

Missions for America  
*Semper vigilans!*  
*Semper volans!*



## The Coastwatcher

Publication of the Thames River Composite Squadron  
Connecticut Wing  
Civil Air Patrol

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Vol. VII, No. 46

17 December 2013

### FIRST FLIGHT DAY

### SCHEDULE OF COMING EVENTS

24 DEC-No Meeting  
31 DEC-No Meeting

07 JAN-TRCS Meeting  
14 JAN-TRCS Meeting-Commander's Call  
21 JAN-TRCS Meeting  
28 JAN-TRCS Meeting

22 FEB-CTWG SAREX-HFD  
26 APR-CTWG SAREX-GON  
16-21 JUN-Tri-State SAREX  
23 AUG-CTWG SAREX-HFD

### **CADET MEETING SENIOR MEETING**

*17 December, 2013*

Cancelled due to snow.

### **LAST SATURDAY'S TRAINING EXERCISE**

A Squadron training exercise was held on Saturday, 14 December. Flying was cancelled due to snowy conditions so the unit split into two groups.

LtCol Doucette instructed six air crew members on using the Aerial Digital Imaging System (ADIS) former known as the Satellite Digital Imaging System (SDIS). ADIS utilized a digital camera, laptop computer, and satellite telephone to provide near real time transmission of acquired imagery to the requesting agency.

Maj Roy Bourque assisted by Maj M. Welch ran an instruction program focused on Ground Team II and III qualifications.

The participants, LtCols Kinch, Bergey, Doucette, and Rocketto, Maj Noniewicz, Capts Farley and Lintelmann, Lts Meers and Welch, and Cadet Meers expressed their thanks for the coffee and doughnuts provided by the Maj and Lt Welch.

### **AEROSPACE CURRENT EVENTS**

#### *Cessna's Foray into Military Aircraft*

Cessna's corporate funded venture, the Scorpion intelligence, surveillance and reconnaissance (ISR) strike aircraft made its first flight on 12 December out of McConnell AFB in Wichita. The aircraft is designed as an "affordable" aircraft suitable for ISR, counter-insurgency, and homeland security missions in a low threat environment.



(Photo Credit: Textron-Beech)

Cessna spent two years to produce the aircraft which can carry a 3,000 lb. Payload both internally and on wing pylons.

Beechcraft's attempt to modify the T-6A Texan II trainer into a light strike aircraft has run into problems competing with an Embraer version of its Super Tucano, the A-29, and the contracts are involved in litigation. There is even some talk of a revival by Boeing of the North American-Rockwell OV-10 Bronco.



*Beechcraft*

*AT-6*

(Photo Credit:  
Textron)



North  
American-  
Rockwell  
*OV-10D at  
GON*

Air Tractor has been busy modifying a crop duster into the AT-802U for the light attack and armed reconnaissance role and have delivered around two dozen to the United Arab Emirates. The aircraft's provenance may be found in the crop duster designs of Leland Snow.



Air Tractor AT-  
802U Prototype

(Photo Credit: Air Tractor)

The concept is to build a cheap, easily maintainable aircraft which can be operated by the less sophisticated air forces in southern Asia, Africa, and South America. However, privately funding military aircraft that will not find a home in the US forces is a risky venture.

Northrop got into a deep financial hole attempting to do something similar when it developed the F-5 Freedom Fighter and its follow-up, the F-20 Tigershark. The USAF likes aircraft to be sophisticated, fast, developed with in-house consultations and alas, expensive and if the USAF does not buy it, many other nations will follow suit. In addition, the Air Force was supporting the rival F-16 and gave short shrift to Northrop's efforts. They even contributed to the cancellation of Israel's IAI Lavi which would have been an F-16 competitor.

*Embraer  
EMB-314  
Super  
Tucano*

(Photo Credit:  
Embraer)



After six years and a billion dollars, Northrop dropped its attempts to market the Tigershark. Even the appearance of Chuck Yeager in their ads did not help. The only survivor of the three F-20s produced is on display at the California Science Center in Los Angeles.



*F-20 launches a missile. Note the FAA N numbers.*

(Photo Credit: Northrop)

Cessna did manage to modify its T-37 Dragonfly into the A-37 attack aircraft and over a dozen nations used it, including the Vietnam People's Air Force which captured almost 100 when South Vietnam fell.

*OA-37 at the Air Commando Museum*



But the losses on the F-20 were underwritten by other very successful programs at Northrop and the A-37 was supported by the huge sales of the T-37 "Tweety Bird." Paying for the development of a military aircraft with private funds is still a risky business.

### ***Chinese Soft-Land on the Moon***

China has successfully placed a rover on the lunar surface. The 300 lb rover, *Jade Rabbit*, detached from the lunar landing module on Sunday morning.

Imagery from the landing has been transmitted back to earth. More photos are expected.

The rover will then commence a survey of the geological features of the moon while the instrumentation on the lander will gather data around the landing site.

### ***President Obama Risks Bridgeport Vote***

Today marks the 110th anniversary of the Wright Brothers "First Flight" at Kitty Hawk, and President Obama has issued a proclamation once again commemorating the anniversary day as "Wright Brothers Day." The proclamation follows:

**BY THE PRESIDENT OF THE UNITED STATES OF AMERICA  
A PROCLAMATION**

On December 17, 1903, decades of dreaming, experimenting, and careful engineering culminated in 12 seconds of flight. Wilbur and Orville Wright's airplane soared above the wind-blown banks of Kitty Hawk, North Carolina, pushing the boundaries of human imagination and paving the way for over a century of innovation. On Wright Brothers Day, our Nation commemorates this once unthinkable achievement. We celebrate our scientists, engineers, inventors, and all Americans who set their sights on the impossible.

America has always been a Nation of strivers and creators. As our next generation carries forward this proud tradition, we must give them the tools to translate energy and creativity into concrete results. That is why my Administration is dedicated to improving education in the vital fields of science, technology, engineering, and mathematics (STEM). We are working to broaden participation among underrepresented groups, and through Race to the Top, we are raising standards and making STEM education a priority. Last year, we announced plans to create a national STEM Master Teacher Corps -- a group of the best STEM teachers in the country, who will receive resources

to mentor fellow educators, inspire students, and champion STEM education in their communities.

As we remember the Wright brothers, let us not forget another Wright who took up the mission of powered flight. Orville and Wilbur's sister, Katharine, used her teacher's salary to support the family and ran the Wrights' bicycle shop in Dayton, Ohio, while her brothers worked in Kitty Hawk. She went on to manage press, conduct business with foreign dignitaries and heads of state, and wrangle support for the burgeoning aviation enterprise. Today, let all of us draw inspiration from a family who taught us that when bold ideas meet scientific thinking and tireless experimentation, the sky is no limit.

The Congress, by a joint resolution approved December 17, 1963, as amended (77 Stat. 402; 36 U.S.C. 143), has designated December 17 of each year as "Wright Brothers Day" and has authorized and requested the President to issue annually a proclamation inviting the people of the United States to observe that day with appropriate ceremonies and activities.

NOW, THEREFORE, I, BARACK OBAMA, President of the United States of America, do hereby proclaim December 17, 2013, as Wright Brothers Day.

IN WITNESS WHEREOF, I have hereunto set my hand this sixteenth day of December, in the year of our Lord two thousand thirteen, and of the Independence of the United States of America the two hundred and thirty-eight.

## AEROSPACE HISTORY

### *SOME NOTES ON FOREIGN BUILT OR DESIGNED AIRCRAFT ADOPTED BY THE USAF*

Since World War I, the US air services have adopted foreign built aircraft or built foreign designed aircraft under license. This photo-essay will be limited to considering "foreign aircraft" used by the USAAF in World War II up to the present and employed in what might be considered "squadron service" Captured aircraft or "one-

offs" will also be excluded as will unmanned aircraft.

World War II saw four different foreign aircraft used by the USAAF.



*The Canadian UC-64 Norduyn Norseman was used as a light transport. The musician Glenn Miller was aboard a Norseman when it disappeared over the English Channel.*

The Supermarine Spitfire was also adopted by the USAAF as both a fighter and a photo-reconnaissance plane.



*The "Spit" Mk. Vc was flown by US pilots during Operation Torch, the invasion of North Africa. Note the oversized dust filter which was needed to "tropocalize" the aircraft for desert operations.*



*The "Spit" Mk. XI carries the blue camouflage for its high altitude photo-recon missions. The aircraft was stripped of armor and armament and provided with extra fuel so it could fly high, fast,*

and far.



*The Bristol Mk.IC Beaufighter was given to the USAAF in a “reverse lend-lease” program. They were radar equipped night fighters.*



*Another “reverse lend-lease” aircraft was the DeHavilland DH 98 Mosquito. One of the most versatile aircraft ever built, the “Mossie” served as a day fighter, night fighter, intruder, strategic bomber, tactical bomber, photo and weather reconnaissance, cargo, and transport aircraft! The aircraft shown is on display at the Museum of the USAF and represents a Mk XVI weather reconnaissance ship of the 65rd bombardment Squadron.*

After World War II ended, the USAF started its conversion to jet combat aircraft.



*The Martin B-57 Canberra was a license built version of the English Electric Canberra and*

*served with the USAF and Air Guard as a tactical*

*bomber, reconnaissance, and electronic warfare aircraft. The plane saw combat in Vietnam, Chuck Yeager commanding one of the squadrons, and a much modified version is still flying with NASA and doing high-altitude research. The aircraft pictured is an EB-57B which flew with Vermont's ANG, the “Green Mountain Boys.”*

The USAF trainer fleet has called upon aircraft with foreign origins.



*The Beech T-1 Jayhawk is an off-shoot of the Mitsubishi MU-300 Diamond. It has found its niche with the USAF training multi-engine pilots and specialized aircrew. It is part of the Beech-Hawker-Raytheon corporate history and to add confusion, shares its designation with the Lockheed T-1 Seastar and its popular name with the Sikorsky HH-60 Jayhawk!*



*For basic pilot training, the USAF has adopted the Beech T-6A Texan II. The aircraft is a heavily modified version of the Pilatus PC-9 which has its origins in Switzerland.*

The flight program at the USAF Academy has used a range of aircraft purchased from non-US

manufacturers.



(Photo Credit: T/Sgt Fernando Serna)

The Slingsby T-3A Firefly was a French design, the RF-6, by Rene Fournier. Slingsby, a British company took over the production rights and produced 114 of its T67M260 variants for the USAF which adopted it as a trainer designated T-3A. After a number of accidents, the fleet was grounded. After some years of storage, all but one were deliberately destroyed. The sole survivor is based at Edwards Air Force Base to train test pilots.



The Firefly was replaced by the Canadian Diamond DA-20, designated T-52, which was used for initial flight training until replaced by the American made Cirrus SR-20, designated T-53 for powered flight training.

The USAF Academy operates an extensive glider program add some of the world's best gliders come from the continent of Europe.



The Let 23 Super Blanik, a Czech built glider.

(Photo Credit: USAF)  
comes in three variations. They are known as the TG-10 Merlin around the campus.

German manufacturers supply two models.

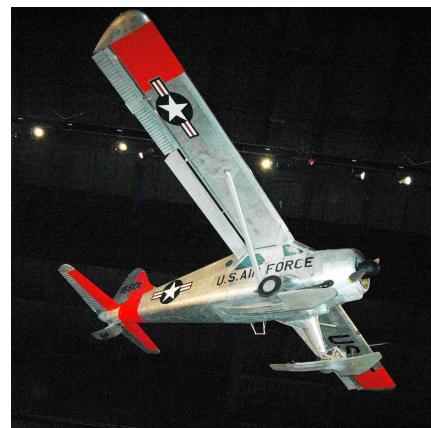


Schempp-Hirth manufactures the TG-15A  
(Photo Credit: USAF)



The T-16A is a powered glider with a retractable 30 HP engine behind the cockpit. DG Flugzeugbau produces this aircraft under the name, DG-1000.  
(Photo Credit: USAF)

A number of aircraft have been adopted from other nations in the transport and cargo category. Dehavilland of Canada leads with four different models.



The DHC-2 Beaver, one of the world's greatest

*bush planes* is displayed as a ski equipped model at the Museum of the USAF. During its career it first carried the L-20 designator but when the Tri-Service System was adopted in 1962, it became the U-8.



The U-1, Beaver's big brother, the DHC-3 Otter is here seen in USAF Auxiliary livery.



The US Army used the DHC-4 Caribou in Vietnam but they were all transferred to the USAF under the terms of the The Johnson-McConnell agreement of 1966. The terms of the agreement forced the Army to give up all fixed-wing tactical airlift and the USAF relinquished its claims to most types of rotary wing aircraft. The C-7A Caribou pictured is on display at Dyess AFB.



The USAF Academy Parachute Team, Wings of Blue, utilize the UV-18B Twin Otter, DHC-6. The aircraft carry both USAF serial numbers and FAA N numbers.

(Photo Credit: USAF)



The C-38A Courier has a convoluted history. Israel Aircraft Industries (IAI) bought the rights from Rockwell which had acquired them from Aero Commander. In a story too long to relate in this caption, General Dynamics, Chrysler, Galaxy Aerospace, and Gulfstream all got involved. Understanding corporate mergers and acquisitions is harder than understanding Garmin's G-1000! Anyway, IAI produced the Astra which was marketed by Gulfstream as the G-100. Gee whiz, too many G's!



(Photo Credit: USAF)

The C-27J Spartan derives from Italy's Alenia G.222. The USAF spent beaucoup millions to acquire the aircraft as an intra-theatre transport but then abandoned the plan due to budgetary issues and changes in war planning. The 103rd, Connecticut's own Air National Guard unit was scheduled to receive some but all 27 aircraft acquired before contract cancellation were sent to AMARC at Davis-Monthan AFB for storage. At present, Congress is debating their fate. The USCG and the US Forest Service both want the aircraft but a bill from the House would send them to the Coast Guard in a swap with the USFS and the USAF involving C-23 Sherpas and HC-130H Hercules. Its kind of a governmental "corporate" operation easier to understand than corporate mergers and acquisitions but harder than teasing out the mysteries of the G-1000.

Then there are the USAF Special Operations Command which sports a variety of unusual aircraft.



*First consider the Swiss Pilatus PC-12 which the military call the U-28A. The mission seems to be Intelligence, Surveillance, and Reconnaissance (ISR) and a variety of other duties which Special Operations Command coyly refers to as “utility missions.”*

*(Photo Credit: USAF)*



*(Photo Credit: USAF)*

*Polskie Zakłady Lotnicze (PZL) is a Polish firm which as it turns out is wholly owned by United Technologies, think Pratt & Whitney and Sikorsky! The PZL M28 Skytruck was originally the Russian Anatov AN-28 and production rights were transferred to Poland in 1978. Modified examples are used by SOCOM under the designation C-145A and fly with the 919<sup>th</sup> Special Operations Squadron out of Duke Field at Eglin AFB.*

*(Photo Credit: T/Sgt Samuel King, Jr.)*



*Spain's Construcciones Aeronáuticas SA (CASA), now owned by the European Aeronautic Defence and Space Company N.V. (EADS) who have brought us the Airbus produces this medium transport aircraft as the C-212 Aviocar. They have shown up on the USAF inventory as the C-41A. It is simple and rugged and easy to maintain. SOCOM uses it for training at McDill AFB and the Yuma Proving Ground. This is the second time the C-41A designator has been used. In 1939, it was attached to a DC-3A used as a VIP transport!*

*(Photo Credit: DIA)*



*(Photo Credit: Msgt Russell Cooley)*

*The Russian Mil Mi-17 Hip has been observed with FAA numbers. It is operated by the 6<sup>th</sup> SOC at Hurlburt Field. The US may be operating a number of these machines to train Afghan forces and disguise US troop movements.*

And then there is Groom Lake. Groom Lake is the US Air Base at Area 51. The area has been used to test a number of the most advanced US aircraft from the U-2 and SR-71 to the latest stealth models. One of its lesser known missions was the evaluation of Soviet aircraft which had been captured or acquired by other means.

For at least 35 years the U.S. military has operated Soviet- and Russian-made MiG and Sukhoi jet fighters.

The studies of actual Soviet jet aircraft commenced in 1953 when “Operation Moolah” offered \$100,000 to a North Korean pilot who would defect with a MiG-15, then engaged in combat with US forces on the Korean Peninsula.



*MiG-15bis flown to Kimpo Air Base by Lt. No Kum-Sok. The aircraft was evaluated by the Air Force, Chuck Yeager being one of the test pilots. The plane is now at the Museum of the USAF.*

The Groom Lake program, instituted in the mid '70s was highly successful and used a series of code names prefixed by Have-. The aircraft bore US designations prefixed by YF- with numbers ranging from around 110 to 118 with letter suffixes. For example, YF-114C may have been a MiG-17F used in the *Have Ferry* program.

Aircraft have been acquired from defecting pilots, by capture, and by purchase. As the program matured, the number of aircraft in the fleet grew as did the types. The end of the cold war and agreements with countries which had acquired Soviet aircraft proved a bonanza for the intelligence agents who were tasked with acquiring foreign hardware.

Aside from the Israeli contributions, aircraft have been acquired from numerous states which were in

or are in the Soviet sphere of influence. These include China, Germany, Poland, the Czech Republic, Moldova, Cuba, North Korea, Egypt, Ukraine, Afghanistan, Iraq, Indonesia, And Pakistan.



*The Russian MiG-17 Fresco was first obtained from the Israelis after two Syrians mistakenly landed in Israel. They were used in the Have Drill program.*  
(Photo Credit: DIA)



*The first MiG 21 Fishbed was acquired when the Israelis persuaded an Iraqi pilot to defect. It was employed in the Have Doughnut program.*  
(Photo Credit: DIA)

In addition to the three aircraft described above, there is strong evidence to indicate that the MiG-23 Flogger, MiG-25 Foxbat, MiG-29 Fulcrum and the Sukhoi Su-22 Fitter and Su-27 Flanker.

A good reference on the program which evaluates Soviet aircraft is *Red Eagles* subtitled “American’s Secret MiGs” by Steve Davies. The book is centered on the Constant Peg program carried out by the 4477th Test and Evaluation Squadron at Groom Lake and Tonopah. Most interesting is the trials of the maintenance crews who must keep the aircraft flyable without adequate documentation and the support of a dedicated logistics system.