NEW YORK WING, CIVIL AIR PATROL

Wing Tips

AEROSPACE EDUCATION NEWSLETTER ONLINE

May – June 2022

Image Credit – South Dakota Wing – CAP

2022 NER AEO Course

The recently completed **2022 NER AEO** Course was well represented by the **New York Wing**. Forty-three students completed the class and eighteen were from the New York Wing. **Congratulations to all of the members who completed the course!**

1st Lt Craig Treco	AEO	NY-033
SM Edwin R Hoernes	SM - non-AE position	NY-033
Maj Elena MacDermant	Commander	NY-033
SM Colin Bancroft	AEO	NY 162
Capt Andrew Paluch	AEO	NY-173
1st Lt Steve Chesler	AEO	NY-212
Capt George Avgerakis	AEO	NY-219
Maj Thomas Ahneman	Assistant AEO	NY-219
2d Lt Thomas Chu	SM - non-AE position	NY-219

1st Lt Carl Yannuzzi	AEO	NY-288
Capt David Grate	AEO	NY-292
Capt Edward Mulderrig	AEO	NY-311
Capt Evelyn Jacobs	AEO	NY-332
2d Lt John A. Pasquale	AEO	NY-354
Lt Col Ellen J Maternowski	AEO & Commander	NY-402
2d Lt Scott Alden	AEO	NY-413
2d Lt Gita Meiman	SM - non-AE position	NY-420
1st Lt Loretta Tomasiello	SM - non-AE position)	NY-422

The course was held on consecutive Tuesdays and Thursdays from 12 April through 3 May. The topics covered included: The AE Mission and Your Role as an AEO ● Teaching Ordinary Subjects in Extraordinary Ways ● Thinking Outside the Box ● The Yeager Award - Developing a Program for Your Squadron ● CAP AE Resources - Products and Programs ● Effective Outreach Strategies ● Think Safety with AE Activities ● Maximizing Your AE Impact ● Developing Presentation Skills ● Awards - Recognizing Contributions to CAP's AE Program ● and Conducting Virtual AE and Making it Interesting.

INSIDE THIS ISSUE

2022 NER AEO Course . . . . . Page 1
AFA Grants for CAP Units . . . . . Page 2
LGA Kiwanis Club - Brewer Award . . . . . Page 3
NYW 2022 AE Goals . . . . . Page 3
AEO 101 . . . . . Page 5
NY-033 and the HAB . . . . . Page 6
AE Safety Check . . . . . Page 7
Aircraft Identification Quiz . . . . . Page 7
STEM Kit Update . . . . . Page 8
Quarterly AEO Meeting . . . . . Page 9
National AEO School . . . . . Page 9
AE Resources and Downloads . . . . . Page 9
Celestial Bodies – CAP Astronauts . . . . . Page 10
CAP Congressional Gold Medal . . . . . Page 12
Airshows 2022 . . . . . Page 13
Aerospace History in May . . . . . Page 14
Boeing Starliner . . . . . Page 15
A Message From the Editor . . . . . Page 16
Additional AE Resources . . . . . Page 17
Logic Puzzle and Solution. . . . . Page 18
Planning for 2022 – Deadlines . . . . . Page 19
Wing Tips Editorial Staff . . . . . Page 20

✈✈✈✈✈✈✈✈✈

AFA GRANTS FOR CAP UNITS
Now is the Time to Apply!
Reprinted from April 2022 AE Newsletter

Funding for **CAP Unit Grants** has been generously restored by the CAP partner in aerospace/STEM education, the **Air and Space Forces Association (AFA).**

CAP AE officers can now submit applications for a $250 grant to promote AE and STEM within their cadet or composite units.

If the squadron desires to also share their project with youth outside the squadron, that is a plus! Grants can fund aerospace field trips, STEM outreach events, or equipment/materials for special STEM projects.

Applications are due by midnight (Central time) 30 June. The application is found HERE.

The grant competition will result in the winning unit projects being funded. All applicants will be notified by mid-July whether or not the project was selected to be funded.

Background: The AFA provides educational opportunities for America's youth in the areas of science, technology, engineering, and math (STEM) careers. These opportunities were initiated to help ensure that future generations of Americans:

- Appreciate the important role of aviation, space, and cyber in America's future
- Have the technical knowledge necessary to understand aerospace/STEM issues
- Have the educational background required to pursue aerospace/STEM careers

To support CAP's aerospace/STEM education programs, since 1996, the AFA has provided more than $480,000 to CAP to help fund their aerospace/STEM education programs, inspiring interest in more than 460,000 youth toward STEM subjects and careers.

Click HERE for a video of a Robotics project funded by an AFA AE Grant for CAP Units. Submitted by Maj Mark Fridell, AE Officer, Group 2 CAW.

Note: Applications should be filled out completely and sent to afa@capnhq.gov. Grants cannot exceed $250.00 per request.

NEW YORK WING – BREWER AWARD PRESENTED
To the Kiwanis Club of LaGuardia Airport
By Maj Burt Dicht

The **Kiwanis Club of LaGuardia Airport** was presented with the **Frank G. Brewer Civil Air Patrol Memorial Aerospace Award** for outstanding contributions to the advancement of youth in aerospace activities in 2021 by the **New York Wing**, Civil Air Patrol.

(L-R) Dr Sharon DeVivo, President, Vaughn College and member, CAP Board of Governors; Cheryl Jones, President LGA Kiwanis Club; George Dixon, VP LGA Kiwanis Club; and Lt Col Pat Magee, Vice Commander, NYW, CAP – Image Credit - Metropolitan Airport News

In a special ceremony held on 18 May 2022, **Lt Col Pat Magee**, Vice Commander, New York Wing, presented the award to **Cheryl Jones**, President of the Kiwanis Club of LaGuardia Airport (LGA Kiwanis Club) for contributions highlighted by its signature program, the annual **Kiwanis Kids Day**. Also in attendance were **Lt Col Michael Woolfolk**, NYW/COS; **Lt Col Jacqui Sturgess**, DCS/Programs; **Lt Col Lynn Walker**, DCS/CP; **Maj Burt Dicht**, NYW/DAE(A); **Lt Col Charles Schaeffer**, NYCG/PAO and **Maj Ray Miller**, Falcon Squadron.

Initiated in 1997, Kiwanis Kids Day is a unique aerospace engagement program in that it takes place annually at LaGuardia Airport (LGA), which is an active civil airport in East Elmhurst, Queens, New York City. A signature program of the LGA Kiwanis Club, this program is organized in partnership with the Port Authority of NY and NJ and allows children and their families to participate in on-airport field activities, including tours of military, commercial, and private aircraft, fun rides, food, drinks, and family fun. The purpose is to introduce the world of aviation to kids through hands-on-activities, tours of static aircraft and having them meet aviation professionals, including CAP senior members and cadets.

A key aspect of the Kiwanis Kids Day is the hands-on aspect of the activities. The activities demonstrate real-life examples, build skills and understanding of aerospace concepts and excite the children. To ensure there are a wide range of educational activities for the kids and their families, the LGA Kiwanis Club has invited the New York City Group and its squadrons to participate in the **2022 Kids Day**, on Sat 10 Sept and to play a significant role in the planning of these events.

The CAP and LGA Kiwanis Club Contingents
Image Credit - Metropolitan Airport News

Lt Col Jacqui Sturgess sharing the background on the Brewer nomination and award for the LGA Kiwanis Club - Image Credit - Metropolitan Airport News

The CAP's **Falcon Senior Squadron** (NY-379) and the **Brooklyn Tech Cadet Squadron** (NY-384) have partnered with the LGA Kiwanis Club to support these activities. This support has involved everything from arranging CAP aircraft and flight personnel to participate as well as providing a series of AEX activities that the kids can experience. Having cadets on site is another vital component of the CAP's participation as it provides direct peer inspiration for the visiting families and children. The children can hear first-hand of the opportunities for them to learn and experience aerospace education and other personal development aspects within the CAP.

"The New York Wing extends its congratulations to the LGA Kiwanis Club on receiving this award and thanks you for your continued commitment to "changing the world one child and one community at a time."

The Brewer Awards are presented by Civil Air Patrol in commemoration of Frank G. Brewer, Sr., and his lifelong interest in aviation, youth, and education. Recognition is given to individuals and organizations that have made outstanding contributions, out of selfless devotion, to the advancement of youth in aerospace activities.

(L-R) Lt Col Lynn Walker, Lt Col Jacqui Sturgess, Dr Sharon DeVivo, Lt Col Pat Magee, and Maj Burt Dicht
Image Credit - Metropolitan Airport News

✈✈✈✈✈✈✈✈✈✈

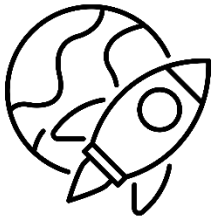
NEW YORK WING AEROSPACE EDUCATION GOALS – 2022

- Increase the number of Squadrons that earn the **Squadron Aerospace Education Achievement Award (SAEAA)** by 20%: **Goal for FY22 – 44 Squadrons**
  - 37 Squadrons earned the SAEAA in FY21 (COVID adjusted criteria)
- Increase the number of Squadrons that order **STEM Kits** from NHQ and complete the evaluation report by 20%: **Goal for FY22 – 29 Squadrons**
  - 24 Squadrons ordered STEM kits and completed the evaluation reports in FY21
- Increase the number of Squadrons that complete the **Aerospace Excellence Award (AEX)** by 25%: **Goal for FY22 is 33 Squadrons**
  - 27 Squadrons completed the AEX program in FY21
- Publish 6 bi-monthly issues of **Wing Tips**
- Hold 4 quarterly Wing AEO Meetings
- All NYW AEOs hold the Specialty Track Tech Rating

AE EDUCATOR 101

By Lt Col Anita Martin
Director Aerospace Education

Background: When the **CAP School Program** was started, squadrons were not staffed with experienced CAP officers but with school educators who operated on a yearly curriculum. To help the teachers navigate through the required curriculum, a school training plan was given to them when the school squadron was chartered.



Today, that **Training Plan** is available to all units and is located on the CAP website, under "Cadet Programs" and in the "Cadet Library." Scroll down and it is located on the right side of the screen and is called the "Squadron Training Plans." This is a full 24-month plan going through the first two leadership books along with applicable leadership activities; all six Aerospace Dimensions Modules also with applicable activities; Model Rocketry and AEX! Civil Air Patrol Drug Demand Directorate's Fit for Flying and Let's Go Flying are also included!

We want to give you ways to extend your AE training to receive more credits for less work! They are numbered 1-24 for 24 months or two years. You can start anywhere. I found it less confusing simply to start on the number that matches the month you are starting to plan. At the end of the two years, you will have new cadets that will benefit from the revolving schedule. We started in Wing Tips with May 2020 on number 5. This is especially helpful for cadets unfamiliar with making and following a schedule to learn the basics.

✈✈✈ In this **May/June Wing Tips, we start with the 5th Month in the Training Plan,** which is **Aerospace Dimensions (AD) Module 3, Air Environment, Chapter 3 - Weather Elements.** This chapter is particularly important for understanding some basics about weather. Three fundamental principles dictate so much of our weather: 1) The sun heats the Earth unevenly and warm air rises, 2) The Earth's rotation and revolution affect our days and seasons, and 3) Global wind patterns bring us our weather. These are important basic facts about weather. With our fleet of aircraft and their frequent use, CAP pilots monitor the weather and temperature continually.

With the ***Acu-Rite Professional Weather Station STEM Kit,*** cadets and students can measure rainfall, barometric pressure, wind speed, and more. The station also includes programmable weather alarms. Users will need to download the FREE *My Backyard Weather Software & App* to utilize the weather station to its fullest potential. Self-calibrating forecasting provides personal forecasting of weather conditions for 12 to 24 hours by collecting data from the sensor at your location. This kit comes with Rainfall Collector Funnel/accessories, display unit, USB cable, power adapter, instruction manual, and mounting hardware. Here you are accomplishing the activities with the Weather Station STEM kit.

June, the 6th Month in the Training Plan, schedules **Aerospace Dimensions (AD) Module 3 Air Environment, Chapter 4 – Moisture and Clouds.** This chapter will help students understand the water cycle, how clouds form, and explain the diverse types of clouds. This again is the perfect time to add the Weather Station STEM kit. You are able to accomplish the Aerospace Dimensions lesson along with getting credit for the AEX activity. The Training Plan comes back to this next year. You can once again bring out the Weather Station to augment Air Environment**. Another Two 'fer one!**

NY-033, PUTNAM COUNTY COMPOSITE SQUADRON CELEBRATING THE CAP AEROSPACE HIGH ALTITUDE BALLOON (HAB) CADET CHALLENGE

By Lt Col Anita Martin

During the recent **Putnam County Composite Squadron Awards Dinner, held on 22 April at the** Daniel J. O'Brien VFW Post in Carmel, there was a special recognition for the **2021 Inaugural CAP Aerospace High Altitude Balloon (HAB) Cadet Challenge**. Putnam was one of only three squadrons from the New York Wing who participated in the HAB. For the cadets, it was an evening of celebration as they were recognized for their significant effort and received a certificate "***In Recognition of and Appreciation for Participation***." The cadets also received the special HAB challenge coins. The unit was so excited about successful participation in the 2021 HAB Challenge that they signed up for 2022! In addition to these awards, a Yeager Certificate was presented to **SM Allison Sywyk-Hanson** by **Lt Col Martin**.

More photos of awards presented by Maj Elana MacDermant, Lt Col Patrick Magee and Lt Col Lawrence Mattiello at the awards dinner may be viewed at:
https://photos.app.goo.gl/vv2AG8ogyVvs9BoR9

In addition to **Putnam County Composite Squadron**, the following squadrons have signed up for the 2022 High Altitude Balloon Challenge:

- **NY-111, Newark Composite Squadron**
- **NY-135, Syracuse Cadet Squadron**
- **NY-153, LeRoy R. Grumman Cadet Squadron**
- **NY-402, Jamestown Composite**

*If your unit has signed up and is not listed here, please let us know***.** **Find out more about the HAB here.**

(L-R) 2d Lt Craig Treco, C/Lt Col Evan Regan, C/2d Lt Corinne Taylor, C/SMSgt Erik Hanson, C/SrA Jane Hanson, C/A1C Noah Guedes, C/Amn Sharika Bose, C/Amn Jacob Leggiero, C/Amn Eric Song, C/Amn Michael Strang, Maj Elena MacDermant, Squadron Commander, and Lt Col Anita Martin, NYW DAE.
Image Credit - Major Peter Milano

.

AE SAFETY CHECK

This safety nugget comes from **Lt Col Karen Cooper**, who works in safety and risk management on the AE National Headquarters Staff and is also the Northeast Region DCS/Aerospace Education. *Reprinted from the April 2022 issue of Aerospace Education.*

CHOOSE THE RIGHT TOOLS FOR EACH AE ACTIVITY

Image credit - Civil Air Patrol

Are you using the right tool(s) for the AE activity in front of you? Or are you improvising with something else? Choose the right tool for a specific activity and never use a tool not designed for the activity you are doing. Never improvise or adapt. Remember, tools are designed for specific needs and purposes. Take the time to go and get the right tool – it will actually save you time and trouble later on. And when it comes to safety, beware of justifying using the wrong tool by telling yourself, "But that's the way I've always done it." That does not mean that you were doing it safely – just that you were doing it, and you raised the probability that you will be injured.

SAFETY NOTE: CAP squadron members are given clear safety briefings on the CAP NCSA & Encampment Safety webpage, and in CAPR 62-1. You can easily access/read/use the two pertinent activity safety documents in the Related Links section of this page.

Remember: SAFETY, SAFETY, SAFETY!!!!

✈✈✈✈✈✈✈✈✈

AIRCRAFT IDENTIFICATION QUIZ

Image Credit – Wiki Commons

Can you identify this aircraft?

The first two correct answers received via email to capaerospace@gmail.com will receive a special space patch.

Hint: This aircraft is credited with destroying 1,327 enemy aircraft during WWII.

STEM KIT UPDATE

Reprinted from the April 2022 issue of Aerospace Education

FEATURED STEM KIT - BUILD & LEARN GEOMETRY

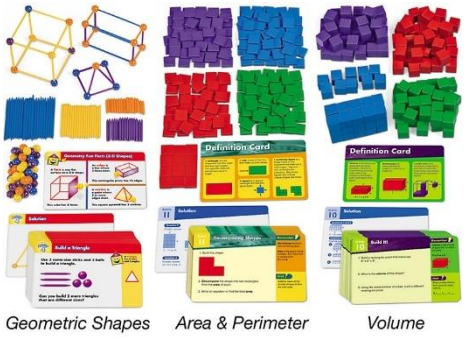


Image Credit - Civil Air Patrol

The **Build & Learn Geometry STEM Kit** is perfect for cadets and students to practice identifying shapes, solving area and perimeter equations, and finding the volume of geometric figures. The complete Build & Learn Geometry set includes a total of 52 activity cards and over 600 pieces for cadets and students to use to build geometric figures from every angle. There will be three sets included in the kit: Geometry; Volume; and Area & Perimeter. This kit aids cadets and students in visualizing, building, and manipulating geometric figures -- deepening their understanding of geometry every step of the way! This kit is recommended for ages 7 and older.

Aviation Connection:

Using the hands-on manipulatives and associated activity cards, youth will use geometric formulas to determine the best way to design and build frames, walls, and features that meet engineering specifications in designing aircraft, and, structures, such as airports/spaceports. Cadets and students can use the 3-D geometrical figures to determine the angles of attack involved in an airplane's flight path, as well as changes in altitude and/or speed or direction to prevent in-air collisions.

Impact of CAP's STEM Kit Program

The STEM Kit program continues to set new records!

Totals so far for fiscal year 2022 (for STEM kit applications received through April 2022)
Filled over 2,000 applications
Distributed over 4,800 STEM Kits
Reached over 140,000 participants

Totals since 2013 (for STEM Kit applications received through April 2022)
Filled over 21,000 applications
Distributed 40,000 STEM Kits
Reached over 2 million participants

To order a STEM Kit - Use your CAPID# and password to log into eServices and fill out the application. If you need assistance, please don't hesitate to email stem@capnhq.gov

For more on all the kits available, please click this link.

NYW QUARTERLY AEO MEETING

The New York Wing Quarterly AEO Meeting was held on <u>Monday, 9 May 2022</u> from 1930 to 2030 hours.

The topics discussed included:

- NYW 2022 AE Goals
  - Status
- Status of Squadron AE Programs
  - AEX
  - Squadron AE Achievement
- NYW Conference (Oct)
- Open Discussion
  - Successes
  - Challenges
  - How can NYW help

To view a recording of the meeting use this Link
Passcode: NYWaeo$05092022

The next AEO meeting is scheduled for 25 July 2022 – 1930 hours

NATIONAL AEO SCHOOL
Registration Opened on 22 March

The **19th Annual CAP National Aerospace Education Officers School** is open to Aerospace Education Officers (AEOs). The school will be held on Patrick Space Force Base, Florida. Presentations, hands-on activities, field trips and networking opportunities highlight the week.

Where: Cocoa Beach, Florida
When: Mon 27 June to Fri 01 July

Registration: $129 - Fee includes:

- All course materials
- Fieldtrips to Kennedy Space Center and Cape Canaveral
- Lunch on Monday, Tuesday, Thursday

For More Information and to Register Use This Link

Registration is limited to the first 70 AEOs.
Registration closes June 1 or when the limit has been met

AE DOWNLOADS & RESOURCES

https://www.capnhq.gov/CAP.AEDownloads.Web/

The Civil Air Patrol's Aerospace Education Program offers many resources that are free to its members, and it includes a series of engaging and hands-on aviation and space-related activities for both cadets and senior members. One program is called AEX, and the acronym stands for "Aerospace Education EXcellence". AEOs can request full-color books that feature national standards-based aerospace activities or download them in **AE Downloads and Resources**.

CELESTIAL BODIES: CAP ASTRONAUTS FROM THE PAST TO THE FUTURE

Adapted from the Spring 2022 issue of *Civil Air Patrol Volunteer*

By Maj Margot Myers

Public Affairs Officer, Arizona Wing

Image Credit - Civil Air Patrol

From NASA's Mercury 7 astronauts to the SpaceX Inspiration4 mission and beyond, a thread woven through Civil Air Patrol history parallels the progress of America's space program. Several CAP cadets went on to fulfill their dreams of spaceflight, and many NASA astronauts were named honorary members of CAP.

The Mercury 7 were the original group of U.S. astronauts chosen to fly in the first human spaceflight program. Six total flights were conducted (see Mercury 7 patch on left), starting with Alan Shepard Jr's 15-minute suborbital mission 5 May 1961, and ending with Gordon Cooper Jr's 34-hour mission 15-16 May 1963, during which spacecraft Faith 7 completed 22 orbits to evaluate the effects of one day in space.

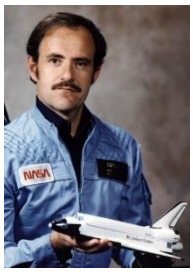
In December 1963, at a meeting of the CAP National Executive Committee, Col Paul C. Ashworth, CAP National Commander, presented plaques to Maj Donald "Deke" Slayton recognizing the Project Mercury astronauts for "their courageous contribution to the scientific exploration of space." **The seven original astronauts were given honorary CAP memberships, a practice that continued with Gemini and Apollo crews**.

Col Frank Borman was a Civil Air Patrol cadet in the Arizona Wing and began flying in Tucson when he was 15. He worked in retail stores to pay for his flying lessons. "It took a week's work to pay for one flying lesson on Sunday," he said.

Borman, who graduated from West Point in 1950, became interested in space in 1957 when Russia orbited the first Sputnik. Already a USAF jet pilot, Borman enrolled in the Air Force Experimental Flight Test Pilot School at Edwards Air Force Base, California, and qualified as a test pilot, one of the requirements for astronaut program applicants. He was accepted as one of five students in the first class at the Aerospace Research Pilot School, graduating in 1960.

He was selected for the second group of astronauts in 1962 and made his first flight on Gemini 7 with Navy Capt James Lovell in December 1965. **Borman and Lovell became honorary members of CAP just before the flight**. Gemini 7 spent nearly two weeks in space, making 206 orbits of Earth.

In December 1968 Borman commanded the Apollo 8 mission, the first to orbit the moon. **The crew for that mission also included Lovell and Air Force Maj William Anders, who became an honorary Civil Air Patrol member in early December 1968 during a ceremony in Houston**. Maj Gen Walter B. Putnam, CAP National Commander, accompanied by two CAP cadets, presented a specially designed CAP flag to the Apollo 8 crew along with an organizational charter designating them the "Apollo 8 Squadron."



Mike Lounge, also a Civil Air Patrol member, flew as a mission specialist on Space Shuttle Discovery in August 1985 and again in September 1988, the first flight after the 1986 Space Shuttle Challenger accident. Lounge presented a memorial plaque commemorating the Challenger crew to Brig Gen E. E. Harwell, CAP National Commander, during the CAP National Board meeting in Salt Lake City in 1988. Lounge also served as the flight engineer on Space Shuttle Columbia in December 1990, before leaving the astronaut corps in June 1991.

Another member of CAP trained to fly the SpaceX Crew Dragon last year and realized her lifelong dream of going into space. **Maj Sian Proctor**, a member of the Arizona Wing's Sky Harbor Composite Squadron, spent three days orbiting Earth as the mission pilot on the privately funded **Inspiration4** flight in September 2021. Proctor is an active contributor to the Arizona Wing aerospace education team, a professor at South Mountain Community College in Phoenix, a geoscientist, an analog astronaut, and a space artist and poet. **She was a CAP cadet in the Rochester Composite Squadron, NYW.**

Navy Cmdr Jack Hathaway was named a NASA astronaut candidate in December 2021 and reported to begin his training at Johnson Space Center in January 2022. Growing up in South Windsor, Connecticut, Hathaway always dreamed of learning to fly and had the opportunity to do so as a CAP cadet. When he was young, Hathaway decided he wanted to attend the Naval Academy because "lots of Navy pilots became astronauts." He graduated with a bachelor's in physics and history in 2004.

An F/A-18 pilot, Hathaway has more than 2,500 flight hours in 30 types of aircraft and more than 500 carrier-arrested landings, and he flew 39 combat missions.

To read the complete article go to: https://www.cap.news/celestial-bodies--cap-astronauts-from-the-past-to-the-future/ *(Note- All images from NASA and the Civil Air Patrol)*

CAP CONGRESSIONAL GOLD MEDAL PRESENTATION FOR WWII NYW PILOT AND AERONAUTICAL ENGINEER, LT COL JAMES C. REDDIG

By Lt Col Jacqui Sturgess

On Saturday, 28 May, Congressman Joseph Morelle, NY District-25, presented the **CAP Congressional Gold Medal** to the surviving son of **Lt Col James Clendenin Reddig**, CAP, USAF Auxiliary. Reddig, a World War II Pilot & aeronautical engineer, passed away in November 1993. Born 19 Feb 1907, in Columbus, Ohio, Reddig was fascinated by technology and science and made his own radio receivers and other projects. At the age of 15, he organized the East Orange High School Science Club for the sole purpose of gaining an audience with Thomas Edison, who examined and admired a homemade radio Reddig brought with him to Edison's laboratory in West Orange, NJ.

As a student at MIT, Reddig was active in the aeronautical engineering department's soaring club and made frequent trips to Cape Cod to sail from the sand dunes in gliders of the club's design. Reddig started his professional career in 1929 and was assistant chief engineer for the Loening Aircraft Co of New York City. After economic conditions in the Depression forced the closing of the Loening Company in the mid 1930's, Reddig worked for several aircraft design and manufacturing firms on Long Island, including EDO Corp, Seversky and Kirkham, and eventually for the Fleetwings Co. of Bristol, for whom he designed the single-engine amphibious Fleetwings Seabird, the first all-stainless-steel production aircraft.

Image Credit - Reddig Family

Mr Reddig joined the Eastman Kodak Co in 1939, and among his first work for the company was the design and installation of projection equipment in the Kodak exhibit building at the 1939-1940 World's Fair at Flushing, NY. He later installed some of this equipment in the George Eastman House in Rochester in the early 1950's, where parts of the World's Fair presentations were re-created. During World War II, Reddig was engaged in the design and production of aircraft systems to both Kodak and the Sampson-United Co of Rochester. He also worked on the Vitarama motion picture gunnery trainer invented by Fred Waller, which was the forerunner of Waller's post-war Cinerama motion picture system.

After the War, Reddig returned to Kodak and worked in research and engineering in its government systems division until his retirement in 1972. At Kodak, he engaged in the design of aerial reconnaissance photographic equipment and several classified projects and was responsible for the camera and film processing equipment aboard the Lunar Orbiter spacecraft which circled and photographed the surface of the moon in the mid-1960s in preparation for the crewed lunar expeditions of the late 60s and early 70s.

Lt Col James C Reddig in his CAP uniform during WWII. He contributed to the design of the Grumman Torpedo Bomber gun turret shown in the photograph. Image Credit – Reddig Family

Mr Reddig was a lieutenant colonel in the Civil Air Patrol, an auxiliary of the U.S. Air Force and had been a charter member of the organization for 51 years since its founding shortly after the attack on Pearl Harbor. He served as Rochester Squadron Commander and in various capacities at the statewide level of the organization and received both its Grover Loening Aerospace Award and Paul Barger Award for service. He was a founding member and associate fellow of the American Institute of Aeronautics and Astronautics since 1932.

In the course of his aviation career and as a member of The Aviation Country Club in Hempstead, Long Island, Mr Reddig had occasion to meet or work with many of the pioneers of aviation, including Orville Wright, Charles Lindbergh, Amelia Earhart, Jimmy Doolittle, and Anthony Fokker.

The **New York Wing "Cadet of the Year"** award is named in honor of Captain James Reddig; fittingly earned this year by a Rochester Composite Squadron member **Cadet Lt Col Gavin Davis.**

The CAP Congressional Gold Medal honors CAP WWII volunteers for their unusual combat and humanitarian service at a critical time of need for the nation.

Editor's Note: We will update you in the next issue with photos from the ceremony.

✈✈✈✈✈✈✈✈✈✈

Airshows 2022

Are you looking for a fun outdoor activity that could count for AEX? Consider taking in an airshow this summer. There are several valuable resources that compile the entire schedules, including the **Thunderbirds** and **Blue Angels**. Check it out:
https://www.milavia.net/airshows/calendar/showdates-2022-north_america.html
https://www.airshowcenter.com/airshows/united-states/current

AEROSPACE HISTORY IN MAY

By Maj Burt Dicht

Source - https://www.thisdayinaviation.com/

1 May 1965: Lockheed YF-12A 60-6936 established five Fédération Aéronautique Internationale (FAI) World Records for Speed: 2,070.102 m.p.h. over a 9/15 mile *Straight Course*; 1,643.04 miles per hour over a 311 mile *Closed Circuit*; and 1,688.89 miles per hour over a 621 mile *Closed Circuit*. On the same day, 60-6936 set an FAI World Record for Altitude in Horizontal Flight of 80,259 feet.

2 May 1977: First Lieutenant Christine E. Schott, USAF, was the first woman in the Air Force Undergraduate Pilot Training Program to solo in the Northrop T-38A Talon at Williams AFB, Arizona. She was a member of Class 77-08, which entered on 19 September 1976. The ten women in this photograph, along with their 36 male classmates, received their Silver Wings on 2 September 1977. They are Captains Connie Engel, Kathy La Sauce, Mary Donahue, Susan Rogers, and Christine Schott; First Lieutenants Sandra Scott and Victoria Crawford; Second Lieutenants Mary Livingston, Carol Scherer, and Kathleen Rambo.

5 May 1961 at 09:34:13.48 a.m., Eastern Standard Time, the **Mercury-Redstone 3** lifted off from Launch Complex 5 at the Cape Canaveral Air Force Station, Cape Canaveral, Florida. On board was **NASA Astronaut, Commander Alan Bartlett Shepard, Jr**, United States Navy. Shepard had named his spacecraft Freedom 7. This was the very first time that an American *astronaut* had been carried into space aboard a rocket and came 23 days after Soviet Union Cosmonaut Yuri Alekseyevich Gagarin had completed one orbit of the Earth.

18 May 1969 at 16:49:00 UTC, **Apollo 10 Saturn V AS-505** lifted off from Launch Complex 39B at the Kennedy Space Center, Florida, on a full *dress rehearsal* for the landing on the Moon that would follow with Apollo 11, two months later. On board were **Colonel Thomas P. Stafford**, U.S. Air Force, Mission Commander, on his third space flight; **Commander John W. Young**, U.S. Navy, Command Module Pilot, also on his third mission; and **Commander Eugene A. Cernan**, U.S. Navy, Lunar Module Pilot, on his second space flight. This was the first Apollo mission in which all three flight crew members had previous space flight experience.

THERE IS A NEW SPACECRAFT IN TOWN:
BOEING STARLINER DOCKS WITH THE INTERNATIONAL SPACE STATION

By Maj Burt Dicht

Image Credit - NASA/Joel Kowsky

After almost a one-year delay, **Boeing's CST-100 Starliner** spacecraft lifted off on 19 May on an uncrewed mission to dock with the International Space Station (ISS). Starliner was launched on a United Launch Alliance (ULA) Atlas V rocket that occurred at 6:54 p.m. EDT. This flight, named **Orbital Flight Test (OFT-2)** was originally scheduled for last summer.

But more than a dozen malfunctioning oxidizer valves in Starliner's propulsion system surfaced during a pre-flight check and caused the launch to be scrubbed. Boeing worked for more than eight months to identify and solve the problem, proving the validity of the mantra that "space is hard." This second test is a repeat of OFT-1, which failed to reach the ISS back in December 2019.

Twenty-two hours after launch, Starliner reached the ISS and was then put through a series of maneuvers to ensure it was safe for docking. These included fly-arounds, approaches, and retreats in order to demonstrate the spacecraft's ability to rendezvous. The actual docking occurred at 8:28 pm EDT on 20 May. At that time Starliner docked with the ISS Harmony module's forward port.

Boeing's Starliner spacecraft docked at the ISS
Image Credit - ESA

Image Credit - NASA/Bill Ingalls

This was an important milestone for Boeing, which started the Starliner program in 2014 after NASA awarded them the contract as part of the Commercial Crew Program. The Starliner was designed to accommodate seven passengers, or a mix of crew and cargo, for missions to low-Earth orbit. The Starliner is fully autonomous and has an innovative, weldless structure, and is reusable up to 10 times with a six-month turnaround time. The Starliner is designed with a parachute and airbag system enabling it to land on the ground, which it perfomed perfectly with a landing at White Sands Missile Range on 25 May. The Starliner also features wireless internet and tablet technology for crew interfaces.

Once operational, it will join the SpaceX Crew Dragon as part of the space transportation system to carry astronauts and other passengers to low Earth orbit and the ISS.

A MESSAGE FROM THE EDITOR

Maj Burt Dicht
New York Wing, Internal AEO

In January, I received an email from Lt Col Karen Cooper, the NER Deputy Chief of Staff, for Aerospace Education. She wanted to gauge my interest in serving as the director for the NER AEO Course. In 2021 I had served as an instructor. Of course, I had many questions about what was involved and concerns about the time commitment. After much discussion and evaluation, I made the decision to accept the offer. And I am so glad I did!

I am not going to discount the work involved and the sometime stress of getting a course like this off the ground and executed so that is a valuable experience for those attending. It was a lot of work. But in the end, it was immensely rewarding to hear the positive responses from the AEOs and other CAP members who participated. We are part of an amazing organization, with so many dedicated and talented individuals who are committed to the AE mission and serving the community. I was so impressed the range and diversity of those who completed the course and the great work they are doing to share and expand the wonders of aerospace education. I want to thank all of the CAP members who participated and give a special shout out to the eighteen New York Wing members who completed the course.

Like most things in CAP, *we don't operate as islands*. Teamwork and the support of colleagues is how we get things done and the impetus for the impact we have, not only in AE, but across all of our missions. I had a talented team of instructors who were integral to the planning of the course, everything from the curriculum to the logistics. I want to thank them all for your support and the expertise you brought to this course. **Our success was because of you!**

I also want to thank Lt Col Cooper for offering this opportunity to me and her for her trust in my abilities to see it through. And I am excited to report I have accepted the offer to lead the course again in 2023.

- Lt Col Michael Castania
- Col Bryan Cooper
- LT Col Karen Cooper
- Capt Robert Fletcher
- Capt Trevor Garrick
- Lt Col Don Hahn, Jr.
- Capt Peter Hinge
- 1st Lt Jay Reynolds
- Lt Col Shelley Rosenbaum-Lipman
- Maj Adam Springmeyer
- 1st Lt David Steinberg
- 1st Lt Claire Sullivan
- Capt Kelli Sutton-Bosely

A Special Thank You
to the 2022 NER AEO Organizing Team!

ADDITIONAL AEROSPACE EDUCATION RESOURCES

AE Virtual Trips: Below are several excellent links for virtual tours that you can use for squadron AEX activities. They could serve as a stand-alone activity that for a squadron meeting, or you could have members select a tour of their choice and ask them to report on it.

Smithsonian Air and Space Museum Virtual Tour

National Museum of Fight

National Museum of the AF

National Naval Aviation Museum

NASA -Take a tour of NASA's Flight Research Center

NASA - Take Tours of Tours of Various Labs

NASA - Take a Tour Through Hubble Mission Control

NASA - Take a Virtual Tour of the Langley VA Facility

2022 NER AEO Resources: In keeping with the virtual theme, during the AEO Course, **Capt Kelli Sutton-Bosley**, VTWG, made an engaging presentation titled, ***"Conducting Virtual AE and Making it Interesting."*** During the presentation she shared many useful tools that you could use and incorporate into your AE program. Here is a list:

- Flipgrid
- Google Classroom
- Kahoot!
- Jeopardy Labs
- YouTube

There are many digital tools out there to help you spice up your virtual class (or even your in-person classes). **Flipgrid** is a discussion board environment that utilizes short videos for interaction. **Google Classroom** allows for an array of different functionalities to be linked in based on subject focus. **Kahoot!** provides a quiz game show platform to work off of. **Jeopardy Labs** allows you to build jeopardy boards for your class. **YouTube** provides lots of videos to augment your discussion.

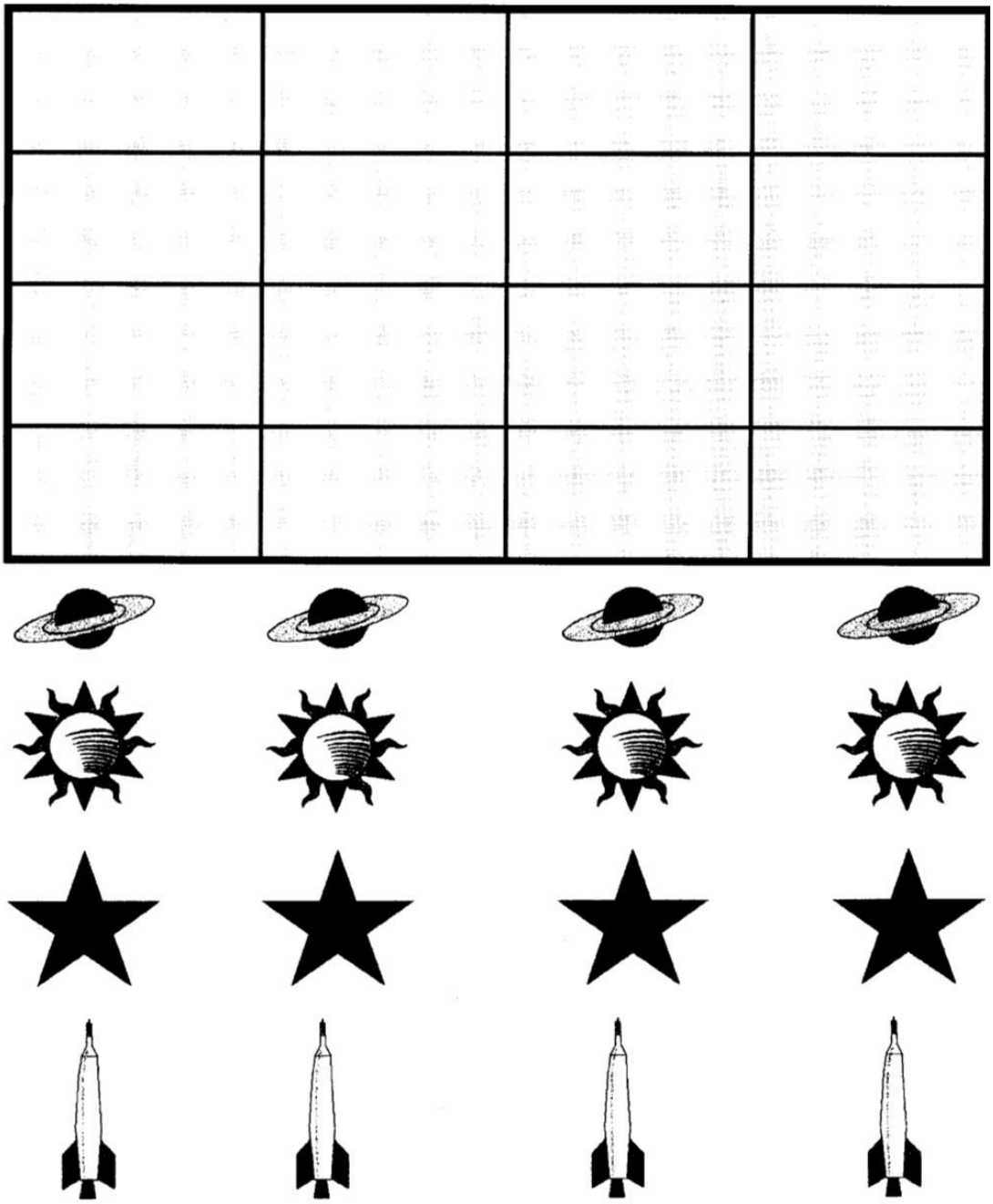
Don't be afraid to try different things. Also, GOOGLE is your best friend. For Safety Down Day last year, our squadron hosted a Family Feud-style tournament between Senior Members and Cadets utilizing a PowerPoint found online that ran like Family Feud.

LOGIC AND PUZZLE SECTION

In each *Wing Tips* issue, we are providing you with a Critical Thinking Puzzle. **This puzzle comes from The Mini Book of Logic and Puzzles**. The Civil Air Patrol believes that "Critical Thinking" is a valuable skillset for leaders and cadets, and it devotes a whole chapter to it in the LEARN TO LEAD: VOLUME TWO: TEAM LEADERSHIP, Ch 5: Brain Power for Leadership; Principles of Critical Thinking. (Solution is on Page 19)

Galactic Places

Place all the objects in the squares.
Each row, column, or four-box diagonal may contain only one of each object.



GALACTIC PLACES PUZZLE SOLUTION

plane	balloon	cloud	helicopter
helicopter	cloud	balloon	plane
balloon	plane	helicopter	cloud
cloud	helicopter	plane	balloon

✈✈✈✈✈✈✈✈✈✈

PLANNING FOR 2022 – IMPORTANT DEADLINES

Item/Activity `	Due Date
AEX Completion Report for QCUA point	30 August
STEM Completion Report for QCUA point	30 August
AEX Completion Report	30 Sept
STEM Completion - 30 Sept	30 Sept
AEX Application (FY 2023)	1 Oct
STEM Application (FY 2023)	1 Oct
Squadron AE Activity Report (FY 2022)	30 Oct
Nominated AE Awards - Squad to Group	15 Dec
Nominated AE Awards - Group to Wing	15 Jan 2023
AFA AE Cadet of the Year Award	15 Jan 2023

WING TIPS EDITORIAL STAFF: (from left to right)

Lt Col Anita Martin, NYW DAE; Lt Col Marilyn Rey, NYW DAE Emeritus.
Lt Col George Geller, Asst Internal AEO; Maj Burt Dicht, Internal AEO

For questions or comments about any of this issue's topics or contributions to a future issue, please email: amartin31392cap@juno.com or capaerospace@gmail.com

✈✈✈✈✈✈✈✈✈✈

Image Credit – National Air and Space Museum

Volunteers Serving America's Communities, Saving Lives, and Shaping Futures