

Missions for America

Semper vigilans!
Semper volans!



The Coastwatcher

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

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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 will be indicated on the schedule below. See website for updates.

12-13 FEB-Squadron Leadership School
15 FEB-Col Stidsen lecture on SAC Missile Silo
19 FEB-PT-USCGA
22 FEB-Emergency Services-theory and practicum
-Table Top SAREX planning
26 FEB-Table Top SAREX

05 MAR-Stratford Eagles Banquet and Awards
08 MAR-Pastor Chuck Tyree CD seminar
01-03 APR-Tri-State SAREX
13-15 MAY-CTWG Great Starts

21-25 JUN-National AEO School
9-16 JUL-RSC-McGuire AFB
9-16 JUL-Reg. Cadet Ldrshp School-Concord, NH
23 JUL-07 AUG-NESA (two sessions)
08-14 AUG-CTWG Encampment
13-20 AUG-Reg. Cadet Ldrshp School-McGuire
17-20 AUG-CAP Nat'l Summer Conference
22-24 SEP-AOPA Summit-Hartford
22-23 OCT-CTWG Convention

CADET MEETING

08 February, 2011

reported by

C/2Lt Brendan Flynn

The meeting opened with a uniform inspection and the recitation of the Cadet Oath. A recurring problem was wrinkled shirts. It is important to iron your blues every time you wear them, because wrinkles are easily visible. Cadets must make sure to shine their shoes.

Following the inspection, C/Amn Paquin taught a class on following directions. She included two activities. First was a deceptive exercise composed of a sheet full of short, laborious tasks to do such as math problems. Those who read the directions figured out that they were only required to do the first two tasks. Those who skipped the directions completed the whole sheet. For the second exercise, each cadet picked a partner for the "Draw your House" activity. Partner A, with eyes closed, instructed Partner B on the layout of his or her own house, whereupon Partner B drew it to the best of his or her ability. The "blame game" followed, as cadets tried to affix the cause of architecturally unsound houses on either Partner A's poor instruction or B's artistic ineptitude.

Cadets were given the opportunity to take any written exams which they needed for an achievement.

During the testing, C/2Lt Wojtcuk and C/2Lt Flynn interviewed candidates for the First

Sergeant position to replace C/SrAmn Hall, whose term has ended.

Cadet Rodriguez taught a Drug Demand Reduction class on "inhalants." This class included information on the different types of inhalants and the effects of each. Following his lesson, Cadet Rodriguez gave cadets a pop quiz on his class.

C/2Lt Flynn taught a Leadership class on the chain of command. This class went over the reasons and requirements for a chain of command, the functions of command staff and support staff, the meaning of some symbols used in diagramming the chain of command, the squadron chain of command structure, and the chain of command structure used for summer encampment.

A change of command ceremony followed the cadet lessons. C/2Lt Brendan Flynn became the Cadet Commander, and C/2Lt Alexis Wojtcuk switched over to the Cadet Deputy Commander position. C/SrAmn Drew Daniels became the new Cadet First Sergeant, replacing C/SrAmn Kyle Hall. Both Wojtcuk and Hall were commended by Capt Noniewicz for their faithful service. The Squadron Commander congratulated and wished Flynn and Daniels good luck.



Transferring the Colors

After the ceremony, Capt Wojtcuk gave cadets information about this year's Basic Encampment (Aug 8-14) and "Great Start" weekend encampment (May 13-15). The three-day Great Start is for new cadets who have not yet attended the summer week-long Basic Encampment and

would like to see what it is like. The Great Start is not a substitute for Basic Encampment but cadets who attend the Great Starts are encouraged to, attend the Basic Encampment. Both events will be held at Camp Niantic. Maj Palys's email earlier this week included a form that you must fill out in order to attend. If you want to go, fill this form out and bring it next week with a \$22 check made out to CAP-CT011. On the check's "Memo" line, put your full name and CAP ID number. Late entries are not acceptable.

Major Palys also sent out a separate form for the summer Basic Encampment. If you did not receive these forms or are unable to open the email, contact Capt Wojtcuk. This form should be filled out as soon as possible and brought to a meeting, accompanied by a \$125 check made out to CAP-CTWG, with your name and CAP ID on the memo line. These are due by the end of March.

Capt Wojtcuk reminded cadets that the next PT meeting is on Feb 19 at 1230 hours.

Next Tuesday, Col Stidsen is scheduled to present a slide illustrated class on missile silo operations during the Cold War. Parents are invited.

SENIOR MEETING

08 February, 2011

Commander's Call

Capt Noniewicz called the meeting to order.

The first order of business was a discussion of our spring maintenance program. Lt Looney will be in charge and a Saturday will be designated as a workday when the weather improves.

Capt Noniewicz then conducted the mandated safety meeting. His first topic used a round-robin format calling upon officers in turn to state the sequenced steps in the CPR protocol.

The second topic in the safety meeting was an informal discussion of how to recognize when an

aircraft is being "abused" as if it were a "rental." The quality of the tie-down, use of brakes, cleanliness of the cockpit, and care in manipulating doors and hatches were some of the operations which reveal whether or not a pilot's attitude towards the aircraft is appropriate.

Capt Farley distributed the new training calendar and commented on the upcoming events.

Capt Petry delivered a lesson on the decision making procedure used to decide whether or not inoperative equipment is sufficient cause to ground an aircraft. The criteria for making the decision are four-fold: the conditions of flight, a minimum equipment list, a manufacturer's equipment list, and the judgement of the pilot in command. All four conditions must be positively satisfied for any flight.

Maj Rocketto briefed the Squadron on the first flight of the X-47B, a Northrop-Grumman UAV with advanced automation and the potential for aircraft carrier operations, the upcoming test of the USAF X-37B unmanned returnable orbital space vehicle, and the resupply of the International Space Station by a Japanese cargo carrier.

He also pointed out the coming week are anniversary's for the death of Billy Mitchell, and Zantford Granville, the exchange of Francis Gary Powers for "Col Rudolph Abel," and the first combat debut of Connecticut's State Aircraft, the Corsair, over Bougainville.

An idea for a three or four day senior field trip to the Museum of the USAF or the Museum of the USN was promoted for consideration.

PROMOTIONS AND AWARDS

Maj Neilson received a Red Service Ribbon with three clasps, a Leadership Ribbon with a Silver Star, and a Command Service Ribbon.



Maj Neilson briefs the search crew on the last known position of Captain Kidd's treasure on Gardiner's Island! Actual location obscured by censor to stymie The Royals from launching a pre-emptive piratical sortie.

Lt Owens was promoted to Captain.



Capt Owens as a Young Lieutenant.

LtCol Kinch, Personnel Officer, presented LtCol Wisheart with a Command Service Ribbon.



Col Wisheart adjusts the Garmin.

SENSITIVE ALTIMETERS

During Commander's Call, the Squadron engaged in a debate over the defining characteristics of a sensitive altimeter. One point of view stated that a sensitive altimeter was one which was adjustable for air pressure via the Kollsman Window. A second viewpoint argued for some vague definition of precision in the scale of the instrument.

A review of the literature settles the question. Sensitive altimeters which use "English" units are those which generally have multiple pointers, two or three and are graduated to 20 foot intervals. Non-sensitive altimeters generally have one pointer.

All of the manuals consulted in the writing of this article agreed that the sensitive altimeter is a two or three pointer instrument with 20 foot graduations. The references are *American Air Navigator* by Charles Mattingly, (1944), *Air Navigation, AAF Manual 51-40, vol. I*, (1968), *Air Navigation H.O. Pub. No. 216* (1963), *Instrument Flying and Navigation for Army Aviators, FM 1-5*, (1980), and *Practical Air Navigation*, Thoburn C. Lyon, 1(978).

Two other texts, *Elements of Aeronautics*, Francis Pope and Arthur S. Otis, (1941) and The 1948 edition of Lyon's book discuss single pointer altimeters without mentioning the multi-pointer models.



An illustration of a non-sensitive altimeter from Otis-Pope. Note the barometric setting knob and scale and the 200 foot graduations, a full order of magnitude larger than a modern sensitive altimeter.

The Lyons text pictures a non-sensitive altimeter with 500 foot graduations, 25 times more gross than a modern altimeter. A setting knob is apparent but no equivalent to a Kollsman Window.



A modern three pointer sensitive altimeter indicating at altitude of 1,260 feet below mean sea level-Bar Yehuda Airport, Dead Sea, Israel.

A survey of available instruments indicates that non-sensitive altimeters are available. They are light weight and suitable for gliders and ultralights. Non-adjustable units are also for sale.

Then there are the metric units, graduated in meters and reading pressure in millibars, now called hectopascals. But do we really want to go there?

GONE WEST

CHARLES H. KAMAN

A giant of the helicopter industry, Charles Kaman, died at age 91 on Monday, 31 January.

As a young aeronautical engineer, Kaman was employed at Sikorsky but left to pursue an independent course in helicopter design. He left Sikorsky and formed his own company in 1945.

Among his many innovative ideas were the servo flap and the interlocking counter-rotating twin rotor. He also led in the application of composite materials to rotor fabrication, the use of turbine power, and the development of drone helicopters.

The servo flap is a hinged airfoil located on the trailing edge of each rotor blade, approximately two-thirds of the way from the hub. It provided an alternative to the articulated hubs commonly used.

The K-225, first flown in 1951, was the first gas turbine helicopter and is now on display at the Smithsonian's National Air and Space Museum.



K-225 at Kaman Hangar, Bloomfield, CT

The company which he founded, headquartered in Bloomfield, is also a leading subcontractor to the aerospace industry, producing a wide range of materials and components.

Two spin-offs reflecting Kaman's catholic interests are Ovation Guitars and the Fidelco Guide Dog Foundation. An amateur guitarist himself, Kaman used an engineering approach and composite materials which he applied to the creation of acoustic and acoustic-electric guitars.

He and his wife also founded the Fidelco Guide Dog Foundation which breeds German shepherds.

In 1996, Kaman was awarded the National Medal of Technology, our highest national honor for contributions to technology. A year later, the National Aeronautics Association presented Mr. Kaman with the Wright Brothers Memorial Trophy for his contributions to aviation.

Charlie Kaman, aeronautical engineer, innovator, entrepreneur, philanthropist has passed his slide rule forever. We are diminished.

A Panoply of Kaman Helicopters



Rotor-less HTK-1 bears USN San Diego insignia. The first Kaman drone helicopter was a modified HTK-1.



HOK (OH-43D)

The first rescues performed by this aircraft were made during the Farmington River Valley floods in 1955.



HU-43B at Warner Robbins AFB. Affectionally nicknamed "Pedro," The Husky performed admirably as a rescue and fire-fighting aircraft.



The SH-2 Seasprite, an anti-submarine helicopter, has also been operated by the military of Poland, Egypt, New Zealand, and Australia.



The K-1200 K-Max can carry a cargo heavier than its own empty weight. The US Army and the US Marine Corps are evaluating unmanned remote controlled operations with this model.

AEROSPACE CURRENT EVENTS

Drone Test Pilot Named!

Air Force Capt. Nicholas Helms has been admitted as a student in the US Air Force Test Pilot School, Edwards AFB.

Although UAVs are rising in importance and have a bright future, many traditional pilots are critical of the "pilot" designation applied to the drone operators. the president of the Society of Experimental Test Pilots, Billie Flynn, stated that

Helms "...can never boast that he's from the land of 'Right Stuff.' It's not his pink body that's being put at risk." Another group, an "ancient and secret" fraternal order of birdmen, one whose name must not be mentioned, have debated the point and are adamant that UAV time will not count towards flight hours for their purposes.

NASA TRUMPS FAA ON CONTROL OF AERONAUTICS RESEARCH

A US Senate debate on whether or not to shift civil aeronautics research from NASA to the FAA ended with an overwhelming vote keeping the program within NASA. NASA was created out of the old National Advisory Committee on Aeronautics (NACA) at the beginning of the "space race" in response to the successes of the Soviet Union.

NACA was formed by President Wilson in 1915, fostered by the crisis of World War I. For the next four decades, NACA pushed the boundaries of aeronautical research and development in aerodynamics, airfoils, fuselage design, structures, and power plants. In 1958, NACA was dissolved and its core organizations incorporated into NASA.

RANDOM THOUGHTS ON THE INTREPID BIRDMAN

The US Navy changed its designation from pilot to aviator in order to avoid confusion with those steersmen who go down to the sea in ships. The operator of a UAV certainly might guide the vehicle and could be termed pilot but is he an aviator or airman?

Ernest Gann, whose opinion counts, opines that:

There are airmen and there are pilots: the first being part bird whose view from aloft is

normal and comfortable, a creature whose brain and muscles frequently originate movements which suggest flight; and then there are pilots who regardless of their airborne time remain earth-loving bipeds forever. When these latter unfortunates, because of one urge or another, actually make an ascension, they neither anticipate nor relish the event and they drive their machines with the same graceless labor they inflict upon the family vehicle.

Plato, another whose arguments are ignored at one's peril, often used the image of a maritime pilot as a expert in an art, not a mere technician. In the dialogue *Gorgias*, he states that

Then when the storm descends and the winds blow, though he knows not beforehand the hour of danger, the pilot...half-blind and deaf, but with penetrating eye and quick ear, is ready to take command of the ship and guide her into port.

and from his masterpiece, *The Republic*, two millennia ago, he anticipates FAR 91.3 (a) (b):

...the good pilot must pay attention to the year and seasons and sky and stars and winds, and whatever else belongs to his art, if he intends to be really qualified for the command of a ship, and that he must and will be the steerer, whether other people like it or not.

The word "steersman" which Plato uses as an alternate for "pilot" also has a connection to aviation or rather "anti-aviation.

During World War II, the eminent mathematician and eccentric, Norbert Wiener, was working on developing a theory of prediction which could be

used to computer control anti-aircraft guns. Wiener and his collaborators realized that the human element was also part of the command and control "circuitry." This led them to study feedback loops, the "hunting" behavior in which a human being might zero-in on a moving target. Servomechanisms would perform the same "muscle" tasks for the guns. This feedback function is similar to that of a steersman guiding a vessel so Wiener drew upon the Greek word for "steersman," *kybernetics*, as the name for the field of study. And so "cybernetics" entered the lexicon denominating the study of the flow of information in a complex system, be it organic, mechanical, or electronic.

AEROSPACE HISTORY EVENTS OF THE WEEK

13 FEB, 1943-The Vought F4U Corsair makes operational debut in a raid on Bougainville.



Connecticut's state airplane impressed into the Royal Navy. Didn't we fight a war over this practice?

14 FEB, 1930-The Navy accepts the Boeing 205 for testing. It is the first monoplane designed for aircraft carrier operations. It is designated as the XF5B-1.

15 FEB, 1975-The first pre-production Fairchild A-10A makes its maiden flight.



Note the false canopy on this Warthog and its 11 hard points.

NOTES ON THE THANKSGIVING ELT SEARCH

*by
LtCol Richard Doucette*

Emergency Locator Transmitter (ELT) reports abounded Wednesday night prior to Thanksgiving from commercial aircraft overflying our area. CTWG was called and authorized a SAR flight.

16 FEB, 1982-The first production Airbus A310 2040 L.T. (all times are EST)
rolls out of factory in Toulouse, France.



One of some five dozen FedEX A310s.

17 FEB, 1915-HMS Ark Royal, the first seaplane carrier commences operations in the Dardanelles.

18 FEB, 1943-Extraordinary test pilot "Eddie" Allen goes west in crash of XB-29.

19 FEB, 1915-Robert Goddard commences a series of solid fuel rocket experiments.

GROUND OBSERVER CORPS REDUX

No Cadet submitted answers to last week's quiz which was based upon aircraft in the current CAP inventory. Given the time off from school due to snow, the Puzzle Master is puzzled at their lack of initiative on the part of Thames River Composite Squadron Cadets. Infinitely merciful, he has granted them a second chance. Check the web-site for the last issue and the contest.

2045 Capt Noniewicz and Major Neilson picked me Col Doucette headed towards GON making ground team arrangements en route.

2137 Aircraft departed GON.

2140 Picked up the ELT signal and steered homed south towards Montauk Point (MTP)

2200-2215 Circled MTP verifying the ELT location.

2227 Requested permission to land from the Incident Commander relayed through the ground team leader

2235 Received permission to land at MTP.

2245 Landed at MTP, in strong crosswind.

2315 found the ELT on N2753M, a plane that had crashed there several months earlier. It appears that the strong wind shook the aircraft and activated the ELT. Turned ELT off.

2335 Started engine to return to GON but got the ELT signal again. This time we disconnected the unit from its power source.

2353 Departed MPT

0018 Landed GON on Thanksgiving Day.