



Missions for America

Semper vigilans!
Semper volans!

The Coastwatcher

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

300 Tower Rd., Groton, CT
<http://ct075.org>

Lt Col Stephen Rocketto, Editor
srocketto@aquilasys.com
Lt Col John deAndrade, Publisher

C/CMSgt Michael Hollingsworth, Cadet Reporter
Lt David Meers & Maj Roy Bourque, Papparazis
Hap Rocketto, Feature Editor

Vol. IX Issue 9.38

13 October, 2015

FRUIT SALE

The annual citrus fundraiser is underway. The Squadron is selling 25 pound boxes of navel oranges, grapefruit, or mixed fruit for \$27. The 40 lb boxes are priced at \$37.

If any reader wished to purchase fruit, please make a selection and send a check, made out to TRCS-CAP to Stephen Rocketto at 928 Old Colchester Rd., Oakdale, CT 06370. He will then fill out an invoice, scan it, and return it to you. We expect delivery around the first week in December.

We have used these products for our once-a-year fundraiser for almost a decade and the oranges and grapefruit have always been excellent.

The sale ends on November 3rd.

SELL CITRUS FRUIT



**I WANT YOU
TO FIGHT SCURVY**

CADET MEETING MINUTES

13 October, 2015

submitted by

C/CMSgt Daniel Hollingsworth

Drill and inspection opened the meeting.

C/CMSgt Sitz presented a safety lesson on electricity.

Lt Drost led a character development lesson.

Cadet Ryan Schantz was promoted to C/SSgt. Cadets Hannah Ramsey and Matthew Drost were promoted to C/TSgt.



Cadets Ramsey, Drost, and Schantz report for promotion.



Respect

October 2015

| SUN | MON | TUE | WED | THU | FRI | SAT |
|------------------------|----------------|----------------------------|-----|-----------------------|-----|-----------------------|
| Sell Sell Fruit | | | | 1 OFlight | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 OFlight | 9 | 10 Groton Festival |
| 11 | 12 Columbus | 13 CDR CALL PD visit | 14 | 15 | 16 | 17 Rocket Contest |
| 18 | 19 | 20 | 21 | 22 OFlight | 23 | 24 CLC Glider Day |
| 25 Glider Day | 26 | 27 milestone nite | 28 | 29 Trumbull Speech | 30 | 31 Hallow |

6 Senior: Planning
 6 Cadet: Admin, Testing, Leadership training, open
 10 Groton Festival
 13 CC Call Cadet: Drill, CD, safety, presentatns, Promotion (Blues) Professional Dev Visit from Wing
 17 Commander's Cup Rocketry Contest
 20 Senior: training Cadet: Fitness, AE (outdoor) (PT)
 25 - Glider OFlights NJ 24/25 - Corp Lead School, Mt Fury
 27 Senior: Cadet: Drill, Milestone Award Night 7-8 (BLUES)
 29 Ft Trumbull Speech on Coast Guard 1900 Free

Integrity

November 2015

| SUN | MON | TUE | WED | THU | FRI | SAT |
|-----|-----|-----------------------------|-----|-------------|-----|-----------------|
| 1 | 2 | 3 FRUST ORDERS DUE | 4 | 5 | 6 | 7 Cadet Ball |
| 8 | 9 | 10 CC CALL | 11 | 12 OFlight | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 OFlight | 20 | 21 |
| 22 | 23 | 24 No Meeting | 25 | 26 Thnkgvng | 27 | 28 |
| 29 | 30 | FRUIT SELL END NOV 3 | | | | |

3 Senior: Planning Cadet: Testing, admin, Leadership, PT, if needed
 7 Cadet Ball
 10 CC Call Cadet: Drill, AE pres, Char Dev- Guest Speaker, Promotions (BDUs)
 17 Senior: Cadet: Safety, PT, indoor games (PT)
 24 No Meeting

Volunteer Service

December 2015

| SUN | MON | TUE | WED | THU | FRI | SAT |
|-----------|-----|------------------|-----|------------|---------|-----------|
| | | 1 | 2 | 3 OFlight | 4 | 5 UCC/TLC |
| 6 UCC/TLC | 7 | 8 CC CALL | 9 | 10 OFlight | 11 | 12 |
| 13 | 14 | 15 Party | 16 | 17 OFlight | 18 | 19 |
| 20 | 21 | 22 No Meeting | 23 | 24 | 25 Cmas | 26 |
| 27 | 28 | 29 No Meeting | 30 | 31 | | |

1 Senior: Planning Cadet: Drill, Leadership, admin, DDR/Safety (BDUs)
 5/6 UCC and Train Leader Course Camp Niantic
 8 Commander's Call/ Promotions Cadet: Drill, CD, AE, Promotions (Blues)
 15 Holiday Party (Civies)

Excellence

January 2016

| SUN | MON | TUE | WED | THU | FRI | SAT |
|-----|-----|---------------|-----|----------------|-----|-----|
| | | | | 1 New Years | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 CC CALL | 14 | 15 OFlight | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 OFlight | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 OFlight | 30 | 31 |

6 Senior Staff/Planning Cadet: Leadership
 13 Senior: Commanders Call Cadet:
 20 Senior: ES Cadet:
 27 Senior Cadet:

This schedule is not a replacement for good communications.

Other Ground Tranex O-Flight Meeting Wing National

Daniel Ramsey, Benjamin Ramsey, and Drost all received medals for their rifle marksmanship skills.



Lt Col Rocketto awards marksmanship badges to TRCS rifle shooters.

Cadets Ian Poe and Matthew Drost received marksman medals and Cadets Ben Ramsey and Hannah Ramsey received their sharpshooter badges. Cadet Daniel Ramsey advanced to the marksman first class level.

SENIOR MEETING MINUTES

06 October, 2015

submitted by

Captain Christopher Pike

Commander's Call

SM Steven Schmidt conducted a safety briefing on the conditions, effects, and mitigation of wind shear.

Lt Col John deAndrade discussed the status of the squadron goals, noted progress made, and areas needing more work. The calendar will be reformatted using larger type and the phone tree will be revamped.

Maj Paul Noniewicz reported that the Group meeting will be moving to an electronic format in the near future.

The Seniors handed in invoices for 20 cases of fruit.

The Squadron will send between four and seven Cadets to the Commander's Cup Rocketry Event on this coming Saturday.

The details for the weekend glider program on the 24th and 25th were discussed. Lt Col Rocketto and Maj Farley will drive ten Cadets, stopping at the New Jersey Aviation Museum at Teterboro Airport and then proceeding to Solberg Airport in New Jersey. Glider orientation flights are scheduled for Sunday.

The Squadron winter party on 15 December will be pot-luck.

Maj Scott Farley reported that a Wing TRANEX will be held in November. However, that does not preclude the Squadron from holding a separate exercise to train scanners and airborne photographers.

Lt Frank Crandall replaced the stairs in the supply trailer and was commended for the excellent workmanship.

Lt Col Lawrence Kinch reported that a new form, CAPF 120, will be submitted as an application for decorations.

Capt Edward Miller reported on the final tally for the summer's LISP flights.

Maj Willi Lintelmann reported that our bank balance exceeds 10K.

GROTON FALL FESTIVAL

Lt Emily Ray reported that our appearance at the Groton Fall Festival was fruitful. Presentations about the missions of CAP were made to a large number of visitors. Seniors participating were Lt Col Richard Doucette, Majors Noniewicz and Roy Bourque (and his mother, Lillian), Lts Emily Ray and Susan Poe, and SM Schmidt. The Cadets were represented by Matthew Drost, Michael and Daniel Hollingsworth, Nicholas Brouillard, and the Ramseys³, Hannah, Benjamin, and Daniel.

AEROSPACE HISTORY

Last week, the Editor flew on one of four different airlines (depending upon how you interpret their interlocking alliances from Bradley (Hartford/Springfield) to Ontario, California in order to attend the annual flocking of The Quiet Birdmen, an aviation fellowship. While there, he had an opportunity to spend some time in their library and study the history of coast-to-coast commercial passenger service.

One of the first efforts to supply a transcontinental service was a 1929 agreement among the Pennsylvania and Santa Fe Railroads and Transcontinental Air Transport (T.A.T) which would become TWA.. Travelers boarded a Pennsylvania R.R. train in New York and were conveyed to Columbus, Ohio where they transferred to a Ford Tri-Motor and were flown to Waynoka, Oklahoma. They then boarded a Santa Fe R.R. train bound for Clovis, New Mexico. At Clovis, a T.A.T. plane for Los Angeles, a 51 hour trip.



T.A.T Ford Trimotor

In 1930, Postmaster General Walter Brown, using Congressional authority to consolidate airmail service, strong-armed the air industry into establishing three separate transcontinental airmail routes. The meeting which established this new system was not only semi-secret but also included only a few "invited" airlines among which he divided up "the spoils."

A 1931 magazine article which I ran across while researching this piece made a claim of 36 hour train-plane service.



A brass paperweight celebrating the train-plane route depicts the almost straight line route of the service.



TAT is now T&WA, a 1930 forced merger by Postmaster General Walter Brown

United Airlines introduced the Boeing 247, arguably one of the first "modern" airliners and in 1933, United Air Lines started all-air coast-to-coast service in 24 hours.

Boeing reserved the first 60 aircraft for its affiliated airline, Boeing Air Transport. At that time, a holding company, United Aircraft and Transport Corporation controlled the builder,



Boeing, the user, Boeing Air Transport, and the engine maker, Pratt and Whitney.

This business strategy had unintended consequences. Jack Frye, head of Transcontinental and Western Air, the predecessor of Trans World Airlines, could not get any of the 247s so he contracted with Douglas Aircraft for a new airliner which emerged as the legendary DC-2/DC-3, series powered by Wright engines, a far superior aircraft than the 247. Only 75 Boeings were ever built but before U.S. entry into WWII, some 800 DC-3s entered airline service.



Both the Douglas DC-3 (top) and the Boeing 247 are enshrined in the National Air and Space Museum on the Mall, Washington, D.C.

In 1934, following revelations about the questionable practices used by Brown and his cohorts at what became known as the "Spoils Conference," the Air Mail Act resulted in a fairer redistribution of the routes. The Act also broke up the holding companies. Boeing and what would become United Airlines went their separate ways.

In 1935, American Airlines was promising 15 hour westbound flights and 18 hour eastbound flights in their DC-3 fleet. The flight required three stops.

As I sat considering the decrease on flight times, I thought that I had just crossed the continent in a United McDonnell-Douglas Super 80 westbound via Dallas-Fort Worth and eastbound in a Bombardier CRJ-700 and Embraer 190 via Houston. The flights averaged about 12 hours each from departures to arrivals.



McDonnell Douglas MD-82



Bombardier CRJ-700



Embraer E-190

What did this tell me about the progress of commercial passenger aviation?

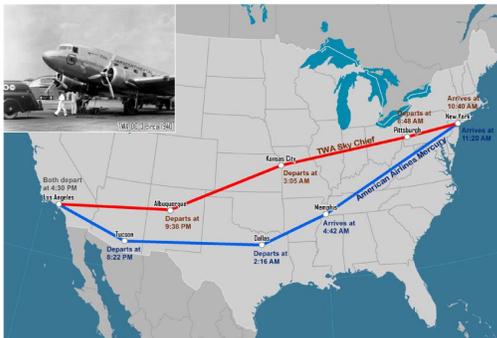
First, modern jet travel, departure to arrival is, at best, about three times faster than the train-plane journey of the 1920s, twice as fast as United's 247 service, and one and one half times faster than a DC-3!

The comparable cruise speeds are 60 mph for the plane-train, 200 mph for the 247-DC-3, and 500 mph for the jets.

This means that the jet is which is around nine times faster in speed than the train-plane completes a transcontinental trip three times faster in time. The jet manages to complete a trip in half the time of a DC-2/DC-3 but travels two and a half time faster in speed.

One might think that the jets nine times speed advantage over the train-plane would mean that the jet would complete a transcontinental trip in four hours rather than 12 hours. And its 2.5 times advantage in speed over the DC-2/DC-3 would mean a total jet travel time of six hours rather than 12 hours. Why does the modern jet not meet these expectations.

The answer is found by knowing the meaning of an old word, "airline." Airline was a railroad term meaning the straight line distance between two points, an air line. The trains and planes were followed routes as straight as possible. However, today, the modern *airlines* do not follow air lines. To ensure that each aircraft in filled to capacity, the modern carriers utilize a hub and spoke pattern. Passengers are fed into a hub from different spokes and than transferred to other aircraft. Not only does this mean that routes cover much more distance than a direct flight but that lay-overs are needed at the hub terminals adding to the total time of the journey.



1930s DC-3 Service



Current United Airlines Hub and Spoke System, a conglomeration of United and nine different United Express operators

The 1930s transcontinental route structure, as flown by American Airlines and TWA are relatively straight lines from one major terminal to another. Passengers may embark or disembark at each stop but a transcontinental passenger remains aboard. This eliminates the lay-over time for transfer to another flight. However, the number of connections were limited to a few cities compared to today.

One can still fly non-stop from coast-to-coast and the time is only around six hours from New York to Los Angeles. However, if one wishes to leave from Bradley-Hartford, you will have at least one stop at an airline hub and you are looking at a 12 hours journey time.

The vast number of cities served, larger aircraft, and the economic need for airlines to fill those seats means that transcontinental one stop time between smaller cities is about twice that of one-stop travel between major cities.

Non-stop service from Hartford to Ontario, California in jets with the necessary range cannot be economically justified. There is no free lunch. If one wants air service between minor cities, one pays in time of transit. The speed of jet aircraft is trumped by the brutal facts of economics.

AEROSPACE CURRENT EVENTS

Semi-Rigid Revival

A transcontinental trip in Goodyear's new semi-rigid airship, *Wingfoot One*, would move at the same pace, 60 mph, as the 1930 train-plane voyage noted in the previous article.

But *Wingfoot One* is Goodyear's newest advertising airship. For many years, Goodyear operated a fleet of blimps. A blimp has almost no internal structure. Its shape is maintained by the pressure in its gas cells. A semi-rigid airship has an aluminum keel and some internal graphite-reinforced plastic trusses which allow for improvements in payload, aerodynamic performance, and structural strength.



(Photo Credits: Thom Patterson, CNN)

The new airship also carries a number of features not found on previous Goodyear blimps. Engines are mounted on the envelope, not the gondola as in blimps and the propellers can be tilted from 30 degrees down to 90 degrees up. This feature and two tail mounted variable angle propellers allow much greater maneuverability.



The cockpit features a "glass" panel and improved pilot controls.

U.S. Forest Service "Air Force" Upgraded

The U.S. Forest Service maintains a fleet of federally owned and contacted aircraft to fight forest fires. This extensive fleet not only includes the familiar air tankers ("water bombers") but also smaller planes to direct and lead the tankers and aircraft to ferry supplies and drop smoke jumpers.

The Forest Service will receive seven Lockheed C-130H Hercules from the U.S. Coast Guard. The USAF will modify the aircraft and install the fire retardant tanks and dispersal valves.



Meanwhile Field Aerospace in Oklahoma City is upgrading Short SDS-300 Sherpas with an integrated flight deck and avionic systems. The new avionics will allow more precise and safer operations for the Sherpas which are used to drop smokejumpers and carry cargo. The aircraft are former Army C-23B Sherpas.



Sherpa at Redding (Photo Credit: USFS)