



## *The Daedalean*

**Semper Discens**

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

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### **CALENDAR**

#### **February**

*27-28 FEB-CLC Course-Plainville*

#### **For Future Planning**

20-21 MAR-UCC Course-Stratford

20-21 MAR-SLS-Danbury

31 July-07 AUG-CTWG Encampment

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**

Tentative plans for the rocket contest are stated below. There will be three separate categories.

Flight 1: First year 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 first year Cadet is a Cadet who has never participated in the Wing contest.

Flight 2: Altitude Competition-The rules for this contest are still in flux. Build a rocket, kit or scratch, which will use an 1/2A3 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 evenness of paint application, neatness of decal or marking application, and appropriate markings and color.

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

These rules are subject to change or modification based upon comments submitted to Maj Rocketto at [srocketto@aquilasys.com](mailto:srocketto@aquilasys.com) by 21 March.

### **CT WING FIELD TRIP TO WASHINGTON**

Some Squadrons have indicated interest in participating in another field trip to the Washington, D.C. area. Last year, sixteen Cadets and Officers spent five days visiting aviation museums and historic sites. They billeted at Bolling Air Force Base and traveled in CAP vans. The estimated cost of the trip is about \$125/person.

The trip might be scheduled during school spring vacation time in the spring. Many schools have vacations during from 12-16 April or from 19-23 April.

This project is time critical so interested parties should contact Maj Rocketto at srocketto@aquilasys.com by 10 March. Let us know which is your preferred week and how many Cadets and Officers might attend.

The options are open so if you have other ideas, let us know and we can discuss them.

### **CTWG AEROSPACE EDUCATION PLAN OF ACTION HIGHLIGHTS**

The Wing Aerospace Education Plan of Action for 2010-1011 has been submitted by the Director of Aerospace Education. Here are the highlights which directly affect AEOs and Cadets.

#### Internal Aerospace Education for AEOs

1. A one day A/S Ed Seminar will be held at Wing HQ.
2. As a goal, all AEOs will achieve Technician Level at a minimum and one level higher if already Technician or Master.
3. Continue to publish one copy per month of *The Daedalean* as a conduit for communications.
4. DAE Staff will visit each Squadron at least once in the year to observe, teach, and consult.

#### Internal Aerospace Education for Officers

As a goal, twenty five Officers will earn the Yeager Award.

#### Internal Aerospace Education for Cadets

1. As a goal, increase Squadron participation in the AEX program by two squadrons.
2. Continue the Commander's Cup Rocket Contest.

3. Support the Wing Rifle Safety and Marksmanship Program.
4. Provide an opportunity for Cadets to participate in a five day field trip to the Washington, DC area.
6. Provide an opportunity for Cadets to participate in a one day field trip to a local point of aerospace interest.
7. Develop a set of teaching aids to support the *Aerospace Dimensions Modules*.
8. Continue the Citrus Fruit Fundraiser.

#### External Aerospace Programs

1. As a goal, Wing Squadrons will support three new organizations in aerospace programs. These may be scouting, schools, community groups, social organizations, or service organizations.
2. Nominate two individuals or organizations for honors at the Wing or Regional level.

The DAE will support all Wing Aerospace Education objectives to the greatest extent possible. Supplementary material will be forwarded via email in the near future. Any AEO who wishes assistance should not hesitate to contact Maj Rocketto at srocketto@aquilasys.com.

### **THAMES RIVER COMPOSITE SQUADRON RUNS AEROSPACE DISPLAYS AT TWO SCHOOL AEROSPACE FESTIVALS**

The Groton based squadron participated in special evening programs in which students and parents were invited to visit and take an active part in some two dozen exhibits and demonstrations. Thames River's first appearance was at the Juliet Long Elementary School in Ledyard.

TRCS set up a three table display consisting of some of our prize winning rockets, emergency service gear, aerospace themed books, and display boards illustrating the history of US manned space flight, women in aviation, and the ARCHER program. CAP members also ran hands-on

demonstrations of scientific principles. The bicycle wheel gyroscope and a turntable showed how an automatic pilot functioned. Bernoulli's Principle, the fact that a high speed stream of air creates a low pressure region, was illustrated using an electric hair dryer and a ping pong ball. An air hockey puck testified to the fact that objects in motion maintain a constant speed and direction unless acted upon by an unbalanced external force.

The Connecticut Wing Drug Demand Reduction Officer, Capt Michael Bafuma was instrumental in obtaining DDR promotional materials from National Headquarters.

Squadron participants were Cadets Abby and Lexie Wojtcuk, and Jennifer Johnson, Majs Bourque and Rocketto, Lt Wojtcuk, SM Wojtcuk, and Mr. Johnson.



*The principle of the automatic pilot is shown to Ledyard school system pupils by Cadet Johnson.*

In addition to TRCS, thirteen other exhibitors were present. A total of 91 pupils circulated from exhibit to exhibit, getting their cards stamped after participation, and earning rewards for their efforts. Total attendance was estimated at 250.

The event was organized by CTWG Aerospace Education Member and CAP Aerospace Educator of the Year Stuart Sharack assisted by AEM Alex Rode, both teachers in the Ledyard School System.

AEM Sharack then promoted a second event at the Solomon Schechter Academy in New London. A similar program of activities was carried out with the addition of demonstrations of chemical oxidation of a simulated rocket fuel. The eye-catching demonstrations repeatedly drew groups of students who eagerly participated in the varied activities.

The Cadets and Officers also distributed CAP and TRCS information and promotional material.



*Cadet Abby Wojtcuk and a young Ledyard lady study Newton's First Law of Motion with an air puck.*



*David Kohanski lofts a ping-pong ball on a column of air from a blow drier in an illustration of the Bernoulli Principle. Cadets Hall and Barbaran look on.*

## HISTORY ARTICLE OF THE MONTH

### A Close Call for Lindy by Colonel Frederick G. Herbert *NER Historian and TRCS Member*

In early 1925, Charles Lindbergh came very close to being dismissed from the Army Air Service on charges of lying to superior officers. He was to be washed out of the Army advanced flight training

program at Kelly Field Texas. He would not become an Army Pilot and would not receive a commission as a second lieutenant; . He had worked hard to earn these honors.

Prior to joining the Army as a flight cadet he was an engineering student at the University of Wisconsin. At college, he didn't apply himself. He only studied those subjects that interested him. His poor academic performance resulted in his dismissal. However, he wanted to be successful in the army training program and he worked hard to achieve top scores. Lindbergh learned to study in the Army aviation program and was academically more successful there than at any school he had ever attended. While his fellow cadets were asleep at night, Lindbergh was studying in the only after hours lighted room in the barracks, the latrine. When he moved from the preliminary flight training at Brooks Field to the advanced training at Kelly, Lindbergh was second in the class.

Nevertheless, he was now about to be dismissed. There was no question about his ability to successfully manipulate the controls of an airplane. Lindbergh was an accomplished pilot prior to joining the Army. He had received preliminary flight training at a flying school in Nebraska and, more importantly, he had worked as a barnstorming pilot, taking passengers for \$5.00 a ride at small country towns throughout the western

United States as well as performing aerobatic at air shows. By the time he joined the Army, he had logged more flight hours than any other cadet in his unit and only one flight instructor at Kelly Field had more flight hours logged than Lindbergh.

His army flight instructors recognized his piloting skills but since they thought he had lied, they had to drop him from the program since anyone who would lie is unacceptable as a commissioned officer. Integrity was, and still is, a characteristic which is just as important to a military aviator as the skill needed to fly an airplane.

Lindbergh's problem arose from a navigation training flight. The cadets were to fly solo on a triangular course from Kelly Field eastward for 67 miles to Gonzales, Texas, then southeasterly for 33 miles to Cuero, Texas, then northwesterly for 82 miles back to Kelly Field. They were to land at Gonzales and Cuero where a flight instructor would be positioned to document their time of arrival. Upon returning to Kelly Field, the cadets were to present the document that contained the endorsements of those instructors. This flight would provide experience in navigating over large areas of undeveloped countryside with few towns, roads or other features that would serve as checkpoints. It was expected that the cadets would wander off course and have to locate themselves by identifying positions on their maps and making appropriate course corrections.

Flights like this were more of a pleasure than a difficulty for Lindbergh. The weather was good and the navigation problem was interesting but uncomplicated. His airplane was modern and well maintained. He looked forward to take-off. In truth, he might have been willing to pay the Army for the privilege of making such an interesting and enjoyable flight in a modern airplane.

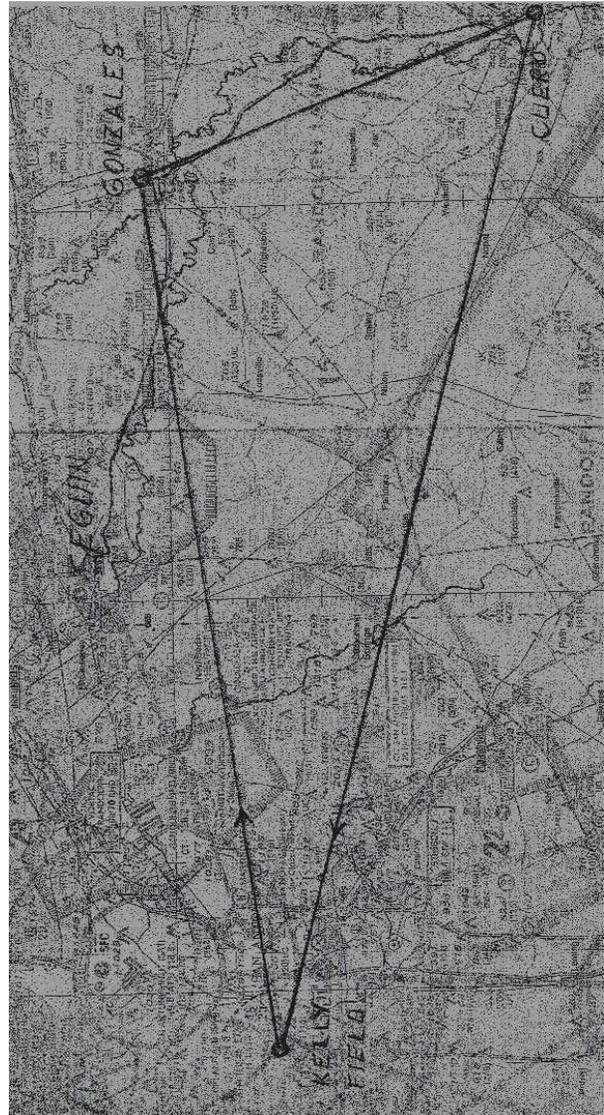
The cadets took off at five minute intervals. Lindbergh was the third one to depart. The first leg of the trip, to Gonzales, presented a challenge because the countryside was mostly uninhabited prairie and lacked landmarks. The only checkpoint that would provide a pilot's location with precision was 57 miles from Kelly Field. The road running from Seguin to Gonzales came within half of a mile of a winding river that twisted as it ran parallel to and south of the road. When the road was identified from the air, it could be followed to Gonzales if the visibility was limited. However, the weather was good and flying direct to Gonzales was easy. Lindbergh was experienced in this type of navigating from his barnstorming days when he flew using the railway maps one could purchase at any drug store. He was the first cadet to land at Gonzalez, checked in with the flight instructor positioned there to verify the landing of the cadets, and then took off for the airport at Cuero.

The second leg of the flight was easier than the first. Initially, for seven miles, the road to Cuero ran in the same direction as the flight path. Following the road for those seven miles would give the magnetic course to follow for the rest of that leg. The road wandered off to the east but then came back to Cuero. It the shortest leg of the flight and the easiest to navigate.

Lindbergh flew direct to Cuero and landed but could not find the flight instructor there to verify his arrival. There was no army airplane or flight instructor on the airport so he took off on the third leg of the trip, returning to Kelly Field.

The return flight from Cuero to Kelly Field was a long stretch over sparsely populated and undeveloped countryside. However, there were some small towns that could be used as checkpoints and would verify Lindbergh's correct magnetic course to Kelly Field. Seven miles from Cuero, just north of the flight path, was the small town of Lindernau and 50 mile farther was another small town, Sutherland Springs, just south of a

bend in a river. He flew directly along the flight path and landed at Kelly Field. Lindbergh was pleased with his performance. He had navigated well, taken off third, but was the first cadet to return. However, when he reported in at Kelly field, he was in trouble because he did not have an endorsement from the instructor at Cuero.



Lindbergh's Flight Path-Kelly to Gonzales to Cuero to Kelly-1925

The instructors at Kelly did not believe he had found Cuero. They thought he had mistakenly landed at some other small airport or he had just gotten lost and wandered around until he found his

way back to Kelly Field. They told Lindbergh that he would be dismissed from the flight program because he had lied about the details of his flight.

Lindbergh was distraught because he now faced elimination from the program. All of his hard effort to excel during Army flight training was now in jeopardy. He had a 93.36 average at Brooks Field and was second in the class when they went into advanced training at Kelly Field.. He knew he had flown the assignment perfectly and insisted that he had landed at Cuero. However, he was not believed.

Lindbergh began to make a drawing of the Cuero airfield showing the arrangements of the hangars and aircraft tie down facilities to prove that he had been there. Before he completed his sketch, the Kelly Field base operations office received a message from the instructor who was to check the pilots at Cuero. The instructor reported that he had become lost that morning on the way to Cuero and had arrived very late. He had not been at the Cuero Airfield when Lindbergh landed. Vindicated with his honesty no longer in question Lindbergh remained in the program.

Of the 104 cadets that started at Brooks Field, Only 19 cadets successfully completed the advanced training and were commissioned second lieutenants in the Reserve Officer Corps. Lindbergh stood first in the class.

In 1926, he became chief pilot of the Robinson Aircraft Corporation flying airmail from St Louis to Chicago. In 1927, Lindbergh took off from Roosevelt Field, NY, in the "Spirit of St. Louis" flying the first non-stop flight from New York to Paris.

The rest is history.

The article above is a excerpt from the manuscript, *Charles Lindbergh, Hermann Goering, Gill Robb Wilson-Three Fighter Pilots and the Beginning of World War II* by Frederick G. Herbert, copyright 2010, all rights reserved.

## CURRENT EVENTS AND HISTORY MILEPOSTS

1. Boeing's 747-8 Freighter made its first test flight on 08 February. The aircraft is an stretched and improved version of the 747-4 and provides 16% more cargo volume. Boeing has committed two additional aircraft to the 1600 hour test program. As of this date, 108 orders have been received for the new cargo plane.

2. *Endeavor* has returned to earth after transporting the last major component of the International Space Station to orbit. Four more missions are scheduled this year after which the shuttle fleet will be decommissioned. The remaining missions will be dedicated to stockpiling supplies. Once the shuttle program is terminated, Russian *Soyuz and Progress* capsules will continue to transfer crew members and carry supplies. US plans for a successor to the shuttle are in flux and recent events indicate that private enterprise will be encouraged to develop vehicles for low earth orbit missions.

3. Sikorsky continues to test its unique X-2 coaxial rotor helicopter with advancing blades technology. The aircraft is being tested at the Schweizer Aircraft plant in Horseheads, NY. The X-2, equipped with an auxiliary pusher propeller is expected to reach record helicopter cruise speeds of 250 mph.

4. On 05 March, 1913, the first US Army aviation unit was established as the 1st Aero Squadron.

5. On 10 March, 1948, Herbert Hoover, NACA test pilot, became the first civilian to exceed the speed of sound, flying the Bell X-1.

6. On 15 March, 1916, the 1st Aero Squadron, under Capt. Benjamin Fulois, joins General Pershing's Punitive Expedition in Mexico in pursuit of Pancho Villa.

