



Missions for  
America

*Semper vigilans!*

*Semper volans!*

**CADET MEETING**

*12 November*

Lt Drost led a character development seminar on the attitudes which accompany the virtue of patience.

**SENIOR MEETING**

*12 November*

*Safety Brief*

Maj Noniewicz used a quiz game to open a safety discussion about winter aircraft operations. The pilots engaged in a spirited discussion about good practices for safe cold weather operations.

Maj Farley reviewed the squadron goals and with few exceptions, most have been met.

Lt Col Doucette reported that the squadron has sold 223 cases of citrus fruit and received a number of cash donations.

Publication of the Thames River Composite Squadron  
Connecticut Wing  
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Issue 13.39

12 November, 2019

**PROMOTIONS**

Nine cadets received promotions or award ribbons in the Squadron's monthly ceremony.

**SQUADRON CALENDAR**

- 19 NOV-TRCS Meeting/Aerospace
- 23 NOV-CTWG SAREX
- 26 NOV-TRCS Meeting
- 03 DEC-TRCS Staff Meetings
- 10 DEC-TRCS Commander's Call
- 17 DEC-Annual TRCS Holiday Party
- 24 DEC-All aircrews grounded to clear airways for priority cargo flight.
- 07 JAN-TRCS Staff Meeting
- 14 JAN-TRCS Commander's Call
- 21 JAN-TSRCS Meeting
- 28 JAN-TRCS Meeting



*Maj Farley congratulates C/CMSgt Martin upon receiving the Armstrong Award.*

*C/SMSgt Burton receives her new stripes.*





*C/SSgt Alexander's new insignia attached by father and Maj Farley.*

**TRAINING**

*Airborne Photography Training  
November 10, 2019*

Lt JoAnne Richards, striking for an AP qualification, completed her first practical mission with Maj Farley as pilot and evaluator. Richards planned the mission, took photographs, and successfully uploaded the imagery to the CAP website. Richards needs one more training mission to earn the qualification.

*TRCS's newest C/SrA, Noah Bosse.*



**PUBLIC AFFAIRS & COMMUNITY SERVICE**

*Groton Elks Veteran's Appreciation Night  
November 8, 2019*

Five new cadets were promoted to Cadet Airman and received the Curry Ribbon.

The Squadron assisted in serving dinner to veteran's at the annual Groton Elks Appreciation Night. Our volunteers were Cadets Minter, Wischman, Trinidad, Dibler, Schaffer, Thornell, Race, Martin and DeVea supported by Seniors Thornell and Martin.



*Cadets Ceniglio and Buchko*



*Cadets DeVea and Dibler*



*Veteran's Day in East Lyme  
November 11, 2019*



*Cadet Morse*

**QUALIFICATIONS**

Capt. Charles Johnson completed the newly instituted Form 5 competency check for operations of small unmanned aerial systems.



The East Lyme Veteran's Council sponsored a ceremony. Cadet Rathbone and a Sea Cadet led the *Pledge of Allegiance* and Cadet Martin read the poem, *Freedom Isn't Free*.

Other attendees were Cadets Thornell, Bosse, DeVeau, and Minter and Seniors Thornell and Martin

*East Lyme Middle School Celebrates Veterans  
November 11, 2019*

Lt Cols Doucette and Kinch, both retired USAF navigators, spent a day at the East Lyme Middle School. They engaged the students in two sessions of questions and answers, enjoyed an excellent lunch, and took part in the closing assembly.

### AEROSPACE CHRONOLOGY

Nov. 13, 1926 – The Schneider Trophy Seaplane Race was run at Hampton Roads, Virginia and the Italian, Major Mario de Bernardi flying a Macchi M.39 won, spoiling the U.S. chances to gain permanent possession of the trophy.



*Mario de Bernardi and the M.39 at Hampton Roads, Virginia*

*The victorious M.39 can be found at the Italian Air Force Museum, Vigna di Valle, Italy.*



Permanent possession required that a team win three races and the U.S. team were victors in the 1923 and 1925 races. Navy Lt. David Rittenhouse flew a Curtiss CR-3 at a record average speed of 177.27 mph in 1923 and Army Air Service pilot Jimmy Doolittle and a Curtiss R3C-2 posted a new record of 232.57 mph in 1925.



*Rittenhouse and the CR-3 at Cowes England  
(Credit: NASM)*

*Doolittle and the R3C-2 on Chesapeake Bay*



De Bernardi's 246.49 pushed the record even higher. And four days later, flying the same aircraft, the officials recorded a speed of 258.88 mph!

His win was a spoiler for the American racers because the 1927 and 1929 races were then won by the British pilots flying the Supermarine S.5 and S.6 designed by Reginald Mitchell who used what he learned to fashion the legendary Spitfire.



*The winning S-6B and the trophy (lower left) are now on display in the British Science Museum.*

De Bernardi flew for the *Regia Aeronautica* and was a WWI combat pilot, the first Italian credited with shooting down an enemy aircraft. He continued to set world speed records becoming the first person to exceed 300 mph. In 1931, De Bernardi, he won the world aerobatics championship held in Cleveland.

A Caproni test pilot, he piloted the N.1 experimental jet aircraft in 1940, designed by Secondo Campini who had designed his seaplane racers. The N.1, also known as the C.C.2 was a curious hybrid, using a piston engine to drive a three stage compressor which forced the air/fuel mixture into what was essentially an afterburner.



*The N.1 tail has been removed to study the combustion.*

On April 8th, 1959, De Bernadi went West. He had flown to Rome to participate in a light plane show and was engaged in demonstrating aerobatics when he had a heart attack. He managed to land the aircraft safely before he died.

#### November 14th – A Bad Day for Royal Navy Aircraft Carriers

1941

The aircraft carrier *HMS Ark Royal* sinks due after being struck by a torpedo from U-81. *Ark Royal* was an innovative design. The flight desk was an integral part of the hull rather than mounted on pylons as with previous designs. Two hangar decks, steam catapults, and arrestor gear allowed space to carry up to 72 aircraft although later modifications reduced the number to around 50 or 60.



*HMS Ark Royal and a covey of Fairey Swordfish*  
(Credit: IWM)

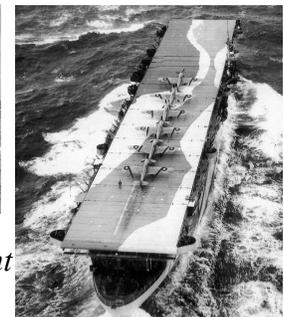
Her operational career included the hunt for the

*Graf Spee*, the Norwegian Campaign, the attack on the Vichy French fleet at Mers-el Kébir, chasing the *Scharnhorst* and *Gneisenau* when they broke out into the Atlantic convoy routes and crippling the *Bismarck*. She was sunk while escorting a supply convoy to Malta. Miraculously, only one of the 1,600 crew members were killed.

1942

A year later to the day the German submarine U-155 torpedoes and sinks the British aircraft carrier *HMS Avenger* off Gibraltar.

The *Avenger* was an Long Island class escort carrier converted from a Rio class passenger-cargo vessel just after launching. A wooden flight deck was installed with a small hangar and a single elevator. The ship had no “island,” the navigational bridge was installed under the forward edge of the flight deck. After conversion, the U.S. Navy transferred her to the Royal Navy.



*Avenger and her complement of Swordfish.*

*Avenger* was on convoy escort duty when the torpedo struck and ignited the munitions stored in the bomb magazine. The explosion broke the ship in half and she went down in under five minutes. Only a dozen or so of the crew survive out of a complement of 500 officers and men.

Nov. 15, 1965– A Boeing 707-394C makes the first polar circumnavigation of the earth. The journey, envisioned by two TWA pilots, Fred Austin and Harrison Finch from Honolulu to Honolulu would take 57 hours and 27 minutes and covered 26,230 miles. The flight made refueling stops at London-Heathrow, Lisbon, Buenos Aires, and Christchurch, New Zealand.



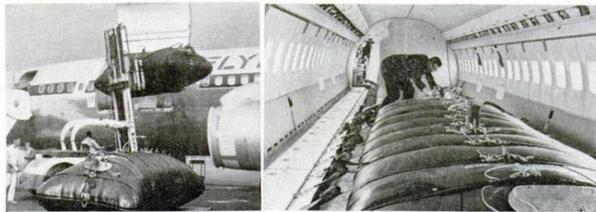
*The Pole Cat*

The aircraft, named “*Pole Cat*,” was leased from the Flying Tiger Line and carried five pilots, Captains Austin and Finch, Capt. Jack Martin, Chief Pilot of Flying Tigers Line, Capt. Robert N. Buck, TWA and an expert in aviation meteorology, and Capt. James R. Gannett, Boeing's Senior Engineering Test Pilot. John Larsen, TWA's Chief Navigator was in charge of flight planning assisted by two Flying Tiger navigators. The aircraft also carried three Flying Tiger flight engineer.



*PanAm's first DC-4 departs LaGuardia Airport as the Capetown Clipper, moored at the Marine Air Terminal, awaits retirement. (Credits: PanAm Historical Foundation)*

On April 8, 1946, a Boeing 314, *American Clipper* departed Honolulu for Mills Field, San Francisco, the last flying boat service by Pan American Airways in the Pacific.



*The bladders installed in the cargo compartment contained 4,000 gallons of jet fuel.*

Two special passengers were also aboard. Bernt Balchen, a pioneer polar aviator and the first man to fly over the South Pole and Col Willard F. Rockwell, Sr., founder of Rockwell Corporation and principal financial sponsor of the flight. Other passengers included journalist Lowell Thomas, Jr. and a groups of scientific researchers.

Nov. 16, 1945 – Pan American World Airways resumes commercial seaplane service between California and Hawaii, using Boeing Clipper aircraft it has leased to the U.S. Navy during World War II.

Alas, the age of the flying boat had passed. The war had produced hard runways and long range land aircraft like the Douglas DC-4.



*American Clipper*

Twelve 314s had been built and three lost to accidents. The of the Boeings had been leased to British Overseas Air Corporation and the last was used on the Baltimore-Bermuda route. Most were scrapped. In 1951, the last of them, the *Anzac Clipper*, was destroyed by fire in Baltimore Harbor. A romantic era had ended.

Nov. 17, 1954 – Peter Twiss, a test pilot for Fairey Aviation was flying one of two FD.2 deltas built, WG774, a transonic design and the last British aircraft to hold a world speed record. He was at 30,000 feet and 30 miles from home, the Aeroplane and Armament Experimental Establishment at Boscombe Down.



*WG774*

The engine packs up and Twiss manages to stretch his glide and dead-sticks onto the field at 170 mph. But it wasn't his day. Only his nose gear deploys and he bellies in.



*An Excellent Landing*

They say a good landing is one from which the pilot can walk away from and an excellent landing is one in which the airplane can fly again.

The damage to WG744 is serious but repairable and eight months later, the aircraft is again flying. Twiss is awarded a Queen's Commendation.



*WG774 is now on display at the Fleet Air Arm Museum, Yeovilton*

Twiss had an impressive career. Before flight school, he was an apprentice tea taster for Brooke Bond & Company. He enlisted in the Royal Navy and trained as a fighter pilot and served time as the pilot of a Hawker Hurricane mounted on a merchant ship's catapult.



The Hurricane would be launched if German reconnaissance aircraft was shadowing a convoy. After completing a mission, the pilot would ditch and be picked up by a rescue ship. During the course of the war, he not only operated from aircraft carriers but also flew night intruder missions in RAF Mosquitos.



*Carrier pilot and test pilot. Two stages in the life of Lionel Peter Twiss.*



A graduate of the Empire Test Pilots' School, Lt. Cmdr. Twiss left the Royal Navy and joined Fairey becoming their chief test pilot in 1954. He set a number of speed records and retired in 1959 after logging 4,500 hours in about 150 aircraft types.

Twiss made appearances in two movies, the speed boat driver in "From Russia with Love" and a Swordfish pilot in "Sink the Bismarck. Despite his wartime service and test pilot career, he had time for five marriages. The 90 year old Lt. Comdr. Lionel Peter Twiss, O.B.E, D.F.C. and Bar went West on August 31, 2011 leaving behind a widow and four ex-wives.

### November 18th-A Good Day for First Flights of Two Little Known Japanese Aircraft

1942

First flight of the Tachikawa Ki-77, a long range aircraft designed during WWII to connect Japan with its Axis partners in Europe. In July of 1942, a specially designed Italian Savoia-Marchetti S.M.75GA had made the eastward passage, Rome to Tokyo via Kazakhstan, Mongolia, and China and returned to Rome!

Originally built at the behest of the Asahi Shimbun newspaper for a non-stop Tokyo to New York flight, the Ki-77 was an aerodynamically clean design featuring a drag reducing laminar flow high aspect ratio wing. The war cancelled the plans for the New York flight and the military claimed the two aircraft which had been built.



*The lines of the Ki-77 recall the Republic XF-12 Rainbow, the faster four engine piston aircraft ever flown.*



*(Credit: USAF)*

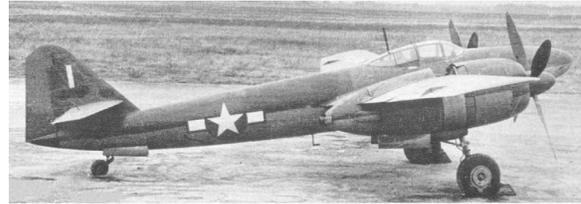
Although Japan was not at war with the Soviet Union, they did not desire to use Soviet airspace and provoke the Russian Bear so the great circle route in Soviet airspace, the shortest, was rejected.

Only one attempt was made to fly from Japan to Singapore to a German controlled airfield in the Crimea. The aircraft departed Singapore on the 7th of July, 1943 but disappeared en-route. It has been suggested that the aircraft had been intercepted by the British whom had decrypted messages about the route and timing of the journey.

Interestingly, Dr. Hidemasa Kimura, the aircraft designer, was on board a Boeing 747SP which made the first direct flight from New York to Tokyo in 1975.

1944

First flight of the Mitsubishi KI-83. The aircraft was an attempt to develop a long range interceptor but heavy bombing of Japanese industry stopped production.



*U.S. insignia was applied to appropriated aircraft.*

The USAAF seized the four that had been produced and one of them was shipped to the United States where it were evaluated and found to be a well designed high performance aircraft. Destined for the USAF Museum, the aircraft disappeared and was probably scrapped.

Nov. 19, 1940 – The Air Cadet League of Canada was established to train 12-18 year-olds for possible service in the Royal Canadian Air Force.

Post-war, the League re-evaluated its mission and modified it as conditions changed. Today their primary flight program consists of glider training and conducts over 50,000 flights per year. A six week summer program will take a cadet to his private pilot rating and about 300 cadets qualify annually.



*A tow rope is being attached to a ACLC Schweizer SGS 2-33 prior to launch.*

In general, CAP and the Canadian programs are similar although squadron leadership in Canada is provided by serving members of their armed forces.

Thames River was honored to host the 173rd Royal Tigers on their visit to southeastern Connecticut several years ago. The “Tigers” are from the plains of Ontario and one of the highlights of their trip was to view the Atlantic Ocean.

The Royal Tigers also visited the Coast Guard Academy, the Department of Oceanography, UConn, Avery Point, and the U.S. Submarine Base.

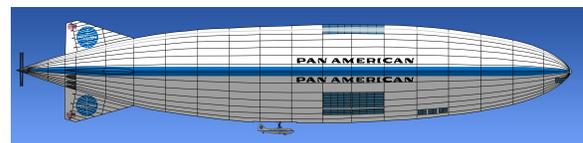
**SOME HIGHLIGHTS FROM LT COL ROCKETTO'S RECENT TOUR OF EUROPEAN AVIATION MUSEUMS**



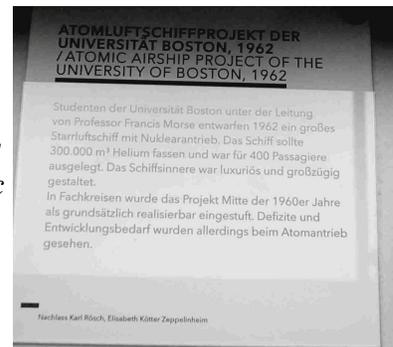
*The Italian Air Force Museum and the aeronautical origin of the Ferrari “Prancing Horse” trademark.*



*During the visit of the “Tigers,” USCGA Cadet Brendan Flynn, former Cadet Commander of TRCS was their tour guide at the Academy.*



*The Zeppelin Museum and a mention of Francis Morse's proposed atomic powered dirigible upon which Rocketto worked.*



*Maj Flynn briefs Canadian cadets on the Cessna 182.*



*The PX-8 Mésoscaphe, the world's first tourist submarine at Milan's Leonardo.*



*Aboard the USS Pittsburgh*

*The tool used to bore the Gotthard Tunnel under the Alps. If this had been available in 218 BCE, Hannibal's elephants would have had an easier time.*

