

NEW YORK WING – CIVIL AIR PATROL



AEROSPACE EDUCATION ONLINE MAGAZINE



CAP T-34 (From 1976)  
Photo Credit: Civil Air Patrol History Facebook Page



Members of CAP Miami, OK Chapter in 1961  
Photo Credit: Miamihistory.net

SEE PAGE 2 FOR FULL ARTICLE  
**MAJ HOLLANDER WINS NYW  
AEO OF THE YEAR AWARD**

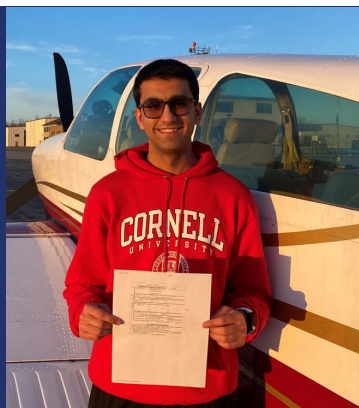
Congratulations to Maj Andrew Hollander (NER-NY-379 Falcon Senior Squadron) for being named the NYW AEO of the Year! Maj Hollander was recognized for his outstanding service in leading the Squadron's AE program for FY2022.

SEE PAGE 3 FOR FULL ARTICLE  
**NYW TECH-IN-THREE-DAYS**

More than 70 NYW AEOs enrolled in the AE Specialty Track have no rating. With this new guide developed by Lt Col Martin, AEOs can earn their technician rating in just three days. Check it out and start on your path to the Technician rating today!

SEE PAGE 5 FOR FULL ARTICLE  
**IN MEMORIAM  
LT COL MARILYN A. REY**

The NYW was saddened to learn of the passing of Lt Col Rey earlier this year. Lt Col Rey served CAP for more than 68 years. Learn about her distinguished career and the contributions she made to the NYW.



C/Col Ishan Swali  
NER - New York Wing  
February 12, 2023  
Photo Credit: CAP

**CONGRATULATIONS TO C/COL ISHAN SWALI**

It has already been a memorable 2023 for C/Col Ishan Swali (NER-NY-301). Here is a list of his extraordinary accomplishments:

- In January he was named an "Outstanding Cadet" by the Air and Space Forces Association
- In February he earned his PPL as part of the CAP Cadet Wings Program
- In March he received the Wing Commander's Commendation from Col Jones for his service during the 2023 National Legislative Day in Washington DC

C/Col Swali represents the best of CAP's ideals. Congratulations on your achievements! You have made the NYW proud.

# MAJ ANDREW HOLLANDER WINS NYW AEO OF THE YEAR AWARD

**Congratulations to Maj Andrew Hollander (NER-NY-379 Falcon Senior Squadron) for being named the New York Wing AEO of the Year!**



*Maj Andrew Hollander (r) receiving Certificate of Appreciation from Maj Steve Pinello for his AE achievements - Jan 2023  
Photo Credit (Falcon Senior Squadron)*

**Maj Andrew Hollander was nominated for the Major General Jeanne M. Holm Aerospace Education Officer of the Year award in recognition of his outstanding service in leading the Falcon Senior Squadron's (NER-NY-379) aerospace education program for FY2022.** The Falcon Senior Squadron's AE program was diverse, complementary and engaging and in a rebound year they accomplished many impactful activities.

Many AEOs have reported the challenges of re-energizing their programs following COVID restrictions. And that task is more difficult for senior squadrons. As many educators know, all students have different motivations. Unlike cadets, senior members are not typically looking for AE activities. In developing an AE program for senior members, AEOs must address their needs and interests. Maj Hollander has mastered the right approach that ensures the senior members are getting the most out of it and finding it to be a rewarding experience. **Maj Hollander proved up to the task as the Falcon Senior Squadron received the AEX award and the Squadron AE Achievement award for FY2022.**

Maj Hollander's success comes from his dedication to the AE mission and his willingness to experiment and try new approaches. A driving mantra is to incorporate AE into the overall squadron activities. As Falcon commander Maj Steven Pinello noted, **"AE is a staple at our squadron's meetings because of Maj Hollander's leadership."** Maj Hollander's nomination now moves on to the Region and hopefully National. **Congratulations Maj Hollander for a job well done!**

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## ATTENTION ALL AEOS NOT YET RATED! AEO TECHNICIAN SPECIALTY TRACK STUDY GUIDE “NYW TECH-IN-THREE-DAYS”

By Lt Col Anita Martin, NYW DAE



**AEOs must be entered into the AE Specialty Track to be able to do their assigned duty.** We currently have seventy-three AEOs that have no specialty track rating. If you fall into this category, we *would like* to help assist you in advancing your training to the Technician level. During a Subordinate Unit Inspection (SUI) when an officer remains in one Specialty Track rating after years of performing the duty assignment, National indicates that it decreases member satisfaction. **We would like to increase member satisfaction and at the same time assist AEOs in achieving their Technician level rating.**

This “NYW Tech-in-Three-Days” is a new resource designed to assist you in achieving your first rating in just three days. *(Note: While this is a three-day-plan, you do not have to complete it in three consecutive days. Work to your own schedule.)*

Start with the **AE Technician Level Checklist** which is printed below. You can see there are three areas where the member is evaluated: **Knowledge, Performance and Service.**

<b>Technician Level Checklist</b>	
To complete the checklist, the member must:	
Knowledge, Performance, and Service Requirements	Mentor or PDO Initials and Date
<b>Knowledge</b>	
Read the publications listed on page 6 and demonstrate a general familiarity with them.	
Explain the appointment process for the AE Specialty Track.	
Review AE programs and products provided by National Headquarters with the trainer/mentor.	
Define the Aerospace Education Excellence (AEX) Award program and how to implement hands-on activities in squadrons and schools.	
Explain the difference between earned and nominated awards.	
Demonstrate knowledge about formulating budgets, obtaining grants and funding of AE activities.	
Describe the preparation of an AE POA for a squadron.	
Describe the preparation of an annual AE Activity Report for a squadron.	
Describe the SUI process for a squadron.	
Successfully complete the online technician rating test in eServices Learning Management System	
<b>Performance</b>	
Compile an AE notebook (on paper or digital file) including the 10 topics listed on page 8.	
<b>Service</b>	
Complete 6 months experience as an AEO/Assistant AEO according to the provisions on page 8. Dates of Service: from _____ to _____	

**KNOWLEDGE REQUIREMENTS (Day 1):** The AEO needs to be familiar with the publications listed on page 6 of the **AEO Specialty Track Study Guide**. It is important to be able to demonstrate a general familiarity with them. Note that **CAPR 20-1** is now the **CAPR 30-1** and **CAPR 50-17** is now the **CAPR 40-1**. Be sure you are familiar with the “Notes” section on the chart on page 6 for each publication and add your notes to remind yourself of each. **You will use these notes in both the Knowledge Requirements and Performance Requirements sections.**

Then you can include them in your AE notebook. **CAPP 50-1 is the most important as all the Knowledge Requirements can be found there.**

**To complete the AE Specialty Track Technician Checklist, the member must:**

1. Read the publications references on page 6 of **Specialty Track Study Guide**. They are all applicable to the AEO. *The CAPR 20-1 is now the CAPR 30-1 Organization of Civil Air Patrol and CAPR 50-17 is now the CAPR 40-1 CAP Senior Member/Professional Development Program.* Familiarize yourself with each of the listed publications. Make notes from the introductory paragraph(s) of each. You can use these notes to study and to answer questions during your “specialty track” interview.

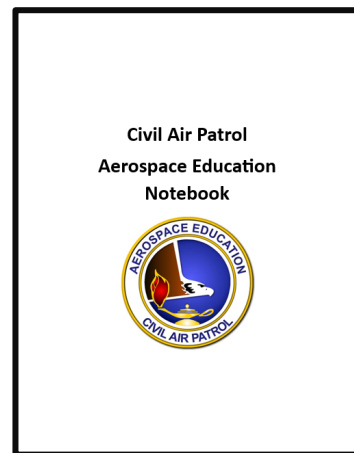
2. Explain the appointment process for the AE Specialty Track: *Found in CAPP 50-1, Ch 1.*
3. Review AE programs and products: *Found in CAPP 50-1, Ch 3.*
4. Define the AEX program: *Found in CAPP 50-1, Ch 4.*
5. Explain the difference between *earned* and *nominated* award: *Found in CAPP 50-1, Ch 6.*
6. Demonstrate knowledge about budgets, grants and funding: *Found in CAPP 50-1, Ch 7.*
7. Describe the preparation for the AE Plan of Action (POA): *Found in CAPP 50-1, Ch 8.* (Note: The NYW provides you with a simple POA checklist to achieve the Squadron Aerospace Achievement Award; this can be found on the Wing's Aerospace Dept website)
8. Describe the preparation for the annual AE Activity Report: *Found in CAPP 50-1, Ch 9.*
9. Describe the SUI (Subordinate Unit Inspection) process: *Found in CAPP 50-1, Ch 10.* (Note: There must be a sit-down meeting between the Commander and the AEO to discuss the AE POA. The NYW POA form to earn the Squadron Aerospace Achievement Award satisfies this requirement.)
10. **TAKE THE TEST!** It is open book. Your review of the above publications and good notes should help with the test. *You may bank the Senior and Master tests for when you're ready to move to the next level.*

**A good plan of action is to complete steps 1 to 9 on day 1 and take the test on day 2.** You will be able to utilize your notes from completing the knowledge requirements for the test, and the information will still be fresh in your mind.

**PERFORMANCE REQUIREMENT (Day 2): This is a good day 2 activity after you complete the test.** This requirement involves the compiling of an **"AE Notebook."** The notebook contains brief descriptions of each of the 10 topics listed on page 8 of the AE Specialty Track Study Guide (and are listed below). Note that these are the *same* topics from KNOWLEDGE REQUIREMENTS. The notes you took from the Knowledge Requirements will satisfy this requirement!! Add a front and back cover and you have a notebook. **It's a two-for-one!** One option is to create an online version using a Google Folder. Or you can create an electronic version by scanning the documents. It is also a good idea to include a copy of the CAPP 50-1 and other publications on the list for quick easy reference in your AE Notebook. You will need to share your notebook with your AEO mentor during your "specialty track" interview.

#### AE Notebook Topics:

1. Appointment of AEOs
2. AEO Specialty Track
3. AE/STEM Programs and Products
4. AEX
5. AEMs, ACE and Top Flight
6. AE Awards
7. Budget, Grants and Funding
8. AE POA
9. AE Activity Report
10. Inspection Preparation



**SERVICE REQUIREMENT (Day 3): To achieve your Technician rating you must complete** six months' experience as an AEO or Assistant AEO after your appointment. Many of you have probably done this already. If this is the case, you are ready for day 3: the interview with your AE mentor who will review the Knowledge and Performance requirements with you and sign-off on your checklist. If there is no AEO with an advanced rating in your squadron, reach out to the Group AEO or feel free to contact me or any other Wing AEO. We will be glad to assist you. **Get started today and good luck!**

IN MEMORIAM

LT COL MARILYN A. REY -- 1938-2023  
 NYWG DIRECTOR FOR AEROSPACE EDUCATION EMERITUS

By Lt Col Jacqui A. Sturgess, DCS for Programs and Wing Historian



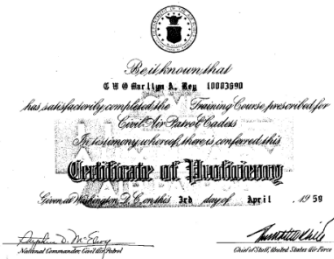
Born 12 March 1938 in NYC, Lt Col Marilyn A. Rey learned about CAP from a science newspaper for students and joined on 28 August 1955, she was 17. Her highest grade as a cadet was three stripes. She attended her first encampment at Plattsburg AFB, and earned her Certificate of Proficiency on 03 April 1959; she was 21 years old and promoted to 2d Lt. The Certificate of Proficiency (COP) was the highest milestone award of the cadet program prior to 1964. In the 15-year period 1949 - 1964 only about 17,500 COPs were awarded, and this was during the timeframe when CAP had almost 70,000 cadets. Today her certificate is an historical document; the newly appointed National Commander signed it, Brigadier General Stephen D. McElery, and, the fourth USAF Chief of Staff, General Thomas D. White.

A member of the Forest Hills Cadet Squadron with duty assignments as Supply Officer and Administrative Officer, she was promoted to Captain and became Squadron Commander in the early 1970s. She transferred to Queens Group serving on the staff and was appointed Group Commander on 16 Sept 1975. In 1989 the Queens Group was merged with the Bronx Group and in



1992 was merged into the newly formed New York City Group. Major Rey was the Plans & Programs Officer until 17 Dec 1996 when she transferred to the New York Wing staff as Assistant Director for Aerospace Education and on 10 Sept 1987 was promoted to Lieutenant Colonel. From 2002 to 2020 she held the position of Assistant then Director for Aerospace Education, becoming Emeritus on 18 March 2020 until her death on 03 February 2023, a month short of her 85th birthday; she was a member for 68 years

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Another historical document from her personnel file is her Level IV certificate for the Paul E. Garber Award, earned on 16 Jan 1980. Why historic? Paul Garber autographed her certificate himself with a personal message, ***“My congratulations Major Marilyn A. Rey, Paul Edward Garber.”***

Diminutive in stature (at 5’2”) she was known as the ‘Mighty Ant’ at NESA and was so fond of that nickname that she printed it on the back strap of her field cap. Her skill as a calligrapher was legendary and for many years, she took great care while calligraphing the names of those who earned the Yeager Award on their certificate. She was a subject expert on the Wright Brothers and could give off-the-cuff presentations on their history and achievements. She

encouraged other Aerospace Education Officers to become similar subject experts. She was an outstanding written communicator, taking great care to explain the various aspects of CAP's aerospace education programs to the more than 200 AEOs around the Wing.



She was editor and publisher of the original broadsheet, 'AE Highlights' subsequently renamed 'Wing Tips;' it has evolved into the celebrated

20+ page online AE 'magazine'.

Together with Lt Col George Fillgrove, the initiator, she was involved in the AE Display Competition held annually at the NYWG conference and delighted in the success of all the cadet participants.

Since she joined the AE staff at NYWG HQ in 1996, wing has won 11 first place AE Mission awards from NER, and two 3rd place AE Mission Awards from NHQ. Her long career in CAP was not her only interest; she was a Life Patron of the

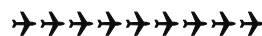


Air Force Association; a member of National Aviation Education Council, since 1959; she was honored for her contributions to aviation education by the Federation Aeronautique Internationale in 1976; she was a Lifetime Member of the National Rifle Association, since 1969; and was certified as a

Basic Firearm Instructor and a Shooting Coach; to name just a few. She was a member of the Society of Illustrators and earned her Bachelor of Arts degree from Queens College, CUNY in 1982 after earning an Associate Degree in Applied Science, from the

NYC Community College of Applied Arts & Sciences, in 1960.

Among her many decorations are included: the Air Force Organizational Excellence Award; Meritorious Service Award; the National Crisis Service Award; five Unit Citations; the Gill Robb Wilson Award (#953); the Col Roy I. Arroll, CAP Memorial Award, Wing Staff Officer of the Year, 2016; the 50-year membership plaque, Aug 2005; and two Master Ratings (AEO & CPO).



## NEW YORK WING OF THE YEAR AWARD RECIPIENTS

**Congratulations to all of the New York Wing OTY Award Recipients!** You can find the complete list [here](#). The Wing Tips Editorial Board would like to recognize the recipients in the aerospace education categories. **In addition to Maj Hollander, the following *Frank G. Brewer, CAP Memorial Aerospace Awards* were announced:**

Category I – Cadet Member	C/1st Lt Cecilia I. Delgadillo, NY-048
Category II - Senior Member	Capt Richard F. Jensen, NY-388
Category III - Individual Or Organization	Port Authority of New York and New Jersey

## 43RD ANNUAL “GREATEST SHOW ON TURF”

By Lt Col George Fillgrove, NYW External AEO

The 43<sup>rd</sup> Annual “Greatest Show on Turf” is scheduled for the weekend of 2 to 4 June at the National Warplane Museum, Geneseo, NY.

And once again, Civil Air Patrol (CAP) cadets and senior members are invited to support the air show. Our support role is primarily around the aircraft display and taxiways, along with directing traffic into the parking areas.

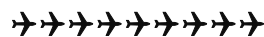


The annual event draws thousands of enthusiasts and CAP members are offered the opportunity to get up close and personal with aircraft such as the Douglas C-47, Whiskey 7, which dropped paratroopers on D-Day or the movie version of the B-17, Memphis Bell.

There are several CAP forms required in advance (not on arrival) and must have a squadron commander’s signature. Those include: CAPF 60-80 – Cadet Activity Permission Slip, CAPF 60-81 – Application for Special Activity, CAPF 17 - Senior Member Activity, CAPF 160 – Health History Form, and CAPF 163 – Permission for Over-the-Counter medication.

Cost to participate will be based on individual attendance to cover meals and materials. Fees will be collected on arrival and include: \$25 if staying Friday through Sunday, or \$15 per day Saturday and Sunday. There will be a training day for flightline and parking details at 9:30 a.m. May 13<sup>th</sup> at the National Warplane Museum. There may be an additional work party to help with some of the airshow preparations.

For additional information, please contact Maj. James D. Herman, Finger Lakes Group Airshows Officer In Charge, via e-mail at: [wccscap@gmail.com](mailto:wccscap@gmail.com).



## AFA GRANTS FOR CIVIL AIR PATROL UNITS

Funding for CAP Unit Grants has been generously restored by CAP partner in aerospace/STEM education, the [Air & Space Forces Association \(AFA\)](#). Note the new AFA name and logo which embraces both USAF Airmen and U.S. Space Force Guardians.



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 (applicant’s time zone) June 30. The application is found [HERE](#). The grant competition will result in STEM projects being funded for competitively selected units. All applicants will be notified by the end of July whether or not the project was selected to be funded. [All details can be found using this link.](#)

## TRAILBLAZERS: A TALE OF TWO WOMAN AVIATORS: WINDHAM AND THOMPSON

By Lt Col George Fillgrove, NYW External AEO



*Emma Jane Burrows Windham*  
Photo Credit : USAF

While Women's History Month has passed by the time this edition goes to press, that doesn't mean that Civil Air Patrol can't still celebrate achievements of women who are important to the U.S. Air Force's history and legacy. Such are the contributions of **Emma Janes Burrows Windham** and **Gertrude Vreeland Thompkins**.

**PFC Emma Jane Burrows Windham**, known as "Windy," to her family, friends and comrades, was born and raised in San Antonio, Texas, to a farming family. She is the Army Air Force's (AAF) first woman crew chief, the first and only woman flight engineer killed in the performance of her duties in World War II, and the first Woman's Army Corps (WAC) member to die in the European Theater.

Following graduation from high school, Windham entered the University of California in 1941 where she majored in aeronautical engineering. She became a pilot, amassed 349 hours and then oversaw flight training for 1,500 trainees of the New Mexico Wing of Women Flyers. Back in Texas, she would wed Artis Lee Windham. The couple put their future plans on hold to pursue separate military careers: he in the Army Air Forces; she as a member of the Women's Army Auxiliary Corps (WAAC).

With her aviation credentials, Windham would join the 7<sup>th</sup> Ferrying Group at Gore Field, Montana. The 7<sup>th</sup> Ferrying Group bears the unique distinction of being the one unit that trained crews and ferried lend-lease aircraft to Russia. Men and women, both military and civilian, would train pilots to a Class 5 designation for all aircraft, and then would inspect, modify, repair, service, and then deliver A-20s, C-47s, P-39s and P-63s to Ladd Field in Fairbanks, Alaska, over what was considered the coldest airway in the world. It was here that Windham would make history as the first dual rated WAC crew chief and flight engineer, and she would build flight hours on ferrying missions that would start in Florida, stop in Montana and then continue to Alaska.

In the fall of 1944, Windham was sent overseas. She was assigned to the Air Inspector's Office of the Air Transport Command's (ATC) European Division at RAF Bovingdon, England. She was not allowed on combat missions but often joined training flights. She even received a Purple Heart for injuries received during a German V-1 ("Doodle Bug") buzz bomb attack at that base. "Now, look," she once shared with *Stars and Stripes*. "Aviation's my trade. I studied aeronautical engineering at the University of California, I became an engineer, so when I got in ATC I stayed as an engineer. Just because I'm a woman mine has to be a strange case," quoted the *San Antonio Express News*.

On March 31, 1945, Windham boarded a B-17 as a flight engineer for a crew practicing touch and goes in heavy overcast. The bomber was circling the field when a C-47 took off into its path and clipped the number four engine. Both planes plummeted to the ground, killing both crews. Windham's remains were eventually returned to San Antonio, Texas for burial.



**Gertrude Vreeland "Tommy" Tompkins** is one of 38 Women Air Force Service Pilots (WASP) that are either confirmed or presumed dead, and is the only WASP still listed as Missing In Action, now 78 years later.

Born in Jersey City, NJ, in 1912, Tommy was known to be shy and suffered from a stutter. She attended Ambler School of Horticulture and then moved to New York City where she worked for a company called Smooth-On Inc. She met a young man who took her flying and then died in action serving with the Eagle Squadron of the Royal Air Force.

To resolve her grief, Tompkins took flying lessons and applied for the WASPS. She reported to Avenger Field and entered 24 weeks of training as part of Class 43-W-7. That rigorous schedule included 180 hours of flight time, 30 hours of simulated flight training, five hours weekly of physical education, and 180 hours of navigation, communication, weather, aircraft, engine and ATC procedures.



*Gertrude Vreeland "Tommy"  
Tompkins  
Photo Credit: USAF*

Graduating in the top of her class, Tompkins was selected as one of 126 women who attended the U.S. Army's Advanced Pursuit School for qualification on the P-47 Thunderbolt and P-51 Mustang.

On Oct. 26, 1944, Tompkins lined up her newly manufactured P-51D on the runway of Mines Field, Calif. (now Los Angeles International Airport) on a cross-country flight ending in New Jersey, but with one stop in Palm Springs, Calif. She was one of a flight of several aircraft being ferried at the same time. Tompkins never arrived. Then because of reporting errors, four days would pass before the AAF knew she was missing. An extensive ground and water search, lasting 30 days, was declared unsuccessful. No trace of the aircraft or the pilot has ever been found, and what happened remains a mystery. As result of this mishap, however, the AAF moved to a flight plan reporting procedure where individual pilots would file their own flight plans instead of one for all aircraft involved in the same movement. Since the 1990s, the mystery of Tompkins' disappearance has resulted in numerous books and television specials. She was also the subject of *Expedition Unknown*, Season 6, Episode 8, and *"America's Lost WWII Hero"*, aired on the Discovery Channel on May 22, 2019. Marathon (bluestreaktt.com).

## **CAP MEMBERS CAN RECEIVE ROCKETRY SUPPLY DISCOUNTS**

**AC Supply Co., which supplies rocketry items, has a coupon code on its website (acsupplyco.com) for buyers to receive the best prices.** To use the code: 1) Log into your account or create an account and log in. (You must be logged into your account for the coupon code to work.), 2) Go shopping and place items in your cart., 3) Click on your shopping cart to the right of the white search bar., 4) Click "View Cart.," 5) Once you are in your shopping cart, scroll down to "Use Coupon Code" and click it., 6) Enter code CAP5 where it says, "Enter your coupon code here." (This code is case sensitive.), and 7) Click "Apply Coupon."

## RESOURCES FOR AEROSPACE EDUCATION OFFICERS

### AE EDUCATOR 101

By Lt Col Anita Martin, NYW DAE



**Background:** When the CAP School Program began, it typically was not staffed with experienced CAP officers but with school educators who operated on a yearly curriculum. To assist the teachers, 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 national website, in the Cadet Library, at the bottom right side of the screen and is called the “[Squadron Training Plans.](#)”

This is a full 24-month 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! It also adds the CAP Drug Demand Reduction, “Let’s go Flying”. We want to give you ways to extend your AE training to receive more credits for less work! Two Bangs for your buck!



→→→ ATTENTION →→→

**Let’s take look at the Squadron Training Plan, for months 15 and 16** (located in the Cadet Programs’ Cadet Library). <https://www.gocivilairpatrol.com/programs/cadets/library>. ***We have a couple more ‘bangs-for-the-buck’ opportunities.***

March (month 15) schedules **Aerospace Dimensions (AD) Module 2, Aircraft Systems & Airports**. Chapter 2 covers the airport, flight profiles, runway markings and lights as well as airport safety features.

**At the end of this chapter is Activity Four** – titled “*Hey You, ‘Bravo-Oscar-Bravo!’*” (aka **Bob**) This introduces the *phonetic alphabet* used by pilots and air traffic controllers around the world. The International Civil Aviation Organization (ICAO) has established English as the world-wide-language of aviation. They have selected 26 words representing the 26 letters of the alphabet which helps in transmitting clear radio communications. The activity involves cadets learning to phonetically spell their names - for fun!

Have your cadets learn the 26 words and let’s look toward Emergency Services ES – here is where they can get extra credit – it’s multi-tasking. The **Mission Base Staff Task Guide for Mission Radio Operator (MRO) for ES has task L-0002, Perform Radio Operating procedures** is a requirement for all radio operators. And the same task is listed in **Ground and Urban Direction-Finding Team Tasks** for **UDF** and **GTM3**. You can sign off all your MROs, UDF and GTM3 trainees with this task once students demonstrate knowledge of the phonetic alphabet *and* demonstrate a couple of other performance measures of basic radio operation.

Note that members must have already attained their General Emergency Services (GES116) and have commander approval on their SQTRs for training to get this sign-off. You should liaise with your unit’s ESO to have an MRO Skills Evaluator member to approve task completion. **Wow! Four Bangs for your Buck!!**

**Turning to Let's Go Flying (AGF), Part Two, 'So, You Want To Learn to Fly':** April is month 16 and again references the booklet, AGF; this is CAP's *Drug Demand Reduction Program* to raise awareness of how the aviation industry has a zero tolerance for alcohol and drug abuse.

AGF and the AGF Instructor Guide (AGF IG) can be found through this link:

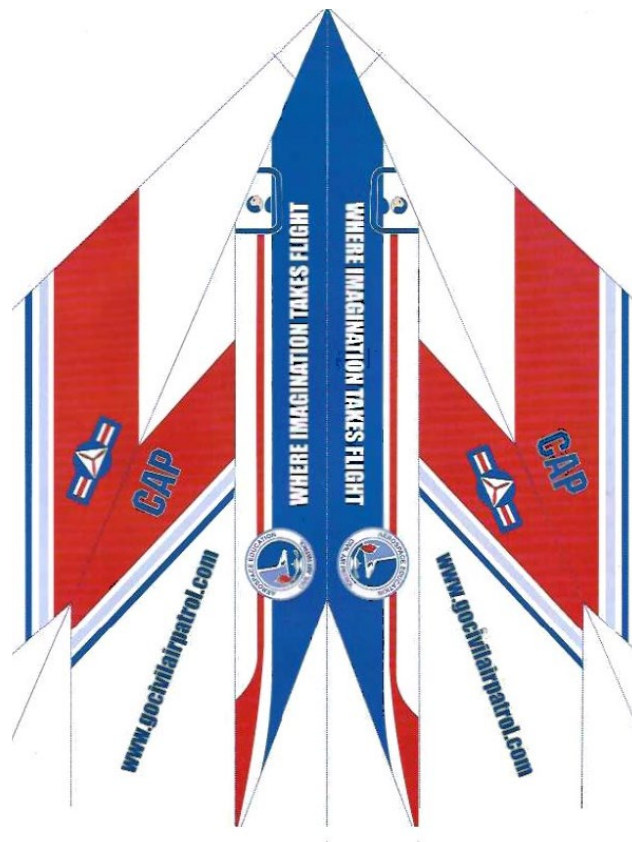
<https://www.gocivilairpatrol.com/programs/cadets/activities/cadet-flying/lets-go-flying>

The AGF IG suggests each student use a paper airplane to walk through a flight profile: runway, takeoff, landing. Each student can use a paper airplane to "fly by walking around the room, in an organized traffic pattern.

In **AEX II Vol I, Activity Six** is *Paper Airplanes Back to Basics*, the objective is for the student to construct and fly a classic paper airplane to create a lesson in **controlled** flight.

The main message is that CONTROL is the **key** in flight and in life. With the proper training and equipment, a pilot can maintain control of distance, speed, altitude, and attitude (direction) of the aircraft. With proper education and goals, a young person can control their destiny and become a healthy, happy, productive, and drug-free citizen with an exciting career – perhaps in aviation! Use the 'flight' lesson after the 'walk about' lesson. This activity is a good opportunity for both cadets and senior members in the unit to have an AE lesson - *and* an anti-drug message.

Note: The **LGF** Crossword Puzzle lets cadets become familiar with the *Important Terms* listed in the beginning of Part Two. See pages 18 to 21



[If you would like a full-size version of the CAP  
Where Imagination Takes Flight paper airplane click here.](#)

## AE SAFETY CHECK



These safety nuggets come 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 for Aerospace Education. Reprinted from the Feb 2023 and March 2023 issues of NHQ/AE's Aerospace Education newsletter.

### DON'T BE RELUCTANT TO REPORT A MISHAP (February 2023)

**Have you ever been reluctant to report a mishap?** Please don't be. Did you know that when it comes to AE safety (actually all CAP safety), we have something called a "just culture"? In CAP, it is there to encourage open reporting by members, who must be confident they will be treated fairly when they report. Leadership should foster an environment of trust where members are encouraged and even rewarded for reporting safety related information, while still realizing there is a line to be drawn between acceptable and unacceptable behavior. What does this mean to you? Mishap reviews should be conducted solely with the goal of determining "what happened and why" rather than "who is to blame." So, if you see something, say something.

### MAKE SURE YOU DRESS FOR SAFETY (March 2023)



**Did you know that what you wear could be important when it comes to AE safety?** ABUs and similar uniforms are not tailored and could be baggy, especially as cadets move from one size to the next. Think about the AE lessons that involve hot glue guns and other items that can reach high temperatures -- baggy clothing is dangerous and may even catch on fire. Unfortunately, it is equally dangerous to have unprotected skin while using many of these same items, along with items like glues that bond to the skin. If you can, find a way to reduce the amount of "bagginess" by using armbands or similar items to reduce the bagginess of your sleeves.

*Photo Credit – CAP*

### THINK SAFETY WITH AE ACTIVITIES

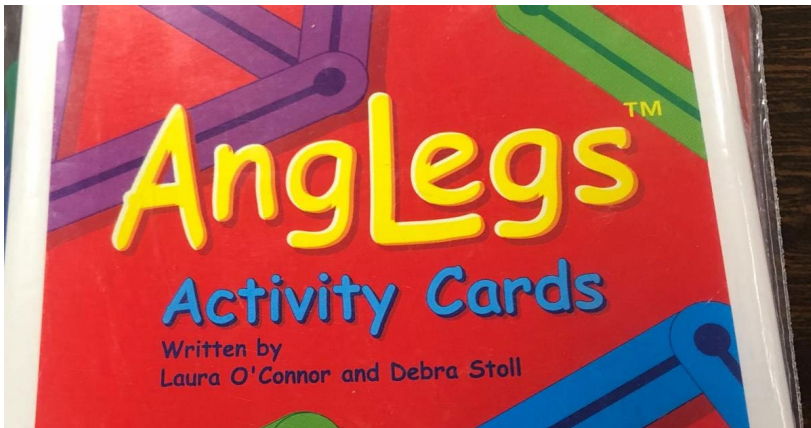
When working with students or cadets, please be sure to conduct a safety briefing prior to the activity. The information should be specific to the materials and conditions for each activity. Such things as snap knives, adhesives, spray paint, or any material that could cause injury should be discussed and caution should be used. Carelessness and/or playing should be discouraged. Please have proper emergency plan and first aid measures available and stress the importance of "safety first." If necessary, post a set of safety rules in the area where the activity will be conducted.

For more information see ["Think Safety with AE Activities"](#)

**Remember: SAFETY, SAFETY, SAFETY!!!!**

## STEM KIT UPDATE

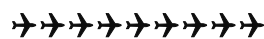
Reprinted from the March 2023 issue of Aerospace Education



**ANGLEGS:** Cadets and students will learn how to classify shapes and angles using the AngLegs STEM Kit. This collection comes with six sets of AngLegs, two snap-on protractors, a set of activity cards, and a plastic tote. Cadets and students will become familiar with angles and move toward an exploration of angles, measurements, and figures while classifying these shapes. Each kit will have enough materials provided for a traditionally-sized class or group of youth (approximately 25).

**Aviation Connection:** Youth involved with the AngLegs kit and associated lessons will be introduced to flight dynamics, to include the three-dimensional angles of rotation about the center of gravity, known as pitch, roll, and yaw.

The AngLegs STEM Kit is recommended for ages 8 and older.



## IMPACT OF CAP'S STEM KIT PROGRAM

The STEM Kit program continues to set new records!

### Totals so far for fiscal year 2023 (for STEM kit applications received through March 2023)

Filled over 2,200 applications

Distributed over 4,800 STEM Kits

Reached over 237,000 participants

### Totals since 2013 (for STEM Kit applications received through March 2023)

Filled over 25,000 applications

Distributed over 50,000 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](mailto:stem@capnhq.gov)

[For more on all the kits available, please click this link.](#)

**80% of participants are more interested in STEM after being involved in the STEM Kit program!**

## 2023 NATIONAL AE HIGH ALTITUDE BALLOON CHALLENGE

The 2023 challenge is now open for registration through 22 May 2023. We encourage you to share this with your squadron and cadets and consider entering the challenge this year.

The launch/intro video with all info is found [HERE](#). All info mentioned therein is found below.

- Each team should view the video and read all info below to ensure each team knows all guidelines.
- For any questions beyond what is explained below about specific challenge submissions to be judged, view the winning awards section in the right menu column.

**The CAP National High-Altitude Balloon Challenge for Cadets is an internal program for cadet and/or composite squadrons. Participation earns a point towards the QCUA as an 'outside' activity.**

**Squadron team registration is open between 20 March and 22 May. No registrations will be accepted after midnight of the team's time zone on 22 May.**

- Only one team registration per squadron is permitted.
- The team can have between two and as many cadets as is workable for the team's program.
- Each cadet can only be on one team.
- The Project Lead needs to be the squadron commander or an AE officer for this AE STEM Challenge.

Cadet leaders and other adults can also work with and help lead the team, but the **Project Lead** will be accepting and shipping all materials, assuming team responsibility, and communicating all HAB info to the team, so needs to be the commander or an AEO.

- HAB Challenge experiment capsule boxes will be shipped to the Project Lead's home address after the team is registered.
- The team can begin work on their science experiment selection as soon as the team is registered.

**Team Project Lead Should Register [HERE](#). (20 March-22 May)**

- Ensure that only the commander or an AEO is the Project Lead and informs the other AE officers that he/she is registering the team to avoid duplicative registrations.
- A cadet cannot be the Project Lead to register or work with NHQ, but a cadet can surely be the cadet team leader.
- Read and follow all instructions on registration form before submitting.

[For more information and the complete competition details, click here.](#)



**CIVIL AIR PATROL**  
AEROSPACE EDUCATION

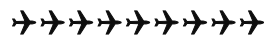


## AE DOWNLOADS & RESOURCES

<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**.



### CADET-TURNED-FIGHTER-PILOT:

### CIVIL AIR PATROL 'INVALUABLE FOR PREPARING YOU FOR THE FUTURE'

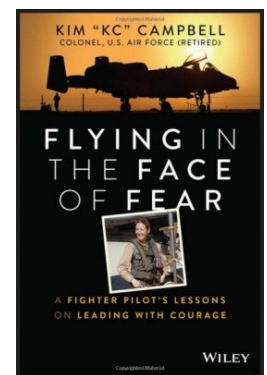
Reprinted from 18 April Issue of Props



**“There I was ... at 7,000 feet ... when ...”**

Many Civil Air Patrol cadets dream about completing a harrowing — but safely landed — flight. And retired Air Force Col. and former California Wing cadet Kim Campbell got to do just that.

On April 7, 2003, her A-10 fighter was hit by enemy fire. Much of the aircraft’s normal systems was destroyed, but Campbell manually piloted the crippled jet back to base safely — a rare feat considering the heavy damage. After the mission, she was awarded the Distinguished Flying Cross for Heroism.

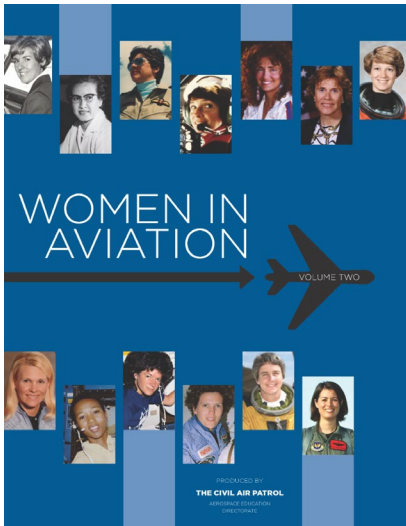


Twenty years later, she brings that tale and other powerful stories of leadership and courage to audiences worldwide both in person and via her just-published book, **[“Flying in the Face of Fear.”](#)**

To hear Campbell tell it, it wasn’t just luck. The flying, the practice, and the planning for all those “what if” scenarios are what paid off that day over Baghdad.

It started back in San Jose, California, when 12-year-old Campbell, who wanted to attend the U.S. Air Force Academy and join the Air Force like her father, saw Civil Air Patrol cadets walking in formation at her middle school. **[To read the entire article use this link.](#)**

## CELEBRATING AVIATION AND SPACE HISTORY WOMEN'S HISTORY MONTH



March was Women's History Month, an annual celebration that highlights the contributions of women to events in history and contemporary society. CAP has many resources that highlight the contributions of women in aviation and space. This includes two volumes of Women in Aviation, featuring some of the contributions women have made to the field of aviation and aerospace since the beginning of the 20th century. As a resource for AEOs and AEMs in squadrons and classrooms, CAP also has a [Women's History Lessons page](#) on that highlights accomplishments of women who are pioneers in aerospace/STEM fields. Below is one of the lessons from Women in Aviation Two – Dr Sally Ride, the first American woman in space.

Be sure to read Lt Col Fillgrove's article *Trailblazers: A Tale of Two Woman Aviators: Windham and Thompson* on page 8.

### CURRICULUM SPOTLIGHT DR SALLY RIDE

(Reprinted from CAP March AE Newsletter)

In this lesson, cadets and students will learn about Dr Sally Ride, the first American woman in space. She was one of the first six women selected as a NASA astronaut candidate in 1978. Learners will also build a highly detailed paper model of an important communications satellite. The lesson is Chapter 10 in the CAP booklet Women in Aviation, Volume Two. Or find it [here](#). Civil Air Patrol has additional resources and lessons honoring the contributions of women in STEM. [Visit our Women's History Lessons page for more lessons and resources.](#)



Photo Credit: NASA



## A MESSAGE FROM THE EDITOR

By Maj Burt Dicht, NYW Internal AEO

I am happy to see April ending. For me it has been one of the most demanding months I have faced in the last few years. Professional, volunteer and personal obligations seemed to overwhelm me this month and I am just starting to catch up and have more control. My Civil Air Patrol duties and responsibilities were a big portion of that workload. I know we're volunteers and at times other obligations must take precedence. But if you are like me, you take your CAP duties seriously and you know that others are depending on you. That desire to ensure your responsibilities are met is what drives us. Getting this issue of Wing Tips out is one example. And I thank my Editorial Team as well as Lt Col Jacqui Sturgess for their teamwork and support.

Now is the perfect time to share with you two other CAP activities I am working on that will take place this month. The first is our **NYW quarterly AEO meeting**. It was tentatively scheduled for Monday, 24 April. Now it will be held on **Monday, 15 May from 1930 to 2030 hours**. Please mark your calendars and look for the invite next week. I hope you can join us.

Next is the **2023 NER AEO Course**. I was asked to serve again as the Officer-in-Charge, and I accepted. This is a lot of work but also it is exceptionally rewarding. The key planning begins next week as our team of instructors will be developing a great AE curriculum. I am also excited to say the course has already reached capacity. Eighteen NYW AEOs have signed up. **If you missed the announcement and are interested in attending, send me an email to be placed on the waiting list. The course dates are Tuesdays 23 and 30 May, Tuesdays 6 and 13 June and Saturday, 10 June.** The Tuesday sessions will run from 1900 to 2115 hours and the Saturday session from 1000 to 14:30 hours.

**And there are still opportunities for you to serve as an instructor.** One of the requirements to advance to your Master rating is to make a presentation and a Wing or Region conference or course. This is a great way to meet that requirement while also sharing your knowledge with your AEO colleagues. Please let me know if you are interested in serving as an instructor. **I look forward to hearing from you.**

## AIRCRAFT IDENTIFICATION QUIZ



*Photo Credit: NASA*

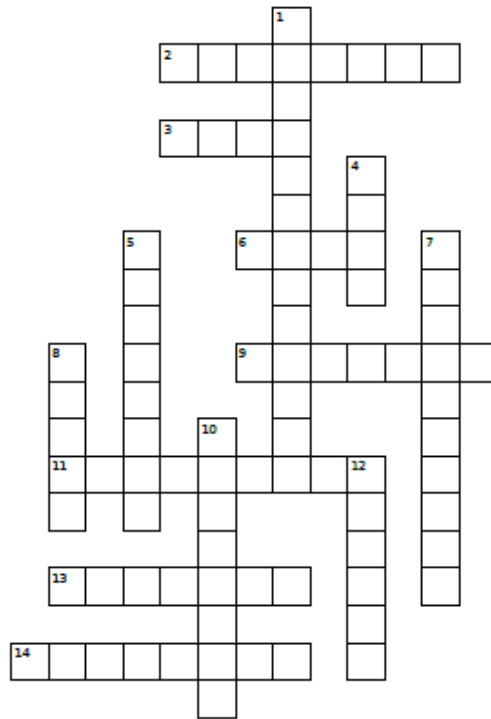
### Can you identify this aircraft?

The first two correct answers received via email to [capaerospace@gmail.com](mailto:capaerospace@gmail.com) will receive a special space patch.

**Hint: It was designed and manufactured by Northrop (now Northrop Grumman) as the first supersonic training aircraft for the USAF. It is shown here in a NASA paint scheme and is flown by the astronauts to keep them current.**

Congratulations to Lt Col William Martin and 2d Lt Gary Fox who identified the North American F-107 in the last issue.

## AE PUZZLE 1 - LET'S GO FLYING IMPORTANT TERMS



**Down:**

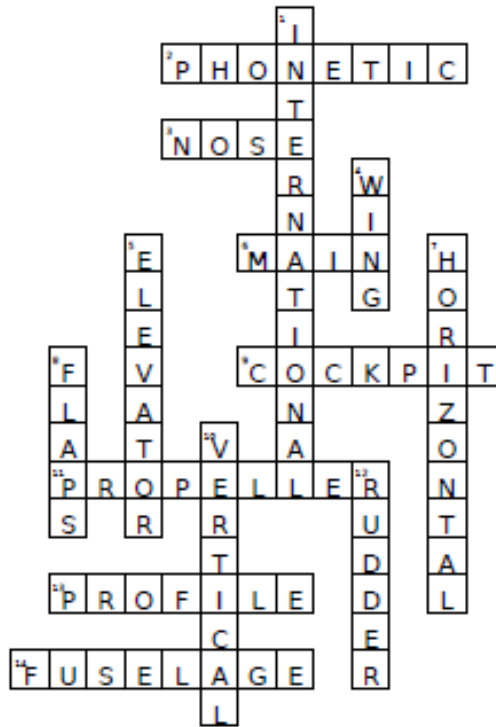
1. An airport that has a Customs Area for international air travel
4. An airfoil that converts the energy of the air into lift
5. Control surface that provides pitch to move up or down
7. An aft-located stabilizer surface on the tail section that provides pitch
8. Control surfaces, located on the trailing edge of the wing, which provide additional lift
10. An aft-located stabilizer surface that provides stability and yaw control
12. A control surface that rotates the airplane around its vertical axis

**Across:**

2. Alphabet set of words that help the pilot better understand the letter
3. Gear, usually just one wheel, located in the front of the airplane
6. Landing gear that carries the main weight of the aircraft while it is on the ground
9. The "flight deck" or area where the pilots operate the aircraft systems and controls
11. An airfoil that provides forward thrust by rotating; essentially a wing that "lifts" forward
13. Various stages of flight of an airplane in flying from point A to point B
14. The main "body" of the airliner

## ANSWERS

### AE PUZZLE 1 - LET'S GO FLYING



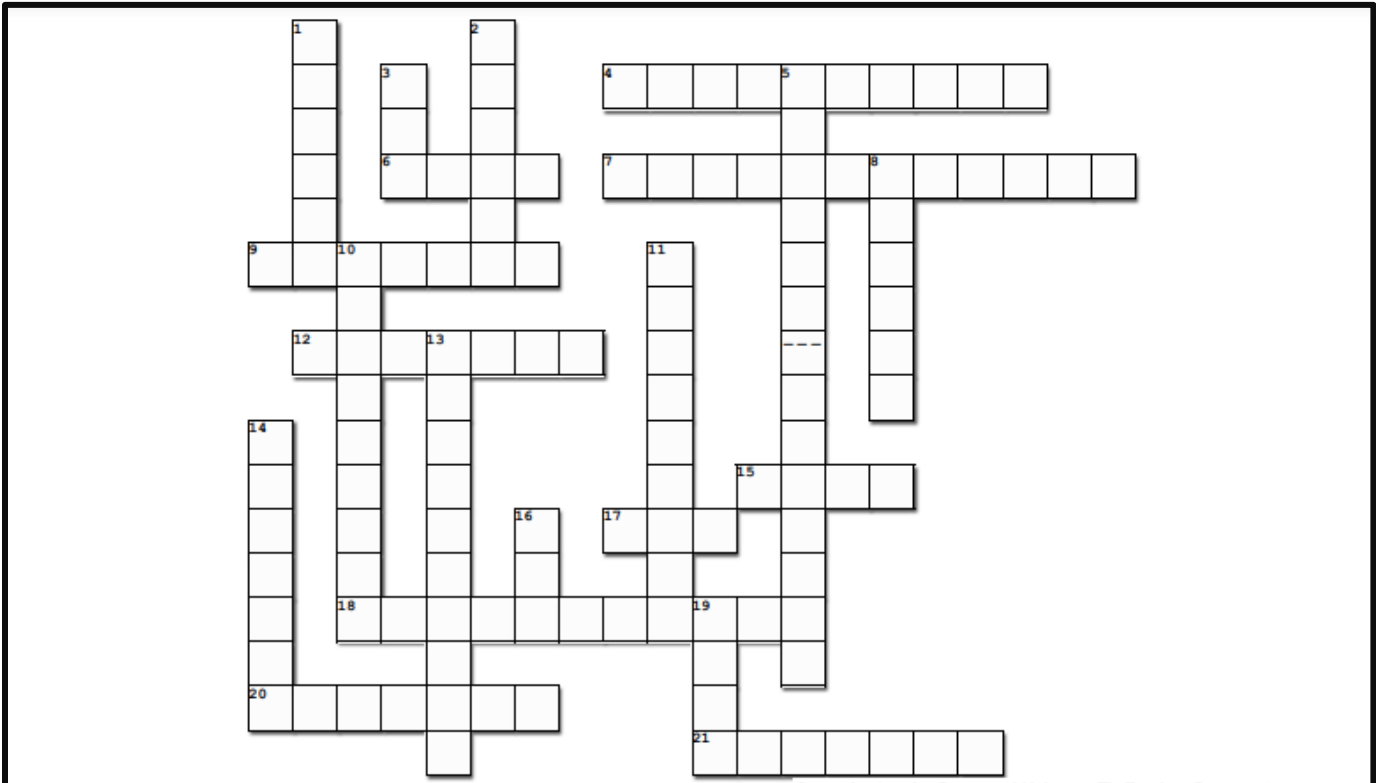
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## AE PUZZLE 2 – AIRPORTS



Created using the Crossword Maker on TheTeachersCorner.net

**Across**

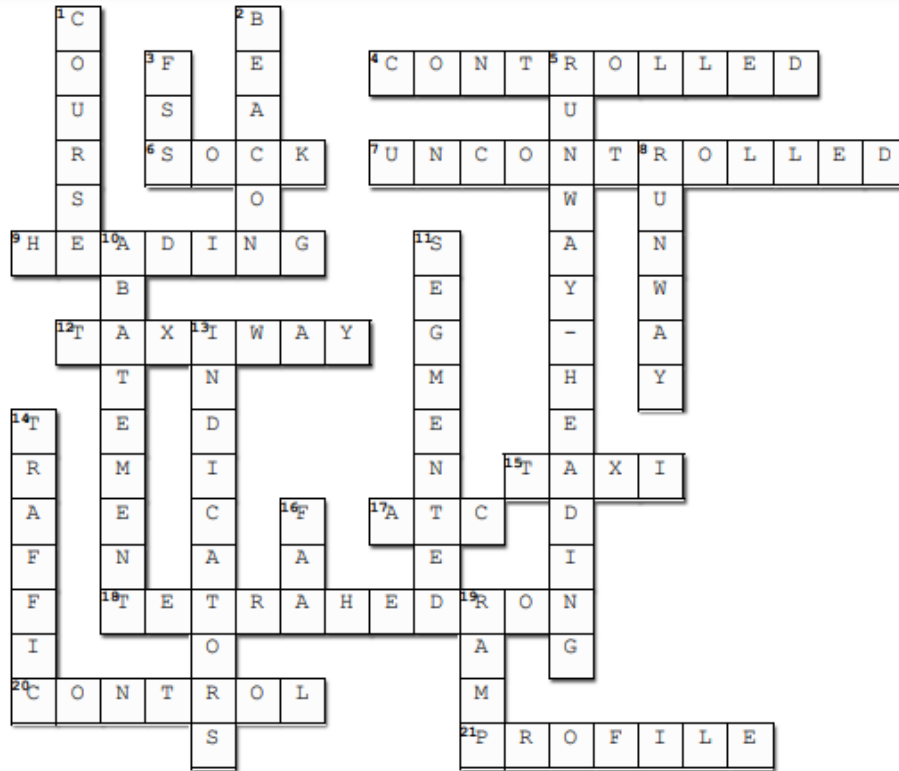
- 4. Airport with an operating Control tower.
- 6. Wind \_\_\_\_ is a fabric tube showing direction wind is from
- 7. \_\_\_\_ airport without an operating control tower
- 9. The direction an airplane points including magnetic north and wind displacement.
- 12. Passageway between parking area and runways
- 15. Ground movement of an airplane
- 17. Air traffic Controller
- 18. \_\_\_\_ gives indication of airport landing direction
- 20. \_\_\_\_ tower housing air traffic controllers
- 21. Flight \_\_\_\_ standardized steps for pilot from take-off to landing.

**Down**

- 1. An intended path of flight measured from true or magnetic north.
- 2. Rotating light mounted on large, tower guiding pilots.
- 3. Flight Service Station provides pilots w/weather briefing and flight planning.
- 5. \_\_\_\_ \_\_\_\_ is a number labeling a runway (2 words)
- 8. Dedicated airport takeoff and landing pathway
- 10. Noise \_\_\_\_ policy set forth controlling noise impact to airport surrounding community
- 11. \_\_\_\_ Circle indicators providing traffic pattern info
- 13. Wind direction \_\_\_\_ give pilots wind direction
- 14. \_\_\_\_ pattern is a virtual path above an airport
- 16. Federal Aviation Administration.
- 19. The airport's 'parking lot'

# ANSWERS

## AE PUZZLE 2 – AIRPORTS



Created using the Crossword Maker on TheTeachersCorner.net

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Photo Credit: <https://dingeengoete.blogspot.com/2014/12/this-day-in-wwii-history-dec-1-1941.html>

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Saving Lives, and Shaping Futures**