

Fall 2011
Vol. 3, Issue 4

100 Years of Progress and Achievement

CENTENNIAL

of Naval Aviation

“Before Pax River”

Seagulls to Spitfires

David McCampbell

“Three Miles From Pola”

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Naval Air Forces Official Publication Fall 2011

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COVER: “Three Miles From Pola”, Oil on canvas; 2011. Original artwork by artist Michael O’Neal illustrates the action that resulted in the awarding of the first Medal of Honor to a Naval Aviator, Ens. Charles H. Hammann. Hammann was flying an Italian Macchi M.5 seaplane fighter when he rescued Lieutenant G. H. Ludlow while under threat of attack by Austro-Hungarian planes near Pola, Italy, August 21, 1918. (Courtesy of the Artist)

Word From the 'Air Boss'



**Vice Adm.
Al Myers
Commander, Naval Air Forces**

Naval Aviation has much to be proud of! We reliably deliver the critical effects that the combatant commanders depend on - from supporting NATO operations in Libya during operation Odyssey Dawn/Unified Protector, to providing critical humanitarian assistance and disaster relief to our friends in Japan as part of Operation Tomodachi.

Today, Naval Aviation continues to build on its hundred-year legacy of courage, innovation and accomplishment. I am incredibly proud of our team.

As we move into the final months of our Centennial year, we look forward to the challenges ahead with the same spirit of innovation and accomplishment that has characterized Naval Aviation's first century!

Fight to fly, fly to fight, fight to win!

From the Editor

In just a few weeks, the 2011 airshow season will finish with the annual Blue Angels homecoming show at NAS Pensacola. Not long after that, the Navy will conclude its Centennial of Naval Aviation activities, and the Marine Aviation Centennial (MAC) will move forward.

I am marking a personal transition back to Selected Reserve status, which I left nearly two years ago. I've enjoyed putting these magazines together and thank everyone who has contributed to their success.

Years from now, we can ask ourselves if the effort put forth to celebrate the Centennial of Naval Aviation was worth it. My answer is YES!

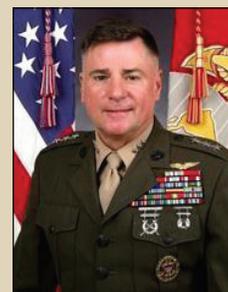


- Capt. Richard Dann

Centennial Force Leadership



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RADM Pat McGrath
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CAPT Mike Emerson
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A Desert Phoenix



Douglas A3D-1 Skywarrior (BuNo 135434) just out of the paint shop at Edwards Air Force Base, Calif. The aircraft was restored by a dedicated group of individuals following its recovery from a remote location on the base. It will be one of just a few naval aircraft on display at the Air Force Flight Test Center Museum. (Del Mitchell)

By AOC Del Mitchell, USN (Ret.)

The Mojave Desert environment of southern California can be relentless, unmerciful, and foreboding. For over four decades this environment has taken its toll on a forgotten icon of the Cold War, a Douglas A3D-1 Skywarrior, (BuNo 135434), that had been a test bed for Air Force barrier and arrested landings in the 1960's at Edwards Air Force Base (AFB), Calif. 135434 was accepted by the Navy on November 30, 1955. It participated in Operation REDWING, a series of nuclear tests conducted at Kwajalien, Eniwetok, and Bikini Atolls in 1956. After serving with VAH-9 and VAH-3, 135434 was assigned to Naval Air Test Center (NATC), Patuxent River, Md. From there, she was sent to the aircraft storage facility at Davis-Monthan AFB, Ariz., and then ultimately to Edwards AFB. Upon completion of barrier tests, she was relegated to an abandoned runway where she encountered all the elements Mother Nature could throw at her. Without human intervention to halt the ravages of time, she became an eyesore.

January 2010, a group of Navy retirees under the leadership of retired Master Chief Mike Glenn, set about the task of resurrecting 135434, and after a thorough washing to remove 40 years of dirt and grime, the real work of restoration began. The cockpit was completely gutted and replaced with new instruments, seats rebuilt, avionics cleaned, rebuilt, or replaced, bomb bay doors opened, and bomb bay cleaned of mummified mice, birds, lizards, and other species. The canopy was removed and new Plexiglas installed, aft gun turret made operable, corroded metal removed and aluminum patches riveted in place, new tires mounted, emergency escape hatch replaced and nose radome repaired. The engines were removed, cleaned,

and reinstalled, and fuselage and wings sanded to remove corrosion and old paint.

April 7, 2011, 135434, was towed from her hangar to the Edwards Paint Shop. As the airplane was being towed across the flight line, many of the current Air Force airmen, government civilian employees, and contractors stopped their activities to wonder what was this Ugly Duckling doing among the newest and most sophisticated of military aircraft. The transformation of 135434 had to endure the awkwardness by a generation who knew nothing of her, or her place in the annals of Naval Aviation history as she traversed that long, lonely flight line. But, the magic and expertise of the paint crews reshaped the image of 135434, and as she made that flight line trip once again to return to her assigned hangar, the trip wasn't so long and painful, and, the looks and comments of the flight line crews, who just a month before relegated 135434 to junk status, now turned their attention and remarks to positives that would make any queen glow with pride.

October 14, 2011, A3D-1, BuNo 135434 will be dedicated and presented to the Air Force Flight Test Center Museum. The presentation will also coincide with the 60th Anniversary of Edwards, with Brig. Gen. Robert C. Nolan II officiating. The restoration of 135434 has been a wonderful and cooperative effort by a group of dedicated Navy retirees, the Edwards Museum, and Edwards AFB. It has instilled confidence, trust, and esprit de corps within the Edwards organizational structure to seek assistance from these same Navy retirees to take on the task of restoring other aircraft currently waiting restoration, a calling that cannot be ignored, nor will it.

Editors Note - This same aircraft was featured Summer 2010 Centennial Magazine, Vol. 2 Issue 3. See "Saving a Whale", page 15.

The Navy's Ace of Aces

By Barrett Tillman

Editor - Below is a personal account of Capt. David McCampbell by noted Naval Aviation historian and author Barrett Tillman. Barrett knew McCampbell and prepared this column based on his firsthand knowledge.

Captain David McCampbell (no middle initial) was the top American naval ace of World War II and will retain that title forever. It's unlikely that any Naval Aviator since then has even seen 34 bandits, and there have only been three naval aces since 1945 (two land-based). He was the right man in the right place at the right time.

I was fortunate to know Dave tolerably well. He wrote the foreword to my Hellcat history in 1979, and I last saw him at an aces reunion in 1991. Believe me, serving as OinCD (Officer In Charge of Dave) was no easy task. He was a chain smoker who frequently stopped to light one cigarette off another between signing lithographs. He liked to scrawl "Dashing Dave" for autograph collectors, so he required watching.

Born in Alabama in 1910, Dave grew up in Florida and aspired to become a Naval Officer. One of his prep school classmates was another future pilot, an Arizona youngster named Goldwater.

After graduating in the lower half of the Naval Academy class of '33, Dave was among those laid off for a year during the Depression. Upon return to active duty he served aboard cruisers and managed to get flights in scout floatplanes. He was accepted for flight training and pinned on his wings of gold in 1938. He flew Grumman F3Fs in VF-4 from USS RANGER (CV 4), establishing a reputation for gunnery. Meanwhile, a squadronmate added, "Dave and I probably were asked to leave most of the better restaurants in New York."

In 1940 Dave became an Landing Signal Officer (LSO) aboard the new carrier USS WASP (CV 7). While delivering Royal Air Force (RAF) fighters to Malta in 1942, a Canadian Spitfire pilot lost his belly tank. He was given a chance to land aboard, and Dave cut him long in the groove on the second pass for a no-hook landing. In 1991 I had the pleasure of introducing Dave to my friend Rod Smith, a Malta ace whose brother Dave had brought aboard. Jerry Smith went missing in action, but Rod was thrilled to meet the "batsman" who had "CQ'd" his brother.

Later in 1942 WASP transferred to the Pacific, where she was sunk by a Japanese submarine. Dave had been a diving champion at Annapolis, and claimed, "I always thought if my ship were sunk maybe I'd do a layout with a pike or tuck. But when I looked over the side of the Wasp, I grabbed my nose with one hand and the rest of me with the other and went in feet first."

Lt. Cmdr. McCampbell's next assignment was to stand up VF-15 in 1943, and by the time the air group deployed in USS ESSEX (CV 9) he was Air Group Commander (CAG). By some standards Dave was long in the fangs for a combat



Cmdr. David McCampbell in the cockpit of his Grumman F6F-5 Hellcat "MINSI III" aboard ESSEX. At the time of the photograph, he had amassed 21 of his 34 kills. (NHHC)

pilot, being all of 34. But he began carving notches at a terrific pace: seven kills in two sorties June 19, 1944 against a superior opposing force at the Marianas Turkey Shoot, and his Medal of Honor action with nine victories in 90 minutes over Leyte Gulf. He remains America's only two-time ace in a day. His Medal of Honor citation reads in part, "...he personally destroyed 7 hostile planes during this single engagement in which the outnumbering attack force was utterly routed and virtually annihilated. During a major fleet engagement with the enemy on October 24, Comdr. McCampbell, assisted by but one plane, intercepted and daringly attacked a formation of 60 hostile land-based craft approaching our forces. Fighting desperately but with superb skill against such overwhelming airpower; he shot down 9 Japanese planes and, completely disorganizing the enemy group, forced the remainder to abandon the attack before a single aircraft could reach the fleet..."

Ship captains and even task group commanders cautioned Dave about going "Zero happy" but the record shows his personal shooting did no harm. Air Group 15 probably sank more enemy shipping than any other unit during its deployment in the latter half of 1944.

Dave remained on active duty until 1964, having coned USS BON HOMME RICHARD (CVA 31). Therefore, he's likely to remain the only Medal of Honor recipient to command an aircraft carrier.

Dave died in 1996, age 86. His son became a Naval Officer, and the Navy honored Dave's memory by christening the destroyer USS MCCAMPBELL (DDG 85) in 2002.

Editors note - Arleigh Burke-Class Guided Missile Destroyer USS MCCAMPBELL (DDG 85) is the first ship to bear Capt. McCampbell's name.

Centennial of Naval Aviation

How I Broke the World Altitude Record



Lt. Apollo Soucek in the cockpit of his Wright Apache immediately after his record breaking flight. He took the Apache to 43,166 feet on June 4, 1930. Soucek would retire as a Vice Admiral. (NHHC)

By Lt. Apollo Soucek - from a 1930 article in Mechanics Illustrated

MORE than eight miles above the earth's surface, in a region of terrific cold, where life itself depends on "canned air," airtight clothing and electrically heated goggles, I fought, on the afternoon of June 4, 1930, a successful battle of two hours and five minutes against nature to gain for the Navy and the United States a new world's altitude record.

For purely sentimental reasons, my latest climb of 43,166 feet, which broke the world's record for all kinds of planes, previously held by Willi Neuenhofen, of Germany, who flew 41,794 feet on May 25, 1929, was made on the exact anniversary of my flight of June 4, 1929, when I was fortunate enough to establish a new world's record for seaplanes of 38,560 feet.

My seaplane record was made in a single sealer Wright Apache plane, the very same ship that I used in my new world's record flight, except that in the former case it was equipped with pontoons instead of wheels. Moreover, I also used this plane on May 8, 1929 when I established a world's record for all types of planes by reaching an official altitude of 39,140 feet, the mark which Neuenhofen broke only 17 days later.

Certainly the afternoon of June 4 seemed almost ideal for my climb. True, the temperature near the ground was well over 90 degrees, and the air a few hundred feet off the ground appeared somewhat hazy, but these factors were not important enough, as I found later, to interfere with flying conditions at great altitudes.

Just a few words about the equipment I used and we're off! I wore, as usual, a fur-lined leather suit, but nary a stitch of underclothes, the fur being next to my skin. Commander

Frederick Ceres, flight surgeon at the Naval Air Station at Anacostia, D. C., figured this one out from the clothes of the Eskimos.

Of course, I also wore a heavy helmet, a pair of heavy, wool-lined boots, and a pair of electrically heated goggles especially devised by my brother, Zeus, recently resigned from the Navy. But probably the most interesting contraption of all was the so-called "artificial lung" which I developed, with the aid of some loyal coworkers, to aid me in getting the right amount of oxygen at high altitudes. By long experience I had learned that at 40,000 feet or higher the pressure of the air is much less than the pressure in the pilot's lungs, with the result that when the oxygen from the ordinary type of oxygen feeding device flows into his mouth, his lung pressure tends to force it right out again. So not long ago I extended the breath outlet tube a couple of feet and then sewed the bottom onto my control stick. The point is to build up a pressure in this tube equal to the pressure in my lungs, so that the incoming oxygen, instead of being forced out of my mouth again, will enter my lungs properly.

However, this tube has to be opened quite often, so as to let the poison air out. Some weeks ago, while making a test altitude flight of around 35,000 feet, I forgot to release my grip on the tube with the result that almost immediately it became very difficult for me to breathe. In fact, the pressure on this tube became so pronounced that it actually blew the breath out of the corners of my mouth so that I could see it freeze!

Of course, I released the tube, but it did not open. The inner sides had frozen together where it pressed flat. However, I somehow managed to jiggle it around and break it loose until it worked.

Now, for the actual flight! The time was exactly 2:18 when everything was in readiness and I finally did take off, sweating under the tremendous burden of my heavy equipment. On this particular June afternoon the wind out of the west was not so very different from the speed of the plane, so that I simply pulled back the control stick and then went straight up in the air until I reached the "ceiling," or maximum height of the plane.

Just a few words, however, about my immediate problems while so doing. All I had to do was to continually hold the throttle and supercharger levers open with one hand, and work the stick, oxygen valve, oxygen "lung" outlet and a couple of other gadgets with the other.

Meantime, of course, I had to use my feet on the rudder, too, and keep a watchful eye on the flight instruments. Easily the worst thing of all is to hold all the levers open at the proper 'times. However, they are equipped with a strong spring so that should I pass out from lack of oxygen, then the throttle would automatically close and the supercharger be cut off.

In such case the plane probably would go into a dive, but I would likely revive soon, and no harm would be done. However, if the motor happened to be left running wide open during the dive, then it would soon tear everything to pieces.

Holding these levers open is something like holding down for a long time on the clutch of an auto. For over an hour I had to push

(Continued on Page 16)



2011 Blue Angels Schedule:

March

12 NAF El Centro, CA
19-20 Keesler AFB, MS
26-27 NAS Meridian, MS

April

2-3 Sun-N-Fun, Lakeland, FL
9-10 NAS Corpus Christi, TX
16-17 Fort Worth JRB, TX
30 MCAS Beaufort, SC

May

1 MCAS Beaufort, SC
3-4 NAS Pensacola, FL
7-8 NAS New Orleans, LA
8 Flight Academy Fly-over, Pensacola, FL
14-15 Indianapolis, IN
21-22 TBD
25 & 27 USNA show and graduation fly-over
28-29 Millville, NJ

June

4-5 Rockford, IL
11-12 Evansville, IN
18-19 Davenport, IA
25-26 North Kingstown, RI

July

2-3 TBD
9 Pensacola Beach, FL
16-17 Rochester, NY
23-24 Ypsilanti, MI
30-31 Great Falls, MT

August

6-7 Seattle, WA
13-14 Fargo, ND
27-28 Brunswick, ME

September

3-5 NAS Patuxent River, MD
10-11 Lincoln, NE
17-18 Millington, TN
24-25 NAS Oceana, VA

October

1-2 MCAS Miramar, CA
8-9 San Francisco, CA
15-16 NAS Lemoore, CA
22-23 El Paso, TX
29-30 San Antonio, TX

November

5-6 NAS Jacksonville, FL
11-12 NAS Pensacola, FL

Over the Top

Dr. Tom Baughn, U.S. Marine Corps History Division

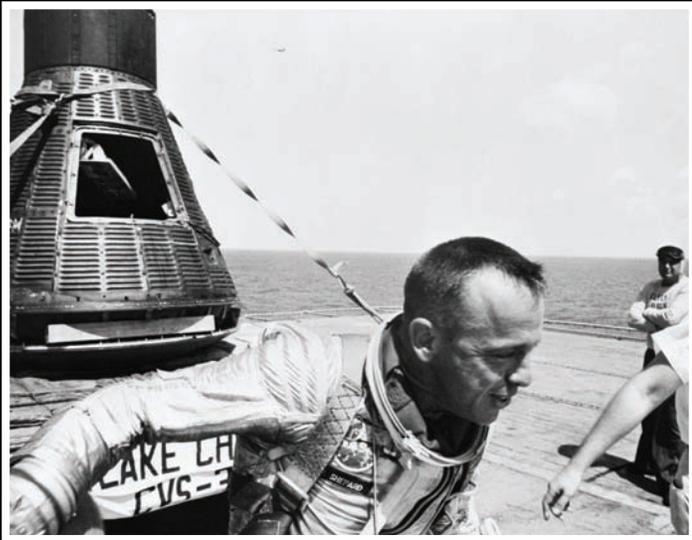
The “Flying Seargents illustrated the finest traditions of the U.S. Marine Corps. Enlisted Marines, taught to fly and winged as “Naval Aviation Pilots” were crucial to victory in every action in which they flew and fought. One such “Flying Seargent” was Master Sergeant Robert M. Lurie who completed a distinguished career flying for the Corps, as one of the last four enlisted pilots. Among his many accomplishments, his completion of a five-day training course in 1958 may have set him above all the rest as the first Marine aviator to fly over the North Pole.

David Lurie’s father signed the consent to enlist a minor July 11, 1942, beginning his son’s 30-year career in the Marine Corps. Robert Lurie rose through the reserve ranks to master technical sergeant and he became a Naval Aviator, flying Chance-Vought F4U Corsairs off carriers at the end of World War II. He then received a temporary commission December 5, 1945 that was terminated in 1947 with the post-war budget cuts. He reenlisted as a non-commissioned officer performing in a commissioned officers’ billet for the next 25 years. A testimony to his outstanding skills, Lt.Col. Marion E. Carl selected Lurie to be a “pioneer jet pilot in the first Marine Corps jet squadron, VMF-122.” Lurie also flew with the Marine jet aerobatic team and was the only non-commissioned jet pilot in the U.S. armed forces before he retired.

He served in Korea flying 116 missions, mostly with VMF-311 in the Grumman F9F-2 Panther. Decorated with the Distinguished Flying Cross, he led an attack on a camouflaged column of enemy trucks shielded by an embankment and in the face of “intense and accurate” anti-aircraft fire. He again exhibited his excellence as a pilot and devotion to duty in Vietnam. He flew combat missions from Chu Lai and Ky Ha during the 25 months of consecutive service, during which he flew with his son, Second Lieutenant Robert M. Lurie, Jr., who was later killed in action. Lurie Sr.’s citation for the Silver Star Medal described his heroism on October 9, 1967, flying a flare mission in a Douglas R4D-8 aircraft. He flew through heavy weather at night to the area where a crew of a downed Sikorsky CH-34 awaited rescue. When informed that the rescue helicopters decided they could not locate and rescue the downed crew until the weather cleared, Lurie commenced a low-level search when he picked-up a transmission from the downed crew, who reported the enemy was closing on their position. Lurie proceeded to fly a simulated strafing run, although his aircraft was unarmed, pinning-down the enemy while the rescue helos extracted the downed crew. One daring mission completed, he then received a call to provide flare support for fixed wing strikes against an enemy force attacking a friendly ground unit 100 miles to the south. In all, it was an event-filled five and one half hours of “superb airmanship.”

Outside combat assignments, Master Sergeant Lurie typically commanded VIP flights for top brass and political officials, usually at the controls of a North American T-39 Sabreliner. One noteworthy training assignment took place with the Bureau of Aeronautics and the Eclipse Pioneer Division of the Bendix Aviation Corporation. At that training facility in Teterboro, New Jersey, Lurie completed the Air Control Officers “0” (Zero) Polar Path Course. Lurie then trained other navigators in polar grid navigation, and in 1958 Lurie and Col. Luther S. Moore flew the first U.S. Marine Corps aircraft over the North Pole. The aviators flew out of Bodø, Norway, over the geographic pole to Thule, Greenland, and from Thule over the magnetic pole to Alaska. This figuratively “topped-off” the distinguished career of a premier Marine aviator.

A GLANCE AT THE PAST – SPACE PIONEERS



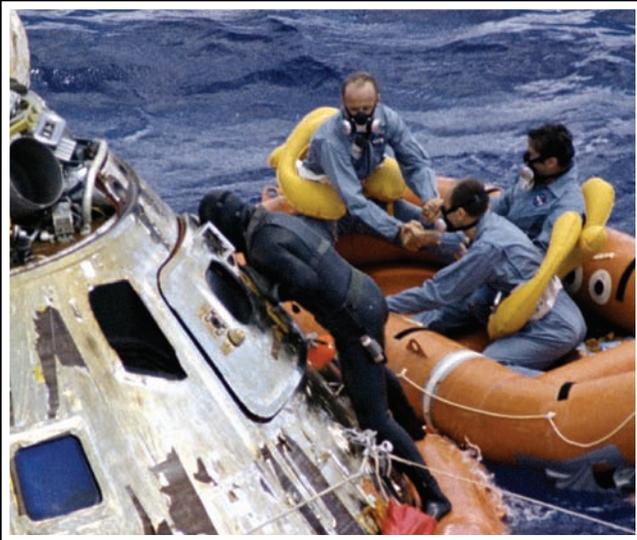
(Above) Cmdr. Alan B. Shepard is seen on the deck of USS LAKE CHAMPLAIN (CVS 39) after the recovery of his Mercury spacecraft in the western Atlantic Ocean May 5, 1961. (NASA)



(Above) Lt. Col. John H. Glenn Jr. is pictured aboard the MA-6/Friendship 7 spacecraft during the U.S.'s initial orbital flight. (NASA)

A tired but clearly elated Neil A. Armstrong in the Apollo 11 Lunar Module "Eagle" on the surface of the moon, July 20, 1969. (NASA)





(Above) Apollo 12 crew during recovery operations in the Pacific Ocean. In the life raft are astronauts Charles Conrad Jr. (facing camera), commander; Richard F. Gordon Jr. (middle), command module pilot; and Alan L. Bean (nearest camera), lunar module pilot. The three men comprised the only "All Navy" flight crew of the Apollo Program. (NASA)



Capt. John W. Young (Commander), left, and Robert L. Crippen (Pilot) of Space Shuttle flight STS-1 at NASA's Johnson Space Center (JSC). The two men flew the maiden voyage of the Space Shuttle in orbiter *Columbia*, April 12-14, 1981. (NASA)



(Above) Capt. William Shepherd, International Space Station Expedition One commander and Russian cosmonauts Yuri Gidzenko, Soyuz commander; and Sergei Krikalev, flight engineer enjoy a laugh between training events at the Gagarin Cosmonaut Training Center, Star City, Russia. (NASA)



Capt. Chris Ferguson (left) and Col. Doug Hurley are pictured at the commander's station and pilot's station, respectively, on the flight deck of the space shuttle *Atlantis* during the final space shuttle flight, STS-135. (NASA)

Centennial of Naval Aviation

The Naval Aircraft Factory



The Naval Aircraft Factory N3N was the most numerous aircraft constructed at the NAF. 997 were built, and there are still a number of them that are privately owned and operated today. The last N3N was withdrawn from Navy service in 1961. (NHHC)

Adapted from BuAer Technical Note 18, Capt. W. H. Sitz, USMC

The Naval Aircraft Factory (NAF) was established in order to assist in solving the problem of aircraft supply which faced the Navy Department upon the entrance of the United States into World War I. The Army's requirements for an enormous quantity of planes created a decided lack of interest among aircraft manufacturers in the Navy's requirements for a comparatively small quantity of machines. The Navy concluded that it was necessary to build an aircraft factory to be owned by the Navy, in order to assure a part of its aircraft supply; second, to obtain cost data for the department's guidance in its dealings with private manufacturers; and third, to have under its own control a factory capable of producing experimental work.

June, 1917, the Navy Department directed Lt. Cmdr. Coburn of the Construction Corps to make a survey of the situation make a report upon a suitable location, size, and cost of a naval aircraft factory which would be capable of producing 1,000 training seaplanes a year, including the minimum time in which a plant could be built and put into operation. Coburn visited all private plants in the country and made a detailed study of the Curtiss Company Churchill Street plant in Buffalo which was the only factory in the country that could be considered a quantity-producing plant for airplanes. There was no time to make an exhaustive study of the entire industry and in July, Coburn submitted his report. He recommended the use of vacant land in the Philadelphia Navy Yard and the construction of the factory and auxiliary buildings. He estimated the cost at \$1,000,000 and the minimum time required to put the factory into operation at 100 days.

July 27, 1917, the Secretary of the Navy approved the project, the contract was let on August 6, and ground broken four days later. The factory was completed November 28, 1917, 110 days after breaking ground. Cmdr. Coburn was detailed as the first manager of the NAF and reported for duty August 27, 1917.

Initially, trainers were to be built, but by October the greatest need was for patrol planes to be used in antisubmarine warfare, so the NAF produced the Curtiss H-16 flying boat. Plans and engineering for the H-16 were received October 26, 1917. March 27, 1918, just 228 days after ground was broken and 151 days after receipt of drawings, the first H-16 built by the NAF was flown. April 2, 1918, the first two NAF-built H-16 flying boats were shipped to Killingholme, England.

The aircraft manufacturing industry was in its infancy and men skilled in aircraft construction were not to be had. The first employee was hired October 1, 1917 and at the time of the armistice the force numbered 3,642 persons. Most employees had to be trained to their work. Special effort was made to utilize women employees during the war as this was considered a war duty, the maximum number reached being about 900.

Spring, 1918, American Naval Aviators overseas indicated that the British experimental air station at Felixstowe had developed a new type of flying boat called the F-5 which was a great improvement over the Curtiss H-16 in seaworthiness and payload capacity. This presented the problem of whether or not to stop the production

(Continued on Page 12)

News and Notes

- Nearly 40 U.S. Navy, Marine Corps and Coast Guard aircraft attended the EAA AirVenture at Wittman Field, Oshkosh, Wisc., July 25-31 2011. Of that total, 17 were Heritage Paint Project aircraft.
- General Major Igor Kohzin, Commander of Russian Naval Aviation visited NAS North Island Sept 29-30, 2011.
- The dedication and unveiling of A3D-1 (BuNo 135434) will take place at Edwards AFB, October 14, 2011.



Centennial 2011 "Tier 1" Events Schedule

Ray Rivard

This year, the Sea Services will partner with and execute 32 "Tier 1" Centennial of Naval Aviation events across the country, plus two gala events. These events will include extensive Navy, Marine Corps and Coast Guard involvement, in conjunction with existing Fleet Weeks, Navy Weeks, Marine Corps Weeks, Blue Angels' Air Shows, and other significant aviation events during the Centennial year.

Join us across the country this year as we celebrate 100 years of progress and achievement during the Centennial of Naval Aviation.



Centennial Kickoff & Aerial Review/Open House, San Diego CA.	09-Feb	-	12-Feb
Mississippi Navy Week, (NAS Meridian & Keesler AFB air shows), MS.	19-Mar	-	27-Mar
NAS Corpus Christi Salute to 100 Years of Naval Aviation, TX.	09-Apr	-	10-Apr
Dallas Navy Week & NAS Fort Worth JRB Air Power Expo, TX.	10-Apr	-	17-Apr
MCAS Beaufort Air Show, SC.	30-Apr	-	01-May
Centennial of Naval Aviation Week Pensacola, FL.	03-May	-	09-May
New Orleans Navy Week & 'Nawlins Air Show, LA.	05-May	-	11-May
MCAS New River Air Show, NC.	13-May	-	15-May
DoD Joint Services Open House, Andrews AFB, MD.	20-May	-	22-May
New York Fleet Week & Jones Beach Air Show, NY.	22-May	-	02-Jun
Philadelphia Navy Week & Millville AAF Show, PA.	23-May	-	29-May
Rockford AirFest 2011, IL.	04-Jun	-	05-Jun
Evansville Freedom Festival, IN.. . . .	11-Jun	-	12-Jun
Davenport Navy Week & Quad Cities Air Show, IA.	16-Jun	-	22-Jun
Marine Week St. Louis, MO.	20-Jun	-	26 -Jun
National Guard Association of Rhode Island Open House & Air Show, RI.	25-Jun	-	26-Jun
Rochester Navy Week & ESL International Airshow, NY.	11-Jul	-	17-Jul
Detroit Navy Week & Thunder over Michigan Airshow, MI.	18-Jul	-	24-Jul
EAA AirVenture Oshkosh, WI.	25-Jul	-	01-Aug
Seattle Fleet Week & SeaFair, WA.	31-Jul	-	08-Aug
Fargo Navy Week and Air Show, ND.	08-Aug	-	14-Aug
The Great State of Maine Air Show, ME.. . . .	26-Aug	-	27-Aug
NAS Patuxent River Air Expo '11, MD.	03-Sep	-	04-Sep
Omaha Navy Week & Guardians of Freedom Air Show, NE.	06-Sep	-	11-Sep
National Championship Air Races, Reno Nevada, NV.	14-Sep	-	18-Sep
Memphis AirFest, TN.	17-Sep	-	18-Sep
NAS Oceana Air Show & AIAA Centennial Convention,VA.	20-Sep	-	25-Sep
San Diego Fleet Week & MCAS Miramar Air Show,CA.	19-Sep	-	02-Oct
San Francisco Fleet Week, CA.	08-Oct	-	09-Oct
NAS Lemoore Air Show, CA.	15-Oct	-	16-Oct
El Paso Navy Week & Amigo Air Show, TX.	17-Oct	-	23-Oct
NAS Jacksonville, Birthplace of the Blue Angels Air Show, FL.	05-Nov	-	06-Nov
Pensacola Blue Angels Homecoming, FL.	11-Nov	-	12-Nov
Centennial Closing Gala, Washington DC.	30-Nov	-	01 Dec

Centennial of Naval Aviation

Before There Was Pax



NAS Anacostia flight line around 1930. The second aircraft on the left (in dark blue) is the Lockheed XRO-1 (BuNo A-9054) Altair purchased by the Navy for use as a VIP transport for David S. Ingalls, Assistant Secretary of the Navy for Aeronautics. (NNAM)

By Capt. Rich Dann

When one thinks of how the Navy tests its aircraft before they are introduced to the fleet, NAS Patuxent “Pax” River, Maryland immediately comes to mind. It is there where new aircraft are put through their paces to ensure they are suitable for fleet introduction. It is also the home of the Navy’s Test Pilot School (TPS). Commissioned April 1, 1943, Pax has become the home of Navy flight testing.

But where did the Navy test airplanes prior to the establishment of NAS Patuxent River in 1943? Would you believe within visible distance of the U.S. Capitol and the White House?

Naval Air Station Anacostia was established as “The Flying Field at Anacostia” October 2, 1917. Ideal because of its location on the Potomac River (across the river from what is now Reagan National Airport), the Air Station was one of the Navy’s premier aircraft test facilities from its founding until the commissioning of Pax River in 1943. Immediately adjacent to Anacostia, and sharing hangar and runway facilities, the Army established Bolling Army Airfield also, in 1917. In addition to testing activities at the field, it also served as the primary military air access to the Washington D.C. area until its closure in 1962.

Anacostia was ideal for flight testing, having not only an airfield, but also access to the Potomac River where seaplanes and flying boats could be tested. Additionally, it was close to the Washington Navy Yard, home to the Bureau of Aeronautics upon its establishment in 1921.

Once an aircraft received a development contract, manufacturers would construct the aircraft, and deliver it to Anacostia for Board of Inspection and Survey (BIS) trials following initial manufacturer flight testing.

June 4, 1930, Navy test pilot Lt. Apollo Soucek established a new absolute altitude record of 43,166 feet using a Wright “Apache” aircraft. The flight was conducted out of NAS Anacostia.

Army Air Corps Lt. Col. Henry “Hap” Arnold led a flight of Martin B-10 bombers from Bolling Field on a 4,000-mile journey to Alaska in 1934, to demonstrate the capabilities of long-range strategic bombing missions.

In addition to the testing activities, high-ranking Navy officials often traveled in Navy VIP “Blue Goose” aircraft stationed at the base.

Throughout World War II, the installation served as a training and organizational base for personnel and units going overseas.

In 1962, fixed-wing aircraft operations at the Air Force and Navy installations were terminated due to congested airspace around National (now Ronald Reagan Washington National Airport), on the opposite shore of the Potomac River.

Today, the property is known as Joint Base Anacostia-Bolling and still operates as a Naval Support Facility. While fixed-wing flight operations ceased nearly 50 years ago, Marine Helicopter Squadron ONE (HMX-1) and its Executive Flight Detachment (Marine One) operate extensively out of the facility due to its proximity to Washington D.C.



VCS-7 pilots Lt Robert Doyle and Ens. John Mudge and a Spitfire Mk Vb at Lee-on-Solent, England after a mission in which they broke up a German armored column. (NHHC)

Seagulls to Spitfires

Reprinted from Naval Aviation News May-June 1994

Naval Aviation's mission on June 6, 1944 was to provide air spotting support for the cruisers and battleships bombarding targets along the Normandy beachhead.

For this purpose, each vessel normally carried several aviators and two or three floatplanes, either SOC Seagulls or OS2U Kingfishers. Both aircraft performed the spotting mission quite well. Operations in the Mediterranean during 1943 had shown, however, that against strong enemy aerial opposition the SOCs and OS2Us were far too vulnerable. They lacked the speed and maneuverability to escape attacks made by Focke-Wulf 190s and Messerschmitt Bf-109s. In the Mediterranean, efforts were being made to train observation pilots in the handling of fighters such as the P-40 Warhawk and P-51 Mustang. Flying fighters, the air spotting pilots stood a much better chance of eluding enemy air attacks.

Perhaps because of the high demand on P-51s for strategic bomber escort duties, it was decided that 17 Cruiser Scouting squadron (VCS) and Observation squadron (VO) pilots aboard the cruisers USS QUINCY (CA 71) TUSCALOOSA (CA 37) and AUGUSTA (CA 31) and the battleships NEVADA (BB 36), ARKANSAS (BB 33) and TEXAS (BB 35) would be checked out in Royal Air Force (RAF) Spitfire Mk Vbs.

The 67th Tactical Reconnaissance Group, Ninth Air Force, commanded by Col. George W. Peck, was assigned the task of checking out the VCS-7 aviators in Spitfires. Training was conducted at the 67th's base in Middle Wallop, Hampshire. The syllabus consisted of defensive fighter tactics, aerobatics, navigation, formation flying and spotting procedures.

On 8 May, Lt. Robert W. Calland, senior aviator aboard NEVADA, assumed command of the squadron. He was relieved by Lt. Cmdr. William Denton, Jr., senior aviator aboard Quincy, on the 28th. That same day, the squadron became fully operational and moved to Royal Naval Air Station (RNAS) Lee-on-Solent.

Ten squadrons, five RAF, four Royal Navy FAA (Fleet Air Arm) and VCS-7, were brought together at Lee-on-Solent to

provide air spotting for the fire support ships of the Western and Eastern Naval Task Forces. The Western Naval Task Force, Rear Adm. Alan G. Kirk commanding, would land the US First Army on beaches Utah and Omaha. The Eastern Naval Task Force would land the British Second Army on beaches Gold, Juno and Sword. Two of the RAF squadrons, Nos. 26 and 63, flew Spitfires. The other three, Nos. 2, 268 and 414, flew Mustang Is and IIs. The four FAA squadrons, Nos. 808, 897, 885 and 886, were assigned Seafire IIIs, basically navalized Spitfire Mk Vbs.

On D-day, all aircraft were pooled. This meant that VCS-7 flew whatever type was available, either Seafire or Spitfire. Although Mustangs were present, they were not flown by any VCS-7 aviators—the reason being that they had not been checked out in the type.

At noon on D-Day, the RAF Mustangs were withdrawn for tactical reconnaissance duties. This left some 95 aircraft available for air spotting support at RNAS Lee-on-Solent.

Typical spotting missions utilized two aircraft. The lead plane functioned as the spotter. The wingman, or “weaver,” provided escort and protected the flight against enemy aerial attack. The clocking, or ship control, method was utilized on the majority of spotting sorties. Standard altitude for spotting missions was 6,000 feet, but poor weather forced the spotter to operate between 1,500 and 2,000 feet. Occasionally, missions were flown at even lower altitudes. Drop tanks were used to increase range. A typical spotting sortie lasted close to two hours. This provided 45 minutes on station and 1 hour in transit.

The Luftwaffe was rarely encountered, although six of the station's aircraft were shot down by German fighters. Four VCS-7 pilots were attacked by Bf-109s and Fw-190s, putting the fine defensive capabilities of the Spitfire to the test. All four aviators successfully avoided being shot down.

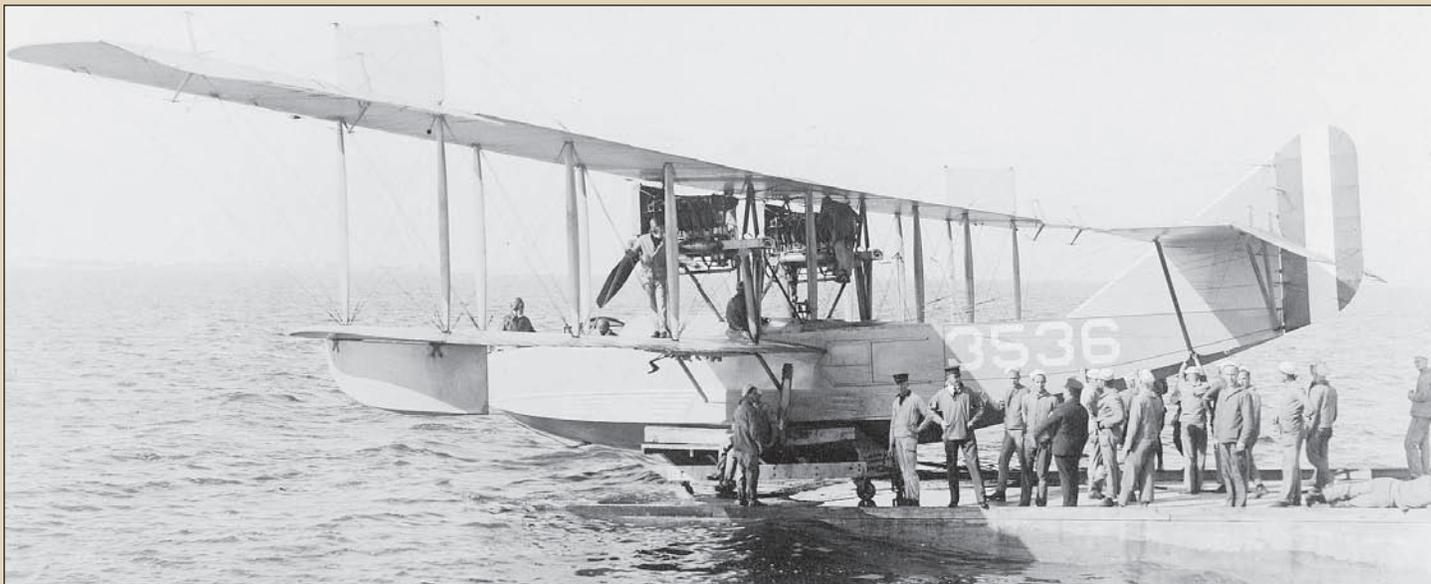
Flak, however, was common and accounted for the squadron's only loss, Lt. Richard M. Barclay, senior aviator aboard Tuscaloosa. Lt. Barclay's wingman, Lt. j. g. Charles S. Zinn, also from Tuscaloosa, managed to return home despite severe damage to his right wing and aileron.

The exact number of aircraft lost by VCS-7 during the Normandy campaign The European Theater of Operations during World War II cannot be verified as of this writing. VCS-7's action report mentions only the loss of Lt. Barclay's aircraft. Author David Brown in his book, *The Seafire, the Spitfire that Went to Sea*, claims VCS-7 lost 7 aircraft to enemy action and 1 operationally in 209 sorties flown. Unfortunately, Mr. Brown fails to cite the source of his information. According to VCS-7's action report, the squadron flew a total of 191 sorties between 6 and 25 June. The busiest days were the 6th, 7th and 8th. During those three days, a total of 94 sorties were flown.

Following the bombardment of Cherbourg on 26 June, naval gun-firesupport operations ceased. The fighting had moved inland out of the range of the ships big guns. VCS-7 was, therefore, disbanded by order of Rear Adm. Kirk, and all personnel returned to their ships.

During 20 days of combat operations, the aviators of VCS-7 were awarded 9 Distinguished Flying Crosses, 6 Air Medals and 5 Gold-Stars in lieu of additional Air Medals. Ten VCS-7 aviators went on to participate in the invasion of southern France and three others took part in the invasions of Iwo Jima and Okinawa in the Pacific during 1945.

Centennial of Naval Aviation



The Curtiss- designed H-16 seaplane was the first aircraft to be produced by the Naval Aircraft Factory in support of World War I Navy operations. The H-16 played an important role in the anti-submarine effort during the final years of World War I. (NNAM 1996.097.004)

(Continued from Page 10)

of H-16's and change to F-5's. Such a change would mean an interruption of delivery as the H-16 was by this time in rapid standardized production. However, it also appeared about this time that larger bombs than the H-16 could carry were required to sink German submarines and that the F-5 could carry them. The decision was made to switch production to F-5's without stopping the delivery of H-16's. The British Admiralty, at the request of Adm. Sims, furnished the Navy Department with drawings of the F-5. They were a great disappointment and were entirely inadequate for quantity manufacture. The F-5 was completely redesigned, preserving external dimensions and modified to take American-built Liberty engines. Thus the American F-5-L was created, which resembled its British prototype only in essentials. Output of the NAF to November 11, 1918, included 183 twin-engine flying boats, with 50 sets of spares. Of these, the last 33 were F-5-L's. A production rate of one plane per day was reached in June, 1918.

After the armistice the factory's orders were canceled and experimental work authorized. The workforce was reduced from 3,600 to 1,100 and manufacturing floorspace reduced to 250,000 sq. ft. The assembly building was turned into a storehouse and the original building first built in 1917 became the factory proper. In 1919 the factory was engaged in the manufacture of NC, Vought, and Loening designs and cars for nonrigid airships. The principal work was overhaul and repair of service aircraft. In 1919, the NAF overhauled 40 F-5-L, 10 HS, 24 R-6, 24 DH, and 40 aircraft of other types.

In succeeding years the development of new types of aircraft, catapults, and hardware absorbed the capacity of the factory, together with overhaul activities. During 1921-22 the large assembly building was cleared and fabrication of parts for the

rigid airship USS SHENANDOAH (ZR-1). The subassemblies built at the factory were trucked to Lakehurst for final assembly. In line with the principal purpose of the NAF, namely, the experimental development of aircraft and accessories, the engine test lab was transferred from the Navy Yard to the NAF in January 1924. Thus the bureau's experimental work for both powerplants and aircraft structures was coordinated under one roof. It was a first-class industrial establishment, capable of doing any kind of aeronautical work required by the bureau.

The NAF continued to produce important aircraft designs throughout the 1920s and 1930, most of which saw series production by private manufacturers such as Great Lakes, Martin and Douglas Aircraft. The N3N trainer, arguably its most famous product saw 997 built from 1935 to 1942. In World War II, facility produced private manufacturer's designs and built both the OS2N Kingfisher and the PBN Nomad at the Philadelphia plant. Work on the PBN-1 at the NAF began in July 1941, but the first aircraft was not completed until February 1943. 156 Nomads were built with the last delivered in March 1945. 17 of these aircraft were used by the U.S. Navy, the remaining 139 sent to the Soviet Union under Lend-Lease. The NAF built 300 OS2N-1 Kingfishers.

Today, the spirit of the NAF lives on in the Navy's Fleet Readiness Center (FRC) network at various Naval Air Stations across the United States and in Atsugi, Japan. These FRCs are state-of-the-art manufacturing and repair facilities that allow the Navy to overhaul and repair its own aircraft. FRCs have the ability to execute major rework and have a robust industrial capacity. While complete aircraft are not built by the Navy, the FRCs have the ability to execute complex rebuilds of damaged and fatigued aircraft, including the famous "Center Barrel Replacement" of high fatigue-life "classic" F/A-18 Hornets.



Dance of the Flying Machines



A CH-46E helicopter from the “Chargers” of Helicopter Combat Support Squadron Six (HC-6) prepares to pick up a pallet of supplies aboard the guided-missile cruiser USS HUE CITY (CG 66). HC-6 was deployed aboard the fast combat support ship USS SEATTLE (AOE 3) conducting combat missions in support of Operation Enduring Freedom in 2004. (U.S. Navy - Released)

(Altitude Record, Continued from Page 6)

with my left arm without letting up, and my arm got mighty tired.

After nearly an hour of climbing straight up from the Anacostia Naval Air Station I reached, according to my altimeter, an indicated height of 41,500 feet, a point where the ship no longer seemed to be climbing a trifle. Instead it appeared to be hanging motionless on its roaring propeller while powerful superchargers shrieked as they sucked and pumped the thin air into a density sufficient to keep the straining engine working.

For about 20 minutes thereafter I kept the plane’s nose pointed straight up, and the engine wide open in an effort to gain a few more precious feet. During this time the needle fluctuated and at times swung past the 42,000 foot mark, but I couldn’t get it to stay there.

Maybe I could have achieved more altitude, but I realized, glancing at my gasoline gauge, that the effort would be futile, for I actually had barely two gallons of gas left in my tank when I finally did land around 4:30 o’clock.

Fortunately I did not suffer greatly from the effects of the extreme altitude and bitter cold (about -76 degrees F). However, at one time the oxygen tube through which I breathed filled with ice and I was forced to beat the tube against the fuselage and to shake the accumulation out in order to continue breathing.

Editors Note - Apollo Soucek would go on to command USS FRANKLIN D. ROOSEVELT (CVB 42) as her first Skipper and was Chief of the Bureau of Aeronautics before retiring for health reasons at the rank of Vice Admiral in 1955. Sadly, he passed away July 19, 1955 at the age of 58. On June 4, 1957, Naval Air Station Oceana was officially named Apollo Soucek Field.

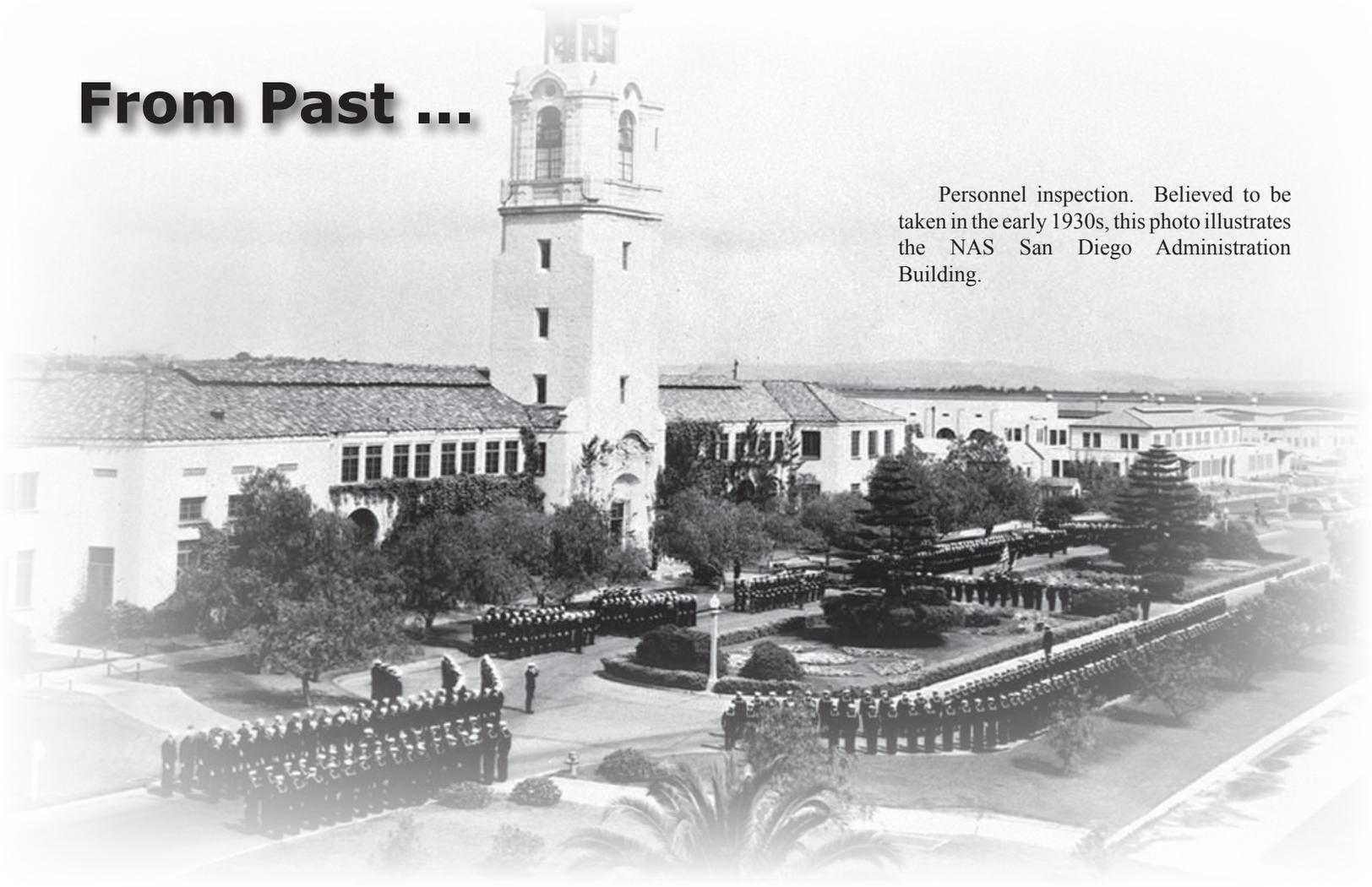
The Navy Vertical Replenishment (VERTREP) Mission was conceived in response to the need for Navy task forces to remain disbursed during underway replenishment (UNREP) as a defense tactic against attack by nuclear weapons. If a way could be devised for the transfer of stores, weapons and ammunition via helicopter, ships could remain more widely separated and maneuverable—VERTREP was the answer. However, the limited lift capability of the Sikorsky UH-34 and the design restrictions of both transferring and receiving ships severely limited the amount and type of cargo that could be transferred by VERTREP. A more capable helicopter and redesigned support ships were needed.

The arrival of the Boeing Vertol H-46 in 1964 and the new Service Force ships introduced a change in UNREP that can only be described as dramatic. Where two H-34s operating from old replenishment ships lifted loads of 600-1000 lbs and achieved maximum transfer rates of two to six tons an hour, two H-46s doing the same mission were lifting 4000 lb loads and achieving transfer rates of 30 tons an hour! And later, transfer of munitions from the newer replenishment ships sometimes achieved rates approaching and often exceeding 50-60 tons/hr. Watching VERTREP is akin to watching a “...dance of flying machines”. These huge increases in cargo transfer rates were equaled in impact by the enormous personnel transfer capability. Where the H-34 could take 4-6 passengers from ship to ship, the H-46 could transfer 20 or more, including baggage and mail. The H-46 totally transformed Fleet logistical operations and capability. VERTREP is a vital mission and it has grown largely in accordance with its original vision.

The H-46 has since been replaced in the Navy by the Sikorsky MH-60S. New ship designs on both transferring and receiving ships have increased the ability to move cargo transferred by VERTREP and it continues to be a fun and exciting mission to fly.

From Past ...

Personnel inspection. Believed to be taken in the early 1930s, this photo illustrates the NAS San Diego Administration Building.



... To Present

Over 70 years later, June 19, 2009, the scene was recreated with the COMNAVAIRPAC staff.

