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of Naval Aviation

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100 Years of Progress and Adhievement

Emlisted Focus

Sidewinder Story Heritage Paint Project



"Wind 'Er Up"

A



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Helldiver



Curtiss Pusher 12



Retro

COVER: The World War II-era painting "Wind 'Er Up" depicts a Sailor cranking the inertia starter on a Stearman N2S trainer. The original artwork was painted by artist Georges Schreiber. (Courtesy of the NHHC)

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Word From the 'Air Boss'



Vice Adm. Al Myers Commander, Naval Air Forces

We who share the passion for Naval Aviation know that it is the teamwork of

all hands that has forged our legacy. I am especially pleased that this issue highlights the accomplishments of our enlisted Sailors, Marines and Coastguardsmen. Their contributions to the development of Naval Aviation cannot be overstated, and they continue to underscore our success. In the hangar, on the flight line, on the flight deck, and in the air, our enlisted cadre ensures that Naval Aviation is ready – every day to fly, fight and win. From one generation to the next, their talent, skill and professionalism form the backbone of Naval Aviation, and they will continue to do so well into the next hundred years. Every win we enjoy begins with their fight to run the wrench so we can fly. Fight to fly, fly to fight, fight to win! Mad Al

From the Editor

Wow, time is flying by! Just the blink of an eye and we'll be into the Centennial year. Momentum is increasing daily, and all the planning we did over the last two years is starting to result in action and execution.

We'd like to pay tribute in this issue to the Enlisted personnel of the Sea Services. Without their tireless efforts from the very first days of Naval Aviation and through the entire Naval Aviation century, their contributions were and still are important in every way.

Many interesting things have taken place recently, including the first Centennial painted aircraft, and just recently, the recovery of an ultra-rare SB2C Helldiver from a lake near San Diego. Additionally, Capt. Washington Chambers will finally be recognized for his contributions to Naval Aviation with the christening of a USNS ship in his name.

Hang on to your hats folks, 2011 is nearly here!



· Capt. Richard Dann

Centennial Force Leadership



VADM Allen G. Myers USN Commander, Naval Air Forces

LtGen George Trautman USMC Deputy Commandant for Aviation





RDML Chris Sadler USN Commander, Naval Air Force Reserve

CAPT Mike Emerson USCG Chief of Aviation





A HA(L)-3 UH-1B "Huey" engages enemy positions in the Mekong River Delta. (San Diego Air & Space Museum)

By Lt. Cmdr. Tom Phillips, USN (Ret.)

During the Vietnam War, no squadron flew more missions, more hours, more night time, earned more individual awards or more unit recognition (six Presidential Unit Citations, among others) than the Seawolves of Helicopter Light Attack Squadron Three - HA(L)-3. HA(L)-3 was established in-country in April 1967 by absorbing four HC-1 detachments which had been pioneering the unusual mission of support of Navy riverine forces since September of 1966. The original four HC-1 detachments received their initial training from the Army who gladly turned over to the Navy, the ship-based missions, which were often flown at night and in marginal weather conditions. The Army also provided the Navy with helicopters and weapons systems which allowed the Navy to take over the task of close air and other support of the Naval riverine forces trying to secure control of the vital waterways of the Mekong River Delta. The HA(L)-3 Seawolves fought for six continuous years in Vietnam, until disestablishment, having never been based anywhere else.

Initially comprised of four detachments, the squadron soon grew to seven, and eventually to nine. The typical detachment consisted of a two-helicopter fire team of Bell UH-1B Huey helicopters, with eight pilots and eight gunners, the latter of which also served as mechanics. Detachments were scattered throughout the Mekong Delta close to the areas of combat and usually, based on Landing Ship Tank (LST), Yard Repair Berthing and Messing (YRBM) or shore bases. They were relocated from site to site as needed, supported by the more substantial maintenance capability of the centrally located squadron headquarters. In its final three years, the squadron also fielded largely unarmed Navy "slick" helicopters with the call sign "Sealord," for logistics and SEAL combat operations.

The Seawolves quickly gained a reputation for aggressive, relentless, effective and creative tactics, reliable quick-reaction

"scrambles" and a signature ability to provide close air support at night. They gained legendary status during the famous Tet Offensive when SEALs and Seawolves were credited with "saving the Delta." Theirs was a war of mostly small-scale firefights supporting river patrol boats, outposts and SEAL missions. As the war wound down, SEALs, the Black Pony aircraft of VAL-4, and Seawolves, were the last US Navy combat units covering the withdrawal of US combat forces from South Vietnam.

In six years of continuous combat, 44 Seawolves gave their lives for their country, while inflicting over 4,000 enemy casualties. In their seven-year service history, personal awards amounted to five-Navy Crosses, 31 Silver Stars, two Legions of Merit, 219 Distinguished Flying Crosses, five Navy and Marine Corps Medals, over 16,000 Air Medals and 156 Purple Hearts.

Truly singular in Navy history, this unique squadron's reputation of indomitable fortitude and innovative tactics in the face of unprecedented challenges has made the name Seawolf legendary, and an inspiration to today's naval aviators.



The business end of a Seawolf Huey. The aircraft is equipped with a 7.62 mm Gatling gun and a seven-shot 2.75-inch rocket launcher. (Courtesy of Tom Phillips)

John Finn

Capt. David Lepard, Force Weapons, Commander, Naval Air Forces

Editor's note: Lt. Finn passed away May 27, 2010 at the age of 100. At the time of his death, he was the oldest survivor of the attack on O'ahu, Hawaii on December 7, 1941 and the oldest living Medal of Honor recipient. In addition, he is the only Aviation Ordnanceman awarded the Medal of Honor.

John William Finn was a United States Navy Chief Petty Officer who received the military's highest decoration, the Medal of Honor, for his actions during the attack on O'ahu in December 1941. As a Chief Aviation Ordnanceman stationed at Naval Air Station (NAS) Kaneohe Bay, he earned the medal by manning a machine gun from an exposed position throughout the attack, despite being repeatedly wounded.

Born July 23, 1909 in Los Angeles, Finn dropped out of school after the seventh grade. He enlisted in the Navy in July 1926, shortly before his 17th birthday, and received recruit training in San Diego. After a brief stint with a ceremonial guard company, he attended General Aviation Utilities Training at Naval Station Great Lakes, graduating in December. By April 1927 he was back in San Diego, having been assigned to NAS North Island. He initially worked in aircraft repair before becoming an Aviation Ordnanceman and working on anti-aircraft guns. He then served on a series of ships: USS LEXINGTON (CV-2), USS HOUSTON (CA-30), USS JASON (AC-12), USS SARATOGA (CV-3), and USS CIN-CINNATI (CL-6).

After being promoted to Chief Petty Officer in 1936, he served with patrol squadrons in San Diego, Washington, and Panama. By December 1941, Finn was stationed at NAS Kaneohe Bay on the island of Oahu in the Territory of Hawaii. As a Chief Aviation Ordnanceman, he was in charge of 20 men whose primary task was to maintain the weapons of a PBY Catalina flying boat squadron, VP-14. On the morning of December 7, 1941, Finn was at his home, about a mile from the aircraft hangars, when he heard the sound of gunfire. Finn recalled how a neighbor was the first to alert him, when she knocked on his door saying; "They want you down at the squadron right away!" He drove to the hangars (seeing Japanese planes in the sky on the way) and found that the airbase was being attacked, with most of the PBYs already on fire.

His men fought back by using the machine guns mounted in the PBYs, either by firing from inside the flaming planes or by detaching the guns and mounting them on improvised stands. One of the first things Finn did was take control of a machine gun from his squadron's painter. "I said, 'Alex, let me take that gun'...knew that I had more experience firing a machine gun than a painter."

Finn then found a movable platform used for gunnery training, attached the .50 caliber machine gun to it, and pushed the platform into an open area from which he had a clear view of the attacking aircraft. He fired on the Japanese planes for the next two hours, even after being seriously wounded, until the attack had ended. In total, he received 21 wounds, includ-



Lt. John Finn enjoys a party on the occasion of his 100th birthday at a reception at NAS North Island in July 2009. (David Lepard)

ing a bullet through the foot and an injury which caused him to lose feeling in his left arm.

"I got that gun and I started shooting at Jap planes," Finn said in a 2009 interview. "I was out there shooting the Jap planes and just every so often I was a target for some," he said, "In some cases, I could see [the Japanese pilots'] faces."

Despite his wounds, he returned to the hangars later that day, after receiving medical treatment, and helped arm the surviving American planes.

For these actions, Finn was formally presented with the Medal of Honor September 14, 1942, by Adm. Chester Nimitz. The ceremony occurred in Pearl Harbor on board USS ENTERPRISE (CV-6).

During the remainder of World War II, he served as a Limited Duty Officer Ensign and eventually as a Lieutenant with Bombing Squadron VB-102 and aboard USS HANCOCK (CV-19). He retired from the Navy in the rank of Lieutenant in September 1946.

From 1946 until shortly before his death, Finn resided on a 90acre ranch in Live Oak Springs, near Pine Valley, Calif. He and his wife became foster parents to five Native American children, embraced by the Campo Band of Diegueño Mission Indians, a tribe of Kumeyaay people in San Diego. After his death he was buried at the Campo Indian Reservation cemetery with full military honors.

May The Force Be With You

By CNAF Force Master Chief James Delozier

With the Centennial of Naval Aviation quickly approaching next year, it seems that generations of naval aviators have dusted off their wings of gold and brushed up on retelling a few "sea stories" to join in the celebration. The Centennial Task Force is currently recieving photos, articles and information from former and current aviators across the country to help with the year-long celebration. But let us not forget that behind these colorful naval aviators was a team of hard-working enlisted Sailors who helped make history as well

It began on the first of January 1916. A class of enlisted men was formed and placed under instruction in flying. These men were selected from the bluejackets and Marines already on duty at Pensacola or on board USS NORTH CAROLINA. "They are making excellent progress," wrote Capt. Mark L. Bristol, Director of Naval Aviation, in a memorandum to the Secretary of the Navy.

The enlisted pilot designation, Naval Aviation Pilot (NAP), was first used in January 1920. NAP certificate number one, dated January 22, 1920, was issued by the Bureau of Navigation to Harold H. "Kiddy" Karr, CQM (A) (NAP) USN. NAPs continued to retain their specialty rates and performed rating duties as well as fly.



A Chief Aviation Pilot entering the cockpit of his North American SNJ trainer. This photo was taken in 1943. The last enlisted pilot in the Navy retired in 1981. (NHHC)

In 1921 three NAP designations were made - seaplane, shipplane and airship. Balloon pilots were not considered NAPs although some wore the one-winged badge for a short season. The Bureau of Navigation directed all enlisted men who were designated Naval Aviators to request the proper designation of Naval Aviation Pilot (NAP). They were authorized to continue to wear their specialty rating badge on their sleeve and Naval Aviator wings on the upper left chest.

The Navy enlisted rating of Chief Aviation Pilot (CAP) was established in 1924 for those qualified in heavier-than-air craft. The rating badge for AP used a replica of Naval Aviator wings. The Aviation Pilot First Class (AP1c) rate was added in 1927.

The Enlisted Flight Training Program was cut following World War II. A few enlisted pilots receive training after the war, but in 1948 Congress ended the requirement for enlisted aviators. Some hold 1948 as the termination of the NAP program, but in fact many enlisted pilots continued their careers in the Navy, Marine Corps and Coast Guard in the following decades. With the reduction in forces, temporary officer commissions were relinquished and many NAPs returned to their permanent enlisted status.

When the Korean War began in June 1950, the Marine Corps had 255 NAPs. By the cease-fire in July 1953 the number of NAPs in the Corps had dropped to 137. At the advent of Vietnam in 1964 the number of NAPs in Marine aviation had dropped to 27. The last four U.S. Marine Corps enlisted pilots, Master Gunnery Sgts. Joseph A. Conroy, Leslie T. Ericson, Robert M. Lurie and Patrick J. O'Neil, simultaneously retired February 1, 1973.

The Coast Guard's unofficial roster lists 216 NAPs. All but 37 were trained during the 44 months of World War II. ADCM John P. Greathouse, the last Coast Guard enlisted pilot, retired in 1979.

In 1955 the number of non-commissioned Navy pilots in flight status hovered around 300. Retirements coupled with advancements into Limited Duty Officer status continually cut into the number of bluejacket aviators. The last enlisted pilot on active duty was ACCM Robert K. "NAP" Jones, who retired from the Navy January 31, 1981.

Today, earning the Enlisted Aviation Warfare Specialist (EAWS) or Naval Aircrewman (NAC) pin is the identifier for our enlisted aviation warriors.

Before coming to Commander, Naval Air Forces (CNAF), one of my most rewarding tours was as the Command Master Chief of the aircraft carrier USS RONALD REAGAN (CVN 76). As a black shoe Sailor from the Engineering Department for most of my career, I quickly learned to appreciate the airmen who worked the long hours on the flight deck and below decks to keep the aircraft fully mission capable. It was evident that these Sailors took a great deal of pride in the wings on their rating badges and the history that went behind them.

As I talk to Sailors from across the force, the sense of pride and professionalism is equally as evident. I continue to see



USNS Chambers Christened



Capt. Washington Irving Chambers is seen here in his official US Navy photograph. Chambers was the head of U.S. Navy aviation efforts from 1910 to 1913. USNS WASHINGTON CHAMBERS (T-AKE-11) is the first ship named after him. (NNAM)

After 99 years, the man known as the Father of Naval Aviation finally got a ship named after him. Between 1910 and 1913, Capt. Washington Irving Chambers was the Director of Aviation matters for the Navy.

On September 11, 2010, the NASSCO Shipyard christened the USNS WASH-INGTON CHAMBERS at a ceremony in San Diego. Rear Adm. Richard J. O'Hanlon, Commander, Naval Air Force Atlantic, was the ceremony's principal speaker. Loretta A. Penn, Senior Vice President of Spherion Corporation and President of its Staffing Services division ceremonially named the ship by



Official crest of USNS WASHINGTON CHAM-BERS (T-AKE-11).

breaking the traditional bottle of champagne against her hull. Also speaking was Rear Admiral David H. Lewis, PEO Ships, Rear Admiral Robert O. Wray, Jr., Deputy Commander, Military Sealift Command and Fred Harris, President, General Dynamics NASSCO.

The first ship to be named in honor of the U.S. Navy Captain who played the pivotal role in the early development of Naval Aviation, USNS WASHING-TON CHAMBERS is the eleventh ship of the T-AKE class of dry cargo-ammunition ships that NASSCO is building for the Navy. When she joins the fleet in 2011, her primary mission will be to deliver more than 10,000 tons of food, ammunition, fuel and other provisions to combat ships on the move at sea.

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 La Crosse, WI 21-22 Andrews AFB, MD (reunion show) 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 Kingston, RI

July 2-3 Muskegon, MI 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

A GLANCE AT THE PAST – aviation sailors in action



Lt. Cmdr. Arthur Davis and AMMC H.E. Wallace stand in front of Vought O3U-3 "Corsair" (BuNo 9318). The two gained fame by making the first takeoff and landing aboard USS RANGER (CV 4) June 21, 1934. (NAS North Island Collection)



Enlisted gunners inspect a target sleeve following a gunnery practice at NAS Miami on April 9, 1943. Bullets were painted various colors and assigned to individuals so that scores could be assigned to each gunner. (NHHC)

WAVE Parachute Rigger 3/c Loma Peterson climbs out of a Stearman N2S following an orientation flight at NAS Ottumwa, lowa in late 1944. (NHHC Archives)





Sailors tend to the engine and accessory section of this Douglas SBD-5 Dauntless at a Caribbean air base after an ASW patrol in 1944. The Chief Machinist Mate is supervising the work. Engine is a Wright R-1820 "Cyclone". (NHHC)



Four Sailors receive instruction on the use of a lathe at NAS North Island. Date is unknown, but based on the uniforms, this photo may have been taken in the 1960s. (NAS North Island Collection)

Sailors assigned to the aircraft carrier USS Carl Vinson (CVN 70) signal the all clear sign to the pilot of an F/A-18 Super Hornet before it is catapulted off the flight deck during local operations off the coast of Southern California. (U.S. Navy photo by MC3 Patrick Green/Released)



Helldiver Recovered

Naval Aviation Museum Website/Capt. Rich Dann

When the SB2C was operational—one of its unflattering nicknames was the "Beast"—those who flew and maintained the SB2C Helldiver would have said that the best place for an SB2C Helldiver was at the bottom of a lake. However, in 2010, with only six surviving examples of the more than 5,100 Helldivers manufactured during World War II, the recovery of one of these planes out of the Otay Reservoir in California is generating much excitement and even international press. The Helldiver is destined to fill a hole in the National Naval Aviation Museum's collection created when the SB2C-5 Helldiver on loan to the museum for many years was recalled by the Smithsonian National Air and Space Museum for display in its new Steven F. Udvar-Hazy Center.

Curtiss's SB2C was originally designed as a replacement for the famous Douglas SBD Dauntless, the aircraft that gained fame by sinking four Japanese aircraft carriers during the Battle of Midway. The story of the Helldiver began in 1938, when with war clouds on the horizon in Europe and the Pacific, the Curtiss-Wright Corporation responded to a Navy request for proposals for a new scout bomber. Curtiss-Wright's submission was the XSB2C-1, which was eventually christened with the name "Helldiver," one that had been used on a previous company scout bomber. Developmental difficulties with the SB2C delayed fleet introduction until 1943, and each successive model of the SB2C was better than the last.

Bureau Number 19866's new squadron had been commissioned in September 1943, and had flown the SB2C-3 Helldiver during its first combat tour in the carrier Wasp (CV 18). Now equipped with the SB2C-4/4E version of the plane, VB-14 rotated between Naval Auxiliary Air Station (NAAS) Brown Field, NAAS Ream Field, and 29 Palms, Calif., preparing for its next crack at the enemy. Among those in the squadron training for war was Ens. E.D. Frazar, a Texas-born aviator only months re-



After 65 years under water, SB2C-4 (BuNo 19866) rests on the shore of the Otay Reservior in Eastern San Diego County. The aircraft is in good shape and will be restored at the National Naval Aviation Museum in Pensacola, Florida. (Capt. Rich Dann)

moved from receiving his wings at Naval Air Station (NAS) Corpus Christi, Texas. May 28, 1945, Frazar and Army Technical Sergeant Joseph M. Metz, who took advantage of an offer by Frazar's normal gunner to take a flight, took off on a training hop. The plane was pulling out of a practice dive-bombing run at an altitude of 1,500 feet when it suffered a complete engine failure. Frazar, after unsuccessfully attempting to restart the engine, weighed his next move. Given the rough terrain around the target area, a landing there was not advisable, but the waters of the nearby Otay Reservoir offered a safer place to put the plane down. Lowering his flaps and keeping his landing gear raised, Frazar executed a landing, the SB2C splashing into the calm waters of the reservoir. Climbing out of their plane, the two men swam to shore while their plane sank to the bottom.

In March 2009, Duane Johnson was using a fish finder in his search for bass and got more than he bargained for in the outline of an airplane, which led to the identification of the SB2C-4. After



Ens. Joseph Metz preparing to climb into an SB2C of the same type as recovered from Otay Reservior August 20, 2010. Metz's son was on hand to witness the recovery of the Helldiver. (NNAM)

coordinating many players, including the Navy, City of San Diego, and the California Office of Historic Preservation, the operation to successfully recover the airplane was completed August 20, 2010, in what was certainly one of the more unique fishing expeditions ever in the Otay Reservoir. Pulled from the depths, the plane is now in Pensacola, its restoration underway for eventual display as one of only six Helldivers on exhibit anywhere in the world.

The aircraft was in remarkably good condition considering the water landing it made in 1945. Major damage was isolated around the engine and bomb bay area of the aircraft. There was a slight buckling of the left upper wing skin as well, but equipment such as the Yagi radar antennae under the wings were relatively undamaged.

The Helldiver was disassembled and the fuselage was transported to the National Naval Aviation Museum in late August 2010. The wings will eventually be shipped to Pensacola as well. It is planned that the aircraft will be restored and eventually displayed.



Centennial 2011 "Tier 1" Events Schedule

In 2011, 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 next year as we celebrate 100 years of progress and achievement during the Centennial of Naval Aviation.



Centennial Kickoff & Aerial Review, San Diego CA.	.10-Feb - 13-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	.9-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 1-May
Centennial of Naval Aviation Week Pensacola, FL.	.3-May 9-May
New Orleans Navy Week & 'Nawlins Air Show, LA.	5-May 11-May
Marine Week St. Louis, MO.	May TBD
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 - 2-Jun
Philadelphia Navy Week & Millville AAF Show, PA.	.23-May - 29-May
Rockford AirFest 2011, IL.	4-Jun 5-Jun
Evansville Freedom Festival, IN.	11-Jun 12-Jun
Davenport Navy Week & Quad Cities Air Show, IA.	16-Jun 22-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 1-Aug
Seattle Fleet Week & SeaFair, WA.	.31-Jul 8-Aug
Fargo Navy Week and Air Show, ND	8-Aug 14-Aug
The Great State of Maine Air Show, ME	26-Aug 27-Aug
NAS Patuxent River Air Expo '11, MD	3-Sep 4-Sep
Omaha Navy Week & Guardians of Freedom Air Show, NE.	6-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 2-Oct
San Francisco Fleet Week, CA.	.8-Oct 9-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.	5-Nov 6-Nov
Pensacola Blue Angels Homecoming, FL.	11-Nov 12-Nov
Centennial Closing Gala, Washington DC.	3 Dec

Centennial of Naval Aviation -

Curtiss Pusher Nears Flight

Mr. Bob Coolbaugh

In the small town of New Market, Va., there is an effort underway to re-create the aircraft flown by Curtiss demonstration pilot Eugene Ely who landed and subsequently took off from USS PENNSYLVANIA January 18, 1911. Mr. Bob Coolbaugh, a retired Naval Aviator and airline pilot, embarked on the adventure of a lifetime nearly three years ago when he started this project. As this issue of Centennial magazine goes to print, we are happy to report that construction will be complete before the end of September and flight testing should follow in October. With over 200 wires that need to be adjusted, there is still much left to do before the aircraft is signed off as airworthy. While retaining the look of the original Curtiss Model D, this aircraft has been updated with conventional flight controls in place of the original "shoulder yoke", brakes, and also has a Continental C-125-2 six-cylinder, 125hp, horizontally opposed engine in place of the original Curtiss engine.

The assembly tasks remaining are the two sets of outer wing panels and the ailerons. The four wing panels will be finished in a matter of days, just awaiting a few fittings from the powder coater.



The Curtiss Pusher is pushed out of the hangar for the first time. Still missing ailerons and outer wing panels, the aircraft is expected to start engine run-ups prior to the end of September. (Bob Coolbaugh)

FORCE cont. from page 6

enlisted Sailors working on challenging qualifications, and watch them with pride as they professionally support Naval aviation.

From the first shipboard landing of an aircraft in 1911, through the intense air battles over Europe and the Pacific during World War II, to the current sorties being flown over Afghanistan in support of Operation Enduring Freedom, Naval Aviation has grown from a tactical afterthought and support capability to one of the most lethal weapons in the U.S. arsenal. The Centennial celebration is an opportunity to affirm to all American citizens that their security is assured by a strong Navy, Marine Corps and Coast

The ailerons will have to be custom fitted once the outer panels are in place, then covered and painted, which is a four-day job. Engine runs should begin late September after which final adjustments will be made to the 200-plus bracing wires on the aircraft. The engine has been preserved for nearly 30 years and will be thorougly inspected. Its insides look good, compression is good, and the accessories are new.

If things go to plan, the FAA will visit Mr. Coolbaugh's hangar for the sign-off inspection the last weekend in September or early October. After that taxi and flight testing begins. There is a requirement that the aircraft have 40 hours of flight time before being registered in the "Experimental" category by the Federal Aviation Administration. If all goes well, Mr. Coolbaugh's replica will participate in a tribute to Eugene Ely's flight from USS BIRMINGHAM in an event set to take place November 12, 2010, at NAS Norfolk.

This replica will fly at Centennial airshows and events in 2011 to represent Eugene B. Ely's first shipboard landing aircraft and the beginnings of Naval Aviation. Mr. Coolbaugh's plans are to visit and fly in 11 airshows over a seven-month campaign.



Bob Coolbaugh's Curtiss Pusher is powered by a Continental C-125-2 six-cylinder 125hp horizontally opposed engine for greater reliability and safety. (Bob Coolbaugh)

Guard aviation program.

So as the Navy prepares for the next generation of Naval Aviators and naval aircraft, let's not forget the hardworking enlisted Sailors who have helped keep the pilots safe, the aircraft well-maintained, the flight deck equipment in working order and the ordnance loaded correctly. It's been a great 100 years, and I as travel throughout the world as the CNAF Pacific Force Master Chief, I know the future is in good hands! - Force Sends





A very early Sidewinder missile is seen here at Naval Ordnance Test Station (NOTS) Inyokern in California, site of present day Naval Weapons Center China Lake. (Navy History & Heritage Command)

The Sidewinder Story

By 2nd Lt. Taylor Couch, History Division, U.S. Marine Corps

Following World War II, the Department of Defense (DoD) developed all-weather air-to-air missiles designed to intercept and destroy Soviet bombers. The Navy and Air Force funded the semiactive radar-guided Sparrow and Falcon weapons programs. However, a physicist with a penchant for simplicity saw the radar-guided missiles as overly complicated. Dr. William B. McLean pioneered infrared technology and perservered in constructing the most successful air-air missile ever developed, the AIM-9 Sidewinder, despite the misgivings of the DoD.

Working as head of the Aviation Ordinance Division at the Naval Weapons Center at China Lake, Calif., Dr. McLean believed the ultimate air-to-air solution involved infrared technology, using heat detection rather than radar for guidance. Semiactive radar required terminal guidance, with the pilot following the missile until impact. With heat detection, the missile could be guided internally, or 'fire-and-forget.' Although infrared technology was theoretically complicated, the missile itself was simple. It had nine moving parts, and according to McLean's assistant, Howard A. Wilcox, "had the mechanical complexity of a small washing machine combined with a table radio." In a 1956 shootout with the Air Force's Falcon missile, the Sidewinder downed both target drones while the Falcon never left the launcher. After six days of tinkering, the Air Force conceded.

Prevailing wisdom in the defense community was that infrared detection, for all of its advantages, would always be limited to fair weather. Because of this belief, the DoD refused to fund such a program. From 1947, when McLean concieved the project, until 1951 when the Bureau of Ordnance officially recoginized it, McLean siphoned money from ongoing Naval Weapons Center projects and worked after hours to experiment. The Sidewinder project did not officially exist until 1951 when the Bureau of Ordnance, satisfied with the potential demonstrated at China Lake, allocated \$3.5 million for its development. The obscurity of the Sidewinder in its early stages led to a unique design atmosphere, where the designers held complete creative control without bureaucratic interference. In contrast, the AIM-7 Sparrow was built under rigid oversight, with resources devoted to meeting predetermined Navy specfications.

The Sidewinder joined the fleet in 1956, and its first battle test came in the second Formosa Strait crisis in 1958. Chinese Nationalists downed four Chinese communist MiGs with the AIM-9B version. It would be less successful in Vietnam, with a 47 percent failure rate, but still outperformed the Sparrow III's 66 percent failure rate. The Sidewinder was almost twice as effective. In Operation Rolling Thunder, from 1965 to 1968, the AIM-9B and AIM-9D killed 16 percent as compared to 8 percent of the AIM-7 Sparrow III. The Sidewinder numbers improved, as later versions made the seeker more sensitive. In the Falklands Conflict, the British firing AIM-9Ls, recorded 18 kills in 26 attempts for a 69 percent kill ratio. The Sidewinder continues fleet service with the AIM-9X, introduced in 2003. Block II upgrades to the AIM-9X include the Lock-on After Launch capability, that with the proper equipment allows for 360 degree engagements. It is carried by all major strike fighter platforms of the U.S. Navy, Marine Corps and Air Force.

- Editors Note: In 2008, the Navy announced that the dry cargo ship USNS William McLean (T-AKE-12) would be named in honor of Dr. McLean. Tentative christening date is March 19, 2011.



HSC-84 has painted HH-60H (BuNo 163787) in an overall olive drab paint scheme to pay tribute to the squadron's HA(L)-3 heritage. The aircraft was unveiled to a group of 17 HA(L)-3 alumni July 23, 2010. (AMCS Mark Brush)

News and Notes

- The Experimental Aircraft Association (EAA) Oshkosh "AIRVenture" 2011 has selected the Centennial of Naval Aviation as a primary theme. EAA AIRVenture 2011 takes place July 25-31, 2011.

- The International Plastic Modeler's Society (IPMS) have designated their annual convention as "Omaha by the Sea" and has a primary theme of the Centennial of Naval Aviation. Omaha by the Sea takes place August 3-6, 2011.

The St. Louis Science Center received an F/A-18B (BuNo 161745) on September 10, 2010 during a St. Louis Navy Week ceremony. This aircraft was a Blue Angels two-seater.
The Boeing T-45 Goshawk surpassed 1,000,000 flight hours recently. The Navy and Boeing marked the event with a ceremony at Cecil Field near Jacksonville, Fl on August 26, 2010.

- VRC-40, the "Rawhides" celebrated 50 years of active service during a ceremony held on July 16, 2010 at NAS Norfolk, Va.

- COMNAVAIRLANT will be hosting a 100th Anniversary celebration of Eugene Ely's flight from USS BIRMINGHAM in 1910. This event will take place on November 12, 2010 at Naval Air Station Norfolk.

Please note that there was an error in the "Tier 1" events list in the Summer 2010 issue (Vol. 2, No. 3). Please refer to the schedule in this issue as it is updated as well as corrected.
Naval Aviation News, the oldest periodical in the Navy has resumed publication with a Summer 2010 issue.

Painting the Past

In the last issue of Centennial magazine, we presented an article on heritage paint schemes on current Navy aircraft. In the article, the paint schemes described were conceptual. Since the publication of the Summer issue, four aircraft have been completely painted and three others were inducted into major maintenance periods and will soon be painted as well.

HH-60H (BuNo 163787) was the first aircraft to emerge with a Centennial "retro" paint scheme. This aircraft is assigned to HSC-84 at NAS Norfolk. As the squadron draws its lineage back to HA(L)-3 Seawolves of Vietnam vintage, the squadron thought it fitting to paint an aircraft to resemble a Bell UH-1"Huey," the aircraft flown by HA(L)-3 during its lifetime. The aircraft is overall olive drab, which resembles the paint scheme of the Hueys as they were delivered from the U.S. Army. The aircraft was painted at Fleet Readiness Center Southeast (FRCSE) at NAS Norfolk, and delivered to HSC-84 in time to host a "Heritage Day" event July 23, 2010. Seventeen HA(L)-3 veterans were on hand for the emotion-



Boeing T-45A Goshawk (BuNo 163656) as it appeared following application of its "Retro" 1930s "Yellow Wings" paint scheme. Colors used are based on the specifications from the period. (Gabe Pincelli)

filled ceremony.

TH-57C (BuNo 162064) was the first Centennial aircraft to be repainted and returned to service. The "Sea Ranger" was painted in overall gloss gull gray and features the national insignia carried by US Navy aircraft prior to 1917, a stylized anchor logo. Painting was completed by Vector Aerospace in Andalusia, Ala. The aircraft was delivered to Training Wing FIVE at NAS Whiting Field August 4, 2010. Capt. James Vandiver, Commander, TRAWING-5, was proud to see such a symbol of Naval Aviation's past.

"It's great to see this aircraft to help remind us of our history. Looking back at all the great things that Naval Aviation has accomplished, you know that as we move forward, we can accomplish anything," Vandiver said.

T-45C (BuNo 163656) was the first jet aircraft to receive a complete Centennial paint scheme. Reminiscent of the 1930s "Yellow Wings" era, this aircraft sports a silver fuselage, orange-yellow wings, and a black tail with black section markings. Currently in



reassembly, the jet will return to the air some time in September 2010. Painted in Kingsville, this aircraft will be assigned to Training Wing TWO and remain in Kingsville.

T-45C (BuNo 165598), The second of two T-45Cs, will be similar in appearance to the Kingsville aircraft with slight variations in color. The tail of this aircraft will be true blue and all section markings will be insignia red. Once completed, 165598 will be assigned to Training Wing ONE at NAS Meridian, Miss.

TC-12B (BuNo 161197) will recieve a 1942- era paint scheme of blue-gray over light gull gray. The aircraft will have early-style national insignia and 13 red and white rudder stripes. The Centennial staff has located several photos of Beechcraft transports taken in 1942 with this scheme.

MH-60S (BuNo 166323) is slated to receive a paint scheme of overall glossy sea blue, reminiscent of aircraft of the 1950s. The aircraft will be assigned to HSC-3 when finished. 166323 is scheduled to be completely painted before the end of September.

MH-60S (BuNo 166294), assigned to HSC-2 in Norfolk, has also elected to do a Korean War-era paint scheme for their selected aircraft. It will carry the markings of an aircraft flown by Navy Cross awardee, then-Lt.j.g. John Thornton of HU-2.

T-6B Texan II (BuNo 166064) is unique with regards to painting. The T-6B is so new that no aircraft are through their first cycle and returned for rework. Hawker Beechcraft has agreed to paint this aircraft on the production line as a no-cost contract change. This aircraft will be overall orange-yellow, reminiscent of trainer aircraft the the 1940s and 1950s.

F/A-18F (BuNo 165677) recently received a spectacular "Navy Working Uniform" paint scheme. This aircraft is assigned to VFA-122 and its paint scheme was designed by the enlisted Sailors in the squadron. The jet is stationed at NAS Lemoore, Calif.

Concepts for two T-34C paint schemes have been forwarded for consideration and are awaiting aircraft to be assigned. If ap-



Bell TH-57C Sea Ranger (BuNo 162064) air taxiis to its parking spot at NAS Whiting Field in Milton, Fla. It was the first aircraft Navy-wide to recieve a Centennial of Naval Aviation paint scheme and return to service. (Jay Cope)

proved, one will have a heritage USMC paint scheme, and the other will have a heritage USCG paint scheme. Both schemes represent aircraft from the 1930s.

VX-30 has identified an S-3B (BuNo 160581) as a candidate for painting. If approved, this aircraft will be painted in blue gray and light gray, the camouflage pattern used on aircraft during the Battle of Midway. This aircraft will be painted in Jacksonville, Fla and delivered to the squadron at NAS Point Mugu.

It is anticipated that there will be intense interest in these paint schemes as images filter out to civilian interest groups. Aftermarket decal manufacturers for plastic model kits have already expressed an interest in obtaining the paint specifications used. We will continue to cover developments and provide the latest imagery.



Boeing F/A-18F Super Hornet (BuNo 165677) is adorned in a paint scheme reminiscent of the new Navy Working Uniform (NWU). The aircraft is assigned to VFA-122. (VFA-122)



Boeing T-45A Goshawk (BuNo 165598). This aircraft bears the colors of aircraft assigned to USS ENTERPRISE (CV 6) between 1936 and 1940. This aircraft will be assigned to TRAWING 1 at NAS Meridian, Miss. (Gabe Pincelli)

Search and Rescue - From Past ...

March 23, 1944 -Vought OS2U Kingfisher after a flight to Truk Island to rescue a Hellcat pilot shot down by the Japanese. Pilot Lt. j.g. Denver Baxter took his plane into the lagoon and picked up Lt. j.g. George Blair. Aviation Chief Radioman Rouben Hickman is on the wing waiting to catch the hook from the ship to hoist the plane aboard. (NHHC)

> August 17, 2010 - An MH-60S assigned to Naval Air Station Whidbey Island approaches the Skokmish River Bridge in a daring rescue of an injured 15-year old girl who had fallen off a cliff and into the river while hiking with her family. The helicopter hovered underneath the bridge to make the rescue and then backed out to depart the area.

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