



Missions for America
Semper vigilans!
Semper volans!

The Coastwatcher

Publication of the Thames River Composite Squadron
Connecticut Wing
Civil Air Patrol

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SCHEDULE OF COMING EVENTS

30 MAY-Ledyard Aerospace Festival
31 MAY-01 Jun-CLC Course-HFD

03 JUN-TRCS Meeting
07 JUN-Bi-State SAREX (CT/RI)
10 JUN-TRCS Meeting-Commander's Call
17 JUN-TRCS Meeting
24 JUN-TRCS Meeting
28 JUN-Columbia Open House

04 JUL-GON Parade and Squadron Picnic
09 JUL-MIT Aero and USS Constitution-tentative
18 JUL, 2014-CTWG Golf Tournament
19 JUL-02 AUG-Nat'l Emergency Services Acad.

08-16 AUG-CTWG Encampment-Camp Niantic
23 AUG-Wing Wide SAREX-HFD

20 SEP-Cadet Ball-USCGA (tentative)
01 OCT-CTWG Commander's Call and CAC
17-19 OCT-CTWG/NER Conference
16-18 OCT-NER AEO Course at Conference
18-25 OCT-NER Staff College-New Jersey

CADET MEETING

27 May, 2014

submitted by
C/SSgt Virginia Poe

The cadets held drill at Groton airport in the uniform of the day: blues.

After drill and inspection, C/CMgt Johnstone delivered a leadership lesson on the definition and qualities of a leader.

Four cadets were promoted. Cadet Matthew Drost advanced to C/Amn. Cadets Daniel and Michael Hollingsworth were promoted to C/SSgt and Cadet Keith Trotochaud received his C/CMSgt stripes.



Mr. and Mrs. Drost present Cadet Mathews with his new insignia.



David and Mathew Poe's sister assists Maj Noniewicz in pinning C/SSgt stripes on her brothers collars.





*C/CMSgt
Trotochaud
reports.*

In a change of command ceremony, C/Capt Brendan Schultz passed command duties to C/1stLt Christian Tynan.



C/1stLt Tynan assumes his new responsibilities as he accepts the Squadron flag from Maj Noniewicz.

SENIOR MEETING

27 May, 2014

Submitted by

Maj Raoul Lufberry

The meeting was devoted to planning for the 07 June CT-RI SAREX with emphasis on the infrastructure which the Squadron will provide as host.

The topics were communications, facility room allotments, IT operations, a sign in-sign out station, and transportation from the Squadron to the flight line,

LISP MEMORIAL DAY FLIGHTS

Thames River flew five Long Island Patrol sorties over the three day Memorial Day holiday.

Sortie one on Saturday had MAJ Scott Farley as mission pilot with LTC Larry Kinch in the observer seat and LTC Rich Doucette as scanner. They reported little activity but excellent communications with Coast Guard Sector Long Island. A report of a whale sighting was made by someone on the maritime radio but its location was not given.

On Sunday, sortie two was led by LTC Tom Wisehart with LTC Steve Rocketto as observer and LTC Lief Bergey as scanner and airborne photographer. The flight departed over a thin fog bank which stretched from the Thames to the Connecticut River. Sortie Two's crew also heard a whale report but with a comment from a maritime wit that it was not surprising because whales live in the sea.

About two hours into the flight, Bergey spotted a white object in the water about five miles off New Haven harbor. The object was photographed and studied using binoculars. We then made a lower pass and used a telephoto lens before notifying the Coast Guard. Photo 1 is our best view of the object using a normal lens from patrol altitude and shooting down sun. The object was almost impossible to see when looking up sun. Photo 2 is a photo using a telephoto lens during a low altitude pass. Bergey used to be a Lockheed P-3 commander and the Navy must issue the Orion crews with super eyeballs.

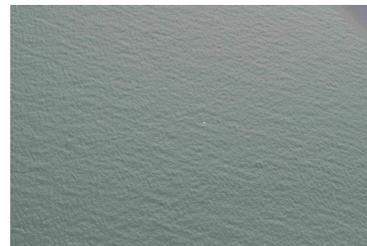


Photo 1

Try blowing up the images on your computer screen to see details.



Photo 2

At about the same time, an intermittent signal was received on the Becker direction finder on 243.0 MHz. The signal faded in and out and its direction from the aircraft kept changing and then ceased after about five minutes. The mission ended when the crew raced a thunderstorm to Groton.

In sortie three on Sunday, Bergey and Rocketto switched crew positions and MAJ Paul Noniewicz took over as mission pilot. A thunderstorm delayed the departure. Sail boating seemed to pick up in the afternoon but no maritime problems were reported within the patrol area. Noniewicz issued the crew three photos of potential targets and the scanner and observer were challenged to find them and record their geographic coordinates, a task successfully accomplished. One pass was made up the Connecticut River to Goodspeed Airport. Groton ATIS reported a two degree temperature-dew point spread and the day was cooling. As the flight returned to Groton to land, fog was forming between Groton, Westerly, and Block Island.

On Monday, TRCS flew sorties four and five. Sortie four had Maj Keith Neilson as mission pilot, Capt Ed Miller in the observer seat and LtCol Steve Rocketto as Scanner/Photographer.

The maritime radio was busy on the first day of the new boating season brought out inexperienced sailors and those whose equipment was not up to standards after a winter's lay-off.

A capsized boat put three in the water off Long Island's north shore but they were soon rescued by fellow boaters. The Coast Guard broadcast an alert and request to be on the lookout for a 45 year old man without a personal flotation devices reported adrift and then two other incidents followed in quick succession.

Another report stated that a man was missing off Norwalk between Sprite Island and Cockenoe Island. A body was recovered later.

The crew contacted the Coast Guard to offer assistance but the incidents were either out of our patrol area or quickly resolved.

Some communications difficulty occurred because of the high level of traffic. At the aircraft's cruising altitude, we could hear other Coast Guard sectors broadcasting and filtering these messages out added to the workload.

Another problem involved unfamiliarity with some of the topographical features used by boater's as references. Our maritime chart found heavy use but without an index, we could not locate some of the places. Latitude-Longitude readouts solved one problem when a series of messages referred to either Norwalk or Northport. The quality of the transmissions made the choice of location difficult but the lat-long readouts resolved the dilemma.

The last incident of the flight was a "mayday" from a 21 foot boat on the rocks near Greenwich. Within minutes, a fellow boater was on the scene and towed the stranded craft to deeper water.

One leg of the patrol took the crew up the Connecticut River.

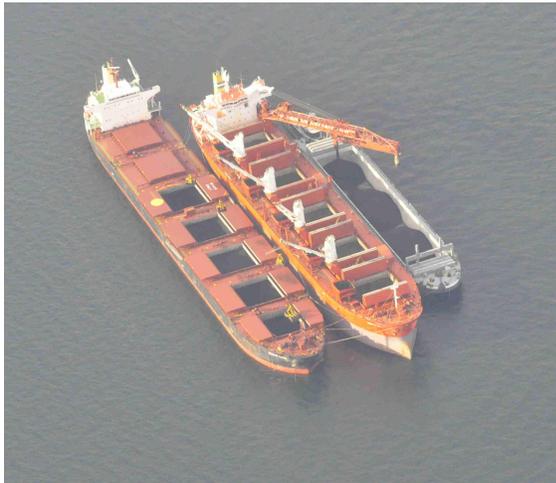
Near the end of the patrol, on the return to Groton, the crew worked on locating a practice emergency locator beacon sited east of the Connecticut River. Both wing null and Becker techniques were practiced.

Landing was expedited to beat a thunderstorm which was headed for the airport.

The last sortie of the weekend had Paul Noniewicz piloting and Rocketto as observer. Take-off was delayed waiting for the convective activity to dissipate.

Boating activity dropped off but some time was devoted to practicing aerial photography techniques and object identification.

An unusual event was photographed off Bridgeport Harbor. The bulk carriers *Ocean Lion and Barkald*, and a barge pushed by the tug *Joan Moran* were moored together. The *Barkald* is a self-discharging bulk carrier and was using its conveyor system to transfer coal to the barge. The *Barkald* was also using four deck cranes equipped with buckets to transfer coal from the *Ocean Lion* to itself.



A pass was made up the Connecticut River. Some floating debris, including two trees, were spotted.

A “pan” broadcast was made by the Coast Guard referring to the 45 year old man in the water whom we had learned about during sortie four.. Boaters were encouraged to continue the search.

The flight landed near sunset ending the first weekend of the 2014 Long Island Sound Patrols.

AEROSPACE CURRENT EVENTS

Stratofort Lives On with New Electronics Suite

The venerable Boeing B-52 Stratofortress first flown in 1955 is receiving another upgrade. The Air Force will fit the new Combat Network Communications Technology (CONNECT) system to the 70 or so B-52H aircraft still on active duty. The Air Force plans to keep the B-52 in commission for another 25 or 30 years!

Features of this new system provide data streaming received directly to the high definition navigation and attack LCD displays and the ability to change the targeting of the weaponry while in flight.

NASA LOCATES FRESH CRATER ON MARS

A NASA scientist, Bruce Cantor, was studying daily images which are sent by the Mars Color Imager when he noticed a dark spot near the Martian equator. Back-tracking through the imagery, he discovered that it first appeared between 27 March and 28 March.



(NASA_JPL Photo Credit)

AEROSPACE HISTORY

POGO BOUNCE-BACK

Maj Willi Lintelmann sent the following comment about the Convair XFY-1 which appeared in the last issue.

When I joined the Navy in March 1955, I went to boot camp in San Diego and was able to see the Pogo going up & down vertically as the Convair facility. Noisy as hell.

Another reader mentioned that we should have mentioned the Lockheed competitor to the Convair machine, the XFY-1.

Lockheed built two copies of their design. Like the XFY-1, it also had two counter-rotating propeller driven by a turbine but eschewed the delta wing for more conventional straight wings.



The Lockheed XFY-1 with its maintenance stand and boarding ladder installed. (US Navy Photo)

The first engines supplied could not produce enough power for a vertical lift off so Lockheed provided a strut mounted main gear and two tailwheels which allowed the aircraft to takeoff in a horizontal attitude. The test pilot was the well-known Herman "Fish" Salmon. The design team was led by Kelly Johnson and his "Skunk Works" colleagues.



The XFY-1 in horizontal flight displaying the gawky landing gear installed for the flight tests.

Salmon may have made a very short vertical takeoff when the aircraft inadvertently bounced on one occasion but the entire test program was flown using normal takeoffs with some transitions into the vertical mode while airborne. No vertical landings were ever made. Like its Convair companion, the concept was abandoned due to the difficulties of adopting the designs for carrier operations and the rapid development of pure turbojet carrier aircraft.

NOTES ON AIRCRAFT WITH THREE ENGINES

Part I

Pre-World War II Designs

Most multi-engine aircraft carry an even number of engines. Two and four engines are common but six, eight, and ten have been built: respectively, for example, the Boeing B-47 Stratojet, the Boeing B-52 Stratofortress, and the Convair B-36 Peacemaker. The most common variety of aircraft with an odd number of engines in the trimotor and this particular number of engines is worth examining.

As with everything in life, there is no "free lunch." The trimotor has both advantages and disadvantages. The primary advantage of the trimotor configuration is added power and added

safety. The heyday of the trimotor was the 1930s. At that time, engines were not only less reliable but also produced less power per weight than more modern designs. The larger twin engine aircraft could not maintain flight if one engine failed so designers of large transports and bombers opted for a third engine. The major disadvantages of this third power plant were increased cost and fuel consumption.

The Coastwatcher files contain a number of photos of three engine aircraft and it will be illuminating to take a look at some of these aircraft and note some facts about their roles in aviation history.

The Roaring Twenties

The Fokker VIIB

The 1920s marked a period in which three well known trimotor aircraft were flown for the first time. Tony Fokker launched his F.VIIB in 1924. The aircraft has a distinguished career and was known for a number of record setting flights and one tragedy. The aircraft was derived from the single engine Fokker F.VII by using the Wright J-4 Whirlwind engine. Although the fuselage was metal, the wing was constructed of plywood and this set the stage for the tragedy previously mentioned.

As an historical aside, in 1926 with Byrd as navigator and Bennet as pilot, Byrd claimed to have made the first flight over the North Pole but there are good reasons to challenge that purported achievement based upon the performance of the aircraft and the reliability of the navigation data.



Note the Fokker name on the "Josephine Ford." Fokker did not want the aircraft mistaken for one of Ford's trimotors.

On 28-29 June, 1927, two US Army Air Service pilots, Lts. Lester Maitland and Albert Hegenberger made the first flight from the US mainland to Hawaii. Their aircraft, named *Bird of Paradise*, was an F.VIIB built by the Atlantic Division of Fokker in New Jersey and designated a C-2 by the Army. Both men rose to general officer rank in the US Army Air Force during World War Two.

In the following year, Sir Charles Kingsford Smith scored two long distance firsts. In June, accompanied by fellow Australian Charles Ulm, and two Americans, navigator-engineer Henry Lyon and radio operator James Warner, the first US-Australia crossing of the Pacific was accomplished via Hawaii and Fiji. Three months later, Smith's Fokker, named *Southern Cross*, completed the first crossing of the Tasman Sea from Australia to New Zealand.



This is a replica Fokker on floats. It was built for the film "Amelia." and is on display in the Bush Pilot Museum in Sault Ste. Marie, Canada. In June of 1928, Wilbur Stutz and "Slim" Gordon flew the aircraft across the Atlantic Ocean with Amelia Earhart Putnam as their passenger. Mrs. Putnam thereby became the first woman to fly across the Atlantic.

Five aviators, Maj. Carl Spaatz, Capt. Ira Eaker, Lts Elwood Quesada and Harry Halverson, and Sgt Roy Hooe set an endurance record between the first and seventh of July in 1929. They kept their Fokker C-2A, *Question Mark*, aloft for 150 hours using a hose which was lowered from a Douglas

C-1 refueler. The hose was dropped from above and taken into the aircraft through a hatch which had been made in the top of the fuselage. Oil and food were lowered using the same system. The flight required 37 refueling and six supply transfers.

Spaatz retired as a general after serving as the Commander of Allied Strategic Bombing in Europe and the first Chief of Staff of the USAF. Gen. Eaker commanded the 8th AF in Europe and served as Commander-in-Chief of the Mediterranean Allied Air Forces. Lt. Gen. Quesada led the 9th Tactical Air Force in Europe and was instrumental in developing many of the techniques used in close air support. After the war, Quesada served as the first commander of the Tactical Air Command and he was the first administrator of the Federal Aviation Administration. Sgt Hooe rose to MSgt. He received the Distinguished Flying Cross for his role in the endurance flight and during the course of his career served as crew chief for Billy Mitchell, Charles Lindbergh, and Amelia Earhart. Hooe was honored by induction into the Airlift/Tanker Hall of Fame.

But all was not glory for the Fokker F.VIIB. In 1931, an enlarged version of the VIIB, the F.10A flying as Transcontinental and Western Flight 599 crashed near Bazaar, Kansas. All eight aboard were killed but one of the passengers was Knute Rockne, the coach of the Notre Dame football team and one of the most well known and beloved figures in the United States. The crash occurred because moisture had weakened the plywood laminate of one of the wings which led to structural failure. The Fokker fleet was grounded and the air transport industry developed new standards to improve safety.

The Ford 4-AT

During the “roaring twenties,” a young aircraft designer named William Stout experimented with all metal construction of aircraft and formed the Stout Metal Airplane Company in 1922.

Two years later, the company was purchased by the Ford Motor Company.

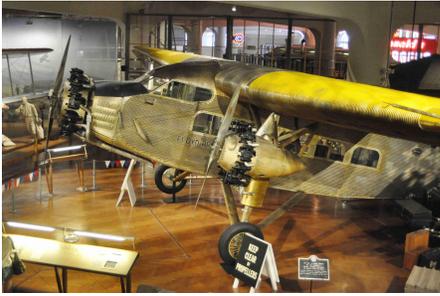
The prototype 3-AT trimotor was unsuccessful and a mysterious fire destroyed it but all of its drawings had been moved to another location on the day before the fire! The improved version which emerged from the ashes of the fire as the 4-AT, best known as the “Tin Goose” which first went aloft on 1926. A total of 199 were built including military variants for the army and navy. Some of the design stemmed from Hugo Junkers early work in metal aircraft, notably its geometry and corrugated metal skin which strengthened the fuselage. Notable were the external mounting of the control cables and the external location of engine instruments on the struts just inboard of the wing mounted engines.



A military version of the “tin goose, carrying the Navy designation RR-5 is on display at Navy's aviation museum in Pensacola.

The aircraft was noted for its toughness and after its retirement from airline service, found a new home in the bush, servicing mines, plantations, and remote construction sites.

In September of 1929, A Ford trimotor named *Floyd Bennett*, piloted by Norwegian Bernt Balchen, arguably the greatest high latitude aviator ever, and co-pilot Harold June, accompanied by photographer Ashley McKinley and expedition leader Richard Byrd became the first aircraft to fly over the South Pole.



The Floyd Bennett is enshrined in the Henry Ford Museum in Dearborn, Michigan.



For many years, Island Airlines operated a "tin goose" out of Carl Keller Field in Port Clinton, Ohio. The schedule was billed as the shortest scheduled airline service in the world, flying commuter flights to the Put-in-Bay and Middle Bass Island airports, about 15 miles.

If a pilot is interested in a Ford type rating, the can be earned at Valle Airport in Arizona for around \$12K!

The Boeing Model 80

Boeing entered the commercial air transport business in 1928 with its Model 80. At that time, Boeing was operating its own airline and utilizing its smaller, single engine Model 40s. Boeing elected to use a high lift biplane configurations since much of its service was to "high hot" airports in the western part of the country. The aircraft was fitted out with somewhat luxurious appointments

for the 12 to 18 passengers who might fly on the 80 and the larger 80A: hot and cold running water and individual reading lamps were two such items and no extra fee came with the extra fillips!



Boeing 80 wearing United Airline markings at Seattle's Museum of Flight.

On the technical side, the smaller 80 power was provided by Pratt & Whitney Wasps with the more powerful P&W Hornets used in the 80A. Detachable wingtips were provided so that the 80 could fit into smaller hangars. Boeing has returned to a version of this methodology with its new 777X whose long wings, designed to increase fuel efficiency has folding wingtips so that it can be accommodated in available gate space.

The first female flight attendants, all registered nurses, served on the Boeing 80As. Pay was \$125 for 100 flight hours per month.

Kreutzer K-5

The little know Joseph Kreutzer Corporation specialized in small, three engine transports all named "Air Coach." In 1928, they introduced their six passenger K-5. It had a span of just under 50 feet, half that of a DC-3, about two thirds that of the familiar "Tin Goose" and a little shorter than a Beech 1900. Arizona's Navaho Airlines and Wendell-Williams Air Service in Louisiana were the only two passenger services using Air Coaches.



The only surviving Kreutzer K-5 was originally a K-2 which was successively upgraded to a K-3, K-4, and K-5 with more powerful engines. This K-5 is in Greg Herrick's Golden Wings Air Museum in Anoka County, Wisconsin.

The Years of the Great Depression

Stinson 6000B

The Stinson 6000 series first flew in 1931 when pioneer aviator Eddie Stinson still ran the company. It could carry ten passengers and was powered by the Lycoming 680, a nine cylinder radial engine. Just over 50 were built and they served with seven different airlines, only one of which, Delta, survives under its original name.



Another Golden Wings Museum exhibit, the Stinson 6000B in American Airways livery.

Junkers Ju 52/3m

The Ju 52/3m had a thirteen year production run, ceasing only with the defeat of Nazi Germany in

1945. Between 1945 and 1952, they were produced in France by Avions Amiot and in Spain by [Construcciones Aeronáuticas SA \(CASA\)](#). The aircraft was developed from a single engine design, the Ju 52/1 whose lackluster performance led to a redesign as a trimotor.

The aircraft, affectionately known as *Tante Ju* (Aunt Ju) by the Luftwaffe, gave yeoman service in a wide number of roles, chiefly as a cargo hauler and troop transport but also as a bomber, passenger aircraft, and personal aircraft of Adolph Hitler and Chang Kai-shek.

The first notable military operation was in 1936 when the German Condor Legion, a “volunteer” fighting force in the employ of the rebel General Francisco Franco, flew his African based troops to Spain which eventually led to a Nationalist victory over the Spanish Republic. The first large scale attack employing paratroopers in 1940 when the Nazis invaded The Netherlands.



The Junkers 52 is on the ramp in Pungo, Virginia at the now closed Military Aviation Museum. The combined inner flaps and outer ailerons are known as a Doppelflügel or double wing.

The '52 flew in the paratroopers in the invasion of Crete but suffered the loss of about 100 aircraft which was to have serious repercussion in the attempts to resupply Rommel in North Africa and von Paulus at Stalingrad.

Palm Sunday, 1943 was a bad day for the Ju 52 force. They were engaged in resupplying the

Afrika Corps and 24 were shot down and 35 turned back and crash landed in Sicily.

The Luftwaffe's airlift capacities failed in Russia when they could not keep the German armies trapped at Stalingrad supplied. A minimum of 300 tons of supplies were needed daily and this might require at least 150 flights each day requiring a fleet of 300 aircraft. Losses were horrendous due to Soviet air supremacy and flak. Some reports indicate that almost 300 Ju 52s were lost in the efforts to lift the siege.

When World War II ended, *Tante Ju* found employment in a number of air forces, airlines, and back-country flight operations. They even were used, once again, as bombers by the French in Indochina during the 1950s. The last Ju 52 retired from military service in 1982 after a 43 year career with the Swiss Air Force.

Stinson Model A

The Model A was built to satisfy the demands of American Airways, the forerunner of American Airlines, for an eight passenger short field aircraft which could be priced at \$35,000. The aircraft also had semi-retractable landing gear. First flown in 1934, American requested a number of modifications to their order so Delta Airlines placed the Model A in service first. After retirement from airline service, they often found further employment in the bush.



Billed as the fastest trimotor airliner in the world, a Stinson Model A undergoes maintenance at the Golden Wings Museum.

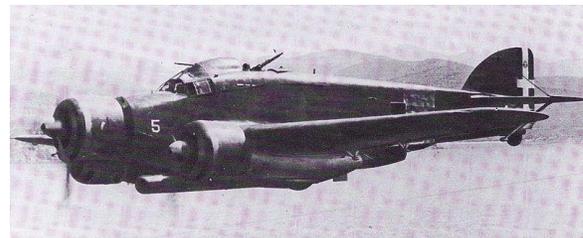
The '20s and '30s were a golden era for trimotor aircraft. Most were not covered in this article. Most notable are the Italian Caproni, Savoia-Marchetti and Cant designs and French aircraft from at least ten different companies.

Part II, Post World War Two designs will be surveyed in the next *Coastwatcher*.

A FEW TRIMOTOR PICTURES FROM OTHER SOURCES



The British Airspeed Ferry from the drawing board of Neville Norway, better known as the author Neville Shute. (PD)



*An Italian Savoia-Marchetti S.79 Sparviero (Sparrowhawk), once the fastest medium bomber in the world and known to its crew as the *gabbo maledetto* (damned hunchback).*



*A German Blohm und Voss Bv138 known as *Die Fliegende Holzschue* or "flying wooden shoe."*