NAVAL AVIATION NEWS

JANUARY 1971

NavAir No. 00-75R-3

The Navy has a unique situation when it comes to qualified people. When we send a sh
to sea, she must have within her crew men capable of operating, maintaining and repairi
every item of equipment in that ship. . . . The men must be there . . . trained to full pro
ciency. Our modern ships are platforms designed to accommodate wall-to-wall weapon

— Admiral Elmo R. Zumwalt, Jr., CN

NAVAL AVIATION NEWS

FIFTY-SECOND YEAR OF PUBLICATION

FEATURES

THE STAFF

COVERS

On the cover, an A-4F receives a waveoff from the LSO aboard USS Coral Sea. On the back cover, the evening calm in the South China Sea is captured by the camera of PH3 Ralph A. Pabst. The picture of the A-7 on the elevator, above, was taken aboard USS Ticonderoga (CVA-14).

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EDITOR'S CORNER

Nearly every Naval Aviator and Naval Flight Officer passing through the Naval Air Training Command at some time must wonder for whom those many nearby airfields, active and inactive, have been named. In the Pensacola area, one finds airfields with names like Corry, Barin, Bronson, Saufley, Whiting and Sherman. During advanced training, a new array of such names is encountered and, on entering the fleet, one discovers even more naval air stations named after individuals.

All are named after individuals who have distinguished themselves in naval service. Though the individuals' names may not figure as prominently in the station name as is usual in the training command and are often obscured by geographical names, they are in many cases still present, as in the case of Turner Field at MCAS Quantico or Halsey Field at NAS North Island. At other locations, the individual is recognized in the official name of the station as at NAS Moffett Field or NAS Cecil Field.

Names given to Navy and Marine Corps air stations, or to the airfields aboard those stations, commemorate the achievements and the heritage of Naval Aviation by honoring individuals whose accomplishments and significant contributions established that record by their long-term efforts, exemplary leadership and heroic actions. Among those so honored are aviators and non-aviators, fleet admirals and enlisted personnel and, until recently, one station (NAAS Ream Field) was named after an Army medical officer who was stationed at North Island during WW I.

The time span from which individuals have been selected in naming Navy airfields includes a lengthy period of naval history. McCalla Field at Naval Station Guantanamo is named for Captain B. H. McCalla who commanded USS Marblehead, which participated in the capture of Guantanamo Bay during the Spanish-American War. Others honor early Naval Aviation pioneers, naval leaders and Naval Aviation heroes up through WW II. For example, Floyd Bennett Field at NAS New York commemorates an early enlisted pilot who piloted the aircraft which carried Rear Admiral Richard E. Byrd, Jr., on the first flight over the North Pole. NAS Cecil Field is named for Commander H. B. Cecil, Naval Aviator #42, who lost his life in the crash of the airship Akron, and Henderson Field at NS Midway recalls Major L. R. Henderson, USMC, who gave his life defending Midway Island against Japanese attack.

Some fields are named to commemorate men who contributed to the development of Naval Aviation in its infancy. These include NAS Whiting Field and Towers Field at NAS Jacksonville. Others honor great naval leaders of WW II, such as Nimitz Field at NAS Alameda and Mitscher Field at NAS Miramar. Even the U.S. Air Force has joined in thus honoring Naval Aviators. Seymour Johnson AFB at Goldsboro, N.C., is named for a Navy lieutenant who lost his life while conducting flight tests just prior to WW II.

In this issue Naval Aviation News *is beginning a new series which will spotlight individual naval air stations. We will take a look at the persons for whom the airfields are named. Though not every Navy airfield bears the name of some important contributor to naval tradition, a large number do and it is only fitting that these men receive continuing recognition for their deeds.*

Towers Maxfield **Whiting** Soucek **Henderson** Cecil **Moffett**
Cunningham **Saufley** Callender **Halsey** Mitscher **Flatley** Ault

NAVAL AVIATION NEWS
1911 1971

Wittet Named to Senior Enlisted Post

WASHINGTON, D.C. – Master Chief Aircraft Maintenanceman John D. Wittet has been named the next Master Chief Petty Officer of the Navy. He will succeed MCPO Delbert D. Black in March.

As the Navy's senior enlisted representative, he will serve as the advisor to the Chief of Naval Personnel in matters pertaining to enlisted personnel.

Chief Whittet, a 27-year Navy veteran, is presently Senior Enlisted Advisor for ComNavAirLant.

WP-3 on Trial

PATUXENT RIVER, Md. – A prototype of the U.S. Navy's newest weather reconnaissance aircraft, the WP-3, is being instrumented by the Technical Support Division for an abbreviated Board of Inspection and Survey (BIS) trial. The modified *Orion* arrived on schedule from Lockheed Air Services, Ontario, Calif.

Local test hops checked the WP-3's flying qualities and avionics system and established the maximum and minimum air speeds allowable for releasing a dropsonde.

A team from Service Test headed by Lt. M. N. Jackson took the WP-3 to Roosevelt Roads, P.R., where flights were conducted with VW-4 to help determine the airplane's long-range weather reconnaissance capability and to check its navigation and communications systems.

The new *Orion* is the replacement aircraft for the WC-121 *Super Constellation* which has served as the Navy's weather reconnaissance airplane since 1955.

Last year, hurricane penetration tests were conducted using a P-3A and a C-130 as candidates for replacement of the WC-121 (*NANews*, Sep. 1970, p. 3). Both airframes proved superior to the *Super Constellation;* however, the *Orion* was better suited for the mission and was selected as the replacement.

Lockheed performed the modifications on a P-3A, installing weather reconnaissance radars and meteorological systems taken from a WC-121.

The WP-3 is easily discernible from its antisubmarine warfare-configured cohorts. A shorter tail boom and a large bubble under the fuselage in back of the nose wheel identify the new weather reconnaissance aircraft.

The bubble, which contains a radar antenna, extends 18 inches in flight but must be retracted before landing.

And the latest version of the A-4 *Skyhawk* is also at NATC for BIS trials.

Lieutenant Colonel E. B. Russell, USMC, of the Flight Test Division, flew the first production A-4M to Patuxent River from the Douglas plant at Long Beach, Calif.

The A-4M is undergoing carrier suitability instrumentation in preparation for the start of formal trials scheduled for this month.

Designed for use by the Marine Corps, the A-4M incorporates several major modifications, including a J52-P-408 turbojet engine that delivers 11,200 pounds of thrust – 1,900 pounds more than the previous production model, the A-4F.

Other changes include a 100 percent increase in the amount of 20mm ammunition carried, a new weapons delivery sight, enlarged cockpit enclosure, self-contained engine starter, landing drag chute, improved inflight refueling probe and increased electrical generator load capacity.

WP-3 ORION WITH DISTINCTIVE RADOME IS NOW UNDERGOING BIS TRIALS AT PAX RIVER

Premature Punch-Out is Investigated

PATUXENT RIVER, Md. — Imagine yourself in the aft seat of a TA-4F climbing through 23,000 feet at about 320 KIAS, when suddenly, without any warning, the entire canopy departs the airframe. Just about as quickly as your ears can pop, you reach for the throttle to chop it. WHAM! You're in the silk. The escape system is supposed to be automatic — but not self-initiating! As you flutter down, you see your pilot circling in his "convertible" TA-4F with the top down. This actually happened. (Fortunately, pilots and airplane were recovered with little damage done to either.)

Shortly thereafter, the Service Test Division of NATC embarked on a test project to determine what windblast forces were needed to extract the Escapac IC3 face curtain from its stowed configuration. A series of flights in the TA-4F were flown, canopy off, with the rear cockpit specially instrumented. Color films, video tape, yarn tufting, and a 5th and 95th percentile dummy were used to document the tests. A buildup program, which increased airspeed in 25 KIAS increments — up to a maximum velocity of 425 KIAS at 8,000 feet — took the convertible and its dummy rider through the flight envelope.

It was determined that: (1) the face curtain cannot be extracted by windblast alone — when it is properly stowed in the seat headbox; (2) the front seat pilot can fly the TA-4F satisfactorily despite absence of the canopy; however, in addition to terrific windblast in the face, a rear seat occupant will be exposed to "missile hazards" — pieces of the instrument glare shield, cockpit insulation pads, small control knobs, and any loose gear.

The airplane is now having a new canopy installed. By the way, the pilot for these tests was the same one who originally ejected.

Run-Up Noise Reduced

ALAMEDA, Calif. — The Naval Air Rework Facility at the naval air station has achieved a major breakthrough in reducing jet engine noise from the ground run-up of the A-7 *Corsair* during overhaul.

After months of research by the engineering department, sound suppressors were designed and installed which reduce the perceptible sound from ground run-up 80 to 90 percent, making the noise virtually inaudible outside the station.

The 48,000-pound system is comprised of two engineered, acoustically lined, high corrosion resistant, ⅜ inch steel boxes topped by multi-sound panelled enclosures. The heart of the unit is the aircraft-to-suppressor coupling which makes for a positive connection with minimum noise leakage, yet will follow movement of the aircraft tail section during run-up.

A jet engine sound suppressor, recently installed at the Naval Air Rework Facility at Alameda, "keeps down the noise" aboard the base during a ground run-up of a Corsair.

Top Marine Aviator Named for 1970

ATLANTA, Ga. — A 31-year-old captain, presently at Santa Ana, Calif., has been named "Marine Aviator of the Year" for FY 1970.

Captain John J. Barrett, holder of the Navy Cross, three Silver Stars, two Distinguished Flying Crosses and 35 Air Medals, is the recipient of the Alfred A. Cunningham Marine Aviator of the Year Award for his outstanding contributions to the field of Marine Aviation.

The captain was honored at a banquet at the Sheraton-Biltmore Hotel during the 32nd annual convention of the First Marine Aviation Force Veterans' Association which donated the award.

CAPTAIN BARRETT WITH HIS AWARD

Making the presentation was Major General Homer S. Hill, Deputy Chief of Staff (Air), Headquarters Marine Corps. General Hill commented that he was honored to make the presentation because, "Though past selections for the honor of Marine Aviator of the Year have been outstanding, this year's selection is the best yet."

Captain Barrett was cited for his courage in the face of extreme danger in medical evacuation of wounded Marines, emergency resupply, and the insertion/extraction of reconnaissance teams.

He was also cited for his continued outstanding performance since leaving Vietnam, utilizing his invaluable combat experience to plan and coordinate the training of newly designated aviators destined for Southeast Asia.

Captain Barrett is the ninth recipient of the award which is named for the Marine Corps' first aviator.

First P-3C Deployment

PATUXENT RIVER, Md. – Nine P-3C *Orions* have completed the electronically sophisticated aircraft's first overseas deployment. The planes were flown by VP-49 in a routine deployment to NAS Keflavik from Patuxent River.

Rear Admiral John K. Beling, ComASWGru Iceland, said in a congratulatory message, "Patrol Squadron 49's outstanding operations in this critical ocean area have amply demonstrated the worth of the P-3C weapons system. The new tactics and techniques evolved have improved the ASW posture most significantly."

The P-3C features a computer system which integrates information from all sensors and quickly displays it, thus automating the time-consuming procedure of comparing and coordinating information from a variety of sensors.

Maintenance Award

JACKSONVILLE, Fla. – In a ceremony in Hangar 1000, Vice Admiral R. L. Townsend, Commander Naval Air Force, Atlantic Fleet, presented the Chief of Naval Operations Maintenance Award for patrol squadrons to Commander R. T. Thomas, commanding officer of VP-5.

The award is presented every 18 months in recognition of outstanding achievement and excellence in aircraft maintenance. This is the second consecutive time that VP-5 has won the award.

Lockheed Aircraft Corporation, builders of the P-3A *Orion* antisubmarine aircraft which VP-5 flies, initiated the maintenance award and presented it to the Navy to be given to the patrol squadron demonstrating excellence in aircraft maintenance.

Tailhook Honors

Washington, D.C. – VS-32 was selected the Navy's outstanding carrier-based ASW squadron, and received the first Admiral "Jimmy" Thach Award at the annual Tailhook Convention in Las Vegas November 21 (page 33).

Runners up for the trophy were HS-4, VS-33 and HS-5. "All have an impressive record of achievement," said Vice Admiral Thomas F. Connolly, DCNO(Air), "and are representative of the Navy's finest."

Also presented at the convention was the Admiral Joseph Clifton Award which went to VF-54, selected as the best fighter squadron in 1969.

The Clifton award is sponsored by Litton Industries, and the Thach award by Grumman Aircraft Corp.

Marines Win Trophy

WASHINGTON, D.C. – Marine Corps Aviation is the winner of the Chief of Naval Operations Readiness Through Safety Trophy for FY 70.

In earning the award, the Marine Corps recorded 37 fewer major accidents than the previous year and reduced their accident rate by 15 percent. The award honored both Fleet Marine Force Aviation units and the Marine Air Reserve Training Command.

General Leonard F. Chapman, Jr., Marine Corps Commandant, accepted the award from Admiral Elmo R. Zumwalt, Jr., CNO. The Marines will retain the three-foot perpetual trophy for one year. A small replica was presented for permanent possession.

A Possible First

DALLAS, Texas – A 30-year-old steward stationed at this naval air station has successfully mixed air and water and come up with a possible first. SD3 Manuel S. Vinarao is possibly the only steward in the Navy qualified to wear both the gold wings of an aircrewman and the silver dolphins of a nuclear submariner.

Capt. J. E. Savage, commanding officer of NAS Dallas, pins aircrew wings on SD3 Manuel S. Vinarao. Petty Officer Vinarao also wears the silver nuclear dolphins.

Vinarao enlisted in the Philippines in 1961. Following boot camp at San Diego, he was stationed at NAS Pensacola. In 1964 he was transferred to the submarine service and served aboard USS *Sailfish*. After four years and four submarines, he returned to Naval Aviation at NAS Dallas.

Serving in submarines, Vinarao earned first the silver dolphins and later the silver nuclear dolphins. In 1970 at NAS Dallas, he was qualified as a flight attendant and designated an aircrewman.

Vinarao is now serving aboard USS *Jallao*, home-ported at New London, Conn., but he hopes to return to Naval Aviation.

Bent Probe Tests

PATUXENT RIVER, Md. – Over the years, A-4E/F engines have ingested fuel, exploded and burned as the result of leakage from aerial refueling (AR) nozzles, couplings, and hoses near the coupling end. Systems installations in some A-4E's required reconfiguration of the AR probe to eliminate interference in the radar pattern. The reconfiguration is the "bent probe." NATC conducted tests in September 1969 that proved the strength and utility of the bent probe.

Further testing proved that fuel ingestion is negligible after the probe is installed and NATC has recommended that all A-4E/F *Skyhawks* be fitted with the bent probe configuration. Increased safety and a reduction in A-4 losses during aerial refueling operations should result.

New A-4 Designation

WASHINGTON, D.C. – All TA-4F aircraft modified to perform electronic countermeasure missions are being redesignated EA-4F. Modifications of the new *Skyhawk* designation include addition of ECM system components and associated wiring, deletion of selected components and associated wiring to accommodate added ECM system components, addition of target missile launching capability and provisions for special ECM stores.

GRAMPAW PETTIBONE

Octafloogaron

The veteran lieutenant commander launched from a CVA for a three-plane, A-7 strike-ex mission against a target complex on the West Coast. His *Corsair II* was loaded with triple ejector racks on stations 1 and 8, three MK 82 bombs on each rack. He also had an MK 4 gun pod on station 6.

When he reached the target, he made three 45-degree toss bombing runs, then set up for a 45-degree strafing run using his internal guns and the gun pod. With his sight on the bull's-eye, he fired two quick bursts, then pulled out at about 4,000 feet and started a right jinx.

Suddenly there was a loud bang, the plane rolled right for 360 degrees and the nose fell through the horizon. The lieutenant commander thought the plane had departed as it continued a snazzy octafloogaron. He quickly punched off the control augmentation, let go of the stick and deliberately placed both hands on the consoles. The *Corsair* recovered itself about 70° nose high, rolling right. The MK 4 gun pod was hanging by just the rear lug, almost 90° to the windstream, tail outboard. The pilot kicked in full left rudder and aileron, and the aircraft came over the top at 190 knots.

He headed for the coast, and informed his flight leader that he had a slight problem. It took full left trim to keep the plane in level flight; however, it still flew in a right skid. A short time later, the bottom of the pod shifted to the left jamming itself against the starboard main gear doors with its nose against the leading edge flap. It was still about 70° to the wind, but there was considerably less drag.

Once out over the water, the pilot's main concern was to get the pod off the airplane without taking the unit horizontal tail with it. He proceeded to push the nose over from 8,000 feet, picked up 200 knots and pulled 2 G's in a starboard turn, then hit the jettison switch for station 6 – hoping to throw

the pod away from the aircraft. Nothing happened. The flight leader joined up and they took another look at it. It was still resting against the leading edge flap! He then tried to shake it loose by rocking the *Corsair*, zooming, with G's, etc. – in general, he handled the aircraft pretty rough. The pod still didn't budge. He tried the salvo-jettison circuit next. It fired properly and got rid of both triple ejector racks, but the pod was just as solid as ever.

The plane was now much more flyable, and he headed for a divert field nearby. At about 6,000 feet and 14 miles from the base, out over the water, he extended the speed brake to slow to 180 knots. The speed brake traveled only about one foot and the pod came loose. There were a series of thuds and the stick slapped out of his hand. The master caution light came on, followed by other hydraulic system failure lights. At nine miles off the runway, he blew the gear and flaps down, switched to tower frequency, declared an emergency and proceeded straight in to the runway. The long field arrested landing was completed without further difficulty. After coming to a stop, the lieutenant commander shut down his engine and proceeded to examine the holes and other damage.

Grampaw Pettibone says:

Whew! How about that perfect professional performance by a real cool Aviator. Saved the Navy a mighty valuable airplane, he did. Could every

Nelson in command of his ship was never cooler!

other birdman have done as well? Very doubtful. Knowledge of the machine, its systems and performance characteristics, practice and careful planning and preparation for flight – all add up to mastery of almost any situation which a pilot might have to face.

A Rose is a Rose is a Rose

The Marine captain was on a routine close air support mission ,in his A-4E *Skyhawk*. He had been airborne about 25 minutes in a scheduled one-hour mission that afternoon and had rolled in on one of his last bomb runs. Just prior to the pickle point, there was a sudden thump and the airplane jerked violently. He immediately attempted to drop his ordnance and pull out but felt no control response whatsoever. The plane continued the run and bounced off the ground, then started a roll to the left.

His wingman and the forward air controller (airborne) saw the aircraft on fire on the pull-off from target, and the FAC called, "Eject! Eject!" The pilot initiated ejection while the *Skyhawk* was inverted. The seat left the aircraft after it had completed its roll and was upright. The plane continued to roll and hit the ground. The lucky pilot landed nearby with only minor injuries.

Grampaw Pettibone says:

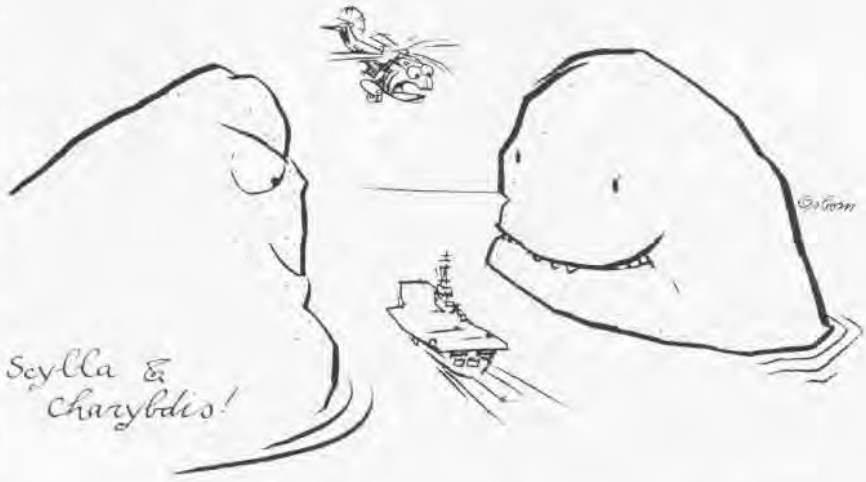
You talk about smellin' like a rose! This lad sure must'a been thinkin' pure thoughts all week. Don't know what he did right, but it was probably everything. I've seen many an outstanding aviator meet his maker in just such a situation. It's gratifyin' to see one make it back to tell about it.

Ghosts in the Night

An SH-3D *Sea King* was launched as plane guard for a five-and-a-half-hour, fixed-wing, night carrier qualification period from a West Coast CVS. It was the first extensive night operation for the ship, which had just completed yard conversion from a CVA.

The weather was marginal, ceiling 800 feet overcast, with five miles visibility in haze and fog patches. There was no visible horizon, so flight was mostly on instruments.

Everything was normal for the first five hours. Then, as they turned outbound from the ship in the starboard delta/plane-guard pattern, the copilot noticed large breakers below, like those



at most ocean beaches. The pilots also saw two white lights ahead (one a flashing beacon) at an undetermined distance. Suspecting an island close by, they called the ship to determine the closest land. A "Roger" was received but no reply. Starting outbound for the second time, with the same visual circumstances, they again called for nearest land, this time demanding a response in a tone that indicated something was amiss. Again, no information was received. (Half an hour earlier there had been word that the nearest land was passing about 17 miles on the starboard quarter.) On their next outbound turn, they were given a Charlie, to follow the last fixed wing aircraft, which was on final. The copilot confirmed that he could make out a land formation a few miles away. Two other helos, returning directly from training, were given immediate Charlies, and all three landed without incident.

Prior to shutdown on the flight deck, the aircraft commander again called and was still told that the nearest land was some 20 miles distant. Too much! Going directly from his aircraft to the air operations center where he found several senior representatives, he asked for an official answer on the location of the nearest land. "Twenty or more miles," was the immediate reply! A review of the circumstances followed. After much discussion, including radar's confirmation that there was no surface contact visible on radar, a visual review of the ship's track was made. Much to the astonishment of all present, this proved that the ship had indeed passed abeam of an island a few miles to starboard. It turned out to be a large natural mass rising 634 feet above the surface. The only explanation was, "Sorry about that, but we just didn't see it on the ship's radar."

Grampaw Pettibone says:

Great gallopin' ghosts! Wouldn't that curdle the cream in your coffee on a cold morning. Gramps received the above story from an anonymous fan. It just had to be printed. Wonder if they knew about that ghost island up on the bridge? Could the ship have run aground? Some communications lacking somewhere.

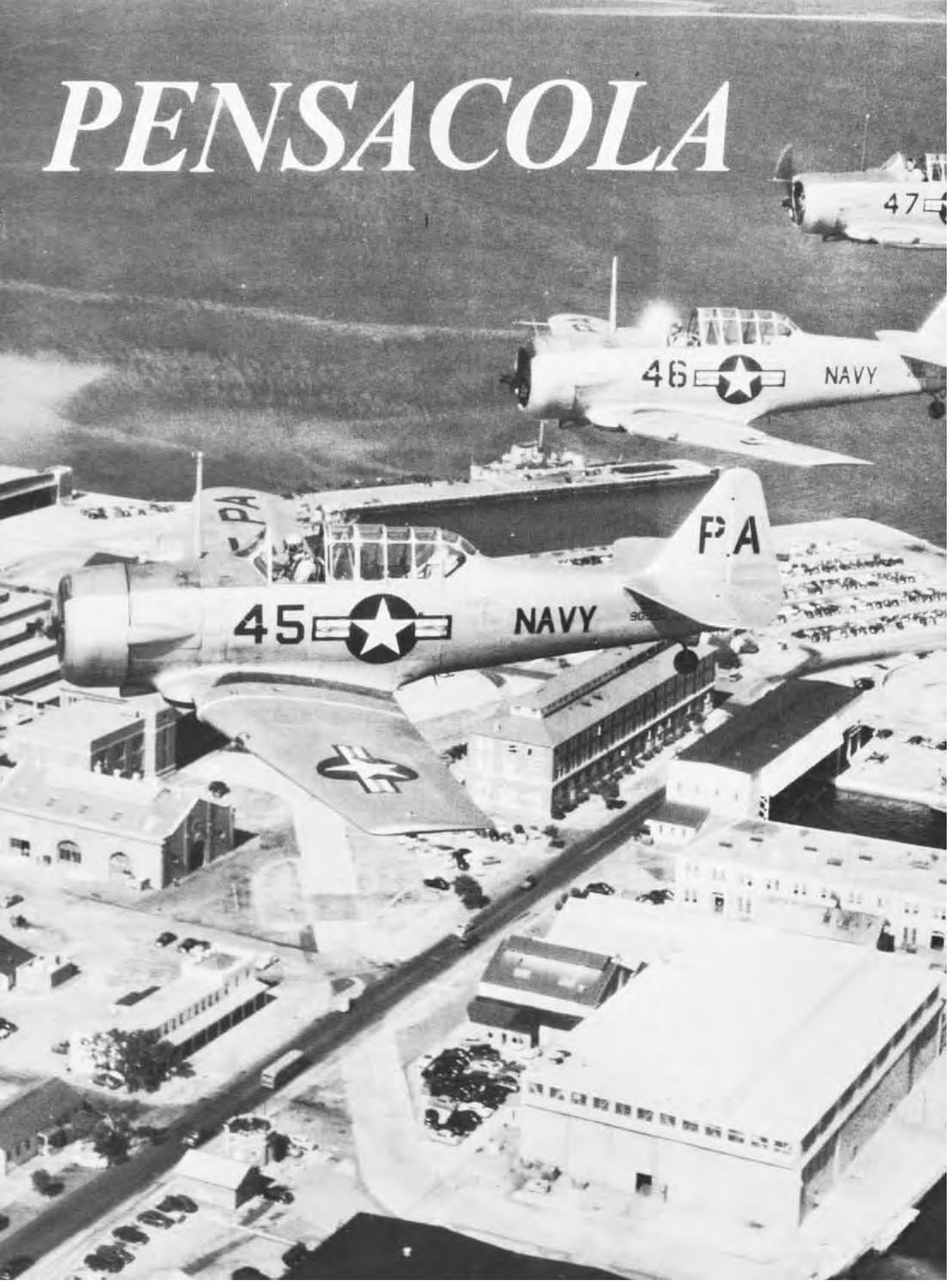
Sure an' it would'a been pilot error if some poor soul had flown into the mountain. It's comfortin' though to know that an occurrence like this is viewed with alarm by all concerned and procedures are changed to prevent a recurrence.

G.P. Eats Prairie Chicken

Ol' Gramps has been wrong more'n once and, when the real experts take exception, it's back to the books for more exact dope.

Referring to "Decision Point" in the June 1970 issue of *NANews*, there are at least a couple of acknowledged experts in the A-6 who disagree that the *Intruder* "would've easily flown away on one engine" after ingesting a prairie chicken at liftoff. Depending on the exact point of engine failure and gross weight and temperature, the craft could probably have flown out on one engine, though not with ease.

Gramps didn't intend to fault the pilot at all. He made sound decisions all around. Things just didn't turn out very well, and different decisions may well have changed the situation. There are certainly more desirable alternatives than ending up in a fire on your back, caught in the cockpit.


PENSACOLA
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NAVY
PA
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NAVY

Where it all began

It all began here, when the first small group of men disembarked from their two ships in the bay and stepped ashore at Pensacola early in 1914.

They brought with them a humble assortment of primitive aircraft, tattered canvas hangars and a desire: To get their aeroplanes into the air. That desire has not subsided to this day.

The legendary giants of Naval Aviation — the Mitschers, Cliftons, Boyingtons, McCampbells; the Shephards, the Conrads, the Armstrongs — all began their aviation careers here and have added to the history of the Station, the Navy, the World.

It all begins here, the climb to Navy wings. In 1914, Towers, Mustin, Chevalier and other qualified aviators began teaching a small class.

Today, the tradition of expert instruction continues, but the number of graduates has increased: in FY 1970, 2,468 Naval Aviators and 944 Naval Flight Officers.

At times, Pensacola has given wings to more — and to less — but always only to the best.

... and still begins

By Michael G. McDonell

At 0800 on January 20, 1914, the sight of the old Pensacola Navy Yard was not impressive as LCdr. Henry B. Mustin, Naval Aviator #11, looked over the debris-strewn area. Later in the day, he would describe the scene to Washington in a report: "The beach was in a fearful state with wreckage of all kinds – bricks, stones and old railroad iron. This morning it looked like the ruins of a prehistoric city."

Under overcast skies, the USS *Mississippi* had dropped anchor at Pensacola, Fla. (She was followed later by the collier *Orion*.) On board the former battleship, the men were busy unloading the aircraft and equipment that had once comprised the Navy's Aviation Camp at Annapolis. As commanding officer of the aeronautics ship, Mustin was charged with the responsibility of establishing the Naval Aeronautic Station at Pensacola.

Also on board was Lt. John H. Towers, Naval Aviator #3. On January 3, 1914, he had been ordered to transfer the officers, men and equipment of the Aviation Camp to Pensacola and "take charge of the establishment of a flying school at that place; this being in addition to your duties on board the *Mississippi*." The orders were signed by Navy Secretary Josephus Daniels.

Lt. Towers had nine officers (six of whom were qualified pilots) and 23 enlisted personnel with him, and the inventory of aircraft consisted of seven aeroplanes of three different manufacturers and of three different types – only two being alike. The aircraft, their spare parts, the canvas hangars and sundry pieces of equipment were put ashore, joined by the officers and men. The task of clearing the beach was begun immediately. The "cradle of Naval Aviation" was being constructed.

The urgent priority of the establishment and conduct of the flying school was made quite clear to Lt. Towers; he had received a set of instructions from Captain Mark L. Bristol (later Director of Naval Aeronautics).

The instructions were:

> It is most important to get the Flying School established and the work started. I want you to submit a plan for the organization of the School . . . . Next submit a plan for the course of instruction and the requirements for qualifications of air pilots. Then you will submit a set of safety orders of instructions for air pilots, both under instruction and those qualified. No one but qualified air pilots will be engaged in or allowed to try experiments while flying. The Flying School will not attempt experimental work other than that laid down, or after request is approved by me.
>
> Every accident in flying or defect in material must be promptly reported . . . . You will not allow any student or apprentice air pilot to continue under instruction who has not natural aptitude. You will not allow anyone to disregard the safety orders or the rules for flying. You will report such cases immediately. Your success will depend upon "hard as nails" *right from the beginning* . . . experience is the best teacher known; hence, the number of hours of flying by each machine and each officer or man under instruction will be a good measure of the instruction work accomplished. The test of materials is obtained by the hours of useful work as compared to the hours available. The idle hours for personnel and material must be accounted for so as to show the necessity. No effort must be spared to prevent human fatalities, not only on account of the results, but in order to do away with the morale effect. Accidents that result in fatal or even serious injuries to personnel will give us a "black eye" and seriously interfere with progress. I do not recommend overcautious action to the detriment of progress, but let clear-headed discretion rule. Base the rules for safety upon these principles.

Naval Aviation received its first funds under the Naval Appropriation Act of 1911-12 – $25,000.

While the establishment of the flying school was Lt. Tower's paramount task, experimental work was also needed. He promptly requested permission to conduct experimental tests on some newly designed propellers, new Renault and Wright engines, a D-2 non-rigid airship fitted with a modified boat, a new control device and a catapult launching device. Work continued, but preparing the beach was a disheartening task as LCdr. Mustin reported to Capt. Bristol: "The more work we have done on the beach, the worse condition we have found it in, all evidently due to the hurricane of 1906 which brought up all kinds of wreckage covered with sand."

Wreckage on the beach, July 1916, is reminiscent of the scene that Mustin described in his first report to Captain Bristol. The Naval Aeronautic Station, above, as it appeared in May 1916.

At long last, on February 2, 1914, the first aircraft rose up over Pensacola carrying Lt. Towers and Ens. Godfrey Chevalier, Naval Aviator #7, on a 20-minute flight over the naval reservation and Bayou Grande.

The first flight had been logged, but Capt. Bristol was not satisfied with the progress being made, particularly in view of the fact that only four percent of the time had been spent on flying. He made his impatience known to LCdr. Mustin, who replied, "I assure you there is no loafing in the flying school. The students, when not flying, are working on motors (without help from mechanicians), and they have gotten very busy in the theory as well as practical work since they saw the proposed course of instruction."

A week later, on April 11, 1914, Mustin reported to the captain: "We have had only two days this week that really could be called decent flying days, but we have missed no opportunities. Yesterday, Saufley made two flights alone . . . and Chevalier made three glides, one spiral from over 2,000 feet with his motor dead in rather bumpy weather, and each time landed well within 150 feet."

Progress was being made. But not for long. On April 18, training was interrupted by the outbreak of trouble in Mexico, and four months from the day he disembarked at Pensacola, Lt. Towers, with Chevalier and Lt. B. L. Smith, USMC, 12 enlisted mechanics and two aircraft, embarked in the scout cruiser USS *Birmingham* for Tampico to conduct observation flights.

A day later, Mustin's *Mississippi* weighed anchor and steamed for Vera Cruz with Ltjg. P. N. L. Bellinger (Naval Aviator #8) and three student pilots aboard. Bellinger's frequent reconnaissance flights over Vera Cruz provided information for landing parties — and he collected the first bullet holes in a Navy aircraft.

Even while Towers, Bellinger and company were on their way to Mexico, with training temporaily suspended, good news arrived at Pensacola. The Bureau of Navigation had approved the training program. But the good news became grim, rapidly: *Mississippi*, which had served as the school's headquarters, was sold to Greece. The armored cruiser, *North Carolina*, became the replacement but, when war broke out in Europe in August, she was dispatched to the continent, carrying Mustin, Bellinger and a number of pilots and aviation personnel along. (There had not been time to put them ashore.) This worked a number of hardships on those personnel left behind: the ship contained their pay accounts.

Pilot strength was further reduced when Lt. Towers was sent to London, and two other pilots, Victor N. Herbster and Smith, were sent to Berlin and Paris, respectively, as observers. The explanation was, "aeronautics is playing a part in war and very little is known of the science and art of aeronautics."

In November, because of the experience with the *North Carolina*, the headquarters for the station was moved ashore. Mustin became commandant, and the experience gained by the aviators in Mexico and Europe resulted in increased experimental work.

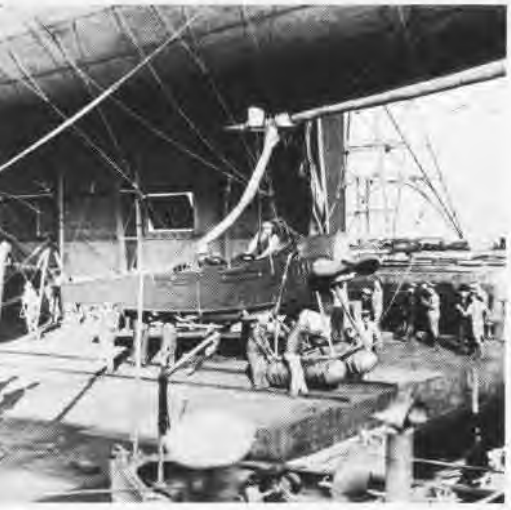
However, by 1917, it was decided that the station was too far removed from the aeronautical "manufacturing" centers of the U.S. and, on January 1, 1918, all experimental work was transferred to Hampton Roads, Va. Pensacola continued to concentrate on producing Naval Aviators but with a very urgent reason: the country was at war. When America came to the assistance of Europe on April 6, 1917, only 48 Navy and Marine pilots had been trained. The rest of the fledgling air arm consisted of 239 enlisted ratings, one airship, three balloons, 54 aircraft and the aeronautic station. Expansion of Naval Aviation began. Men by the thousands joined the Naval Reserve Flying Corps to become pilots, ground officers, mechanics and technicians.

During the 19 months between the declaration of war and the armistice, the Naval Air arm expanded to 6,716 officers and 30,693 enlisted men. The Marines added 282 aviators and 2,180 enlisted men. Two thousand one hundred and seven aircraft, 15 dirigibles and 215 kite and free balloons filled out the naval inventory. In Europe, 18,000 officers and men flew and maintained 570 Navy and Marine aircraft.

On April 2, 1916, Ltjg. Richard Saufley established an American altitude record, reaching a height of 16,072 feet in a Curtiss AH-9 Hydro.

Saufley died in a crash on June 9, 1916, while attempting to break his own endurance record of eight hours and 43 minutes aloft. He came within two minutes of doing so.

North Carolina, right, in the process of being outfitted with a new catapult, May 1916. Two months later, Lieutenant Chevalier was launched in the AB-3, while the ship was underway.



Progress and perfection are hallmarks of Pensacola. The ungainly looking craft at left is a B class airship rolling out of a floating hangar, 1917. Above, Curtiss R-9, April 1920.

Naval Aviation was a reality. On both sides of the Atlantic, naval air stations were created: 12 in the U.S., 27 in France, the British Isles, Italy and the Azores.

With the end of hostilities in Europe, the foreign bases were closed down, but Pensacola was no longer the only home for Naval Aviation. Naval air stations at Anacostia, Hampton Roads, Coco Solo, San Diego, and the Naval Aircraft Factory at Philadelphia had joined the family. More followed.

Designated a naval air station in December 1917, Pensacola had changed dramatically during the war. Gone were the canvas tents on the beach, the small training camp with the ramshackle facilities and the capability of training only a handful of students a year. Pensacola was now a $25 million naval air station, training 2,500 pilots a year.

During the period of combat, as in the earlier years, Pensacola's Naval Aviators were trained in seaplanes and hydroplanes. If the dream of an American aircraft carrier, similar to HMS *Furious* (the first true aircraft carrier), was to be realized, landplane training would be necessary.

Land had to be found for airfields. In 1922, the year the *Langley* was commissioned, the town of Woolsey was vacated and razed to make way for Station Field, later renamed Chevalier Field. The same year, the city of Pensacola, obviously interested in seeing the air station expand, made land available for an auxiliary field at no cost, with an option to buy after five years. The field was named Corry Field and, in 1927, it was relocated closer to the air station. About this time, Assistant Secretary of the Navy Ernest Lee Jahncke was quoted by the station newspapers: "This station was built for a Navy yard and, consequently, many of its structures are suited to aviation activities only to the extent of being equipped with four walls and a roof. Otherwise, they are about as well adapted to the economic and efficient operation of an air station as a Belgian draft horse is to win the Kentucky Derby."

A word to the wise was sufficient. Another town, Warrington, made way for expansion. Station Field was enlarged and received two new hangars, and Corry Field received four new hangars in addition to other buildings.

During this time, several aspects of student pilot training had changed from the early days. By 1926, the classes had expanded to a maximum of 125 students. Two years later, the four-classes-a-year concept was discarded in favor of a program designed to train ten students a week. Later on, the four-class system was re-adopted.

Pensacola continued to progress steadily until 1932. Pilot training had to be reduced because Congress failed to appropriate money for fleet aircraft. The result was that there were almost as many trained Naval Aviators as there were naval aircraft. This had a dramatic effect at Pensacola: it prohibited training. No new students were trained from August 1932 to June 1933.

The critical shortage of Naval Aviators did not become clearly evident to Washington until January 1933 when it was discovered that the newly commissioned *Ranger* and her embarked squadrons would create a shortage in the Naval Aviation community – a shortage of approximately 75 aviators. BuAer ordered resumption of training.

The five years prior to the outbreak of WW II were ones of preparation at Pensacola – preparation that was to prove invaluable to the war effort. In 1935, the Aviation Cadet Training Program began bringing in college graduates – to be trained and commissioned. Physically, the station expanded with the construction of numerous new barracks and quarters, a new dispensary and hospital, an extended assembly and repair facility, buildings to house essential utilities and more classrooms. Station Field was expanded by 180 acres to accommodate a landplane squadron and was renamed Chevalier Field. Chevalier and Corry Fields were soon to be joined by another field as planners began gathering requirements for Saufley.

By November of 1939, a school of aviation medicine was founded, followed in February 1940 by a Class A school for the training of aviation machinists mates and metalsmiths. An instructors school, to train newly designated Naval Aviators as primary flight instructors, was established in 1940.

Pensacola legend has it that when the wall was built around the old hospital in 1837, the doctors believed that mosquitos could not fly more than eight feet off the ground; the wall was built to a height of 12 feet – to keep the mosquitos out!

Above, officers watch an orientor – 1922. Aircraft at Corry Field dedication, right.

When war broke out in December 1941, the Navy had the needed base from which to expand – Pensacola. The station had its work cut out for it.

Naval Aviation was engaged in two types of war. In the Atlantic, the mission was primarily blockade, escort and patrol. In the west, the job was to halt enemy expansion throughout the Pacific and then push him back to the island chain whence he came. Ready to meet the challenge were 5,900 Navy and Marine pilots, 21,678 aviation ratings, 5,233 aircraft and eight aircraft carriers. To win, we needed more.

Pensacola proved more than equal to its task of providing the pilots and aviation personnel. Nine days after the attack at Pearl Harbor, the training of student Naval Aviators accelerated from 800 to 2,500 per month and, by the middle of 1943, Lt. Towers' Flying School was the "Naval Academy of the Air," graduating an average of 20,000 qualified pilots a year.

It was inevitable that the activity at Pensacola would generate the need for auxiliary fields. Saufley Field was commissioned in August 1940, followed by Ellyson in October 1941. September 1942 saw Bronson Field put into commission, followed by Pensacola's only auxiliary field outside of Florida – Barin Field at Foley, Alabama – on December 5, 1942. Whiting Field was put into operation in July 1943.

With the expansion of naval air fields to two counties in Florida and one in Alabama, a problem of administrative control was foreseen by Washington. On October 12, 1942, General Order 181 created the Naval Air Training Center. Under this organization, the

From top to bottom, Pensacola in July 1919; September 1948, with USS Cabot (CVL-28) in foreground; in May 1963, with USS Lexington (CVS-16) at the pier.

commandant of the naval air station was relieved of responsibility for the subordinate fields, which received their own commanding officers. The overall responsibility for the command was assumed by the Commandant, Naval Air Training Center. Much can be written in tribute to Pensacola for its contribution during WW II, but none says it as well as the accomplishments of the men trained there: 15,000 enemy aircraft destroyed, 161 Japanese warships and 63 German submarines sunk.

The end of the war brought a period of demobilization and the problems which inevitably follow that act. At Pensacola, training of cadets was cut to 10,000 in 1946. Two fields, Ellyson and Saufley, were deactivated (until the Korean Conflict) and the other fields reflected the reduction in pilot training as their workloads decreased sharply. Coinciding with this period of demobilization and cutbacks were disputes over the aircraft carrier, reminiscent of today's cries of "too expensive and vulnerable," conflicts over missions with a newly emerged separate Air Force, and the resignation of the Secretary of the Navy over the cancellation of a carrier.

The period that began after the Korean truce and continues to the present has been marked by technological and scientific advances that have changed Naval Aviation as it had not been changed during its entire history. Aircraft have evolved from the subsonic to the supersonic, cannon have been replaced by sophisticated missiles, navigational systems have been computerized and a new generation of nuclear-powered aircraft carriers is emerging.

As the inventory of Naval Aviation increases in complexity, so Pensacola reflects the changing times. In 1955, the first of a full quota of 75 *Cougar* jets arrived at Pensacola's Forrest Sherman Field, and a new era in flight training began. Things have changed: "pushers" gave way to "tractors," the SNJ and N2S *Yellow Peril* to the T-28 *Trojan* and T-2 *Buckeye*.

The station has changed. It bears little resemblance to the debris-strewn beach that greeted Mustin and Towers 57 years ago. Today the station sprawls over 5,500 acres and is the home of the Naval Air Training and Naval Air Basic Training Commands. Several other important aviation activities are also located there.

Pensacola is the site of the Pre-Flight School, where neophyte Naval Aviators receive their aviation indoctrination in the form of 16 weeks of rigorous physical and technical orientation courses. For those candidates who desire a career in Naval Aviation but not as a pilot, the Basic Naval Aviation Officers School provides the

A T-28 goes for the wire on board Lexington during carquals, opposite page. Enlisted metalsmith instruction, 1941, left. Below, an instructor and AvCad after flight in OS2U, 1941. NS-1's, circa 1936, bottom left; Seastars over Pensacola Bay, 1949, bottom right.

curriculum for potential navigators, aerial radar officers and numerous other aviation specialists.

Located aboard the station is the Naval Aerospace Medical Center, an organization dedicated to aviation medicine and research. The Center is composed of the Naval Aerospace Medical Institute which trains physicians, corpsmen and technicians for duty with aviation units and/or in aerospace medicine; and the Naval Aerospace Medical Research Laboratory which conducts research on the physiological and psychological effects, on man, of an abnormal environment aloft.

Near a Pensacola landmark, the historic fort of San Carlos de Barrancas, a cluster of buildings houses the Naval Air Technical Training Unit. The unit trains the Navy's photographers in all phases of the art – from basic photographic theory to the sophisticated techniques of aerial work.

At the station's Naval Air Rework Facility, aircraft from the many naval air stations on the East Coast are repaired and rebuilt.

A temporary wooden building each year attracts visitors to Pensacola from throughout the United States and the world. Dedicated in 1963, the Naval Aviation Museum, Building #679, features many mementos, models and machines that depict the heroic and fascinating history of Naval Aviation. As the chronicle of powered flight progresses, the Museum's 8,500 square feet of exhibition area will prove inadequate to the task of exhibiting the memorabilia of Naval Aviation. Building #679 will soon be replaced by a privately funded $4 million structure on 14 acres. It will provide 150,000 square feet of museum display area.

Bordering Pensacola Bay, the air station was a natural choice for the docking site of the training carrier assigned to CNABaTra. USS *Lexington* (CVT-16) is often found at the pier preparing for another day of carquals in the Gulf.

At times, the sky over Pensacola is filled with flashing blue and the roar of F-4 *Phantoms*, causing heads to turn upward. The Navy's own *Blue Angels* are making an infrequent trip home after a long "road show" tour. More often, the sky is filled with the T-2C's and T-28's of the training squadrons flying out of Forrest Sherman Field.

Pensacola has come a long way from its cradle and the seat-of-the-pants flying of those early iron aviators.

But for all the change and sophistication, there remains at Pensacola a spirit that is renewed by every man who learns to fly, by every man who trained there – in peacetime or in war. That spirit is maintained by every individual who enters a civilian and leaves "something special."

Pensacola Potpourri

On the beach at the flying school, Mustin and a group of early aviators pose in front of a Curtiss Hydro, above. The flight mech, instructor, student and the SNJ, 1943. Station Field during the Twenties. Note the LTA hangar at left. The letters SQD SIX appear between the two hangars.

Getting there is only half the fun — the other half is getting down. At left, a student brings his T-2A in for the final effort.
The venerable SNJ on the flight line, 1942, below.

Two airfields aboard NAS Pensacola are familiar to most Naval Aviators.

Chevalier Field, the smaller of the two, is now inactive. Known as Station Field when it was created in 1922, it was renamed in 1935 in honor of one of the Navy's most colorful and celebrated Naval Aviators — Lieutenant Commander Godfrey DeC. Chevalier. A graduate of Annapolis, class of 1910, Chevalier demonstrated his courage early when he single-handedly rescued 20 men from a liberty barge that had swamped in the icy Hudson River. He received his first taste of aviation in 1912 at the Naval Aviation Camp at Annapolis where he served as an aviation instructor until it was moved to Pensacola in 1914.

In April 1917, soon after the U.S. entered WW I, Chevalier went to France where he commanded the Naval Aeronautic Station at Dunkerque, and flew the Belgian coast patrol. In 1918, he assumed command of the Northern Bombing Squadron, and later was assigned to U.S. Naval Headquarters in London.

Late in 1920, he assisted in the "fitting out" of the Navy's first aircraft carrier at the Norfolk Navy Yard. When *Langley* was commissioned in 1922, Chevalier served as her senior flight officer and was given much credit for the development of landing deck gear by the Chief of BuAer, Rear Admiral William A. Moffett. On October 26, 1920, Chevalier piloted an Aeromarine 39B in the first landing aboard and, less than a month later, on November 14, 1922, LCdr. Chevalier died of injuries suffered during a plane crash.

The larger of the two fields, Sherman, dedicated in 1951, is named for Admiral Forrest P. Sherman, Navy Cross holder, distinguished combat commander, military diplomat and former CNO.

He graduated with distinction, second in a class of 199, from the Naval Academy, Class of 1918. In June 1922, he reported to Pensacola for flight training and was designated a Naval Aviator in December 1922. He reported to USS *Lexington* during her fitting out period and remained aboard until December 1928 when he joined Scouting Squadron Two aboard *Saratoga*. In 1929, he assumed the duties of Flag Secretary on the staff of Commander Aircraft Squadrons, Battle Fleet. In May 1931, he was assigned to duty on the staff of Commander Aircraft, Battle Force, U.S. Fleet, and a year later, assumed command of VF-1.

In May 1942, he assumed command of USS *Wasp*. In that capacity, he was awarded the Navy Cross for extraordinary heroism during the Tulagi-Guadalcanal operations. After *Wasp* was sunk by the Japanese in September 1942, he became chief of staff, Commander Air Force Pacific and, in November 1943, he became Deputy Chief of Staff, CinC Pacific Fleet.

In August 1945, he represented the Navy during initial conferences with the Japanese at Manila and was present aboard *Missouri* during the formal surrender in September. One month later, he assumed the duties of ComCarDiv One and, in December, became the Deputy Chief of Naval Operations (Operations).

In January 1948, he was named Commander, U.S. Naval Forces, Mediterranean, where he remained until he became the Chief of Naval Operations in 1949.

At the time of his death in 1951, Admiral Sherman was in Naples on a military diplomatic trip to Europe.

SING OUT

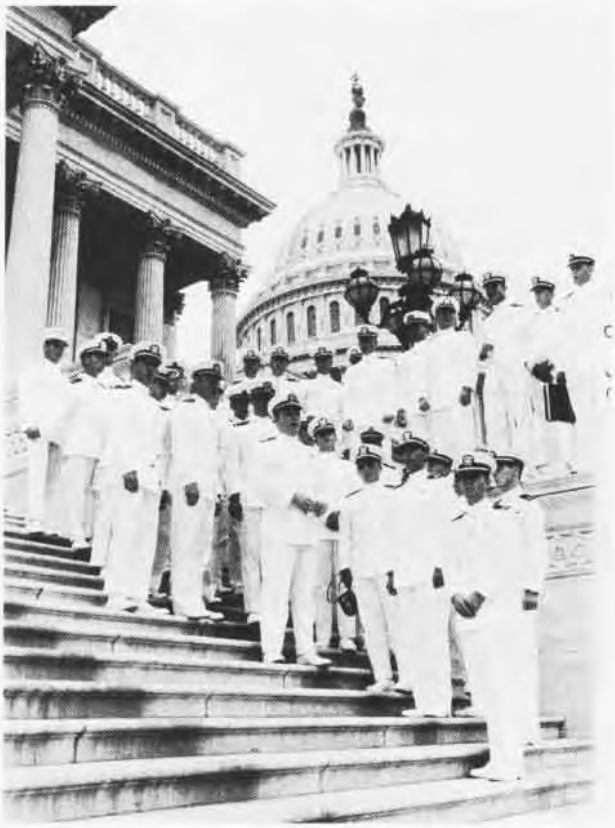
The sea chanties of the men who go down to the sea in ships have given way to the air chanties of the flying sailors of the Naval Air Training Command Choir at Pensacola. Directed by Lt. James E. Louis, helicopter pilot, the Navy and Marine Corps flight students – in their off duty hours – sing everything from the "Navy Hymn" to "The Age of Aquarius" as they bring the Naval Aviation message, in song, to hundreds of thousands of Americans every year. In addition to nine major television appearances last year, the choral group gave live performances before a quarter of a million people in such cities as Houston, Washington, San Diego, Atlanta and Denver.

The choir was started in 1949 by Chief Musician Arthur L. Symington as a small mixed chapel choir. By 1950 there was no choice but to make it an all-male choir since the overpowering strength of male voices made mixed choral work impossible.

Filled with enthusiasm, the choir stayed after rehearsals – to sing, for sheer enjoyment, the traditional sea chanties. Gradually, their repertoire expanded to today's full program.

As the seafaring men of windjammer days sang about their work and adventures, so do the men of Naval Aviation – about their work and adventures.

By PH3 Jerome Ryden



BUCK

The Navy's two-place, high performance, basic jet training aircraft, the T-2 *Buckeye,* is a familiar sight in the skies over the areas surrounding Pensacola, Fla., and Meridian, Miss. The plane becomes even more familiar to the student pilot who selects the jet training syllabus as his route to becoming a Naval Aviator, since he will accumulate well over 100 hours in the versatile jet before proceeding to advanced training at Corpus Christi, Texas.

After completing preflight academics and primary flight training in the smaller prop-driven T-34, the student transitions to jet flying with initial flights in the T-2A in VT-7 or VT-9 at NAS Meridian. In addition to becoming accustomed to the new dimensions of jet flight and the basic piloting techniques involved, the student learns basic instruments and radio instrument procedures in the single-engined T-2A. Both squadrons also fly the twin-engined version of the *Buckeye,* the T-2B or T-2C. In these planes the student pilot transitions to two-engine operations as well as acquiring proficiency in precision, formation and night flying. After satisfactorily completing that syllabus, the would-be Naval Aviator is ready to return to NAS Pensacola once more, in order to tackle the exciting training provided in T-2C's at VT-4. There he learns the basics of air-to-air gunnery and practices field carrier landings until he is ready for the challenge of taking the *Buckeye* aboard the training carrier *Lexington* (CVT-16) to become carrier qualified.

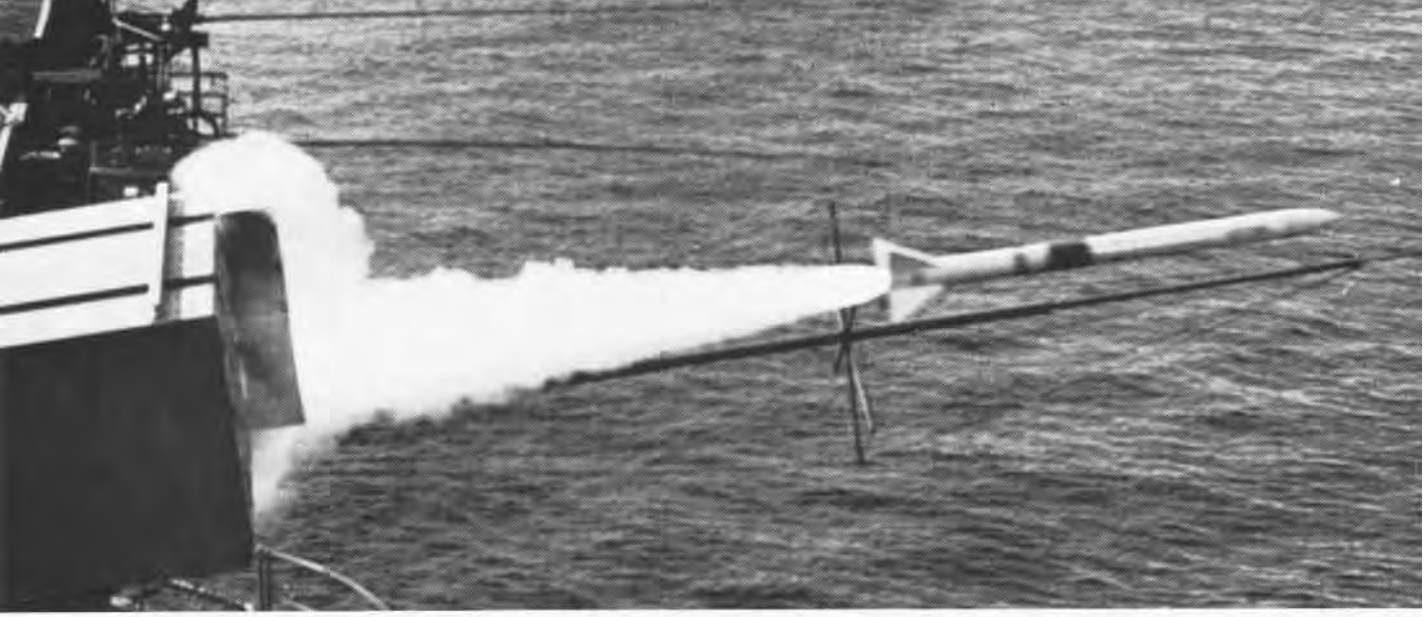
With that achievement behind him, the student pilot is ready to continue on to advanced training in bigger and faster jets, but he will retain a fond remembrance of the squat-looking jet trainer in which he first learned his profession.

The *Buckeye* is well suited to the role it plays in the Navy's pilot training program. Its low stall speed and high maximum speed make it an ideal training plane for instruction in fighter tactics and weapons delivery as well as carrier landing techniques. The excellent visibility is also a valuable characteristic for both student and instructor. Equipped with speed brakes, pressurized and air-conditioned cockpit and Martin-Baker ejection system, the North American-produced T-2 is the pride of the Naval Air Basic Training Command.

KEYE

T-2A T-2B T-2C

Crew		2
Length		38'4"
Height		14'10"
Wing Span		38'0"
Engine:	T-2A	One J34-WE-48
	T-2B	Two J60-P-6A
	T-2C	Two J85-GE-4
Thrust:	T-2A	3,400 lbs.
	T-2B	3,000 lbs. ea.
	T-2C	2,950 lbs. ea.
Max. Speed:	T-2A	403 kts.
	T-2B	472 kts.
	T-2C	466 kts.
Stall Speed:	T-2A	74 kts.
	T-2B/C	85 kts.
Ceiling:	T-2A	35,100 ft.
	T-2B	42,600 ft.
	T-2C	42,000 ft.
Max. Range:	T-2A	836 nm.
	T-2B	966 nm.
	T-2C	930 nm.



OKINAWA SPARROWS

Ens. J. R. Sweeten
PH2 JH A. Garner
PH2 B. Ramey

Okinawa has lost her forward 3"/50 gun mount.

It will not be missed, however, because it was replaced by the Basic Point Defense Surface Missile System, a surface-to-air system which is a modification of the *Sparrow* air-to-air missile.

Okinawa is the first LPH to have the missile-firing capability. Three other carriers, *Enterprise*, *Forrestal* and *Kennedy*, also have the inexpensive, reliable, short range missile system which will give auxiliary, amphibious and carrier-type ships a close-in missile support capability against high speed targets.

"The system is simple to operate," says Ltjg. Dan Zaccara, fire control officer (FCO) aboard LPH-3. "It requires only ten men for maintenance and uses a number of off-the-shelf

Missile components of USS Okinawa's basic point defense surface missile system get a once-over from ship's ordnancemen.

Gunner's mates install test missiles in USS Okinawa's missile launcher, left and above. Below, fire control technician operates the director illuminator during tests.

parts. This makes it relatively inexpensive.

Here's how it works:

When a "pip" appears on the air-search radar in CIC, the FCO makes range and bearing adjustments on the fire control panel, and word is passed to the weapons control officer on the signal bridge. Information from the FC panel is, in turn, fed to the missile fire control technician who operates the director illuminator, located 2½ feet above the signal bridge deck.

Using the information, the director illuminator seeks out and "locks on" the target. When it locks on, information about the approaching aircraft is fed back to the fire control computer which controls the system. Also at lock-on, the missile launcher, located on the flight deck directly in front of the superstructure, begins to follow the path of the incoming plane.

The missile is energized and checked electronically to ensure that it is ready for firing, and the FCO manually activates the safe/enable switch. The missile is now set to fire.

A deafening roar overpowers all other sound in the area as the engines ignite, and the missile is propelled toward the target. The modified *Sparrow* slices through the air for a few seconds, then sharply alters course.

Poof – the target is gone.

NAVAL AVIATION NEWS
1911 1971

Grumman A-6 Contract

WASHINGTON, D.C. – Grumman Aerospace Corporation has been awarded a $41,530,000 fixed-price-incentive contract for FY 71 procurement of EA-6B aircraft. The Naval Air Systems Command is the contracting activity. Work will be done in Calverton and Bethpage, N.Y.

First ASW Support System Installed

KEFLAVIK, Iceland – The Navy's first operational antisubmarine warfare tactical support system was installed here in November.

Developed at NATC Patuxent River, the system provides a direct link between the operational commander and the remote aircraft data source. It extracts, processes, stores, correlates and displays data from the sophisticated weapons system of the P-3 *Orion*.

Fifteen members of the prototype tactical support center at Patuxent River spent more than a month installing and debugging the nearly ten tons of electronic gear.

Eventually, a network of the advanced computerized systems will replace existing fleet air wing-level operational control centers around the world (*NANews*, Aug. 1970, p. 25).

Norwegian Crews Visit

BRUNSWICK, Maine – Patrol Squadron Ten hosted two flight crews from VP-333, Andoya (Duck Island), Norway, in October for a week of training, and hosted two more in November.

Norwegian squadrons fly the same aircraft as U.S. patrol squadrons, the P-3B. The significant differences are the Norwegian insignia and the deep gray color they paint their aircraft.

Andoya is a NATO base located at 70 degrees north latitude, where night falls for six months and stormy weather is more the rule than the exception. Under these conditions, the dark color of the aircraft makes them less visible to the eye than the lighter-colored American planes.

This was not the first trip to the U.S. for the Scandinavians. They received transition training at NAS Norfolk and NATC Patuxent River in 1968 and 1969. They enjoyed their short stay at Maine last year with one minor exception: when they asked to use the swimming pool, they found that the delicate Americans had long since drained it.

SPECIAL ISSUE

This special issue replaces the November *NANews*. *Space and the United States Navy*. It is available for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 ($1.75).

Weather Squadron Receives Two MUC's

JACKSONVILLE, Fla. – Weather Reconnaissance Squadron Four has received two separate Meritorious Unit Commendations.

The first award for the Navy's *Hurricane Hunters* stems from operations in support of the *Apollo 7* and *8* manned spacecraft flights. The squadron flew weather reconnaissance flights between the Azores and Canary Islands along the flight path of the space vehicles.

Valuable contributions in weather reconnaissance, storm tracking, hurricane penetrations, "seeder" aircraft control, and provision support for several experimental programs from May 1 to November 30, 1969, earned the squadron its second award.

Rear Admiral L. J. Heyworth, ComFAirJax, presented the MUC's.

Safety Record Rewarded

MILTON, Fla. – The Chief of Naval Air Basic Training has awarded VT-3, NAS Whiting Field, the First Quarter fiscal year 1971 Aviation Safety Award.

VT-3 flew approximately 16,255 consecutive accident-free hours during the first quarter. The squadron has not had an accident since October 1969, amassing 84,820 consecutive accident-free hours.

Commander Paul S. Daly is commanding officer of VT-3.

Heavy Lift Helo Approved by DOD

WASHINGTON, D.C. – The first new U.S. military helicopter development in the last five years, the heavy lift (HLH), has been approved by Secretary of Defense Melvin R. Laird.

The HLH will be configured for the movement of heavy or bulky logistic supplies and tactical equipment and will have a maximum lift capability of more than 25 tons. This will more than double the maximum capability of U.S. helicopters currently available.

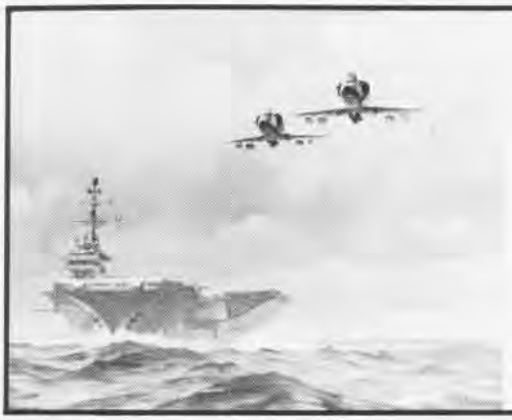
One design will be used by both the Army and Navy.

TAILHOOK REUNION

Fleet Air Photo Lab, North Island

The 14th Annual Tailhook Reunion held in Las Vegas in late November attracted over 2,000 Naval Aviators, active and retired, who discussed mutual interests in such areas as pilot retention, morale and improvements in tactical carrier flying. Gathering at their headquarters at the Sahara, participants heard VAdm. G. E. Miller speak on the growing threat of Soviet seapower. After cocktails and a buffet dinner, a Las Vegas show closed the first evening. Following recreational activities and an air show featuring the *Blue Angels* the next day, the Tailhookers attended a dinner at which many awards were presented, including the Tailhooker of the Year award to Adm. J. J. Hyland and Tailhook awards to officers present who had accumulated the highest number of arrested carrier landings for their grade. Admiral E. R. Zumwalt received an honorary *Centurion* award from *Gray Eagle* Rear Admiral G. P. Koch for publishing "100+ Z-grams."

VAdm. Connolly, top right, relinquishes 1969 Tailhooker of Year award. Clockwise from left, Cdr. Arnold receives Tailhook award from VAdm. Bringle. Adm. Zumwalt is made Centurion. Blue Angels provided superb show. Participants check into Sahara. Tailhookers take time for recreation.



at Sea with the Carriers

ATLANTIC FLEET

Independence (CVA-62)

Flying an A-4 *Skyhawk*, LCdr. Glen E. Simerly recently made his 100th night landing aboard *Independence*. During several tours aboard CVA-62 since she made her first cruise in 1960, he has accumulated a total of 386 arrested landings in various models of the *Skyhawk*, *Skyraider* and *Phantom*.

Guadalcanal (LPH-7)

LPH-7 logged her 45,000th helicopter landing while she was steaming in the North Sea en route to Copenhagen, Denmark, from Portsmouth, England.

Lt. Mike Kessock, pilot, and his copilot, Ltjg. Robert Jernigan, took the honors when they set down an HC-4 *Seasprite*. Signaling the helo to the landing was ABH3 Richard F. Manship.

Guadalcanal is commanded by Captain Henry S. Barbour.

Forrestal (CVA-59)

CVA-59 celebrated her 15th birthday in October by rejoining the Second Fleet when she put to sea for trials off the Virginia Capes after a ten-week yard period.

Before leaving the Norfolk Naval Shipyard, *Forrestal* hosted members of the Portsmouth Chamber of Commerce with a dinner, a tour of the ship, and a movie featuring the role of a modern attack aircraft carrier.

Lexington (CVT-16)

CVT-16 celebrated a double record: the 100,000th aircraft launched off the starboard catapult since her recommissioning on July 1, 1955, and 265,000 arrested landings.

Captain George C. Watkins, NATC Patuxent River, piloted the EA-6A for the 100,000th launch, and Ltjg. Charles L. Allen, Jr., flying an A6-A *Intruder*, was credited with the 265,000th arrested landing.

A miniature "Lexington" cake, decorated with its own complement of carrot and potato aircraft, highlighted ceremonies marking the two historic events.

Lexington is commanded by Captain Cyrus F. Fitton.

Wasp (CVS-18)

Shortly after returning from a four-month deployment to Northern Europe, *Wasp* put into the Boston Naval Shipyard for a short repair period.

Commanded by Captain John F. Gillooly, CVS-18 returned to Quonset Point in time for Christmas.

When C. W. Shields, Executive Director of the Rhode Island Highway Safety Council, came aboard Wasp to give a safe driving lecture, he was given a "driving" lesson of another kind.

Commandant of the Marine Corps, Gen. L. F. Chapman, Jr., inspects Marines aboard CVA-62 during an Aegean Sea exercise.

PACIFIC FLEET

Ticonderoga (CVS-14)

Perpetrated by an unnamed *Tico* crew member, a birdnapping took place on board *Kitty Hawk* recently. The kidnapper, posing as a painter from NAS North Island – equipped with a good story, an honest face and a forklift borrowed from unsuspecting *Kitty Hawk* personnel – removed the large, wooden bird from CVA-63's flight deck. After being petitioned for its return, *Tico's* C.O., Captain William H. McLaughlin, Jr., sent back the bird with the comment, "*Tico Tiger* tasted bird but found him too tough to chew. Returned with compliments."

Ranger (CVA-61)

A strange reunion took place on the flight deck of *Ranger* while she was at sea – the reunion of a mannequin, the Lone Ranger, a fiberglass horse, four Navy petty officers and Rear Admiral Leo B. McCuddin, Commander of Carrier Division Three, who skippered CVA-61 from 1965 to 1966.

When RAdm. McCuddin came aboard to observe Operation *RopEval* off the coast of Southern California, he was greeted by several old friends: four of his old *Ranger* crew, PO1's A. W. Lepik, L. L. Byler and R. D. Brown; "Cuddles the Second," a mannequin whose lovely form is used as a morale booster on special occasions; and the Lone Ranger with Silver, the fiberglass horse adopted as *Ranger*'s mascot.

Hancock (CVA-19)

Hancock is one of the colleges that float, its students being 205 Navy men who meet and study during off-duty hours.

The Program for Afloat College Education (PACE) offers ten courses (including social sciences, physics, literature, composition, accounting and ecology). Instructors come aboard ship for a week to get the courses started, meet with the students and select proctors to carry on the instruction after they leave.

Each cruise is divided into two semesters. At the end of the first, the instructors return to give exams and get the second semester started. By the end of the cruise, the students have credit for a full year in their particular course.

This is PACE's second year aboard *Hancock*. On the last deployment, 120 sailors earned college credits.

Oriskany (CVA-34)

As *Oriskany* deployed on Yankee Station, three pilots of VF-191 recorded personal achievements:

Commander Richard A. Peters, executive officer of the *Hellcats*, with 2,700 flight hours in the *Crusader*, made his 800th carrier landing, 600 of them in the F-8 and 300 aboard *Oriskany*. His personal achievement also counted as CVA-34's 160,000th arrested landing.

LCdr. Robert W. Geeding, operations officer, passed his 2,000th-hour mark in the F-8, and LCdr. John M. Welch, maintenance officer, marked his 100th night carrier landing in the *Crusader*.

A veteran of 11 WestPac cruises, *Oriskany* is currently steaming for the fifth consecutive time in Vietnamese waters. Her commanding officer is Captain Frank S. Haak.

Shangri-La (CVS-38)

Captain Herbert R. Poorman was relieved as skipper of CVS-38 and awarded the Legion of Merit Medal in a flight deck ceremony during a lull in combat air operations. Command passed to Captain Hoyt P. Maulden, reporting from duty as C.O. of USS *Wrangell* (AE-12). This is his second tour aboard.

Captain Poorman will report to Commander Carrier Striking Force, Seventh Fleet.

A cake-cutting was part of *Shangri-La's* 26th birthday celebration, possibly her last, because almost immediately after, she learned that she is one of 58 ships to be retired from the Fleet.

TWO A-7E'S OF VA-146, DEPLOYED ABOARD AMERICA, GET A DRINK FROM A KC-130 TANKER

America (CVA-66)

Ceremonies aboard *America* in November marked the passing of command from Captain Thomas B. Hayward to Captain Thomas B. Russell, Jr. Capt. Hayward, a recent rear admiral selectee, became Commandant, 14th Naval District; Commander, Hawaiian Sea Frontier; and Commander, Naval Base Pearl Harbor. The carrier's new commanding officer reported from the Bureau of Naval Personnel where he headed the aviation captains' detail.

CVA-66 recorded her 70,000th arrested landing when Lt. J. G. Proctor of the VA-165 *Boomers* landed an A-6 *Intruder*. Lt. Robert E. Wilks was bombardier-navigator on the record landing.

The *Greyhounds* are back in the air. Five C-2A *Greyhounds* from VRC-50, NAS Atsugi, completed carrier qualifications aboard *America*, after being grounded for a year following a crash. Extensive modifications were made to the aircraft and, after completion of qualifications, normal fleet operations were resumed. LCdr. C. D. Dozier made the first operational C-2A carrier landing in almost a year.

The *Blue Diamonds* of VA-146 and the *Argonauts* of VA-147 returned to NAS Lemoore last month from a nine-month deployment aboard *America*. They were the first fleet squadrons to fly the latest model of the *Corsair*, the A-7E, in combat.

Led by VA-146's Commander Wayne L. Stephens and VA-147's Commander Robert N. Livingston, the two squadrons demonstrated the Echo's versatility. The A-7E's digital computer provided precision navigation to deliver many types of weapons, and its computerized weapons delivery system allowed for the use of almost any weapon in the Navy's inventory, requiring only a simple push-button selection.

A-7E's first combat deployment proved capability of sophisticated plane. AO3 Larry Axtell, left, installs safety pin in Sidewinder launcher to prevent premature firing. AO3's Tom Valentin and Dick Osborne and AO2 Jim Bechtold, above, install arming wires on bombs. Below, AO1 Dan Miller feeds ammo into cannon as crew loads 830-lb. bomb.

For their action over SEAsia, the pilots of Attack Squadrons 146 and 147 were awarded over 240 Air Medals. Men from both squadrons have been cited for outstanding performance in maintaining the combat readiness of this sophisticated aircraft.

Tripoli (LPH-10)

While off the coast of Southern California, *Tripoli* saw her 25,000th helicopter landing since her commissioning in August 1966.

Copilot 1st Lt. H. T. Beck had the honor of actually landing the helicopter, together with the pilot, 1st Lt. M. G. McCluney, and crew chief, Cpl. M. J. Rosencrantz, all members of HMM-265. AN Terry Mayrose was signal-

man for the record landing.

Over 500 *Tripoli* dependents enjoyed a one-day cruise and later, LPH-10 played host to over 150 San Diego Junior Leaguers at a luncheon. The dependents and the young women thoroughly enjoyed the *Tripoli*-brand hospitality.

LPH-10 will begin a four-month overhaul in February at the Hunter's Point Naval Shipyard.

In a change-of-command ceremony, Captain Paul J. Hartley, Jr., former C.O. of USS *Dubuque* (LPD-8), relieved Captain Vincent P. O'Rourke as *Tripoli's* commanding officer. Capt. O'Rourke reported to the Office of the Chief of Naval Operations.

Coral Sea (CVA-43)

You can't do more for a lonely man at sea than send him a letter – and he, in turn, can understand better than most the loneliness and restlessness of bedridden children. And so, CVA-43's sailors responded when U.S. Air Force men in Japan sent out an appeal for stamp collections as a stimulating and educational project for the many small children in area hospitals.

The men of *Coral Sea* gathered over 25,000 stamps from letters from home and from packages of pre-sorted stamps which they bought. The carrier earned the title "top donor" in an overall campaign that provided over 200,000 stamps to thousands of children and much satisfaction to the men.

An extended deployment to an overseas operational area means long months of separation for many Navy men and their families.

In keeping with the Chief of Naval Operations policy to ease this burden, *America* completed her second successful overseas reunion when she dropped her hook in Hong Kong's bustling harbor and 40 of her crew members were reunited with their wives for the first time since the carrier departed Norfolk. The wives had come to Hong Kong on a special *America*-chartered flight.

When the carrier headed for Subic Bay and a WestPac deployment, over half of these wives flew ahead to rejoin their husbands during a five-day visit to Manila. There, as an extra treat, the wives went aboard for the trip from Subic to Manila.

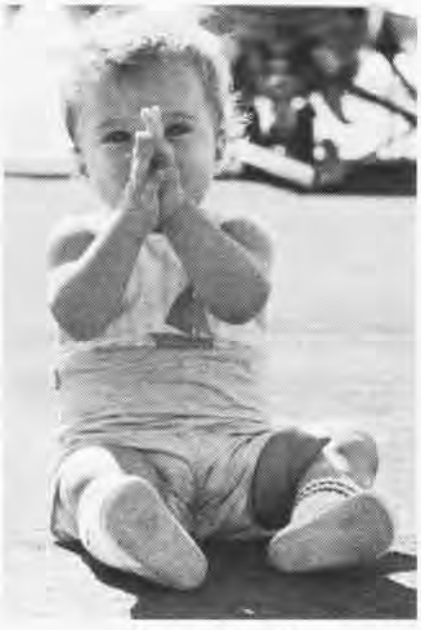
Later, when CVA-66 visited Yokosuka, Japan, another 50 crewmen and their wives toured Japan during a ten-day reunion.

How did the men feel about the two intra-cruise reunions? As one crew member said, "It was the most meaningful vacation my wife and I have ever had."

Another recent visitor to *America*, 18-month-old Thomas Murphy, Jr., decided that launching planes was simple. PH3 R. Bouvier found him "directing" on the flight deck.

MOVE 'EM UP

NOT A BAD SHOT



FOLD YOUR WINGS

Her Last Deployment

By PH1 William B. Fair

USS Bon Homme Richard returned to San Diego last November after seven and one-half months in WestPac.

The 900-foot carrier will not remain in her homeport for long, however; she will soon set sail on her final voyage — to Bremerton, Wash., where she is scheduled for decommissioning in June.

Approximately 2,000 wives, children and friends were on hand to greet *Bonnie Dick* when she berthed at NAS North Island's quay wall.

During her last deployment, CVA-31 launched her jets in support of Allied ground forces in SEAsia, destroying numerous enemy transportation routes, structures and vehicles.

The accompanying photographs portray *Bonnie Dick*'s last homecoming.

SELECTED

1970 Trophies Awarded

The Naval Air Reserve Trophy winners for 1970 have received their awards following the annual series of inspections conducted by the Chief of Naval Air Reserve Training. The prestigious Edwin Conway Memorial Trophy went to NARTU Washington, D.C., on the basis of its efficiency, combat readiness, and flight safety. NAS South Weymouth earned the Chief of Naval Air Training Trophy by demonstrating the greatest improvement in annual competitive training. The Sheldon Clark Trophy, awarded to the unit achieving the greatest combat readiness, went to NAS Atlanta.

Thirteen Reserve squadrons and units won Noel Davis Trophies – for being the most efficient of their type in the Naval Air Reserve Force. For fiscal year 1970, they were: HS-70, NARTU Lakehurst; VSF-80, NAS New Orleans; VA-20, VP-71 and VS-80, NAS Alameda; VF-14B1, NAS Atlanta; NAIRU A2 and NASRU A2, NARTU Washington; VA-40S1 and NARMU S2, NARTU Norfolk; NARDiv T1 and OpCon 82Z, NARTU Whidbey Island; VR-70 and NARDiv D6 (Denver), NAS Dallas; and NARS M1, NARTU Memphis.

In addition, several other trophies were awarded to stations which demonstrated outstanding achievements. NAS Seattle is the 1970 winner of the Chance Vought Trophy for Naval Aviation Cadet recruiting. The Beartrap Trophy for greatest improvement in officer recruitment went to NAS Atlanta. The Lockheed Trophy, awarded to the unit with the most outstanding recruiting and retention record for the calendar year, went to NARTU Norfolk, and NAS New York took the R. K. West Trophy for achieving the highest retention percentage for veteran officer and enlisted personnel.

The Naval Air Association Safety Trophy was won for the second consecutive year by NAS Willow Grove. Four Reserve units earned CNO Safety Awards for 1970: VA-205, NAS Atlanta; VR-1A3 and VP-68A2, NARTU Washington; and HS-74, NARTD Quonset Point.

NAS Dallas picked up a non-Navy award for achievement in community relations when the Texas Public Relations Association presented the Silver Spur Award for its 1969 Air Show/Open House. The event was judged the most outstanding effort in the community relations field.

Last Flight from NAS New York

A bit of history took place at 10:08 a.m. on October 20, at Floyd Bennett Field. The last Navy aircraft assigned to the naval air station took off on what was also the last flight for the 25-year-old aircraft. The Beechcraft UC-45J was flown to Davis Monthan AFB in Arizona where it will be scrapped for parts to support other Navy aircraft of its type.

RAdm. Howard E. Greer addresses Reservists at NARTU Washington's annual military personnel inspection. On display is CNAResTra's highest award, the Conway Trophy which NARTU Washington won.

As a prelude to the departure of the last NAS plane, the last Marine A-4C jet based at the field made its final departure three minutes earlier at 10:05 a.m. The Marine aircraft was piloted by Major Thomas P. McBrien, USMC, who is attached to MARTD Lakehurst, and was delivered to NAS Willow Grove, Pa.

NAS New York was closed to military aircraft traffic at 11:00 p.m. on October 31, 1970, when all fixed wing operations ceased. Coast Guard, New York City police and U.S. Army helicopters will continue to operate from the field for the immediate future, without Navy support.

The station will be closed as a Navy base in February 1971, but the Navy will form a Naval Air Reserve Training Detachment which will retain two buildings and approximately 13 acres of land for the continued use of approximately 1,000 non-flying members of the Naval Air Reserve.

Enlisted Advisor Named

ATCM Hurley F. Fellows has been named Naval Air Reserve training command enlisted advisor and assigned to the staff of Rear Admiral Howard E. Greer, ComNavAirResFor/CNAResTra, at NAS Glenview.

His duties include accompanying the annual military personnel inspection team; meeting informally with the active duty and Selected Air Reserve enlisted personnel to discuss problem areas; making recommendations to the

AIR RESERVE

command for improving the morale and welfare of enlisted personnel; and attending ComNavAirResFor/CNAResTra conferences in which enlisted personnel matters are discussed.

Master Chief Fellows is a native of Manhattan, Kan., and attended Kansas State University before enlisting in the Navy in 1950. He served tours at NAS Corpus Christi and NAS North Island, and returned to Kansas State when his enlistment expired in 1954.

Since his return to active duty in 1957, he has served at NAS Oakland, NARTU Alameda, NARTU Washington, CNAResTra staff and NAS Olathe.

HMM-722 at Lakehurst

A new Reserve squadron has joined the recently established MARTD Lakehurst. Medium Helicopter Squadron 772, formerly part of MARTD Willow Grove, Pa., began weekend drills at its new location on October 31, 1970. The new squadron, under the command of Major Philip R. Blake, is made up of 28 officers and 110 enlisted men.

Late in September, six of HMM-772's Sikorsky UH-34 helicopters arrived from Willow Grove to be added to the six ferried by HMM-768 from New York. Both squadrons are scheduled to receive the larger Boeing H-46 and Sikorsky H-53 to replace their present aircraft.

The newly formed MARTD shares the facilities with NARTU Lakehurst.

12-3 Joins 2-2

The second phase in the reorganization of the Naval Air Reserve Force has been completed with the consolidation and redesignation of Reserve VP and VR squadrons. Twelve patrol

P-3A Orions assigned to redesignated VP-91 provide elements for the newly formed Fleet Air Reserve Wing, Pacific, whose headquarters are located at NARTD Moffett Field.

squadrons and three transport squadrons have been incorporated into the Naval Air Reserves' improved combat ready pattern. All VP units are now equipped with SP-2H *Neptunes* with the exception of VP-91 which flies the P-3A *Orion*.

Three transport squadrons, subdivided into numbered units at seven locations, are now equipped entirely with C-118 *Liftmasters*. VR units at NAS New Orleans and NARTU Washington, which are not included within the new force, will continue to operate C-54's until those planes are retired, at which time those units will be disbanded.

The 2-2-12-3 concept has now become reality. The squadrons which complete this force are:

VP-60, NAS Glenview
VP-62, NARTU Jacksonville
VP-64, NAS Willow Grove
VP-65, NARTD Point Mugu (Feb.)
VP-66, NAS Willow Grove
VP-67, NARTU Memphis
VP-68, NARTU Washington
VP-69, NARTD Whidbey
VP-90, NAS Glenview
VP-91, NARTD Moffett Field
(with a detachment at
NARTD Patuxent River)
VP-92, NAS South Weymouth
VP-94, NAS New Orleans
VR-50, NARTU Jacksonville
(Unit 1)
NAS Willow Grove (Unit 2)
VR-51, NARTU Alameda (Unit 1)
NARTD Whidbey (Unit 2)
NAS Glenview (Unit 3)
VR-52, NAS Dallas (Unit 1)
NARTU Memphis (Unit 2)

First FMLP at Lakehurst

The first Field Mirror Landing Practice (FMLP) system established aboard NAS Lakehurst was set up by the NARTU in November. The system will be used principally to train Selected Air Reservists.

With the practice gained from the FMLP's, the pilots of Carrier Air Antisubmarine Warfare Group 70 were ready and able when they recently deployed aboard USS *Franklin D. Roosevelt* (CVA-42). The air group, which includes VS-71 and VS-73 from Lakehurst, used the carrier to complete its carrier qualifications. During the field qualifications, pilots averaged better than 60 field mirror landing practices each before they travelled to the Naval Air Station Jacksonville, Fla., to board the carrier.

VS-71 TRACKER USES LAKEHURST MIRROR

Brazilian plane director aboard the carrier Minas Gerais signals a pilot to launch his aircraft, top right. Brazilian helo searches for "enemy" subs off that country's coast, above. Below, carrier Minas Gerais fuels a destroyer as a P-3A Orion flies overhead.

Unitas XI

The finest way the navies of the Americas have to sharpen their abilities to operate together" is the way Rear Admiral Herbert H. Anderson, USComSoLant, describes the *Unitas* exercises.

These annual exercises are aimed at forging the ability of the free nations of the Western Hemisphere to combine forces to defend their coastlines and merchant shipping, if the need should ever arise. The training includes search-attack procedures, communications drills and tactical maneuvering.

During *Unitas XI*, which ended last month, ships and aircraft from the U.S. Navy conducted antisubmarine and antiaircraft exercises with the navies of eight major South American maritime nations: Brazil, Venezuela, Peru, Argentina, Paraguay, Ecuador, Colombia and Chile.

The operation began August 1 when four Venezuelan and three Colombian ships departed San Juan, Puerto Rico, with the four ships and three aircraft of the U.S. task group.

U.S. air arm for the four-month *Unitas XI* was a detachment of P-3's from VP-16, NAS Jacksonville. For the first time, two patrol planes were selected for the South American cruise. Commanded by LCdr. Nils A. Matolay, the detachment logged thousands of miles during transits and exercises, in addition to conducting its people-to-people activities in the cities visited.

The detachment's third aircraft was a C-131 transport, which did double duty ferrying the U.S. Navy show band to cities throughout South America and transporting ground support personnel for the *Orions*.

Exercises with the Brazilian Navy were typical of the entire cruise. The Brazilian task group was composed of a carrier, *Minas Gerais*, more than 20 aircraft, three destroyers and a submarine.

In an antiaircraft warfare portion of the exercise, Brazilian jets were ordered to single out ships steaming in formation and to simulate attacks. The combined naval units then coordinated their information, maneuvers and simulated firepower to counter the attacking aircraft.

The antisubmarine phase included a 36-hour event with sneak attacks on a convoy by two submarines. The convoy was represented by the Brazilian carrier and her screen, provided by Brazilian and U.S. destroyers. The subs attempted attacks as the convoy proceeded on its course and defended itself.

In addition to the underway operations, the U.S. units made about 20 port visits as they circled South America in a clockwise direction.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The Navy

Pride of Great Britain

Ark Royal

By Lieutenant Commander E. K. Sumner, R.N.

It was on the 10th of January 1912 that the first fixed wing launch from a ship of the Royal Navy took place, thus emulating a feat achieved by the U.S. Navy some 14 months before. On this occasion, a Short biplane took off from a platform on the bow of HMS *Africa* in Sheerness Harbour.

Now, nearly 60 years later, the latest ship of the Royal Navy to commission for duty as a fixed wing aircraft carrier, HMS *Ark Royal*, has embarked her air group.

Her name is a proud one, dating back to the days of Queen Elizabeth I, when England was menaced by the threat of Spanish invasion. A warship of 1,500 tons was being built for Sir Walter Raleigh and was to have been named the *Ark Raleigh*. The Crown purchased the vessel prior to her launch in 1587 and renamed her *Ark Royal*. She commissioned as the flagship of Lord Howard of Effingham, the Lord High Admiral of England and, in 1588, took a leading part in the destruction of the Spanish Armada.

It was not until 1914 that the name *Ark Royal* was used again when the Admiralty chose it for the first large seaplane carrier, a converted merchant ship. This vessel served throughout the First World War and was used for experimental aircraft work until 1935. The name was then transferred to a new warship under construction, one designed from the start as an aircraft carrier and, in April 1937, the third *Ark Royal* was launched. On September 26, 1939, her aircraft took part in the first naval air combat of World War II, shooting down one Dornier flying boat. More important actions in which the *Ark Royal* took part were the hunting of *Graf Spee* in 1939; operations off Norway, in the Mediterranean, and West Africa in 1940; convoy duties and the sinking of the *Bismarck* in 1941. She was torpedoed off Gibraltar on November 14, 1941.

The present *Ark Royal*, the fourth warship to bear the name, was first commissioned in February 1955. This is her sixth commission as a fixed wing attack carrier, and might be her last unless second thoughts in the corridors of power win the day.

The ship has just completed a major refit at a cost of some $80,000,000. During the refit, the *Ark* was modified to the standard necessary for the operation of *Phantom* F-4K, *Buccaneer* Mk 2 and Westland *Sea King* HAS Mk 1 aircraft. These modifications included the provision of a 200-foot-long waist catapult, the fitting of water-cooled jet blast deflectors and deck cooling panels, bridle arresters for both catapults, direct acting arresting gear and increased flight deck area. Below decks new workshop and storage facilities have been fitted to cope

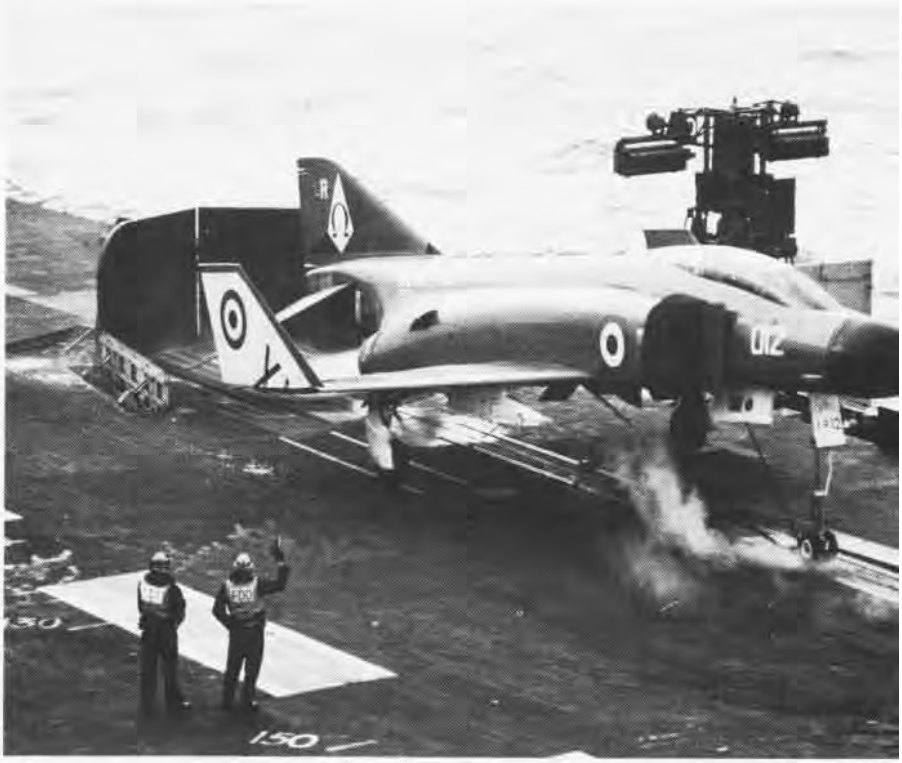
First Ark Royal was launched in 1587.

with the servicing and stores requirements to support the operation of these aircraft. Other improvements include the almost complete rewiring of the entire ship, the strip and rebuild of much of the mechanical equipment, together with extension of the flying control (pri fly) position.

These additions and improvements now permit the *Ark Royal* to operate her air group to the utmost effect.

This, then, is the latest of the Royal Navy's fixed wing aircraft carriers and a worthy successor to those which have gone before. In almost 60 years of carrier operations, the Fleet Air Arm has built up an undeniable expertise in this particular field. Throughout these years, the links between the Royal Navy and the United States Navy in this unique field of aviation have been forged and strengthened by the mutual exchange of ideas, experience, men and material. Three of the most significant advances in carrier operations in the past 20 years, namely the steam catapult, the angled deck and the original mirror landing device, were the inventions of Royal Navy officers. In contrast, the Royal Navy has flown and operated from the decks of her carriers many American aircraft, notably the *Avenger, Wildcat, Hellcat, Corsair, Skyraider* and *Phantom*, not to mention the many American helicopters, including the *Sea King*, which have been produced under license in England. Further, *Ark Royal* is now using the USN bridle arrester system and SPN-35 CCA equipment.

Third Ark Royal, above, saw service in many battles during World War II. Below, an F-4K Phantom, in afterburner, on waist catapult for trials of water-cooled jet blast deflector and deck cooling panels.



Pride of Great Britain

For many years the RN and USN have participated in joint exercises, including the cross operating of aircraft. Furthermore, the "exchange program" has produced a nucleus of personnel who have shared more fully in the operational and social life of the other country's armed forces and whose experiences are widely related on return. There are many facets of Naval Aviation in which the Royal Navy and the United States Navy have joint interests and, over the years, they have combined these interests and expertise to the mutual benefit of both services.

The multiplicity of UK defence reviews which have appeared over the last four years were explicit in their statements that the fixed wing carriers of the Royal Navy would cease to exist in their present role after 1972. Even so, all those who understood that Naval Aviation is the foundation stone on which a fleet of today is built, hoped and believed this was not necessarily the end. The change of government in June 1970 has given these hopes and beliefs a firm substance. The Fleet Air Arm has no doubt that the CVA's must remain in full operational service until their capabilities can be replaced.

The arguments for and against the necessity for a carrier force provoked considerable discussion both in the political field and between the various branches of the armed forces. Already many of the premises on which the decision to "scrap the carriers" was made have lost their validity; in particular, the suggestions that the use of long-range fighter/strike aircraft operating from "island bases" and the ability to air transport a strategic reserve rapidly to any troubled area have proved invalid. Island bases are dependent upon treaties and it has been proved all too often in the past few years that such treaties are frequently abrogated. Furthermore, the RAF did not get the "long-range fighter/strike aircraft" on which this assumption was based (cancellation of TSR-2 and F-111). As for the mobility of a strategic reserve, this is only truly mobile if over-flying rights are guaranteed. However, like treaties, these rights are frequently denied in the time of need. Similarly, a country is unlikely to be deterred from "nationalizing" oil companies or confiscating banks and investments which, although situated within the confines of that country, are the property of another nation, when it is common knowledge that the forces which protect those interests are several thousand miles away. A more potent deterrent to such acts is the knowledge that a carrier is probably only hull down over the horizon.

It is this mobility and the continued presence, or possibility of such presence, which are so beneficial to the stability of an area. Without stability, the world will be a poorer place. It is the fleet's main task to project a maritime presence and provide a stable basis for world trade. The Fleet Air Arm, as its name states, is simply a projection of the fleet. It was created and still exists to enable the fleet to go to sea in a hostile environment with its own air protection. Regrettably, this fact is not generally understood.

The carrier, with its escorts, is a far more reliable and flexible force than a strategic reserve thousands of miles away. Even since the decision to "scrap the carriers" was taken, the carriers have continued to prove, on many occasions, that they can be in position to protect our overseas interests long before a land-based unit can be flown out from the United Kingdom.

From the start, the Fleet Air Arm demonstrated that it has a necessary task to fulfill — it still has. *Ark Royal* intends to continue this tradition, for her motto is clear and demanding, *Desir n'a repos* — Purpose knows no rest.

During refueling operations, a Buccaneer is launched from the waist catapult of HMS Ark Royal. At lower left, an SH-3D Sea King lifts off the carrier and aircrewmen performing maintenance checks scramble over the F-4K's which line the deck. Below, a Buccaneer is ready for launch.

Since we received Lieutenant Commander Sumner's article, the British government has announced that it plans to reduce the gap in its fleet's capabilities by retaining HMS Ark Royal until the late 1970's, and by decelerating the rate at which the Royal Air Force will assume responsibility for providing fixed-wing air support for the Royal Navy.

Letters

CV-2 Reunion

The 18th reunion of former crew members and squadron personnel of *Lexington* (CV-2) who served aboard from 1927, when she was commissioned, until 1942, when she was sunk in the Battle of Coral Sea, will be held in Pasadena, Calif., at the Huntington-Sheraton Hotel June 23-26. Persons interested may write to:

Walter D. Reed
5410 Broadway
Oakland, Calif. 94618

'Kingfisher'

Having read your story, "WW II Kingfisher Returns," in *Naval Aviation News*, June 1970, we wish to inform you that we have the fourth aircraft, a photograph of which is enclosed for your files.

We keep this aircraft in custody as a relic because LCdr. Curbelo lost his life in it many years ago. It was repaired to be kept in flight until 1956.

We always read your articles on this subject because we are very interested in the progress of aviation. Hoping this information will be of interest to you, we are sincerely yours,

THE FOURTH KINGFISHER

Capitan de Fragata Ruben Palacio
Base Capitan Curbelo-Maldonada
Uruguay, Sud America

TACCO

Reading July's "On Patrol" in *NANews*, VP-5's claim to a patrol aviation "first" caught my attention. Sorry, *Mad Foxes*, but VP-9 was recognizing TACCO leadership abilities before any policy statement was made. In early January 1970, LCdr. Lynn Grafel headed a two-plane, three-crew detachment of *Golden Eagles* at NAS Barbers Point.

When the squadron deployed to Adak, Alaska, in June of last year, Lynn was dispatched to NAS Agana, Guam, heading a detachment which pioneered more or less permanent VP operations out of that base. During his two months as OinC, over 40 support personnel, four flight crews and three P-3B *Orions* combined for just under 700 operational flight hours.

M. F. Pasztalaniec
C.O., VP-9

R60

The article appearing in the "Editor's Corner" of the April 1970 issue of *NANews* struck a familiar note with the members of Naval Air Reserve Training Division F2, Opa Locka Airport, Opa Locka, Fla. The article described one R60 *Constitution* during its flying days. We know it here only as a burned-out shell, rusting on the side of the runway.

The *Constitution* was purchased from the scrapheap for $40,000 by a group of West

German businessmen and completely refurbished for $100,000. Their plans were to fly it to Barcelona, Spain, where it would be dismantled and turned into a nightclub.

However, on 13 July 1963, some ten hours before its scheduled takeoff and only five days after the issuance of a rather large insurance policy, the aircraft caught fire and was completely gutted. The cause of the fire was a punctured fuel line, thought to be arson. The culprits were never apprehended.

According to local newspaper accounts, the owners have never returned to this country to claim the remains. So, the *Constitution* still rests here at Opa Locka where, after being repainted, it was used by local entrepreneurs as a billboard advertising various aircraft sales activities, a far cry from the glamorous night life of Barcelona.

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USS Philadelphia

The USS *Philadelphia* Association, an organization of former officers and crew members of CL-41, will hold its eighth reunion in Hershey, Pa., July 29-31. Further information may be had by contacting:

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A new tactical fighter, the F-5-21, to be developed for the Air Force by Northrop Corp., is shown in this artist's rendition. The International Fighter, an improved version of the F-5 Freedom Fighter, will have two General Electric J-85-21 engines which produce 5,000 pounds of thrust. Production is contingent upon congressional approval of funds.

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