NAVAL AVIATION NEWS

November 1977

NAVAL AVIATION NEWS

FIFTY-NINTH YEAR OF PUBLICATION

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Deputy Chief of Naval Operations (Air Warfare)

Vice Admiral F. S. Petersen
Commander, Naval Air Systems Command

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COVERS — Front: *Intruders in the mist were filmed by NANews' Bill Bearden on the VA-128 line at NAS Whidbey Island in August. Bearden's article on Intruder and Prowler country begins on page 8. PH2 Chris [illegible] photographed the HS-6 SH-3A with its MAD gear extended over an unidentified ship off the California coast in January 1976. Above: VAQ-129 EA-6B Prowlers fly in a neat formation.*

editor's corner

Coffee Farewell. The decision was most difficult. Marine Colonel R. Wayne Howland had to react. The astronomical rise in coffee prices and their effect on his NROTC Unit at Miami University, Oxford, Ohio, were serious. The mess was therefore disbanded. Command coffee drinkers were in various states of shock after the plug was pulled on the last pot. Midshipmen conducted appropriate ceremonies commemorating the demoralizing event. Perhaps, if costs decrease, a tradition can be reinstated.

It's Really a Regulus. Art Schoeni sent us this picture with the following note: In the early days of the *Regulus I* guided missile program at Edwards AFB, Calif., its secret classification required some ingenious methods of hiding Regulus' identity as it was being towed on lake beds or highways. Chance Vought Aircraft installed a plywood "canopy" over the nose to resemble a cockpit. Roy Pearson, the first *Regulus* control pilot, stands by an unbuttoned *Regulus I.* When a missile crashed on a nearby lake bed, Roy rushed to the scene and quickly spread out a parachute nearby. He told curious onlookers that he had bailed out from the "airplane." RAdm. DeWitt Freeman (Ret.) was the first Navy *Regulus* control pilot, as a lieutenant. Chance Vought built 514 *Regulus Is* in three versions.

Book Buffs. For followers of U.S. Navy PV squadrons in World War II, Charles L. Scrivner's book, *The Empire Express,* is filled with pictures and text focusing on aerial strikes against the Japanese Kuriles. Historical Aviation Album, Box 33, Temple City, Calif. 91780, is the publisher.

Right Maneuver, Wrong Ship. During fleet war games in 1932, a flyer mistakenly attacked a friendly target — sans live ammo, of course. Squadron

buddies furtively stole up to the flight deck after the hop and decorated the errant pilot's plane with a titled insignia from yesteryear.

The Way It Was. From Rear Admiral J. R. Tate's notebook:

Do you know what "the Bero list" and "Shinny" were?

Bero was a non-alcoholic beer made during the early days of Prohibition.

In the 1920s at Pensacola every pilot was required to sign a list headed, "I swear I have not indulged in any alcoholic liquors in the last 24 hours." This was popularly, or perhaps unpopularly, called the Bero list.

Shinny was a bootleg liquor made mostly around Eleven Mile Creek at Pensacola, made out of cracked corn, chicken food and sugar, fermented and distilled. Raw shinny was about 100 proof and would blow your head off. A five-gallon keg of shinny was $20 and took about a year to age with activated charcoal.

did you know?

Awards Vice Admiral Forrest S. Petersen, Commander, Naval Air Systems Command, presented the Secretary of the Navy Manpower Utilization Award for calendar year 1976 to Capt. V. W. Moore, Jr., C.O. of the Naval Air Rework Facility, Alameda.

The admiral also presented NARF Alameda with the Navy's Zero Defects Sustained Craftsmanship Award. It is the fourth consecutive time the NARF has won the award.

MCAS Kaneohe Bay, Hawaii, has been selected as recipient of the 1976 Secretary of Defense Environmental Quality Award. The award recognizes the military installation with the most outstanding environmental program during the preceding year.

P-3C Update III On July 20 the Naval Air Development Center, Warminster, Pa., successfully tested the *Proteus* system, the latest in a series of improvements in the P-3C Update III program.

Proteus is the advanced signal processor for ASW. It receives signals from sonobuoys, processes the information and displays it. The operator then interprets the data to determine what is producing the sounds. The equipment consists of three basic units: analyzer, display and post-processor. Of the three, only the analyzer has been used before on various missions, including one in the Mark III program, in November 1976.

The integration of all three units for the Update III flight over the Atlantic Ocean near Norfolk, Va., marked the first full system testing of *Proteus* and the processing of a complete range of data. Several weeks of installation and on-ground testing at NADC were required before the actual flight could be carried out.

Three years of testing lie ahead. After further evaluation at NADC, the program will be transferred to NATC Patuxent River, Md.

Testing Nimitz and Eisenhower Navy's two newest nuclear-powered aircraft carriers, *Nimitz* and *Eisenhower*, were tested recently by the Pacific Missile Test Center's Ships Installations Branch to ensure a proper interface with the Navy's aircraft and weapons systems. PMTC's engineers conducted a consolidated operability test (COT) in *Eisenhower*, and a systems assurance test in *Nimitz*. For many years Point Mugu has been tasked to represent the Naval Air Systems Command at this type of testing. The tests are critical because they ensure that modifications made on

aircraft carriers, which relate to weapons systems, meet safety standards.

PMTC engineer Howard Sawa checked more than 80 compartments and magazines in *Eisenhower* at Newport News, Va. The carrier underwent more tests in the COT series before being turned over to the Navy by the shipbuilders.

In Portsmouth, Va., *Nimitz* was evaluated as part of an acceptance requirement following ship alterations. Twenty-five compartments were examined, including handling and storage facilities, for their interface with the F-14 *Tomcat*, S-3 *Viking* and related weapons.

After two weeks of work on the ships, Sawa reported that no significant problems were encountered.

Microwave Landing System

As landings go, it appeared fairly routine, but when a Naval Air Test Center pilot set his F-4J *Phantom* down recently on a runway in Atlantic City, N.J. (at FAA's National Aviation Facilities Experimental Center), he was demonstrating a system that may make flying significantly safer in the approach phases. Lt. Jim Ellis was making the first landing by a high performance aircraft using the time reference scanning beam (TRSB) microwave landing system (MLS) (*NANews*, March 1976, p. 35). It is the U.S. candidate for international standardization which would give every aircraft the ability to land safely anywhere in the world regardless of weather. TRSB reaches out electronically and "flies" a plane to a safe landing without the pilot having to touch the controls. FAA is managing the program.

There is a long-range, international plan to select a landing guidance system that would be electronically common to all nations. Virtually every airport and aircraft carrier would use the same system.

The current international standard, the instrument landing system (ILS), has some inherent limitations that restrict its use in fulfilling approach and landing requirements, according to FAA. Its signal is susceptible to interference and weather degradation, and it is limited in the number of frequency channels available. ILS landings are restricted to a single, narrow approach path, whereas MLS-capable aircraft will be able to fly through a variety of patterns and even offer the pilot a selection of possible approaches.

NATC's long-term part in the search for a reliable landing guidance system has been to assure that the system selected, from among the various ones under consideration, be compatible with the requirements of Navy high performance aircraft. Lt. Ellis explains that commercial airlines and the Army and Air Force use a flare type of landing. "They need a system to bring them in to a spot somewhere on the runway within 1,000 feet. The Navy has only about 40 feet to work with, so our job is to make certain the systems being studied by the International Civil Aviation Organization are sophisticated enough to meet Navy's needs for glide slope landings."

Following a comprehensive development program and an in-depth assessment in which the Navy played a key role, the U.S. selected the TRSB system in early 1975 as its candidate for international standardization. Having completed its own comparative examination of candidate systems, an international panel of experts recommended that TRSB be considered over all other candidates for adoption at a worldwide meeting in April 1978.

FDR Retires

USS *Franklin D. Roosevelt* (shown in 1956) joined the ranks of decommissioned carriers on October 1. She left Mayport, Fla., on June 8 under Captain E. F. Rollins, Jr., and steamed for the last time in her 32 years to NAS Norfolk. She

was then towed to the Portsmouth Naval Shipyard for the final preparations for her decommissioning.

Thermal Protective Coating

In 1967, a fire aboard *Forrestal* caused the loss of many lives. A similar incident occurred aboard *Enterprise* two years later. These accidents led to Navy research into thermal protective coatings for munitions and to the discovery of some promising new materials which swell and char when exposed to flame and form an insulating fire-retardant barrier between the flame and the object.

The most effective coating to date has been developed at the Naval Air Development Center, Warminster, Pa. It is based on epoxy and polysulfide resins modified with a liquid intumescing (swelling) agent, triphenyl phosphite. Since the primary components are liquid, a great variation in physical properties is possible. Coatings as hard and brittle as glass or as soft and flexible as rubber have been formulated with the simple addition of a polysulfide complex to the base polymer.

The agent is insoluble in water and therefore does not require a topcoat in most exterior applications. As a thermal insulator, this coating is superior to any intumescent material previously tested in a high-flux environment. The char formed during the reaction is both light and strong with good adhesion to any primed metal substance.

Birth of a Hornet

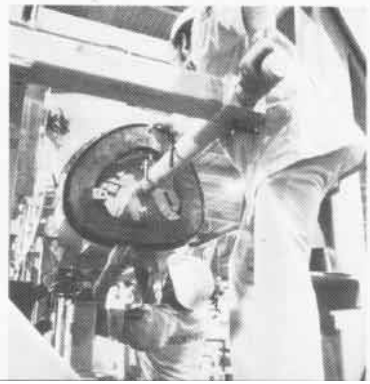
When the F-18 enters operational service with the Navy and Marine Corps in the early 1980s, it is expected to replace the F-4 *Phantom* and A-7 *Corsair II.* Northrop Corporation is responsible for building the center and aft fuselage sections, including engine installation, and the vertical stabilizers. McDonnell Douglas is the prime contractor.

Assembly of the first major components began on schedule in August at the Northrop facility in Hawthorne, Calif. This signals the beginning of the final manufacturing process which will lead to the first flight of the initial F-18, scheduled for the fall of 1978.

The Navy plans on using the *Hornet* in both fighter and attack roles while the Marines will fly it in light attack and air defense roles.

A prototype of the F-18 has been conducting tactical demonstrations at a number of bases to show what the aircraft will do in combat.

In the photos, Northrop assembly technicians work on the center fuselage/engine inlet section; an F-5E from Navy Fighter Weapons School is joined by an F-18 prototype.



grampaw pettibone

No Fuel—No Flame

Four A-4C drivers reported to the ready room for a night loft bombing hop at approximately 2230. The squadron was deployed at an NAAS for intensive weapons training. The flight leader briefed the hop, his third flight of the day and his sixth within 24 hours. The flight members then signed for their aircraft and proceeded to the flight line.

During preflight of his aircraft, the flight leader found that two fuel caps were not secured and questioned the plane captain. The plane captain explained that the truck had run out of fuel after pumping only 315 gallons into the aircraft and he was waiting for another refueler. The pilot checked the fuel gauge: it read 2,600 pounds. He figured the 1,900 pounds that had been added would give him around 4,500 pounds for the flight. He decided to take the aircraft, rather than hold up the hop waiting for additional fuel.

At light-off, he noted only 3,200 pounds on the fuel gauge, but as the other pilots were set to go, he elected to cut the hop short but continue as briefed. The flight taxied out, took off and, while in the rendezvous turn, the flight leader noted his fuel aboard to be 2,600 pounds. He decided he would bingo after three loft maneuvers or a low state of 1,200 pounds, whichever occurred first.

For the next several minutes, the pilot was completely occupied with the loft maneuvers and the position of the other aircraft in the flight. On the sixth loft at approximately 12,300 feet and 220 knots in an inverted position, the engine unwound. Recovery was accomplished by pulling the nose to the horizon and rolling out. The pilot immediately selected

emergency generator, manual fuel control and, with the throttle in the idle position, turned on the air-start switch. Relight attempts were unsuccessful, so the throttle was brought around the horn and the air-start switch turned off.

After several Mayday transmissions on guard and more air-start attempts, the pilot suddenly realized the flameout was due to fuel exhaustion – an "O" reading on the fuel gauge immediately confirmed this.

Altitude was 8,000 feet at this time. As he was over a desolate area, he prepared to eject. As the aircraft was turned toward an area considered safe for ejection, the pilot saw the runway lights of the air station. Since he was in good position for a flameout approach and realized that this predicament was totally pilot-induced, he made the decision to attempt an approach. Completely sold on the low-level capability of the seat he was riding, he elected to reserve a final decision on whether to eject or continue the approach until he was at the 90-degree position.

He made several more attempts to raise the tower on guard to inform them that a flameout approach was being made, but he couldn't get through. Passing through 5,000 feet msl, the gear was dropped and the pilot thought he saw three safe indications. Things looked good to the pilot as he passed over the threshold lights at 200 feet and 150 knots: a slight flare was commenced. As the sink rate seemed a little excessive, the flap handle was lowered in an effort to cushion the landing.

Initial touchdown felt normal, but shortly thereafter the right wing started to drop. The pilot was unable to hold the wing up and, as the wing tip contacted the runway, the aircraft porpoised again and became completely airborne. As the aircraft contacted the runway a second time, it started a severe swerve to the right. After leaving the runway and crossing a drainage ditch, it continued across several hundred yards of rough desert terrain before coming to rest against a pile of sand.

After coming to a stop, the pilot jettisoned the canopy, released his rocket jet fittings and abandoned the aircraft, uninjured.

Grampaw Pettibone says:

Jiminentlies! Some days you can't make a dime! Here is an experienced, well qualified flight leader charged with the responsibility of setting an example for the other lads in his flight and he accepts an aircraft with a partial load of fuel.

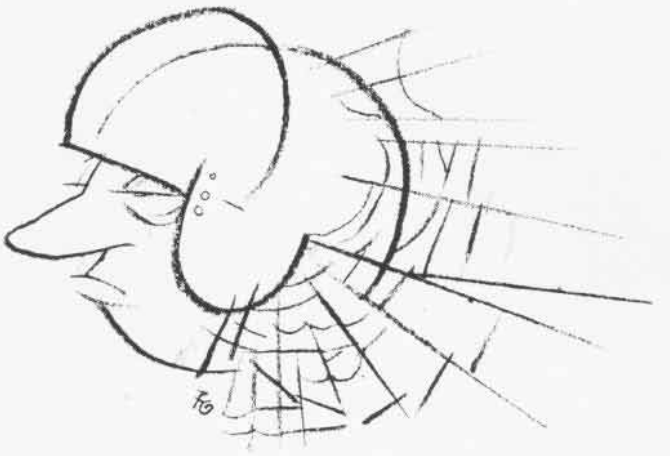
This conscientious gent had only four and a half hours of sleep the previous night. He had been occupied all day with collateral duties and this was his third loft bombing hop of the day. Mental and physical fatigue probably influenced his decisions throughout the entire flight. These actions – de-

ILLUSTRATED BY Osborn

ciding to take the aircraft with a low fuel state, forgetting his fuel state, repeated attempts to get a relight before discovering fuel starvation, a decision to attempt a night flameout approach, not utilizing the emergency gear system after deciding to land and finally not noticing the unsafe gear indication – all combine to substantiate a fatigue cause factor in this accident.

The underlying factor associated with this accident is that the pilot accepted an aircraft short of fuel, and endeavored to complete the flight as scheduled. From that point until the little bird smashed into the desert sand, each decision became more complex and involved.

The decision to attempt a night flameout approach in an effort to bring the aircraft back is questionable to say the least. The pilot's decision was made after due consideration of his proficiency in the aircraft, an unpopulated approach path to a 14,000-foot runway, complete control of the aircraft, and confidence in the low altitude capability of his spring seat. Although not recommended, this particular flameout attempt would probably have been successful had the pilot lowered the landing gear with the emergency system. Flameout approaches should not be attempted except under the most ideal "daylight" conditions – a long enough runway in an acceptable area – and only by an experienced pilot at the proper state of proficiency.



We are all real clever and appear pretty bright when afforded the opportunity to make a wise decision based on hindsight and what might have been. I'm sure no one has said anything that this pilot hasn't repeated to himself several times since this fiasco. (April 1964)

Record FOD Walkdown?

Sometimes, in the current environment of fiscal constraint, an uncommon approach to solving common problems arises.

Carrier Air Wing 17, Commander Metz commanding, took on such a problem last January at NS Roosevelt Roads. The air wing, using 150 men and several trucks, collected over 1,000 pounds of FOD consisting of runway chunks, rocks and other debris. The FOD sweep included the entire 11,000-foot x 200-foot runway, 11,000-foot x 75-foot parallel taxiway and various other taxiways and ramp areas. This cooperative effort between air wing and station personnel was conducted prior to their aircraft arrival in January, and again in May. CVW-8 duplicated the effort during its visit. Result – a good facility with increased utilization and, to date, no foreign object damage to aircraft engines. The folks at Roosey Roads are anxious to keep up their current pace of operations and, with this positive type of approach to problem solving, they can.

Grampaw Pettibone says:

Oh, my achin' back! A thousand pounds of FOD! A lot of bending over and picking up paid dividends for everyone. A Well Done to CVW-17 and CVW-8 from Ole Gramps for showing what imagination, cooperation and an achin' back can do.

Prowlers

Prowlers Intruders and NAS Whidbey

Intruders

By JOC Bill Bearden

You don't have to be a nature lover or outdoor person to enjoy duty at Naval Air Station, Whidbey Island, Wash. But it helps. It seems almost criminal not to appreciate the post-card beauty of the countryside. This area could almost be called Little Switzerland.

NAS Whidbey, the largest naval activity in the Northwest, is situated on the shore of Puget Sound on the second largest island in the continental United States. A two-hour drive north of Seattle, the station lies in the middle of rich farming country where grazing cattle and acres of hay enhance the rustic atmosphere of this friendly, Dutch-settled island.

It is surrounded by waterways with the land heavily speckled by woods. Nearly all summer long, snow-capped mountain peaks dominate the southeast horizon. To the west and along the coast is the Olympic mountain range. Some of the oldtimers claim that way off in the distance when there's no cloud cover and the sun is shining brightly, Mount Rainier can be seen towering in the mist that obscures its peak.

As storm clouds roll in from the sea, the Cascades act as a shield, holding them back and causing them to linger in the area for days, sometimes weeks, before dissipating. Whidbey is far enough north to avoid heavy rainfall, but sprinkles and light mist are often a part of the daily weather.

According to Whidbey's outgoing skipper, Captain Richard S. Hopper (page 12), the station has more VFR flying days than Alameda or North Island.

It is severe and varied flying territory, however, with the nearby mountain ranges, eastern Oregon plains, rivers and streams, sea coast and miles and miles of sea. That's what makes Whidbey such an ideal training ground for the aircrews that fly the *Intruders* and *Prowlers*.

These are the all-weather planes which must feel their way to and from carrier decks, on the darkest of nights, in the foulest of weather, while flying low over treacherous terrain in search of the enemy.

On September 21, NAS Whidbey was 35 years old. The station was placed in commission on that date in 1942 when, at precisely 1600 hours, Captain Cyril Thomas Simard duly commissioned the air station and became its first commanding officer.

There were 212 men present for the commissioning ceremony. Few could foresee that the new base, in the months ahead, was to be more permanent than many of the dozens of wartime fields being built all across America.

Originally the station was built as a base for seaplane patrol operations, rocket-firing training, torpedo overhaul, and recruit and petty officer training. At the end of WW II, it was placed on reduced operating status until December 1949 when plans were begun to make it the multi-type, all-weather Navy field of the Pacific Northwest that it is today.

Currently, Whidbey is the home of all of Navy's electronic warfare squadrons flying the EA-6B *Prowler*, a carrier-based tactical jamming aircraft. It is the West Coast training and operation center for the A-6 *Intruder* attack bomber squadrons, as well as the center of activity for Navy and Marine Air Reserve training activities in the Northwest.

The mission of the air station is to provide services and material for the fleet. It supports independent units which, in turn, support fleet operations. To accomplish this there are approximately 6,400 military personnel (NAS, tenant units and fleet squadrons) and around 1,300 civilian personnel. The annual payroll is in excess of $91 million. In 1941 a little over $3 million was appropriated to build the station. Today, it is worth in excess of $360 million.

Supporting fleet units is a big job and the following tenants assist in accomplishing this task: FASOTraGruPac Det, Marine Barracks, Naval Air Maintenance Training Det, Naval Weather Service Environmental Det, Navy Exchange, Naval Hospital, Navy Calibration Lab, Naval Air Reserve Unit and Marine Air Reserve Training Det.

NAS Whidbey is actually composed of two bases five miles apart. One is the Seaplane Base and the other is NAS which is also known as Ault Field. It is named in honor of the late Commander William Bowen Ault, a courageous squadron commander who was killed in May 1942 during the Battle of the Coral Sea. Located on the western shore of the island, Ault Field contains most of the station's military activities. The Seaplane Base is on the eastern shore at the edge of Oak Harbor. It houses the family services center, commissary, exchange and some of the family housing units.

Also under the jurisdiction of the station are Outlying Field, Coupeville; Admiralty Bay Mining Range; and Cornet Bay Crash Boat Station – all located on Whidbey Island; Boardman Bombing Range, Boardman, Ore.; and the Radar Bomb Scoring Unit, Spokane, Wash.

When the go-ahead was received for construction, NAS Whidbey went from blueprints to reality in an incredible 18 months. Thousands of men and women, over the years, have filtered in and out of Whidbey. Aircraft, far more advanced than those which the 212 Navy men of 1942 were concerned with, have landed on its fields. The training, by far, has outclassed anything they could imagine.

Construction of the station actually began in January 1940 amid heavy mud and, to the astonishment of the work crews, hundreds of Indian skeletons. The bones were duly reburied on a nearby Indian reservation, with appropriate ceremonies.

Another discovery made during the construction of the base was that no mess hall facilities had been planned. When higher headquarters was contacted, it sent a prompt dispatch stating that all men would eat at Seattle's mess facilities. Plans for a mess hall at Whidbey were quickly approved when Washington brass was informed that Whidbey's men would have to travel 130 miles round trip, three times daily, to comply with such a directive.

The first 15 years featured mostly patrol operations with amphibians and bombers playing a part in the war effort. Early aircraft were the land-based PVs and the PBY and PBM seaplanes. F4Fs and, later, F6Fs were also flown there. Patrol bombing squadrons flew PB4Y-2s. It was common at Whidbey to see mass formation flyovers of fighters, dive bombers and torpedo planes en route to their warbound carriers.

After the war, the station was placed in reduced operational status. With lean years ahead, it was almost certain that the base would be earmarked for decommissioning.

Meanwhile, the Navy was choosing its permanent postwar bases and requirements were strict. Six-thousand-foot runways were now standard. A seaplane base was desired near an airfield. Approach paths had to be suitable for radar controlled approaches under any weather condition. Space had to be available for storage, fuel farms, barracks, training buildings, hangars and aircraft dispersal. Ships should be able to take aboard planes, men and supplies from the air station.

Photograph above is the Seaplane Base traffic control tower just after construction, November 3, 1945. Far right below is an oblique view of Ault Field as it appeared in 1944-45. One of today's squadron pilots, below right, inspects the bomb racks of his medium attack A-6 to make sure all is "go." Active NAS SAR team rushes a patient to an awaiting helicopter for medevac to a nearby hospital, right. This patient gave birth to twin girls en route to the hospital.

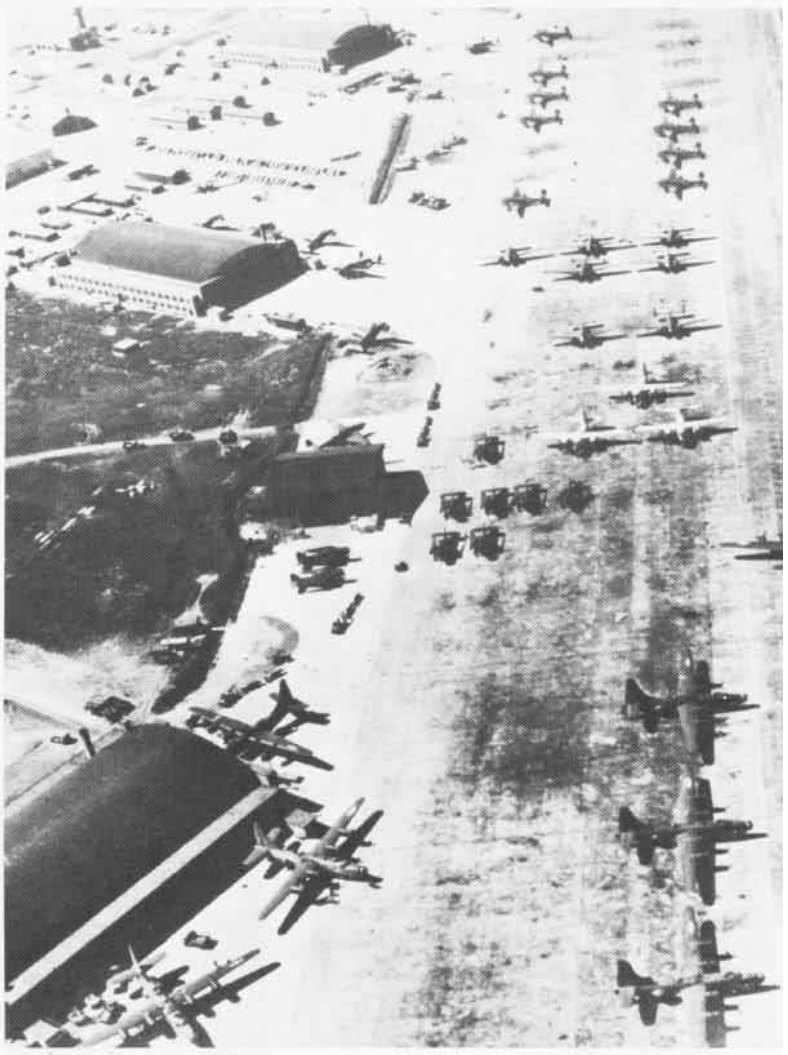
The Navy made its decision in 1949. NAS Seattle was suitable for training reserves and as a base for a limited amount of aircraft traffic. But it could not be expanded into a major fleet support station. NAS Whidbey Island was then selected as the only station north of San Francisco and west of Chicago suitable for this fleet support role. Circumstances combined to give Whidbey a future as secure as Naval Aviation itself.

In 1953, emphasis was switched from the Seaplane Base to Ault Field, which was designated a master jet base. Commander Fleet Air, Seattle was redesignated in February 1954 as Commander Fleet Air, Whidbey. This reflected the change in headquarters location. Squadrons at Whidbey during the postwar era included Patrol Squadrons 1, 2, 4, 9, 17, 29 and 57.

The Korean Conflict led to expansion and new construction. The base once again teemed with training and operational flights. VP-1 returned in March 1955, after a record, round-the-world trip.

The seaplanes were entirely phased out in the early 1960s. Heavy attack-tanker squadrons were built up. Whidbey was now the home of all Pacific Fleet heavy attack tanker squadrons flying the A-3 *Skywarrior*, and patrol squadrons with the P2Vs. Heavy attack units stationed at Whidbey were VAHs 2, 4, 6, 8, 13 and 123, the training squadron.

The first three A-6A *Intruders* were flown into Whidbey in August 1966. The station thus prepared for another phase of its career as the only West



Coast training center for this new weapons system.

The Naval Air Reserve Unit and the Marine Air Reserve Training Detachment were transferred to Whidbey from NAS Seattle in 1970, signaling the station's role as a reserve training center in the Northwest.

In January 1971 another chapter of history began with the introduction of the EA-6B *Prowler*, a carrier-based tactical electronic jamming aircraft. By May 1971, two EA-6B aircrews had completed an instructional syllabus. On July 1, 1971, VAQ-132, the first fleet deploying squadron, was activated. Whidbey's first A-6E *Intruder* arrived at VA-128 on December 18, 1973.

The air station today supports 17 VA and VAQ squadrons which operate approximately 160 aircraft, and another 27 aircraft flown by the air station and the Navy and Marine Reserves.

The future of the station looks stable and healthy. The greatest need is for replacement of the four WW II wooden hangars. Funding for at least one new hangar is anticipated. Naval Air Station Whidbey Island is accomplishing its mission and is accomplishing it well, says Captain Hopper. He sums up:

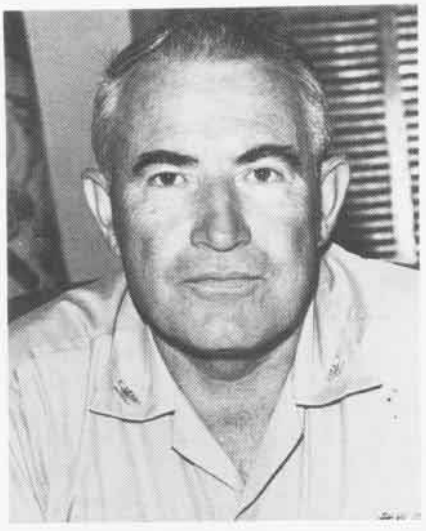
"The enthusiasm, dedication and can-do attitudes of all our people, both military and civilian, and the tremendous community support we and our families enjoy, provide the ingredients that have earned Whidbey the reputation as a great place to be stationed."

Through the 35 years of its existence, the station has had its share of humor to accompany its many achievements. According to historian Dorothy Neil, Whidbey Island will always remember the farmer who held the Navy at bay. He walked his fence line with a shotgun until he got his check from Uncle Sam for purchase of his property. There was the young lieutenant who played "quick-draw" and shot himself in the leg. There were the Navy pilots who exuberantly flew their small planes under Deception Pass Bridge until superiors, taking a dim view of such antics, put a stop to it.

NAS Whidbey Island stands for the future. And the dedication of the Navy men stationed there is what Naval Aviation is all about.

C.O. : Bright Future

Captain Richard S. Hopper is the outgoing skipper of NAS Whidbey Island. As C.O. he also headed Outlying Field, Coupeville, Wash., where the squadrons do field mirror landing practice; the bomb range at Boardman, Ore. (page 16); and the radar bomb scoring unit in Spokane, Wash. He assumed command in October 1974. After a three-year tour, he has been relieved by Captain James M. Seeley. Capt. Hopper's new assignment is with CNO's staff at the Pentagon.



Capt. Hopper began his flying career as an antisubmarine helicopter pilot. He later flew AJs from *Hornet* and A-3Bs from *Ranger*. He was first stationed at Whidbey in 1963 with Heavy Attack Squadron 10. He later commanded Reconnaissance Attack Squadron Nine and Attack Carrier Air Wing Six.

"The A-6 and EA-6 are two of our principal aircraft and will be a part of carrier aviation for a long time to come," Capt. Hopper says. "The long-range plan includes commissioning of two or three more *Prowler* squadrons – giving the Navy one squadron for each aircraft carrier."

Commenting on the future of *Intruders* and *Prowlers*, he says, "I think the EA-6B is a dynamic aircraft system. Electronic warfare is a dynamic evolution. And change is the name of the game. The basic airframe is good and provides the vehicle which enables the Navy to modify and update its systems and equipment in order to keep up with the state-of-the-art.

"With the updating of the A-6 to the E version, the bombing and reliability of that aircraft has come a million miles. It is an outstanding aircraft. I think we'll be operating it for another 10 to 15 years. The Navy's got a Model A Ford that really runs; a reliable airframe that we can count on to perform and do the job."

Prowler

Medium Attack Boss

Rear Admiral Henry Duff Arnold is Commander, Medium Attack Tactical Electronic Warfare Wing, Pacific. He assumed command in July 1977, reporting from Washington, D.C., where he was on CNO's staff as director of Tactical Air-Surface Electronic Warfare Research and Development.

RAdm. Arnold began his flying career as a fighter pilot in Korea with Fighter Squadron 93 onboard *Philippine Sea*. He flew A-4 *Skyhawks* in Vietnam. He commanded Attack Squadron 22, Attack Carrier Air Wing 11 and Naval Air Station, Whidbey Island, Wash. He was first introduced to the A-6 when he went through a brief training period for the CAG-11 job.

RAdm. Arnold's decorations include the Silver Star, the Legion of Merit, the Distinguished Flying Cross and the Bronze Star.

NANews: Having been the commanding officer of NAS Whidbey Island from 1971 to 1973, what changes have you noticed most since your return as wing commander?

RAdm. Arnold: I think the most significant change I've noticed is in new construction. We have numerous new facilities – barracks, enlisted mens club, Navy exchange. Additionally, the reserves are now flying the P-3, which is something we were most anxious to see happen. They flew P-2s when I was here before. We now have nine commissioned EA-6B squadrons and have received the improved version of the *Intruder*, the A-6E.

The city of Oak Harbor has not changed drastically in four years, it continues to be a very strong Navy community.

Does the aircraft noise, necessary during normal operations, cause conflicts in the local community?

We do not currently have many noise problems. In the past there has been a strong effort by the Navy, with the support of the community, to regulate both flight operations and zoning laws to eliminate many problem areas.

We have recently undergone some very heavy night FCLP work at Coupeville. When I was commanding officer of the station such operations would have caused a great hue and cry from the civilian population. The work done on the public relations program to educate the civilians as to what the noise is all about has resulted in fewer and fewer complaints.

Would you explain the distinction between the medium attack squadron and the light attack squadron missions?

Medium attack aircraft provide a night and all-weather attack capability exploiting the A-6's radar and navigational system. A pilot and bombardier/navigator make up the crew which accomplishes this very demanding mission. Light attack is oriented fundamentally for visual operations. The A-6 world is built for all-weather operations off the carriers. This means that *Intruders* are capable of flying underneath enemy defenses using radar and computer-generated weapon release. The medium attack squadrons must train and be ready to provide the operational commander with a ready force for attack under any conditions, day or night. When combined with the capabilities of the light attack community, they make up a formidable around-the-clock offensive punch.

Are you experiencing Group IX shortages as is the case in many Navy units?

The distribution system is determined at a higher level than we have here. Generally speaking, I would say that we get our fair share in relation to the other communities. We are a bit more demanding in that we have some very complex equipment in both the *Prowlers* and *Intruders*. Consequently we have to have very high quality people. As it stands right now, we are doing the best we can with what we've got. We would like to have more, of course, but our squadrons are performing in an outstanding manner with what they have at the present time.

Would you compare the quality of today's aircrews and enlisted personnel with those of a generation ago or when you started flying.

I'm quite impressed with the caliber and the talent of the people that we have today. I must say, since the days when I was flying, the world has become more complex and the demands that we place on our people from a brainwork point of view are far ahead of what I was used to. I'm most impressed with the ability of our young people to adapt to today's more demanding requirements.

The *Intruder* has been around for some time now. Is it still equal to the task?

The A-6 is a fine airframe. The Navy has taken advantage of technological advancements in that the computer, radar and system integration has been continually improved. From a systems point of view the *Intruder* of today is not even close to what we originally had.

The A-6E and its newer system is proving to be more maintainable than the early ones. In addition, system accuracy has contributed to unbelievable improvements in habitability. With TRAM (target recognition attack multisensor) coming along, another giant step forward will be achieved.

It seems obvious to me that the A-6 will be around for a long time, and will be able to handle future commitments, if we are successful in anticipating and planning for the future to meet changing threat environments.

How is the TRAM system progressing?

TRAM is in development testing at the present time. We are going to be participating in an evaluation at China Lake this fall. Whidbey will provide maintenance support.

The ability of the crew to visually identify targets at night using the TRAM system is going to overcome an age-old problem — positive target identification. The bombardier/navigator will know that he has his cross hairs where he wants them and can hit what he is aiming at.

When do you expect to receive the first TRAM version of the A-6?

We were able to support operational evaluations of the A-6E TRAM as early as October of this year and look for the first aircraft to arrive late in 1978.

What improvements would you like to see in the A-6 community here?

We need more hangar space, preferably of modern design to match the kind of aircraft we have. As you look around, you'll find some very expensive planes housed in WW II wooden hangars. The squadrons are doing the best they can, but they deserve better facilities.

There are many very fine ideas regarding improvements of the A-6's standoff, target identification and weapons delivery techniques being discussed. I hope we can take advantage of these.

The ever-increasing thrust which we see in the electronic warfare area is one which demands our complete attention and support. Electronic countermeasures and electronic countercountermeasures comprise a fast moving game. The system which supports them must meet any threat.

How do the Soviets stack up against us in their air defenses with aircraft similar to the *Prowler*?

The Soviets possess a potent electronic warfare capability in their aircraft arsenal, shipboard equipment and main battlefield armament. While they possess no aircraft similar to the EA-6B, they have aircraft that can deny the effective use of our radar systems just as the EA-6B can deny them the use of theirs.

What do you see for the future?

I think the vast improvements in system reliability and accuracy will provide a more capable force for future strike planners, and that new weapons and delivery techniques will continue to support the importance and viability of the all-weather attack mission.

I see continued improvement in the operational capabilities of the EA-6B. We are just learning how to best employ this system and, as we gain experience, we will significantly enhance the effectiveness of our carrier-based forces.

I see the air station here at Whidbey Island as an excellent base for future operations. The Navy/Civilian community rapport is unsurpassed and provides an excellent environment for all of our operations.

ATTACK–WHIDBEY STYLE

The basic mission of all A-6 squadrons is high-speed, low-level, all-weather, air-to-ground delivery of ordnance. The Grumman A-6 *Intruder* was designed for day or night attack and also has extended, long-range airborne capabilities.

An average of 40 officers and 300 enlisted men are assigned to a VA squadron. There are usually 12 A-6s and six KA-6D tankers in each unit. VA-128, the *Golden Intruders,* was the first medium attack squadron at NAS Whidbey Island. It was commissioned in 1965. The six other Whidbey VA squadrons are the *Knight Riders* of 52; *Green Lizards,* 95; *Arabs,* 115; *Swordsmen,* 145; *Boomers,* 165; and *Main Battery,* 196 (see insignia, inside back cover).

One-twenty-eight is the A-6 readiness training squadron and is assigned the task of training pilots and bombardier-navigators for all West Coast fleet VA squadrons. It also manages the fleet replacement aviation maintenance program for enlisted personnel including plane captains and the following ratings: AQ, AT, AE, AO, AD(J) and AM(S)(H).

Without the efforts of these highly trained specialists, the *Intruders* wouldn't get off the ground.

Story and Photos by JOC Bill Bearden

Prowler Community

Story and Photos by JOC Bill Beard

In the Navy's electronic warfare (EW) community there are 10 *Prowler* families who support and fly the most sophisticated version of EW aircraft in the world, the EA-6B. They make their home at NAS Whidbey Island.

You might consider VAQ-129 to be the parent of these families of tactical electronic warfare squadrons (VAQs). VAQ-129 provided the nourishment and training these fledglings required from conception until they were able to leave the nest and fly on their own. It is the EA-6B replacement training squadron. The offspring squadrons are numbered 130 through 138. Their nicknames are, respectively, *Zappers, Lancers, Scorpions, Wizards, Garudas, Ravens, Gauntlets, Rooks* and *Yellowjackets*. The long-range plan is to commission three more VAQ squadrons so that there will eventually be one for each aircraft carrier.

Each squadron has four planes and averages 24 officers and 160 enlisted men. The VAQ squadrons, unlike the VA units, deploy to both East and West Coasts.

The heritage of these families dates back to October 1968 when Carrier Airborne Early Warning Squadron 130 transitioned to the electronic warfare arena. VAQ-130 was followed by two former all-weather bombing squadrons, 131 and 132. As the U.S. prepared to meet the growing electronic countermeasures threat, the early warning and all-weather capabilities of these squadrons naturally evolved into EW assets. These three nucleus squadrons provided electronic countermeasures and air-to-air refueling for sea and shore-based squadrons. They were followed in 1969 by 133 and 134, the last of the *Skywarrior* EW squadrons.

The EA-6B *Prowler* soon appeared

on the horizon to replace the *Skywarriors.* The station's last A-3 squadron, VAH-10, was redesignated VAQ-129 in September 1970 and became the community's replacement training squadron, instructing aircrews and ground support replacement personnel for all the Navy's *Prowler* squadrons. Its mission remains the same today. By year's end, the squadron will have trained nearly 600 fleet replacement pilots and naval flight officers (electronic countermeasures operators), and 4,700 enlisted maintenance personnel.

Since introduction, the EA-6B has undergone internal and external changes. The Navy is now using a third series of the aircraft. The versions have included the standard, the expanded capability (ExCap), and the latest, the improved capability (ICap).

In September 1975, VAQ-129 began training Marine Corps aviation personnel in the expanded capability EA-6B. On September 1, 1977, the *Playboys* of VMAQ-2 Detachment X became the first of three Marine detachments to transition to the EA-6B. The two others will be designated Y and Z.

Electronic warfare countermeasures require constant updating to compete with enemy radar-guided guns, missiles and aircraft. The *Prowler* was the first aircraft built from the drawing boards to fulfill the EW role. Its primary mission is to protect fleet surface units and aircraft by jamming enemy radar and communication. Secondary missions include electronic surveillance, antiship-missile defense and surface radar operator ECCM training.

Built by Grumman Aerospace Corporation, the *Prowler* is designed for carrier and advanced base operations. A derivative of the two-place A-6 *Intruder,* the EA-6B has been lengthened to accommodate a four-place cockpit, increasing the crew complement to one pilot and three electronic countermeasures operators (ECMOs). Other distinguishing features include a pod-shaped antenna fairing atop the vertical tail fin, more powerful J52-P-408 engines and a strengthened airframe structure.

The *Prowler* supports strike aircraft, ships and ground troops by degrading the enemy's electronic weapons systems. The avionics contained in the aircraft enable it to navigate under all-weather conditions, without reference to ground navigation aids, and to fly high altitude or low level terrain clearance.

The EA-6B's "weapon," the ALQ-99, jams with 10 times the power of previous systems. Five integrally powered pods with a total of 10 jamming transmitters can be carried on the *Prowler.* Each pod covers one of seven frequency bands. The *Prowler* can carry any mix of pods or fuel tanks, depending on the assigned mission.

Sensitive surveillance receivers in the tail fin pod can detect radar at long range. Emitter information is fed to a central digital computer that processes the signals for display and recording. Detection, identification, direction-finding and jamming sequence may be performed automatically or by crew manual assist.

In the latest expanded capability configuration, two ECMOs operate the ALQ-99 from the aft cockpit. Either ECMO can independently detect, assign, adjust and monitor the jammers, and select one of several modulation techniques to use against any particular radar. The ECMO in the right front

seat is responsible for communications, navigation and defensive ECM.

The most predominant characteristic of life in the electronic warfare world is change. As a result of its dynamic nature, EW places heavy demands upon its practitioners. Thus the emphasis on training continues in order to develop and field a total electronic warfare capability to meet the requirements of tomorrow. Those who control the electromagnetic spectrum will most likely control the outcome of a future conflict.

Faced with this knowledge and the growing threat of the dynamic characteristics of electronic warfare, the *Prowler* community places top priority on training. The EA-6B's highly sophisticated electronic equipment must be operated and maintained by skilled experts if it is to operate effectively and efficiently. The prime force in training is VAQ-129 which makes certain these experts are provided.

Their instruction runs the gamut from the pilot and three ECMOs down to the scores of avionics and airframe maintenance specialists so vital to operations and support. These latter personnel receive EA-6B training in their own specialty according to their previous training, skills and fleet experience. When there is a change from one aircraft version to another, everyone must be retrained.

To accomplish this task, the replacement training squadron is divided into two major sections. The aircrew training is done at Prowler University while FRAMP trains aviation maintenance personnel.

At school, pilots and ECMOs get a heavy dose of academic instruction. They learn the aircraft and its systems. Then they fly the EA-6B against ground-based radar tracking complexes. It is interesting to note that the facility at NAS Whidbey, called the T-6 complex, was designed and constructed by VAQ-129 personnel from items salvaged through the supply system. It consists of a portion of an Army *Nike* system, a T-6 simulator discarded from the Air Force B-52

Many valuable hours are spent training and retraining Prowler crewmen. Opposite page, top, crewmen strap in for training hop while below them pilot and ECMOs use simulators for fore (center) and aft (bottom) cockpit familiarization. Tail markings, left, are the Playboys, first Marine EA-6B Det. Below, plane captain crawls in and preflights engines. At sea, bottom, two VAQ-134 aircraft are readied for catapult launch from Forrestal.

program, and a radar picked up from Portugal. Students also make runs to Fallon and against Air Force and Canadian units when these can be scheduled.

The training goal at Prowler University is to prepare the aircrews for combat situations and to be as versatile as possible in ECM.

The big advantage at FRAMP is the hands-on experience in the maintenance of airframe and airborne systems at the organizational and intermediate levels. This is supported by classroom training. The program is designed to reinforce knowledge gained in service schools and in the fleet.

Through constant change, expansion and modernization, VAQ-129 maintains a training program that is flexible enough to keep pace with the advances and improvements in EW technology. In its hands rest the ability and responsibility to train *Prowler* squadrons to thwart enemy radar, inhibit communications, delude aircraft and missiles, and cloud the enemy's vision.

With innovations occurring so rapidly in electronic warfare, transition time for new systems is highly critical. Though systems and tactics are constantly being improved, the airframe has remained the same. This allows fleet replacement personnel more time to absorb new EW tactics and systems during transition since they are dealing with a familiar aircraft.

The *Prowler* family represents an unusual segment of Naval Aviation. It's a segment of strange new computerized terminology, weapons that detect and neutralize instead of destroy, and constantly changing tactics and rapidly advancing technology. It's Naval Aviation of the Seventies. The *Prowler* is the hunter and the hunted. In its combat role, it is completely without arms. Yet, without the *Prowler,* much of our airborne attack force could be neutralized by the enemy's radar-directed weapons. The *Prowler* is on the move so that others may survive.

BOMBS AND

Boardman, Ore., is a small town with a population of about 600. It is a relaxed town. So relaxed that the cows stop to rest in the streets and some even take a siesta.

Boardman is located 210 miles southeast of NAS Whidbey Island. Its existence is very important to the station's mission.

It sits between the Columbia River and the Oregon Trail, two-thirds of the way across the state. It is a very flat area that warms up to the 90s in summer. An agricultural expanse, Boardman is the summer nesting area for the Curlew, a bird with an oddly curved bill, and a rest site for the Golden Eagle.

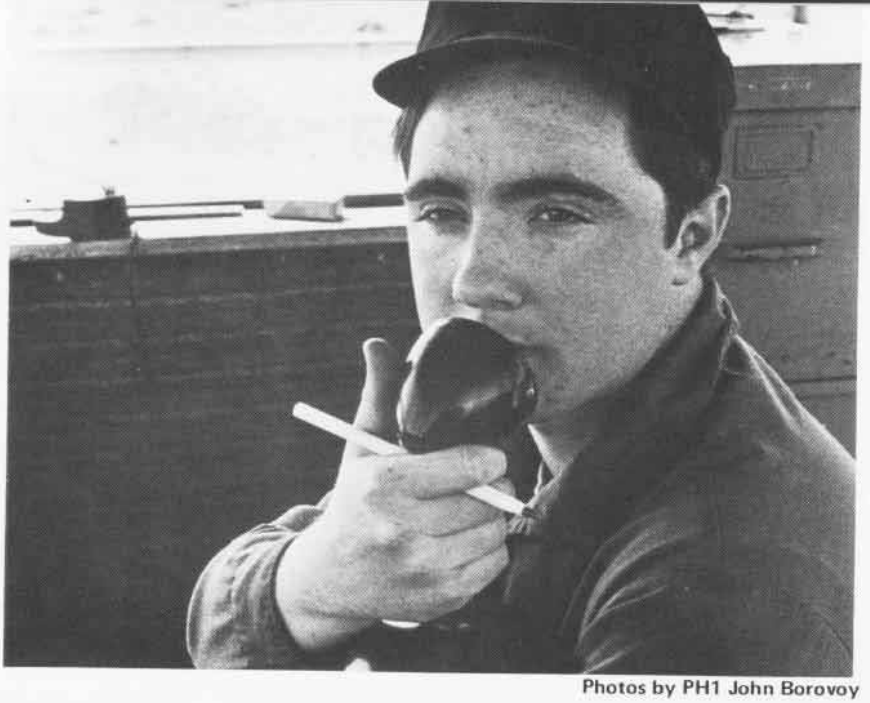
Boardman is also the operating area for another rather strange looking bird, the A-6 *Intruder*.

It is the home of Navy's 50,000-acre Boardman Bombing Range. The 30-year-old facility was turned over to the Navy in 1954. Prior to that it was occupied by the Army and Air Force.

Today, the range supports an average of 20 planes a day which fly in from all parts of the western states to drop an estimated 100 to 150 practice bombs at the two targets.

"Boardman is utilized by our A-6s for bombing, both conventional and simulated nuclear delivery tactics," says Captain R. S. Hopper, outgoing C.O. of Whidbey. "We have an unusual moving target which they bomb, as well as the fixed radar reflective targets."

The combination of Seabee, airedale



Photos by PH1 John Borovoy

BOARDMAN

and black-shoe Navy ratings makes the operation of the range practically self-supporting.

"I've got 60 men there who operate the range," the skipper says. "They're assigned to operate the equipment and to watch for and put out fires. If you drop a Mark 76 in the dry grass, there is always a chance of starting a fire."

There are five spotting towers located around the targets. It is necessary to man three towers at a time to score each plane's attempt at hitting the target. The smoke from a practice bomb is plotted and each tower calls in its reading to the main tower where they are charted for exact point of impact.

Personnel work one day on and one day off. Their workday begins at 7 a.m. and many times lasts until midnight. They live in the local area.

One of the targets the unit maintains is not at all common to a target range. Chief Steel Worker Grady E. Griffin (Seabee), senior chief at Boardman, calls it an interim mobile land target or simply abbreviates it IMLT. The IMLT is a dune buggy with a Volkswagen engine and a remote control device. It is operated at speeds of 8 to 10 miles per hour. (At the time of this writing, it had not been hit.)

"Our job here is to spot, plot and score bomb hits," says Chief Griffin, "and that's an all day job. But when it's over," he confides, "the Columbia River makes a swell place to go boating when that summer heat starts pushing up."

O3U/SU

The A-7 is officially the *Corsair II,* but the second basic model Vought *Corsair* to serve with the Navy was the O3U-1 of 1930. The initial O3U-1s followed the last O2U *Corsairs,* the O2U-4s (*NANews,* November 1973). P&W Wasp-powered biplanes, like their O2U predecessors, the O3U-1s had newly designed lower wings with span, sweep and dihedral matching the upper wings, along with many other detailed improvements. Originally designed to have amphibious landing gear (floats with retractable wheels), 82 were delivered as convertible landplane or seaplane observation aircraft for capital ship or carrier operations.

The O3U-2s which followed were considerably improved in detail and generally more streamlined in appearance. Equipped for carrier or field operations only, they had new landing gears, ring cowls on their P&W Hornet engines and a revised rear gun installation. Twenty-nine of these and 63 similar O3U-4s became SU-1s, -2s and -3s and were widely used by Navy and Marine squadrons. Seventy-six contemporary O3U-3s were Wasp-powered land/seaplanes with similar improvements and a new rudder design to improve spin recovery.

Experimental models were the XO3U-5 and XO4U-2 having the then new P&W Twin Wasp, Jr., radial engines; and the XSU-4 with its Hornet engine in a full NACA cowling and boasting an enclosed canopy for pilot and gunner. None of these became production models, but 40 modified SU-2s with new tail configuration became SU-4s. The XO3U-6 prototype, incorporating new approaches to the XSU-4's features and drooped ailerons for increased lift, was a modernized O3U-3 and was more successful, with 32 production O3U-6s being delivered for use by the Marines as landplanes. The last one was modified with upper and lower wing flaps and other changes and was tested as the XOSU-1 in 1936. However, newer type aircraft were superior and it was converted back to O3U-6 configuration.

While these later *Corsairs* never regained the spritely performance of the first O2U-1 prototypes, they were rugged work horses for the fleet during the Thirties and many were exported for use throughout the world. As they were replaced from the mid-Thirties on, they did their tours as advanced trainers and general utility aircraft. A number were converted to radio-controlled target drones at the Naval Aircraft Factory. Still widely used at the time of Pearl Harbor, they became ground trainers and were phased out as the new WW II types became available.

SU

O3U


X5U

O3U-1

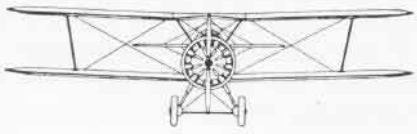
O3U-3

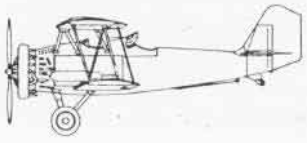
O3U-6 Drone

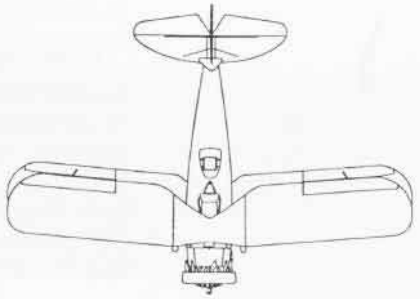
O3U/SU

Span		
O3U-1		36′
O3U-3		36′
O3U-6		36′
SU-2		36′
Length		
O3U-1		30′
O3U-3		31′
O3U-6		27′3″
SU-2		26′3″
Height		
O3U-1		13′6″
O3U-3		13′2″
O3U-6		11′5″
SU-2		11′6″
Engine		
O3U-1	P&W R-1340C	450 hp
O3U-3	R-1340-12	550 hp
O3U-6	R-1340-18	550 hp
SU-2	R-1690-40	600 hp
Maximum speed		
O3U-1		137 mph
O3U-3		156 mph
O3U-6		164 mph
SU-2		171 mph
Service ceiling		
O3U-1		15,100′
O3U-3		16,600′
O3U-6		17,800′
SU-2		19,500′
Maximum range		
O3U-1		616 miles
O3U-3		610 miles
O3U-6		728 miles
SU-2		788 miles
Armament		
O3U-1, O3U-3, O3U-6, SU-2		one .30 machine gun, forward firing
O3U-1, O3U-3, O3U-6, SU-2		one .30 machine gun, rear gunner
O3U-1, O3U-3		up to 120 pounds of bombs on each wing
O3U-6, SU-2		four 116-lb bombs

O3U-1 and 3 data is for seaplanes and O3U-6 and SU-2 for landplanes.







PEOPLE PLANES AND PLACES

An H-3 from HS-74 at NAS South Weymouth was dispatched to the crash site of a Cessna 310 which had been on a VFR flight from an airport in Rhode Island. The crash was spotted by another two-engine private plane in the vicinity and reported to authorities.

Crew members, including LCdr. Ernest

Ross, LCdr. Peter Hailer and PO1 John Warford, picked up the Cessna pilot from a raft and took him to the Coast Guard station at Otis AFB, where he was found to be in good condition and released.

The cause of the crash apparently stemmed from power loss. The aircraft sank immediately.

NARF North Island unveiled the first aircraft modified as a part of the F-4J service life extension program (SLEP) in a roll-out ceremony in July. Guest speaker was RAdm. E. E. Tissot, Commander, Fighter Airborne Early Warning Wing, U.S. Pacific Fleet. The aircraft was then sent to NATC Patuxent River for test and evaluation.

The service life extension program implements specific modifications and improvements to fleet aircraft to extend the aircraft's operational life. By making modifications which increase structural strength, redesigning and replacing electrical wiring and installing the latest air-combat improvements, F-4J *Phantom IIs* will be capable of continued service through the 1980s.

A Navy helicopter from NAS Fallon rescued an injured hiker stranded in the Sierra Nevada mountains near Lake Tahoe. The helo, responding to a call for assistance from the El Dorado County sheriff, located the 21-year-old hiker but was unable to land in the rough terrain.

HM1 Mike McDonald was lowered to assist the hiker and attended to the victim's leg injury while the helo hovered overhead. The hiker and McDonald were hoisted aboard and flown to South Lake Tahoe Airport where the victim was transferred to a civilian medical facility.

There are thousands of families in which parents and children are all Navy veterans. But there aren't many with the combined service records of the Snodgrass family of San Saba, Texas.

Retired Cdr. Samuel B. Snodgrass recently visited the *Challengers* of VF-43, at NAS Oceana, where his son, AEC Samuel B.

Snodgrass, Jr., supervises the electrical branch in the squadron's avionics division.

Sam Sr.'s four brothers also retired from the Navy, two as chief petty officers, and his daughter served as a Navy nurse.

VAW-125 returned to NAS Norfolk recently after a seven-month deployment onboard *JFK*. The squadron received the ComNavAirLant Battle E for efficiency, the Atlantic Fleet Golden Anchor Award for enlisted retention and the Chief of Naval Operations Safety Award. C.O. is J. E. Connerton.

VF-41, NAS Oceana, is the first F-14 squadron to complete carquals aboard *Nimitz*. Together with VF-84, also from Oceana, they are the first F-14 squadrons assigned to the carrier. The *Blacks Aces* are led by Cdr. Ward L. West, while Cdr. William J. Townsend leads the VF-84 *Jolly Rogers*.

Four aircraft carriers recently marked milestones for arrested landings. Cdr. C. Flack Logan, X.O. of VF-32, and Lt. Jim Somers made the 100,000th trap aboard *JFK*. *Constellation's* 171,000th landing was made by Cdr. Dave Cowles and LCdr. Gary Croteau of VF-211. VF-33's Lt. Tom Ritchie pushed *Independence* over 196,000 arrested landings. Lt. Henry F. Turner of VT-23 marked *Lexington's* 372,000th trap.

The U.S. was represented in the Nordholz, Germany, Air Show by a *Mad Fox* crew presently deployed to NAF Sigonella.

Displaying a P-3C *Orion* for the estimated 70,000 visitors, VP-5's Crew One welcomed aboard many German nationals during the day-long aircraft exhibit and air show.

As opposed to an annual affair, the Nordholz Air Show was a special occasion commemorating German Naval Air Day; consequently, it was with extra pride that the *Mad Foxes* participated in the festivities. During their weekend stay, the crew was hosted by local military representatives and developed some personal friendships as well as an appreciation for the life styles of our NATO allies.

Ltjg. Donna Spruill flies a C-130 for VRC-50 at NAS Cubi Point.

Flying since 14, she has logged 550 hours in Cessna 150s, 172s, 182s and Piper 180s. While in flight training at Pensacola, she logged about 200 hours in T-34s, T-28s and S-2s. After graduation, she turned down the opportunity to fly A-4s because she wanted

to fly something more powerful and heavy, like the C-9 or C-130.

Spruill is presently a third pilot (backup for the copilot) in the squadron. "But," she asserts, "one day, I'll be an aircraft commander."

Records:

Cdr. Dave Edwards, C.O. of VA-12, heads a list of three new *Ubangi* centurions and two double centurions. Sharing centurion honors with Cdr. Edwards are Ltjgs. John Somers and Bill Carrico, while Lts. Howard Petrea and Jim Beardon logged their 200th arrestments onboard *Independence*.

Three *Sundowners* of VF-11 recently earned triple centurion patches in *FDR*: Cdr. Dave Alexander, C.O.; Cdr. Tom Clife, X.O.; and LCdr. John Payne. The three men have amassed a combined total of 1,900 traps, flown a dozen different types of aircraft and accrued almost 10,000 flight hours.

Cdr. V. A. Karcher, skipper of RVAH-12, and his crewman, Ltjg. W. G. Perdue, have set personal records onboard *Independence* – Karcher for his 300th *Vigilante* trap and Perdue for his centennial landing.

Lt. Mike Stansel of VF-211 recently logged his 500th *Constellation* arrested landing. He may be the first RIO to record over 500 traps aboard the same carrier.

Navy F-14 BuNo 157988 became the first *Tomcat* to log 1,000 hours. Aircrew members during the flight were LCdr. Art Day, pilot, and Maj. John Miles, NFO. The record hour was recorded during a test of the AIM-54 *Phoenix* missile over the PMTC Sea Test Range at NAS Point Mugu.

S-3A *Vikings* have accumulated more than 100,000 flight hours since the carrier-based subhunters were introduced to the Navy in 1974.

Cdr. J. S. Bertrand, C.O. of VF-194, recently flew his 2,000th hour in the F-4. Several other *Red Lightnings* also hit milestones. LCdr. Chuck Porter and Lt. Bob Lamar reached 2,000 hours; LCdr. Norm McCoy and Lts. Lee Griffin, J. T. Walior and Lee Barthold have flown 1,000 hours.

Two TAR officers of VFP-306 flew the squadron's 5,000th accident-free hour in their RF-8G *Crusader.* LCdr. Jerry Weber and Lt. Tom Palmer marked the record hour in the oldest tactical jet still used by the Navy.

VAW-116's skipper, Cdr. Donald D. Gingles, logged 3,000 hours in the E-2 while deployed with CVW-17 to Roosevelt Roads. He is believed to be the first Naval Aviator to reach this milestone in the *Hawkeye.*

CVW-3 established a record for operating an entire year without an accident. Cdr. "Bear" Taylor, CAG-3, reached a personal milestone when he made his 1,000th trap aboard *Saratoga* flying an F-4J from VF-31.

Several squadrons have recorded milestones in accident-free flight hours. They are: VA-22, 10,000; HC-3, 25,000; HS-5, 31,000; VP-68, 35,000; VS-21, 40,000; and VT-24, 50,000. Some other units marked their accident-free records in years: HSL-34, two years; VA-66, three years; VA-86 and VF-142, four years; and VP-1, eight years.

Bird nests usually don't pose much of a hazard. However, in the air intake of a C-1A, bird nests are dangerous. Safety wire, cotter pins, twigs, you name it and the birds of NAF Sigonella will use it to build their homes. Standard engine covers proved no match for these master builders.

ADC Billy Swick, power plants supervisor for VR-24, combining creativity and experience, drew up plans and fabricated the VR-24 Super Birdie Stopper. Easily inserted into the air intakes of a C-1A, the birdie stopper eliminates those four-man-hour nest removals from the aircraft. In the picture, left to right, are ADR2 John Arndt, ADC Swick and ADR3 Matthew Monard.

Crash crew members in asbestos suits at MCAS El Toro prepare to test the capabilities of one of the station's two new fire-fighting trucks. The new trucks have more than tripled the fire-fighting functions of the trucks used formerly, although they are only slightly larger and require smaller crews.

Capt. John A. Chalbeck, skipper of NARU Jacksonville, recently celebrated two anniversaries: 30 years as an active Naval Aviator and 21 years of safe flying in the A-4, which he still pilots. He has flown over 6,000 total hours, nearly 1,800 of these in the *Skyhawk.*

Awards:

A plaque honoring Harold F. Pitcairn has been dedicated at NAS Willow Grove and will be permanently mounted at the entrance to the new enlisted club, which is named for the aviation pioneer.

Fifty years ago, what is now the naval air station was prime farm land until Harold Pitcairn purchased it in 1926 and cleared it for an airfield. The Navy purchased Pitcairn Field and its facilities in 1942.

Pitcairn developed the first commercially successful rotary wing aircraft, the *Autogiro,* as well as the *Mailwing.*

VF-14's Lt. Jim Robb has been selected as the 1977 Fighter Wing One Fighter Pilot of the Year. In his nomination, VF-14 C.O., Cdr. F. J. Dougherty, cited Lt. Robb as a "totally dedicated, totally involved" member of the fighter community.

While operating from *Independence* as part of CVW-7, VF-33 won the Golden Tailhook Award for the sixth consecutive time. The award is for achievement in individual air wing competition in carrier landing performance. C.O. of VF-33, Cdr. Stephen Phimister, accepted the award from Capt. G. M. Furlong, C.O. of *Independence,* and Cdr. W. R. Westerman, CAG-7.

Ltjg. Vaughn K. Martin received the Orville Wright Achievement Award for the period July 1 through December 31, 1976. The award, given by the Order of Daedalians to the outstanding U.S. graduates of the U.S. Army, Navy and Air Force pilot training programs, was presented to Ltjg. Martin at NAS Miramar by WW I Navy pilot #116, Cdr. Carlton Palmer, USN(Ret.). Martin is presently assigned to HSL-35, NAS North Island.

VP-48's Crew 5 received Blue Nose certification recently for its performance during an ice reconnaissance flight covering the waters surrounding Alaska. Crew members are: LCdr. Ronn Brown, mission commander; Ltjgs. Jim Stelten and Jim Gordon; Lt. Bill Nielsen; AW3s Gerald Cross and Joseph Simpson; AWAN John Houck; AEC Cheyenne Eichelberger; AD2 Terry Delaney; AT1 Al Veasman; and AO2 Thomas Williams.

VAdm. Pierre N. Charbonnet, CNavRes, recently presented the Edwin Francis Conway Trophy to Capt. James R. Foster, C.O., NAS Dallas, naming the station the number one naval air reserve station in the nation.

The *Shadows* of VQ-4, NAS Patuxent River, were presented the Meritorious Unit Commendation for sustained superior performance from January 1 to June 15, 1977. With some 650 personnel assigned, VQ-4 is the second largest squadron in the Navy and provides communications relay between CinCLant and his deployed fleet ballistic missile submarines.

Changes of command:

CAG-30: Cdr. Riley D. Mixson relieved Cdr. N. D. Campbell.

CVW-3: Cdr. H. Patrick Kober relieved Cdr. J. D. Taylor.

ComTacSupWing-1: Capt. John E. Paganelli relieved Capt. Gerard R. Olson.

ComTraWing-5: Capt. William J. Somerville relieved Capt. Douglas W. Payne.

MAG-31: Col. Jacob W. Moore relieved Col. Harvey D. Bradshaw.

MARTD Memphis: LCol. James E. May, Jr., relieved Maj. Eric E. Hastings.

NAF Washington, D.C.: Capt. Joseph A. Muka, Jr., relieved Capt. Charles M. Lake, Jr.

NARU Alameda: Capt. Maurice W. Rumble relieved Capt. William F. Quarg.

NAS Corpus Christi: Capt. Richard E. Williams relieved Capt. Marion H. Isaacks (Capt. Isaacks is now ComTraWing-4. Previously he held both commands concurrently.)

NAS Glenview: Capt. Maurice D. Fitzgerald relieved Capt. Frank T. Clark.

NAS Kingsville: Capt. Charles N. Tanner relieved Capt. J. J. Shanaghan.

NAS Memphis: Capt. Ronald J. Kurth relieved Capt. E. L. Wilkinson.

NAS Whiting Field: Capt. Robert McKay relieved Capt. D. W. Payne.

VA-22: Cdr. Lee Cargill relieved Cdr. Al Dundon.

VA-122: Cdr. Meredith W. Patrick relieved Capt. Kenneth A. Dickerson.

VA-203: Cdr. R. Francis Hughes, Jr., relieved Cdr. Jimmy M. Seeley.

VAW-125: Cdr. James E. Connerton, Jr., relieved Cdr. H. R. Dombrowski.

VF-51: Cdr. Lonny K. McClung relieved Cdr. Samuel N. Hallmark.

VP-4: Cdr. Ted Rogers relieved Cdr. Bill Broadwell.

VR-24: Cdr. R. E. Weaver relieved Capt. D. J. Sperling.

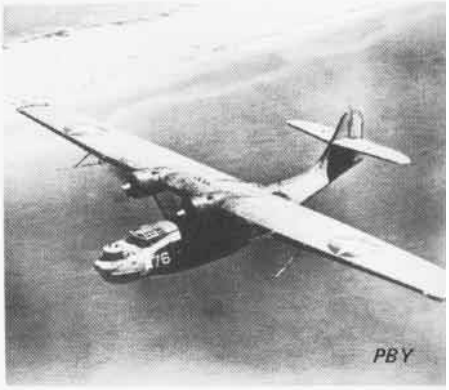
VS-31: Cdr. Henry L. Phillips relieved Cdr. William P. Behning.

VT-28: Cdr. William K. King relieved Cdr. John A. Butterfield.

VX-5: Capt. Leonard E. Giuliani relieved Capt. R. N. Livingston.

By Lt. John James

NOW AND THEN



The man I am talking with is dressed in a bright Hawaiian shirt and baggy tan pants, and is poking the ice cubes in his drink with his finger. He has a calm, low voice that chuckles with pleasure as he remembers things forgotten for 30 years. It is hard to imagine this quiet man at the helm of a huge, slow, under-powered PBY *Catalina*, gritting his teeth while on a bombing run on a ship that is trying to pour thousands of projectiles into his windscreen.

Whatever you imagined a gathering of WW II veterans to be like, this one wasn't. It wasn't melancholic. There was neither meaningless backslapping nor boisterous bragging. Instead it was a gathering of old friends and friends forgotten. A time to remember, and moments to just have fun.

Back in the Forties, before there was the importance we now attach to having a college education, the rank you became when drafted had little to do with your background or potential. Thirty years later, a first class is now a judge, and a chief is a tug boat captain in Florida. A lieutenant junior grade is an attorney and artist; a radioman, a big band singer; and two lieutenants are now selling patrol planes for Lockheed. It's been a long time. Though the respect for rank was surely there during "the war," there was a refreshing air of cohesiveness and camaraderie at the reunion, devoid of rank.

The idea for the first reunion of VP/VPB-11's WW II veterans was conceived by Bill Barker, now a college professor in Henderson, Texas. He was once a very young ordnance chief and, after 30 years, tackled the almost impossible task of trying to locate some 600 ex-squadron members. He did all of his locating by grapevine. Largely through his efforts, more than 250 husbands and wives checked into the Kansas City Crown Center for the reunion. One of the primary reasons for the gathering was to distribute 33 Distinguished Flying Crosses and 12 Air Medals that were never received by squadron members.

The 1977 version of Patrol Squadron 11, presently based at NAS Brunswick, Maine, sent a P-3B to Kansas City as a static display for the veterans. A PBY was scheduled to come from a small Kansas airport 200 miles away, but a windstorm blew something into the port aileron and the old bird couldn't be repaired in time. A city bus took the reunion members to the P-3B at the Municipal Airport. Talking to the men as they left the aircraft revealed that they were amazed, not so much by all the sophisticated equipment on board, but just by the fact that you can find a submarine electronically. "All we had were eyeballs and our radar, when it was working," one gentleman remarked. "You do have a couple of things on your P-3 that we had on our

PBY – an airspeed indicator, a compass and coffee-cup holders!" The best quote of the day came when a woman asked, quite innocently, "Why don't you have electric pencil sharpeners?" when she eyed a mechanical version screwed to a bulkhead.

The air-conditioned comfort of today's sub-chaser is a far cry from the environment of amphibious operations in WW II. Then you slept in a tent on a hastily built platform right on the beach of whatever island you happened to be on. You took a small launch to a ship anchored in the bay to get your "intelligence brief," which, more often than not, was a run-down of the "safe boxes" (areas) Allied shipping was in, and an explanation that anything anywhere else was "fair game."

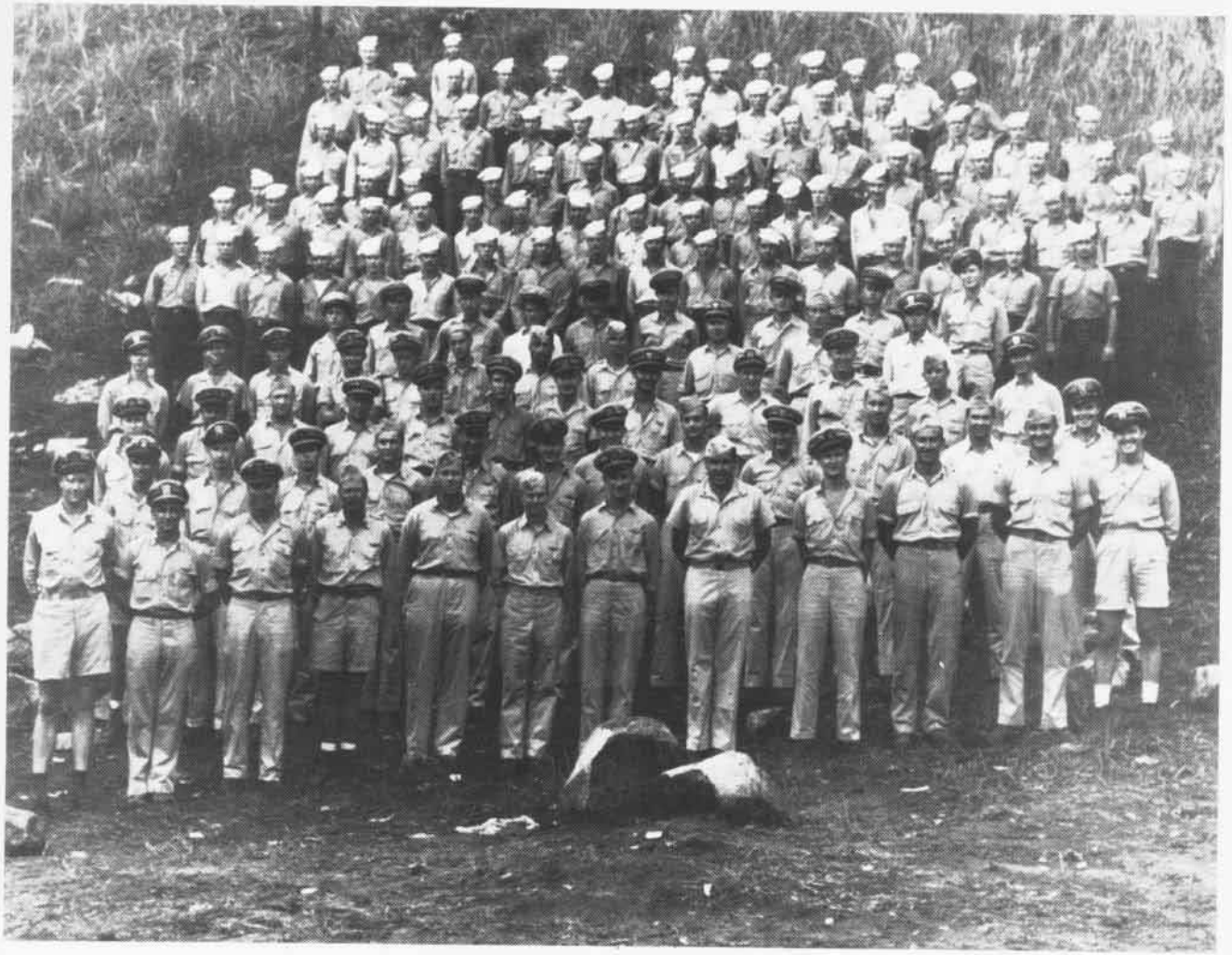
A lot of history was made, and VP-11 was there from the beginning. It was one of the squadrons based at Kaneohe Bay, Oahu, on December 7, 1941. It was also one of the famous *Black Cat* squadrons that later in the war painted their PBYs black and flew almost exclusively at night using radar for long, high-speed (170 knots), shallow dive bombing runs on enemy shipping in the Pacific. ("But the engines *are* at full power, Sir.")

Needless-to-say, lots of war stories were told at the reunion. However, these men were not preoccupied with the past. Still in their fifties and early sixties, many are very much a part of today's business world. As I walked around and listened to conversation, I was surprised to hear people talking as much about current events as reminiscing about WW II. Such topics as the latest farm equipment, tax reform and attitudes toward non-smokers were very relevant to these men.

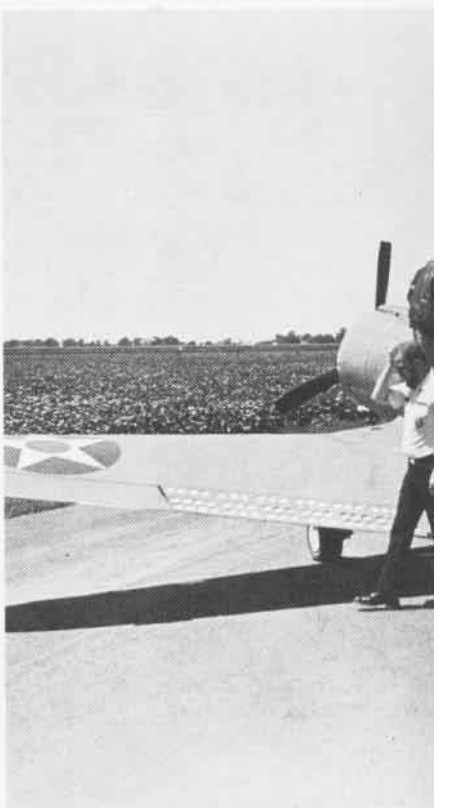
The medals were handed out. Mayor John Reardon of Kansas City presented the squadron the key to the city. There was an article in the K.C. *Journal*. There was even a four-minute spot on the local news. For two days, the men of VP/VPB-11 were in the spotlight for what they had done a long time ago.

But these men are as interested in living today as in recalling the past.

Below is a 1943 photograph of VP-11. For this reunion photo, left, the men assumed relative positions.



Diminutive



Story and Photos
by JO2 Donald W. Phelps

It seems strange to hear that it took five years to build an airplane, until you realize it was built by a high school class using plans for a model.

The plane, designed to carry two passengers, is a three-quarter-size replica of the Douglas SBD *Dauntless* that played a key role in destroying and plaguing enemy fleets during the smoke-and-thunder battles in the Pacific during WW II.

Students in the aviation class at Noblesville High School in Indiana built the dive bomber with the help and guidance of their instructor, Don E. Roberts.

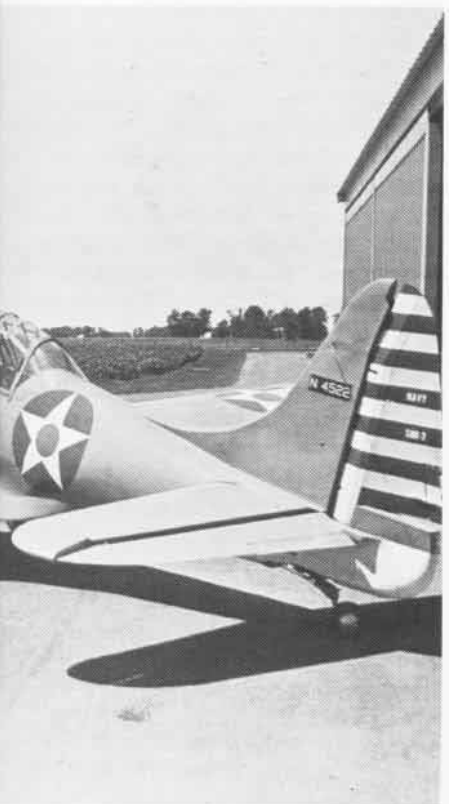
The flyable replica, called the world's largest model airplane by the students, has a wing span of 30 feet compared to the 42 feet of the original *Dauntless*.

"The model plans were about 1/32nd of the original so we had to increase the measurements many times," Roberts says.

He also says that they had to modify the plans for structural purposes. "The bomber is the culmination of the effort of 100 students and their desire to tackle a challenge. They have contributed approximately 9,000 man-hours over the last five years.

"The original purpose was not just

Dauntless



to build an airplane to see if we could do it, but rather to teach the students the theory and practical applications of aviation."

According to Roberts, the students made every effort to keep the model *Dauntless* as close to the original as possible.

"The number on the plane, 4522, is the same number that was assigned to a similar aircraft in 1941," Roberts continues. "The VS-2 insignia is the same that was assigned to a WW II *Dauntless*."

A mock bomb, to be slung under its belly, was provided by OS1 Dale L. Hilliard, the Navy recruiter in the area, who says, "Aviation usually isn't my bag, but when I found out the plane was being built in one of my schools I decided to help them out."

With less than one hour of flight time recorded for the *Dauntless*, Roberts says he is just starting the testing procedures.

The first time he took the *Dauntless* up, it flew better than expected. He plans on replacing the prop later with a two-bladed variable pitch type which, hopefully, will improve performance.

The first public appearance of the *Dauntless* was at the Oshkosh, Wisconsin Air Show in August.

"I would have preferred to fly it up there, but with less than one hour of flight time, we transported it by truck," Roberts says.

touch and go

VC-6's Boat

An aviation squadron with its own PT boat? VC-6 finds its present claim to such craft generally meets with disbelief. Operated by a permanent squadron detachment from Little Creek Amphibious Base, Norfolk, former PT-809 has proven her worth many times over as a drone recovery craft.

PT-809, now designated DR-1, was one of a limited number of aluminum-hulled PT boats constructed after WW II. She spent an early portion of her life in operation with the White House contingent of the Secret Service. She came to VC-6 to provide airborne and seaborne remotely controlled target services for the Atlantic Fleet.

Prior to acquiring DR-1, VC-6 found it was losing missions and drones because it had no control over drone recovery. If the drone recovery vehicle was not on-station, the exercise had to be delayed or cancelled. Given the limited opportunity for most ships and aircrews to work against a "live" target, any cancellation has an adverse effect on fleet readiness. In cases where recovery assets were on-station, VC-6 discovered it was losing an unacceptable number of recoverable targets. This was often due to inefficient search procedures limited by on-station time.

To overcome these problems, the squadron sought a drone recovery vehicle which would be subject solely to squadron demands while combining extended on-station time and high reliability with low operating costs. PT-809 was the answer.

Utilized in the drone recovery role, DR-1 has reduced exercise delays and cancellations by well over 50 percent. Recoverable target losses have been reduced by a similar degree. DR-1 has recovered 56 targets this year alone and 216 since commencing operations April 21, 1975. The value of recovered equipment runs well into the millions of dollars.

Additional savings result because work on the drones can be done on the deck of DR-1. Salt water decontamination procedures can be started immediately upon recovery, cutting down on the corrosion-control man-hours required to restore a drone to operational status.

Since it has proven feasible to launch and control a drone from her deck underway, she can be used to simulate an attack for a small, high-speed missile platform. The drone launched from her deck can be flown to duplicate a desired anti-ship missile profile. Smaller seaborne powered targets can be remotely controlled from DR-1 to present targets for retaliatory strikes from tactical aircraft. This gives an operating force a multi-threat challenge to meet.

Divers

Thirty-three of *Midway*'s 54-man Marine Detachment have qualified as Navy divers.

"I don't know of any other Marine Det or ship that has so many qualified Navy divers," said 1st Lt. G. P. Turner, X.O. "The quotas are too hard and few between."

The detachment requested training from the school at the Ship Repair Facility, Subic Bay in order to increase the qualifications of the *Midway* Marines.

Training began with two weeks of classroom instruction accompanied by rigorous physical workouts. Then came pool training with scuba gear. One of the exercises was "pool harassment," which each man had to endure for 40 minutes without surfacing. Harassment included stopping the student's air and pulling off his face mask.

Additional qualification was a deep dive, each man remaining at a depth of 130 feet for three minutes. A ditch-and-don exercise required the students to leave their scuba gear at a depth of 10 feet, surface and then return to the equipment and don it again under water.

Also included was a bottom search, compass swim, night search, buddy-breathing drills and hull inspections at a depth of 60 feet.

"Safety was the most important aspect that we learned," Lt. Turner said. "My troops are now capable of planning, organizing and executing a safe military dive."

While completing their 24-month tours aboard *Midway*, the qualified Marines could be called on to make underwater inspections of the ship's hull or other dives in support of the carrier's security.

Normally, *Midway* carries only four qualified Navy divers. **PH3 Eric Schwartz.**

Tomcat Dentist

DT1 Larry Hamill of the prosthetics lab of the branch dental facility at NAS Patuxent River had a rather unusual day recently.

His boss informed him that his first patient was a wounded tomcat.

Although Hamill was reluctant, his boss insisted, and so Hamill recruited DN Curtis Morgese, who wasn't particularly enthused about the idea either, to work with him.

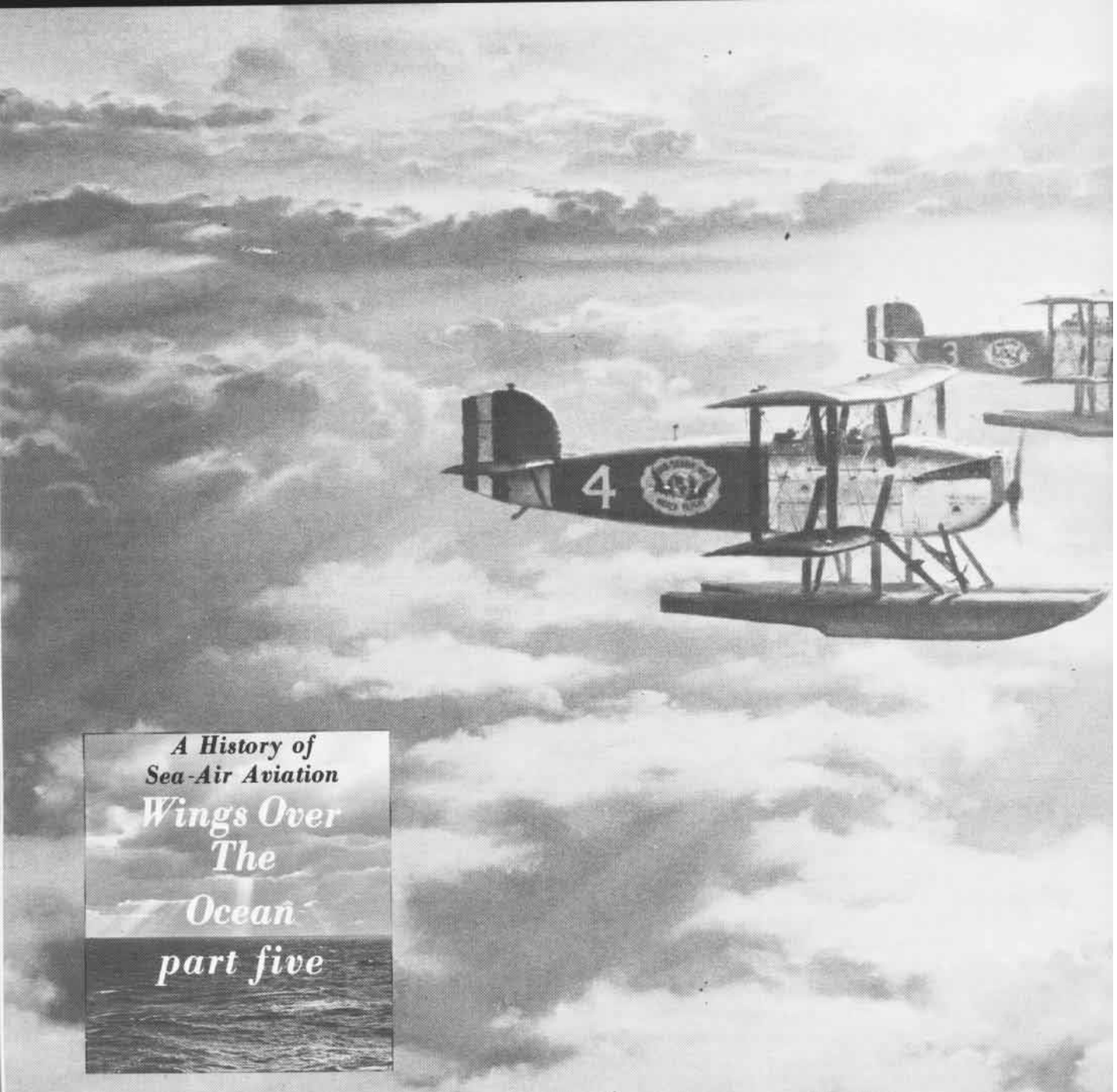
Now that it's all over and the plaudits are rolling in from all directions, Hamill and Morgese consider it one of their more rewarding days.

The tomcat sat perfectly still throughout the two-hour operation, allowing the two false teeth specialists to finish the three required casts.

Even more pleased than Hamill and Morgese were the maintenance men who had asked for their help.

You see, the tomcat weighed 20 tons and the dental technicians were asked to make a model of a damaged part in the tail section of an F-14 *Tomcat*. It's all in a day's work.

Hamill



A History of Sea-Air Aviation

Wings Over The Ocean

part five

By John M. Lindley

Unlike flights across the North Atlantic, attempts to cross the South Atlantic by air did not draw much public attention. There were no money prizes for South Atlantic firsts; no great cities, such as New York and Paris, which governments and civic leaders wished to see connected by air; and the South Atlantic was of no special economic value to the United States, Britain or France. Nevertheless, its conquest was not easy.

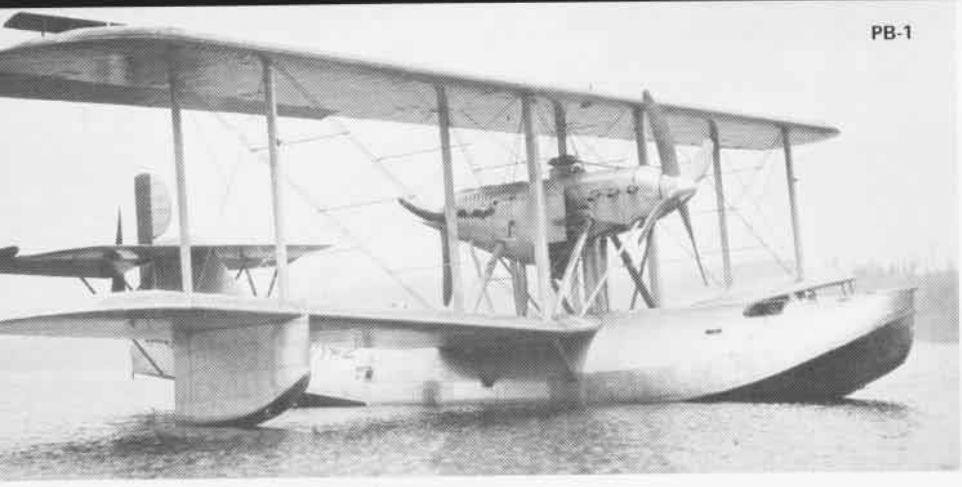
The first crossing had been made by the Portuguese team of Coutinho and Capt. Arturo de Cabral–Sacadura, but their flight from Portugal to Brazil had been made over two months and in three different airplanes (March 30 to June 5, 1922). In January 1926, Cdr. Ramon Franco of Spain made a crossing by stages. The first "decisive" flight across the 1,500 miles from Europe to South America came in 1927. Italian Cdr. Francesco de Pinedo flew the flying boat *Santa Maria* from Sardinia to Brazil. Later that year, on October 14, Dieudonne Costes and Joseph Le Brix of France flew a sesquiplane (a biplane having one wing of less than half the area of the other) named the *Nungesser–Coli* from Paris to St. Louis, Senegal (2,850 miles), and then to Natal, Brazil (over 2,000 miles). Then in 1933 another Frenchman, Jean Mermoz, pioneered commercial aviation flights across the South Atlantic. Mermoz left St. Louis, Senegal, on January 14 and flew to Natal in 14 hours and then returned to Senegal the following day. He made this round-trip flight with a four-man crew in a Couzinet trimotor named *Arc-en-Ciel* (*Rainbow*). The next year *Arc-en-Ciel* and its sister plane made 12 regular commercial crossings.

Douglas World Cruisers, flown by U.S. Army Air Service crews, made historic Round the World flight in 1924. Douglas Aircraft's R.G. Smith did painting.

As was the case with the South Atlantic flights across the Pacific failed to capture public attention to the degree that the North Atlantic ones did. Because of the greater distances involved, aircraft with greater range were required. Thus Pacific flight came somewhat later than North Atlantic flight and, hence, was less newsworthy. Despite that, on at least one occasion prize money was used to promote flight from California to Hawaii.

In 1925 the U.S. Navy tried to use the method of the NC flight of 1919 to fly from San Francisco to Hawaii. Again three aircraft, all flying boats, were scheduled to make the flight and again naval vessels were stationed along the proposed route to aid the aircraft. For this attempt Commander John Rodgers, Naval Aviator #2, who had learned to fly from the Wright Brothers, served as flight unit commander. Rodgers was an expert navigator and had previously commanded the naval air station at Pearl Harbor. Thus he was very familiar with Hawaiian waters.

Two of the aircraft for the flight were PN-9 flying boats which the Navy had just built. The other was a PB-1, built by Boeing. All three were biplanes flown by a five-man crew, but the PN-9s weighed 10 tons while the PB-1 weighed 14 tons. After training and preparation, the three aircrews gathered with their planes at San Pablo Bay in San Francisco Bay. Here they would have a long, sheltered and unobstructed stretch of water for the takeoff. Originally the flight was scheduled for August 28, 1925, but when the Boeing flying boat developed engine problems, the departure date was slip-


PB-1

ped to August 31. Despite repair efforts, it was not ready when the takeoff date arrived. The Secretary of the Navy subsequently cancelled its participation in the flight.

The two PN-9s were, however, ready on the planned date. Early in the afternoon both aircraft started their takeoff maneuvers, but they were too heavily loaded to get off the water. By taking off unnecessary weight and by shifting weight aft to raise the noses, the planes were finally able to take off. Lt. A.P. Snody and his crew in PN-9 No. 3 took off first; then Rodgers in PN-9 No. 1.

Snody's flying boat passed the first two of the eleven destroyers, stationed at 200 mile intervals, but a broken oil line forced the plane to ditch at 7:30 p.m. Shortly after 2 a.m. a destroyer located the downed aircraft and took the crew safely on board.

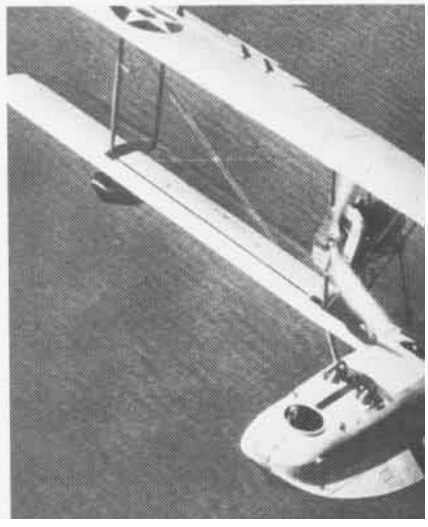
Rodgers and No. 1 were going strong. They averaged 77 knots for the first 1,200 miles at which point they saw the smoke and searchlight of the sixth destroyer. At 1:27 p.m. on September 1, USS *Aroostook* (CM-3) made radio, but not visual, contact with the plane at the 1,800-mile mark. Suddenly No. 1 radioed the ship that they were running low on fuel. The ship radioed back that they held the aircraft south of their position. Rodgers' figures put his plane north of the station vessel. Uncertain, Rodgers chose to follow the ship's radio bearing and he turned No. 1 north. Unfortunately *Aroostook* was in error; she lay to the south of Rodgers. Thus the flying boat headed *away* from help. Rain and squalls complicated matters, reducing visibility and churning up 10 foot waves. At 1:34 p.m., No. 1 ran out of gas and glided down for an easy landing, some 220 miles from its destination of Kahului, Maui. Rescue, they thought, should come shortly because of their contact with *Aroostook*.

No rescuers came. In fact, Rodgers and his crew were destined to spend nine days on the ocean while they listened to their radio which told them of the fruitless efforts of the naval vessels to locate the flying boat. The radio on No. 1 could receive, but it lacked power to transmit the aircraft's position. Consequently Rodgers established his position accurately and then had the crew cut the fabric off the lower wings and use it to rig sails. This operation also reduced wave damage to the aircraft. Although they spotted a merchant ship to no avail on September 3, the plane slowly made for Hawaii using ocean currents and its sails. Late in the afternoon on September 10, a Navy submarine finally spotted the flying boat and took it in tow to Nawiliwili Harbor on the island of Kauai. Before reaching help, Rodgers and his crew had flown 1,841 miles in 25 hours and 23 minutes, and then they had navigated 450 miles across the ocean in nine days.

Although Cdr. Rodgers and his crew failed in their attempt to fly to Hawaii, their flight had shown that the islands would soon be within airplane travel of the continental United States. Air conquest of the 2,400 miles from California to Hawaii came two years later in June 1927. Two Army Aviators, Lester Maitland and Albert Heggenberger, made the flight in an Army Fokker trimotor similar to Byrd's *America*. Although their flight would be some 1,200 miles shorter than Lindbergh's, they knew that their over-water distance was about 600 miles further than the *Lone Eagle's*.

Maitland and Heggenberger were not the only pilots who tried to make the California-to-Hawaii flight on the heels of Lindbergh's conquest of the Atlantic. Ernest Smith, an air mail pilot, and Capt. Charles Carter planned to make the flight in a single-engine Travel Air monoplane. Richard Grace, a movie stunt pilot, announced that he would fly a Ryan monoplane similar to Lindbergh's from Hawaii to San Francisco. Thus there were three rival groups poised for a "first" in the Pacific.

Maitland and Heggenberger were the first ones off on June 28. They had expected to navigate by means of radio direction bearings but their receiver broke down en route, forcing them to rely upon dead reckoning. Nevertheless, they successfully flew their *Bird of Paradise* from Oakland, Calif., to Hawaii in 25 hours and 50 minutes. Stunt pilot Grace tried next, on July 4, 1927. Shortly after leaving Kauai Island he encountered heavy rain which caused the tail surfaces of his plane to malfunction. Realizing that he could not make the mainland with this mechanical problem, he turned back. Ten days later, Smith and a new navigator, Emory Bronte, tried the flight in their *City of Oakland*. They, too, were depending upon radio direction bearings for locating Hawaii, and their receiver, like that of the two Army Aviators, broke down. Uncertain about their position, Smith and Bronte thought they would have to ditch in the sea due to lack of fuel; so they sent out an SOS. They soon discovered, however, that their fuel

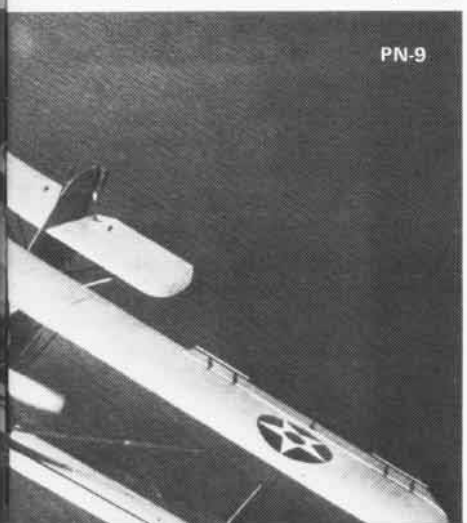


gauge was defective and that they had more fuel than they had first thought. Consequently they flew on, eventually landing in a clump of trees on Mokolai Island. Although the plane was damaged in landing, Smith and Bronte were unhurt.

Despite the successes of Maitland and Heggenberger, and Smith and Bronte, James D. Dole decided there should be an air race from California to Hawaii. He put up a prize of $25,000 for the winner of his Pineapple Derby, as the race was called, and set the date of August 12 for takeoff. He chose this date so that Lindbergh would have plenty of time to enter; however, Lindbergh declined.

Dole's generous prize attracted plenty of other competitors. As part of the preparation for the race, the aeronautical branch of the Department of Commerce tested all planes entered for airworthiness and all pilots for their ability to fly. Entrants who passed these tests received a provisional license. Initially there were 15 entrants. Some dropped out; others failed the qualifying tests. When race day arrived, the field contained eight planes (fifteen men and one woman). Three of the planes failed to get airborne. Another plane got off but had to land soon after due to mechanical problems. That left four; of these, only two made it safely to Hawaii.

The first entry to reach the islands was a Breese monoplane named *Woolaroc* piloted by Art Goebel with Lt. Bill Davis as navigator. They made the trip from Oakland to Hawaii in 26 hours and 17 minutes. Two hours later, Martin Jensen and Paul Schluter, navigator, landed in Hawaii. The other two airplanes never arrived. Navy ships and several aircraft undertook a vast search for them but no trace of either plane was found, and another plane with pilot and navigator was lost at sea during the search efforts. Dole's Pineapple Derby had brought publicity to Hawaii, but not in the way he expected. Instead of public acclaim for those who had successfully made the flight, there arose a great public outcry over the foolishness of races such as Dole's. When the search for the missing aircraft was finally abandoned, the death toll was staggering. Nine men and one woman had been killed in pre-race crashes, en route to Hawaii and in the fruitless search.



When two Australians, Squadron Leader Charles Kingsford-Smith and Flight Lieutenant Charles T. P. Ulm, announced they would complete the aerial conquest of the Pacific by flying from California to Australia, some Australian authorities tried to dissuade them from making the flight on account of the loss of lives in the Pineapple Derby. Undeterred by these arguments and by financial uncertainties, the two Australians came to the United States and bought a used Fokker trimotor monoplane which they named *Southern Cross*. They fitted the aircraft with three new Wright Whirlwind J-5 engines, added two Americans (LCdr. Harry W. Lyon, USN, and James W. Warner) to their flight crew as navigator and radio operator, respectively, and made several preliminary flight trials.

When everything was ready, this Australian and American crew took off from Oakland, Calif., on May 31, 1928, and headed for Honolulu, which they reached 27 hours and 25 minutes later. En route they encountered rain and headwinds which slowed their crossing. The day after their arrival, the *Southern Cross* flew on for Suva, Fiji Islands. Winds and heavy rain forced the flyers up to 8,000 feet so that they could avoid the storm. More wind and rain subsequently drove them back down, toward the ocean. They found they had to fly at only 400 feet. Despite this stormy weather, the crew of the *Southern Cross* located the Fiji Islands with the aid of their radio and landed there on the afternoon of June 5. They had flown 3,144 miles in 34½ hours.

The final leg of their transPacific crossing was from Suva to Brisbane, Australia (1,762 miles). Again they encountered stormy weather. In addition the crew members had forgotten to oil their earth-inductor compass, and it ceased to function. Thus they had to fly by magnetic compass, a less accurate system. Nevertheless the *Southern Cross* made the flight to Brisbane arriving there about 10 a.m. on June 9, having made the journey from the United States in a total flying time of 83 hours and 15 minutes.

Air conquest of the polar regions of the earth proved to be just as costly in human lives as the Dole Pineapple Race. Although Commander Robert E. Peary, USN, had reached the North Pole on foot in April 1909, there was no successful aerial conquest of the Poles until the 1920s. In 1890 the French worked up a plan to reach the North Pole by a giant balloon capable of carrying sled dogs, sleds and humans. Their expectation was that they could pass over the frozen pack ice of the Polar Sea until they reached the vicinity of the Pole where they would land and explore by dog sled. The French never tried out their scheme, but a Swedish engineer and scientist named Salomon August Andree decided he would try to reach the Pole by balloon.

Andree bought a balloon in 1893 in which he made nine ascents, learning how to handle his craft. Next he built a balloon with a larger capacity (more than 6,000 cubic yards) and persuaded two scientists, Nils Ekholm and Nils Strindberg, to join him on the polar trip.

When all was ready, they took off from Spitsbergen, a group of Norwegian islands east of Greenland, on July 11, 1897. By this time, Ekholm had dropped out and had been replaced by Knut Frankel, an engineer.

The intense cold soon made it very hard for the polar aeronauts to maintain sufficient lift in their balloon. Ice formed on the envelope as they crossed the Polar Sea, weighing down the craft and forcing them to jettison ballast. They landed for the night on July 12, then continued on the next day. On the 14th, they were unable to

get the balloon off the ice. There they camped until July 22nd, when they began walking across the pack ice toward White Island in the Polar Sea. Nothing was seen or heard from these three brave men for 33 years.

By accident, a Norwegian sailing vessel put into White Island in August 1930 and one of its sailors found Andree's camp and the men's bodies. Still intact was Strindberg's diary which told of their hardships and from which scientists inferred that the men probably died from trichinosis contracted from insufficiently cooked polar bear meat they had eaten, rather than from the cold. The last diary entry on October 17, 1897, was brief and incomprehensible. Even more extraordinary than the revelations of Strindberg's diary was the discovery of one of the cameras taken on the expedition. The photographic plates in the camera were intact and when developed, they served as mute witnesses to the hopeless trip the men had made across the ice pack.

The disappearance of Andree and his comrades did not deter others from trying to reach the North Pole by air. In 1907 and again in 1909, an American named Walter Wellman tried to fly over the Pole in a dirigible. Both attempts failed. In 1925 the famed Arctic explorer, Roald Amundsen, wanted to try a flight to the Pole, but he lacked the money to finance the flight. Amundsen got the help he needed when the American aviator and explorer, Lincoln Ellsworth, convinced his millionaire father to put up the money for buying two Dornier Wal duralumin flying boats that were specially fitted for taking off or landing on water or ice.

Amundsen and Ellsworth knew that the range of these aircraft was probably insufficient to cover the round-trip distance from their base to the Pole; thus they calculated that they would have to abandon one plane en route and all return in the other. This plan might have succeeded but, upon taking off, Ellsworth's plane sheared some rivets on the ice. When Amundsen subsequently decided to land some 150 miles from the Pole because he was unsure of his longitude and had used up half the fuel in his plane, Ellsworth's plane became unusable when it took on water after landing.

Amundsen's plane had landed without damage and was quickly hauled up onto the ice. For the next 26 days the six men who comprised the two crews built a runway on the ice and transferred all the remaining gas in Ellsworth's plane to Amundsen's. When all the gas had been transferred and the runway was ready, Amundsen's pilot managed to get the heavily loaded flying boat into the air from its ice runway for the flight back to Spitsbergen.

Defeated, Amundsen decided to try again the next year. While the Norwegian explorer was preparing at Spitsbergen for a second attempt in a dirigible, Cdr. Byrd and Floyd Bennett, his pilot, arrived in Spitsbergen to attempt a round-trip flight over the Pole with a Fokker F. VII, a trimotor monoplane powered by Wright Whirlwind J-4B air-cooled radial engines.

After flight trials in early May and an unsuccessful attempt to take off on May 8, Bennett was able to get a somewhat lighter aircraft off the ice just after midnight on May 9, 1926. With Byrd navigating, Bennett flew the *Josephine Ford*, as the plane was called, to the Pole and back, a distance of 1,535 statute miles, in 15½ hours. Although today there are those who question whether Byrd and Bennett actually flew over the Pole, neither the National Geographic Society, the U.S. Navy, nor Amundsen, who was there when the *Josephine Ford* took off and returned, ever challenged Byrd's claim to have been the first to fly over the Pole. Whatever the arguments by the critics of the Byrd flight, one interesting aspect of the flight is that the *Josephine Ford* would have had to have a tail wind both ways to have made the flight in the published time.

Undeterred by Byrd's flight, the Amundsen and Ellsworth party took off from Spitsbergen on May 11 in a semirigid dirigible designed, built and piloted by Col. Umberto Nobile of Italy. This airship, the *Norge*, was headed for Nome, Alaska, via the North Pole. They had a relatively uneventful trip north to the Pole, which they reached at 1:25 a.m. on May 12. While the airship hovered over the north geographic pole, the explorers dropped small Norwegian, Italian and American flags to signify their arrival. The next leg, from the Pole to Nome, was not easily accomplished. Ice formed on the airship cover and the propellers and carried away their radio aerials. Their sun compass with which they navigated became covered with ice and was, for a long time, unusable. They ran into fog. Somehow Nobile managed to keep going toward Alaska. Eventually they recognized the coastline below and piloted the airship by dead reckoning toward Nome. When they came upon a small settlement, they decided to land — at Teller, Alaska, some 60 miles northwest of Nome. Their flight had taken about 72 hours and had covered 3,290 miles.

Following a falling out with Amundsen, Nobile tried to go it alone to the Pole in 1928. His new airship, *Italia*, reached the North Pole on May 24, 1928, but on the return leg to Spitsbergen, ice and fog again proved to be deadly foes. Lost in fog and weighted down by ice, the airship crashed about 8 a.m. on May 25. When *Italia* hit the ice, the gondola broke free of the gas envelope. Six crewmen were trapped in the lightened airship envelope which drifted off and was never seen again. Nine men, including the injured Nobile, survived the crash because they were in the gondola; nevertheless, they were now adrift on an ice floe. Fortunately much of the emergency equipment in the airship, including their radio, had spilled out of the gondola during the crash and was undamaged. Thus they immediately sent out an SOS. Although an international team of would-be rescuers began an extensive search for them, it did not find their camp until late in June. Not until nearly mid-July, however, were all the survivors finally rescued by a Russian icebreaker. By that time one of Nobile's party had perished trying to walk for help and Nobile's former collaborator, Amundsen, and a crew of rescuers had vanished in a search plane north of the Arctic Circle. The *Italia* disaster cost the lives of twelve crew members and would-be rescuers and was a primary reason for the subsequent demise of

airship development in Italy.

The *Norge* had made the first east-west flight over the North Pole, but in 1928 George Hubert Wilkins, an Australian, and Carl Ben Eielson, an American of Norwegian descent, made the first west-to-east flight over the polar region. Using a Lockheed *Vega*, Wilkins and Eielson took off from Point Barrow, Alaska, on April 15, 1928. One purpose of the flight was to determine if there was land in a large area previously unexplored. After 18 hours in the air, they ran into a violent storm. They landed to wait it out. For four days and five nights they waited in the plane's cabin at a place inauspiciously known as Dead Man's Island. Once the storm abated, they dug the plane out of the snow and tried to get it airborne. While Eielson piloted the plane, Wilkins pushed to get it started forward on the ice. Twice Eielson got the plane airborne but without Wilkins. Thus he had to return for his companion. On the final try, Wilkins kept one foot in the cockpit and pushed with the other foot on some driftwood. This time the plane took off with Wilkins aboard. When they eventually reached Spitsbergen, they were able to report that they had discovered no new land in their 2,200-mile flight.

In 1937 and 1938 the Soviet Union began to publicize its ongoing study of the problems of polar flight operations. Beginning on May 21, 1937, the Soviets airlifted four scientists and their supplies and equipment from an advanced base on Rudolf Island to a spot 12 miles from the North Pole. Since there is no land at the Pole, this scientific camp was set up on a drifting ice floe. For nearly nine months these Russian scientists studied weather conditions and the properties of the Arctic Ocean in the region of the Pole. During this time they drifted 2,500 miles away from the Pole. When the ice floe began to break up and Soviet aircraft were unable to rescue all the members of the expedition, two Russian icebreakers succeeded in reaching the scientists on February 18, 1938.

One valuable contribution of this scientific station at the Pole was the reporting of weather conditions at very high latitudes which was extremely valuable in the planning of three Soviet transpolar flights in 1937. On June 20, Valery P. Chkalou, Georgi F. Baidukou and Alexandr V. Belyakov made the first nonstop airplane flight from Europe to North America over the Arctic Ocean and the North Pole in a single-engine ANT-25 monoplane. This flight took 63 hours and 16 minutes, covering 5,288 miles from Moscow to Vancouver, Wash.

Josephine Ford

Three more Russians, Mikhail Gromov, Andrei Yumacheff and Sergei Danilin, then made a second nonstop polar flight in an ANT-25 — from Moscow to San Jacinto, Calif., about 25 miles east of Los Angeles. Pilot Gromov and his crew had actually flown as far as San Diego, but they had been unable to land there due to fog. Thus they had sought out a landing field in San Jacinto. This flight wiped out the nonstop distance record of Maurice Rossi and Paul Codos of France who had flown 5,657 miles from New York to Syria in 1933. The Soviet flyers covered 6,256.6 miles in 62 hours and 17 minutes.

Having secured the nonstop distance record, the Soviets then began to study the possibilities for freight and passenger service with the United States. Thus the Soviet Lindbergh, Sigismund Levanevsky, and a crew of five left Moscow in mid-August 1937 to fly to an unannounced destination in the United States, possibly Oakland, Calif., or Chicago, Ill. Levanevsky and his four-engine ANT-4 airplane were never seen again. While passing over the North Pole, he reported he was fighting 60-mph headwinds and had lost one engine. Under ordinary circumstances the other three engines should have been sufficient to have carried the flyer to safety. Radio monitors subsequently picked up a faint message which stated: "No bearings . . . having trouble with . . . wave band . . . ." The plane apparently went down somewhere between the Pole and Alaska. Although an extensive search by an international rescue team combed the area in which the plane was thought to have disappeared, all efforts proved futile. *To be continued*

NAVAL AVIATION NEWS letters

Superfortress

I am writing a book about the B-29 *Superfortress* and would like to gather reminiscences and material from any *Naval Aviation News* readers who were involved with this aircraft at any time.

The B-29s were few in the Navy, and called P2Bs, but there were other areas where this aircraft was part of the Navy story – from the liaison officers who worked with the B-29s in *Super Dumbo* operations off Japan, to those who, on a sadder note, destroyed this once supreme aerial weapon with more sophisticated weaponry at NAS China Lake. Any sidelights to the overall story will be most welcome.

Steve Birdsall
20 Royal Street
Chatswood 2067
Sydney, Australia

Documentary

The Cousteau Society is planning a television documentary on Clipperton Island, off the coast of Mexico. An important part of Clipperton's history involved the rescue of 11 women and children by a Navy gunboat, USS *Yorktown*, on July 18, 1917.

We are looking for members of the *Yorktown* crew who may remember the rescue, or members of their families who may possess pictures or letters concerning it.

Anyone having information, please contact The Cousteau Society: call Laurie Wolfe collect at 213-655-4641.

Tophatters!

As a former *Tophatter* (VB-4 during WW II), I look forward to a reunion of the oldest squadron in the Navy. How about that, VF-14. Any interest?

Robert E. Holmbeck
1918 St. Anthony Parkway
Minneapolis, Minn. 55418

Family Memorial Fund

In memory of three shipmates who died in an SH-2F accident on June 24 at Patuxent River, VX-1 is establishing a children's education and family charity fund.

Donations may be designated to a particular family: Lt. Richard A. Creighton, Lt. Walter Steve Howdyshell or AW2 Robert M. Emery, Jr. Non-designated donations will be equally divided among the three families. Donations may be sent to: Family Memorial Fund, c/o Commanding Officer, VX-1, NAS Patuxent River, Md. 20670.

Mosquito

I am preparing a history of the de Havilland *Mosquito* in U.S. service for publication in the *Journal* of the American Aviation Historical Society. Admiral John McCain had attempted to secure 150 *Mossies* for use as night fighters and photo-recce aircraft in 1943, but he was preempted in the Arnold-McCain-Courtney-Portal agreements of July of that year. BuAer tested KB-300 (the Canadian prototype) and a British N.F. Mk XVIII (BuNo 91106) extensively at Patuxent River, but little is known of these tests.

I would appreciate hearing from anyone who remembers the Navy's *Mosquito* program.

Dana Bell
5530 N. Morgan St., Apt. 101
Alexandria, Va. 22312

Batter Up

I am compiling a story of air operations during *Torch* for eventual publication. I would like to hear from USN air personnel who took part.

Gerry Beauchamp
33 Dubhe Drive
Ottawa, Ontario
Canada K1K OL4

Reunions

The 25th reunion of former members of the crews, squadrons and Marines who served in *Lexington* (CV-2) from 1927 to 1942 will be held May 10-13, 1978, at the Carlton House, Orlando, Fla. Contact Walter D. Reed, P.O. Box 773, Oakland, Calif. 94604.

We are planning a reunion for all men and squadron personnel who served aboard USS *Ommaney Bay* (CVE-79).

Anyone interested please contact: John Mitchell, Box 127, Phelps, Wisc. 54554. Phone 715-545-2730.

Depicted in the column, opposite page, are the insignia of Intruder squadrons at NAS Whidbey Island, Wash., which, together with the Prowler units represented above, comprise Medium Attack Tactical Electronic Warfare Wing, Pacific.

NAVAL AVIATION
NEWS