

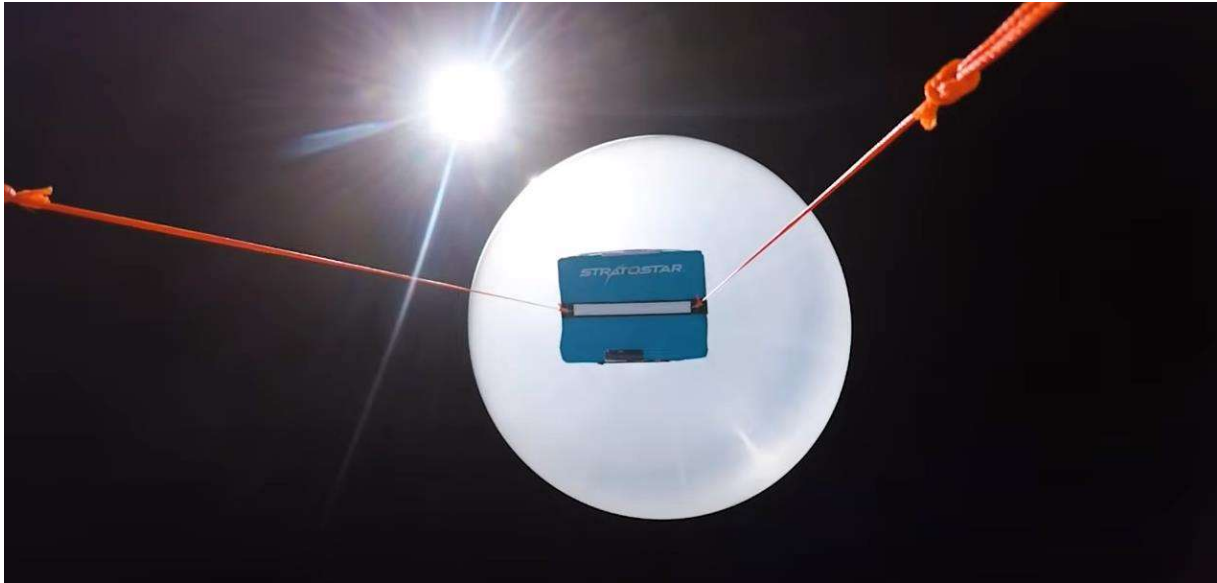


NEW YORK WING, CIVIL AIR PATROL



AEROSPACE EDUCATION NEWSLETTER ONLINE

September – October 2021



*CAP High Altitude Balloon Challenge - August 2021
Balloon 2 at 103,057 feet (Just before bursting)
Source - CAP*

DO NOT MISS THE NEW YORK WING CONFERENCE 2021!

Friday 12 Nov to Sunday 14 Nov 2021

Fort William Henry Hotel & Conference Center

Lake George, NY

This Conference is **COMPLETELY** focused on our senior members and equipping you to be the best you can be at your duty assignments.

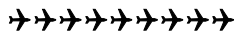
- Meet and greet opportunities with the new NY Wing Commander
- Banquet and cocktail hours with your peers and NY Wing Staff
- Learn how to better navigate the online Volunteer University to level up in PD
- Squadron CCs and Deputies - Take the new Squadron Leadership Training for your Command Tech Rating
- Specialty Track Seminars for CAP disciplines
- Grab mentorship and education from the NER Region Chief of Staff
- Did we mention food, drink and socializing??

Use this Link to Sign up by **26 September:**

<https://nyw.cap.gov/conference/>

INSIDE THIS ISSUE

NYWG Conference 2021	Page 1
Cadet Perspective: The O-Flight	Page 2
A Message From the Commander.	Page 3
AE Educator 101	Page 4
Important AE Deadlines	Page 5
AE Achievement Award	Page 6
Quarterly AEO Meeting	Page 6
New CAP Mission Statement	Page 6
AE Award Nominations	Page 7
STEM Resources You Didn't Know About	Page 8
Pioneering New AE Resources	Page 10
Quality Cadet Unit Award	Page 11
CAP Timeline Flight	Page 12
Aviation History Series	Page 13
High Altitude Balloon Challenge	Page 14
In the News – Maj Proctor	Page 15
Logic and Puzzle Section	Page 16
A Message from the Editor	Page 17
AE Resources and Downloads	Page 17
Wing Tips Editorial Staff	Page 18
Puzzle Solution	Page 18



CADET PERSPECTIVE: THE ORIENTATION FLIGHT

C/CMSgt Gabriel E. Hernandez
Phoenix Composite Squadron

When you arrive at the airport for an O-Flight, you can feel the excitement taking over. First, you see the airplane that will take you up into the blue sky and you can't believe it is right in front of your eyes. Next comes the brief from the pilot: the direction of flight, the weather, what to expect, and making sure you maintain a sterile cockpit.



Then, you move toward the aircraft and step inside providing you with your first glimpse of the cockpit. I felt very at home, and it provides an early perspective on why people want to pursue a career in aviation. Finally, you are strapped in, and the pilot begins the start-up checklist. You feel the aircraft shake as the engine comes to life and you put on your headset and begin taxiing.

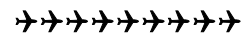
As we taxi toward the runway, you hear the pilot talking with the air traffic controllers. Listening in to the precise phraseology used in this professional industry was both exciting and inspiring. Soon after we began our takeoff run and in seconds we are off the ground and climbing as the runway gets further and further away from you.



Eventually, you see the world from a bird's eye view; it's gorgeous! Next, you learn the basics of flight, turning left, right, straight and level flight, descents, and climbs. Being able to fly an aircraft, making it turn left, right, climb, or descend at your command is all a fantastic feeling while absorbing how beautiful the Earth is from high up. It's a balance as you learn to control the aircraft while enjoying the amazing views.

It doesn't get much better than that. When you come back, you can feel the inspiration of what it's like being a pilot. The O-Flight is a great learning tool and I have used this in my flight simulator at home. Using the techniques you remember when flying the real airplane on your flight simulator at home is impressive. Eventually, flying the actual aircraft and using the knowledge at home on the flight simulator helps the flying become natural to you. The O-Flight was a great experience and I feel this will be of great help to me when I move on to flight training.

Images are courtesy of C/CMSgt Hernandez



[For More Information About Cadet Orientation Flights Use This Link](#)



A MESSAGE FROM THE COMMANDER

Col John A. Jones
New York Wing Commander



I appreciate the AE Staff giving me the opportunity to say a few words as we prepare to enter FY2022. As I am sure you are all aware, **Aerospace Education** is one of CAP's three main congressionally chartered missions. Overall, we are doing great work on the AE front as a Wing, but we can always do better. I challenge all of our AEOs to think outside the box and take us to a new level, one that we can highlight at the Region and National level as a benchmark.

I approve all STEM kit requests in eServices, so I know many units are taking advantage of those assets from NHQ. Those are outstanding resources, and I encourage any unit not using them to do so. I also encourage participation in the AEX program. We currently have 28 units involved in AEX. Senior Members, earning the Yeager Aerospace Education Achievement Award is a way for you to contribute to the Wing's AE efforts. We currently sit at 55% as a Wing for Yeager Awards, which is above the national standard.

We had a number of interesting AE interactions with our "Total Force" partners this FY. Highlighted are events with the Thunderbirds and A-10 Thunderbolt Demo Teams, and the KC-135 tanker flight by the 914th ARW that upstate cadets had the opportunity to experience. These are outstanding AE opportunities, and excellent exposures to military aviation.

Although they are under the CP Directorate, I consider Cadet Orientation Flights to be a big part of AE. Cadets being exposed to our aircraft and getting an opportunity to fly is extremely important not only to AE, but to Cadet retention as well. The NHQ goal is to get new cadets in the air within 90-days, and we're only about 60% successful in doing so. This is one area where we can and must do better, and I challenge the Squadron and Group CCs to do so. On the positive side, we exceeded our overall O-Flight goal for FY2021 by a decent margin! Thanks to Maj Sussey and all of our O-Flight pilots for making that happen!

We need to fly more teachers! For those that are not aware, CAP has a "Teacher Orientation Program" (TOP) for educators. These are funded missions for AEMs, which transfer flight excitement to youth with the goal being to increase interest in STEM and/or aviation. If AEOs know of any educators that may be interested in the TOP program, please get them signed up as an AEM.

Lastly, congratulations to Capt Burt Dicht for winning the Frank G. Brewer National Memorial Aerospace Award, Senior Member category. He was recognized during the virtual National Conference in August. Capt Dicht serves the Wing on many levels and does an outstanding job. He is a true aerospace professional, and I thank him for his contributions and service.

NEW YORK WING COMMAND STAFF

<https://nyw.cap.gov/>

Col John Jones
Commander

Lt Col Robert Ormsbee
Vice Commander, Northern

Lt Col Patrick Magee
Vice Commander, Southern

Lt Col Michael Woolfolk
Chief of Staff

Lt Col Edward Le Feber
Deputy Chief of Staff, Mission Support

Lt Col Jacqueline Sturgess
Deputy Chief of Staff, Programs

SMSgt Garrett Roll
Command NCO

As Maj Torres likes to say... "Excelsior!"



AE EDUCATOR 101

By Lt Col Anita Martin, Director Aerospace Education

Background: When the CAP School Program began, it typically was staffed with school educators who operated on a yearly curriculum. To assist the teachers, a school training plan was given to them. Today, that training plan is *available to all units* and is located on the CAP national website, in the Cadet Library. Go to:

www.qocivilairpatrol.com/programs/cadets/library

This is a full 24month plan to get through the first two leadership books (along with applicable leadership activities), all six AE Modules (also with applicable activities), model rocketry and AEX! We want to give you ways to extend your AE training to receive more credits for less work!

→→→ This **September/October Wing Tips** will follow the referenced, **National Cadet Program Squadron Training Plan**, found in eServices, Aerospace Downloads and Resources, for the 21st and 22nd months. And Guess What?! This is a FOUR'FER ONE.

This **21st Month (September)** schedules **Aerospace Dimensions (AD) Module 4, Chapter I, History of Rockets**. In this chapter, cadets will begin learning about rocket history and pioneers such as Dr. Robert Goddard, who is known as the Father of Modern Rocketry.



Source - CAP

AD Module 4 Activity 12 - Altitude Tracking is also an AEX Activity. The same activity as **AEX II Vol II Activity 12 - Mathematically Tracking a Model Rocket in Flight**. This may be done by using a commercially built Altitude tracker or build your own from the template in this activity on card stock. To know, "How high did the rocket go?" question; you will need to teach the math before you go to the field.

Of course, you need a rocket to measure. The AEX activity recommends Air Powered Rockets that you build with a Styrofoam Easter egg, card stock, hot glue and tape. Directions are described in **AEX II Vol II Activity 2 - Scratch-Built Air Rocket**.



Source - Capt Burt Dicht

And you also need an air rocket launcher! The air rocket launcher may be found at <https://www.zerotoys.com/Air-Burst-Rocket-System-p/abur01.htm> for \$30. These rockets go up to 100 feet!! I recently purchased [National Geographic Light up Air Rockets](#) with launcher for \$20 at Walmart and I see that it's also available on Amazon Smile (to give donation to Civil Air Patrol) for the same price. I notice



Source - CAP

you may purchase one or more refill kits to allow all cadets to have and decorate their own rocket rather than build their own.

When you do this AE Dimensions Module 4 activity along with these three AEX activities you get a **FOUR'FER ONE!!!** One for the AE lesson and THREE AEX activities towards your six!!

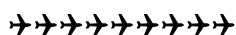
The **22nd Month (October)** once again schedules the booklet, **Let's Go Flying (AGF) -- Part Five –Getting Your Ticket & Passing the Medical**. AGF is CAP's *Drug Demand Reduction Program* to raise the awareness of how the aviation industry has a zero tolerance for alcohol and drug abuse. This chapter gives **PEARLS OF WISDOM**: The effects of medication or alcohol and drug abuse are always detrimental to one's ability to perform any action which requires hand-eye coordination, special consideration judgement and cognition.

The Instructor's Guide Part Five Drug Issue: Without a "clean" medical certificate, you can forget getting or keeping your "ticket".

Let's Go Flying and **Let's Go Flying Instructor Guide** can be found at:

<https://www.gocivilairpatrol.com/programs/cadets/activities/cadet-flying/lets-go-flying/>

This always gives you a Two-fer-one: Aviation lesson with a Drug Demand Lesson!

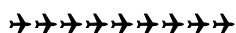


**IMPORTANT AE DEADLINES FOR THE
CLOSE OF FY2021 AND THE START OF FY2022**

Criteria and instructions for the below-listed activities may be found in [CAPP 50-1 Chapter 3 - AE Products and Programs](#) and [Chapter 6 – AE Awards](#). All that you need to know is explained in detail. **Please take a few minutes to review how you may complete each of these reporting requirements before you complete your AE Activity Report (AR), which is due 30 Oct.** The goal is to file the most complete AR as possible. We have been asked to complete the Activity Report early before **30 Sept** to be able to get as many **AE Achievement Awards** as possible. When you upload your **"Above and Beyond"** activities, you may upload your 2022 NYW POA ([on NYW website](#)) that you and your CC discussed and documented. You may also list CyberPatriot or StellarXplorers participation. Every unit should upload some documentation. If you already completed your AR but did not upload a document, go back and upload your [FY 2022 POA](#).

Activity/Item	Due Date
AEX Completion Report for QCUA point	30 August (FY2021)
<i>STEM Evaluation Completion for QCUA point</i>	30 August (FY2021)
<i>AEX Report Completion</i>	30 Sept (FY2021)
<i>AEX Application for AR credit</i>	Early Oct (FY2022)
<i>POA Documented (Meeting with AEO and CC)</i>	Early Oct (FY2022)
<i>AFA StellarXplorers.org Registration</i>	1 October (FY2022)
<i>CyberPatriot (uscyberpatriot.org) Registration</i>	5 October (FY2022)
<i>STEM Evaluation Completion for AR credit</i>	Early October (FY2022)
<i>STEM Application for AR credit</i>	Early October (FY2022)
<i>Submit Squadron AE Activity Report</i>	30 October (FY2021)
<i>*Nominated AE Awards - Squad to Group</i>	15 December (FY2022)
<i>*Nominated AE Awards - Group to Wing</i>	15 January 2022 (FY2022)
<i>*AFA AE Cadet of the Year Award</i>	15 January 2022 (FY2022)

*Awards are for activities in FY2021, but credit is for AE Activity in FY2022

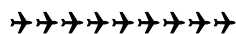


THE AEROSPACE EDUCATION ACHIEVEMENT AWARD

Deadline for Activities is 30 Sept

The **2021 Aerospace Education Achievement Award** recognizes squadrons who have excelled in AE for the fiscal year ending 30 Sept. It is based on information you enter on your AE Activity Report. You can use the report to review the activities you completed but not yet documented. **By the time you read this message, you will have approximately one more week to complete your AE activities for FY 2021.** Remember, there is no eServices requirement to complete a Plan of Action (POA). We at NYW have developed a POA to help you **EARN the [AE Achievement Award](#)**. With the end of FY 2021 fast approaching, we encourage you to start planning now. Use the NYWG POA as planning guide for FY 2022. Now is the time to prepare one with your commander for the start of the FY 2022. *Remember, Poor Planning Produces Poor Performance and Proper Planning Produces Picture-Perfect Performance.*

- Criteria for this award may be found in [CAPR 50-1](#), attachment 5
- The award occurs at the end of each FY (September 30) based on criteria performed throughout the year
- Criteria are pre-populated by information provided on the AE Activity Report
- To earn the Squadron AE Achievement Award, a squadron must perform eight of the tasks listed on the Achievement Award Requirements. This information may be found in eServices > Aerospace Education > AE POA and Activity Report.
- Tasks 1, 2, 3 and 4 are required to qualify for the award
- Squadrons must achieve at least one task from each of the AE internal and external task areas



THE NEXT QUARTERLY NYWG AEO MEETING

Mark Your Calendar!

The next **New York Wing Quarterly AEO Meeting** is scheduled for **Monday, 25 October** from **1930 to 2030 hours**.

All AEOs are invited as well as other interested stakeholders. Look for the invitation.

Among the topics to be discussed:

- FY 2021 AE Activity Report
- Planning for FY 2022
- Wing Conference AE Presentation
- External AE

To join the session use the following link;

[25 October NYWG AEO Meeting](#)



Source - Civil Air Patrol NY-288

CAP'S New Mission Statement

The Civil Air Patrol's new blended mission-vision statement was announced at the National Conference in August:

***Volunteers serving America's communities,
saving lives, and shaping futures.***

The new statement reflects the innovative nature of Civil Air Patrol by blending both the mission and vision into a single statement of purpose.

**RECOGNIZE YOUR CAP COLLEAGUES AND
OUR STAKEHOLDER ORGANIZATIONS!
*Get Started Now on Award Nominations***

Do you know a CAP member or an organization that made a significant contribution to aerospace education in the past year or over the course of their CAP career? Now is the time to consider nominating them for a CAP award. AE awards are a way to recognize the hard work and exceptional contributions of those that advance aerospace education.



Any CAP member can nominate an organization or individual, but you must follow the prescribed process and forward it through the chain of command. Start planning now as the deadlines are coming up quickly.

DEADLINES FOR AWARD NOMINATIONS	
Squadron to Group	15 December 2021
Group to Wing	15 January 2022
Wing to Region	15 February 2022
Region to NHQ	15 March 2022

A great guide for preparing a nomination is CAPP 39-3 "[Awards Made Easy](#)." This is downloadable from our NHQ publications web page. It provides sample nominations for almost all our awards, helpful 'intro' and 'conclusion' paragraphs, plus powerful phrases to describe why the person/organization is being nominated. If we can encourage our

AEOs and commanders and in fact all members to feel more comfortable about writing nominations AND provide them with the tools, then I think we'll be seeing more nominations. **So check out the guide today.**

[CAPP 50-1, Chapter 6](#) describes the awards and the nomination process. *Below is a list of awards and the applicable form:*

- **[Frank G. Brewer CAP Memorial Aerospace Awards](#)** - The four award categories, nomination procedures, and the selection criteria for each are covered on the nomination form on **CAP Form 50-1**.
- **[Maj Gen Jeanne M. Holm CAP AEO of the Year Award](#)** - More information about the qualifications and the nomination procedures can be found on **CAP Form 50-2** or in **CAPP 50-1**.
- **[CAP AE Teacher of the Year Award](#)** - More information about the qualifications and the nomination procedures can be found on **CAP Form 50-3** or in **CAPP 50-1**.
- **[Air Force Association's \(AFA\) AE Cadet of the Year Award](#)** - More information about qualifications and nomination procedures can be found on **CAP Form 50-4** or in **CAPP 50-1**.

In submitting a nomination you are not only recognizing the contributions of our CAP colleagues and stakeholders, but you are serving your squadrons. Completing a nomination earns a point in the Annual Activity Report and also on the 'Internal AE Tasks' for the Squadron AE Achievement Award. **So start identifying worthy candidates and get to work on the nomination.**

STEM RESOURCES YOU DIDN'T KNOW EXISTED

Lt Col Constance Kelly
IL Wing Plans and Programs



The Civil Air Patrol has an amazing body of educational materials on aviation and space, but it might not always be enough for the person who is an avid tech or science fanatic. Our catalog, expansive as it might be, only touches on the tip of the science and technology iceberg.

There is a wealth of material which is available to educators of all types and students that is easy to access and even easier to use in and out of classroom settings. There are a number of resources which can be adapted to the classroom or CAP unit. Dozens of societies and organizations provide information on STEM disciplines. Most **Engineering Professional Societies** have major pre-university education programs.

IEEE, the largest professional technical society, has a wealth of material available online including lesson plans and games highlighting engineering, and an entire section devoted to Volunteers doing STEM Outreach at www.TryEngineering.org.

[ASME](#) and [ASCE](#), the mechanical and civil engineering societies also have websites that contain lesson plans and activities showcasing aspects of those engineering fields. But then EVERY engineering specialty, sub-specialty and combination of specialties has an organization as do most ethnicities. The table below contains links to most of the technical professional societies based in the United States.

TECHNICAL PROFESSIONAL SOCIETIES	
<ul style="list-style-type: none">• American Institute of Chemical Engineers• American Nuclear Society• American Railway Engineering Association• American Society for Engineering Education• American Society for Engineering Management• American Society of Agricultural and Biological Engineers• American Society of Civil Engineers• American Society of Mechanical Engineers• American Society of Naval Engineers• American Society of Plumbing Engineers• American Society of Safety Engineers• American Society for Nondestructive Testing• Architectural Engineering Institute• ASM International• Association for the Advancement of Cost Engineering• Association for Computing Machinery	<ul style="list-style-type: none">• Audio Engineering Society• Biomedical Engineering Society• Institute of Electrical and Electronics Engineers• Institute of Industrial and Systems Engineers• Institute of Transportation Engineers• National Academy of Engineering• National Society of Black Engineers• National Society of Professional Engineers• Society of American Military Engineers• Society of Automotive Engineers• Society of Broadcast Engineers• Society of Fire Protection Engineers• Society of Hispanic Professional Engineers• Society of Manufacturing Engineers• Society of Naval Architects and Marine Engineers• Society of Petroleum Engineers• Society of Plastics Engineers• Society of Women Engineers



This barely scratches the surface as a simple Google search will show. [DiscoverE](#) is an outgrowth of the National Engineers’ Week Foundation and has information on a range of disciplines. [Design Squad](#) started as a Weekly TV program and is now a web-based compilation of activities which can be adapted for audiences of various ages.

There are activities like [Project Lead the Way](#), and [Project Exploration](#) that empower students in under-resourced areas. [Hour of Code](#) and [Code.org](#) provide a range of activities to introduce computer programming.

Most museums like the [National Air and Space Museum](#) and the [National Museum of the US Air Force](#) have STEM activities which can be adapted to local use. Most colleges and universities have STEM outreach programs, some targeting females and some minorities. The MIT program [Full Steam Ahead](#) is an excellent example of such a site.

Even major corporations like [Boeing](#) have STEM programs online. The Department of Defense realizes that technology is the key to the future security of the country. CAP is not the only Air Force STEM program, as [AFk12STEM.com](#) includes other AF initiatives. [Navalhorizons.us](#) focuses on technology at sea while <https://www.usace.army.mil/STEM/> focuses on land-based systems.



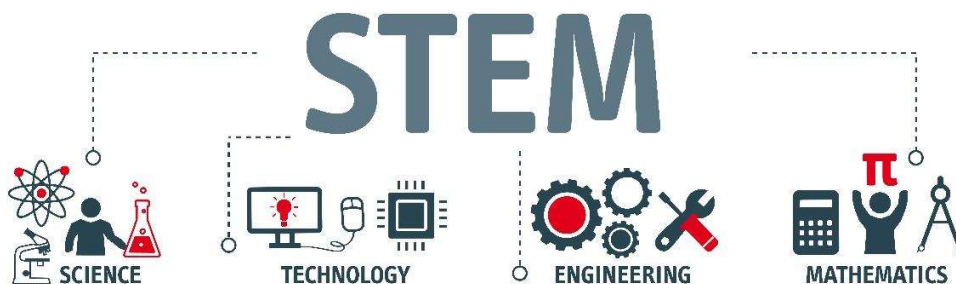
DoD is not the only government agency with STEM programs. The [Department of Education](#) and the [FAA](#) also offer materials that can serve as a supplement to CAP resources. And there are a number of newsletters that offer material to supplement any program: [Stemconnector.com](#), [www.ngcproject.org](#), [stemedcoalition.org](#), and the [stemleadershipalliance.org](#) all provide periodic newsletters.



In addition to the websites and newsletters, free and open to all, there are a number of competitions which provide an incentive to dig deeper into technical areas. In addition to [CyberPatriot](#) which cadets are already familiar with, [Futurecity.org](#) and [Mathcounts.org](#) address planning, organization, and the mathematical skills needed regardless of future career path. For robotics I recommend [Vex Robotics](#) and [First Robotics](#). And the [Engineergirl Essay Contest](#) sponsored by the National Academy of Engineering targets females in middle school through high school.

We have barely scratched the surface of materials and programs available to add to the CAP library. This is not a complete list but only a starting point. A few minutes with a search engine and some of the keywords indicated above and the possibilities are endless.

Editor’s Note: Lt Col Kelly made a presentation on this topic at the 2021 Virtual National Conference. If you would like a copy of this presentation, send an email to Capt Dicht at capaerospace@gmail.com.



PIONEERING NEW AEROSPACE EDUCATION RESOURCES

**Capt Robert J. Roberts, Director, Aerospace Education
South Carolina Wing**



Hello New York Wing. My name is **Capt Bob Roberts** and I'm the **Director of Aerospace Education for South Carolina**. I got my start however in the great Rochester, NY Composite squadron. I was asked to bring you up to speed on some of the events and media that we have recently created.

When COVID-19 first pushed us into a fully virtual environment we decided to create videos that could be shared outside of our local squadron and could be used within the State of SC. To that end we have created an Aerospace Dimensions video series. There is a video, sometimes two for every chapter and every module. If you are a cadet studying and needing to pass an AE test, check them out. They were built to help you!

We also have guest hosts from people like John and Martha King, Col Joe Kittinger who was the first human being to get to the edge of space at over 100,000 feet, astronauts, airline pilots, and other YouTube aviators. We currently are starting to get together the supplies and studio to make videos for all of the available STEM kits. This will help all the AEO's determine which STEM kits they want to use.

This year I was honored to be the Director for the first annual [CAP High Altitude Balloon Challenge](#). The teams are finishing up and we are excited to announce the winner on October 7th. You have several NY teams (See update on page 14). Cheer them on. There is a \$5000 grand prize. If you would be interested in this event next year, make sure you tell your Wing and Region DAE and tell them to tell National! With the support of Dr. Montgomery we have a good chance we can do this event next year and even bigger.

For this year, we launched two balloons filled with over 115 individual science experiments. The first balloon we launched reached over 80,000 feet and the next balloon shocked us as it climbed and climbed and climbed, reaching over 103,000 feet. The atmosphere at that level is very similar to the atmosphere on the planet Mars. So these units' experiments had nearly the same results as if they sent them to the Red Planet. So exciting! Who's going to win the \$5000? Will it be a NY Squadron?

To find the YouTube channel you can look on the [National AE website](#), they usually post items for it there. You can also just go to YouTube and search for Aerospace Education. Proud to say that in just a little over a year, we went from brand new and no subscribers to the number one search result on YouTube when you search for Aerospace Education and just a few weeks ago was made a partner program with YouTube. You can also go to the link directly at <https://www.youtube.com/robertroberts>

Unit AEOs feel free to use any of the content any way that makes sense to you. It's free to use. Also I am always looking for items that individuals want to see that would benefit them. Whether it is an AE topic or a guest host. So leave me comment on the videos and I'll see it.

Pilots, check us out as well. We are adding content for you. I am in conversation to have Max Trescott come on and do a video on WAAS and GPS approaches. He literally wrote the books on the G1000.

Thanks everyone. Hope you all have a great Fall! Enjoy the pumpkin pies 😊 Come say 'hi' on our Channel and let the videos help your programs out!

***Editor's Note: Capt Roberts was awarded the Major General Jeanne M. Holm
Aerospace Education Officer of the Year at the recent National Conference!***

QUALITY CADET UNIT AWARD (QCUA) AND COHORT RECRUITING: PLANNING FOR QUALITY

Presented by: Tammy Hallihan and Joanna Lee, National Cadet Team

- What can you do to set yourself up for success in 2022?
- Order a STEM kit
 - Outside Activities sign ups
 - Watch for QCUA 2022 criteria
 - Quarterly cohorts (monthly if that feels better)
 - Open House plan
 - Great Start program



Red Ribbon Leadership Academy

www.GoCivilAirPatrol.com/RRLA

Onboarding

70% of new cadets earn Curry in 8 weeks from join date

Cohort Recruiting

Webinar- <http://bit.ly/July18Presentation>

Great Start

Updated Guide coming 2022!

www.GoCivilAirPatrol.com/GreatStart

Quality Cadet Unit Award

Info: www.GoCivilAirPatrol.com/QCUA

Report: eServices > [Member Reports](#) > Quality Cadet Unit Report

QCUA Details: eServices > Cadet Promotions > [QCUA Details Module](#)



AEX & STEM Kits

STEM Kit Order & Reporting: eServices > Aerospace Education > [CAP STEM Kit](#)

AEX Info: www.GoCivilAirPatrol.com/AEX

AEX Application & Reporting: eServices > Aerospace Education > [AEX](#)

Outside Activities

Competition	Registration Deadline	Team Size	Ages	Website
AFA CyberPatriot	October 5	2-6	Middle School or High School	https://www.uscyberpatriot.org/
AFA StellarXplorers	October 1	2-6	High School	https://stellarxplorers.org/
AMA UAS4STEM	December 31	4-10	Grades 6-12	https://amablog.modelaircraft.org/uas4stem/
The American Rocketry Challenge	December 1	3-10	Grades 6-12	https://rocketcontest.org/



STELLARXPLORES



THE AMERICAN ROCKETRY CHALLENGE

[Quality Cadet Unit Award](#)

(Note, other links on page are not active)

Questions? Cadets@capnhq.gov

CAP TIMELINE FLIGHT

Celebrating Our Aviation Heritage

With the approach of the **Civil Air Patrol's 80th Anniversary** on Dec.1, **Maj. Ronald C. Finger** of the Minnesota Wing's Crow Wing Composite Squadron worked with **Col. Frank Blazich** of the Col. Louisa S. Morse Center for Civil Air Patrol History, CAP National Historian, on a special project -- to create "**Timeline Flight**" paintings showcasing some of the wide variety of CAP aircraft flown over the years. The 21 aircraft selected span the Coastal Patrol days of World War II, the postwar years and finally the aircraft Civil Air Patrol aircrews fly today. The images are being released every few days. Here is a sampling:



The **Sikorsky S-39B** was once described as looking like a collection of aircraft parts flying in formation. This was no streamlined beauty. Coastal Patrol Base No. 2 flew NC803W out of Rehoboth Beach, Delaware, for sea rescue operations. One such rescue mission in July 1942 resulted in Maj. Hugh Sharp, pilot, and his observer, 1st Lt Eddie Edwards, becoming the first civilians awarded the Air Medal.



The **Beechcraft Model 17 "Staggerwing"** was first flown in 1932. During its heyday, it was used as an executive aircraft, much as a private jet is now. The Model 17's unusual wing configuration -- the upper wing staggered behind the lower -- maximized pilot visibility and was intended to reduce drag. The B-17L featured a 225-horsepower Jacobs L-4 engine and retractable landing gear.



First developed as the **Stinson Model 105** in 1939, the **Voyager** was a high-wing three-seat braced monoplane. The Model 10A was powered by the Franklin 4AC-199 engine. From March 1942-August 1943, armed Civil Air Patrol aircraft operated out of 21 coastal patrol bases extending from Maine to the Mexican border and monitoring the Atlantic and Gulf coasts' waters. NC36709 flew anti-submarine sorties out of Coastal Patrol Base No. 3 in Lantana, Florida, and is still flying today privately owned by Lt Col Sean E. Neal and Maj Susan A. Neal of the NY Wing.



The **Waco S** series is a range of single-engine, four-to five-seat, fabric-covered cabin biplanes produced by the Waco Aircraft Co. beginning in 1935. A 225-horsepower Jacobs L-4 engine powered the 1936 YKS-6, used as light passenger and utility transports, navigational trainers and maritime patrol craft. Civil Air Patrol used the YKS variants to conduct anti-submarine patrols off the U.S. coastline from March 1942-August 1943 armed with 100-pound demolition bombs. NC16598 operated out of CAP Coastal Patrol Base No. 9 in Grande Isle, Louisiana.

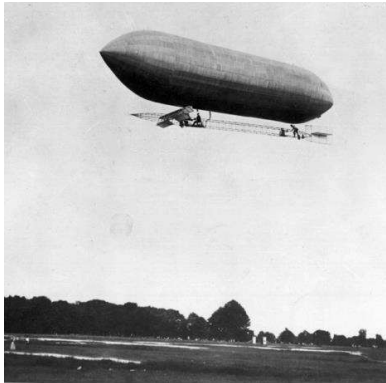
Editor's Note: These paintings are very powerful and present the aviation history in a beautiful graphic timeline. To view all of the paintings go to <https://www.cap.news/cap-timeline-flight/>

AVIATION HISTORY SERIES

Lt Col George Geller

New York Wing Internal AEO

Two things that led to the development of aviation were the post office and the military. During the Battle of Fleurus in 1794, the French observation balloon *l'Entreprenant* was used to monitor Austrian troop movements. This was the first known use in battle of a balloon. The US used reconnaissance balloons during the Civil War, but balloons are not navigable . . . so airships were developed.



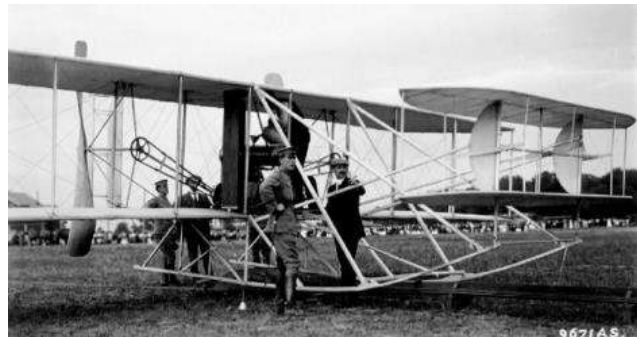
*Signal Corps Dirigible #1 – 1908
Source - thisdayinaviation.com*

Dirigible No. 1 had been designed and built by **Thomas Scott Baldwin** of Hammondsport, New York. On 3 August 1908, the airship, Baldwin No. 8, was presented to the Army for trials. Although the Baldwin No. 8 reached an average speed of just 19.61 miles per hour, it demonstrated the required endurance of two hours, averaging 14 miles per hour. Although the airship's speed was short of the requirement, on 5 August, the Army purchased it from Baldwin for \$5,737.59.

The U.S. Army's first aviators, **Lieutenants Benjamin D. Fulois, Thomas E. Selfridge* and Frank P. Lahm** were taught to fly the airship. Lahm and Fulois made the first flight of an all-Army crew on 26 August.

Signal Corps Dirigible No. 1 was assigned to the Signal Corps Post at Fort Omaha, Nebraska, where the Army had a balloon factory. It was operated there until 1912. The airship's envelope needed to be replaced, and unwilling to spend money for that, the airship was sold.

Responding to an Army specification for a heavier than air craft, **Orville Wright** brought a Wright Model A Flyer to Fort Myer, Virginia, to demonstrate it. On 17 September 1908, The Model A, with Wright as pilot and Lt Selfridge as a passenger, crashed. Wright was seriously injured, but Selfridge died. He was the first person to be killed in an airplane crash.



*The Wright 1909 Military Flyer - Fort Myer.
(Orville Wright is to the right side of the photo)
Source -thisdayinaviation.com*

The following year, an improved airplane, the Wright Military Flyer was shipped to Fort Myer, arriving 18 June 1909. Tests were conducted over the next several weeks. The Military Flyer achieved a two-way average of 42.6 miles per hour, over a 5-mile course, and demonstrated its endurance at 1 hour, 12 minutes, 40 seconds. On 2 August 1909, the United States Army purchased its first airplane, at a cost of \$25,000. Because the Military Flyer exceeded the Army's requirements in both speed and endurance, bonuses were paid totaling \$5,000. The Wright biplane was designated Signal Corps Airplane No. 1.

*Lt Thomas E. Selfridge was related to Harry Gordon Selfridge, the founder of *Selfridges*, the famous London store on Oxford Street.

*The source for this article is
<https://www.thisdayinaviation.com/>*

NATIONAL CAP CADET HIGH ALTITUDE BALLOON (HAB) CHALLENGE UPDATE



Civil Air Patrol
U.S. Air Force Auxiliary



The [Participating CAP Teams](#) have been working with the company, [StratoStar](#), and developed more than 650 science experiment(s) this summer that were launched in one of two national CAP HABs on **Saturday, 21 August**.

- About 100 adult and cadet CAP members attended the outdoor event in person
- Hosted by the GLR-IN-803 Anderson Preparatory Academy Cadet Squadron, the commander, **Lt Michael Austin**, certainly helped to make the day a special one for the school's cadets and visiting CAP members and guests.
- The INWG Vice Commander, **Lt Col Jamie Griffith**, was the Incident Commander for a full Search and Rescue Exercise that included 2 airplanes, a drone, a comm team and a ground team. This team used the technology CAP uses for SAREX missions to track, locate, and retrieve the balloon payloads.
- View the entire launch event [HERE](#), moderated and led by SCWG Director of AE, **Capt Bob Roberts** on his [AE YouTube Channel](#).
- See [video of the balloons](#) as they launch and reach burst altitudes of 87,621 ft and 103,057 ft before landing the payloads back on Earth.



High Altitude Balloon Challenge NYWG Teams

Squadron	Contact Lead
NER-NY-351 Dunkirk Composite Sq	2d Lt Zach Mangialomini, AEO
NER-NY-033 Putnam County Composite Sq	2d Lt Craig Treco, AEO
NER-NY-402 Jamestown Composite Sq	Lt Col Ellen Maternowski, CC, AEO

Congratulations to all of the cadets and senior members who participated in the challenge!

For more information go to:

<https://www.gocivilairpatrol.com/programs/aerospace-education/cadets/cap-national-high-altitude-balloon-challenge>

IN THE NEWS

MAJOR SIAN PROCTOR FLIES ON INSPIRATION4



In the July/August issue we reprinted an article that highlighted the upcoming spaceflight of the Arizona Wing's **Maj Sian Proctor**. I am excited to report the flight of [Inspiration4](#), the first all civilian mission to orbit was a tremendous success. Maj Proctor, who served as the mission pilot, and the rest of the crew launched from pad 39A at the Kennedy Space Center at 8:02 pm EDT on 15 September. Flying in a SpaceX Crew Dragon capsule named Resilience, the crew spent three days in space conducting experiments, acclimatizing to space and enjoying the great view from almost 350+ miles above the Earth.

In addition to being the first all-civilian crew to orbit Earth, this mission had several other historic achievements; the first free-flight Crew Dragon mission and the first orbital human spaceflight mission that did not dock with a space station since the final Hubble mission on STS-125 in 2009. After three days orbiting Earth, the crew of Inspiration4 safely splashed down in the Atlantic Ocean off the coast of Kennedy Space Center, Florida, at 7:06 p.m. on 18 Sept.

Maj Proctor holds a doctorate in science education and had come close to becoming an astronaut the old-fashioned way. In 2009, she was among 47 finalists whom NASA selected from 3,500 applications. In completing this mission she became the first black woman to pilot a spacecraft. We extend our congratulations to Maj Proctor and her crewmates on carrying out a very successful mission that lived up to its name. As an active contributor to the Arizona Wing Aerospace Education team, we are sure she will use her experience on this flight to inspire the next generation and open up space travel to more citizens of Earth.



Liftoff
Source - SpaceX



Inflight Broadcast
Source - SpaceX



Splashdown
Source - SpaceX

A MESSAGE FROM THE EDITOR

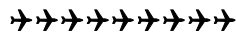
Capt Burt Dicht
New York Wing Assistant DAE



It is hard to believe I joined the New York Wing Staff just a little over a year ago. It has been a fun and rewarding experience and I look forward to expanding my contributions to the NYWG and aerospace education. My main areas of focus have been supporting the Quarterly AEO meetings and the publication of this newsletter, *Wing Tips*.

In preparation for this issue I went back to look at the Sept/Oct 2020 issue. In an honest assessment, we've come a long way since that issue by making improvements in the format and look as well as expanding the content and contributors beyond the Wing. That does not mean we're satisfied. We will be continuing to seek ways to enhance and improve the content and value to you as AEOs. One area that will be a focus in future issues is to highlight more AE activities from around the Wing. We'll likely be doing more direct outreach to solicit content. But don't wait for us. **If you have something new to highlight or a recent success, let us know and we'll include it a future issue.** Send your inputs to capaerospace@gmail.com

In completing this issue I would like to thank the other members of the Editorial Team, **Lt Col Anita Martin**, **Lt Col Marilyn Rey** and **Lt Col George Geller**. Also a special thanks to **Lt Col Jacqui Sturgess**, who provides valuable content and an editorial review for each issue. And finally a thank you to our external contributors **C/CMSgt Gabriel Hernandez**, **Col John Jones**, **Lt Col Constance Kelly**, and **Capt Robert Roberts**.



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. **Start planning now for your AEX for FY2022.**

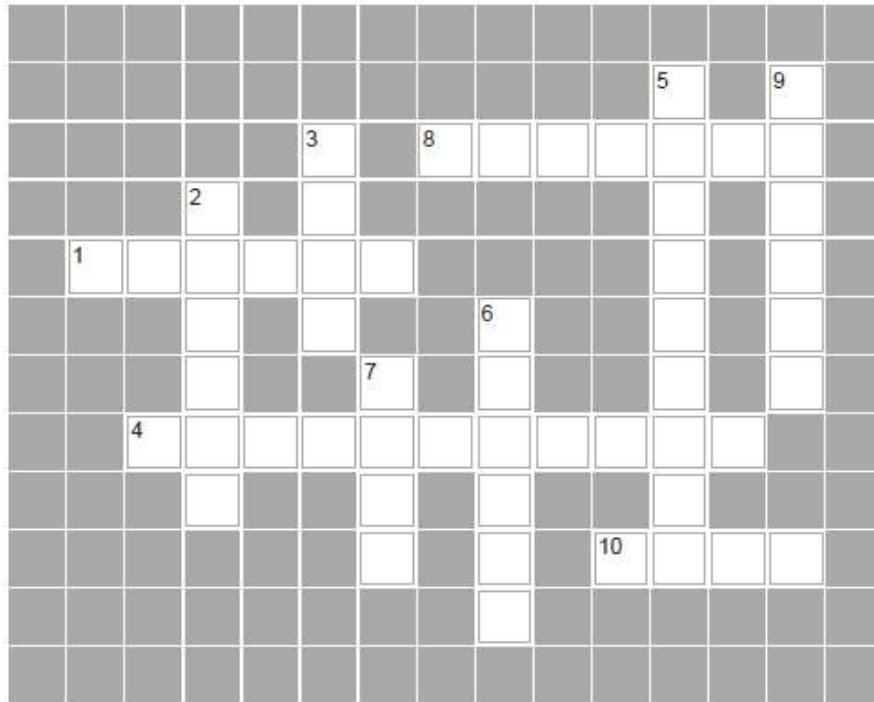
To earn the AEX award you must register then complete six activities (from any of the AE resources or an aerospace education lesson plan of your choice) during the fiscal year *and* complete at least a two-hour field experience (such as a space day, a virtual aerospace-related field trip, model rocket launch, etc.) to earn color certificates for your cadets and senior members. **Please contact Capt Dicht if you would like to learn more and also how several activities can be conducted virtually.**

LOGIC AND PUZZLE SECTION

In each *Wing Tips* issue, we are providing you with a Critical Thinking Puzzle. **This puzzle comes from bigactivities.com.** 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.

SPACE CROSSWORD PUZZLE

Instructions: Complete the crossword puzzle by filling in the “Space” words that fit the clues. (Solution on page 18)



Across

1. A very bright object that is similar to star and far away in space
4. The action of travelling in or through an unfamiliar area in order to learn about it
8. Part of a spacecraft that often separates from the main rocket
10. Often referred to as the Red Planet

Down

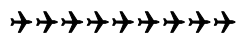
2. A system of stars held together by gravitational attraction
3. A fixed luminous point in the night sky
5. The explosion of a star
6. The seventh planet from the sun
7. The natural satellite of the Earth
9. A piece of rock or metal that burns in the sky as it falls

N EDITORIAL STAFF: (from left to right)

Lt Col Anita Martin, NYW DAE; Lt Col Marilyn Rey, NYW DAE Emeritus.
Lt Col George Geller, AEO (I); Capt Burt Dicht, NYW DAE(A), NYCG 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



Solution – Space Crossword Puzzle

