



Missions for
America

Semper vigilans!

Semper volans!

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

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SQUADRON CALENDAR

20 APR-Saturday Rocket Building
23 APR-TRCS on WJFF, 94.9 FM at 0700
23 APR-TRCS Meeting
27 APR-CTWG Rifle Safety and Marksmanship
30 APR-TRCS Meeting
07 MAY-TRCS Meeting-Staff
11 MAY-Saturday Rocket Building
14 MAY-TSRCS Meeting-Commander's Call
17-19 MAY-USAF Evaluation of CTWG
21 MAY-TRCS Meeting
25 MAY-Saturday Rocket Building
26 MAY-Ledyard Memorial Day Parade
28 MAY-TRCS Meeting
15 JUN-Commander's Cup Rocket Contest
22 JUN-CTWG Annual Conference
04 JUL-Groton 4th of July Parade
10-17 AUG-CTWG Encampment



*Anyone who has seen the
auto factories in Detroit
and the oil fields in Texas
knows that Japan lacks the
national power for a naval
race with America.*

*In the first six to twelve months of a war with the
United States and Great Britain I will run wild
and win victory upon victory. But then, if the war
continues after that, I have no expectation of
success.*

*I'm against war with the United States. But I am
an officer of the Imperial Navy and a subject of
His Majesty the Emperor.*

*-Fleet Admiral Isoroku Yamamoto-
Commander-in-Chief, Combined Fleet, Imperial
Japanese Navy*

CADET MEETING

16 April, 2019

Lt Col Rocketto briefed the cadets on how to read a text and take notes on important topics. The section on the planets from Aerospace Module 5 was used to provide source material. Rocketto demonstrated calculated guesses about important material during the first half of the briefing and then challenged the cadets to do likewise on the second half.

Maj Bourque explained the CAP Rocketry Badge, the Commander's Cup Rocketry Contest, and rocket building.

SENIOR MEETING

16 April, 2019

submitted by

Lt Adam Spreace

Maj Farley announced that Lt Col Rocketto and Lt Spreace will be on the Lee Elci Radio

Program,
WJFF, 94.9 MHz at 0700 on Tuesday, April 23.
The interview will discuss the mission of CAP and
the work which TRCS does in the community.
Lt Johnson presented a proposed emergency
services training schedule.

Maj Farley reviewed the results of the air to
ground communications flight flown with Lt Col
Rocketto on Thursday.

Maj Neilson explained how to use the Probability
of Detection charts to maximize the possibility of
locating the object of a search.

Maj Noniewicz identified the squadron
maintenance needs and a discussion among
the officers prioritized them.

PROMOTIONS, SERVICES, AND ACHIEVEMENTS

Radio Test and Scanner Re-qualification

Maj Farley and Lt Col Rocketto flew a scanner
qualification mission which involved determining
the quality of reception and range of the CAP FM
system using Air-1 and Statewide-2. Lt
Kopyciński operated the ground station.

Lt Schmidt Defends His Dissertation

Former Deputy Cadet Commander, Lt Steven
Schmidt defended his Ph.D dissertation on Friday
morning in the Marine Sciences building at Avery
Point, University of Connecticut.

Schmidt's research consisted of a study of the
effects of islands, shoals, and shallow water on the
distribution of river water entering Long Island
Sound.

Lt Schmidt is now gainfully employed at Sikorsky
in Stratford and has moved west and serves with
the Silver City Cadet Squadron at Meriden-
Markham Airport.



TRCS Capsters Man Commo Room at SAREX

NER/MAWG CONFERENCE

Lt Col Stephen Rocketto and about 10 other
CTWG members attended the Northeast
Region/Massachusetts Wing joint conference in
Southbridge, Mass.

Rocketto attended the general meeting as served as
Wing photographer and took photographs of
CTWG members who received region “of the
year” awards.

He also examined some of the MAWG cadet
displays which presented information about their
experiments on aerospace topics which included
parachute design, tourniquet efficacy, and wing
camber.

Finally, Rocketto attended seminars on operations
and the CAP UAV program.

CURRENT EVENTS

The aircraft with the longest wingspan ever flew
for the first time on April 13. The Burt Rutan
designed Scaled Composites Stratolaunch *Roc*,
flew for over 2.5 hours. The test pilots took it up to
17,000 feet and a maximum speed of 189 mph.



(Photo Credit: Jack Bayer)

The aircraft, under the command of test pilot Evan Thomas performed a series of maneuvers designed to evaluate the flight control system and determine response to simple flight deviations such as yaw, slips, push-overs, and pull-ups.

The crew flew from the cockpit on the right fuselage. The left fuselage houses apparatus which is part of the launch system.

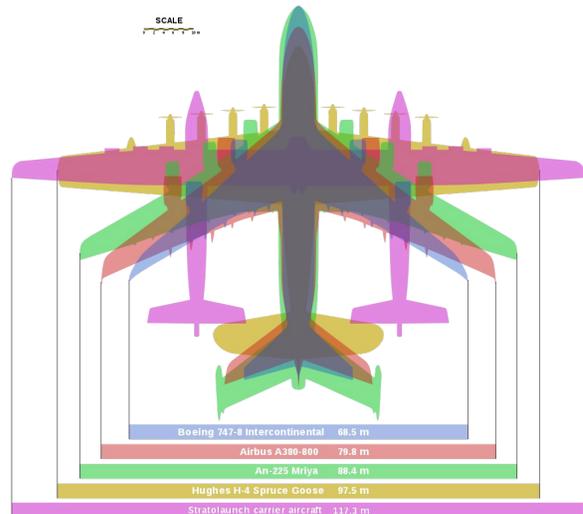
Stratolaunch is a mothership designed to carry large rockets up to 35,000 feet where they will be dropped, powered, and sent on missions into space. Its payload is on the order of 500,000 pounds.

The advantage of using the airdrop method is to save the vast amount of fuel required by a normal launch. Many rocket powered research aircraft such as the Bell X-1, the Douglas D-558-2 Skyrocket, and the North American X-15 all used this method.

Boeing P2B-1S (Navy B-29) carrying the Skyrocket Aloft.



But the dirigible Hindenburg was just over 800 feet long and 135 feet in diameter. In the fixed wing world, the Antonov An-225 Mriya, Boeing 747-8, Airbus 380-800, and Hughes H-4 are longer. To paraphrase President Clinton, "It depends on what the meaning of the word 'largest' is."



Clem Tiller's Comparison of the size of large aircraft.

Twin Fuselages

The twin fuselage is not a unique design. The 1915 Blackburn TB was a seaplane designed to intercept Zeppelins.

The Twin Blackburn



Boeing 747s were cannibalized to provide many of the components which were used in the construction. The use of engines, landing gear, avionics and electronic and electrical systems saved development money.

The claim that it is the largest aircraft ever to fly is open to argument. There is no doubt that the 385 foot wingspan is longer than any other aircraft ever constructed. If placed on a football field, the wingtips would overlap both end zones.



The size of Roc-Note the people and vehicles. (Photo Credit: Stratolaunch Systems)

Italy's Savoia-Marchetti produced a number of twin hulled flying boats during the inter-war period. In World War II, the Germans and British fiddled with twin fuselage designs. After WWII, the USAF adopted North American's F-82 Twin Mustang as a long range bomber escort and interceptors.



XP-82 Twin Mustang prototype. (Photo Credit: USAF)

The favorite of *The Coastwatcher* is the Twin Ercoupe. It was a product of some good 'ole southern boys. Brothers Grady, Richard, and Tunis Thrasher developed the aircraft as part of their eponymous Grady Brothers Aerial Circus act.



The two aircraft used each had a wing removed and then bolted together using a seven inch aluminum I-beam and four high-shear strength bolts purchased from Delta Airlines who used them on their DC-6 aircraft. Installing the control cables was a complex problem demanding ingenuity due to the placement of the widely separated control surface. The aircraft could maintain altitude on one engine and gain altitude while doing loops and Immelmans.

The Grady brothers also invented the world's shortest airport, a platform on top of a moving truck upon which they could land and take-off a Piper J-3 Cub.

The web contains a fair number of videos of the Thrasher Aerial Circus performances and are worth a search.

AEROSPACE HISTORY AND CHRONOLOGY

Fog of War Week

In his most famous work, One War, Prussian military theorist Carl von Clausewitz introduced the concept of the "fog of war." The fog of war is uncertainty in situational awareness which results in the chaos of combat. The immediate problem is one which faces the commanders in combat. However, after the dust of battle settles, the reports of what happened are not necessarily what did happen. This becomes an issue which a historian must solve. This week's chronology has a number of entries in which the fog of war obscures the facts of war.

17 April, 1991 – An unarmed USAF EF-111A Raven, crewed by Captain James A. Denton and Captain Brent D. Brandon claims a kill against an Iraqi Dassault Mirage F1EQ, when they maneuver it into the ground.



A generic Raven with wings at full-sweep

The actual Mirage claimed by Denton and Brandon.



The opening day of the Persian Gulf War aerial campaign. Denton and Brandon were tasked to protect a flight of F-15E attack aircraft using the EF-111's imposing suite of electronics: radar jamming, countermeasures receiver, and the ground mapping radar system and the electrical and cooling fittings needed to support the electronics

An Iraqi Mirage, purportedly flown by highly experienced Capt. Nafie Najim al Jabouri painted the Raven and fired a Matra R.550 missile. Denton commenced evasive maneuvers and Brandon "popped" flares to divert the infrared guided Matra. The first Matra missed and Jabouri fired his second missile. Once again flares fooled the missile so Jabour closed in for a gun kill using his twin 30mm DEFA cannons.

Denton decided to head for the deck and use the Raven's effective terrain following radar. The Mirage followed. Denton maneuvered across the desert floor and then quickly pulled up and pushed the throttles to the firewall. In the darkness below a fireball appeared. A kill seemed certain the first and only time for a member of the F-111 family.

But the Iraqis reported that Jabouri had disengaged when he detected a radar warning that another aircraft was on his tail. He then returned to base. The EF-111 was written off by the USAF a month later and the Iraqis credited Jabouri with a kill.

From the First World War on, the claims of aerial kills have been disputed. How was the Red Baron shot down? What really happened to Butch O'Hare? And did a Luftwaffe pilot really shoot down Antoine St. Exupery. The Fog of War, the uncertainty of situational awareness in the chaos of battle is a constant element of combat.

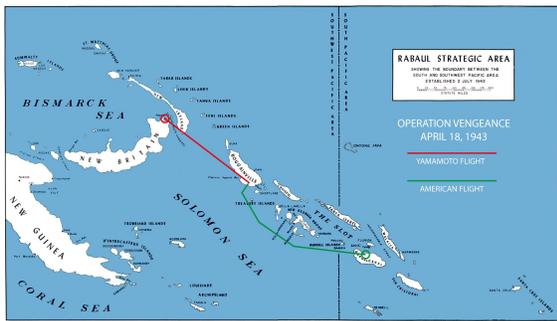
18 April, 1943 – Operation Vengeance! Magic, the name for the cryptoanalysis which allowed the United States to read some Japanese codes and a superior feat of aerial navigation results in the death of Admiral Isoroku Yamamoto, architect of the Pearl Harbor attack and Commander-in Chief of the Japanese Combined Fleets.



Harvard boy Yamamoto and Strategist Yamamoto.



Sixteen P-38 Lightnings departed Guadalcanal for the 400 mile trip to Bougainville under the command of Major John Mitchell. They arrive within a minute of the planned intercept and spot two Mitsubishi G4M Betty bombers and their Mitsubishi A6M Zero escorts. The Zeros are engaged and claims for two kills are filed but the Japanese records indicate that no Zeros were lost.



Operation Vengeance-An amazing piece of aerial navigation.

Four pilots, Capt. Thomas G. Lanphier, Jr. flying *Phoebe* and Lt. Rex T. Barber in *Miss Virginia*, and Lt. Besby F. Holmes and Lt. Raymond K. Hine were assigned as the killers. Both Bettys were shot down, one of them carrying Chief of Staff Adm. Matomi Ugaki who survived.



This Roy Grinnell painting depicts Barber in Miss Virginia shooting down Yamamoto.

After the action, an acrimonious dispute arose as to who really shot down Yamamoto's aircraft. Lanphier was credited by no witnesses could back his claim.

Eventually Lanphier and Barber were officially awarded half credits for the destruction of the bomber that crashed into the jungle (Yamamoto), and half credits to Barber and Holmes for the bomber that crashed at sea (Yanagia).



Besby, Holmes, and Barber, the three surviving pilots of the "killer flight" on the day after the mission.

When the wreckage of Yamamoto's aircraft was examined and found that the bullets had entered the Betty from the rear which countered Lanphier's claim that he had fired into the bomber from the right side after shooting down one of the escorts. Barber's claim that he had attacked from the rear threw further doubt about the original award of the kill. Yanagia also testified that he observed Yamamoto's aircraft crash after being hit from behind by a P-38.

Barber petitioned the Air Force Board for the Correction of Military Records in 1991 to have his half credit which he shared with Lanphier changed to a whole credit. The Board split and Donald B Rice, Secretary of the Air Force ruled that the half credit decision would stand. Barber then asked the U.S. 9th Circuit Court to Appeals to overturn Rice's decision but the court refused to intervene.

Doug Canning, one of the pilots who flew on the mission, wrote to Air Force Magazine in 2006 and said that Lanphier had written the official mission report and had made claims that he was the sole pilot who shot down Yamamoto. He also argued that Yanagiya's testimony strongly supported Barber's claim for full credit. Canning also stated that the P-38G flown by Lanphier did not have aileron boost which which meant that Lanier could not make the claim of a 180 degree turn which allowed him to attack the Yamamoto aircraft from the right side after shooting down the Zero. Later, the Air Force disallowed Lanphier's claim for the Zero.

Lanphier received harsh criticism from the surviving pilots as he continued to claim full credit until he died in 1987. Until his death in 2001, Barber campaigned to disallow Lanphier's claim.

Who shot down Yamamoto? With apologies to Carl Sandburg:

*The fog (of war) comes
on little cat feet.*

The Yamamoto mission raises an interesting question. President Franklin D. Roosevelt and Secretary of the Navy William Knox made an "executive decision" to "terminate" Yamamoto. Was this an act of war or a "political" assassination. The mass slaughter of nameless troops is an accepted practice but there is some debate about the deliberate decision to kill one man. The debate continues today as warring parties use precision guided munitions and cars, telephone bombs, and suicide vests eliminate specific individuals.

Incidentally, one of the cryptologists who was involved with the Yamamoto mission was a future liberal Supreme Court Justice John Paul Stevens

who wrote the majority decision in the *Kelo vs. City of New London* case. He was awarded a Bronze Star for his work with the code breakers which led to Yamamoto's death.

19 April, 1972 - Battle of Đồng Hới – For the first and only time in the Second Indochina War, U.S. warships are attacked by units of the North Vietnam Air Force. Two guided missile cruisers and two destroyers were shelling targets near the DMZ.

At least two MiG-17F Frescos carried out bombing runs. One scored a direct hit on the aft 5 inch gun turret of the destroyer *USS Higbee*. Fortunately, the turret had been evacuated when a "hang-fire" stuck in one of the barrels and there and four men on deck were wounded.. A second Fresco attacked the cruiser *USS Oklahoma City* but missed.

(Aside: The Higbee is the first navy ship named for a female, Chief Nurse Lenah S. Higbee, Superintendent of Nurses in WWI.)

The destroyer *USS Sterett* fired Terrier surface-to-air missiles and claimed one kill and one probable. The *Sterrett*, which had made the original radar detection the reported two surface craft shadowing the fleet and claimed shooting down a Styx anti-ship missile with a Terrier.

The North Vietnamese claimed both aircraft returned safely to base and the North Vietnamese Navy had not been involved. Ah! Once again, the "Fog of War" obscures the reality.



The MiG-17 flown by Nguyen Van Bay which supposedly was one of the two which flew on the attack mission is on display in Vietnam.

April 20-21, 1949 –The Amethyst Incident - The Amethyst was in transit on the Yangtze River from Shanghai to Nanking when she was fired upon by the Communist People's Liberation Army.



She grounded and suffered heavy casualties. The Royal Navy sent two ships to assist but they were driven off by heavy fire from the shore. She managed to re-float herself and moved to a more sheltered anchorage. Under fire, a Short Sunderland flying boat brought in and RAF doctor and medical supplies.



A painting depicting the Sunderland engaged in assisting the Amethyst.

The British managed to evacuate the wounded and supernumerary crewmen and Chinese assisted in getting them to Shanghai. At this point, she moved once again and Lt. Cdr. J. S. Kerans replaced the fatally wounded captain. About 65 of the crew remained aboard. The ship was besieged for three months but escaped under cover of darkness on July 30th. Videos may be found on *You Tube*.

The unlikely hero of the Amethyst Affair was Simon, the ship's cat. He was wounded during the battle but recovered and killed of a rat infestation. The British love animals and the People's Dispensary for Sick Animals awarded Simon the Dicken Medal reserved for animals which have displayed "conspicuous gallantry or devotion to duty while serving or associated with any branch

of the Armed Forces or Civil Defence Units."



Simon and his medal.

Since founded in 1943, only 70 animals have been so honored and Simon is the only cat. His citation reads for "...distinguished and meritorious service... single-handedly and unarmed stalk down and destroy 'Mao Tse-tung' a rat guilty of raiding food supplies which were critically short. Be it further known that from April 22 to August 4, you did rid HMS Amethyst of pestilence and vermin, with unrelenting faithfulness.

21 April, 1951 – On this date, the first Marine aerial victories of the Korean War were scored. Corsair pilot Captain Philip C. DeLong shoots down two Yak-9 fighters and his wingman, Lt, Harold Deigh shoots one down and damages the fourth.



DeLong landing his Corsair and a Yak-9.

DeLong was one of the few pilots who flew Corsairs both in World War II and Korea. Ranked 13th among the Marine Aces, he recorded 13

victories.



Clockwise from left: VMF-312 aviators (left to right) 1st Lt. Harold Daigh, 2nd Lt. Robert Howard, Jr., 1st Lt. Shelby Forrest, 2nd Lt. Edward Leiland and Capt. Phil DeLong celebrate a quadruple shoot-down.

22 April, 1943 – The Air Cadet Corps was made a component of the RCAF by Order-in-Council. The organization is similar to the CAP cadet program. Both organizations operate off similar syllabi concentrating of leadership, physical training, and aeronautical aviation skills. However, the program in Canada is under the direct control of the Canadian military, funded by the Department of National Defence with additional support by the civilian Air Cadet League of Canada. The adult leadership are all serving members of the Canadian Armed Forces. All normal squadron programs and summer encampments are *gratis*.



Three years ago, Thames River Composite Squadron, Civil Air Patrol (CAP), was honored when they hosted 29 members of the 173rd Royal Tiger, Canadian Air Cadets, from Trenton, Ontario. The Royal Tigers were on a week long trip and spent two days in Groton. A full schedule of activities was planned and carried out. Visits included the Submarine Base, Groton Airport, Survival Systems, and visits to the U.S. Coast

Guard Academy and University of Connecticut Oceanography laboratories.



The Royal Tigers line up with their swag from the USCGA Exchange.

The last two tours were conducted by USCG Cadet/3C Brendan Flynn, former TRCS Cadet Commander and Ph.D candidate, Steven Schmidt, TRCS Communications Officer.



Flynn directs attention to a point of interest.

Schmidt explains the features and mission of the RV Connecticut.



23 April, 1945 – The United States Navy attacks Japanese shipping in Balikpapan Harbor using the radar-guided bomb, SWOD-9 (Special Weapons Ordnance Device) Bats carried by Consolidated PB4Y-2 Privateers. The coastal defense ship Aguni was mis-identified as a destroyer and reported sunk. Once more, the “Fog of War” misleads military intelligence.



A pair of Bats mounted on a Consolidates PB4Y-2 Privateer.

Later, the missile was used to attack bridges in Burma. The radar was constantly improved and arguably, the SWOD-9 is one of the first of the U.S. military's precision guided munitions.

Interestingly, the Bat was devised by the National Bureau of Standards in cooperation with the Bureau of Ordnance, Bell Telephone, and MIT. The airframe was adopted from B.F.Skinner's aborted Project Pigeon which used pigeons trained by operant conditioning, television and a "touch screen" as the guidance system.

Nonetheless, over 2,000 were produced. The Army Air Force rejected the weapon due to inaccuracy against land targets, poor radar resolution of targets and the short range of the radar.

WICHITA MUSEUM

Several weeks ago, Lt Adam Sprecece was attending a conference in Wichita and with a scant hours to spare visited the Kansas Aviation Museum at Wichita Municipal Airport.

The Museum is housed in the former airport terminal and has an outdoor display of aircraft. Wichita was and is a center of the aircraft industry and includes Beechcraft, Boeing, Bombardier, Cessna, and Learjet.



Lear 23 in front of the old terminal now housing the museum's artifacts. (Credit: Sprecece)

The museum houses a wide range of artifacts and a aircraft and the Kansas Aviation Hall of Fame which includes such notables as Amelia Earhart, Matty Laird, Lloyd Stearman, Al Mooney and Tex Johnson.

Lt Col Rocketto visited the museum in back 2012 and was impressed with their focus on Wichita's contribution to the aviation industry and the well purposed displays.

Here are some photos which Sprecece and Rocketto took during their visits.



*Mooney Mite
(Sprecece)*

*The First Yellow
Peril
Stearman Model
73, NS-1*



*Beech's
advanced
and ill-fated
Starship
(Sprecece)*

*Lloyd Stearman's
1960s Mercedes
Diesel Sedan*



*Beech Model
73 Jet Mentor.
Only one was
built. It lost in
a design
competition to
Cessna's T-37
Tweety Bird*