. These are only some of the moves that were made to keep the work flowing; all were the products of ingenuity and initiative, two commodities that seem to be plentiful in Jacksonville.

Planning estimator Ted Maloney summed up the attitude of NavAirReworkFac Jax this way: "When we send one of these planes out of here to the Fleet, we want it to be as nearly perfect in every respect as man can make it. Everyone in this facility knows the importance of the work he or she is doing—that a pilot's life, or at least the mission he is trying to accomplish, may well depend on that job being done right the first time."

Captain Thomas Gallagher, Jr., Naval Air Systems Command A-7 project manager in Washington, commented: "The final test of the Jacksonville-modernized A-7A will, of course, be made in the Fleet. Those people have worked under duress and have managed to surmount many obstacles. Their mission is to provide service to the Fleet and they do this well. They have met or exceeded their schedules; no one can ask for more."

That the factory-modernized *Corsair II* has proven itself is a matter of recorded history. That the Jacksonville version will do equally well seems a foregone conclusion—thanks to the thoughtfulness of man.



THE WORK *that goes into modernizing the A-7A Corsair II takes on many forms. In photo above, left, aircraft electrician Carl F. Cromwell inventories some of the wire coils that come to Jacksonville as part of LTV-provided modification kits. Coils, and other components, are placed on board for ready access. Photo above, right, is of Jesse W. Laird, aircraft metalsmith, as he handles interior modification work in A-7 fuselage. Shot at right shows aerospace engineer Mickey T. Newman (left) and electronics engineer John Newton, who were instrumental in formulating modernization program, as they pore over required paper work.*

A Problem of Indigestion

Long before the A-7A* Corsair II *began to undergo modernization designed to make it a better airplane, the Carrier Suitability Branch, Flight Test Division, at the Naval Air Test Center, Patuxent River, Md., came up with a problem when its pilots set out to test the plane. What was done about the problem—a tendency for the A-7A engine to ingest steam during shore-catapult launches, often to the point of stall—is described by an NATC pilot.

By Lt. R. L. Coffman, USN
NATC Patuxent River, Md.

WHEN THE A-7A *Corsair II* arrived at NATC PATUXENT RIVER for the contractor's carrier suitability demonstration in the spring of 1966, the representatives conducting the tests it would undergo were optimistic. They were hopeful of attaining the required catapult and arrestment demonstration points with little trouble.

Tests proved their optimism was generally justified: The airplane met all contract guarantees and displayed excellent stability and control characteristics after a "cat" launch and during the mirror landing approach. It proved to be structurally sound during max G catapult launches and arrested landings, with sinking speeds up to 21 feet per second. One real advantage was the ability of the A-7A to come aboard with 6,000 pounds of fuel while using only about 300 pounds per trip around a six-plane pattern.

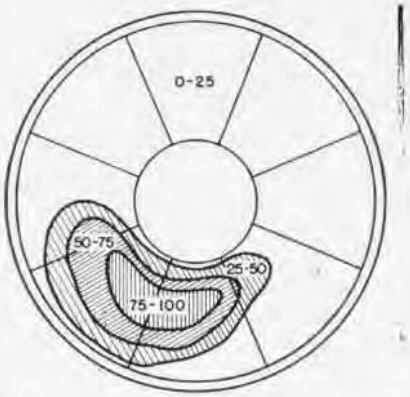
The demonstration points came relatively easily—but whatever satisfaction might have been taken from them was overshadowed by a steam-induced engine stall problem, discovered on the very first A-7 catapult launch. A light wind was blowing down the catapult track, providing perfect conditions (it was discovered later) for steam to be ingested into the TF-30-P6 turbofan engine from the shore-based Patuxent installation.

Steam ingestion from the "cat" caused the first of more than 75 of the most frustrating engine stalls ever encountered: some "one-bangers," some "two-bangers"—a few of which were severe enough to flame the engine out.

Initial reaction focussed on the longitudinal G effects, with hopes of finding some problem in the fuel control or its associated linkage. After several more cat shots had produced no stalls, the problem was tied to steam that leaked from the catapult track. Films of the launch proved it was being sucked into the intake duct, which was in a perfect position to act as a vacuum cleaner.

With the cause of the stall determined, the job at hand was to learn how to duplicate the conditions that caused the problem. Because of relatively calm wind conditions, the most consistently "productive" time of day was dawn—so that's when the work was done. (Naturally, the wisdom behind trying to solve the problem that early was frequently questioned.)

Project engineers soon had the feel for the proper wind conditions and could predict with surprising regularity when engine stalls could be produced. The state of the art of determining how severe any particular catapult shot might be soon progressed beyond the "eyeball" stage, and a pattern of thermocouples was installed on the engine face to measure temperature rises. The resulting information was recorded on the airplane's magnetic tape recording system.



DRAWING *of TF-30 engine compressor face shows temperature distortion owing to steam.*

A consistent pattern of temperature distortion developed. By recording the temperature rise, the severity of the shore-based catapult launches that caused engine stall could be compared with those that did not.

After a few stalls, Pratt & Whitney engineers determined that a rematch of certain stages of the compressor would improve steam tolerance. An engine with a rematched compressor was evaluated and showed improvement, but it was not stall-free. After more tests, another hardware change was made. A redesign of the high compressor blades again improved the stall tolerance, but the compressor still showed unacceptable steam tolerance.

A third hardware change was evaluated, this one a redesign of the tenth stage compressor blades to make the engine more tolerant of water, but it had an adverse effect and was rejected.

Prior to and during the hardware changes, tests were conducted with various compressor bleed ports open (including the 9th, 10th, 12th and 16th stages) to determine, as accurately as possible, where the stall started in the compressor and to provide data on which bleed configuration was accepted for shipboard testing. All the configurations, except the 12th

stage bleed, soon stalled on the shore-based catapult; some 40 launches with the 12th stage bleed ports open were made without a stall, so this configuration was considered to be acceptable for shipboard trials.

TESTS aboard USS *America* revealed that the launching environment at sea was considerably more severe than anticipated because of steam leakage. Further data analysis again proved that operations aboard ship were safe, utilizing 12th stage bleed, and catapult minimum and air speed tests were conducted to determine at what gross weights the airplane could be launched.

After reduction of the data to standard day conditions and to minimum specification engine thrust, a maximum gross weight of 34,000 pounds (with a fuel/ordnance payload of some 16,000 pounds) was cleared for operational use early in 1967. This wasn't bad as an interim measure but, since the airplane had been satisfactorily demonstrated to 38,000 pounds for catapult launches (32,500 pounds guaranteed), settling for anything less would have compromised Fleet capability.

More shore-based launches were conducted, and, after a re-evaluation of all acquired data, trials were conducted aboard USS *Lexington*, USS *Independence*, USS *Forrestal* and USS *Ranger* in an effort to provide sufficient information for a statistical definition of the environment encountered aboard ship. Data concerning the shipboard launch environment, in terms of engine face temperature distortion, led to a determination of the degree of catapult degradation required for the next series of shore-based launches.

At first, the thought was that an attempt to reduce the thrust loss was the best way to increase the maximum catapult launch weight. The total knowledge about steam-induced engine stalls at the time was rather meager and did not generate much confidence except about the extreme bleed configuration—although no engine stalls have occurred during shipboard catapult operations.

Everyone concerned agreed that the no-bleed configuration might stall in a shipboard environment, and the 12th stage bleed open configuration wouldn't stall—but no one knew the lowest level of 12th stage bleed that was safe.

So a series of launches was conducted in an effort to establish the stall factor. Reduced bleed configurations down to 600 pounds thrust were satisfactorily demonstrated aboard ship, but installation of production hardware required to lower the bleed level to this point was too time-consuming.

An easily-installed, inexpensive "anti-ice bypass" configuration which produced a 450-pound thrust loss was available, but—unfortunately—different methods of data presentation produced varied conclusions about the stall potential aboard ship. Shipboard clearance of the configuration would have incurred unnecessary risk because of a lack of knowledge, so an alternate method of increasing the gross weight was investigated. Data analysis of the anti-ice bypass configuration is continuing, however.

The catapult minimum end airspeed of an airplane is based on many factors—sink off the bow, proximity to stall speed, flying qualities and thrust available for acceleration—and these factors usually have an interacting effect. It is seldom that a minimum is obtained based on any one. When launching on the slow speed side of the power-required curve, the minimum acceptable thrust must produce a longitudinal acceleration about five knots above stall. In the case of the A-7A, this means a maximum gross weight of 34,000 pounds.

But it's apparent that, when an airplane is launched at airspeeds above minimum, the majority of factors is no longer critical and a reduction in excess thrust can be tolerated. A shore-based test program indicated that launches at 38,000 pounds, with 12th stage bleed open, were feasible for the A-7A; subsequent tests aboard *Ranger* resulted in such a clearance.

THE TRIALS aboard *Ranger* were designed to determine the minimum excess thrust, rather than the normal minimum end airspeed. While there did not seem to be much of a reduction from acceptable longitudinal acceleration, it must be kept in mind that excess acceleration is being further reduced on the high speed side—although the excess thrust situation improves while accelerating from the slow speed side of the power-required curve.

However, the launch was comfortable with end airspeeds approximately 15 knots above stall—until recaging the eyeballs revealed the rate of climb indicator reading approximately zero and the airspeed indicator not moving appreciably (like, where's the 'burner?).

With automatic closure of the bleeds when the weight comes off the gear—a service change later incorporated in all A-7's—the thrust lost during the catapult stroke is regained, so the scant excess thrust now occurs only if the automatic bleed closure mechanism fails.

THE steam-induced engine stall problem in the A-7A is no different from most others; that is, it can be approached in a variety of ways (two of which have been discussed). Another obvious choice in looking for a solution to this particular "can of worms" was to attempt to reduce steam leakage from the catapult. This was not considered a practical choice at first; the thought was that jet engines had operated from these catapults for years without problems, and this one must also.

But after hardware changes to the engine failed to produce acceptable results—and the scheduled deployment date moved months closer—the line of reasoning changed to something like this: "If the steam can be done away with, the airplane can deploy on schedule with its full capability."

Several hardware changes were tried in the test catapults: a redesign of the "pork chop" seal, more rings in the piston and slot closure bars in the water brake. They all reduced steam, but not sufficiently to permit no-bleed A-7A launches. Adequate improvement was made, however, to warrant a limited clearance of the anti-ice bypass configuration. The conditions of clearance are that anti-ice bypass is used only when necessary—high gross weight configurations launched under high ambient air temperature conditions—and with a minimum wind of 20 knots over the deck (which keeps the steam down and reduces the chances of ingestion).

More catapult hardware changes are being developed and tested. When they are installed, they will undoubtedly reduce leakage aboard our carriers to the point that steam will not stall the turbofan engine. Those who operate them will then be able to fly happily ever after.

These Men Tell the Navy's Stories Off Vietnam

Last month, NANews accompanied Navy news teams as they covered sea service stories 'in-country' in Vietnam. Now we go to sea with the newshounds of Det Charlie.

By JO1 Byron S. Whitehead, Jr.

OFF THE COAST of Vietnam, at a spot in the Gulf of Tonkin called Yankee Station, a giant aircraft carrier turns into the wind. The intense drama of a carrier launch is about to begin.

The flight deck explodes with color and deafening noise. Loaded with ordnance, attack and fighter aircraft screech and howl as their pilots turn up engines and jockey for launch position. One by one, they move to one of four catapults.

The catapult officer signals. The pilot pushes his engine to launch power. For just a moment the plane is at rest. Then it is shot off the end of the flight deck.

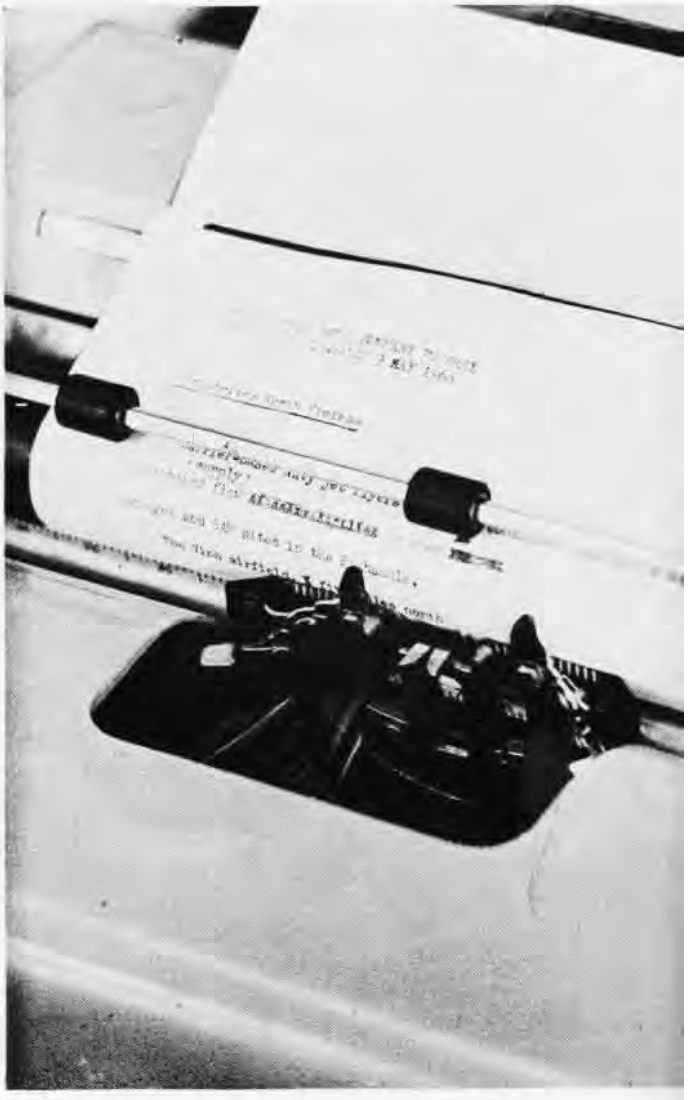
This scene is repeated hourly, day after day and night after night, aboard the attack carriers of the Seventh Fleet's Task Force 77 on Yankee Station. Each launched aircraft carries with it a message for the enemy—a deadly, destructive message.

Later, another message—this one containing information on those carrier air strikes into North and South Vietnam, and their results—is en route by priority precedence to the Navy's largest public affairs activity in Vietnam, the Public Affairs Office of Seventh Fleet's Detachment Charlie in Saigon.

It is the job of the Det Charlie PA office to turn such operational messages and shipboard press releases into meaningful news stories that help to tell what the Navy is doing in the Vietnam war.

Det Charlie is the news link between the ships of the Seventh Fleet and Saigon's 500-plus civilian press representatives, the largest and perhaps the most influential gathering of newsmen and women in the world. Carriers, cruisers, destroyers, amphibious ships and supply ships of the Seventh Fleet release their news stories through the Det Charlie PA office. This same unit also assists seagoing commanders and PA officers in dealing with the press, radio and television agencies covering the war.

Continued on page 14



Photographed by WO James R. Menhennett, JO1 Willard B. Bass, Jr., and PH2 John McCurdy

SOUTH VIETNAM'S *Vice President Nguyen Cao Ky and his wife meet the press aboard the carrier Kitty Hawk after an awards ceremony set up by the Det Charlie PA office (top, left). Shot at top right is of Ltjg. John Cox and JO2 Carl Kelso typing the news. Above, a story is proofed by "the boss" before release to media via a Det Charlie "blue-top" similar to those being sorted for distribution by JO3 David Butler. Photo at right is of Det Charlie-arranged television interview with two Navy Cross recipients, Cdr. Jerrold Zacharias (center) and LCdr. Michael Hall.*

To serve news media—and some 30,000 Seventh Fleet Navy men in the Tonkin Gulf—Det Charlie's PA office is staffed by seven officers and 20 enlisted journalists and photographers. They are skippered by Commander Bill Stierman, the PA officer.

Det Charlie got started in March 1965 when CinCPac-Flt directed that there be a Seventh Fleet input into the daily Saigon press briefing sponsored by the Military Assistance Command Vietnam Office of Information (MACV-OI). In the briefing, the press is provided information on action during the preceding 24 hours. Seventh Fleet PA personnel were sent to Saigon to set up the office that would help provide the information needed for the briefings. Today, Det Charlie has three PA offices: One is in the downtown Saigon Rex Hotel, one at Tan Son Nhut Air Base and one in the South Vietnamese city of Danang.

One of the two most important functions of this combined Det Charlie unit is the Seventh Fleet Daily Summary, released to the Saigon press corps after journalists and officers translate Fleet reports into unclassified news copy of MACV-OI clearance. The longer afternoon version is supplemented by a brief morning summary.

About 75 copies of the summary are released in Saigon each day. More than 100 additional copies are mailed daily to internal Navy outlets worldwide and to U.S. media which have requested them.

Equally important to the Det Charlie news effort is the unit's Seventh Fleet Yankee Station Press Special. Twice a week, Det Charlie's two C-1A *Trader* COD planes depart Saigon and Danang for Yankee Station with five seats set aside for media representatives and an escort.

Normally, newsmen stay aboard the ships they visit for 24 hours, but for a particular story—or series of stories—they may remain a week or more.

Working on the sound premise that it is always better to take newsmen to a story than merely give them handouts, Seventh Fleet's Saigon PA office has averaged 40 news media visits a month to the carriers and destroyers in the Tonkin Gulf and the amphibious units in the South China Sea.

Before the enemy Tet offensive and the more recent de-escalation of the air and gunfire war in the north, Det Charlie averaged one visit or more by network or local U.S. television representatives to Yankee Station every week for six months. Since Tet, combined news media "embarks" are still averaging more than 30 a month.

Production of photo-feature stories—similar to this one—is another important, but somewhat intermittent, Det Charlie function. Three photojournalist teams, each headed by a graduate of the Navy course in photojournalism at Syracuse University, turn out an average of 10-20 features a month.

The stories and photos these men have produced appear regularly in such Navy publications as *Naval Aviation News*, as well as in civilian newspapers and magazines. Examples include coverage of Navy combat pilots preparing for missions, action during carrier launches and the introduction of a new combat jet (the A-7 *Corsair II*) coupled with the retirement of a veteran propeller-driven plane (the A-1 *Skyraider*).

Det Charlie's PA office also has several Pacific Fleet Combat Camera Group teams assigned. The talents of the motion and still photographers who make up these teams are helping to tell the Navy story over local television—primarily through photo-features in color and black and white.

A goodly portion of their efforts is distributed through the Chief of Information's television featurette program, two-minute color film clips distributed to 100 TV stations at a time. ChInfo releases one or more featurettes a week; reports show that 60 to 70 percent of the local stations are using them.

Det Charlie has also developed another important way to tell the Navy man's individual story via TV. Using 100-foot rolls of film, a tight "story-board" and an edit-in-the-camera technique, Det Charlie personnel are providing home town television clips on hundreds of Seventh Fleet and in-country sailors for release to local stations.

Another method Det Charlie employs to tell the Navy story is its radio department. Each day PA personnel tape the morning and evening daily summaries and stories from the Fleet for local and WestPac Armed Forces Radio and Television Service outlets, the major networks and ChInfo. Radio specialists also edit taped "audio-actualities" from Seventh Fleet ships or Det Charlie journalists; these are released to the national audio networks and, through ChInfo, to U.S. local radio outlets.

But it is in the written word, in photographs and in media visits that Det Charlie really shines. Take these statistics from 1967 as an example:

- More than 171,200 photographs distributed.
- More than 600 news representatives embarked in Seventh Fleet ships.
- More than 580 photo-features sent to publications and feature services.
- More than 2,200 individual (without photos) news releases distributed, 220,000 copies by mail.

The outpouring of work sometimes makes for long days at Det Charlie. And, every once in a while, there's another kind of Charlie—the Vietcong—to disrupt the work. But not for long.

During the Tet offensive in Saigon, for instance, the Vietcong's presence forced Det Charlie to miss just two days' production of the Daily Summary—and that was only because the streets were not secure enough to permit copy to be cleared and distributed.

DATA IN RELEASES ARE VERIFIED AND LOCATIONS IDENTIFIED

Oriskany's BREAD BASKET

SHIP'S BAKER DAVIS

JUST ONE POUND!

ALL INGREDIENTS MUST BE MEASURED

MIXTURE FORMS A MOUNTAIN OF DOUGH

GOOD FOOD on a fighting ship is an important contribution to morale. And one of the most important ingredients to any meal is fresh bread —bread like "mother used to make."

Aboard USS *Oriskany* while in the Gulf of Tonkin, the man responsible for providing "mother's favorite" was CS1 Donald R. Davis.

While the 3,500-man ship's company worked around the clock to keep *Oriskany's* aircraft flying against targets in North Vietnam, Davis and his four-man bakery team nightly did their part. They baked over 600 loaves of fresh bread plus pastry for the morning meal.

Baking that many loaves of bread is no easy task. Hundreds of pounds of flour and other ingredients are fed to giant batter mixers. The dough is then kneaded, cut, weighed into one-pound loaves, and left to rise before it goes into four large ovens.

"Bread doesn't last long around here," Davis said. "Our hard-working crew doesn't leave much after a meal."

Story and Photos by JO1 Willard B. Bass

DAVIS INSPECTS HIS BREAD BASKET

PANNED DOUGH IS BAKED IN FOUR OVENS

BREAD BAKERS ROLL, KNEAD AND MEASURE THE RAW MATERIAL

IT TAKES A LITTLE WHILE TO GREASE THE 600 BREAD TINS

A MEDAL OF HONOR EXPLOIT

IN THE ANNALS of Naval Aviation in World War I, no exploit for daring of execution and success in pulling it off is exceeded by that starring Naval Aviator #1494, Ens. Charles Hazeltine Hammann, USNRF. He and his fellow pilots were a unit of Naval Aviators who operated out of Porto Corsini in Italian planes.

This combination of American fliers and Italian aircraft had come about when the Italian government arranged for the U.S. Navy to take over and operate the air station at Porto Corsini, some 50 miles south of Venice. The take-over was accomplished July 24, 1918. Hoisting the flag, Lt. Willis B. Haviland, USNRF, put the new station in commission and air operations commenced. So successfully did the station carry out its mission that Admiral H. T. Mayo, USN, stated on the basis of his inspection November 10, 1918, that the station had "the distinction of being the most heavily engaged unit of the U.S. Naval Forces in Europe."

Lt. Haviland had come from Pauillac, France, in a special train which transported 331 men, certain officers and over 250 tons of supplies for the station. A detachment of officers and petty officer pilots arrived a little later from Lake Bolsena, 60 miles northeast of Rome, where they had been trained in the handling of Italian aircraft at the Naval Flying School. The school had been formally opened February 21, 1918, under the direction of Ens. W. B. Atwater. The courses, taught largely by Italians, included ground work and flying. Seventy-three men in all completed the curriculum. To back up maintenance, the Italian government had arranged for a special draft of mechanics selected from men training at the various Italian seaplane and motor factories.

That the Austrians were aware of the Americans' arrival at Porto Corsini was signaled by their carrying out a bombing attack, fortunately harmless, on the station on July 25th.

In accordance with the agreement with the Italian government, the U.S. forces were supplied with everything but food and clothing for the personnel. In the beginning, three planes were made available and the number of planes quickly increased, but there were never more than 21 altogether.

The planes the Navy used at Porto Corsini were Macchi types. Some of the bombing planes were M-8's, two-seater flying boats capable of carrying four 24-pound bombs and one machine gun. The M-5 Macchi fighters were one-seater flying boats, carrying two machine guns; two light bombs were occasionally added.

Porto Corsini was located in a strategic position in relation to Pola, the Austrian naval base which was, of course, the main objective of the U.S. Naval Aviators and their opposite numbers at the Italian Air Station in Venice. Since Venice was only about 50 miles north of Porto Corsini and 64 miles from Pola, air squadrons from both stations could rendezvous easily for a combined attack on the Austrian naval base. The battleships and cruisers of the High Sea Fleet were anchored at Pola and German and Austrian submarines went out from there in the Mediterranean campaign. The base and city were defended by 18 forts and batteries and there were no less than 114 antiaircraft guns in position. It was a formidable bastion.

Though Porto Corsini was in the right spot to launch an offensive, it had one tremendous disadvantage. All landings had to be made on a canal about 100 feet wide. This, combined with the necessity of taking off and landing directly into the wind, made for a real handicap since the prevailing wind was at right angles to the direction of the canal. This disadvantage was counteracted to some extent by training the pilots at Lake Bolsena to land on an area, marked off by buoys, which equaled the width of the Porto Corsini canal.

On August 21, the station at Porto Corsini carried out its first mission. In the middle of the morning, five fighters and two bombers set out with the purpose of dropping propaganda leaflets on Pola across the Adriatic. So popular had this mission become on the Italian Front at this time that the Austrians had announced that anyone caught engaged in this activity would

THE NARROW CANAL AT PORTO CORSINI MADE FOR DIFFICULT TAKEOFFS AND LANDINGS

be regarded as a spy and summarily executed.

After the seven-plane group had been underway for about 15 minutes, one of the bombers and one of the fighters had to return on account of motor trouble. One bomber and the four fighters, the fighters flown by Ensigns George H. Ludlow, E. H. (Pete) Parker, Dudley A. Vorhees and Hammann, continued on, approaching Pola from the south in order to avoid fire from AA batteries at the harbor entrance. At 1120, the fighters arrived over the city at 12,000 feet, but the bomber was only able to get up to 8,000 feet. The leaflets were thrown down and the Austrians sent up AA fire. Five fighters of the *Albatross* type immediately took off, two seaplanes following them. The latter were soon lost to sight, but the enemy landplanes climbed rapidly and in five minutes neared the Navy's Macchi fighters. The enemy was coming in two sections, the first of which was made up of three planes.

ARTIST H. TOWNSEND DEPICTS LUDLOW OUT OF COCKPIT ON WAY TO HAMMANN'S PLANE

Ens. Ludlow gave the signal to attack to protect the bombing plane. Followed by Parker, Voorhees and Hammann, Ludlow went into a dive toward the three Austrian planes and the dog fight was on at 8,000 feet.

Ludlow attacked the lead plane with a quick burst of fire, then swung over to engage the plane to his left. Parker then took on the leader who tried to escape by diving. Parker followed him down. His right gun jammed, so he pulled out, firing from his one good gun on another Austrian which swept into view, and broke out of the fight. Vorhees no sooner got into action than his guns jammed and he was forced to leave. The bomber also departed. This left Ludlow and Hammann to carry on the fight. While Hammann took on the two planes of the second section, Ludlow was in a fight with three. He drove one down smoking and in the next instant he himself was shot down. He took hits in his propeller and engine, oil streamed out and broke into flames. He went into a spin but managed to pull out of it and make a landing five miles off the harbor entrance.

Looking down, Hammann saw Ludlow's wrecked plane in the water and determined to try rescuing him, an exceedingly daring decision since the wind was blowing at the rate of about 20 miles per hour and the sea was choppy. To land his plane in such a sea was bad enough, but worse still was the fact that Hammann's flying boat was damaged and he might not be able to take off. Furthermore, he was near the harbor and enemy planes were still in the vicinity. It seemed unlikely in these circumstances that Hammann could rescue Ludlow and make a getaway, for the enemy might easily capture them and the fate of spies would be theirs—execution.

Undeterred by these considerations, Hammann spiraled down and drew up beside Ludlow's crippled plane. Thereupon Ludlow opened the port in the bottom of the hull, kicked holes in the wings to make the Macchi sink faster and jumped over to Hammann's plane. He climbed up behind the pilot's seat and sat under the motor holding the struts to keep from being swept into the propeller or off into the sea.

The tiny Macchi was built to carry but one man. How he was going to get into the air, Hammann had no idea. The bow of the plane, already damaged by machine gun fire, was smashed in as the craft gathered speed, but finally the little seaplane got off.

After becoming airborne, Hammann fired his remaining ammo into the wrecked plane and watched it sink; he was not going to leave the enemy that trophy. He began his 60-mile flight back to Porto Corsini, momentarily expecting to be attacked. For reasons never discovered, the Austrians made no attempt to follow the damaged plane, a pursuit they could have undertaken with no hazard to themselves.

At Porto Corsini, Hammann made a good landing in the canal, but the water poured through the bow and turned the Macchi over, a complete wreck. The fliers climbed out with the assistance of boats that had come to help them. Ludlow had suffered a bad gash on his forehead and Hammann was badly bruised, but both were fit for duty within a few days.

The Italian government awarded the Silver Medal of Valor to Ens. Hammann and a similar bronze medal to Ens. Ludlow. Ens. Ludlow also received the Navy Cross.

The President of the United States presented Hammann the Medal of Honor, the first awarded a U.S. Naval Aviator. He was cited for heroism in landing on the water alongside Ludlow's disabled airplane. "Although his machine was not designed for the double load to which it was subjected and although there was danger of attack by Austrian planes, he made his way to Porto Corsini."

It is one of life's bitter ironies that less than a year later, on June 24, 1919, Ens. Hammann met his death in a Macchi plane of the same type he had used in his exploit over Pola.

A-1 SKYRAIDER

Hailed as the finest all-around combat airplane in the world and for years the Big Gun of the Navy, the legendary Skyraider acquired more accolades, broke more records, flew more missions, delivered more ordnance and cost less money than any of its sleek contemporaries.

With Task Force 77 in the Tonkin Gulf—Commander Ralph Smith sits in the VA-25 ready room aboard the USS Coral Sea. He thinks of his more than 2,400 hours at the controls of the A-1 Skyraider. After a while, he sighs, "You know, I sort of feel like the Indian and the buffalo. I can see the sun going down."

The sun set on February 20, 1968, as the last A-1 to fly into combat from a Navy ship touched down on the flight deck of the Coral Sea.

AN ANACHRONISM in the Jet Age, the propeller-driven A-1 attack plane has been threatened with extinction many times in its 23-year Navy career. In the early Fifties, aviation experts predicted that "all jet" carrier air groups would be de rigueur within a couple of years. Sunday supplement editors, doting on high performance, sweptwing speed machines, tried to ignore the groups of four-bladed "conventionals" ever present in carrier flight deck photos.

In the U.S. Naval Air Training Command, the word got around and, in spite of the earnest efforts of jet-oriented recruiters, the neophyte Naval Aviator was requesting advanced training in the ubiquitous Able Dog. He knew where the action *really* was.

Of the 3,180 *Skyraiders* built, there were over 30 versions and as many missions. In a composite squadron, it could take half the tour just to get qualified. You didn't have time to get bored. Paradoxically, as A-4 replacements were gradually assuming the carrier strike force's attack role, A-1 billeting became more highly selective.

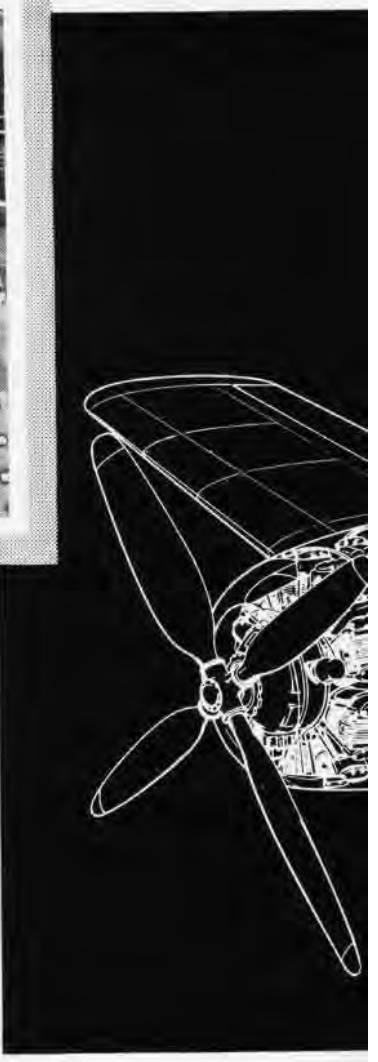
Throughout its combat life, the aircraft's stamina, strength and remarkable ordnance delivery capability that could place its bombs within 15 feet of a designated target demanded respect. Its dive-bombing precision made it the star performer in the Korean conflict.

When air strikes were ordered on North Vietnam, *Skyraiders* went to the forefront. But Communist air defenses had made substantial advances in the more than ten years since Korea. The relatively slow A-1 finally proved vulnerable to a SAM/antiaircraft environment.

The Navy A-1 is gone. At NAS LEMOORE, a sentimental gathering paid final tribute to the illustrious machine from El Segundo. The last combat *Skyraider*, with Ltjg. Ted Hill at the controls, was "piped over." A dramatic farewell pass marked the end of an era in today's Jet Age Navy.

A-1

...the Master's Plan



Ed Heinemann's big, powerful airplane practically flew off the board into Naval Aviation history. Not bad for a machine that was conceived overnight in a Washington, D. C., hotel room!

EVOLVED *from the heavy XBTD-1 Destroyer (lefthand photos) with its cranked wing, internal bomb bay and "banana peel" dive brakes, the aerodynamically clean Skyraider was an instant success. Painstaking revisions and modifications established it as a classic.*

BY EARLY 1944, the air war in the Pacific dictated Navy requirements for a single-place, long-range, high-performance dive-bomber. Coincidentally, Douglas Aircraft's Chief Engineer, Ed Heinemann, arrived at a similar conclusion after an inspection tour of carrier operations involving the SBD *Dauntless*. Work on the radical XSB2D with its remotely controlled twin turrets had been halted, and its redesigned successor, the XBTD-1, faced stiff competition from Curtiss, Kaiser-Fleetwings and Martin.

Virtually out of the running and faced with an uphill fight to remain in creative design, the Douglas group came up with a completely new airplane proposal. An overnight extemporaneous effort on the part of Heinemann, Leo Devlin and Gene Root gained sufficient approval for a go-ahead on the XBT2D *Dauntless II*. Heinemann told his men, "Keep it simple, keep it light."

One key to success was the wing design. While the trend was toward the new laminar-flow airfoils with their low drag coefficients, the need for maximum lift resulted in a tapering section with 4.2° of washout for improved low-speed handling characteristics. The root incidence of 4° provided quick takeoffs while engine downthrust of 4.5° minimized trim changes. Heinemann's clean-up and weight-reduction program produced a functional, no-nonsense machine of 10,500 pounds, powered by a 2,500-horsepower engine (later increased to 2,700).

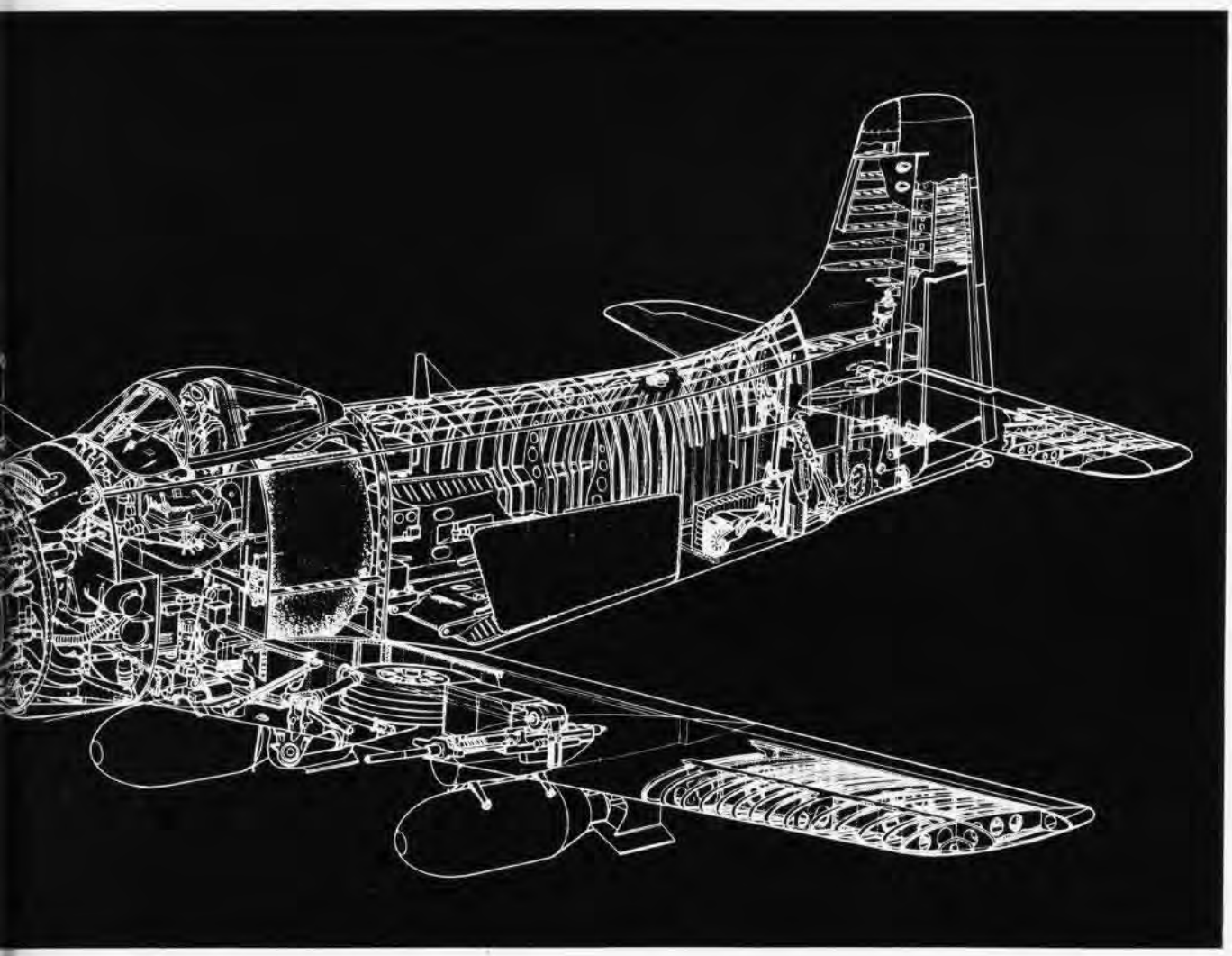
The first *Skyraider*, as it came to be called, flew on March 18, 1945, and LCdr. L. G. Traynor made its first carrier landing a year later. VA-19A received the first operational models in December 1946.

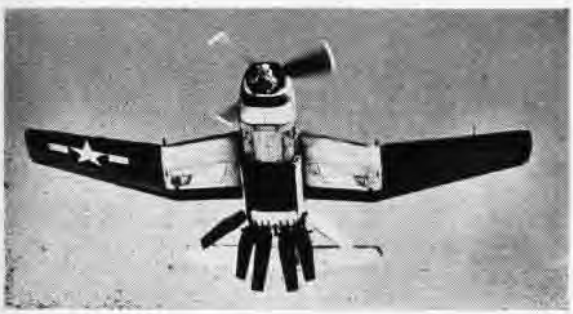
In testimony to its design, an AD-2 in 1949 took off from NAAS CHARLESTOWN, R.I., after a 2,800-ft. run. Its pilot had neglected to unfold the wings. From 200 feet he crashed, emerging from the flames with only slight burns.

In 1950, the dive-bombing *Skyraiders* became "the guts and backbone of the Navy's war in Korea," and in 1951, the first of the 13-hour, long-range, low-level missions was conducted, initiating a new program and concept.

One of the most notable achievements occurred in May 1953 at NAS DALLAS when LCdr. J. S. Noonan of VA-301 took off in an AD-4B grossing 26,739 pounds. With a load of 3,000 pounds more than the basic weight of the airplane, this was roughly equivalent to the weight of a C-117 with 20 passengers.

As *Aero Digest* stated, in a feature article in its November 1951 issue, the development of the *Skyraider* was "the ultimate in aeronautical virtuosity." Ed Heinemann and the El Segundo group had done their work well.



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A-1 ...the Machine

You could date yourself by what you called it: XBT2D-1, *Dauntless II*, AD, Able Dog, Alpha Delta, A-1, Big Iron Bird, Guppy or Queen, all *Skyraiders* of one type or another. And somewhere along the line, as the longevity increased, the vintage craft became a Spad, a not inappropriate metaphor for a fighter bomber that was flying before a lot of its more recent pilots were even born.

Designed as a dive-bomber, it proved to be a remarkably stable platform. Its accuracy in close air support of ground troops earned the AD the reputation of being the finest aircraft for that job ever built. Early modifications resulted in countermeasures and target-towing versions which carried a crewman aft in addition to radar-equipped early warning and night attack models which had two crewmen. "Straight" versions, such as the AD-3, were popular. In the right hands, it could give even an itinerant F-51 a vigorous session.

On occasion, during a Fleet exercise, someone would try to jump a Guppy. This was risky business, especially at night, for, with its sophisticated radar and highly trained crewmen, the "W" could observe an attacker quite clearly and, at slow speed, turn inside of him. At altitudes of 50 to 100 feet, an aggressor could become discouraged.

Special weapons versions carried bomb director and toss-bombing equipment. On long-range training missions, these types were generally accompanied by one or two "N" radar

pathfinders. Low-temperature operations called for winterizing equipment denoted by an "L" suffix. Some of the night versions were stripped of their back seats and electronics to become unadorned AD-4NA bombers.

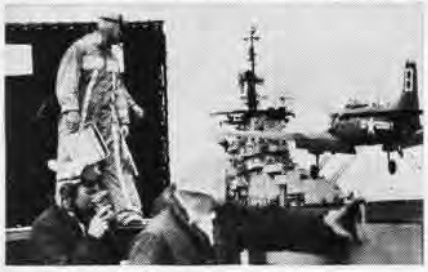
With 18 different models of this rugged combat weapon in action, Douglas began to produce the AD-5 series, the -6 and -7, thereby completing the full line of this truly "all purpose" airplane.

ATTACK *Skyraiders* had an astonishing load versatility. Destruction of targets could be accomplished with either bombs, rockets, torpedoes, 20mm strafing or combinations thereof. On one occasion we know of, a bathtub was dropped. Radomes, searchlights, chaff or DDT dispensers, auxiliary fuel tanks, "buddy stores" and towed targets—all were used to meet varying requirements of missions.

An ambulance modification of the AD-5 could accommodate five litter patients while just about any version abounded with spaces in which personal effects could be transported. (An AD-3W, returning from a protracted overseas cruise, performed an emergency wheels-up landing in a Tidewater Virginia bean field. As the bulbous plastic radome was crushed upon impact, a large amount of cameras, clothes, gifts and goodies was exposed to view, in random distribution along the furrow of the landing swath.)

The combination of high-lift wing, light weight and a powerful engine could brighten a dim situation as when an AD in *Tarawa's* pattern hit the water one night; its pilot brought the plane aboard wet. But at the peak of its career, when 44 squadrons were using the *Skyraider*, the number of stall/spin accidents had become alarming. The trouble was that the AD's lack of hairy characteristics often led to pilot complacency and the sudden application of power in a critical situation could often produce fatal results.

Treated with respect, the Spad would get you there and bring you back and its pilots said they'd rather fight than switch. But the war in Vietnam has been the curtain call for this timeworn, battle-proved performer. The old Navy warhorse has finally been put out to pasture.



Opposite page:

Top: Two sections of Able Dogs are shown in a steep turn for the camera.

Bottom: A-1H on a USS Midway catapult gets "off brakes" signal prior to shot.

This page, left to right, top to bottom:

Night attack AD-4N's of VC-33 with AD-4 of VA-25 in company. Radar-equipped "N" versions were often used as daytime pathfinders. A VC-12 AD-3W performs lonely early warning duties in Fleet exercise off Atlantic Coast.

Ideally suited to carrier operations, the Skyraider came aboard well. But when pushed to limit, it became fatally intolerant of mistreatment. Angled deck and mirror helped reduce stall/spin accident rate.

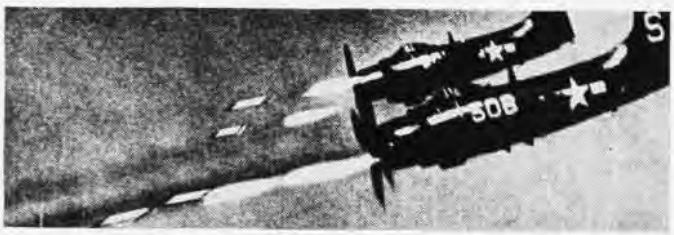
A-1H's of VA-145 carry their load off USS Intrepid. Two 300-gallon Mk. 8 tanks equip Spads for 13-hour, low-level junkets.

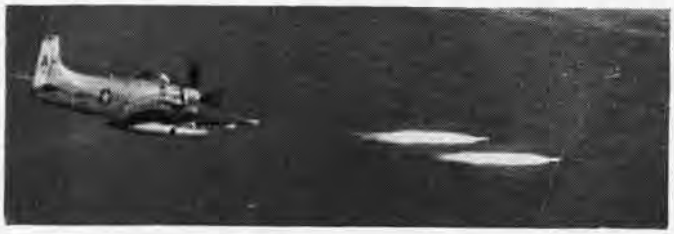
An A-1H of VA-25, the last combat Spad squadron, is overtaken by Skyraider successor, the A-7 Corsair II. Last of the breed, EA-1F's of VAW-33 and VAW-13 will continue to perform their electronic and training chores.

A-1

...the Missions

SKYRAIDERS *from the USS Boxer in 1952 (above) and USS Bon Homme Richard in 1953 (right) dive-bomb North Korean targets. Throughout its Navy career, the A-1 was a specialist in executing low-level rocket and napalm attacks (below).*





...Bullets, Bombs, Electrons

CLAIMED to be the most valuable carrier aircraft ever designed, the *Skyraiders* were equipped to perform four major missions: day attack, all-weather attack, airborne early warning and countermeasures. Their weapons-carrying flexibility enabled them to destroy any type of target, hard or soft, stationary or moving, sea-based or land. The A-1's weapons spectrum ranged from bullets to nuclear bombs.

Whether screaming down from 20,000 feet or hurtling across the treetops, "those blue airplanes" became the scourge of North Korea.

More recently, the drone of a Spad engine overhead could mean salvation for a downed pilot; staying power and deadly 20mm strafing accuracy could effectively keep enemy pursuers rooted.

A POTENT *ground support aircraft for the Marines (shown below), the AD-5 Skyraider acquired dual controls and popularity with U.S. Air Force pilots in Southeast Asia.*

A-1

...and the Men

'When I think back to the early days of feeble aircraft and ill-equipped ships, our progress seems truly remarkable. Men such as these have helped us reach a high state of carrier aviation development.'

—RAdm. Harvey P. Lanham
ComFAirWestPac

A VA-52 PILOT put it this way: "Spad men are doers. They're a tight-knit group, confident, courageous and maybe a little bit cocky. They have to be . . . .

"Perhaps the greatest asset to a Spad man is his versatility. He's flying a plane that is much older than its jet cohorts. He can't climb as high, cruise as fast, or dive as quickly, so he must compensate with superb airmanship."

During the Korean Conflict, while aboard a Seventh Fleet carrier, novelist James Michener noticed a small group of pilots always somewhat apart (or was it aloof?) from other members of the air group. His questions about them were seldom answered. At length, he learned they worked at night, flying *Skyraiders* on intruder and heckler missions above the 38th Parallel.

Michener's curiosity and persistence earned him a midnight combat ride in the dark back end of an AD-4N. Later, the American public was treated to his accounts of Navy pilots dive-bombing clandestine Communist supply movements in stygian North Korean valleys. The enemy had strung heavy copper cables across some of the valleys to discourage the formidable A-1's.

Probably, the most lasting image of the *Skyraider* pilot was formed as he made his way across the flight deck, laden with plotting board, nav bag, helmet, pistol, flashlight, survival gear, box lunches and clutching the rubber doughnut cushion he'd sit on for the next 12 or so hours as he flew an arduous, mimimum-altitude "butt-buster." Pioneers of VX-3 and VC-33 developed this particular low-level activity wherein the seat gets hard, the head aches, the collar chafes and the taste for flathatting is glutted.

Needs arose; the Spad responded. So did the men who flew it. They were responsive to the squadron mission and each other. Spad men believed they possessed unsurpassed camaraderie. They worked as one body, functioning with perfect coordination, each member relying on the others for a total desired effect.

The veteran A-1 driver will say, "You never saw anything like our gang. On the beach or in the air . . . just like a fist! We think we did a harder job than anybody. Nothing was too tough . . . . We tried everything . . . . We succeeded."

No matter what the mission, the Spad man and his A-1 were ready . . . . *Skyraider* tradition demanded it.

SELECTED

Permanent Duty Stations

As VF-661, NARTU WASHINGTON, D.C., was packing and moving to its new permanent duty station, NAS CECIL FIELD, other Reserve squadrons which were called to active duty by the President in January were doing the same thing.

In May, CNO notified the squadrons of their new duty stations.

Joining VF-661 at Cecil Field were VA-831 from NAS NEW YORK and VF-931, Willow Grove. VA-776, NAS LOS ALAMITOS, moved to NAS LEMOORE, and VF-703, Dallas, went to NAS MIRAMAR.

The five units were called up immediately after the seizure of the *Pueblo* for a period of up to two years.

A Family Affair

Twenty years of military service is usually considered a career, but twice that amount isn't enough for OMC Floyd Llewellyn, a member of VP-772, NAS LOS ALAMITOS, Calif. Chief Llewellyn recently completed 40 years of continuous Naval Reserve service and signed for six more.

In 40 years, Chief Llewellyn has done some recruiting at home. While he operates P-2 airborne electronic equipment, his son, Bill, acts as flight engineer on the same crew, and another son, Steve, flies with a sister crew in the same squadron. But it doesn't end there. The Chief's brother, Bill, flies with VP-771 and his son is stationed aboard the USS *Enterprise*.

Commander J. D. Burton, squadron C.O., is the pilot of the *Neptune* on which Chief Llewellyn and his son, Bill, are crew members. He says the father-son team is a real asset.

'Raider' Award

NARMU-751, NARTU LAKEHURST, has presented its third semi-annual "Raider" award to AM3 George Beatty.

The Raider award program was originated by the unit's former C.O., Commander Carroll D. Fox (NA-NEWS, December 1967, p. 29), to honor the individual who best exemplifies the qualities of Readiness, Aptitude, Initiative, Determination, Efficiency and Responsibility.

Commander Robert W. Harvey, C.O., says, "As a result of the recent advancement examinations, 15 out of 16 men from the unit were promoted, thanks to the Raider program."

Model Meet

A two-day air show, featuring the *Blue Angels*, will kick off the National Model Airplane Championships at NAS OLATHE early in August. Four days of model aerial competition will begin on August 5.

Boys and men from eight to 80 will compete for more than 500 trophies and prizes in 30 events. Participants, feminine gender, are rare, but some are expected this year. Twelve foreign teams have already signed for the competition, adding an international flavor.

The contest falls into three categories: free flight, control line and radio control. The meet will also feature model rockets, antique and experimental aircraft and commercial aviation displays.

The Navy hosts the annual meets since model airplane building often leads to a career in aviation. It is estimated that about 75 percent of military and commercial aviators at one time built and flew models.

C-45 Goes to College

Going to school is nothing unusual for retired military men, but it is a little unusual when a C-45 goes to college.

Retired at NAS NEW ORLEANS after 24 years of naval service, the aircraft became the property of Delgado Junior College, New Orleans. At Delgado it will be used to maintain the college's FAA certification for training aircraft mechanics. This helps the school meet the standards for associate degrees in this specialized field.

The Navy veteran was built by Beechcraft Aircraft Corporation and assigned BuNo. 023851 on March 13, 1944. Records prior to February 1954 are not available, but since then it has flown 12,445.3 hours while stationed at various naval air stations.

Captain Sidney N. Baney, C.O. of the NAS, presented the aircraft to Mr. M. E. Thames, Delgado president.

Jig is Up

A wheel jig used in changing a tire on the A-4B *Skyhawk* has brought a windfall to its inventor, AM2 Calvin B. Langmaack, NARTU ALAMEDA. He has received a total of nearly $300.

Removal and reassembly of an A-4B wheel, normally a two-man job, can be done easily by one man with the device. NARTU ALAMEDA reported a saving of $2,675 during the past year by using the time-saving jig which was made from scrap parts.

But There Is a Difference

The officers and men of VF-931, NAS WILLOW GROVE, are finding out that the main difference between active duty and weekend training is work—a lot of it. But the change from one weekend a month to a full-time job has been accomplished.

The most important piece of equipment used by any air squadron is aircraft. At the time of the January call-up, Willow Grove had a complement of 20 *Crusaders* which were utilized by one Marine and two Navy Reserve squadrons. Twelve of the *Crusaders* were turned over to VF-931. The "Navy/Marine" marking on each side of the fuselage was replaced by "Navy" and the "7W" (Willow Grove Reserve designation) on the rudders has disappeared. These are the planes the squadron took with it on moving to Cecil Field.

But a new paint job wasn't all that had to be done. As the pictures on the next page show, all hands are engaged in an all-out effort to be ready.

AIR RESERVE

AM2 STANLEY PODULKA *installs vent drain line used in static run-up of engine for test purposes (below). At right, PRAN Anthony Armino (L) and PR2 Albert Rabin repack a VF-931 chute. AM3 Arthur Kahn and AM Robert Andrews refill the liquid oxygen system on an F-8 (lower right). At Willow Grove, VF-931 men ready squadron Crusaders (lower left).*

ON PATROL

with the Fleet Air Wings

Re-enlistment at 20,000 Feet

VP-6's ATR2 Jose A. Nagore and ATN2 Michael J. Shannon have re-enlisted, which is not an unusual occurrence except for the fact that they were sworn in (by X.O., Commander J. C. Loberger) while 20,000 feet over Okinawa.

Both men are members of the squadron's Crew Eight. Nagore is a radio operator while Shannon operates ASW equipment on a P-3. VP-6, home-based at NAS BARBER'S POINT, is now deployed to NAF NAHA, Okinawa.

History Repeats Itself at VP-45

In 1946, AMM3 Joseph F. Binczak reported aboard VP-45, then designated VPB-205 and based at NAF BERMUDA. Twenty-two years and a few gray hairs later, Joseph F. Binczak is again with VP-45 at NAS JACKSONVILLE. But now he wears two-and-a-half gold stripes as LCdr. Binczak and serves as assistant aircraft maintenance officer.

During his first tour with the squadron, AMM3 Binczak served as plane captain and flight engineer on PBM *Mariner* aircraft. He was promoted to AMM2 and continued as a PO until commissioned ensign in 1958 through the Limited Duty Officer program. Since then, his duty stations have been VF-162, VP-44, USS *Okinawa and* NAS KEY WEST.

VP-44 Reaches Safety Milestone

VP-44 has logged 55,000 hours of accident-free air time. LCdr. Wayne Lamer, the squadron's safety officer, was at the controls of the P-3A *Orion* that flew the record hour while on a flight out of Newfoundland.

VP-21 is Home from Sigonella

After a six-month deployment at NAF SIGONELLA in Sicily, the *Blackjacks* of VP-21, led by Commander E. L. Wilkinson, returned to Brunswick, Maine, the middle of April.

During the deployment, squadron personnel worked extra hours to keep their aircraft flying day and night in all kinds of weather.

Among the unusual conditions encountered by the flight crews was the phenomenon of "yellow ice." This forms on aircraft as a result of sand-laden clouds coming from the Sahara.

Despite the busy operational schedule, squadron personnel found time for community relations projects which included providing playground equipment for an orphanage in Paterno.

To balance the hard work, there were opportunities to see Naples, Capri, Marjorca, Athens and Crete. Brunswick ski enthusiasts even had an opportunity to compare the European ski slopes with those of New England.

Patrol Plane Complex at Jax

In May VP-7 was the first squadron to move planes and equipment into the completed first section of NAS JACKSONVILLE's new $12 million patrol plane complex. Each hangar bay will hold two P-2 or P-3 aircraft for maintenance. Nine 40-foot high doors, weighing 36 tons, may be closed during bad weather.

When completed, the two-story hexagonal structure will cover 350,000 square feet and accommodate five patrol squadrons, with all supporting

A MERCHANT *ship (L) passes under the wing of a P-3 Orion in the South China Sea. VP-50's aircraft check shipping along the South Vietnamese coast to prevent the enemy from moving supplies by sea. Above is the first section of the new complex at Naval Air Station Jacksonville which was dedicated in May.*

supply and maintenance activities located in one area.

Among the VIP's at the dedication were Rear Admiral W. M. McCormick, ComFAirWingsLant, who was the main speaker, and Rear Admiral Robert J. Stroh, ComFAir Jacksonville. Captain Martin J. Stack, NAS JAX C.O., presented a symbolic key to Captain W. W. Honour, ComFAir Wing 11, who has operational control over the squadrons occupying the hangars.

VP-30 Man to Enter College

Congratulations are in order for TD3 M. E. Lazarowitz, VP-30, who was recently selected for the Navy Enlisted Scientific Education Program (NESEP). The program is highly competitive and requires outstanding qualities.

Lazarowitz seeks a college degree in electronics and a career in the Navy as a commissioned officer. Before entering college, he will attend a 10-week preparatory course.

New Chapter of P-2,000 Club

When Detachment Jacksonville of VP-30 welcomed a delegation from its Canadian counterpart, Maritime Operational Training Unit Two, the order of business included the establishment of another chapter of the "P-2,000 Club."

Strictly a social organization, it is exclusive. Only those individuals, pilots or crew members, who have logged at least 2,000 hours in the P-2 *Neptune* are eligible.

Eighteen members formed the new chapter under the presidency of Commander R. J. Campbell, PCO of Detachment Jax. He was presented with a plaque and charter by Captain Floyd Graham, RCAF.

The P-2,000 Club was organized early in 1966 at Comox (Canada) with 21 charter members. It now has a membership of more than 120. According to its charter, the club desires to establish chapters "throughout the world and elsewhere."

Commissaryman Takes to Air

When Rayburn A. Sanderson enlisted in the Navy in 1956, he became a commissaryman. At the present time, he still cooks and bakes at NAS JACKSONVILLE, VP-7's home port. But he is also the proud possessor of another designation; he is a fully qualified aircrewman in the P-2 *Neptune*.

Sanderson decided to earn his wings while VP-7 was deployed to NAF SIGONELLA: "I love flying and I wanted to feel more a part of the squadron."

Although his duties in the galley kept him busy during most of the night, starting in June 1967, Sanderson began his training. Officers and enlisted men of every crew in the squadron cooperated to give him in-flight instruction, ground lectures, loading drills and check rides.

When the squadron returned to Jacksonville, Sanderson continued his ground training. Then, in April of this year, only ten months after his training began, he received his aircrewman wings.

Reunion at Cam Ranh Bay

When LCdr. William F. Snell reported for duty in Vietnam as maintenance officer with VP-50 at Cam Ranh Bay, he met his younger brother, Lt. Thomas R. Snell, who was, at that time, about to return to the United States.

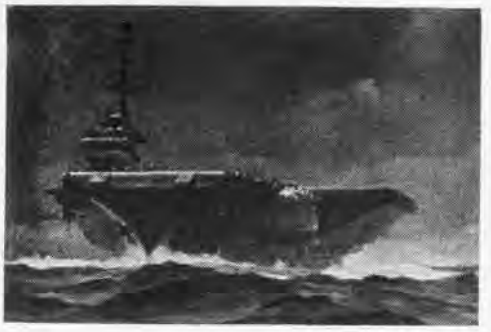
The brothers spent a few hours together while Lt. Snell was waiting for his flight home. After a year as a *Swift* boat commander, he was looking forward to his next assignment, naval flight training.

Australians at Hawaii

One hundred members of the Royal Australian Air Force's Number Ten Squadron recently flew four P-2 *Neptunes* and a C-130 *Hercules* a distance of 5,000 miles—from the RAAF base at Townsville to NAS BARBER'S POINT, Oahu. FAirWing Two and VP-4, the host squadron, greeted them with a hearty "aloha" and they spent the next few weeks participating in joint ASW exercises with Fleet units.

A former member of VP-4, LCdr. John Mueller, currently attached to Number Ten as an exchange pilot, welcomed the opportunity to visit his former shipmates. Several Canadian pilots are also on exchange duty with the Australian squadron.

FRED LASHLEY *(above), Lockheed-California's VP in charge of P-3 projects, makes certain that VP-40's Swordfish clings firmly to board which shows locations of Orion-equipped military units and patches of USN squadrons flying P-3's. At right, wire and guards protect VP-50's Orions at Cam Ranh Bay.*



at Sea with the Carriers

PACIFIC FLEET

Ranger (CVA-61)

Ranger returned to Yankee Station after operating for several weeks in the Sea of Japan. As she steamed for the Gulf of Tonkin, embarked CVW-2 pilots were honored during an awards ceremony. LCdr. Diego Hernandez, VF-154, and Commander Jack Ashmore, C.O. of VA-22, received Silver Stars.

Hernandez won his for piloting his crippled *Phantom* out over the gulf after it had been heavily damaged by enemy ground fire during a strike on Kien An airfield near Haiphong. Hernandez and his RIO, Ltjg. Steve Van Horn, ejected and were rescued within minutes by a Navy helo crew.

Cdr. Ashmore received his Silver Star for planning and leading a major coordinated strike of 35 aircraft against the Hai Duong bridge, a key supply link between Haiphong and Hanoi.

Cdr. Ashmore and LCdr. Doug Barron each racked up their 500th arrested landing. LCdr. Barron's landing was his 300th aboard *Ranger*, making the VA-22 pilot a member of the ship's Triple Centurion Club.

In a ceremony held on the flight deck, Captain William H. Livingston became *Ranger's* new C.O. when he relieved Captain William E. Donnelly.

Ticonderoga (CVA-14)

Tico was on the line when the President announced the limited bombing pause over North Vietnam, but before she left for Subic and a short rest, her embarked CVW-19 pilots flew 365 strikes, mainly around Khe Sanh, helping to break the siege of that base.

Captain Norman K. McInnis, C.O., appeared to be caught up in a political campaign as he stood on the flight deck under a blazing Philippine sun and shook hands with 359 men. But he wasn't campaigning, he was congratulating *Tico* sailors on their promotions following the February advancement exams. Another 39 men will be advanced at a later date.

Constellation (CVA-64)

Constellation, preparing for her next SE Asia deployment, took part in Operation *Beagle Leash* off the coast of southern California. During the exercise, *Connie's* air wing provided offensive capabilities for task units, flew strikes against impact ranges on San Clemente Island and Chocolate Mountain and supported a Marine amphib landing at Camp Pendleton.

CVA-64 is one of the first operating units to receive a new streamlined, labor-saving supply system, the Maintenance Support Package (MSP). The packages contain maintenance supply items in completely prepared storage

ABH1 D. E. BOREN *guides Maj. J. A. Roberts, USMC, and copilot, LCdr. M. W. York, as they make the 43,000th consecutive accident-free helo landing on board Iwo Jima (left). LPH-2, commanded by Captain J.T. Shepherd, is on her third combat deployment to SE Asia. Above, Lt. R. W. Kruger greets the 34 Sea Cadets who came aboard Tripoli for a one-week cruise.*

cabinets, eliminating unpacking and storing of the contents. *Connie* received 89 MSP's holding 27,000 line items. When she comes back from her next WestPac deployment, CVA-64 will return the cabinets and receive fresh MSP's.

Princeton (LPH-5)

In a ceremony that took place on the hangar deck while LPH-5 was tied up at Long Beach, Vice Admiral Francis J. Blouin, Commander of the Pacific Fleet Amphibious Force, presented *Princeton's* C.O., Captain Frank M. O'Brien, *Our Navy* magazine's "Ship of the Year" award for 1967.

The editors of *Our Navy* had this to say about *Princeton* in their January issue: "This 22-year-old amphibious assault ship has flexed her muscles like a youngster while playing a vital role . . . in Vietnam. During her deployment between February and June of [1967], *Princeton* compiled an outstanding statistical record, landing over 4,385 troops, handling 6,300 day and 484 night helicopter landings, steaming a total of 53,876 miles and treating almost 1,000 wounded."

LPH-5 is the eighth ship to receive this honor and the first amphibious ship to be cited.

Yorktown (CVS-10)

The *Fighting Lady's* current WestPac deployment included visits to Hawaii, Subic Bay, Yokosuka and Hong Kong before she took up her station in the Gulf of Tonkin. But wherever she is, her officers and men are eating well, so well that she has been named winner of the Ney Award for the best dining facilities for a CVS in the Pacific. Captain Bill Bennett's ship provides meals 21 hours a day for 2,300 crew members. Forty-one cooks and 132 galley assistants work in 12-hour shifts.

Kitty Hawk (CVA-63)

Kitty Hawk celebrated her seventh birthday while operating off the coast of North Vietnam. The commanding officer, Captain D. C. Davis, took time out to cut the birthday cake. He presented the first pieces to the three remaining members of the ship's original crew, BMC A. T. Comfort, BM1 J. S. Kearney, GM1 B. G. Lyon.

Hangar Bay One echoed with cheers of "arriba" and "ole" as the USO troupe, Chico and Chile, strummed their guitars and began a performance that included Mexican, country and western music. They gave two performances before enthusiastic crowds during their stay on *Kitty Hawk*.

CVA-63 kicked off its Incentive Awards Program when Captain Davis presented over $400 to three crewmen. DCC J. E. Olson and DC2 G. R. Nelson split $115 for their suggestion, a new circle cutting attachment for the carpenter shop jigsaw. AT J. R. Steward's modification of aircraft gear earned him $300.

USS Tripoli (LPH-10)

While LPH-10 operated off the California coast, 34 U.S. Naval Sea Cadets, ages 13-17, came aboard for a one-week indoctrination cruise. The cadets, from the San Fernando Valley area, were assigned duties with the crew and participated in all ship's functions, including general quarters, gunnery exercises, flight operations and medical evacuation training.

And another group, ten members of the Coronado Navy League, came

A SKYHAWK *from USS Enterprise (CVAN-65) makes a bomb run on a smoke-covered jungle truck park near the Marine base at Khe Sanh. The smoke is from strikes just made by other Enterprise aircraft. A forward air controller reported one truck destroyed and two others damaged. LCdr. Paul W. Paine, VA-113, is the pilot of the A-4 which makes the run in the picture.*

aboard for a one-day orientation cruise. After Captain William L. Adams, Tripoli's C.O., welcomed them, they toured the ship and witnessed various shipboard training exercises.

Lts. R. E. Anders and H. E. Risher, HC-3, made the 8,000th helo landing on the LPH in a CH-46 *Sea Knight*. The landing was made while the two-year-old amphibious assault ship was conducting carquals.

Coral Sea (CVA-43)

Back safely in her familiar berth at Hunter's Point after a strenuous eight-month deployment in the South China Sea, *Coral Sea* began a short two-month restricted availability.

Hancock (CVA-19)

Fighting Hannah is back in home port, Alameda, after an eight-month overhaul at the San Francisco Bay Naval Shipyard, Hunter's Point, which gave her, among other things, a central air-conditioning system and an increased capacity for converting sea water to fresh water.

Kearsarge (CVS-33)

Captain Creighton W. Cook, C.O., presented rate advancements to 287 crewmen at ceremonies held while CVS-33 was tied up at her home port, Long Beach. The record number of promotions was doubly impressive because the men passed their exams while deployed to WestPac.

Kearsarge is currently undergoing repairs in the Long Beach shipyard.

Bon Homme Richard (CVA-31)

During the first 34-day line period of her 1968 Tonkin Gulf deployment, *Bonnie Dick's* embarked CVW-5 pilots bombed enemy targets in and around the DMZ and Marine base at Khe Sanh. They also escorted 13 Air Force C-130 and C-123 planes into that base.

CVA-31's arrested landing No. 144,000 was made by Ltjg. John A. Douglass. LCdr. James E. Taylor logged No. 145,000, and No. 146,000 was chalked up by LCdr. Harold E. Eddleman.

In March, Rear Admiral John J. Hyland, CinCPacFlt, presented CVW-5 with the Meritorious Unit Commendation earned while aboard *Hancock* in 1967.

Okinawa (LPH-3)

LPH-3 was awarded the Secretary of the Navy's Meritorious Unit Commendation during formal ceremonies held at San Diego on May 10. Rear Admiral Paul L. Lacy, Jr., ComPhibGru Three, presented the commendation "for meritorious service during sustained combat operations against enemy forces in Vietnam from April 28 to October 31, 1967."

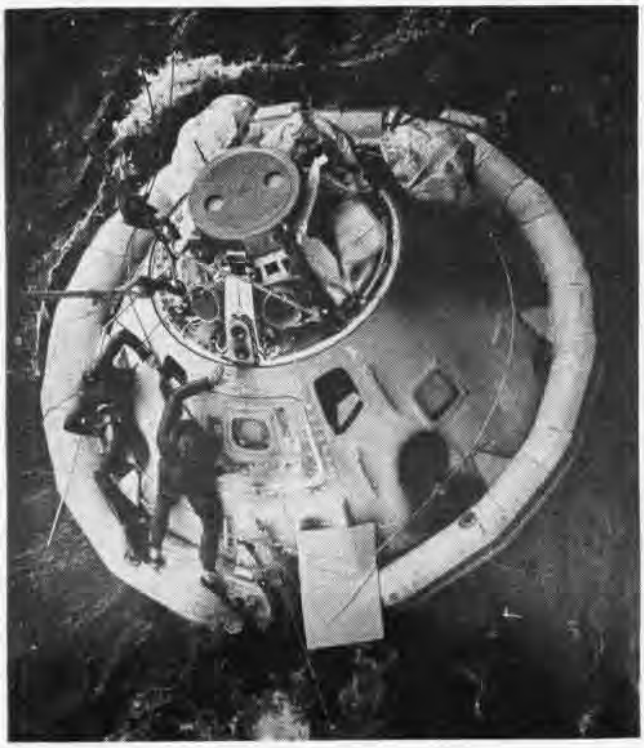
Serving as flagship of Amphibious Ready Group Alfa, *Okinawa* was instrumental in sustaining ten operations and supporting 11 others.

Embarked units attached to the LPH included Commander Amphibious Squadron Nine, Commander Amphibious Squadron Five, Beach Jumper Unit, Tactical Air Control Squadron 11 and Surgical and Casualty Evacuation Team Alfa.

But recently *Okinawa* acted as pick-up ship for the space program.

Okinawa was steaming toward an assigned recovery area north of Hawaii when RD3 E. W. Holzhauser said, "I have an unknown surface contact, bearing 093, 72 miles due east." The contact was the *Apollo 6* unmanned spacecraft.

Minutes later, support aircraft of HS-2 confirmed the contact and dropped two teams of divers from Underwater Demolition Team 11. They placed the flotation gear around the capsule and stood by in rafts until *Okinawa* reached the downed module and hoisted it aboard. The LPH then steamed to Pearl Harbor where the spacecraft was offloaded and taken to Hickam Air Force Base.



AFTER ATTACHING *flotation collar, Navy frogmen place cables on the Apollo 6 spacecraft (left) as they prepare the module for lifting aboard the recovery ship, USS Okinawa (LPH-3). The scorched capsule, recovered 382 miles north of Hawaii, is lifted aboard (above).*

ATLANTIC FLEET

America (CVA-66)

Several distinguished guests came aboard *America* as she paused for an ORI in the Caribbean before proceeding to WestPac.

First to come aboard was Secretary of the Navy Paul R. Ignatius, an overnight guest, escorted by Rear Admiral David C. Richardson, Assistant DCNO(Air). Captain Frederick C. Turner, skipper of CVA-66, briefed the Secretary and his party before they toured the ship. Then SecNav watched *America* refuel a destroyer on the evening of his arrival. He began his second day in the middle of General Quarters during which he watched *America* personnel fire missiles at drone aircraft.

The next day, Deputy Assistant Secretary of Defense for Strategic Programs, Dr. Ivan Selin, flew aboard to observe one day of the ORI.

Randolph (CVS-15)

Nearly 140 non-rated men, fresh from recruit training, completed three months of shipboard instruction on *Randolph* and are ready to assume their permanent billets on USS *John F. Kennedy*. They will serve as part of the precommissioning unit for the Navy's newest aircraft carrier.

Independence (CVA-62)

Capt. Ron Charrier, USAF, an exchange pilot with VF-84, and Ltjg. Ken Corson, RIO, made CVA-62's 100,000th carrier landing in an F-4J.

Independence, under the command of Captain C. A. Hill, Jr., is currently deployed in the Mediterranean.

Intrepid (CVS-11)

German sailors from the frigate FGS *Koeln* (F-220) were guests of the *Fighting 1* while she was tied up at NS NORFOLK. The German ship is part of the Standing Naval Force, Atlantic.

Ltjg. Alexander C. Rucker brought his F-8 down on the flight deck of CVS-11 for the ship's 115,000th arrested landing. On hand to congratulate the VF-111 pilot were the ship's C.O., Captain William J. McVey, CAW-10, Commander John A. Chalbeck, and the pilot's brother, Ens. William B. Rucker, who is assigned to the communications department.

Before it was discovered that Bill Livesays come in pairs, there was some confusion aboard CVS-11. It turned out that the two Livesays, William G. and Billie W., look enough alike to be twins and are both GM1's but are not related. The problem was solved when personnel decided to place the department where each works after his name. William G. works in the career counseling office and Billie W. spends his time in the weapons department.

Forrestal (CVA-59)

Her post-repair trials completed, *Forrestal* steamed to the Caribbean for refresher training and an ORI.

CVW-17 rejoined *Forrestal* during the trials and made 160 arrested landings on the rebuilt flight deck. Commander Robert E. Ferguson, CAW, led his troops aboard, making the first trap in an F-4 *Phantom*.

Lexington (CVS-16)

Forty-seven military men from 19 American republics, including the U.S., members of the Inter-American Defense Board, spent a day aboard *Lex* viewing carrier operations.

Captain E. W. Gendron, C.O., briefed the dignitaries on CVS-16's operations as a training carrier for the Naval Air Training Command.

Two members of the Brazilian Air Force, attached to Corpus Christi squadrons, spent a week aboard *Lex*, training as landing signal officers. Lt. Jose Mario Picozzi is attached to VT-27; Lt. Angelo Guido Barreto, to VT-31. Brazil has one aircraft carrier.

A MILE LONG? *Not quite, but the flight deck of USS Intrepid (CVS-11) looks much longer than its actual 870 feet when caught by the wide-angle lens of PH3 James E. Boesch.*

IT HAPPENED *in America. SecNav Ignatius looks at photographic sensor equipment on one of the big carrier's RA-5C's as Cdr. D. R. Fall, RVAH-13 X.O., explains how it works.*

SHE'S A real workhorse. That's the best way to describe a 16-year-old Navy airplane that ferries everything, including admirals and Vietcong prisoners, through the not-so-friendly skies over Vietnam for the Naval Support Activity in Danang.

The plane is a C-117 *Skytrain*, a twin-prop cargo carrier converted back in 1952 from a C-47. Fondly nicknamed "Bouncing Bertha" and manned by an 18-member team of Navy officers and enlisted men, she supports Army, Navy and Marine Corps personnel in the field.

As the only aircraft assigned to NSA DANANG, now the Navy's largest overseas shore command, Bertha routinely racks up 120 flight hours a month for NSA's "Elephant Airways" (which has in turn been called "one of the world's smallest airlines"). Most of her hops are short ones as she transports people and supplies to NSA detachments and other remote encampments along the demilitarized zone and in I Corps (the five northern provinces of South Vietnam). The aircraft is also flown to Saigon.

Bertha flies supplies to Seabee outposts, ferries Vietnamese refugees to secure locations, rushes emergency stocks of blood and medical equipment to outlying aid stations and takes VIP's on tours of the combat zones. Her crew is often called on to transport minesweep, explosive ordnance and underwater demolition teams to trouble spots on short notice.

Heading up the C-117 flight crew is Lt. Bill Cantrell, NSA air operations officer. Along with Ltjg. Robert Newburg, he does most of the piloting. The rest of the flight crew is divided into two teams; they must be ready to get off on a moment's notice.

Bertha has been grounded for a major repair only once since she arrived in Danang last year, and then only for a week after an engine cut out about ten minutes out of Danang. Constant preventive maintenance helps keep her "up." Because she is the only aircraft servicing almost 8,000 men at NSA and the command's detachments, as well as numerous other units in I Corps, it is imperative that the C-117 is kept in top shape.

Although Bertha does not fly on combat missions, she has had more than her share of close calls. During the enemy Tet (Vietnamese lunar New Year) attack on Hue last February, for instance, her crew had to take her on regular runs to the city. When the Hue NSA detachment manning a cargo ramp on the Perfume River was threatened with being overrun early in the attack, Bertha's crew kept her overhead so messages and instructions could be relayed to the outpost and another detachment eight miles down-river.

The Hue detachment was forced to take cover, and the plane crew lost communication with the men on the ground—but they continued to fly to Hue and, on one of their trips, ground fire hit Bertha's tail section. Later, braving a mortar attack, they landed the plane and evacuated the ramp crew to Danang.

During other missions, the aircraft has been in danger of being hit on the ground, but her determined crew either taxied or flew her out of danger or, on more than one occasion, patched her up after she was struck by shrapnel and kept her flying.

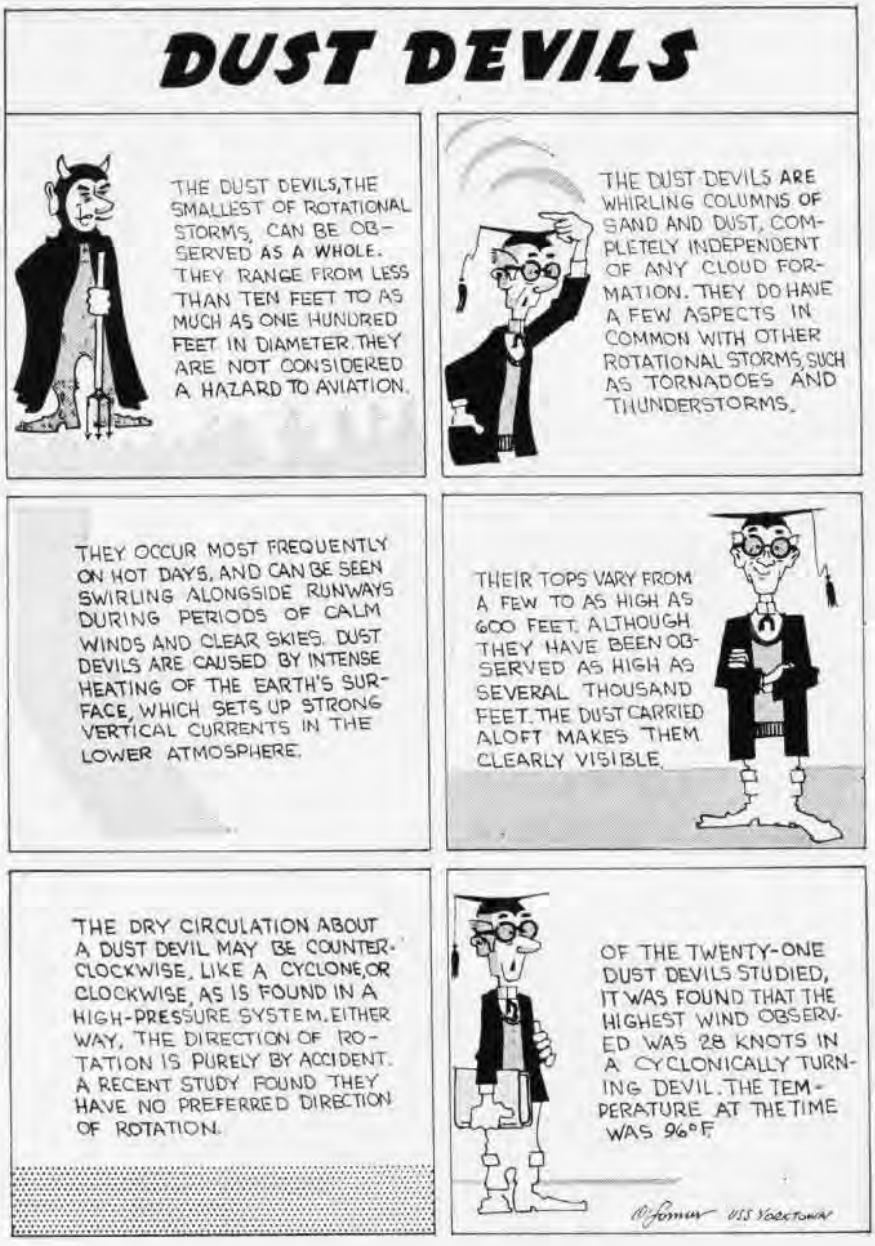
"It's a hectic business, a real challenge to keep the C-117 in the air," is the way Lt. Cantrell puts it. "But we do our job and we like it."

A 16-Year-Old Plane is a Vietnam Workhorse

Assigned to NSA Danang, this C-117 ferries everything: cargo, admirals, and captured Vietcong.

Story and Photographs by JO3 Dave Hough

It's a busy life for Bouncing Bertha, the only plane assigned to NSA Danang's "Elephant Airways"—which may seem a bit ironic since the NSA is the Navy's biggest overseas shore command. In photo at left, opposite page, a ground crewman guides the C-117 to her spot after a flight from Saigon. Soon after the flight, the continuing maintenance needed to keep her airborne begins (photos at right, opposite page, and top, this page)—even to installing an engine (above). At left, cargo is loaded aboard.



Goodyear Fixes Old Tires

Quantico Museum to Display DH-4

Goodyear Tire specialists have put their talents to work on some 50-year-old tires in order that the U.S. Marines may have a historic military airplane in near-mint condition.

The pair of 7.50 x 125 clincher-type tires with a "like-new" appearance will be used on an ancient de Havilland DH-4 biplane that is to be part of the permanent display at the Marine Corps Museum, Quantico, Va.

DH-4's, the first planes used in combat by Marine Aviators, were introduced in 1918 and saw service as land-based bombers in the closing months of World War I.

The tires were shipped from Quantico to the Goodyear plant in Akron, Ohio, still mounted on some ancient spoke wheels which, like the tires, had been original equipment on a DH-4.

Restoring tires for the display plane wasn't easy because the rubber was very brittle. Tire technicians found that the tube in one tire would still hold air; the tube in the other tire would not. Therefore, the flat tire had to be heated enough to permit its partial removal from the wheel so that a new tube of similar size could be inserted. Only enough air to round out the shape of the tires was put in because the rubber was too old to accept full inflation.

After the tires were cleaned and painted, the tire-makers' names, which were molded into the sidewalls, were carefully lettered in white "even though one of the tires was a competitive brand," as a Goodyear spokesman pointed out. Finally, the spoke wheels were cleaned and painted, and the job was done.

The authentic DH-4 will give museum viewers an opportunity to see how things really were in the early days of aviation.

USAF's New Corsair II

First Flight is Made by LTV Pilot

The U.S. Air Force's newest aircraft, the A-7D version of the Navy's *Corsair II* tactical fighter, has made its first flight, according to Ling-Temco-Vought Corporation, Dallas.

Piloted by John W. Konrad, director of flight operations for the Vought Aeronautics Division, the A-7D's maiden flight was made at Hensley Field, adjacent to the aircraft plant. The flight lasted exactly one hour, 48 minutes.

A REPRODUCTION *of the original Curtiss A-1, the first aircraft purchased by the Navy, is now on display at the Naval Aviation Museum at Pensacola. It was built in 1961 in San Diego by aviation enthusiasts to be used as a part of the 50th anniversary of Naval Aviation. The A-1 is on long-term loan to the aviation museum from the Smithsonian Institution.*

THE FASTEST . . . AND THE MOSTEST

PERSONAL GLIMPSES

Editor's Corner

Backstage. This month's feature on the A-1 *Skyraider* (pages 18-27) covers more space than has ever been allotted any subject in a single NANEWS issue. A wealth of material had been collected, especially during the past year. Along with all the news releases and pictures submitted concerning the phase-out of the A-1, a search of the National Archives and the Naval Photographic Center revealed hundreds of additional fine photographs. Editing, naturally, became a real problem.

It was decided to produce a general, over-all, last look, rather than an in-depth study. This meant bypassing numerous interesting stories and pictures, such as the account of Ens. P. S. Gallegos. He was forced down by bird ingestion, wheels up, in Denmark. Sam's task was getting his *Skyraider* moved, with the help of a Danish Army contingent, from a muddy potato patch to an airfield 105 miles away. Although the language barrier and en route telephone poles presented surmountable problems, advancement was slow and the inching aircraft became one of the most slandered and cussed-at planes in the Navy. After many frustrating days (and interesting evenings), they made it.

A great many Navy men aboard carriers had their first airplane ride in the aft end of an AD-3N or -4N. Curiously, a lot of these flights were at night when there wasn't much to see. We know of a case one night in which the AD flew into the water on the upwind turn of the landing pattern. As the plane settled in the briny, the experienced Chief in the dark radar compartment argued with his companion that the jolt had been due to the shock of the arresting cable. The youthful passenger from ship's company was complaining that his feet were getting wet as the pilot, standing outside on the wing of the submerging bird, beat upon their access door with his fist.

Pilots of the "N" versions used to tell their crewmen, "If you see me go by the window, bail out!" Since this advice was fruitless at night, the Douglas people fitted a lanyard near the pilot's headrest. During emergency egress, he was supposed to pull it, thereby ringing a bell back in the crewmen's compartment, signaling them that the front end of their vehicle was no longer occupied.

In January 1949, a series of tests was conducted to determine the *Skyraider's* performance against a fighter, in this case, the F8F *Bearcat*. Since the Grumman device was, according to its pilots, unquestionably the finest propeller-driven fighter ever built, the final report was a sort of compilation of foregone conclusions; but it made interesting reading. For instance, on the acceleration test, the AD-2 was at first left behind (about half a mile), after which the "rate of opening closed rapidly." Other tests provided similar statistics and finally there was the cryptic comment: "Any good AD pilot who knows individual combat and can get the best out of his airplane can achieve an advantage over a poor-to-average pilot in almost any type of fighter." Sixteen years later, *Skyraiders* would be shooting down MiG's in Southeast Asia.

About the time the layout for the A-1 article was complete, we had a visit from LCdr. Rosario "Zip" Rausa. Zip is a former NANEWS associate editor and he'd just completed his second combat tour with VA-25. Since he'd amassed more than 2,200 hours in "the ugly old bird" and flown it on its last combat missions, we knew we were in for a treat when he showed up with his motion picture projector and a half dozen reels of film. Crowded into a small room, ready to take notes, we watched enthralled as on came the *Skyraiders* in blazing color . . . quickly followed by the main feature, Zip's careful study of Disneyland.

What may possibly be the last definitive word on the A-1 is a forthcoming book by B. R. Jackson, scheduled for publication this fall. We're hoping Mr. Jackson has found the space to tell the story *Naval Aviation News* could only touch on.

NAVY'S LAST *combat A-1, with Ltjg. Ted Hill, Jr., at the controls, taxies to the runway at NAS Lemoore for takeoff and farewell flyover. Hill, who flew 78 missions during the final deployment of A-1's in Southeast Asia, made the last landing of a combat Skyraider on the deck of a carrier February 20. Later he flew his A-1 to Pensacola for the Naval Aviation Museum.*

LETTERS

Help!

SIRS: Thanks for printing the story of DC1 "Pop" Swayze, our oldest *Phantom* Phlyer (p. 39, May issue). But I fear my exec thinks your typo, crediting VF-21 with the festivities, was *my* Freudian slip.

You see, I reported from VF-21 in May 1965 and have orders to return in July. So I do have a warm spot in my heart for the VF-21 *Freelancers* but, for the time being at least, I try to keep them out of my VF-121 news releases.

DAVID A. MARTIN, LT., USN
VF-121 Public Affairs Officer

¶ The long arm of coincidence really reached out for this one. A re-check of your release revealed "VF-121" in a number of places but nary a "VF-21" could we find to console us. Thanks for calling it a typo.

NASA Receives XC-142A

Will Evaluate Air Force V/STOL

The Air Force has transferred an XC-142A to the National Aeronautics and Space Administration for further V/STOL testing at the Langley Research Center, Langley AFB, Va., according to an LTV Aerospace Corporation release.

The XC-142A was developed by LTV under a 1961 AF contract as part of the Department of Defense research program for V/STOL aircraft.

NASA will use the aircraft primarily to explore problems associated with operation of commercial V/STOL aircraft in and around landing sites during periods of low visibility. Other government agencies have requested that NASA expand the 18-month program and investigate additional aspects of V/STOL operations.

CDR. A. B. LYON, JR., *USNR (Ret.), of the New York Navy League, rode in a VAW-111 E-1B with his daughter, Ens. Susan C. Lyon, and her C.O., Brent Bushong (left). Ens. Lyon is the only West Coast Wave Officer assigned to an operational seagoing outfit. Her parents were visiting her at NAS North Island.*

VICE ADMIRAL *Thomas F. Connolly, Deputy Chief of Naval Operations (Air), presents Navy's Meritorious Civilian Service Award to Miss Izetta Winter Robb, managing editor of Naval Aviation News. Miss Robb was cited for over 25 years of service to Naval Aviation as editor/writer.*

A Family of Naval Aviators

Ensign Third to Wear Navy Wings

When Ens. Frederick J. Wiley received his Navy Wings of Gold at NAAS KINGSVILLE, Texas, in April, he became the third member of his family to be designated a Naval Aviator, the third time this has happened in the history of Naval Aviation (NANEWS, May 1966, p. 15; November 1967, p. 40).

His grandfather, Rear Admiral Herbert V. Wiley was designated Naval Aviator No. 3183 in 1926; his father, Captain Gordon S. Wiley, USN (Ret.), won his wings in 1945.

Ens. Wiley was carrier-qualified 35 years and two days after the crash of the *Akron*. His grandfather was executive officer and one of three survivors on that airship.

Brazilian Trains at Glynco

Attends Air Traffic Control School

Lt. Mario Francisco Campos, Jr., Brazilian Navy, is currently enrolled in the nine-week air traffic control school at NATTC GLYNCO, Ga. The officers' course consists of technical training in the function and operation of radar, navigation and communications equipment used to control aircraft landings.

Lt. Campos, a flight instructor in a helicopter squadron at the Naval Air Station de S. Pedro de Aldeia in Rio de Janeiro when he was selected for special training, will be qualified to instruct, perform and supervise air traffic control in Brazil.

Tailhook Reunion Planned

To be at Las Vegas Sept. 20-22

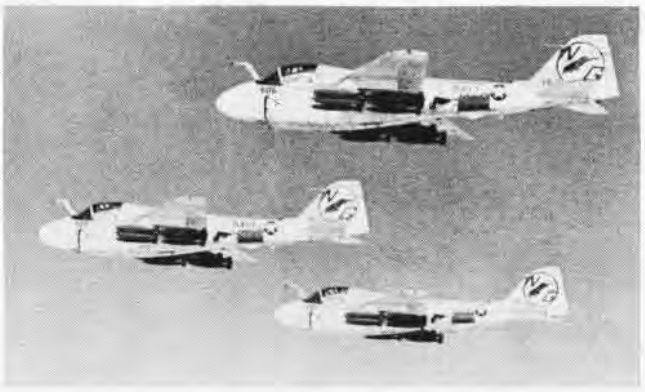
Final plans for the twelfth annual Tailhook Reunion, to be held at the Flamingo Hotel, Las Vegas, Nev., September 20-22, are complete.

An air show, which includes the *Blue Angels*, is planned for Saturday morning. Events for the day will culminate in the awards banquet.

Application blanks are being distributed this month. Reservations should be made promptly since facilities will be limited to 1,200.

CREDITS

The ten pages on the A-1 *Skyraider*, pp. 18-27, constituted a cooperative effort. The article was written by Commander Ted Wilbur, editor of *Naval Aviation News*. Those who assisted him were LCdr. Rosario Rausa, formerly of VA-25, Lt. J. M. Watson, JO1 Jim Lea, JO3 R. W. Spayd and Philip C. Russell. Special thanks go to PH1 Jean Cote, B. R. Jackson (who has completed a book on the A-1), the Public Affairs Office of NAS LEMOORE, and the McDonnell-Douglas Aircraft Company.



VA-35, which flew the BG-1 when it was commissioned in 1934, is the oldest attack squadron and third oldest carrier squadron in the Navy. The 'Black Panthers' distinguished themselves in WW II and Korea and are now on their second tour off Vietnam. Cdr. Herman L. Turk leads the Intruder unit.

SQUADRON INSIGNIA


NAVAL AVIATION
NEWS