



## *The Daedalean*

**Semper Discens**

*Monthly Aerospace Education Newsletter of the Connecticut  
Wing of the Civil Air Patrol*

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### **CALENDAR**

#### **May**

#### **For Future Planning**

23-26 JUN-National AEO School-Pensacola  
31 JUL-07 AUG-CTWG Encampment  
12-14 AUG-AEO School-USAF Museum  
21 AUG-CTWG Rocket Contest-Tentative  
22-24 OCT-CTWG Conference

### **DAEDALEAN ARCHIVE**

An archive of past issues of The Daedalean may be found on the CTWG web-site at:

<http://www.ctwg.cap.gov/aerospace.html>

### **2010 COMMANDER'S CUP WING ROCKETRY CONTEST**

#### **Rules Clarification and Amendments**

1. Spin stabilization is allowed.
2. Flight Three-Free Form Competition promotes load bearing rockets, historical rockets, and

multistage rockets, all of which are applicable to the CAP Rocketry Badge.

3. The most probable date for the contest is Saturday, 21 August.

Here are the rules:

Flight 1: Tyro Cadets will build an Estes Alpha or Quest Astra 1 decorated in a Civil Air Patrol Theme. The entry will be judged on construction, finish, and flight. Each first year Cadet in a Squadron may enter one rocket. A Tyro Cadet is a Cadet who has never participated in the Wing contest. (CAVEAT-The Alpha is the model with balsa fins. Do not order the Alpha III with plastic fins for this contest.)

Flight 2: Altitude Competition-Build a rocket, kit or scratch, which will use a standard engine which will be supplied by the Wing. This will be the same engine for all and will be either an 1/2A, A, or B engine, all of which have the same dimensions (2.75 in x 0.69 in). Your entry must accept this size engine. Judging will be based on maximum altitude reached. Each Squadron may enter two rockets for one flight each and the best of the two flights will be counted.

Flight 3: Free Form Competition-Each Squadron may enter two scratch built rockets powered by a D engine. Judging will be based on construction, finish, and flight.

Finish points will be based on sanding, contouring of fins, joins of fins to fuselage, and alignment of fins. Finish will be based upon quality of paint application, neatness of decal or marking application, and appropriate markings and colors.

Altitude will be judged on the basis of a number of measurements, the high and low of which will be discarded.

Flight will be judged on a vertical climb, and proper deployment of recovery device.

A scoring rubric will be developed and sent out for comments.

Squadrons are responsible for purchasing rockets, engines, igniters, and wadding except for Flight 2, altitude rockets, in which case, the Wing will supply the engines. CATO will supply launch services.

5. Obtaining Supplies: Here are some suggested websites for information on obtaining rockets, engines, and supplies in bulk. No endorsement is meant or implied by these recommendations.

- A. <http://www.estesrockets.com>
- B. <http://www.questaerospace.com>
- C. <http://www.acsupplyco.com> (offers bulk discounts)/CAP Model Rocketry section

If you have any questions, please contact me. MAJ Stephen Rocketto, *Raketekampfdirektor* at [srocketto@aquilasys.com](mailto:srocketto@aquilasys.com).

### **CTWG Washington Field Trip**

*12 April-16 April*

The trip was cancelled due to inability to secure lodging reservations at Bolling Air Force Base. Two Cadets from the first trip were able to attend the second trip.

### **CTWG Washington Field Trip**

*19 April-23 April*

Eight Cadets and two Officers attended the five day CTWG field trip to Washington last week. C/MSgt Shawn Decker of the Stratford Eagles led the Cadet contingent: Esra Jensen, Liam Decker, Brendan Ferris, and Thomas Ferris, all from Stratford, Kyle Parlato from the New Haven Minutemen, Stephen Bouffard from Northwest Hills, and Kyle Hall from Thames River. Officers were Maj Roy Bourque and Stephen Rocketto.

The group was housed at Bolling Air Force Base in the Temporary Living Facility units, each consisting of two bedrooms, a living room, a kitchen, and bath.

Meals were prepared in the quarters. Breakfasts consisted of eggs, sausage or hash, pancakes, cereals, toast, juice and milk. Peanut butter and jelly, meat and cheese sandwiches were bagged and lunch was taken to the field. Dinners consisted of a hot dog and bean casserole, spaghetti and meat sauce, and two outdoor barbecues, hamburgers and chicken at one and steak at the other.

Maj Bourque and Rocketto served as cooks and Cadet Liam Decker, a self-proclaimed expert in eggs and pancakes assisted at breakfast. This combination of culinary talents led to our only dispute during the trip. Cadet Decker claimed pancakes should be of a light brown hue, the same way he enjoys his toast. Maj Rocketto argues for a darker brown, robust sepia tone, robust and hearty, lumberjack style. Decker countered with an argument that "lumberjack" style was akin to burning and charged Maj Rocketto with a culinary atrocity. Maj Rocketto pointed out that the pasty white pancakes favored by Cadet Decker resembled the pale faces of Scandinavian caribou farmers, failed to allow the pancakes to mature into fluffy delights, and were aesthetically unpleasing to the eye. A suggestion was made that the dispute might be settled at dawn behind the nearby chapel, pistols for two, coffee for one but saner heads prevailed and each cooked their own pancakes in their own inimitable styles.

On the trip down, the group stopped at the National Security Agency's (NSA) National Cryptologic Museum. The cadets all earned puzzle prizes for answering questions about the history and techniques of codes and ciphers. They also visited Vigilance Park where three aircraft used by the Air Force, Navy, and Army for signal intelligence are displayed.



*Sgts Decker and Parlato use a cipher wheel to find an answer to one of the NSA puzzles.*



*Using a captured Enigma coding machine, Cadet Liam Decker composes a message to German field forces which leads them into confusion and results in the Allied victory in the European Theatre of Operations.*

The next stop was at the Udvar-Hazy Annex of the National Air and Space Museum at Dulles Airport. Cadets were tasked with finding the answers to 25 questions about aerospace, each one tied to a part of the CAP Cadet Aerospace curriculum. Cadet Hall won a \$5 prize for answering the most questions. The team of Cadets Esra Jensen and Liam Decker are commended for their second place finish.



*Cadet Hall, observed by the Ferris's, takes notes on the Aichi Seiran, a Japanese submarine launched float plane designed to attack the Panama Canal.*

On the second day, the group visited the National Firearms Museum of the National Rifle Association where Director of Competition, H.Q. Moody, a retired USAF Major and member of the USAF Rifle Team briefed them on the history of US military marksmanship and the start of international long range rifle marksmanship competition. The group then toured the museum which was featuring an exhibit on firearms used in classic and modern motion pictures.



*Cadets and Maj Bourque briefed by H.Q. Moody in the NRA atrium.*

On the third day, the van headed south to the National Museum of the United States Marine Corps. The museum houses unique displays of highlights of USMC history. The mannequins are extraordinarily realistic, cast from the faces and limbs of serving Marines. Entrance into the "frozen Chosin" Reservoir exhibit is through insulated doors because the air is maintained at a lower temperature to enhance the realism. The flashes of explosions, the light of flares, and the streaks of tracers provide a visual background to the audio tracks of Marine calls for fire support and ammunition.



*Cadet Bouffard studies the diorama picturing a Marine assisting his wounded comrade.*

*Cadet Thomas Ferris hefts a fully loaded Marine rifleman's combat pack.*



From Quantico, our Yankee detachment followed the southern route of General Grant, past Cold Harbor and Spotsylvania, to Richmond where we visited the Virginia Aviation Museum. Docent Bill Mawyer explained that the core of the exhibition was formed around the collection of Sid Shannon. Shannon's aircraft were all those which were the actual planes or representative samples of those flown by many of his notable friends: Eddie Rickenbacker, Bevo Howard, and Dick Merrill.



*Cadet Brendan Ferris tries his hand at controlling a Piper J-3 Cub model supported by a vertical column of air.*

Among the aircraft were a rare Vultee V1-A. In 1936, this aircraft made the first trans-Atlantic round trip voyage. This is known as the "ping-pong" flight for two reasons. First, it "bounced" between the North America and Europe but more appropriately, because most of the excess volume

of the aircraft was filled with ping pong balls to assist in flotation if the aircraft went down at sea!



*Vultee V1-A, Lady Peace II, formerly owned by William Randolph Hearst. The aircraft represents Lady Peace, the aircraft flown on the first North Atlantic round trip flight by Dick Merrill.*

That evening, after returning from Richmond, C/MSgt Decker, a USMC aspirant, and Maj Rocketto presented a quiz on Marine Corps history. Cadet Brendan Ferris earned the \$5 prize.

Our third day was split among the Washington Navy Yard, the Goddard Space Flight Center, and the Maryland Aviation Museum. Due to a retirement ceremony and the unavailability of parking, our visit to the Navy Yard was, like a navy dog watch, curtailed. We did get to see the 14 inch railroad gun and the 16 inch battleship gun barrel, the destroyer USS Barry, and the titanium pressure hull of the bathyscaph Trieste.

Our second stop of the day was at Goddard Space Flight Center where we attended a lecture on solar activity and viewed the display of sounding rockets.

The day concluded with a visit to Middle River, Maryland and the site of the former Martin Aircraft plant. The Glenn Martin Maryland Aviation Museum houses a wide collection of exhibits saved from destruction when the plant was shut down. A small number of aircraft are preserved on their flight line, including a rare Martin 4-0-4 Airliner, one of the many putative DC-3 replacements produced after World War II.

On our last day, on the return journey, we visited the Air Mobility Command Museum at Dover Air Force Base. Retired navigator Bill Maroon led the Cadets on a two hour tour which included flying the PT-17, PT-22 and T-6 simulators and entrance into four different aircraft, the C-121, C-123, C-141, and KC-97. After a sandwich lunch, highlighted by watching a C-5 make touch and go landings, we boarded the van and commenced the long ride home.



*Under the supervision of Docent Maroon, Cadet Hall guides his Stearman down the final approach at Dover Air Force Base.*

### AVIATION CURRENT EVENTS AND HISTORY MILEPOSTS

#### Current Events

The USAF launched its X-37B space vehicle in late April. Resembling a miniature space shuttle orbiter, the S-37B is unmanned and capable of 270 missions after which it will return for a landing and refurbishment. Originally conceived by NASA and then adopted by the USAF, its purposes remain shrouded in secrecy.

#### History Milestones

01 May, 1960-A Lockheed U-2, piloted by Francis Gary Powers, is shot down over the Soviet Union.

13 May, 1940-First free flight of the Sikorsky VS-300 at Stratford, CT utilizing its revolutionary anti-torque tail rotor.

20 May, 1927-Charles Linbergh wins the \$25,000 Orteig Prize when he becomes the first person to solo the Atlantic.

29 May, 1934-The Collier Trophy is awarded to Connecticut's Hamilton Standard Propeller Corporation for the development of the controllable pitch propeller.

### AEROSPACE EDUCATION NOTIFICATIONS

The latest AE Newsbrief from CAP NHQ may be viewed at:

[http://members.gocivilairpatrol.com/aerospace\\_education/stay\\_informed/ae\\_newsbriefs.cfm](http://members.gocivilairpatrol.com/aerospace_education/stay_informed/ae_newsbriefs.cfm)

Reminder: The National AEO School in Pensacola, Florida, will be held from 23-26 June 2010. The application for this year is on the AE website at:

[http://www.capmembers.com/aerospace\\_education/internal\\_specific/aeo\\_resources/aeo\\_school.cfm](http://www.capmembers.com/aerospace_education/internal_specific/aeo_resources/aeo_school.cfm)

### FAMOUS WORLD CIRCLING AIRCRAFT AT THE NATIONAL AIR AND SPACE MUSEUM, UDVAR-HAZY



*Wiley Post's Lockheed 5B Vega, The Winnie Mae*

*Steve Fossett's Scaled Composites Model 311 Virgin Atlantic GlobalFlyer*

