

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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S. Rocketto, Editor
srocketto@aquilasys.com

C/1Lt Brendan Flynn, Cub Reporter
1Lt Scott Owens, Paparazzi

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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.

01-03 APR-Tri-State SAREX
05 APR-Squadron Meeting
07 APR-GON AOA renewals-1000 hours
09 APR-Annual TRCS Officers Banquet
09-10 APR-Orientation Flights
12 APR-Commander's Call
16 APR-CSRRA High Power Rifle Clinic
16-17 Apr Orientation Flights

19 APR-Squadron Meeting
26 APR-Squadron Meeting

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 NOTES

29 March, 2011

reported by

C/1Lt Brendan Flynn

The standard opening ceremonies were conducted.

The Cadets continued with the rocketry program, working on either an Alpha, payload, or multistage vehicle depending upon which of the four stages of the program which they have reached.

Maj Bourque and C/1Lt Flynn taught an emergency services course on the 24 hour pack.

SENIOR MEETING NOTES

29 March, 2011

Maj Neilson led the Squadron in a planning session for the upcoming Tri-State SAREX. Connecticut, New Jersey, and Pennsylvania will practice an emergency service drill based upon an earthquake and tsunami event.

The Squadron will establish a mission base for southeastern Connecticut at GON and will man the site for the weekend. A minimum of three members will run the base, four air crews will stand ready, and TRCS will furnish a ground team

on Saturday. Maj Neilson will be stationed at Danbury working Air Ops and Capt Noniewicz will accompany him as mission safety officer.

In addition, a contingent from Hartford's Royal Charter Squadron will be hosted at Groton.

CORPORATE LEARNING COURSE ANNOUNCED

Capt Glen Dains, CTWG Professional Development Officer, has scheduled a Corporate Learning Course.

Enrollment is open for the Corporate Learning Course (CLC) to be held at Wing Headquarters in Middletown on April 30 and May 1, 2011. Class hours will be 0800 to approximately 1530 both days.

The Corporate Learning Course School is a component of Level III of the Senior Member Professional Development Program. It discusses the relationship that the CAP squadron has with the next major echelon of command -- the wing. Specifically, CLC discusses how wing-level operations help to accomplish CAP's three missions of aerospace education, emergency services, and cadet programs. It describes the working relationships wing staff officers have with each other, and their squadron level counterparts.

To enroll for the school, submit a CAPF 17, with your commander's endorsement, to Wing Headquarters no later than April 22, 2011. Applications received after that date will be returned. Forms may be hand delivered or mailed to Wing Headquarters at P.O. Box 1233, Middletown, CT, 06457-1233. Please enclose a check for \$20.00 made payable to CTWG Civil Air Patrol, to cover course materials and refreshments.

Prerequisite for attendance is completion of Squadron Leadership School. Uniform will be blues, corporate equivalent, or polo shirt uniform .

AERONAUTICAL ACHIEVEMENT



TRCS's Maj John deAndrade has earned his type rating in the Boeing 757/767. He is an USAF Academy graduate who has been assigned to SAC and flew Boeing B-52s and KC-135s and the North American-Rockwell B-1B as well as serving a tour as a Minuteman ICBM Launch Control Officer.



deAndrade demonstrating short field techniques in the 757-332?

Maj deAndrade has been a CAP member for ten years and has served in squadrons in Texas and Georgia. His many CAP qualifications include the Command Pilot Rating, Check Pilot Examiner, Air Operations Branch Director, and a Senior Level in Standards and Evaluation.

MILLER AT MINUTEMEN

28 March, 2011

First lieutenant Edward Miller delivered the second lecture on aircraft design to officers and senior cadets of the New Haven Minuteman Squadron. The topic was "The Sound Barrier and Its Influence on Aircraft Design."



Lt Miller

The lecture's salient point was compressibility, its dependence on aircraft speed, aircraft shape, and atmospheric conditions. Miller explained how as an aircraft moves through air, it forces the air to compress in front of it and this, in turn, as the aircraft exceeds the speed of sound, forms a series of ever increasing diameter behind the aircraft.

As a result of aircraft geometry, the speed of sound will be exceeded over a part of the aircraft, such as the wing's upper surface. This is the critical Mach number and results in extremely large increases in drag. This transonic regime of flight was often entered by World War II fighter aircraft in dives and generated a range of problems in control and stability. High stick forces, loss of elevator effectiveness, and buffeting led to a number of deaths and strained the ingenuity of engineers who sought solutions to these novel problems.

Miller went on to discuss how the engineers gathered the data and designed aircraft to not only fly within the transonic range but exceed it...to go supersonic. The reason for swept wings was explained and more radical developments such as deltas and swept forward wings were also covered. Filleting, wing fences, dog teeth, vortex generators, and the selection of suitable aspect ratios and thickness to chord ratios completed Miller's presentation on wing design.

ANTENNA INSTALLATION PARTY

26 March, 2011

Six squadron members installed the new VHF antenna on Saturday last. The group consisted of LtCols Kinch and Doucette, Capts Manner, Noniewicz, and Lintelmann, and Noniewicz, and Lt Looney.

LINTELMANN'S LOENING

Capt Willi Lintelmann was presented with the Grover Loening Award emblematic of reaching Level III of the Senior Member Professional Development Program. Lintelmann is TRCS Finance Officer and Director of Finance at CTWG. He holds certification as a Mission Scanner and a Mission Observer.



Capt Lintelmann

AEROSPACE CURRENT EVENTS

Timidity in Flight Testing!

Professor Mark Lewis, former Chief Scientist of the US Air Force and current President of the American Institute of Aeronautics and Astronautics recently commented on how the US government and industry reacts to risk and the reaction to a failure. In an interview in *Second Line of Defense*, Lewis discussed the importance

of the advanced technologies tested in vehicles such as the X-27 and the X-51 but he also remarked on the US attitudes towards risk and failure. He stated that

When we have a small failure on even an unmanned flight test, we spend sometimes years studying our navel to figure out what could possibly have gone wrong before we've got enough the nerve to fly again"

Furthermore, he pointed out that we often give short shrift to development of adequate testing facilities but that to do so is a false economy. There are two choices:

You can make the investment up front in the test facility, or frankly, you can pay for it in a failed flight, but one way or another, you're going to pay for testing.



Then Chief Scientist of the US Air Force Lewis with TRCS attendees at Joint Propulsion Conference, 2008.

Pentagon Rejects GE/Rolls Alternate Engine for F-35

The Pentagon is satisfied that Connecticut's Pratt & Whitney will be the sole source for the Joint Strike Fighter's engines. They ordered a halt to

work being carried on by General Electric and Rolls Royce for a competitive power plant. Some members of Congress agree that a second product would be a waste of money. However, the alternate engine has backers who will fight to reverse the decisions, claiming that competition will ultimately result in cost savings. The final decision must be made by Congress which has already obligated funds for the GE/Rolls effort.

Dragon Lady not Draggin'

The planned retirement of the Lockheed U-2 has been moved up to at least 2015. U-2s and their human pilots, equipped with the latest sensing equipment are proving their worth in Afghanistan and will continue operations until Northrop-Grumman can produce enough of the unmanned RQ-4 Global Hawks. Currently, 32 U-2s in four variants are operational and the USAF has some 80 pilots rated to fly them.

Spirit Rover Incommunicado

Attempts to contact the Mars Spirit Rover, trapped in soft soil for the past year have failed again. The operators at the Jet Propulsion Laboratory in Pasadena hoped that over the Martian winter, the batteries might recharge but this does not appear to have happened. Hope is fading that Spirit will continue on its mission of exploration.

The vehicle completed its planned mission and operated for over a half year longer and traveled ten times more than planned before getting stuck. A wealth of data has been returned and in its honor, an asteroid, 7452 Spirit, has been named for it. But alas, in the words of a traditional Irish drinking song:

*...it's no, nay, never,
No nay never no more,
Will she play the wild rover
No never no more.*

Messenger Imaging Mercury

The Messenger spacecraft has commenced imaging the surface of Mercury. The Debussy crater was the first target and 363 more images were recorded and then transmitted to Earth. The plans are to take approximately 75,000 images and map out the entire surface of Mercury in order to study its geology.

AEROSPACE HISTORY

Executive Action

The Shoot Down of Admiral Isoroku

Yamamoto

18 April, 1943

"Now the reason the enlightened prince and the wise general conquer the enemy whenever they move and their achievements surpass those of ordinary men is foreknowledge." Sun Tzu *The Art of War*

PART ONE

One of the greatest fears of those that practice business or war is that ones' opponent will obtain knowledge of future strategies or tactics. In general, capitalizing on intelligence information is a murky business at best, beset by uncertainties as to the reliability of the sources, the skills of the analysts, and the responses chosen by those privy to the final reports. Sometimes, a confluence of circumstances occur which result in a well executed plan and successful results. Such were the conditions which resulted in the death of the Commander in Chief of the Japanese Combined Fleets, Admiral Isoroku Yamamoto.

He is best known as the planner of the Pearl Harbor attack but to characterize him by this one achievement would be a mistake. The Admiral may have planned the attack but strong evidence exists to show that he considered it a misjudgment

on the part of the Japanese military and politicians.

Yamamoto's Career

Yamamoto spent his entire adult life as a naval officer. A graduate of the Imperial Japanese Naval Academy, he lost two fingers during the 1905 Russo-Japanese War at the Battle of Tsushima. Afterwards, he attended naval staff colleges and Harvard University and served in a number of command positions. He also became an early advocate of naval aviation and transferred to the aviation branch in 1924. In 1934, Yamamoto was an advisor to the Japanese delegation at the London Naval Conference. He was posted twice as a naval attache in Washington.

His cosmopolitan background provided him with a deeper insight into western culture than that held by many of his more insular and ultra-nationalistic colleagues. He opposed the invasion of Manchuria and the resulting war with China. He also opposed the tripartite axis pact that Japan made with Nazi Germany and Fascist Italy. As a result, Yamamoto was vilified for his relatively moderate views and was threatened with assassination by the more radical Japanese militarists. However, his obvious competency and his popularity with the navy gave him some measure of protection and promotion to full admiral and command of the Combined Fleets. Despite his misgivings, when the decision was made to wage war against the United States and the European powers, it became his duty to serve as ordered.

Yamamoto planned the Pearl Harbor attack but he had serious misgivings about a war with the United States. Acutely aware of Japan's (and its navy's) reliance on foreign oil imports, he stated that "I shall run wild considerably for the first six months or a year but I have utterly no confidence for the second and third years." He had lived in the United States and was knowledgeable about its industrial potential and the character of its citizenry. He warned that, given the American spirit, certain victory would not be obtained by

taking the United States bastions in the Pacific but would require the Japanese to "...march into Washington and dictate the terms of peace in the White House."

Yamamoto was right. Victory followed victory in the first six months of the war. The US fleet was wounded at Pearl Harbor, British, French and Dutch colonies were occupied in the southwest Pacific and China, and the Philippine Islands were conquered. Australia was threatened.



(US Navy File Photo)

Code Breaking and the Battle of Midway

Flushed with success but aware of the threat of United States carriers which had been present in Pearl Harbor on December 7th, Yamamoto decided to attempt to draw them into battle. He devised a complicated plan which involved an Army sponsored attack on the Aleutian Islands and the seizure of Midway Island. Hopefully, this would draw the US carriers westward and result in the destruction of what was left of the US Pacific Fleet. The order of battle at Midway indicates that

Yamamoto possessed a major advantage in traditional warships; seventeen battleships and and cruisers and 46 destroyers against eight American cruisers and 15 destroyers. But one of the keys to victory would be the aircraft carriers. Japan had four heavy carriers and two light carriers with approximately 300 aircraft. US forces consisted of three heavy carriers and Midway's ground based air units totaling about 350 aircraft.

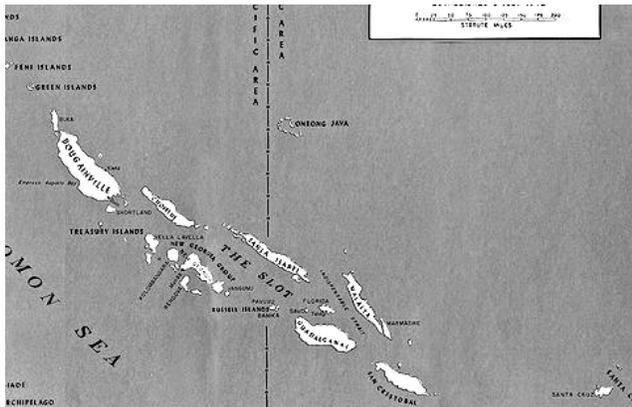
And there was another key to victory: a "key" to the Japanese naval codes which rested at Pearl Harbor's Station Hypo, the navy's Combat Intelligence Unit, charged with electronic signal monitoring, cryptology, and cryptographic analysis. The full story of how the United States developed access to Japanese naval communications by partially breaking Japanese Naval Code 25 (JN25) is too complex to relate here and not pertinent to this story. But it is sufficient to say that during the war, enough of the code was broken to give the US commanders vital information as to Japanese intentions and plans. This information allowed the favorable positioning of the US carriers under Rear Admiral Raymond Spruance so as to achieve a major victory, crippling Japanese naval aviation, and ending the Empire's hopes for domination of the central Pacific. Six months had passed since Pearl Harbor.

In the next six months, Japanese plans to invade Australia were thwarted when they failed to take New Guinea and were driven out of Guadalcanal. As Yamamoto had predicted, after a year, Japanese forces were no longer "running wild" in the Pacific and morale was suffering. Yamamoto then decided to make an inspection tour in the South Pacific as a means to better appreciate the military situation and boost the flagging morale of the Japanese forces.

The visit was planned in meticulous detail as befitted the Commander in Chief Combined Fleet.

On 13 April, Japanese bases and support units were notified by radio using the latest version of JN25. The pertinent part of the message, in translation, stated, in part that:

...0600 depart Rabaul on board medium attack plane (escorted by six fighters); 0800 arrive Ballale. Immediately depart for Shortland on board sub chaser...arriving at 0840. Depart Shortland 0945...arriving Ballale at 1030...1100 depart Ballale on medium attack plane, arriving Buin at 1100...1400 depart Buin aboard medium attack plane; arrive Rabaul at 1540....



At Pearl Harbor, the Combat Intelligence Unit, now renamed Fleet Radio Unit Pacific (FRUPAC), was listening. The message was decoded and internal evidence indicated to the traffic analysts that the message was important enough to receive priority handling. Navy and Marine translators read the deciphered portions and skillfully deduced the missing elements, especially the geographic names. The travel itinerary of the Commander in Chief of the Japanese Fleet was passed on to Admiral Chester W. Nimitz, Commander in Chief of the Pacific Fleet. Operation Vengeance, the Navy's strike at the brain of the Japanese naval command was set into motion.

This article about Operation Vengeance, the shoot down of Admiral Yamamoto, will be concluded in the next edition of *The Coastwatcher*.

MORE AVIATION HISTORY on 18 APRIL

The attack on Admiral Isoroku Yamamoto took place on the 18th of April in 1943. Interestingly, this is one year to the day that Colonel Doolittle led 16 B-25s off the deck of the *USS Hornet* to stage the first bombing raid on the Japanese home islands.

Also occurring on 18 April....

In 1958, at Edwards AFB, Lt. Comdr. George Watkins sets a new absolute altitude record of 76,932 ft. flying a Grumman F11F-1 Tiger



F11F-1 Tiger at MAPS-Akron-Canton Airport

In 1916, Nieuport Squadron No. 124 is formed under French command. This is an all-American squadron composed of volunteers. In December, they were renamed *Escadrille Lafayette*. Four months later, the United States will enter the World War I.

In 1986, aeronautical engineer Marcel Bloch, better known by his *nom d'guerre* as Marcel Dassault, goes West.

In 1917, Pacific Aero Products Company changes its name to the Boeing Airplane Company.

*“The Red Barn”
Boeing's First Factory
Seattle, Washington*

