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/Capt Brendan Flynn, Reporter
1Lt Scott Owens, Paparazzi

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SCHEDULE OF COMING EVENTS

18 NOV-USCG Observatory Open House
19 NOV-PT-USCGA
22 NOV-Cadet AHI Training
29 NOV-Third Annual TRCS Bowling Tourney
06 DEC-Parents Meeting/Guest Speaker
13 DEC-TRCS Meeting
20 DEC-TRCS Meeting

CADET MEETING NOTES

15 November, 2011
submitted by
C/Capt Brendan Flynn

A detachment of USCG Academy cadets met with the Squadron. After introductions, the Coast Guard Cadets and the Thames River cadet cadre met and discussed the roles which the detachment will play as mentors to the CAP cadets.

CAP cadet officers and CGA cadets performed a uniform inspection and followed it with a discussion of the importance of military bearing.

Capt Wojtcuk followed with a character development session on "gratitude."

The next PT session is scheduled for Saturday at the CG Academy. Cadets should meet at the squadron at 0730 and expect to finish by 1000.

Money for the bowling tournament is due next week.

Cadets who have not received their binders and leadership material must download it in order to study for the test next week.

New cadets were reminded to order their blues.

Awards and ceremonies ended the meeting. C/AB Trevor Sanders received his recruiting ribbon for recruiting two cadets to the squadron. Cadet Keith Trotochaud received the Curry award and was promoted to Airman. Cadet Drew Daniels received the Doolittle award and was promoted to Chief Master Sergeant. In a cadet change of command ceremony, C/2Lt Alexis Wojtcuk was relieved of command and C/Capt Brendan Flynn assumed command.

USCGA OBSERVATORY OPEN HOUSE

The make-up date for the USCG Academy Observatory Open House is Friday, 18 November from sundown until 2200. Call 860-444-8635 to check for weather postponements.

SENIOR MEETING

15 November, 2011

Capt Farley led a review of operational security requirements.

PEARL HARBOR GUEST SPEAKER

06 December, 2011

Navy EM1C Floyd Welch was serving on the USS Maryland when the Japanese attacked Pearl Harbor. He will speak about his experience at Pearl Harbor. Parents are invited. Mr. Welch is the grandfather of Cadet Nathan Welch.

USS Maryland lies along side capsized USS Oklahoma. The smoke is rising from the explosion of the forward magazine of the USS Arizona.
(US Navy Photo

FLYING ON FLOATS

Last week, Maj Rocketto and Steve Schadtle, a friend from Snoopy's Flying Club at Westerly traveled up to Turner, Maine with the hopes of obtaining seaplane ratings. Their plan was to fly to Twitchell's Airport and seaplane base (5B3) where they could obtain the necessary instruction. They decided to "go bush:" purchased a prospector's kit, stopped shaving, and donned red long johns with the traditional trap door in hopes of not being mistaken for chechakoos, the name given to rank greenhorns in the polar region. Maj Rocketto also packed lots of extra clothes and towels figuring he would probably fall into the water at some point during the proceedings.

As might be expected, the weather did not cooperate and their plans to fly for two hours turned into driving for five hours. "Time to spare, go by air-The guys with brains are riding the trains."

Upon arrival at 5B3, they met their instructor, Ben Planert, and received a briefing on the arcane rites which float plane pilots perform before departing the dock. We learned how to check the float rigging, inspect the water rudder control system, and pump the bilges. In order to get outboard of the aircraft, you do what is called the "Alaskan Shuffle," holding on to the cowl, and side-stepping on a wire which connects the port and starboard floats.

One of the more unusual parts of the pre-flight is to make sure you have the right ignition key since once you push off, and discover that you do not have the right key, you might have to resort to straddling the pontoon and using the on-board canoe paddle for motive power, a maneuver which will not gain points in the competition for King of the Bush Pilot honors.

Depending on wind, the push off from the dock can be quite and adventure, especially if the wind speed is high and the direction is unfavorable. Extra hands are sometimes useful. Basically, you unfasten the bow and stern lines, holding onto the line which is midship.. You push off and hop onto the float, making sure that you land on the non-skid surface, climb aboard, and are now the plaything of wind and current so it behooves you to start the engine, all controls of which have been pre-set before casting off. Once the engine starts, you will still move but the lowered water rudders give you some semblance of control. As you taxi out, the doors (hatches) can be closed, shoulder harness and seat belt fastened, and headset donned.

In float plane operations, everything is slow and deliberate and this is most evident during displacement taxiing. The float plane prop will suffer irreparable erosion damage if the engine is

operated over 1000 rpm for too long so once the engine turns over, the tach is kept at around 700 rpm during slow speed operations on the water.

Once in position for a normal takeoff, you can clear the area and do a pre-flight check. Suck the wheel full back like in a tail-dragger, advance the throttle, and check vacuum, oil pressure and temperature, primer, mags, circuit breakers, mixture, fuel valve, and water rudder (up). When satisfied, 10 degree flaps and full throttle letting the nose rise until it stops, enjoying the sound of the stall horn. Slowly relax pressure, and as the nose drops the airplane will accelerate until it rises up on the step area, reaches flying speed and lifts off. At this point, maintain care to keep the nose down and gains sufficient flying speed to climb safely. The whole routine resembles a soft field take-off on land which I guess it is except that unless you run aground, you won't get stuck!

In flight, the aircraft, a Cessna 172 with the 160 HP Lycoming, was stable but slow due to the seaplane prop. Cruise was around 85 knots.

The normal landing is generally done with 20 degrees of flaps, water rudders up, and landing in a semi-stall attitude.

Water operations require a whole new set of skills and the breaking of some old habits. If you need to taxi fast, the step taxi is used. The maneuver is started as if you were taking off, yoke full back, and water rudders up. After lowering the nose and getting up on the step, you reduce throttle to keep the aircraft planing without any speed build up. To turn, you need full aileron in the direction of turn to provide enough centripetal force to keep the outside float from digging into the water.

The plow turn is another water maneuver that is somewhat counter-intuitive to land plane operation. If you have to turn downwind in a strong headwind, the natural weather-vaning tendency of the aircraft might make this difficult if not impossible. Therefore, you use the plow turn. For a left turn, use the water rudders to point the aircraft 45 degrees to the right at very, very low power. You will be using right rudder but the stick will be left, a cross-control situation. Then apply full left rudder full right aileron and the wind will assist the turn. You need to add a little power which shifts the center of buoyancy aft, driving the rear end of the floats deeper and increasing the efficiency of the water rudders. As you come about and are abeam of the wind, the yoke is turned into the turn and power reduced to prevent an overshoot.

Getting back to the dock is interesting. The approach is made into the wind, water rudders down and very slow. You can slow up even more by using one magneto or opening doors. The approach is made with hatches open, harnesses undone, and headsets off and stowed. The dock is approached at a forty five degree angle and you pull the mixture to stop the engine about three or four aircraft lengths away which will depend upon the wind. As you close with the dock, you push the water rudders outboard and try to just slide in with the floats parallel to the landing stage.

Much is not covered in this short feature such as sailing, a maneuver in which the aircraft is allowed to be pushed backwards by the wind, short field approaches, rough water work, and the extremely treacherous glassy water landing. But all of them are interesting applications of special flight techniques governed by the laws of Newton's dynamics and fluid mechanics.

The weather interfered with our instruction. On the first day, the ceiling dropped to 400 feet and visibility two miles in rain which ended the practice. On the second day, high wind gusts prevented efficient learning. As ambitious pilots, we were disappointed in not fully achieving a goal but as prudent pilots, you need to know when to quit. We were the last two students of the season so before leaving, we signed up to be the first two students next season.

Heading south, we stopped at Lewiston-Auburn Airport to see two Lockheed L-1649A Constellations, one of which is being used as a pattern and being stripped of parts by Lufthansa technicians to rebuild the other. The completed aircraft will be flown to Europe and used for tourism. We then stopped in Portsmouth, N.H. to visit the USS Albacore, the first submarine designed with a hydrodynamic hull.

Maj Rocketto is happy to report that he did not fall in which is lucky because the Androscoggin River is reputed to be one of the twenty most polluted rivers in the country and supposedly was the "poster child" for the Clean Water Act.

The experience was one of the most enjoyable aviation events in which either of us had participated. Both of us recommend that it would be a worthwhile experience of any pilot to take and hour or two of seaplane instruction to get a sense of another realm of flight.

AEROSPACE CURRENT EVENTS

Unmanned Fire Scout Armed

The US Navy has issued a $17 million dollar contract to Northrop Grumman to equip the MQ-8B Fire Scout helicopter with laser guided missiles. The remote piloted vehicle has already served in reconnaissance and surveillance roles in Mediterranean and southeast Asian war zones during the past year.

Fire Scout approached fantail of US Navy destroyer (photo by MC2 Alan Gragg, USN)

The USAF and the CIA have been operating armed RPVs for some time but helicopters are more difficult vehicles to weaponize. The Navy did operation a torpedo armed drone helicopter in the 1960s decade aboard destroyers and other anti-submarine vessels.

QH-50C and two torpedoes at the New England Air Museum

The drone was manufactured by the Long Island based Gyrodyne Corporation and the QH-50 DASH (**D**rone **A**nti-**S**ubmarine **H**elicopter) series was armed with a Mark 44 torpedo as a counter to the perceived Russian submarine threat. No actions against Russian submarines were ever prosecuted but the QH-50 did see action in Vietnam as a reconnaissance platform.

A number of problems brought the program to an end. There was no need for anti-submarine assets in the Vietnamese War and the cost/benefit ratio of the program was judged too low to continue support. Moreover, technical problems made the

deployment of the QH-50 difficult. In those days before GPS, it was difficult to track. The computers were relatively unsophisticated so it was difficult to control, and of course, maintenance issues in the salt water environment were a constant problem. The Japanese Self-Defense Force also operated a small number of Gyrodynes with similar results.

However, new materials, advanced computers, and precision weaponry may make a difference and the Fire Scout will enter the fleet in about 15 months.

Chinese Spacecrafts Accomplish Second Docking

For the second time, the *Shenzhou 8* craft re-docked with the *Tiangong 1* module completing an important step in Chinese plans for a manned space station. The maneuver was accomplished autonomously. The Shenzhou 8 made a successful return to earth on Thursday, 17 November.

Phobos-Grunt Stuck in Earth Orbit

The Russian Mars mission to a Martian satellite, *Phobos-Grunt (Ground)* is stuck in a decaying orbit as engineers struggle to restore a communication link and fire the engine which will send it on its way to Mars. If their attempts are unsuccessful, the vehicle will re-enter the atmosphere within a few weeks.

Capt Burbank Arrives at ISS

Retired USCG Capt. Dan Burbank, TRCS's favorite astronaut, and two Russian crew mates arrived at the International Space Station on Wednesday, 16 November. The crews will run standard post docking checks. The old crew is expected to depart on Monday, 21 November.

AVIATION HISTORY

17 Nov., 1927-Sir Alan Cobham commences a 20,000 mile air tour from London during which he will circumnavigate Africa in a Short Singapore.

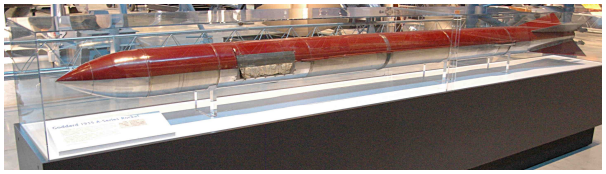
18 Nov., 1927-The Handley Page automatic wing tip slots are publicly demonstrated.

19 Nov., 1957-At Wallops Island, Virginia, the first Nike-Deacon sounding rocket is launched by NACA's Pilotless Aircraft Research Division.

20 Nov., 1919-he first municipal airport in the United States is opened at Tucson, Arizona.

21 Nov., 1933-Lt. Cmdr T.G.W.Settle and Maj C.L. Fordnoy, USMC, landed in Bridgeton, NJ after reaching an altitude of 61,237 ft. They launched out of Akron, OH.

22 Nov., 1929-Robert H. Goddard received a phone call from Charles Lindbergh setting up a meeting to discuss rocketry. Ultimately, this will result in funding from the Guggenheim Aeronautical Fund for Goddard's experiments.



A Goddard 1935 A Series liquid propelled rocket. The success of this series was a factor in garnering support from the Guggenheim Aeronautical Fund.

23 Nov., 1947-First Flight of the Convair XC-99, the cargo version of the B-36.

C-99 at San Antonio but since moved for restoration to the Museum of the USAF

24 Nov., 1959-First Flight of the Convair 990 Coronado.

NASA's Coronado, Galileo Galilei

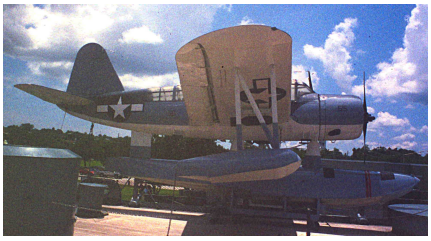
NAVAL FLOAT PLANES OF WORLD WAR II

Naval Aircraft Factory N3N-3 at Museum of Naval Aviation, Pensacola, Florida

The "Yellow Peril" primary trainer featured a metal fuselage which had panels on the entire starboard side which could be opened for ease of maintenance. Originally equipped with obsolete Wright J-5 engines, the -3 model features a Wright R-760. Used for flight orientation at the US Naval Academy until 1961, the N3N was the last biplane to see US military service.

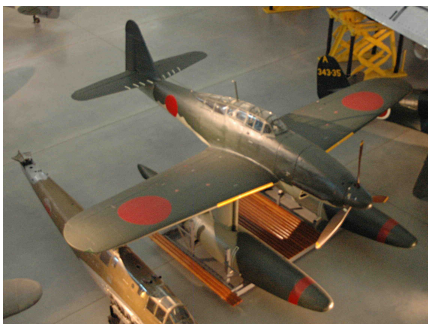
Arado 196A-5 photographed at Delaware Valley Historical Aviation Association, Willow Grove, Penn.

The *Kriegsmarine* operated this aircraft as its standard ship borne reconnaissance aircraft and was operated by the *Luftwaffe* as a coastal patrol aircraft. This particular aircraft was formerly assigned to the heavy cruiser *DKM Prinz Eugen*.



Vought O2U-3 Kingfisher on board the USS North Carolina, Wilmington, N.C.

The Kingfisher was the first catapult capable US navy monoplane. Nicknames "Old, Slow, and Ugly," it served throughout World War II and outlived putative replacements. It main function was as a reconnaissance scout and it also was used to correct the gunfire of battleships and cruisers.



Aichi M6A1 Seiran at the Smithsonian's Udvar-Hazy Annex, Dulles Airport, Virginia

The *Seiran* (Mountain Haze) were designed to be catapult launched from the Japanese I-400 class submarines. The floats could be jettisoned and the plan would be to ditch the aircraft near the submarine after mission completion. One of its proposed missions was a torpedo attack on the locks of the Panama Canal.

Kawanishi N1K1 Kyofu photographed at Delaware Valley HAA, Willow Grove, Penn.

The *Kyofu* (Might Wind) was code named Rex by the western allies, was arguable the finest float equipped fighter of the war. Interestingly, the design metamorphed into a land plane version, the Kawanishi *Shiden* (Violet Lightning), perhaps the only land fighter derived from a float plane version.