



The Leading Edge

Monthly Journal of the Connecticut Wing of the
Civil Air Patrol

Kenneth E. Chapman, Col, CAP Publisher

Stephen M. Rocketto, LtCol., CAP, Editor
srocketto@aquilasys.com

June 2016

CALENDAR

06 July-CTWG Commander's Call & CAC
13 July-CTWG Command Team Meeting
13-17 July-RCLS at Connecticut Fire Academy
20 July-C TWG Staff Call
05-11 August-CTWG Encampment at Niantic
08 October-Rifle Safety and Marksmanship
20-23 October-CTWG Compliance Inspection
05 November-Rifle Safety and Marksmanship

GONE WEST



Mary S. Feik, Col, CAP
(Photo Credit FlugKerl2)

CAP icon, Mary Feik, filed her last flight plan on last flight plan on 10 June, 2016. Feik, a pioneer for women in aviation engineering and a dedicated supporter of the Civil Air Patrol Cadet Program succumbed to cancer at her home in Annapolis, Maryland. During her teenage years, in the 1930s she worked as a mechanic in her father's Ohio garage.

At the beginning of World War Two, Mary worked for the U.S. Army Air Corps' Air Technical Service Command based at Wright Field, Dayton, Ohio. During the war, she served as a flight engineer and pilot for the experimental work being done at Dayton. Her log book listed some 6,000 hours in primary trainers and the P-47, P-51, P-61, P-63 and the turbine powered P-59 and P-80. She also log time in the B-17, B-24, B-25, B-26 and A-26. Experience in cargo planes include the C-46, C-47, C-82, C-119, and C-121 and the CG-4A glider. Additional duties training mechanics and writing technical manuals.

After the war she worked at the National Air and Space Museum's Garber Restoration Facility in Silver Hill, Maryland. The director was Paul Garber, another CAP icon. While at Silver Hill, Mary worked on the construction and restoration of historically important aircraft. To recognize her skill and contributions to aviation, the Federal Aviation Administration awarded her Charles Taylor Master Mechanic Award. Taylor built the engine for the Wright Flyer and served a a Wright mechanic. The award requires impeccable performance over a period of 50 years!



Northrop Alpha, one of Mary's restoration projects now hangs on display at the National Air and Space Museum

In 1971, Mary joined CAP and served for 45 years. Her “ultimate” honor was the creation of the Mary Feik Achievement Award in 2003. Cadet who earn this award are promoted to Cadet Senior Airman. Col Feik attends many ceremonies when this award is presented and personally signs Feik certificates.



The Feik Ribbon

Mary has visited our Wing on many occasions and entertained us with stories of her experiences and presented awards to our cadets.



Feik and C/1st Lieutenant Brendan Flynn at the New England Air Museum .Flynn is now a first class cadet at the U.S. Coast Guard Academy.



Mary and Feik Awardees at a CTWG Conference



CAP Teacher of the Year Rachel Manzer and Mary have an animated discussion at the National Conference in San Diego six years ago.



Jonathan Scannell receiving his Feik from Mary at the Wing conference in 2007. Scannell is now a CAP 2d Lt.

Some of her honors include membership in the Women in Aviation Pioneer Hall of Fame, recognition by NASA as one of the 47 most significant women in aerospace, and recipient of the Katherine Wright Trophy, awarded by the National Aeronautic Association and the Ninety-Nines for a woman who has contributed to the success of others or made a personal contribution to the advancement of the art, sport and science of aviation and space flight over an extended period.

Go to: <https://www.youtube.com/watch?v=HT0iTiVwsUc> for a CAP produced video about Colonel Feik.

WING NEWS

CAP INSPECTOR GENERAL COLLEGE

Three members of the Connecticut Wing attended

a weeklong CAP Inspector General (IG) College held at the Ritz Carlton in Peachtree City, Georgia. Some 50 students attended.

The college is mandatory in order to earn a Master rating in the IG specialty track, Attendance is encouraged for command staff personnel

The Connecticut Wing IG Lt Col Robert Roy, Lt Col Bruce Roy one of the wing's IG Assistants and Lt Col Jim Ridley the Wing's Chief of Staff all attended and successfully completed the program. Lt Col Rob Roy is expecting to obtain his Master rating shortly.



Where's Ridley and the Roys?

The students received instruction in investigations, subordinate unit inspections and compliance inspections.

Students needed to score a 400 or better out of 500 points in order to graduate and spent many hours in and outside the classroom in order to complete course work .“It was a challenging course” commented Lt Col Ridley, “I learned a lot and networked with a lot of great people...and the lessons learned by all of us will serve our wings and CAP well....”

*CTWG FLY-IN
11 June, 2016*

Wing Commander's Call

Col Kenneth Chapman, Wing Commander, discussed the many styles of CAP uniforms available, BDUs to mess dress, and the venues in

which to wear them.

Chapman announced the establishment of two new units, a Squadron at Oxford and a flight to provide opportunities for participation in the area served by the disestablished 169th.

A new mission is coming on line. The Connecticut Agricultural Experiment Station will use the Wing to survey damage to the forests by invasive species.

Priority of missions was covered. Air Force and State assignments come first and orientation flights come second. A call was made for O flight pilots to support the expected demand at the summer encampment.

There are plenty of openings available for basic campers. The Air Force is extending financial support to those who need assistance. See the article on the Cadet Encampment Assistance Program.

The rights and restrictions on Cadet mission flying was explained. Cadets over 18 years old can qualify as scanners. Cadets who have soloed or earned FAA pilot certificates are allowed to fly but two cadets cannot fly together unless a senior member accompanies them.

The new FEMA trailer is located at Eastern Group headquarters at the airport in Windham. The vehicle is fitted out with living accommodations and will be equipped to serve as a tactical command center.

Chapman stated that if any cadet aged applicant suffers from disabilities and the squadron commander is unsure of what to do, then the application should be bumped up to the wing level for study and approval or disapproval.

Northeast Region Commander Col Daniel Leclair spoke next. Leclair delivered a “state of the region” address.

The Cadet Advisory Council (CAC) made their annual report to the Wing.



C/Capt Capron briefs the Wing on CAS activities.

Cadet activities and department meetings ran concurrently followed by a catered lunch. The awards ceremony, covered in a separate article, concluded the Fly-In.

**CONGRESSIONAL GOLD MEDAL
RECIPIENT AND
CTWG “-OF THE YEAR” AWARDEES**

The awards ceremony which closed out the CTWG Annual-Fly celebrated the presentation of a Congressional Gold Medal to the family of Silvia “Sunny” Miller Burrill. To be eligible for this honor, awardees must have served in the Civil Air Patrol during the period of December 7, 1941 to the end of hostilities on September 2, 1945.



Sylvia Burrill: CAP, WASP, and Congressional Gold Medal awardee

Burrill, a graduate of Bassick High School in Bridgeport served as a member of CAP's Connecticut Wing during and as a member of the Women Air Force Service (WASP). She flew a variety of missions for CAP and the Army Air Force: search and rescue, ferrying aircraft, courier duty, and testing aircraft after maintenance had been performed.

The 103rd Composite Squadron has been designated the Squadron of Merit for the last year. Individual Cadet awards followed.

Four Cadets earned prestigious Wing awards.

- | | |
|--|-----------------------|
| C/Capt Dolores Mihaliak | Cadet of the Year |
| C/CMSgt Gianna Molinari | Cadet NCO of the Year |
| C/2 nd Lt Elias Bou-Chahine | Brewer AE Award |
| C/MSgt Facundo Cremel | AFA Medal |

Mihaliak, Molinari, and Bou-Chahine received Commander's Commendations



Cadet of the year C/Capt Dolores Mihaliak



Regional Brewer Award Winner C/2d Lt Elias Bou-Chaine

The following Cadets earned the Air Force Association of the Year Award in their squadrons:

C/CMSgt Matthew Schaupp-Ryan, C/2nd Lt Alec P. Beliveau, C/CMSgt James Chadukiewicz, C/2nd Lt Elias Bou-Chaine, C/1st Lt Sarah Eriksson, C/Capt Dolores Mihaliak, C/TSgt Michael Nejaime, C/CMSgt Luis M. Goita, C/2nd Lt John Finkeldey, C/Maj Keith Trotochaud, C/Col Brendan Schultz, and C1st Lt Anthony Berardo.

The Air Force Sergeants Association awards medals for the Cadet NCO of the Year. The following Cadets were so honored:

C/CMSgt Gianna Molinari, C/SSgt Clara E. Behnen, C/MSgt Amelia Farquharson, C/SMSgt Emily A. Hammer, C/CMSgt Noah Stillman, C/SMSgt Michael Bachand, C/TSgt Jenna L. Lackey, C/CMSgt Ethan E. Denton, C/CMSgt Connor Sestrom, C/CMSgt Joseph Saccacio, C/2nd Lt Michael Hollingsworth, and C/MSgt Frederic Zering.

Senior awards followed. Capt Daniel Hanle was recognized as worth of the Brewer Aerospace Award. The AEO of the year was Danielson's Capt Everett Hadley. The Jack V. Sorenson Cadet Program Officer honors went to Maj David Stansfield. Father and Lt Col Dennis Merceri was selected as the year's Senior Chaplain. The Character Development award was earned by 2nd Lt Christine Posca and Capt James Steer was presented Communications Officer of the Year. 1st Lt Sonia Simpson received recognition for Property Management Officer and 1st Lt Douglas Gebhardt was selected as a Logistician. Maj Scott Farley accepted the Counter-drug Award. Former Col Cassandra Huchko is the new Finance Director of the Year and Lt Col Dan Brooks was recognized for his efforts in CAP's legislative initiative and Lt Col Stephen Rocketto was selected for his work in Public Affairs.

Superior work by Lt Col Meghan Brownell and by Lt Col Darren Cioffi resulted in presentations for Professional Development and Incident Staff Officers respectively.



Capt Everett Hadley, Aerospace Officer of the Year

Bouchahine Cremel, Stansfield, Huchko, Brooks, Rocketto, and Cioffi were all selected as winners for the Northeast Region. Their names will be submitted to National HQ for consideration at the national level.

The Wing also honored Brownell, Major Jonathan Luysterborgh, and Lt Col Jeff Travers for their individual work in Emergency Services, the CISM program and Finance. Each received a Commander's Commendation

Lt Col Ridley received a Commander's Commendation for his organization and leadership of the Cadet Competition. Stansfield, Rocketto, April Krason and Carol Whelen received Achievement Awards for the work as Cadet Competitions staff.

EASTERN GROUP NEWS

submitted by
Maj Conrad Rustek, CAP
Commander, Eastern CT Group

Formation Of New Units

Two new flights that have been chartered this month and are now a part of Eastern Group.

Windham Flight (CT-009) is commanded by SM Pete Jarvis and is based out of Windham Airport. They meet Tuesday nights at 1900 and currently has an active roster of 6 senior members with at least 2 more in the membership pipeline.

The 169th Cadet Flight (CT-027) is a reactivation of the old 169th Composite Squadron that used to be based in Manchester. Capt Michele Wuestman has volunteered to step up as the unit commander. The unit will meet Wednesday nights at the Wing HQ building in Middletown.

Eastern Group Membership Growth

CT-004, CT-058, CT-075, and CT-102 all report positive growth for both Cadet and Senior members.

Eastern Group Cadet Orientation Flights

CT-004, CT-074, and CT-075 have all met the goal of exceeding the goal of 80%.

Eastern Group Yeager Awards

The goal is 80%. CT-075 has 87% of their seniors earning the Yeager. CT-058 is just behind with a record of 76%

SQUADRON NEWS

103rd Composite Squadron
submitted by
Capt Carol Whelan

The 103rd took 16 Cadets and four Senior members to the Quonset Point Air Show. 2nd Lt Dominic

Sogliuzzo was cadet officer in charge and Capt Whelen was the project officer.

New Haven Minutemen
submitted by
Lt Col Jeffrey Travers



Members of The Minuteman Composite Squadron, along with Veterans from the Milford VFW Post, honored Veterans. 2,200 flags were placed at the King's Highway Cemetery in Milford, CT.

Minuteman also partners with the Celentano Biotech, Health and Medical Magnet School and supported their recent science fair.



1st Lt Mirai Hashimoto explains the nuances of a flight simulator to a Celentano student.

*Stratford Eagles
submitted by
MSgt John Raymond*

The Squadron assisted a Blackhorse for Heroes fundraiser. Blackhorse works with physically impaired or able-bodied vets using horses to assist in rehabilitation. Veterans who have physical disabilities can use a carriage specially adapted to accept a wheelchair. Those struggling with PTS have the opportunity to trust, communicate, and re-build relationship skills.

*Thames River Composite Squadron
submitted by
Capt James Cook*

Each year, Elk Lodges hold a Flag Day ritual. Patriotic music, a history of the flag, and speeches are all part of the ceremony.

This year, five Cadets from TRCS participated at Groton's Elks Lodge #2163 honoring the national ensign. Cadets Nicholas Brouillard, Hannah Ramsey, Daniel Ramsey, Daniel Hollingsworth, and Benjamin Ramsey presented the colors. Lt Col deAndrade observed and took photographs.



Music was provided by the Nutmeg Fife and Drum Corps and the Boy Scouts from Troop 13 raised the flag.

Capt Paul Whitescarver, commander of the U.S. Naval Submarine base praised the turn-out of our cadets.

CONNECTICUT WING COMPLETES STATE-WIDE SEARCH EXERCISE

New Haven, Members of the Connecticut Wing, Civil Air Patrol, launched air and ground missions on Saturday the 4th of June. The primary mission base was at Tweed-New Haven Airport. Secondary sites were in Groton, Windham, and Waterbury. The training exercise was divided into three parts. Training consisted of air and ground searches for an Emergency Locator Transmitter (ELT) which simulated a downed aircraft, airborne photography practice, and radio operation techniques.

Approximately 60 members of the CTWG took part, manned the command center, dispatched two ground teams, and launched two aircraft. The scenarios postulated three lost hikers in Sleeping Giant State Park and an ELT transmission in or near the Connecticut River valley. In addition, two scanner candidates from Windham sortied and one crew practiced aerial photography, recording all Connecticut River bridges from Hartford to Saybrook.

Mission Base leaders applied USAF and Federal Emergency Management Agency techniques to practice the decision making and command authority necessary needed during a real emergency. The mission base staff operated FM and VHF radios to maintain contact with ground and air elements.

At the final debriefing, the participants engaged in a spirited discussion about “lessons learned” and improvements needed. Cioffi praised the efforts of all hands, both trainees and evaluators, in carrying out the assigned missions and working as a team.

ENCAMPMENT ANNOUNCEMENT

The 2016 CTWG Encampment will be held at Camp Niantic, Niantic, CT from Friday 5 August through Thursday 11 August 2016.

Cadet staff applications must be submitted immediately. All applications and payment must be sent to Wing Headquarters. If you have questions visit the encampment url at:

<http://ctwg.cap.gov/ctwg-encampment.html>

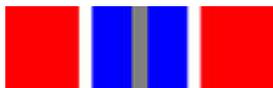
Cadets who are Master Sergeant or higher by July, can also register for the Northeast Region Cadet Leadership School taking place from Wednesday evening 13 July through Sunday 17 July 2016 at the Connecticut Fire Academy which is located in Suffield, CT. The RCLS is a requirement for Eaker and Spaatz achievements. For further information go to:

<http://www.ner.cap.gov/index.php/home/rcls>

Funds are available for financial assistance. Further details may be located at the following NHQ url:

http://capnhq.custhelp.com/app/answers/detail/a_id/2676/kw/CEAP/session/L3RpbWUvMTQ1OTM5MDE2OC9zaWQvQnc4VDdQTW0%3D

YEAGERS



Better known as the Yeager Award, earning this ribbon should be a goal of every CAP Senior Member. CAP has three Congressionally mandated missions: Cadet Programs, Emergency Services, and Aerospace Education. Only Aerospace Education is a duty of every member of CAP. The Yeager Program, officially known as the Aerospace Education Program for Senior Members (AEPSM) is an excellent way to acquire a wide body of knowledge and it is one of the most interesting courses in the CAP catalog.

The study material is a text, *Aerospace: The Journey of Flight*, which is available in printed form and on-line. The material, which is similar to much of what the Cadets study in their six volumes titled *Aerospace Dimensions*. It contains 25 chapters which cover the history of airpower, principles of flight and navigation, the aerospace community, meteorology, rockets, and space. The writing is clear and understandable and is accompanied by illustrations.

To find the material, go to eServices and click on “AE Resources and Downloads.” A panel which opens which contains pictures of the covers of many of CAP's AE manuals. *Aerospace: the Journey of Flight (Edition 3)* is the third icon in the second row. It is downloadable.

Once you prepare for the test, you go to eServices and click on “CAP On-Line Courses and Exams.”

The Yeager test is located in the left hand column. Click on this section and a new screen will open up. Two versions of the Yeager test are located at the bottom of the section labeled “Aerospace Education.” Click on one of them and you will get a test with no time limits and a 70% required pass score. The best way to study for the test is to answer the questions at the end of each chapter. If this is done, success is guaranteed.

The Yeager is not only a requirement for Level III Professional Development which is needed for promotion to major4 but also a vital source of knowledge with which a CAP officer can fulfill duties in Aerospace Education. Squadron Commanders and Aerospace Officers are asked to encourage completion of this useful and novel exercise.

The CTWG congratulates the members below who have completed the The AEPSM during the first eight months of the current fiscal year.

CT-011

1st Lt George J Garofalo 05 Oct 2015

CT-014
2d Lt Angel R Vazquez 21 Nov 2015

CT-022
2d Lt John T Riccio 22 Sep 2015
2d Lt Robert W Talley 16 Feb 2016

CT-042
2d Lt Craig M Edwards 15 Mar 2016
2d Lt Jean-Luc M Le Gall 08 Apr 2016
2d Lt Michael F Nolan 13 Dec 2015
2d Lt Christina E Posca 09 Dec 2015

CT-058
SM Robert T Dietzko 11 May 2016
SM Mohammed El Morsli 05 Apr 2016
2d Lt Fernando Vasconcellos 22 Oct 2015

CT-073
2d Lt Vlad Arslanov Sep 2015

CT-075
2d Lt Frank H Crandall Sep 2015
2d Lt David S Pineau 21 Nov 2015
2d Lt Steven R Schmidt 20 Oct 2015

CT-101
SM Jordan P O'Brien 14 Apr 2016
2d Lt Joseph W Parisi Jr 15 Apr 2016
SM Brian E Proulx 07 May 2016
2d Lt Walker P Woodworth 15 Nov 2015

STEM PROGRAM

STEM is an acronym for **S**cience, **T**echnology, **E**ngineering, and **M**athematics. It is a national education initiative to improve student performance in the four disciplines named. The Civil Air Patrol is committed to supporting this initiative.

CAP's STEM KIT program is aligned with both the national education standards and the cadet aerospace education program. CAP's Aerospace Education Division provides materials, on-line STEM resources, and on-line career modules to

participating members. The resources include the provision of hands-on activity STEM kits in Astronomy, Flight Simulation, Model and Remote Controlled Aircraft, Quad-copters, Robotics, Rocketry, and Weather.



Cadets Hannah Ramsey and Gabriella Richards-chenette assembling a quadcopter

Robotics, a typical kit provides the parts for a robotic arm, software, and an instructional video. Real world applications of robotic technology is found in modern assembly lines, space exploration, and medicine to name just a few.

The STEM kits provide a fantastic opportunity to work on a hands-on project and is an excellent project for the winter months. Some squadrons use a few hours on a Saturday to do the work. Time spent is applicable to the Aerospace Excellence (AEX) award.

To get information on applying for one of the kits to:

http://ae.capmembers.com/programs/stem_kits/program-process/

UAS GROUND SCHOOL

CAP has purchased Unmanned Aerial Systems ground school software from American Model Association (AMA) to help our cadets learn how to more effectively and safely fly UASs. In order to do that, we need the cadets to provide information so AMA can register them for the software. follow the guidelines below to access

the software.

- 1 Go to eServices
- 2 Click on CAP STEM Kit
- 3 Click on AMA Participation
- 4) Select your squadron from the dropdown
- 5) Indicate which cadets want to participate
- 6) Click on save information

After these six steps are completed, NHQ will receive this information and forward it to AMA to register the squadrons. AMA will provide us with login procedures, which we will forward to you.

This curriculum software was developed by Fly Robotics, and if you want to learn more about the software you can go to www.fly-robotics.com.

CURRENT EVENTS

USMC Aviation Suffers Shortfalls-Hornets and Harriers

Delays with the F-35 Joint Strike Fighter Program have resulted in a shortage of USMC F/A-18 Hornets. As of April of this year only 87 of the 276 Hornets in the Marine inventory are flyable! The shortages can be traced to two problems. The lack of progress on the replacement F-35 and a shortage of funds has led to a lack of spare parts, the delay of preventive maintenance, and a shortage of trained technicians.

The Hornets were due to be phased out during the next decade but the shortfall of replacement aircraft has forced the Marines to seek a remedy: resurrect mothballed Hornets which have been stored at Tucson's 309th Aerospace Maintenance and Regeneration Group better known as "The Boneyard."

Thirty Hornets are due to add to the Marine air arm, 27 from Tucson and three from the Navy. The 30 F/A-18C models will serve to buttress pool of aircraft needed to fly combat, train, and instruct. Upgrading the mothballed aircraft and returning them to service requires 10 to 18 months apiece so

the Corps expects to have the of the refurbished aircraft on the line by 2017.



McDonnell-Douglas F-18C

In 2012, the Marines paid Great Britain the knock down price of \$180 million in a hangar sale for their entire fleet of GR7 and GR9 Harriers. In contrast, a single F-35, scheduled to replace both the Harriers and the Hornets cost around \$150 million dollars!

The 72 Harriers will be used to supply spare parts for the Corps AV-8s. The aircraft are in good shape. Britain recently spent over \$600 million dollars to refurbish the aircraft just a few years before selling them to the United States. The sale was forced by British austerity measures which also cancelled the construction of their new aircraft carriers. The cancellation left the Royal Navy with no aircraft carriers.



British Aerospace GR Mk.3 Harrier



McDonnell-Douglas AV-8 Harrier II

AEROSPACE HISTORY

Memories of July's Past

01 July, 1872-Louis Bleriot, pilot, aircraft designer, and the first to cross *La Manche* by airplane is born.

02 July, 1937-Fred Noonan and Amelia Earhart go West in the vicinity of Howland Island.

03 July, 1942-The first airborne test firing of an air launched rocket is executed from a Consolidated PBY-5A Catalina over Goldstone Lake, California.

04 July, 1927-First Flight of the Lockheed Vega.

05 July, 1944-First Flight of the Northrop MX-324 rocket powered flying wing piloted by Harry Crosby.

06 July, 1956-First Flight of the Nike-Cajun Sounding Rocket at Wallops Island, Virginia.

07 July, 1981-The McCready Solar Challenger makes the first flight of a solar powered aircraft across the English Channel.

08 July, 1838-Ferdinand Graf von Zeppelin is born.

09 July, 1910-Walter Brooking flying a Wright biplane ascends to 6,175 feet, the first flight to exceed one mile in altitude.

10 July, 1928-In Germany, the first centrifuge experiments with human subjects are made.

11 July, 1922-An international conference to regulate air navigation commences.

12 July, 1944-The RAF places its first operational jet aircraft, the Gloster Meteor, into service.



Gloster Meteor

13 July, 1932-For the first time, the dirigible, USS Akron, carries its full complement of Curtiss F9C-2 Sparrowhawk air launched and air recovered fighters.



Note the Trapeze Hook Mounted on This Macon Sparrowhawk.

14 July, 1938-Howard Hughes and his crew of four, flying a modified Lockheed 14 Super Electra, break Wiley Post's round the world record.

15 July, 1933-Gen. Italo Balbo leads 24 Savoia-Marchetti S-55 flying boats in a mass flight from Rome to Chicago.



The S-55-Note the ungainly twin hulls and the combination of a tractor and push propellor, one for each the engines. Ungainly perhaps but it had a 2,200 mile range. Not bad for the 1920s era.

16 July, 1945-The United States tests the first nuclear weapon at the Trinity Site, Alamogordo, New Mexico.

17 July, 1917-Groundbreaking for the first National Advisory Committee on Aeronautics building, Langley Field, Virginia. The building, now called the NACA Memorial Aeronautics Laboratory is National Historical Site.



NACA's first building during the construction stage.

18 July, 1925-First Flight of the first Goodyear blimp, *Pilgrim*.



19 July, 1954-First Flight of the DeHavilland Comet III.

20 July, 1969-The Lunar Module Eagle lands on the surface of the Moon.

21 July, 1911-Denise Moore goes West, the first woman killed while soloing an aircraft.

22 July, 1933-Wiley Post pilots the Lockheed Vega Winnie Mae, on the first round the world solo flight.



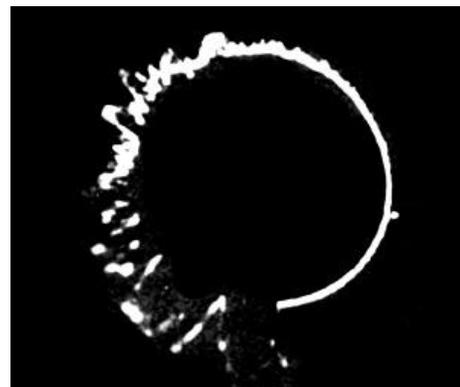
Winnie Mae at the NASM

23 July, 1930-Glenn Curtiss goes West.

24 July, 1943-The RAF, for the first time, uses chaff, strips of aluminum foil, cut to the wavelength of the German radar stations, to hinder tracking of their bomber stream directed against Hamburg.



RAF Lancaster dropping chaff, codenamed "window." The chaff is the cloud-like u-shaped image to the right



*Effects of Chaff On German Radar
The jagged left side of the display indicates jamming by chaff. Aircraft are lost in the jammed signal. There is no jamming on the right side and a target is visible at the 3 o'clock position.*

25 July, 1939-First Flight of the mediocre twin engined Avro Manchester, subsequently modified into the superb four engined Lancaster heavy bomber.



The Unlamented Avro Manchester

26 July, 1952-At Holloman Air Force Base, two mice and two monkeys ride an Aerobee sounding rocket to 200,000 ft at which point they were ejected and parachuted safely back to New Mexico. The monkeys were named Patricia and Mike and the mice answered to Mildred and Albert.

27 July, 1909-At Fort Meyer, Virginia, Orville Wright pilots the first official test flight of a US Army airplane. The next day the aircraft set an endurance record of 1 hr 12 min and 40 sec covering a distance of approximately 40 miles.



Orville Wright soars above the spectators at Fort Myers.

28 July, 1950-British European Airways conduct the first scheduled passenger service by a gas powered turbine aircraft using a Vickers Viscount.



TACA Viscount

29 July, 1950-A North American RB-45 Tornado makes the first nonstop trans-Pacific flight by a jet aircraft.



Tornado, the First Operational Jet Bomber of the USAF

30 July, 1935-Lt Frank Akers, USN, makes the first hooded landing on the aircraft carrier, USS Langley.

31 July, 1956-A flight of two Sikorsky H-19s make the first trans-Atlantic helicopter flight. Like the Wrights, Neil Armstrong and many other aviation pioneers, the pilots Ohio natives. The flight, Westover AFB to Prestwick, Scotland covered 3,500 miles and took 42 hr and 20 min air time. The helicopter were named *Hopalong* and *Whirl-O-Way*.



The Sikorsky Model 55, US military H-19 Chickasaw in Canadian Navy Livery