



Missions
for America

*Semper
vigilans!*

*Semper
volans!*

LAST TWO WEEKS OF THE CITRUS FRUIT SALE

Orange

Orange, sweet orange
Giggly, tickles in my belly
Giggly tickles in my Soul

A sweet embrace of warmth
Angels descend and smile
A sacred moment of wonder

A whisper, a memory
The realization that we are All
Enchanted Children of Light



by Rose Heart
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Connecticut Wing
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Issue 13.35

15 October, 2019

SQUADRON CALENDAR

22 OCT-TRCS Meeting-Earhart Ceremony
26 OCT-Flu Clinic Project-Fitch
29 OCT-Fruit Sale Ends
05 NOV-Staff Meetings
12 NOV-Commander's Call/Promotions
19 NOV
26 NOV
03 DEC-Staff Meetings
17 DEC-Annual TRCS Holiday Party

CADET MEETING 01 October, 2019

Eligible cadets were tested for the Wright Brothers Achievement

SM Minter demonstrated how to polish boots.



*He repairs roofs.
He polishes boots.
What can this man
not do?*

A cadet meeting was held to discuss promotion requirements.

08 October

Lt Drost led a character development seminar examining the concept of humility.

15 October

A leadership lesson, games, and an informational session about the upcoming vaccination clinic.

SENIOR MEETING
01 October, 2019
Staff Meeting

Department and section heads reported on the current status of their programs.

Lt Kopycienski discussed Motorola APX 4500 user training and the progress made in ICUT qualifications.

Lt Sprecase closed out the 2019 Long Island Sound Patrol mission.

Capt Johnson and SM Otrin remarked about TRCS SAREX training.

Lts Pineau and Snow updated information about the aircraft assigned to TRCS.

Lt Col Bright and Lt Richards listed the upcoming activities and outreach targets for recruiting,

Plans to qualify new pilots were briefed by Maj Neilson.

Maj Peske reminded the membership about the requirements for CPPT testing.

08 October

The officers received the monthly safety briefing and the Wing pilot meeting was reviewed.

15 October

Major Farley reviewed upcoming events.

SM Ortin presented a draft of a checklist for mission scanner duties.

Lt Kopycienski did a "show and tell" about the new Motorola APX 4500 radio.

MAINTENANCE



SM Minter reports that he used three gallons of roofing cement and 120 feet of mesh to finish the repair work on the roof.

PROMOTIONS, QUALIFICATIONS AND AWARDS

Promotions



Cadet Luis Trinidad was promoted to Cadet Technical Sergeant.



Cadet Mitchell Bury was promoted to Cadet Airman.



Cadets Olivia Busher and Joseph Busher were promoted to Cadet Airmen First Class.



Cadet Reuben Minter was promoted to Cadet Senior Airman.



Cadet Second Lieutenant Rhys Thornell completed an intermediate stage for promotion to Cadet First Lieutenant.

(Photo Credits: Major Roy Bourque)

Deputy Commander of Cadets Jennifer Thornell was promoted to First Lieutenant.



New Qualifications and Appointments

SM Jeremy Minter completed his qualification for Mission Scanner.

Lt Thomas Ceniglio has qualified as a Mission Radio Operator.

Lt Michael Kopycienski has earned the Senior Rating in the Communications Specialty Track.

Maj Scott Farley completed the Form5 testing and is CAP current as a pilot.

Capt Charles Johnson has been appointed CTWG Assistant Director of Operations of Unmanned Aircraft Systems

National Award

The Wing reported that Thames River Composite Squadron has received the Quality Cadet Unit Award for the fourth consecutive year.

Training Mission

Maj Farley and Lt Sprecace flew a training mission on Monday, the 14th. The primary purpose was practice with the G1000 search functions.

CTWG TRAINING EXERCISE

12/13 October

For the aircrew training, Capt Johnson and SM Otrin (squadron ES officers) had initially planned a number of air sorties to train for aerial photography, mission observer and mission scanner qualification. Local weather did not

cooperate with ceiling at about 1500 feet all day long. They effectively shifted to a table top exercise focusing on planning, risk assessment, SAR procedures and decision making under the scenario of a severe winter storm. Those participating in addition to Johnson and Otrin included, LTC Doucette, Majs Neilson and Farley, and SM Gauthier.

Maj Bourque ran a ground training class about knowledge needed for health and hygiene when deployed on a ground mission. Subjects covered included the prevent and treatment for hot and cold weather injuries, identification of natural hazards, actions taken if lost, field sanitation and hygiene, and prevention and treat of fatigue.

Cadet trainees were Bosse, Jeznach, Bury, Andrejczyk, O. and J. Busher, Alexander and Kelley.

Lt Kopycienski ran the ICUT and Mission Radio Operator Training. Lt Ceniglio opened the TRCS Comms Center for training and monitored SW-1/2. Using Tac-1, Lt Ceniglio and C/A1C Bosse passed traffic between radio stations which completed Cadet Bosse's ICUT practical. C/MSgt Burton, a qualified MRO, supervised Bosse's training.

Lt Ceniglio continued his MRO training by simulating communications between plane and ground using separate radios within the TRCS trailer and passing traffic from the table top exercise to mission base. The scenario involved a search for a missing person and find and rescue.

SCARECROW FESTIVAL

Lt JoAnne Richards organized the Squadron's participation in Preston's annual fall fair.

Major Bourque explains the principle of a jet engine using a working model,





Youngsters use our STEM robots in an attempt to retrieve packets of candy.

Fifteen Squadron members worked different shifts: Cadets Andrejczyk, Busher, Jeznach, Martin, Munzner, Race, Thornell, Trinidad, and Wischman and Seniors Members Bourque, Cantwell, Drost, Richards, Sprecace, and Thornell.

GROTON FALL FESTIVAL

*submitted by
Major Scott Farley*

It was a perfect day for the Groton Fall Festival at Poquonnock Plains Park in Groton. It started out a bit chilly but rose quickly into the lower 60s.



2Lt JoAnne Richards, C/A1C Noah Bosse, C/SrA Michael Jeznach observe 1Lt Dave Pineau as he sets up the flight simulator.



Cadet Lt Thornell instructs a young "pilot" on a flight simulator.

(Credit: Lt Richards)

The squadron was well represented, manning shifts from 0900 to 1300 and then 1300 to 1630 pm. This is part of the squadrons goal of recruitment and outreach to the community.

Lt Richards organized our team and the following Cadets worked shifts at our station: Cadets Trinidad, Bury, Wischman, Thornell, Schaffer, Munzner, and Jeznach. Senior members Cantwell, Ceniglio, Drost, Farley, Kopycienski, Peske, and Thornell supported the Cadets.

PICK OF THE LITTER

The Editor has just returned from a two week tour of airplane museums in Italy, Switzerland, and Germany. Each of the following sections depicts the choice of one aircraft or display from each of the museums. Choices were difficult and the criteria for the decisions varied and were guided by The Editor's idiosyncratic temperament.

*Italian Air Force Museum-Vigna di Valle,, Italy
Caproni Ca.36*

Museo Storico dell' Aeronautica Militare is located on the shores of Lake Bracciano, a volcanic caldera about an hour north of Rome.



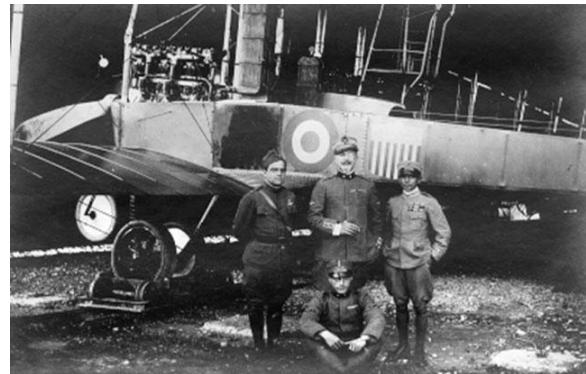
The museum has a Caproni Ca.36 which had been flown by Casimiro Buttini when he earned the Gold Medal of Valor for "exceptional gallantry." At war's end, Buttini purchased the aircraft and stored it until it was acquired by the museum in 1959.



The tri-motored aircraft, a two tractor and one pusher configuration, was produced in a number of variants and the designations are confusing because Caproni re-numbered them after the war. The Ca.36 is basically a slightly modified Ca.3 with a different cockpit arrangement and removable outer wing panels to save storage space. The aircraft carried a crew of four, a wingspan about equal to that of the DHC-6 Twin Otter could carry a bomb load of 1,500 pounds at 80 mph over a combat range of 175 miles.

And the Ca.3 was one of the aircraft flown by Maj. Fiorello La Guardia, commander of the American Expeditionary Force contingent serving in Italy. At that time, LaGuardia was also a serving congressman so he was able to garner military support for his unit far beyond that might be possible for a mere major. He flew five missions and logged 10^h20^m of flight time, about the average for any of the pilots in his unit.

In 1941, the “Little Flower” wore two hats. He was the Mayor of New York City but also Director of the Office of Civil Defense, a federal appointment. On December 1st, 1941, LaGuardia signed Administrative Order No. 9 which “created and organized a branch of this Office of volunteers for the purpose of enlisting and training personnel to aid in the national defense of the United States, designated as the Civil Air Patrol.”



La Guardia in front of Caproni "The Congressional Limited" with Cambiaso Negrotto, Federico Zapelloni and Sgt.Firmani (seated)

*Volandia Aviation Museum-Malpensa Airport,
Milan, Italy
Blériot XI*

Volandia Parco e Museo del Volo Malpensa is located a short walk from Terminal 1 at Malpensa Airport. It is located in the former warehouses of the Caproni aircraft company. The museum has a Blériot XI hanging in front of an alpine mural.



The aircraft is one of the most significant aircraft developed during the first decade of heavier than air flight. Among its significant flights: Louis Blériot made the first crossing of the English Channel on July 25th, 1909. (now on static display at the the Musée des Arts et Métiers in Paris).

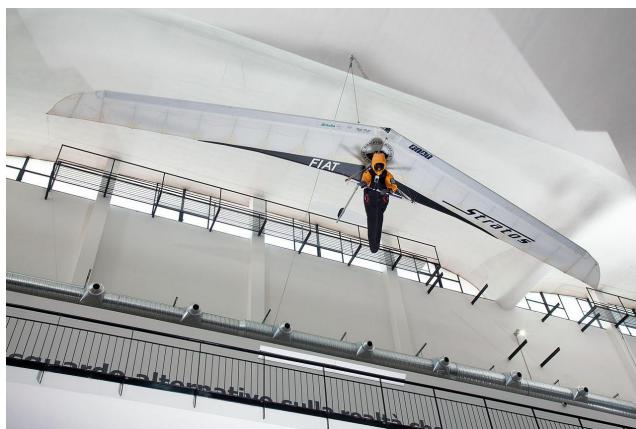
On September 27th, 1910, the Peruvian Jorge Chávez made the first aerial crossing of the Alps. The next year, 1911, the Italian Air Force used the Blériot XI to reconnoiter and bomb Ottoman positions in the Turco-Italian War in Libya.

Harriet Quimby, first licensed female pilot in the United States and on April 16th, 1912 became the first woman to fly the English Channel but was upstaged by the sinking of the RMS Titanic the day before.

Production ended at the start of World War I but by then some two dozen variants had been produced and could be found in 24 different air forces. Today, two are still flying. One is in the Shuttleworth Collection in England and the second may be viewed at the Olde Rhinebeck Aerodrome in Red Hook, N.Y.

*The National Museum of Science and Technology
Leonardo da Vinci, Milan, Italy
Icaro 2000 Stratus Hang-glider*

Italian Museo Nazionale della Scienza e della Technologia houses a small collection of aircraft. The most unusual is the Stratus glider based upon a German design from the drawing bench of Felix Ruhe.



On the 24th of May, Angelo D'Arrigo was towed to altitude by his friend, Richard Meredith-Hardy

flying a micro-light Pegasus Quantum trike equipped with a Turbo-intercooled Rotax 914 engine and a Pegasus XL wing.

Both pilots were equipped with oxygen in order to survival where the atmospheric pressure is 25% of that at sea level and special clothing to protect them from the -60 temperature.

As they neared the summit, the tow rope broke but D'Arrigo managed to make a full circuit around what the Nepalese call *Chomolungma*, Goddess Mother of the World. The 4.5 hour flight ended with a rough landing in the Khumbu Valley. New altitude records were set for both hang-gliders and micro-light aircraft.

*The Swiss Museum of Transport, Lucerne,
Switzerland*

Convair 990 Coronado

Verkehrshaus de Schweiz is a short bus ride from the main railroad station in Lucerne. Its exhibits run the gamut from land vehicles to aircraft and it is set up like a family amusement park.

If the design of the first large jet airliners in the United States was a horserace, then the tote board would list the Boeing 707 as the winner with the Douglas DC-8 and the Convair 990 taking the place and show positions. A stretched version of the Convair 880, it could carried 10% to 30% fewer passengers but could cruise 30 knots faster.



A Lockheed F-104G is visible on the left and the Museum's DC-3 can be seen under the belly of the Coronado.

A unique feature of the Coronado were the anti-shock pods on the trailing edges of the wings. They not only increased the critical Mach number

and reduced transonic drag but also served as fuel tanks. Arguably, the 990 wins the palm as the fastest non-supersonic airliner ever put into service. Records indicate that a prototype hit Mach .97, a true airspeed of 675 mph!

But the aircraft failed to meet its promise of coast to coast non-stop service and the speed differential was too small to make much difference in transit time. The *coup de grâce* was the low passenger load factor. American Airlines, the largest user of the aircraft delivered the death blow to the Coronado when it reduced its order and then sold off its fleet. Convair took a huge loss, only producing 37 airframes and abandoned the commercial jet market.

Airlines such as Swissair, Scandinavian Airlines and charter airlines adopted much of the American Airlines fleet and employed them on long-haul routes with lower load factors so the speed off-set the economic downside of fewer passenger seats.

*The Swiss Air Force Museum, Dübendorf,
SwitzerlandFlug- und Fahrzeugwerke Altenrhein
AG (FFA) P-16*

A bus ride and short walk gets you to Flieger Flab Museum located on the Dübendorf Airfield northeast of Zurich. During WWII, the airfield was the depository for foreign aircraft interned by the Swiss. About 120 B-17s and B-24s were stored there.

Shades of Igor Sikorsky. He started his career building aircraft at the The Russo-Baltic Wagon Factory. The FFA is a similar box car builder and on April 25th, 1955, the FFA P-16 made its first flight. The aircraft was the second attempt by the Swiss to produce a jet fighter.



Fighter-Bomber Ancestor of the Lear 23

The P-16 was a multi-purpose aircraft for close air support and interceptor duties. Furthermore it was also optimized for rough field and equipped with robust dual wheel undercarriage. The need to operate from short fields in the alpine valleys which dominate much of the Swiss terrain resulted in a long thin high aspect ratio wing equipped with full span Krueger flaps on the leading edges. Large Fowler flaps were installed inboard on the trailing edges and the ailerons could also function as flaps. The thin wing could not accommodate sufficient fuel so permanent tip tanks were added. These also reduced the effect of tip vortices thus reducing drag.

A pair of nose mounted 30 mm cannons were provided. Ordnance could be carried by pylons on the wings and in an internal weapons bay.

Two prototypes were produced. The one on display is the first Swiss built aircraft to break the sound barrier. One of the four pre-production aircraft was completed but it crashed and the Swiss government decided to purchase the British Hawker Hunter instead.

But the fertile mind of William Lear saw possibilities in the P-16 wing. In 1960, he moved to Switzerland and established the Swiss American Aviation Company. Dr.eng. Hans-Luzius Studer, the designer of the P-16 came on board as did Gordon Israel who had a long history of successful aircraft production. Difficulties arose which led to Lear moving the project to Wichita. The wing received a mild sweepback, enlargement, and internal structural modifications which allowed internal fuel storage but the tip tanks were retained. In 1963, the Learjet 23 took flight and established a new paradigm for business jets.



The first production Lear 23 at the National Air and Space Museum, Dulles Airport.

The Dornier Museum, Friedrichshafen, Germany
Dornier Do J Wal

The Dornier Museum has both indoor and outdoor displays exhibiting 15 aircraft. Chief among these is a replica of Wal N25 built in Hungary. The original aircraft was destroyed in an air raid in WWII.



The Wal was a twin engine flying boat mounting a tractor/pusher arrangement above a strut braced parasol wing. The hull incorporates sponsons patented by Claudius Dornier which improves the stability and take-off performance. Over 250 were built, first in Italy because the Treaty of Versailles limited aircraft production in Germany.

A number of pioneering flights were made by aviators flying Wals. In 1925, Roald Amundsen, first to the South Pole by dog sled attempted to reach the North Pole by air. He used two Wals but was unsuccessful. Both aircraft landed 250 miles short of the Pole. One aircraft, N24, was damaged. The two crews worked for three weeks to clear an ice runway, loaded both crews aboard N25 and managed to return to civilization.



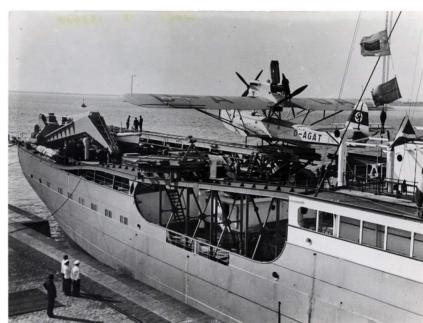
Amundsen's N25 down on the ice. (Credit: National Museum of Norway.)

In 1926, Ramon Franco and his crew made the first crossing of the South Atlantic, Spain to Buenos Aires. Their aircraft, the *Plus Ultra* is now exhibited in the Luján Museum.



Plus Ultra

Wals operated by Lufthansa also provided airmail service from Germany to South America in stages using catapult equipped ships stationed at critical way-points.



A Wal mounted on the catapult of the Schwabenland.

A Wal catapulted from the station ship Friesland.



The aircraft was produced in five different countries with around 24 variants, many just differing in engine type but some stretched to carry passengers.

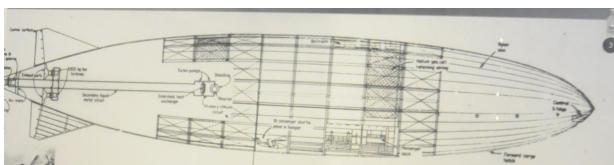
Zeppelin Museum, Friedrichshafen, Germany

The Atomic Powered Dirigible

Friedrichshafen, on the shores of Lake Constance, was the site of Ferdinand von Zeppelin's dirigible factory and the Maybach engine works so it is appropriate that the Zeppelin Museum is located on the waterfront. The museum houses a comprehensive and well laid series of airship exhibits illustrating the history of lighter-than-air flight and displaying many artifacts from famous airships such as the *Graf Zeppelin* and the *Hindenburg*.

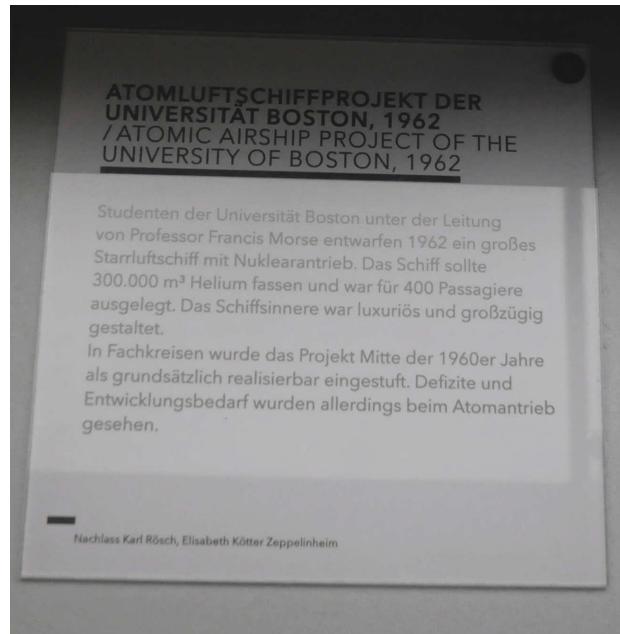
But what attracted The Editor's attention was a direct reference to a proposed airship project in which he had participated while at the Boston University School of Engineering. Professor Morse, for whom I worked as an assistant, conceived of an atomic powered dirigible. The use of helium and much improved weather predictions would mitigate most of the problems which had plagued Dirigibles in the 20s and 30s.

The airship was to be 980 feet long using laminar flow control to reduce friction. Powered would be provided by a nuclear power plant. The thrust would be provided by two 58 foot counter-rotating propellers in the stern. A hangar for recoverable shuttle aircraft would be installed. Four hundred passengers could be carried on long hauls and 1,000 for short runs.



A Drawing of Morse's Nuclear Powered Airship

Students were assigned various responsibilities such as structural design and analysis, aerodynamics, and control and stability. These were useful academic exercises and though the vessel was never realized, it was an interesting pedagogical tool.



The commentary on Morse's airship with a translation below.

In 1962, under the leadership of Professor Francis Morse, students at Boston University designed a dirigible with nuclear propulsion. The ship would contain 300,000 cubic meters of helium and would carry 400 passengers. The ship's interior was luxurious and exceptionally well designed.

In the mid 1960s, experts determined it to be realizable. However financial considerations and other requirements were seen as a problem with atomic engines.

The German Air Force Museum-Gatow, Germany Heinkel He-111

The museum, last used as an RAF base, is located a short train ride and walk from Berlin. It was the main British airport used to receive relief shipments during the Soviet siege of Berlin and the Berlin Airlift. Today, it has a wide range of indoor exhibits and aircraft and a long line of aircraft on the ramp.

When first manufactured, the He-111 was foisted off as a civil airliner to avoid Treaty of Versailles restrictions on aircraft construction in Germany. However, it was a medium bomber but served in a

wide variety of other roles. Germany turned out over 6,000 before the end of the war and afterwards the Spanish firm Construcciones Aeronáuticas SA (CASA) continued building them until 1956 and last saw combat in the Ifni War (1957-58).



The aircraft on display at Gatow was originally a Spanish Air Force CASA 2.111 but has been modified to the He-111H configuration and a World War II Luftwaffe livery. This had to be done since only four original German built He-111s exist.

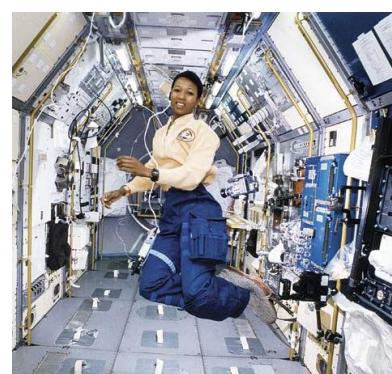
Museum curators chose to display the HE-111 hanging from the ceiling. This allows close-up studies of the ventral armament and the bomb bay. Bombs are stored vertically, nose up, which accounts for the peculiar tumble seen in pictures of actual drops. Several bombs are suspended in flight and one is visible emerging from the bomb bay. Bombs could also be carried externally. Late in the war, some of them were equipped to air launch V-1 cruise missiles.

AEROSPACE CHRONOLOGY

Oct. 16, 1952– First flight of the Sud Aviation Vautour.



The Israeli Air Force operated 31 of these medium bombers, one of which scored an air-to-air kill shooting down an Iraqi Hawker Hunter fighter.



Jemison worked on various life science experiments inside the Japanese module carried by Endeavor.

(Credit: MSFC/NASA)

Oct. 18, 1909 – Charles Comte de Lambert, Wilbur Wright's first French aviation pupil, flies around the Eiffel Tower in Paris. He departed Juvisy Aerodrome, flew to Paris and returned to Juvisy after 48 minutes.



Oct. 19, 1901– Alberto Santos-Dumont flies his dirigible *Number 6* around the Eiffel Tower and collects a FF100,000 prize.

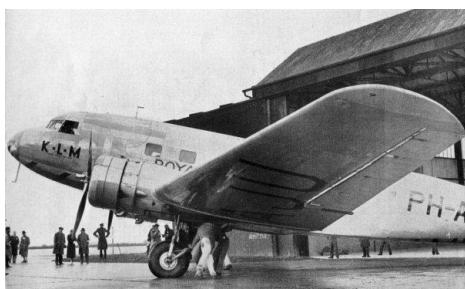


Oct 20, 1934 – The MacRobertson Air Race, 11,323 miles, from England to Australia, is won by C.W.A. Scott and Tom Black who fly a specially equipped deHavilland DH.88 Comet named *Grosvenor House* and optimized for racing. Flight time was 71 hours.



The winning Comet, named Grosvenor House still flies with the Shuttleworth Collection at Old Warden Aerodrome.

What is extraordinary is that 2nd and 3rd place in the 20 plane field were taken by commercial airliners. KLM flies a Douglas DC-2 named *Uiver* (Stork) to take second place. The airplane was captained by Dutch aviation legend Capt. Koene Dirk Parmentier. Three crewmen supported him and it was a revenue flight carrying three passengers. The flight time was 90 hours, 13 minutes.



Two months after the race, Uiver crashed near Rutbah Wells, Iraq.

A Boeing 247 placed third piloted by notable American aviators Roscoe Turner and Clyde Pangborn. The 247 logged 92 hours, 52 minutes from RAF Mildenhall to Melbourne.

The 247 is exhibited at the National Air and Space Museum on the Washington Mall.



Oct 21, 1961 – First flight of the Beguet Atlantic, a long range maritime patrol and anti-submarine aircraft.



An Italian Air Force Atlantic sits in the 20 kt westerly winds coming off Lago Bacciano.

Oct 22, 1938 – Lieutenant Colonel Mario Pezzi of Italy sets a world altitude record of 56,047 feet in a Caproni Ca.161bis. This record still stands for piston-engined aircraft.



The helmet for the pressure suit is integral to the aircraft and is just visible in the picture.



CORRECTIONS

Reader Larry Trick wrote and noted that the Martin P6M was named Seamaster, not Jetmaster.

Reader Bob Nagler, a CAP member in Naples, Florida has clarified the confusion between middle eastern nations which are predominately Shia Muslim or Sunni Muslim. Iran and Saudi Arabia are not both Shia as implied in the article about the flight of the Tu-22 bomber. He states that "The fractious nature of the two countries is worsened by religious differences because Iran is largely Shia Muslim, whereas Saudi Arabia sees itself as the leading Sunni Muslim power. They are certainly not both Shia as implied in the article.