



Missions for  
America  
*Semper vigilans!*  
*Semper volans!*

## The Coastwatcher

Official Publication of the Thames River  
Composite Squadron  
Connecticut Wing  
Civil Air Patrol  
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14 March, 2017

### CADET MEETING

*14 March, 2017*

C/CMSgt Eichelberger presents a safety briefing on the Operational Risk Management System.

The Cadets continued work on rockets for the Rocketry Badge and the Commander's Cup competition.



*Cadets D. Ramsey (above)  
and C. Munzer (right) work  
on rocket details.*



### PROMOTIONS

Three cadets received their Curry ribbons and promotion to Airman.



*Cadet Munser is  
congratulated by  
Maj Farley.*



*Maj Farley  
congratulates  
Mr. Petrillo on  
his daughter's  
achievement.*



*Cadet  
Fitzpatrick  
reports to the  
Squadron  
Commander.*

### SENIOR MEETING

*14 March, 2017*

*submitted by*

*Capt. Chesley Sullenberger, US Airways (Ret'd.)*

Squadron Commander Farley presented a briefing on the fine points of water survival.

**TRANEX**  
18 March, 2017

The penultimate training exercise preparing for the USAF Operational Evaluation in April was held at the Connecticut Department of Emergency Management and Homeland Security Facility at Hartford's Brainard Field.



*(Above) Lt Col Cioffi and Maj Bourque discuss a ground team problem.*



*(Right) SM Lacoursiere works out the details of a navigation problem.*

The primary purpose of the training was to improve the coordination of the various branches of the Incident Command Staff. A secondary purpose was training ground teams and air crews. Two remote sites also participated. An aircrew from Danbury-Oxford flew and Ice Patrol Mission and a CAP ground team practiced inter-agency communications with the New Fairfield Volunteer Fire Department and the Region Five State Police.



*Major Roger Malagutti, Maj Neilson, and Lt Col deAndrade decide mission priorities.*

TRCS attendees were C/CMSgt Hannah Ramsey, C/SMSGT Benjamin Ramsey, C/TSgt Daniel Ramsey, SM Marissa Lacoursiere, Maj Roy Bourque, Keith Neilson, and Scott Farley and Lt Cols John deAndrade and Stephen Rocketto



*The Ramseys use "body blocking" to improve the directional accuracy of the L-PER radio direction finder. (Photo by Maj Roy Bourque)*

**UPCOMING EVENTS**

*08 April*

**Squadron Leadership School (SLS)** is designed to (1) enhance a senior member's performance at the squadron level and (2) to increase understanding of the basic function of a squadron and how to improve squadron operations.

*Contact: christina.paulsen@snet.net*

*15 April*

The Connecticut Rifle and Revolver Association Junior Division will sponsor a **high power rifle training clinic** at the Bell City Rifle Club in Southington. Students will receive instruction in

the operation of the AR-15 rifle and will fire the rifle at 200 yards.

The event will run from 0900 to 1300. There is no charge. This is not a CAP sponsored event but cadets are invited to participate. The entry fee is \$10. Contact Lt Steven Schmidt, Deputy Commander of Cadets to sign up.

26 March

TRCS will take the practical part of the water survival course at Waterford High School starting at 12:30.

6-7 May

**Corporate Learning Course (CLC)** SLS completion is a prerequisite for completing Corporate Learning Course (CLC). The CLC is designed to explain how a wing operates in each of CAP's major mission elements and how mission support functions support these mission elements. Armed with this knowledge, senior members can learn how they and their respective organizations can best support the wing and fulfill the corporate role of CAP..

Director: Lt Col Heather Murphy, CAP email: pdo@ctwg.cap.gov

Cost: Free

Uniform of the Day: Air Force Blues, Corporate Gray/White or CAP golf shirt/gray pants combo.

This class will be comprised of two days of on-site classes, details of which will be emailed to the students once registered.

*For further information please send an email to pdo@ctwg.cap.gov*

20 May

The annual CTWG conference will be held at Bradley International Airport and will feature seminars, expositions, and cadet activities.

Sign up at the address below.

<https://www.eventbrite.com/e/connecticut-wing-fly-in-conference-tickets-32390432656?aff=es2>

17 June

The 12th annual CTWG Commander's Cup Rocket Contest will be held at the CATO launch site, 0800-1300 in Durham Connecticut. Participation by cadets will fulfill many of the requirements for building and launching rockets for the CAP Rocketry Badge. Entry is free for both squadrons and individual cadets.

The Rules of Engagement, scoring criteria, and hints on how to build successful rockets have been sent to all squadron aerospace officers and commanders.



*Thames River  
Composite  
Squadron  
Commander's  
Cup Team-  
2014  
(Photo by Lt David  
Meers)*

## **CURRENT EVENTS**

The vernal equinox (Northern Hemisphere) occurred at 10:29 UTC on March 20th. The Sun is directly over the equator and moving north. This event marks the first day of spring. In the Southern Hemisphere, it is the first day of fall, the autumnal equinox.

The period of light and dark is equal at this time. In the Northern Hemisphere days will be getting longer until they reach a maximum around June 21st when the sun is directly over the Tropic of Cancer. The Southern Hemisphere will experience the converse.

## AEROSPACE HISTORY

### Part II

#### *Obscure Cessnas: High Wings, Single Engines, and Something a Little Different*

The classic Cessna line of high wing single engine aircraft goes back to the 1920s when 83 copies of the four seat Model A emerged from the Wichita, Kansas factory. Since the Cessna Skyhawk first flew in 1955, some 42,000 have been produced, more than any other aircraft in history. But along the way, the company has constructed a number of other single engine high wing aircraft which either flew as prototypes only or were produced in a limited production run. Let's take a look at some of them.

#### *Cessna X-210*

Not to be confused with the Cessna 210 Centurion, the 1950 Cessna X-210 was a "bird of a different feather." No reason has been found why Cessna chose the "X" prefix or the out of sequence model number. The design was an attempt to replace the Model 195 Businessliner. The X-210 used the 195 airframe and wings but replaced the 195's 300 horsepower Jacobs radial with an horizontally opposed Continental engine delivering 240 horsepower which reduced the frontal area. The wing tips and vertical stabilizer were square, rather than rounded as on the 195. This was probably a concession to production costs.



The X-210 with 60 horsepower less was significantly slower than the 195, not a

performance factor for the businesses and military who were the primary customers. As the plane reached the pre-production stage, the Korean War broke out and Cessna needed to devote its manufacturing resources to the production of the military's Model 305 Bird Dog and the X-210 was abandoned.

#### *Cessna 308*

But the 305 Bird Dog led the stillbirth of the Cessna 308. The new ship was an enlarged Bird Dog with four seats rather than the Bird Dog's two and designed to meet the military specifications for a new light transport to replace the older 190s and 195s. The engine was a Lycoming geared and supercharged engine producing 375 horsepower which delivered 60% more power than that carried by the Bird Dog.



Only one was built and when the military chose De Havilland of Canada's DHC-2 Beaver, as the new light transport, Cessna terminated the program and disassembled the aircraft.

#### *Cessna 321*

But one offspring of the Bird Dog's litter made it to limited production. The 1955 Cessna 321 was accepted by the United States Marine Corps under the designation OE-2. Its configuration was so close to the Bird Dog that it escaped the onerous requirements for certification. The similarity in design also meant that Cessna could utilize Bird Dog tooling and keep production costs down. Finally, the OE-2 was officially a 305 model change so it could be accepted with competing with other similar aircraft. Cessna's "hat trick" earned the company a production contract.



USMC OE-2 (Photocredit: Museum of Naval Aviation)

The final design which entered production used elements of the Bird Dog and the Cessna 180 to lower design and production costs. The 213 horsepower Bird Dog engine was replaced with a geared 265 horsepower power plant, a 125% increase, and a controllable pitch propeller. The aircraft needed the power since it was equipped with armor, self-sealing fuel tanks, and other military accoutrements.

The aircraft has excellent performance but only about two dozen were purchased by the Marine Corps. None are registered on the FAA data base and none seem to be in museums.

### *Cessna 160*

A 1962 product, the Model 160, was an experiment to develop a four place low-cost aircraft to fit in the market niche between the Cessna 150 and the Cessna 172. The niche was tiny. The 150 sold for \$7,500 and the 172 could be bought for \$10,000. The company's estimated price was \$8,500 and the extravagance of aesthetics and engineering elegance received little consideration in the planning.



The sole prototype was powered by a 125 horsepower Franklin engine but Cessna planned to use the same Continental 145 horse power engine used by the 172.

Flight and ground analysis of the prototype indicated that it would be financially imprudent to continue. The creation of an aircraft which would be in a position to compete with 172 sales may have been on consideration. Management decided to terminate the project. The 160 was sold to a salvage yard twelve years after its first flight.

### *Cessna 187*

In 1968, six years after the failed Cessna 160 experiment, the company attempted to develop a replacement for the 180 Skylane. The aircraft had similarities to the Cessna 177 Cardinal which was putatively offered to replace the Skyhawk. Like the Cardinal, the wings were cantilevered so no lift strut was needed. This allowed for the installation of the wide opening doors featured on the Cardinal. The general configuration strongly resembled the 177 except that the horizontal stabilator was mounted on top of the vertical stabilizer. The engine was the same as that in the Skylane.



The project came to naught. Blanking of the high mounted stabilator, a common problem with the T-tail had to be resolved. But most important, the wing, designed using a combination of the 177 and the 210 Centurion wings as patterns raised manufacturing costs to a point where the sale price of the 187 was too high and would not be competitive with similar aircraft from other companies. The single prototype was destroyed.

### *Cessna NGP*

Ten years ago, the company displayed the Cessna Next Generation Propellor (NGP) at AirVenture Oshkosh, the week-long aviation exposition and airshow put on by the Experimental Aircraft Association. The aircraft was a pilot project to explore the feasibility of future family of light planes in the traditional Cessna mold: high wing, single engine and fixed landing gear but with four doors. Once again, a plan to replace the 172 and the 182 in the Cessna line emerged. Composite materials were utilized. The engine as a Lycoming 320 horsepower engine equipped with a full authority digital engine control (FADEC). The FADEC system is a computer that replaces the throttle, manifold pressure, and propeller pitch levers with a single lever and manages all aspects of the engine operation.



Photocredit: (RuthAS)

What probably killed the NGP program was Cessna's purchase of Columbia Aircraft which already had aircraft which are within the NGP's performance parameters and price range. The single NGP is no longer registered and is presumed to be mothballed or destroyed.

*And Now for Something a Little Different*

### *Cessna 620*

Cessna's line of single engine and twin engine props and jets is well known to the private, flight school, and business sectors of aviation. Less well known is the piston powered four engine Cessna 620. It is reported that the name is an inside joke based upon the premise that the 620 is twice the airplane as the popular and well-selling 310.



Photo credit: San Diego Air & U Space Museum

## AEROSPACE CHRONOLOGY

21 March 1916-The French government authorizes the formation of the *Escadrille Americaine* (later Lafayette Escadrille) made up of American volunteer pilots.



*From left to right ; Chapman, Cowdin, Bert Hall, Thaw, Thénault (French C.O. of N124), de Laage de Meux, Norman Prince, Kiffin Rockwell, Mac Connell. Center front is the mascot, Fram.*

22 March, 1915-The U.S. Navy adopts the term "naval aviator" to replace "naval air pilot."



23 March, 2001-Space station *Mir*, after 15 years in space, is deorbited and falls to earth.



25 March, 1958-First flight of the Canadair CF-105 Arrow, piloted by Janusz Zurkowski.



*A promising design killed by a political decision*

*Mir-Before and After*



26 March, 1992-Cosmonaut Serge Krikalov, who departed from the Soviet Union, returns to the Commonwealth of Independent States having spent 313 days aboard Space Station Mir during which time, the Soviet Union dissolved.

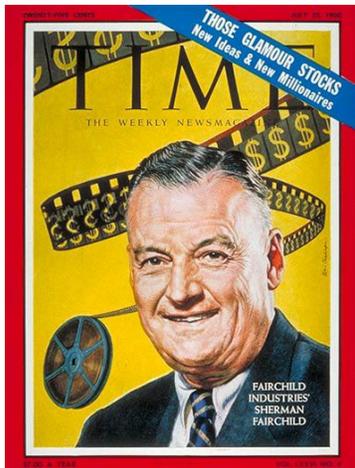
24 March, 1977-First flight of the Lockheed YC-141B, the stretched Starlifter equipped with in-flight refueling gear.



*Krikalov flew on six missions: two on Soyuz, two on the Space Shuttle, and two on the International Space Station. He has logged 803 days in space and 41 hours of extravehicular activity.*

27 March, 1977-A KLM 747 and a PanAm 747 are diverted to Tenerife's Los Rodeos Airport in the Canary Islands. The diversion was the result of the closing of Gran Canaria Airport due to a bomb explosion. Dense fog a runway incursion, and poor communications led to a collision when the KLM aircraft attempted to take off. Of the 644 people on board the two aircraft, 583 died, the worst death toll in the history of commercial aviation.

28 March, 1971-Sherman Fairchild, prolific inventor and entrepreneur goes West. Fairchild was a pioneer in aerial photography from World War I to the space age. The aircraft developed by his firm included the C-119 Flying Boxcar and the PT-19, a World War II trainer with a production run of 7,700 aircraft. Fairchild Semiconductors was a pioneer in solid state circuitry.



(Photocredit)Time Magazine Cover Archive

29 MAR, 1927-The Aeronautics Board of the Department of Commerce issues Aircraft Type Certificate Number One to the Buhl C-3A Airster.



*Buhl-Verville C-3A Airster (Public Domain)*

30 March, 1931-Boeing delivers the first 247 to United Airlines.



*United's 247D, the first modern airliner, flown by Roscoe Turner and Clyde Pangborn to third place in the MacRobertson Race, England to Australia. The winner was a DH-88 racer specifically designed for the race. In second place was a Douglas DC-2 flown by legendary KLM pilots Koene Parmentier and J.J. Moll on a regular passenger run..*



*The first and second place finishers.*

31 March, 1931-TWA Flight 599, a Fokker F-10, crashes in Kansas killing all aboard. The cause of the crash was the failure of the wood laminate wing failed. Football legend, Knute Rocke, Notre Dame coach was one of the victims. For the first time ever, the Aeronautics Branch of the Department of Commerce grounded the entire fleet of F-10s. Investigation of the disaster led to the development of the all-metal airliner.



*A photo of a TWA F-10 from the collection of aviation expert Peter Bowers.*