



THE *Flyer*

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2002 Centennial of Controlled Flight

by Tom Halfhill

It should be safe to say that this 99th year of powered flight is also the 100th year of solving the secrets of controlled flight. In October 1902, the Wright brothers, after making many glider flights in their improved model, realized that something was still missing. Again, they had to throw out old technology and use their own creativity. They added a vertical rudder and that, with their wing-warping, gave them the three-axis control discovery—roll, pitch and yaw.

The Wright Aeroplane Co. of Dayton, Ohio, brought their replicas of the early gliders to Jockey's Ridge to recreate Orville and Wilbur's experiments. Active service military pilots were sent here to learn how to fly the primitive contraptions. Lt. Commander Klas Ohman of the USS Kitty Hawk, Captain Jim Alexander of the USAF and Captain Tanya Markow of the US Army took part in the experiments October 5-8, 2002 here on the Outer Banks. Lisa Holian's photograph at right shows the result.



Noteworthy Northrop



John Knudsen Northrop will be inducted into the Paul E. Garber First Flight Shrine December 17th

Forever associated with the flying wing, John Knudsen Northrop is credited with many innovative aircraft designs, among them the revolutionary Vega (1927), Lockheed Aircraft's first production airplane. The Alpha, which followed in 1930 and ushered in the era of modern all-metal, low-wing monoplanes, and the Gamma (1933), which pioneered stratosphere flying, are among Northrop's achievements. Born in 1895, the same year as Leroy Grumman, Jack Northrop began his aeronautical apprenticeship in 1916 as a draftsman engineer for the Loughead brothers who were building a twin-engine flying boat at Santa Barbara, California. He later

rejoined the Loughead (later Lockheed) organization after World War I, designing the versatile S-1, a small sport biplane with foldaway wings, but it was the Vega that firmly established Jack Northrop as a significant aircraft designer.

The most advanced airplane of its time, both structurally and aerodynamically, the Vega was flown by such distinguished aviators as Amelia Earhart, Art Goebel, and Wiley Post.

Until his retirement in 1952, a virtual spate of exciting aeronautical designs was created under Jack Northrop's direction. The aviation buff needs only to recall that remarkable series of World War II experimental Flying Wing airplanes, ranging from one-man diminutive gliders to pilotless buzz bombs, all culminating in the multi-ton bombers of the postwar period.

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Red Smith, vice president of the Society, KaeLi Spiers, Curator of the History Center, and Ken Mann, president of the Society, shown attending the exhibit's opening reception in June.

Toothpick Airforce



Dovetailing with the 1902 glider flights in October, the First Flight Society helped sponsor the Toothpick Airforce competition. About 1400 Dare County school children learned about the developmental steps of the Wrights in a program given by Robert Elliott, author of *The Toothpick Airforce*. Children were then invited to build and fly gliders with just toothpicks, paper and glue. First and second place winners are shown above.

The Flyer is the Newsletter of The First Flight Society

President, Ken Mann
 First Vice President
 Col. James "Red" Smith
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Newsletter Editors
 Tom Halfhill & Lisa Holian

Northrop continued

The different models were driven by rear-mounted propellers, jets, and rockets. Two of the flying wings had prone cockpits, and another was an all-magnesium, all-welded fighter. Also noteworthy among Jack Northrop's aeronautical achievements were the world's fastest military seaplane; the first intercontinental, inertial-guided, stellar-controlled missile; and the sophisticated laminar-flow-control airplane. Nor will the aviation buff overlook the P-61 Black Widow night fighter, the trimotor C-125 Raider, and the spectacular rocket launching, twin-jet F-89 Scorpion.

Along the way, Northrop found time to contribute to the development of prosthetic devices for the handicapped, a more efficient method for extracting iodine from seaweed, a popular new type of sea anchor for boats, the Studebaker automobile Hillholder device, and the giant Turbodyne turboprop engine for aircraft. Northrop's dream, which he had nurtured since the mid-1920s, remained an all-wing airplane without a drag-producing fuselage or tail. His concept took flight in the XB-35 and YB-49 flying wing bombers of the 1940s and 1950s, but those programs were canceled before reaching full production. However, Northrop did live long enough to see his dream fulfilled. Shortly before his death, he was given a chance to see a model of the Air Force's highly classified Advanced Technology Bomber, the plane we know today as the B-2.

75 Years of the First Flight Society

By Chris Howell

You never know what fascinating things you might see at the Outer Banks History Center on Roanoke Island in the Outer Banks . . . which is precisely why you should stop by when you're in the vicinity. This past summer and running through December 2002, the History Center has a new exhibit on display: To preserve, protect and maintain: Seventy-five years of the First Flight Society. It tells the story of the early efforts of the Kill Devil Hills Memorial Society, the predecessor of the First Flight Society, and the group's attempts to promote the history of aviation, to preserve the site where the birth of aviation took place, and to honor the achievements of Orville and Wilbur Wright.

It features black and white photos that we bet you've never seen or even thought of - amazing pictures like how the Memorial was constructed on top of that hill of sand where powered flight originated. There are artifacts such as the shovel used to break ground for the National Memorial, plus a metal hexagonal "map table" over three feet wide that depicts milestones in aviation from 1903 to 1928. You'll see programs and brochures from the Society's past, as well as the Act of Congress that created the Memorial to the brothers. Many of the founders are depicted, as well as postage stamps illustrating aerospace achievements. And since the Wright Brothers National Memorial is undergoing a renovation, the exhibit now houses the portraits and bios of some of the Society's famous Shrine inductees over the years.

While the First Flight Society funded the exhibit, it took lots of hard work by the National Park Service and the Outer Banks History Center experts to bring it all together and tell the story of the Society's origins.

The History Center, located within Roanoke Island Festival Park, is across the bridge from the Manteo waterfront. The First Flight Society display can be seen daily from 10 am to 5 pm.

DUES INCREASE

When you receive your Membership Renewal Notices and as reflected on the back cover application, you will see that dues increases are now in effect.

99 Planes Planned for 99th Celebration

Each year during the annual celebration of powered flight on December 17th at the Wright Brothers Memorial in Kill Devil Hills, many visitors claim the Fly-over is the main event. It's true. Although grand and inspirational words may fly from the podium, the sight of so many aircraft parading over the birthplace of powered flight is a powerful experience and comforting reminder of our nation's might.

In 2002, visitors and residents of the Outer Banks are especially fortunate as the fly-over coordinator, Lt. Col. Chris Ross of Seymour-Johnson Air Force Base said, "This year promises to be an event like no other." To formally kick-off the beginning of the centennial year, Ross has scheduled 99 military and civilian aircraft for the fly-over, and the U. S. Army Golden Knights jump team is scheduled to drop in. The fly-over will be led by the B-2 Spirit stealth bomber, the "Spirit of Kitty Hawk." Weather and international conditions permitting, 98 other aircraft will follow in what will be the grandest flyover ever to occur on the Outer

Banks.

There will be plenty of light civil aircraft not unlike the variety we see daily, but of these, two very special planes will have two 5th grade students at the controls. These children are participants of the Wright Flight program from First Flight Elementary School. Imagine how you might feel if you were 10 years old participating in an air parade of such magnitude!

But there's more. Children on the ground should keep their eyes peeled for the "Candy Bomber." Lt. Col. Ross says the "Candy Bomber" will be flying the C-54, "Spirit of Freedom" which is literally a flying Berlin Airlift museum. In addition to participating in the fly-over, this aircraft will be on static display at the airport in Manteo on the 14th and 15th of December. The pilot, retired Air Force Colonel Gail Halvorsen, was nick-named the "Candy Bomber" during the Berlin Airlift. As Ross tells it, Halvorsen flew missions hauling supplies to the people of Berlin preserving their freedom by keeping the city functioning. During one of

the stopovers he happened to speak with some of the Berlin children who, despite their hardships, tried to lift his spirits. So before he left he gave them a couple of pieces of gum and watched the joy in their faces as they shared what they had, even to the point of passing the gum wrapper around and sniffing it to enjoy the aroma. Struck with an idea, Halvorsen told the kids to watch for him the next day, he'd be the one who would "wiggle his wings" as he approached for landing. He flew back into West Germany and built some "candy bombs"—candy and gum tied to handkerchiefs. The next day he flew into Berlin, wiggled his wings, and dropped his "candy bombs." The candy floated down under makeshift parachutes and the legend of the "Candy Bomber" was born. He and other pilots and crews continued to drop candy to the kids of Berlin throughout the remainder of the airlift. Many Berliners single out the "Candy Bomber" as the one thing that gave them the hope and encouragement during the

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Flight Floats at the Rose Bowl

MANTEO, N.C. (June 20, 2002) – The Outer Banks of North Carolina will participate in the 2003 Tournament of Roses Rose Parade on New Year's Day to help launch a year-long celebration commemorating the Wright Brothers' first successful powered flight near Kitty Hawk, NC, in 1903.

One hundred years after pioneer aviators Orville and Wilbur Wright made history on the Outer Banks, the celebration of this momentous event will span the country to the Rose Parade route in Pasadena, Calif. This first-ever entry in the fabled parade will be titled, *The Outer Banks of North Carolina, Home of the First Flight & The Wright Brothers*. Renowned float designer Raul Rodriguez will create the concept and design for The Outer Banks float.

"The opportunity to participate in an event as popular and prestigious as the Rose Parade at the same time as our launch of the centennial celebration of flight is a match made in marketing heaven," said Outer Banks Visitors Bureau Managing Director Carolyn McCormick. "This is a fitting honor for the Wright Brothers and a great opportunity for us to promote the beauty, history and charm of the Outer Banks." The parade, which attracts an estimated 1 million spectators to Pasadena and countless television viewers worldwide, will take place

Wednesday, January 1, 2003 at 8 a.m. (PST).

"Orville and Wilbur always appreciated the immense beauty of the Outer Banks area and what better way to demonstrate that beauty than through the majesty of the Tournament of Roses Rose Parade," said Wright Brothers descendant Amanda Wright Lane.



Two Flight Floats

The International Rotary Club supported by the local First Flight Rotary chapter in Kill Devil Hills, N.C., will also enter a float honoring the Wright Brothers in this year's Rose Parade. The concept for the Rotary Club's entry also will be created by Raul Rodriguez, who has vowed to create two very different but equally magnificent floats for both parade participants. The Rotary float, which will be themed "*The Sky's the Limit*," is funded by contributions from Rotary International clubs and members throughout the country.

Float Facts

The average Rose Parade float is about 55 feet long and 25 feet tall. Because they are so tall, some floats are designed to lower themselves to fit under wires and bridges along the parade route. The cost of the floats ranges from \$75,000 to \$300,000. Roses dominate the floral decoration of floats, but many other flowers are used as well. Floral density on the average float ranges from 10 flowers per square foot to 80 flowers per square foot. There are 11 criteria used in the judging process, including design, flower presentation, color harmony and animation.

Wright Family Fund Partnership

Participation in the 114th Rose Parade was made possible through The Outer Banks Visitors Bureau recent marketing partnership with The Wright Family Fund. The bureau is also working with the Wright Family fund to utilize the names and likeness of the Wright Brothers in advertising and promotion of the travel destination. The agreement will be in place until December 2013.

Additionally, the Outer Banks Visitors Bureau has entered into a partnership as the primary First Flight Centennial Celebration marketing partner of the National Park Service at Wright Brothers National Memorial.

The Outer Banks Visitors Bureau is a public authority and the lead marketing and promotional agency for Dare County's Outer Banks. The bureau's web site is www.outerbanks.org.

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blockade. This year, Halvorsen will do a re-enactment of those candy drops as part of the fly-over. Reportedly, there will be some adult Berliners present that were children on the receiving end of the "Candy Bombers."

The very impressive list of military aircraft includes A-10 Thunderbolt II's, an F-15C Eagle, a C-130 Hercules air-refueling tanker and an HH-60 Jayhawk. Also look for some F-14 Tomcats and F-18 Hornets, a KC-135 Stratotanker air-refueling tanker, and F-15E Strike Eagles. Ross also said the list includes a E-3 Sentry Airborne Warning and Control System aircraft, a B-52 Stratofortress, B-1 Lancer bombers, a P-3 Orion surveillance aircraft, a C-17 Globemaster transport, a KC-10 Extender air-refueling tanker aircraft, F-16 Falcon fighters, and F-117 Nighthawk stealth fighters. ☀

FFS Fundraisers

- We hope to raise \$20,000 to purchase one of the 14 pylons at the proposed Icarus monument. To learn more, please call us at 252-441-1903.
- FFS has endorsed a centennial publication showcasing all honorees of the Garber First Flight Shrine. All proceeds benefit FFS. For information or to advertise call Lisa Holian 252-441-0911.

First Flight Events 2002

"To Preserve, Protect and Maintain: Seventy-five years of the First Flight Society" Presented by the Outer Banks History Center at Roanoke Island Festival Park, this free exhibit is open daily, 10 am to 5 pm, Mon - Fri. through December. Phone 473-2655 for information.

Man Will Never Fly Memorial Society

• December 16—7 pm at Comfort Inn South, Nags Head. For information and tickets contact Capt. James Dadson, USN (Ret.) at 103 Caribbean Ave., Virginia Beach, VA 23451 Phone 757-437-0544 or 757-428-1822, e-mail flybuoy2@msn.com or visit www.manwillneverfly.com

99th Anniversary of Powered Flight

• December 17—8:30 am at the Wright Brothers National Memorial. Fly-over begins at 10:35 am. Contact 252-441-4434 or www.nps.gov/wrb for information.

• 1:00 pm FFS Luncheon and Annual Meeting, Comfort Inn South, Nags Head For tickets mail \$25 per person, to FFS, P. O. Box 1903, Kitty Hawk, NC 27949.

• 7:00 pm—Wright Brothers' Anniversary Ball, Ramada Inn, Kill Devil Hills. Formal/Mess Dress. For tickets mail \$125 per person, to FFS, P. O. Box 1903, Kitty Hawk, NC 27949.

Icarus International Art Exhibition and Competition Throughout

December—Glenn Eure's Ghost Fleet Gallery and Seaside Art Gallery in Nags Head. For information contact www.icarusinternational.com or phone 252-441-6584.

First Flight Society Membership Application

Members of the First Flight Society come from all walks (or flights) of life, but we all share a common bond: our love of aviation. The purpose of the society is to foster and promote a public awareness of, and widespread interest in, the origin, history and future of flight, in all its forms, and to memorialize Orville and Wilbur Wright, first in the world to successfully achieve powered flight in a heavier-than-air machine, December 17, 1903, near Kill Devil Hill, at Kitty Hawk, North Carolina. Join us by completing the information below and mailing your membership check made payable to the First Flight Society.

Name _____, Address _____,

City, _____, State _____, Zip _____ Phone _____, E-mail _____

(Mail to The First Flight Society, P. O. Box 1903, Kitty Hawk, NC 27949)

\$35.00 Renewal \$35.00 New Member \$50.00 Family \$200.00 Business \$350.00 Lifetime Members



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