

Missions for America

*Semper vigilans!*  
*Semper volans!*



## The Coastwatcher

Newsletter of the Thames River Composite Squadron  
GON  
Connecticut Wing  
Civil Air Patrol

<http://capct075.web.officelive.com/default.aspx>

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### SCHEDULE OF COMING EVENTS

#### For Future Planning

Cadet meetings normally start with drill and end with aerospace history, current events, and Commander's moment. Blues are worn on the second week of the month and BDUs at other times. Main topics may be indicated on the schedule below. See website for updates.

28 MAY-Cadet Drill and Rockets 0900-1500  
28-30 MAY-Long Island Sound Patrols  
31 MAY-Meeting

03-05 JUN-Red Cross Exercise  
03-05 JUN-CT/RI USAF Evaluation  
10-12 JUN-CTWG Mini-Encampment-Stratford

18 JUN-RST Make-Up  
19 JUN-Open Cockpit Day-NEAM  
21-25 JUN-National AEO School  
30 JUN-First draft IG evaluations due  
09 JUL-CTWG Encampment Training-Wing HQ  
09-16 JUL-RSC-McGuire AFB  
09-16 JUL-Cadet Ldrshp School-Concord, NH  
15-16 JUL-Mini-bivouac-ES and Drill  
23 JUL-07 AUG-NESA (two sessions)  
07-14 AUG-CTWG Encampment  
13-20 AUG-Reg. Cadet Ldrshp School-McGuire  
17-20 AUG-CAP National Summer Conference  
10 SEP-Multi-Squadron SAREX-Tentative  
22-24 SEP-AOPA Summit-Hartford  
22-23 OCT-CTWG Convention  
24 SET-Cadet Ball-Courtyard Marriott, Cromwell

### CADET MEETING NOTES

*24 May, 2011*

*reported by*

*C/1Lt Brendan Flynn*

The meeting commenced with a drill session. Basic marching movements were practiced.

While some cadets studied, others were evaluated on various Emergency Services tasks, including identification of natural hazards, using whistle signals, how to prevent and treat fatigue, cold weather injuries, and conducting individual refit. Maj Bourque, using a 100 meter course outside, taught cadets how to measure their pace count.

Capt Wojtcuk reminded cadets to come to the May 28 drill/rocketry day, and to wear civilian clothes with sneakers. Cadets were also told to email Maj Bourque if they are going to the June 4 SAREX.

Cadets and Capt Wojtcuk discussed plans for Tuesday the 31st's meeting. (Fifth Tuesdays are informal meetings.). It was decided go to the Wojtcuk house at 1730 hours for a sports day, or, if it is raining, a movie. Uniform is civilian clothing.

## **GLIDER FLIGHT PROGRAM**

Lt Johnny Burke, CTWG Glider Project Officer reports that the Wing has been assigned 25-26 July for flights at Van Sant Airport, Erwinna, Pennsylvania. Due to the driving distance, Eastern Connecticut Squadrons will have the option of scheduling their flights out of Springfield, Vermont later in the summer.

Cadet requirements for participation are as follows:

CAP ID card and Form 60, a weight less than 240 pounds, height not over six feet, four inches, age less than 18, no medication that would prevent operation of equipment, completion of online video Wing Runner Course on the Soaring Society of American website at

<http://www.soaringsafety.org/school/wingrunner/toc.htm>

Complete the test at the end of the presentation. Log on with the CAP ID number and last name and print the certificate.

Uniform for the event will be BDUs with sneakers (no boots) and hats.

Squadrons are asked to send a list of prospective participants with the following information: full name of cadet with rank, CAP identification number, and unit, date of last glider flight, and the syllabi numbers of the remaining glider orientation flights.

## **SENIOR MEETING NOTES**

*24 MAY, 2011*

LtCol Doucette demonstrated how to enter imagery into WIMRS.

Maj Rocketto demonstrated how to calibrate the GPS unit on the Nikon D90 camera and how to download imagery into a computer.

LtCol Kinch presented a Long Island Sound Patrol (LISP) briefing which covered what to look for, Coast Guard communication protocols, and procedures for changing mission numbers if a LISP mission turned into another mission assigned by a different agency.

Col Kinch the covered Eye on the Homeland Skies (ETHOS) missions which are primarily photo reconnaissance of strategic infrastructure. The Squadron will maintain two fully qualified ETHOS crews.

## **SENIOR RECOGNITIONS**

Maj deAndrade has completed the second phase of the Federal Aviation Administration's Pilot Proficiency Program and been awarded the Advanced Wings pin.

Maj Rocketto has been appointed to serve as a member of CAP's National Aerospace Education Leadership Team and will work on curriculum and special projects.

## **AEROSPACE CURRENT EVENTS**

### ***Court Casts Out Contractor Case***

Two decades ago, the Pentagon cancelled the contract for the Navy's A-12 Avenger aircraft which was 18 months behind schedule and one billion dollars over budget. Since that time, the government and the contractors, Boeing and General Dynamics, have disputed who is responsible for the program's demise. The government claims that the contractors owe some

3.8 billion in penalties and interest for default. The contractors claim the government owes them 1.2 billion for a termination of convenience. The Supreme Court ruled that neither side may “pass Go and collect” some billions of dollars. Since state secrets might be revealed to promote both sides of the case, The Supreme Court has ruled that both parties must return to the point which they were at before litigation began.

### ***Pakistan Returns Copter***

Last weekend, the Pakistani government returned the wreckage of the helicopter which made the hard landing in the assault on the bin Laden compound. A military spokesman said that parts have been transferred back to the United States.

### ***The Flesh are Willing but Spirit is Kaput***

NASA all too human engineers and administrators who have vainly tried for two years to get the robotic Mars explorer Spirit to “call home” had given up. After some years of successful surveying, Spirit became trapped in a path of soft ground. Its solar cells could not be aligned to fully charge its batteries to keep its heaters running and two frigid Martian winters wrote *fini* to its career. NASA official David Lavery says that the Spirit will hold an Irish wake to celebrate its remarkable life.

## **AEROSPACE HISTORY**

May 29, 1934-The Collier Trophy is awarded to the Hamilton Standard Propellor Corp. for the development of the controllable pitch propellor.



May 30, 1958-First flight of the Douglas DC-8.



*KLM DC-8 Tended by Braniff Airlines Equipment*

May 31, 1862-Thaddeus S. C. Lowe, balloon pioneer and grandfather of Pancho Barnes, assists the Union army at the Battle of Fair Oaks by warning them of an approaching Confederate force.

01 June, 1919 - The U.S. Aerial Forest Patrol is established to search for forest fires.

02 June, 1954 - Capitol Airlines purchases three Vickers Viscount turboprop airliners marking the first time that a U.S. airline purchased British aircraft.



*Retired Capitol Airlines Viscount*

03 June, 1948 - The *Chel Ha'avir* (Israeli Air Force) makes its first kills when Modi Alon, flying an S-199 *Messer*, a Czech version of the Me-109, downs two Egyptian C-47s.



S-199 D.120 with 101 Squadron Tail Markings

04 June, 1942 - The Grumman TBM Avenger makes its combat debut at the Battle of Midway.



*TBM-3E-The 'M' indicates that it was built by General Motors. This allowed Grumman's production line to concentrate on much needed Hellcat fighters. The Avenger was Flown by Ensign George H.W. Bush in World War II.*

## **BLACK HELICOPTERS!**

### *How Sikorsky Got Into the Business*

The last two editions of *The Coastwatcher* each carried an article referring to the mysterious “stealth” helicopters used in the bin Laden raid. The first article was somewhat speculative and discussed, from slim evidence, the unusual characteristics which were visible in the wreckage of the tail. The second article considered the possibility that a vortex ring state brought the helicopter to grief.

It is highly likely that the 160<sup>th</sup> Special Operations Aviation Regiment (SOAR) used some flavor of a Sikorsky MH-60. They are known to have the K, L, and M variations in their inventory. It is also highly likely that Sikorsky has been involved in developing a helicopter for them as a black project.

Here are some arguments which buttress the claim that there is something spooky in the Sikorsky corporate structure.

First, Schweizer Aircraft of Elmira, New York, became part of Sikorsky Aircraft in 2004. Now Schweizer is well known for its gliders but little known for its production of a small family of rather specialized aircraft in association with Lockheed, famous for specialized aircraft produced by its Skunk Works. So how did three brothers from rural New York fall in with the aeronautical cloak and dagger fraternity.

During the Vietnam War, the US Army and the Central Intelligence Agency were interested in procuring a light reconnaissance aircraft which had a very low acoustic footprint. Lockheed adapted Schweizer's SGS 2-32 glider and produced a series of prototypes with the generic name Q-Star. Basically, they had large, slow turning propellers, huge mufflers and a geometry which produced very little noise. Ling-Temco-Vought followed a similar path for similar reasons and built the LTV L450F, also based upon the SGS 2-32 fuselage.



*One Variant of the Q-Star*



*Wankel Powered Lockheed QT-2 Quiet Thruster*

Two QT-2s were designated QT-2PC (for Prize Crew Operational Evaluation). The one on the stabilizer indicates that this was one of the two aircraft. They were then returned to the Navy Test Pilot School, Patuxent River Md., re-designated as X-28Bs and used for training pilots yaw/roll coupling and spins. Navy interest in quiet aircraft was provoked by the noise generated by the rotors of anti-submarine helicopters which could submerged submarines could detect.

The Q-Stars evolved into the Lockheed YO-3A Quiet Star and in 1968, Schweizer subcontracted to Lockheed to build about a dozen of the acoustically stealthy aircraft. They were equipped with advanced sensors including a forward looking infrared (FLIR) system and used at night for low altitude surveillance.



*YO-3A at the Hiller Museum*

Some survived the war. Two were used by the Louisiana Fish and Game Department to hunt poachers. The Federal Bureau of Investigation operated on for a time. NASA used one for acoustic research. Interestingly, this was flown by

CAP Colonel Ed Lewis, a NASA test pilot and before his death, a very active member in the Pacific Region who had, incidentally, learned to fly as a cadet.



*USCG RG-8A Condor*

*(USCG Photo)*

While all of this *sub rosa* work was going on, Schweizer was expanding its line of aircraft and making a name producing both fixed wing and helicopters as well as components for other manufacturers.

Schweizer's relationship with Sikorsky might be traced to 1944 when Air-cooled Motors used them to build the engine housing and external cooling system for the Sikorsky R-6 helicopter. In 1981, direct relationship with Bridgeport was formed and Schweizer entered into production of UH-60 Black Hawk gunner windows.



*R-6A Hoverfly II-The First Sikorsky-Schweizer Collaboration*

In 1948, Chase Aircraft's C-122 empennage was a Schweizer product and when the C-122 evolved into Fairchild's C-123, Schweizer built the loading ramp and rudder. A year later, Bell Aircraft tendered its first contract to Schweizer for fuselage structures and then stabilizers and continued this relationship for the next half century. In 1951, the moveable control surfaces for Fairchild's C-119 came from Schweizer.

Major steps were taken by Schweizer in 1960 and 1983. In 1960, their relationship with Grumman to build tail sections for the Gulfstream I led to production of the Ag-Cat and when Gulfstream purchased Grumman's commercial line, Schweizer bought the Ag-Cat rights and developed the turbine powered variant.

In 1983, Hughes Helicopters agreed to make Schweizer the licensed manufacturer and product support source for the Model 300 helicopters which were then manufactured under the Schweizer name.

Schweizer entered the “spook” aircraft market directly in 1986 when they obtained a contract to modify their 2-37 motorized glider into a quiet surveillance and reconnaissance vehicle. Incidentally, the US Air Force Academy bought a handful of SGM 2-37s and designated them as the TG-7A.

Over time, this new vehicle morphed into the Condor family: the SA-37, the RU-37 Condor, and the RU-38 Twin Condor.



*SA 2-37A in Mexico*

*(photo by Sergio Echeverria Garcia)*



*RU-38 Twin Condor*

The -37 models were flown by the CIA, US Army, and US Coast Guard and the Mexican and Columbian Air Forces. The turbine powered twin engine -38s were employed by the CIA and the US Coast Guard. In general, these aircraft were utilized on counter-narcotics and anti-terrorist missions. It is known that the CIA flew RG-8s over Serbia to support NATO forces during the Kosovo Conflict.

Which brings us to 2004 and Sikorsky's purchase of Schweizer. The next year, Sikorsky announces plans for X2 Technology Demonstrator helicopters at the newly acquired Schweizer facility. The radical coaxial design and control system has recently set new standards of speed performance for rotary aircraft and will be developed as an entry into future military and commercial markets.

Coincidentally, at this time, for budgetary reasons, the Army cancelled the Boeing-Sikorsky RAH-66 Comanche. The Comanche was designed to be an armed reconnaissance helicopter and it had a number of notable features which are worth mentioning. Its radar cross section was reduced by the use of flat and slanted surfaces on the fuselage, retractable landing gear, a stowable cannon, fenestron tail rotor, and internal weapon bays. The infra-red (IR) signature was reduced by careful mixing and then venting exhaust gases with cooler

ambient air. A five bladed rotor contributed to noise suppression. One would be hard pressed to believe that all of this tested technology would be lost.

The illustration below, from the Federation of American Sciences website, compares the radar, IR, acoustic, and visual appearances of the Hughes OH-58D Cayuse and the Bell AH-64 Apache to the Boeing-Sikorsky RAH-66 Comanche with the Comanche used as the benchmark.

Type of Detection	OH-58D	RAH-66	AH-64
<b>• Radar</b> Front Sector 10 Gigahertz	 263X 32X	 X	 663X
<b>• Infrared Radar</b> Side Sector Source Signature No Solar Load Stinger	 1.15X	 X	 2.75X
<b>• Acoustic</b> Front Sector Moderate Ambient	 1.1X	 X	 1.6X
<b>• Visual</b> Front Sector Unaided Eye Terrain Background Sector Search	 1.2X	 X	 1.8X

In 2006, Sikorsky opened a new “Rapid Prototyping and Military Derivatives Completion Center” which acquires the sobriquet of “Hawk Works.” What has happened is common in the aircraft industry. A model is mass built at the main plant to standard specifications and then shipped to a secondary plant for modifications demanded by the customer. This allows for efficiency in the main production line and versatility in satisfaction of unique requirements.

Sikorsky had been already performing post manufacturing modifications in Connecticut. TRCS Capt Edward Miller, formerly of Sikorsky Aircraft, states that prior to acquiring Schweizer and its manufacturing plant, Sikorsky had a Manufacturing Development Center in Stratford which took special mod aircraft off the line for custom modification. That is where the SOAR MH-60Ks were built. The SOAR modified MH-60As were painted black. When they went to the Kilo they reverted to the basic army green.

In addition, SOAR maintains its own facility of helicopter modification and special equipment installation at the Blue Grass Army Depot in Lexington, Kentucky.

One can conclude that a combination of experience with quiet fixed wing aircraft and the exploitation of the technology developed for the Comanche might well be applied to special modifications of the special operations Blackhawks by either Sikorsky's post production modification center or SOAR's Kentucky facility or most likely both.

### Disclaimer

*No Sikorsky, Schweizer, or SOAR personnel were harmed in the production of this article. Water-boarding was done under the supervision of a licensed veterinarian.*

## SALUTE TO THE 100TH ANNIVERSARY OF US NAVY AND BRITISH FLEET AIR ARM AVIATION



*Sign in Kansas City Barbeque, the sleazy bar in the movie Top Gun. Taken on a field trip during the 2010 CAP National Conference.*

*Fairey Swordfish, Fleet Air Arm torpedo bomber perches with folded wings over an aerial torpedo. Known as the 'Stringbag,' Swordfish served during all of WWII.*

