

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

08 MAR-Commander's Call  
15 MAR-Aerospace-Lt Miller on Aircraft Design  
22 MAR-Emergency Service  
Preparation for Tri-State SAREX  
29 MAR-TBA

01-03 APR-Tri-State SAREX  
16 APR-CSRRA High Power Rifle Clinic  
13-15 MAY-CTWG Great Starts  
21-22 MAY-Corporate Learning Course (tentative)  
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

*01 March, 2011*

*reported by*

*C/2Lt Brendan Flynn*

The meeting opened with a uniform inspection and the cadet oath. One recurring problem is an inadequate shoe shine.

Pastor Chuck Tyree from the Norwich Alliance Church came to our squadron to teach a Character Development class on "Teen Suicide Prevention". This class went over the warning signs and causes of depression, the warning signs of suicide, steps for helping a suicidal or depressed friend, and common myths about suicide.

The following are Cadet notes from the class.

Depression, which can lead to a suicide attempt, is a treatable biological illness which arises from a combination of genes, emotions, and circumstances. It is an imbalance or disruption of brain chemistry. Some warning signs of it are physical illness, memory trouble, acting slowly, loss of interest in life, trouble sleeping, dramatic weight changes, unusual fear, anger, unhappiness, self-injury, and fascination with violent subjects.

Warning signs of suicide are divided into three groups. Verbal clues are things actually said by the suicidal person. An example would be someone talking about self-hate or hatred for the world. Behavioral clues are questionable actions of the person, such as not being themselves, giving away treasured objects, and leaving writings. Situational clues are things that are hard to deal with that might make someone depressed. These can be poor grades or a family crisis.

When caring for a friend who might be or who is suicidal, show you care--do something simple but nice. Second, don't be afraid to ask them if they are suicidal. They might be angry for a short time, but, "a mad friend is better than a dead friend," pastor Tyree told cadets. Third, call someone for help. This might be a counselor, religious leader, suicide hotline, or trusted family member. As some final tips, don't underestimate them. Don't agree with being suicidal. Don't tell everybody and don't leave them alone.

A common myth about suicide is that mentioning the word "suicide" will make the person more likely to commit suicide. A person's decision to commit suicide will not be effected by a simple mention of the word. Furthermore, the statement that, "Nothing can stop them once they've made up their minds," is false. You can always help.

Following the Character Development class, Cadet Chartier taught a Drug Demand Reduction class on "Alcohol and Tobacco". As is customary after a Cadet teaching session, the rest of the cadets critiqued the lesson.

The "attention game" and the practice of stationary drill commands ended the meeting. In the attention game, cadets tried their best to maintain a straight face and military bearing despite the cadet staff's efforts to make them laugh. The cadet staff was highly successful.

Cadets were reminded to study for the rocketry exams which will be administered next week and to get their paperwork in for the Cadet Great Start weekend,

**CSRRA HIGH POWER RIFLE CLINIC**  
**CADETS INVITED**  
*16 April, 2011*

The Connecticut State Rifle and Revolver Association is running its annual high power rifle training session of juniors from 12 to 19 years of age. The session is an introduction to the safe handling and use of the AR-15 5.56 mm rifle.

National Rifle Association instructors, all experienced high power rifle competitors, will teach a safety course and then explain the opportunities available to join teams and compete in local and national championships. A demonstration of the use of the rifle will then be held and participants will be allowed to fire, under supervision, on the Bell City Rifle Club's 200 yard range.

There is no charge for this event. If a Cadet wishes to participate, he or she must be accompanied by a parent or guardian over the age of 21.

Bell City is located at 1774 Mt. Vernon Rd in Southington.

Those interested should contact on of the following:

Brad Palmer 860-649-4446  
Jim Castonguay 860-738-2954  
Randy Bieler 860-272-1725  
Wallace Lyman 203-269-8931

This is not a CAP sponsored activity but Maj Rocketto, CTWG DAE, will answer questions. Contact him at the email address on the masthead of this publication.



*The CTWG Team: Cadet Roe, Coach Rocketto, and Cadet Planeta on the 600 yard line, National Championships, Camp Perry, Ohio. Cadet Roe is now in the CT National Guard. Cadet Planeta is a 2nd year Midshipman and fires for the US Naval Academy Rifle Team.*

The Squadron trained for a full day on air operations and search and rescue techniques. Two aircraft repositioning flights were made, four different search scenarios were flown, and mission preparation was practiced.

The practical exercises covered the use of a wide range of equipment and methods: mission planning, GX-55 GPS use, aerial photography, creeping line and route searches, communications, and mission analysis were some of the activities in which the participants engaged.

The participants were LtCols Bergey, Kinch and Wisehart, Majs deAndrade, Mode, Neilson, and Rocketto, Capt Petry, and Lts Looney and Owens.

### **SENIOR MEETING**

*01 March, 2011*

Capt Farley led the officers in a critique of the SAREX held last Saturday. Col Kinch contributed his comments on the correct use of the Becker and its pitfalls. This led to a general discussion of the sometimes unusual propagation of VHF signals due to topography and shielding by buildings.

The meeting concluded with a comparison of the standard CAP gridding system and the U.S. Forest Service system.

### **AEROSPACE CURRENT EVENTS**

#### ***Shuttle Discovery on 39th and Last Mission***

Achieving orbit after a long delayed launch, the crew of *Discovery* examined the craft for signs of damage. Using a 30 meter laser tipped rod, the carefully scrutinized the nose and wings for signs of damage. During launch, at least four pieces of insulating foam from the external fuel tank stripped off and struck the shuttle. No damage was found.

USAF Col Eric Boe, a former CAP cadet is aboard as pilot.

*Discovery* delivered a cargo of supplies in a special storage container which has now been attached to the ISS. The 21 foot container also contains Robonaut 2, a humanoid robot which will be activated in about two months. The container is the last pressurized module to be delivered by a shuttle and completes the US section of the ISS.

The ISS now has six different spacecraft parked at its docking stations: *Discovery*, two Soyuz capsules, and Russian, Japanese, and European cargo ships.

### **SQUADRON SAREX**

*26 February, 2011*



*Col Kinch tunes the Becker.*

*Endeavour* is scheduled to be launched in April and the *Atlantis* mission in June will close out the three decade old shuttle program.

### ***Boeing Wins Tanker Contract***

Boeing's KC-46A, a version of the 767 airliner, was declared a clear winner in the more than 30 billion dollar contract for 179 new USAF tankers.

The new aircraft will be equipped with Connecticut built Pratt & Whitney engines.

Boeing's competitor, the European Aeronautic Defence and Space Company (EADS) will be briefed on the bid and will have ten days to challenge.

### ***Jet Warbird Crashes Into Hudson***

A BAC Strikemaster 167 crashed into the ice covered Hudson River near Kingston, New York last Saturday. The aircraft did a low pass over Kingston Airport and then went into a vertical climb when it may have experienced engine failure. The aircraft nosed over, rotated 360 degrees and crashed. The pilot, Dr. Michael Faraldi had purchased the aircraft that day in Nashville and was heading to Columbia County Airport, 25 miles north of Kingston, when the accident occurred.



*Royal Saudi Air Force Strikemaster*

### ***Possible New Sailplane Record***

Gordon Boettger and Hugh Bennet flew a modified Schempp-Hirth Discus glider on a 9 hour, 19 minute 744 mile flight to claim the national two-place sailplane record. Flying out of Minden, Nevada, the aviators utilized a mountain

wave over the Sierra Nevada, soaring as high as 27,000 ft. The record is still unofficial and must be validated by the *Fédération Aéronautique Internationale*.

### ***Cirrus Sold to Sino Syndicate***

China Aviation Industry General Aircraft Co. is purchasing Cirrus Industries, maker of the Cirrus SR22. Production is expected to continue in the United States.



*Cirrus SR 22 at HFD*

### **GONE WEST**

Leland Snow, the founder of Air Tractor and a pioneer in the aerial application business died at age 80 on 20 February.

Snow took his aeronautical engineering degree from Texas A&M. He designed his first plane, the S-1 at the age of 21, built it within two years, and spent the next five years as a crop duster in the southern United States and Central America.

He founded Snow Aeronautical Corporation, designed and built improved versions of his original Ag-Cat, and then, in 1967, sold the firm to Rockwell-Standard which appointed him to a vice presidency.

Snow resigned from Rockwell in 1970 and designed a new aircraft and established Air Tractor to produce it. Since that time, Air Tractor as produced a series of improved models with larger payload capacities and the utilization of the classic Pratt & Whitney PT6 turboprop.

Snow's aircraft are used for agricultural purposes, insect control, and fire fighting. The latest manifestation of the design is the low cost AT-802U counter insurgency aircraft, a militarized version of the Air Tractor.

Snow is one of a band of innovative designers of light aircraft such as Fred Weick and John Thorp, most of whom are little known but whose contributions to general aviation ought not be forgotten. Like Leland Snow, they leave behind a legacy linked to over a century of manned, controlled, powered flight.



*Air Tractor's AT-802U  
COIN Aircraft*

03 MAR, 1919-First international air mail service is inaugurated when Eddie Hubbard and William Boeing flies a Boeing C-700 series seaplane between Vancouver and Seattle.

04 MAR, 1957-First flight of the Grumman WF-2 Tracer, an airborne early warning aircraft, later renamed the E-1B.



*Willie Fudd on a USS Intrepid*

05 MAR, 1936-First flight of R. J. Mitchell's Supermarine Spitfire, piloted by "Mutt" Summers.



*Spitfire Mk I displays its beautiful elliptical wing tips at RAF Hendon.*

## AEROSPACE HISTORY

01 MAR, 1924-First flight of the semi-rigid airship N.1 at Ciampino, Italy. Renamed *Norge*, she was the first airship over the North Pole.

02 MAR, 1969-First flight of the Sud Aviation/British Aircraft Corporation *Concorde*.



*Concorde in company with first Boeing 707 and the Boeing 307, the first pressurized airliner.*

06 MAR, 1953-Boeing delivers the last of the piston engine bombers to the USAF, a TB-50 Superfortress.



*B-50 Lucky Lady II, on display at Planes of Fame, Chino, set world record with 25,452 mile, 94 hr 01 min flight around the world.*

07 MAR, 1963-First flight of the Hughes OH-6A.



*CTANG Loach in the Hover*

08 MAR, 1917-Count Ferdinand Zeppelin goes West.

09 MAR, 1971-First flight of the TF-8A, a NASA modified Vought Crusader, designed to test Richard Whitcomb's supercritical airfoil.



*NASA Test Vehicle-Dryden Flight Research Center*

10 MAR, 1956-Flying a Fairey Delta 2, Peter Twiss is the first aviator to exceed 1,000 mph

### **NEW FEATURE**

The Daedalean will offer extended historical articles on air war topics in future editions. Each are planned to be published in the month on which the event occurred. The first offering is a report of the March 30-31 air battle between RAF's Bomber Command and the German Air Defenses protecting Nuremburg.

Future articles will address such diverse topics as aerial ambushes, airborne resupply, and torpedo attacks.

### **NEW FEATURE**

A new column is introduced with this issue. Once each month, a feature article will be offered which covers some aerospace historical event which has its anniversary during the month. The lead-off article relates the disaster which occurred when the Royal Air Force attacked Nuremburg, Germany at the end of March in 1944.

### **A BAD NIGHT FOR BOMBER COMMAND**

*The Nuremburg Raid*  
*30-31 March, 1944*

From November of 1943 until March of 1944, The Royal Air Force's Bomber Command engaged in what their commander, Air Chief Marshal Sir Arthur Harris called "The Battle of Berlin." The Italian strategist, General Giulio Douhet had published the first book advocating an offensive strategic bomber campaign as a means of breaking the resistance of an enemy nation. This text, *Il dominio dell'aria* (*The Command of the Air*), argued that "the bomber will always get through" and that attacks on the population and production centers would break the morale of the enemy population and cripple the industrial system which produces domestic and military goods.

Harris, like Billy Mitchell, was a advocate of Douhet's theory. However, the policy of the British government was to use aerial bombardment against military targets only. As the air war escalated and for a number of reasons, this policy was abandoned. Just before Harris was appointed Air Officer Commanding, Bomber Command, the British Cabinet the policy which allowed for bombardment of population centers.

Since the technology for precision bombardment was non-existent and experiences earlier in the war proved that daylight bombing led to unacceptable losses, night area bombing was adopted as the primary tactic of Bomber Command. When Harris was appointed as the commanding officer of Bomber Command, he immediately set to work to train and re-equip his force with adequate crews, aircraft, and base facilities to implement the attack on Germany proper.

To prosecute a policy of strategic bombardment, he shed the light twin engine bombers used early in the war and brought in the four engine heavies, primarily the Handley Page Halifax and the Avro Lancaster, arguably the best strategic bomber of the war, prior to the introduction of the Boeing B-29.

### *The Attackers*



*Avro Lancaster*



*Handley-Page Halifax*

By 1943, under Harris's leadership, Bomber Command could launch raids of 1000 bombers and carried on effective campaigns now known as the "Battle of Hamburg" and the "Battle of the Ruhr." As might be expected German defenses improved and were countered by British countermoves. Electronic devices, for navigation, warning, and bombing were developed. The command and control of the German night fighter force was improved. Radar and radar countermeasures were adopted, modified, and improved as each side met the threats imposed by the other.

Harris was adamant about carrying the war to the enemy. In response to "The Blitz," Harris pointed out that Germany had initiated attacks on civilian population first and paraphrased *Hosea* in one of his speeches:

The Nazis entered this war under the rather childish delusion that they were going to bomb everyone else, and nobody was going to bomb them. At Rotterdam, London, Warsaw, and half a hundred other places, they put their rather naive theory into operation. *They sowed the wind, and now they are going to reap the whirlwind.*

After the perceived successes of Hamburg and The Ruhr, Harris conceived of a campaign against Berlin, which he believed might end the war. Some thirty odd missions were launched, about half against Berlin and the others other cities, raids designed to weaken the German defenses by forcing them to split their forces. The last raid was mounted against Nuremburg.

On the morning of 30 March, Harris convened his staff for the daily Commander-in-Chief's conference. Forty minutes later, the conference adjourned after Harris approved Nuremburg as that night's target.

Nuremburg is a Bavarian city in southeast Germany. It was the site of Hitler's massive pre-war rallies and assumed symbolic importance for the Nazi movement. Nuremburg also was an important industrial center but had only suffered light attacks in the past and was relatively undamaged.

Exorbitant US claims of enemy fighters shot down were accepted and a representative from the US Eighth Air Force reported that a fighter sweep would be conducted into Germany to further weaken the German defenses. Furthermore, the last few British bomber raids incurred low casualty rates supporting the assumption of a weakened interceptor force. Finally, Harris's bombers has been relatively inactive and the crews were well rested.

A number of possible targets were evaluated for the raid but Nuremburg had the most promising weather forecast. A low pressure area over Norway produced conditions favorable for icing and eliminated the choice of targets in north Germany. A relatively stable cold front stretched across Europe running from Ireland to the Baltic in a southeasterly direction and the south edge of the front promised cloud conditions which might help conceal the bomber force from the German interceptors.

And critically, a second phase moon would not set until the raiders were returning home.

The biggest problems the British faced in their night bombing campaign was weather and navigation. The short nights of summer halted the possibility of long distance raids. Unfortunately, the winter weather over northern Europe is abominable. The aircraft demanded good conditions for take-off and landing and low cloud cover over the target but enough clouds for concealment. The presence of a bright moon

which illuminated the bombers precluded the choice of at least 10 days of each month from the raid schedule. British authorities would launch weather flights using high flying Spitfires and Mosquitos reconnoiter the conditions on the continent.

Navigation was another issue. Early in the war, the RAF discovered that often, the bombers could not come within 30 miles of the target city. To improve navigation and bombing accuracy, the elite Pathfinder Force was activated in 1942. Eventually the Pathfinders became 8 Group. Under the command of a brilliant young Australian navigator and pilot, Air Vice Marshal Donald Bennet, they gathered together the cream of the crews from other squadrons and rigorously trained more of their own. Visual markers of different types were developed to mark routes, turning points, and targets. The Pathfinders would deploy first and not only plant the navigation markers and target indicators but also transmit wind reports to the Main Force.

As the raid preparations commenced, meteorological flight reports flowed back to Bomber Command headquarters at High Wycombe. There was no mention of high clouds over Germany. In mid afternoon, a mosquito crew reported no clouds at the bombing altitude, the formation of contrails at 25,000 feet, and possible cloud obscuration over the target. The analysis of these and other data indicated that not only would the bombers have no cloud cover but that clouds visible over Nuremburg would prevent visual bombing.

As the day progressed, a final decision was made on the route. British bomber tactics used a "bomber steam" technique. The aircraft would take off in a planned manner and, in the case of a raid which was the size of the Nuremburg force, form a train of aircraft, 68 miles long, about a mile

deep, and hopefully constrained in width although this depended to a large part on wind conditions. Each aircraft was assigned an altitude, speed, and place in the parade of bombers with the intent of bringing the entire force of almost 800 planes over the target within a 17 minute time frame.

Attack routes were planned according to a number of criteria: the location of flak and fighter bases, the weather, the possibility of using feints to confuse the defenses, and the fuel available. For Nuremburg, the planner chose a simple approach which included a 265 mile straight shot, which became known as the "long leg" and passed close to a number of German fighter bases and also skirted the strong flak defenses around the Ruhr industrial complex. The attack force would then turn south, bomb, and return along a southerly route.

The 'long leg' aroused opposition by some of the commanders. Bennett strongly objected to the routing and proposed a more complex approach but the planning staff most of the group commanders elected to adopt the original plan. The unfavorable news about the weather led many to expect a cancellation of the raid but Harris approved the raid as planned.

German night fighter tactics were based upon two operational modes: *Wilde Zau* (Wild Boar) and *Zahme Zau* (Tame Boar). Wild bore used the single engine day fighters such as the Messerschmidt Bf 109. After departure, the pilot was directed to the general location of the targets by ground radar controllers after which he became a free-lancer, searching for prey. The basic disadvantages of this tactic was the short duration time of the fighter and the high rate of accidents resulting from landing mishaps in the dark.

Tame Boar was more successful. Surplus German bomber pilots, more experienced in instrument flying, were assigned to twin engine, radar equipped aircraft such as the twin engined

Messerschmidt 110 and the Junkers 88. They would be directed to the bomber stream's location and then use their onboard radar to search out victims.

### *The Defenders*



*Messerschmidt Bf-109*



*Messerschmidt Bf-110 G-4 equipped with the SN-2 Lichtenstein Radar and prominent Hirschgeweih (stag's antlers) antennae.*



*Junkers Ju-88*

Additionally, many of these aircraft were equipped with a new weapon, *Schräge Musik* (literally "Slanting Music" but colloquially, "Jazz Music") This weapon was a pair of 20 mm cannon mounted on top of the aircraft and firing near vertical. The British bombers had no visibility downward, there were, with few exceptions, belly turrets, so they were blind below. A German pilot equipped with *Schräge Musik* would maneuver into position and fire a short burst between or at the engines on one side of the bomber. The result was an engine or fuel fire which soon caused the aircraft to crash.

A disaster for the RAF rapidly developed. German signal intelligence and the experienced analysts in the air defense filter centers quickly determined that the target was Nuremburg. Fighters were launched at the most favorable times and gathered at the assembly beacons within close reach of the bomber stream.

As the bomber stream passed the Ruhr defenses, the fighters pounced. The bombers were easy prey to both the radar and non-radar equipped fighters, illuminated by the moonlight and often, forming white condensation trails marking their position for the hunters. The Nuremburg air battle was probably the longest ever fought between two air forces. The first attacks started over Belgium on the run in. The first bomber was shot down by flak around midnight. Then, in the next hour which it took to fly the "long leg," fifty nine more were shot down, almost all by fighters!

As the bombers continued their flight, the "stable" cold front started moving south, dissipating the few clouds which the bombers might use for cover and causing variable winds which caused the bomber stream to start spreading apart.

Additionally, technical problems with the windfinder's communications caused a failure in disseminating the data on the winds. The usually

efficient Pathfinder route marking was also affected by the strong cross winds. Aircraft got lost. Some bombed the wrong city. Clouds covered Nuremburg and the target indicators dropped by the Pathfinders were misplaced. The mission had fallen apart and the return flight was yet to come.

Fortunately, the moon set and the bombers were cloaked by darkness from the visual Wild Boars but the radar equipped Tame Boars continued to attack, scoring victory after victory. It was said that the route of flight could be navigated by following the fires on the ground caused by burning Lancasters and Halifaxes.

Five hours later the last of the bombers reached the English Channel on the flight home. Ninety five of them never arrived. Nuremburg suffered light damage.

The final score in aircraft was a loss of almost 15% of the total British force, about ninety five bombers shot down and ten or more suffering so much damage as to be write-offs. The German fighter force lost about 10 aircraft.

Some time after the Napoleonic Wars, the strategist Carl von Clausewitz wrote "Since all information and assumptions are open to doubt, and with chance at work everywhere, the commander continually finds things not as he expected." Air Vice Marshal Harris and his staff gambled on the weather, the status of the German defenses, and perhaps wished for some luck but things did not work out as they expected.

Harris's hope to end the war by air and avoiding the necessity of a land campaign proved chimerical. Ironically, Harris and the bomber forces were soon placed under the control of General Eisenhower's Allied Expeditionary Force in support of the coming invasion of Europe, battles to be waged on land and bring an end to World War II.