

Luxury Aloft in the Queen of the Skies

Creating airplanes that are bigger and faster than anything else developed to date is the hallmark of the aviation manufacturing industry. Providing greater lift capacity with shorter hauling times is what drives outfits like Boeing and Air Bus. But in days gone by, one company not only created something bigger and faster with a heavier lift capability, it was also beautiful to look at: **the Lockheed Constellation**.

This four engine aircraft with a pressurized cabin boasted a host of innovations that were needed to help with the war effort in the 1940s. She first took flight on January 9, 1943, and any of those innovations positioned the "*Connie*" to smoothly transition into post-war commercial aviation and make air travel the modern mode of transportation. storied. Beginning as a military prototype, the potential commercial applications were clear even from the start. Her S-shaped hull design made it appear that it was almost flying even when it was parked on the tarmac. The *Connie* launched the notion of transoceanic and transcontinental commercial flights, ushering in the era of global travel for both business and pleasure. She was also the first passenger airplane that could fly from Paris to Los Angeles non-stop!

Past Chairman of the MASM Board of Director Al Mundo was among the aviation elite who piloted this beautiful airliner. He attests not only to the airworthiness of this ship, but also to the level of luxury that both passenger and crew enjoyed while flying in them. After his US Air Force service, Al flew thirtyfour years for Trans World Airlines, ending his career

The evolution of the airframe design was long and

with 20,000 hours as an international pilot in a Boeing 747. But despite the power and luxury of aircraft in the jet age, he still holds fond memories of the Connies.

The earliest military model was the C-69, then later the US Air Force C-121, while the US Navy called them "Willie Victors." After fifteen years of production with changes and alterations that would satisfy both military and commercial customers, Al Mundo said the final Constellation edition identified as the 1649-A was, "one *sweet* handling aircraft."

Innovative design elements included spreading the rudder load over three relatively short rudders, allowing the airplane to fit comfortably into cramped existing hangars at the time. The extended nose gear helped prop the plane up on the tarmac in order to keep the propellers from touching the ground. The leading edges of the wings, rudders and horizontal stabilizers were equipped with ice-breaking bladders that allowed the airplane to de-ice in flight. But the biggest innovation for the comfort of passengers was the pressurized cabin, allowing the plane to cruise at 24,000 feet. This also moved the airplane faster through thinner air, providing a real economy with fuel savings.

Probably the most distinctive feature of the airplane is the gently tapering S-shaped fuselage from nose to tail. No two bulkheads in the airframe are the same size. This creates an airframe that can easily slip through the sky, but is hard to pressurize compared to the modern tube-shaped frames of today.





From the original C-69 model, the fuselage was expanded both forward and aft of the wing in order to accommodate more cargo or passengers. The wings, basically a similar design from the World War II P-38 Lightning, were also lengthened to provide more lift. The result was a stretched Constellation that carried more and maneuvered better than ever before.

Over 800 Constellations in a variety of combinations were built by Lockheed. There were dozens of variations including some military versions that were considered combination aircraft: passenger and cargo. Of the later models, the 1649-A, only forty-four were constructed.

Every major, and even most minor, airlines had a Constellation or two in their fleet by the mid-1950s. The Connies created and maintained the trans-Atlantic market until the advent of the jet age. Even after they were surpassed in passenger service, the Constellations went on to provide great overnight freight service in many markets. Their slower speed compared to jets wasn't as critical for freight and mail being shuttled around at night.

Despite several presidents before him being ferried around the skies in airplanes, Dwight D. Eisenhower's Lockheed Constellation "Columbine II" was actually the first to brandish the designation "Air Force One." In 1953, over the skies of New York, Eastern flight 8610 was confused by a controller with Air Force flight designation 8610. AF 8610 was carrying the President of the United States. There was nearly a mid-air mishap, and hence forth all aircraft carrying the president are designated Air Force One.

September Marks 50 Year Anniversary of USCG Air Service on Cape Cod

by Lt. Billy Martin, HC-144 Pilot **Public Affair Officer Air Station Cape Cod**

Air Station Cape Cod the Early Years:

Ten Pound Island in Gloucester Harbor, MA was home to the first continuously operated Coast 'temporary use' on the unused property belonging to type was transferred from Salem to Cape Cod in 1970 the US Fisheries in May of 1925. Under the command of Lt. Cmdr. Carl Christian von Paulsen (CG Aviator #5) Ten Pound Island saw much of its use by way of apprehending rum runners during prohibition. In the beginning, the Air Station had only one borrowed US Navy plane, a Vought UO-1. By December 1926, the Coast Guard found success in aerial searches and commissioned three Loening Amphibian Model OL-5. This model was specifically built for the Coast Guard by Loening; named CG-1, CG-2 and CG-3. CG-1 and CG-3 were given to Station Ten Pound Island while CG-2 was stationed in Cape May, NJ. By 1928, those



PREVIOUS COMMANDING OFFICERS OF AIR STATION CAPE COD Taken at an Air Station Reunion in early 1990's. Left to right: ADM Louis Zumstein (USCG Ret); CAPT Paul Garrity (USCG Ret); CAPT Charles Mayes (USCG Ret); CAPT Willie Clark (USCG Ret); CAPT Richard Buttrick (USCG Ret); CAPT Robert Powers (USCG Ret); CAPT George Seamans (USCG Ret)



Sikorsky HH-3F Pelican entered service in 1967. Its twin turbine (max speed 142 knots) medium range (650 NM) amphibious specifications Guard Air Station. The Island was commissioned for extended CG offshore search and rescue capabilities. This helicopter

aircrafts flew over 1,117 hours. Each plane cost \$32,710 and was painted 'high visibility over-thewater chrome yellow', with strongly reinforced hull bottoms, keels, and special skids protecting the wingtip floats for stability and maneuverability. The planes broke new ground, opening new avenues for rescues.

Soon after, new air station guidelines were drafted and put into place by the Commandant. The guidelines outlined "...direction of saving life and property from the perils of the sea, ... searching for missing vessels and boats and for those reported to be in need of assistance, enforcing the customs and navigation laws of the United States, extending medical aid in extraordinary emergencies, assisting fishermen, and affording other kindred services where haste and speed are requisite." OL-5 crews devoted most of their time to hunting schools of fish for local fishing fleets, tracking icebergs, and conducting anti-smuggling operations. Notably, on one occasion during their law enforcement operations, an OL-5 machine gun sank 250 cases of liquor thrown overboard from a rumrunner. By 1932, with the station's success, the Coast Guard received seven more OL-5's or "Flying Lifeboats" opening the door to USCG aviation.

With little room to expand on Gloucester's Ten Pound Island and their ever-increasing workload, the Coast



New MASM Director

Tom Hiniker

Mr. Hiniker has been involved in numerous aspects of the aviation industry from his first career position out of college through today. He is a graduate of the University

of Minnesota with a Bachelor of science in Nuclear Physics. He further attended Union College, where he was awarded a Master of Science in Business Administration. His aviation related career began as an Engineer on the Aircraft Nuclear Power project at General Electric. Further engineering assignments at General Electric related to Gas Turbine development and application engineering. These assignments were followed by professional assignments in the leasing industry. Using the knowledge from the combination of finance and engineering, Mr Hiniker in 1973 founded a leasing company whose primary business was leasing business aircraft.

After the sale of the business aircraft leasing company, Mr Hiniker founded Airfund Corporation in 1984 which invested solely in commercial aircraft ranging from Regional Turboprops up to Boeing 747s. Airfund acquired approximately 100 commercial aircraft on lease to the worlds leading airlines including American Airlines, United Airlines, British Airways, SAS, Cathay Pacific and many other worldwide jet operators. During the past 12 years, Mr Hiniker has been the chief investment advisor to a German financial institution that invests primarily in Regional aircraft for European operators. He is known worldwide as an astute aircraft investor.

Mr Hiniker was a Director of the International Society of Transport Aircraft Trading (ISTAT), the largest trade group of commercial aviation. He was also Chairman of The ISTAT Foundation, the charitable arm of ISTAT. As Chairman, he initiated a scholarship program for college attendees who were focused on commercial aviation skills. Since awarding the first scholarship in 2000, the ISTAT Foundation has awarded over 350 scholarships to deserving students.

On a non business basis, Mr Hiniker is a multi engine, instrument pilot and has owned a number of single engine aircraft. He has had piloting opportunities in a wide range of aircraft which include a MIG 21, a Messerschmitt, a P-51, Sailplanes and a variety of commercial aircraft up to and including a DC-8.



U.S. Coast Guard Cape Cod Air Station from Praeger-Kavanaugh-Waterbury engineering/architects drawings dated 1966. Artist unknown

Guard built a larger and more modern facility on Winter Island, an extension of Salem Neck in Salem, MA harbor. Commissioned February 15, 1935, the Air Station had 35 men and two airplanes. During its first year as an air station, Winter Island recorded 26 medical evacuations, in addition to the duties previously mentioned. The station had soon grown to 37 aircraft, making it the second largest station on the east coast. The Air Station's most reliable plane, the OS2U Vought Kingfisher, was capable of six hours of flight time per mission. When conducting World War II coastal patrols, this capability allowed the aircrews to fight enemy submarines for hours at a time. By 1951, the Coast Guard commissioned the UF-1G Grumman Model G-64 Albatross and assigned it to Air Station Salem. The Albatross was the largest of the series of the amphibian class, designed and manufactured by the Grumman Aircraft Corporation for the military. By this time, Salem Harbor was large enough to support three seaplanes, allowing planes to take off in any direction. However, due to the Station's increase in popularity, night operations soon became hazardous. This called for the establishment of the Coast Guard Air Detachment Quonset Point, Rhode Island. Quonset Point housed one Albatross, four pilots and eight crewmen, and consisted of a very demanding schedule.

In the early 1950's, helicopters were rising in popularity. The Sikorsky HO4S *Chickasaw* was assigned to the Air Station in 1955. By 1963, the Sikorsky H-52 Seaguard, the first helicopter designed for the Coast Guard mission, was added to the Air Station in Salem. In 1967, the HH-3F *Pelican* entered service as an amphibious helicopter and extended offshore search and rescue operations. While seaplanes ushered in a new dimension to sea rescue, helicopters had the ability to hover over vessels and lift off vertically from just about anywhere, marking the beginning of an entirely new Coast Guard Aviation era.



Memorial to crew of #1432 at the entrance to Air Station Cape Cod—2/18/1979

Salem being only a water-based air unit was soon decommissioned to give way to the new Air Station Cape Cod in 1970. On August 29, 1970, the Coast guard combined its Salem, MA and Quonset Point, RI air bases to the grounds of the Massachusetts Military Reservation on Cape Cod.

Air Station Cape Cod's original assets consisted of the *Pelicans, Seaguard* helicopters, and the *Albatrosses.* The HH-52s were eventually replaced in the early 1980's by the HH-60 *Jayhawks*. During the station's first 20 years of operation, the crews saved approximately 2,400 lives, including 37 from the sinking Russian ship, *Komosomolets Kirgizzii*, in March 1987. For their heroics, the crews of the three helicopters were invited to the White House for a Rose Garden ceremony where they were personally thanked by President Ronald Regan.



Theodolite

A theodolite is a useful tool for measuring distance. While it is best known for work in land surveying, it was also used by the British bombers during World War II known as <u>The Dam Busters</u> to verify the airplane's precise elevation above the water. Once established this was transferred to spot lights under the

planes that told them their exact height above the water. This was essential in order to drop a large cylindrical bomb that skipped along the top of the water then sank to the base of the dam being bombed. At depth it would then detonate. The Massachusetts Air and Space Museum is grateful for the recent information on this precision instrument from John Wood.

In 1982, the HH-25 *Guardians* also known as *The Falcon* reached the Cape, retiring the *Albatross*. The last Albatross, retired on March 10, 1983, is now proudly on display at the entrance to the Air Station. From October 28, to November 1, 1991, Air Station Cape Cod participated in arguably some of the most famous sea rescues. The unnamed hurricane grouping later known as the "Perfect Storm" famously portrayed in Sebastian Junger's Book, and later movie *The Perfect Storm*, decimated the North Atlantic fishing fleet. The Air Station responded to 12 search and rescue cases, five of which were vessels taking on water, in need of evacuation. This included the S/V *Satori*, later renamed the *Mistral* in the movie.

In 2006, the Coast Guard received the first HC-144A *Ocean Sentry,* also known as the *Casa.* By 2008, Air Station Cape Cod received its first *Casa* and an additional hangar was built to house the larger plane. The *Casa* soon replaced the *Falcon* as the Cape's medium-range search and rescue plane. Since 2008, the remaining *Falcons* have been phased out by the *Casa* and the Air Station boasts a fleet of several *Jayhawk* MH-60 helicopters and HC-144 *Casa* planes. Although the actual date for the 50th Anniversary will be in August, the Air Station plans to celebrate with the community later in the year to abide by social distancing regulations and keep everyone safe!



President Eisenhauer had commissioned the development of a string of US Air Force stations that were deployed roughly eighty to one hundred miles out to sea. Known as Texas Towers, these metal platforms were the first Air Force facilities ever constructed in a naval shipyard. The triangle platforms were mounted on stanchions anchored in the seabed, much the same as Texas oil drilling rigs. Each consisted of a multi-story structure that housed equipment and men. The North Truro Air Station supported operations at Texas Tower #2 located east of Cape Cod on the Grand Banks.

North Truro was the first of the twenty-four sites that comprised the Air Defense Command (ADC). These bases housed radar systems that could detect approaching aircraft from great distances. Shorebased sites like North Truro also served as the support facilities for geographically separated units (GSUs) like Texas Tower #2.

With the eventual collapse of the Soviet Union, and the evolution of advanced satellite systems to track aggressive aircraft and missiles, all but one of the Texas Towers were dismantled and bases like North Truro became obsolete. <u>Texas Tower #4</u> off the coast of Long Island fell prey to a monster storm. The stanchions embedded in the sea floor were unable to hold the tower in place, and it sank to the bottom with all hands in January 1961.

Today, the Truro site belongs to the National Parks Service and is part of the Cape Cod National Seashore. One radome and support structures remain adjacent to the park which is controlled by the FAA and used for VHF Omnidirectional Range/Tactical Air Navigation system (VORTAC). Buildings that have not yet been removed soon will be due to the heavy use of asbestos in their construction.



Texas Tower 2—North Truro Air Force Station The Ocean Platforms, U.S. Navy All Hands Magazine, Sep 1956, No. 475, page 26-27.

C.A.V.U.

Most people familiar with aviation know that the abbreviation "CAVU" stands for "*Ceiling and visibility unrestricted*." In this recurring feature of *Horizons*, your ability to see clearly into the history of aviation will be tested through identification of flying machines that once were. The first reader who submits the correct answer will be entitled to bragging rights and have their name and answer published in the subsequent edition of *Horizons*. Submit your name, the name of the aircraft, the type or version (if applicable), and the country where it was manufactured to the editor-in-chief of *Horizons* at: <u>horizons@massairspace.org</u>

Here is your challenge for this edition:



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June 2020 Edition's Answer:

CASAC-101 AvioJet-Spain Two-seat jet trainer—Max. speed: 501 MPH (806 km/h) Ceiling: 42,000 ft Range: 322 miles (519 km) Dry weight: 7,716 lb (3,500 kg) Max. take-off weight: 13,890 lb (6,300 kg) Dimension: Wing span: 34 ft 9.5 in (10.6 m); length 41 ft (12.5 m); height 13 ft 11.25 in (4.25 m); wing area 215.3 sq ft (20.0 m²) Powered: one 4,700-lb (2,121-kg) thrust Garrett TFE731-5-1J turbofan Armaments: one 20-mm anon or two 0.5 in (12.7-mm) machine guns in a lowerfuselage bay, and up to 4,690 lb (2,250kg) of disposable stores Correct Answer: No one sent in the correct identification of this aircraft



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Texas Tower 4—Tragedy at Sea

AIR FORCE ONE DOCUMENTARY

Close Calls

Rockets Go Boom!

765 WITH THE T-BIRD

AN UNLIKELY GLIDER?