

AVIATION NEWSLETTER



Warren Drone Program

AOPA Scholarship
Winners

Egg Harbor
Summer Aviation
Program

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Letter from the Editor

Welcome back!

It is time to reignite the passion for aviation in our students. Across the state, students are learning about the wonders of aviation. Our High School aviation teachers are working hard to provide their students with experiences that inspire our future aviators.

Since our last newsletter, I have worked with three aviation domains that are vital to our aviation infrastructure. I had the honor of taking students to the United Airlines Mechanics hangar and seeing the tremendous work they do to keep our planes safely operational. I also had the opportunity to visit Warren County Community College to check out its drone program. They are indeed on the cutting edge of drone technology. Finally, my youngest son started to take glider lessons. Hanging out with the school's staff and glider pilots is a beautiful way to spend a weekend afternoon as we watch the aircraft take off and land.

Interacting with aviation professionals in these domains reminded me that it is not just pilots who make aviation possible. Each has a vital role in the ever-changing aviation industry. The professionalism and enthusiasm of aviators remind us how unique the aviation community is and how crucial it is that we support Aviation Education in our schools. The future of our aviation infrastructure hangs in the balance.

Please send me any information for the following newsletter, which we will distribute in April 2023.

Stay Healthy, Stay Strong.

Kevin S Doyle, Ed.D.

A handwritten signature in black ink that reads "Kevin S Doyle". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Why Do Humans Want to Fly?

It's almost a sense of curiosity – a simple desire to feel what it might be like to fly, even for such a brief moment.

“In dreams, in science fiction, in popular culture – personal flight enthralls us in every moment of our waking lives, and it’s not always clear why. The concept of flight itself, which was once mysterious and hard to understand, has been fully understood by scientists for years. Planes, helicopters, and other such aircraft are no longer a novelty – they’re often simply part of a hum-drum daily routine. When was the last time you got excited about a long plane trip? But personal flight is different. There is something primal in our nature – something that wants to simply spread out wings, and feel the breeze blowing past our ears. Personal flight – unlike commercial flight – still remains a fascination for many. But why is this the case? Why are humans so fascinated by personal flight?” – *Jetpack Aviation*

Today’s young leaders think seriously about their futures. They may not yet know exactly what they want to do in adult life, but they're test-flying potential career interests.

The New Jersey Aviation Education Council (NJAECE) is a non-profit statewide organization that provides a network for students, educators, the aviation/aerospace industry, and the government to interact and share knowledge and resources, in order to promote the exciting opportunities available in the world of aviation and space. Our Mission: To encourage and reinforce interest in aviation/aerospace subjects and careers, and to educate students about the value of the aviation and aerospace industries in the local, state, and national economies, as well as in the security and recreational environments.

To this end, the Aviation Education Council promotes aviation careers through a growing number of like-minded organizations such as AOPA, EAA, CAP, ALPA, and more. Our website offers a wealth of aviation resources: Aviation Universities, Flight Schools, Aviation Technical Schools, Scholarship Information, Airline Career Programs, Aviation Information Sites, Military, Teacher Resources, and an Aviation Reference Library.

Our Newsletter adds another dimension to “*man’s quest for flight*” as it offers real-world articles depicting the varied career opportunities available. We applaud those of you who have contributed and we encourage those who have not, to share in their dreams of flight.

*"Oh! I have slipped the surly bonds of Earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
of sun-split clouds, – and done a hundred things
You have not dreamed of – wheeled and soared and swung*

*High in the sunlit silence. Hov'ring there,
I've chased the shouting wind along, and flung
My eager craft through footless halls of air....
Up, up the long, delirious, burning blue
I've topped the wind-swept heights with easy grace.
Where never lark, or even eagle flew —
And, while with silent, lifting mind I've trod
The high untrodden sanctity of space,
— Put out my hand, and touched the face of God.”
High Flight - John Gillespie Magee Jr.*

“Humans are not going to stop dreaming of personal flight any time soon. Our desire to fly is deep-seated and ancient – even the Bible refers to it where it is promised that those who put their faith in the Lord will “Fly on wings like eagles”. For now, most of us remain earthbound. But our dream will continue. And one day, thanks to the spirit of human innovation, we are sure to be able to join the birds, and soar through the clouds and the sky. It seems a certainty that, for as long as we dream of personal flight, we’ll work to achieve it”. – *Jetpack Aviation*

“If you can dream it, you can do it” – Walt Disney

Join our contributors, Help make dreams come true...

*Michael Castania, Executive Director
Aviation Education Council*



Warren Drone Program: Can Now Actually Fly Above and Beyond!

You know that the drone training program at Warren Community College must be doing something right when it gets rare approvals from the Federal Aviation Administration for various waiver-only permitted flights. Most recently, to train students in mission scenarios where they can conduct UAS flights beyond visual line of sight for their pilots to support sectors such as agriculture and energy or help keep the public safe. Warren Community College has one of only 110 such waivers ever granted. Warren was one of the first 100 to get an FFA waiver to fly drones over people, securing its permanent position as one of the pioneers in the industry.

The college is making a difference, as acknowledged this year by the Association of Uncrewed Systems International. This nationally prestigious organization presented Warren with an award for its overall efforts.

For the most recent FAA approval, staff, students, and Censys Technologies worked together for months on the waiver application. Until now, student pilots were limited to flying their aircraft within a visual line of sight (VLOS). In the application, they explained how carefully the drones would be used and pointed out that with new equipment capability, the college would be able to train pilots in the safe operation of drones outside the line of sight and in the maintenance of sophisticated equipment.



The Censys Sentero BVLOS aircraft in vertical climb just prior to forward-flight transition.

With the waiver, drones can cover a far greater distance and collect vastly more data in sectors such as agriculture, construction, mapping, public safety, and utility support. It also makes UAS operations much less expensive and can even replace the much costlier

use of helicopters, planes, or satellites. In addition, it allows for their use more extensively in public safety situations – with a lost person or detection of, or search for, an active shooter or other criminal suspects.

“It is a different type of training, and the skills are valuable for our students to gain,” said Dr. Will Austin, President of Warren and the college's Chief Pilot. He noted the students would now get a more sophisticated understanding of navigation of unmanned flights, meteorology, flight performance and planning, air traffic monitoring, and realizing Part 107 flight rules.

“This is a really big deal in this growing industry, and we are among the first colleges to have the green light to train students this way,” said Dr. Austin. “Having the beyond visual line of sight clearance is something the FAA is just beginning to award to even the leading private companies in the field. It’s a real honor for Warren Community College.”



Amanda Moberg, a recent Warren graduate and TOP Remote Pilot Instructor, works with a student pilot during joint operations in Daytona Beach, Florida.

“With this waiver, we are giving our students an understanding of the latest and most sophisticated ways drones can be used, along with hands-on experience with this state-of-the-art equipment,” continued Dr. Austin. “It makes them excellent candidates for the many jobs in this fast-growing industry. “The FAA approval likely puts us five-to-seven years ahead of many other colleges and for-profit companies in terms of training. And it’s not just about us. This will be an asset for the entire Warren County community, as well as our outlying communities.”

Through the drone program, Warren has forged a relationship with Embry-Riddle University in Florida, the leading aeronautical college in the country, to create a transfer pathway for Warren

students, and allow for the exchange of research and expertise between campuses, including unique partnering projects like the one in which the two entities are researching pythons in the Florida Everglades, and writing Federal grants to advance the industry for all. Additionally, the college and Warren County Technical School have shared in a state grant for robotics and drones, ensuring a workforce pipeline for those employers seeking the best-trained professionals.



Flights are conducted from inside the Mobile Command Center which allows pilots to monitor mission progression, nearby air traffic, weather, and all of the aircraft's on-board systems.

The Warren faculty includes caring, highly educated, experienced, and knowledgeable educators that include, FAA-identified responsible persons for flights over people, BVLOS RPICs, Teledyne-FLIR ITC certified thermographers, the 2022 AUVSI "Member of the Year," multiple master's degree experts, AUVSI Level 3 remote pilot instructors, and experts in air traffic control, among others. In addition to being a fully licensed public college, Warren enjoys an ASTM-certified program, recognition as an AUVSI TOP certified training provider, as well as being fully accredited by the Middle States Commission for Higher Education. At Warren, students can earn an applied Associate's Degree in Unmanned Systems, a Certificate in drone piloting, or a Certificate in UAS maintenance and repair. As a publicly supported and accredited college, learners will be hard-pressed to find a more cost-effective education or training provider in the industry or a faculty and organization with as many recognized professional certifications.

[Warren County Community College Drone Program](#)

Egg Harbor's Flight Test Summer Aviation Program



EGG HARBOR TOWNSHIP — Approximately 28 Egg Harbor Township Middle School students embarked on a whirlwind Flight Test Summer Aviation Program at Egg Harbor Township High School (EHTHS) designed to pique their interest in aviation and aerospace and give them a taste of what's to come this fall at EHTHS. The Flight Test Summer Aviation Program provided a unique opportunity for students who are interested in aviation, aerospace, and a wide range of aviation career exploration experiences to gain insight in an accelerated, engaging, fun format.



Spearheaded by Dr. Carmelita Graham, Director of Vocational Education and Career and Technical Education, the Flight Test Summer Aviation program exposed students to lessons in flight planning, aviation history and the physics of flight, field trips to aviation-related sites, instruction on aircraft design and maintenance from professionals in the field, aircraft safety, and flight simulation. The programming took place with two separate groups over a two-week period in July. The students were provided with lessons and experiences in aviation from members of the NJ Aviation Education Council, Atlantic Cape Community College aviation instructors, and the FAA AvSTEM ambassadors. Additionally, the students visited the Millville Army Airfield Museum and the Cape May Aviation Museum.



AOPA Scholarship Award Winners

Student Award

Tyler Benedetto:

Tyler Benedetto is an aspiring United Airlines pilot who demonstrates maturity, leadership, and strong academics. Having just completed his Eagle Scout, he is now pursuing his dream of flying planes. Tyler recently took on the role of Vice President in Rox-THON, an organization that raises money for pediatric cancer. When he's not busy serving his community, he flies on his flight simulator, uses his drone, and creates models on his 3D printer. He is excited to use his aviation knowledge to help peers during class. Tyler hopes to attend a university to gain a degree in aeronautical science. Over this past summer, Tyler trained at Morristown airport and put in over 40 hours. In early September he completed his solo flight for the first time and is on track for an October check-ride.



Tyler Benedetto

Teacher Awards

Roxbury High School

Mike Gottfried:

Mr. Gottfried is a Physics and Aviation teacher at Roxbury High School, in his 10th year in education. 3 years ago, Roxbury implemented AOPA's curriculum for Aviation & Aerospace, and the district is currently running four sections between Aviation 1 (2 sections), Aviation 2, and Aviation 3, with a total of 53 students. In May, Mr. Gottfried received AOPA's \$10,000 scholarship, which he has put towards his flight training for his Private Pilot's License. He has earned around 40 hours thus far, flying out of Blairstown (1N7) and Ocean County Airport (MJX) in NJ. Roxbury's Aviation program has three students who are working towards their pilot's license, including Tyler Benedetto who is also highlighted in this newsletter.

Morris Knolls High School

Marty Fundora

Marty Fundora is a physics teacher at Morris Knolls High School, where she teaches Intro to Flight & UAS in addition to courses at the Advanced Placement level (AP Physics I) and from the Science & Mathematics Magnet Program (Research-Based Analysis). She began her career in education eight years ago after working as a marine and wetlands field biologist. Marty has passed her written pilot's license exam and has been awarded the 2022 You Can Fly! Teacher Flight Training Scholarship from the Aircraft Owners and Pilots Association (AOPA) Foundation. This opportunity will allow Ms. Fundora to share her flight experience with the students enrolled in the Morris Knolls aviation program. She is excited to begin!

For more information on the AOPA scholarships, please go to

<https://www.aopa.org/training-and-safety/students/aopa-flight-training-scholarships>

For more information on last year's winners, please go to

<https://www.aopa.org/news-and-media/all-news/2022/june/27/aopa-foundation-awards-more-than-130-flight-training-scholarships>

Resources

Aircraft Mechanics Association of America

<https://www.amxaa.com/>



AIRCRAFT MECHANICS
ASSOCIATION OF AMERICA
AMXAA.COM

[Click here to join the association](#)

24/7, 365 Days a Year, Weekends And Holidays - If An Aircraft Is In Operation
***An Aircraft Mechanic Is At Work Ensuring
It Is Safe To Fly***

Where tomorrow makers are ‘real-world ready’ – today

WILLIAMSPORT, Pa. – With a first-rate \$6 million facility at a functioning municipal airport, Pennsylvania College of Technology’s Lumley Aviation Center is well-positioned to meet the industry’s dire need for aircraft mechanics.

“Most Penn College aviation maintenance students have job offers lined up well before they graduate,” said Matthew D. Krepps, instructor of aviation maintenance. “Companies saying, ‘We want you.’ ‘We interviewed you.’ ‘We’ll wait for you to graduate.’ ‘Get your license right away.’”

The aviation center, at the Williamsport Regional Airport in Montoursville, Pennsylvania – 6 miles from main campus – boasts a hangar full of instructional aircraft, along with a Boeing 727 donated in 2012 by FedEx Express parked outside.

"And although we don't legally fly our aircraft for insurance reasons, we do get to taxi our aircraft and talk with air-traffic control," Krepps said. "Those are things that we get to do here because we're located at an active airport."

In addition to the hangar, faculty and students have access to a turbine engine lab, an electrical lab, a reciprocating engine lab, a sheet metal lab, a composite shop and a downdraft paint booth.

“Penn College has partnered with several industry leaders to offer internships to the students and they get to work in a live hangar on live aircraft and get real-world experience. Most of the time, students that do internships are offered a permanent position,” Krepps said.

The aviation maintenance major appealingly attracts a mix of students, regardless of experience.

“We start at the very basics, so that anybody who has an interest and a willingness to learn can definitely do it. It can seem daunting and difficult, we have a support system such that students will find success,” he said. “That's our goal. Our job is to get you to a place where you are the expert.”

Penn College offers a bachelor’s degree in aviation maintenance technology, an associate degree in aviation maintenance technology and an aviation maintenance technician certificate. For more information, visit www.pct.edu/aviation.

For more about the college, a national leader in applied technology education, visit www.pct.edu, email admissions@pct.edu or call toll-free 800-367-9222.



Students hone their skills at Pennsylvania College of Technology’s Lumley Aviation Center, where a hangar – adjacent to the Williamsport Regional Airport runway – houses a variety of college-owned instructional aircraft.



The Civil Air Patrol

Calling AEMs: Great Resources for younger students NASA for Students in Grades K-4...

Fun Activities To Do @ Home. Launch rockets, build a Moon Habitat, solve spacey puzzles and more! These science, technology, engineering and math activities ... Build a Rocket and More With... Make and Color a Paper... Make a Straw Rocket and MORE!
<https://www.nasa.gov/stem/forstudents/k-4/index.html>

Calling AEMs: Great Resources for middle school students NASA for Students in Grades 5-8...

Fun Activities To Do @ Home. Launch rockets, build a Moon Habitat, solve spacey puzzles and more! These science, technology, engineering and math activities ... Make asteroids you can eat! · Aeronautics Flight Log · Make a Scale Solar System and MORE!!!

<https://www.nasa.gov/stem/forstudents/5-8/index.html>

Calling AEOs & AEMs: Great Resources for our older students NASA for Students in Grades 9-12...

NASA STEM @ Home for Students -- Find crafting ideas, science experiments with household items and videos to watch as a family: Learning Space · NASA Science at Home · NASA Seeks Students... · Learn Science and

MORE!
<https://www.nasa.gov/stem/forstudents/9-12/index.html>

AEOs & AEMs... A-Z List of NASA Websites for Students Grades 9-12

Alphabet Soup: A Cornucopia of Aerospace Wonderfulness...
<https://www.nasa.gov/audi.../forstudents/9-12/A-Z/index.html>

Explore STEM Resources for K-12 Educators

Don't miss these 25 Educational Resources for your students. Be sure to browse topics for students & educators listed in the sub-menu.

<https://www.nasa.gov/stem/foreducators/k-12/index.html>

Explore NASA STEM For Students...

15 more great resources just for students

<https://www.nasa.gov/stem>

Share the Wealth: Explore STEM Resources for Informal Education...

20 additional resources for:

Parents and Families

Youth Groups and Community Organizations

Museums and Planetariums

Citizen Science Opportunities

<https://www.nasa.gov/stem/foreducators/informal/index.html>

For more information, go to our Facebook Page:

<https://www.facebook.com/NJWGAerospaceEducation>

The Civil Air Patrol

Cadet Wings Milestone: 200th Cadet Receives Pilot Certificate Through CAP Program...

Cadet Wings is a merit-based program for cadets pursuing a Private Pilot Certificate (PPC) - it's the new diamond of cadet life. Cadets complete their training at a local flight school (sometimes referred to as "FBO") or with CAP flight instructors using our CAP Cessna 172 aircraft. Funding for this program comes from the United States Air Force and other funding partners such as the Ray Foundation with the goal of developing tomorrow's aerospace leaders. To learn more about how to become a pilot with the Civil Air Patrol please watch the video contained within the link below.

<https://www.gocivilairpatrol.com/.../cadetinvest/cadet-wings>

CadetInvest

CadetInvest offers various types of financial assistance opportunities to cadets. Cadets apply in eServices using a single application to be considered for any CadetInvest programs, including Cadet Wings, Lift/TOP, and Scholarships. CadetInvest connects cadets, their aspirations and funding partners. You will select the programs you are interested in obtaining financial support for when you apply through CadetInvest.

<https://www.gocivilairpatrol.com/programs/cadets/cadetinvest>



Aim High Flight Academy



The Aim High Flight Academy (AHFA) is an aviation scholarship for a three-week introductory flight program at various college universities across the country. The primary objectives of the flight school are to ensure selected students understand the pathway to becoming an Air Force-rated officer and to aid the increase of an individual's Pilot Candidate Selection Method score with the completion of up to 15 flight hours.

AFHA pairs unaffiliated youth and cadets nominated by USAFA and AFROTC with Total Force Officers who provide aviation career-broadening and mentorship about the various aviation professions and career fields that can be potential pathways to achieving their goals.

<https://www.recruiting.af.mil/Aim-High-Flight-Academy/>

Vermont Aviators Association

<https://m.facebook.com/Vermont-Aviators-Association-Inc-101703872549311/>



The Aviation Design Challenge



The General Aviation Manufacturers Association (GAMA) is sponsoring the Aviation Design Challenge to promote Science, Technology, Engineering, and Mathematics (STEM) education through aviation curriculum and a virtual fly-off in high schools across the United States.

Registration is limited to the first 150 U.S. high schools

Teams, which can be either high school classes or after-school programs, and must include at least, but not limited to, three students, including at least two students of different genders, with the exception of single-sex schools. Only one team per school may enter.

Registration for the 2023 Aviation Design Challenge is now open. Registration for the 2023 Challenge will close on December 17, 2022.

<https://gama.aero/opportunities-in-ga/aviation-challenge/>

UNITED AVIATE ACADEMY

Link to Website:

Do you dream of a career of boundless horizons where the sky is literally the limit? Are you driven for a life of adventure and a strong financial future? If your goal is to fly for United Airlines but you don't have flight experience, United Aviate Academy (UAA) is the place to start.

At United Aviate Academy, we provide the best flight training to prepare students for a safe and successful career as a pilot at United. It is designed primarily for applicants with little to no piloting experience and accepts students directly out of high school.

For more information, go to www.aviateacademy.com





The Aviation Institute of Maintenance offers aviation-focused programs that can help you get started in the exciting field of Aviation Maintenance. Because each of our aviation career schools is different, please check our website to see at which campuses each program is available.

<https://aviationmaintenance.edu/>



[Video Link](#)

Events



2022 FEDEX AOPA FOUNDATION HIGH SCHOOL AVIATION STEM SYMPOSIUM PRESENTED BY BOEING

Nov. 13-15, 2022
The Peabody
Memphis, TN

<https://youcanfly.aopa.org/high-school/symposium#about>

AOPA High School Curriculum

<https://youcanfly.aopa.org/high-school/high-school-curriculum>

Open Cockpit

The last open cockpit of the year at the [NJ Aviation Hall of Fame](#) is Nov 12th from 10 a.m. until 4 pm. The NJAHOF is on the Teterboro Airport property. The museum is open along with many of the aircraft that are outside in the yard for people to explore. The very last Martin 202 airliner to exist is there as well as the cockpit of a Convair 440 jet airliner that TWA owned.



New Jersey Ninety-Nines
presents

STUDENT PILOT FORUM



Attention student pilots, aviation enthusiasts, and certificated pilots! Please join us for a great opportunity to meet aviation professionals who will present their topic of expertise and answer your questions.

Saturday, November 5th

10am - 1pm

C&W Aero Services 19 Wright Way STE 3 Fairfield NJ 07004

Presenters:

Deanna Lawson

*Flight Instructor: CFI, CFII, MA in Aviation Education from Liberty University.
Professor at Mercer County Community College*

Scott Dittamo

Air Traffic Controller at Newark Airport: Private Pilot, Embry-Riddle University

Byron Hamby

Designated Pilot Examiner: DPE, CFI at Somerset Air Services

Madeline Nares

Student Pilot: Student pilot out of KCDW airport

Dr. Jeffrey Liva

Designated Aviation Medical Examiner: MD, MPH, MS. FAA Senior Aviation Examiner

Meenal Paul

Moderator: Flight Instructor, NJ99s Member

Meet and Greet: Members of the aviation community, including Mid-Atlantic Pilots Association (MAPA), Civil Air Patrol, EAA, 99s

***** Earn FAA Wings Credit *****



**SCAN THE CODE
TO RSVP FOR
YOUR FREE TICKET**



Additional information can be found on our website NJ99s.org. select calendar for details