



# Welcome to AeroStar News!



Dear AeroStars,

With all its ups and downs, life is a lot like an airplane. Sometimes you'll find yourself waiting for hours on the tarmac, or maybe, God forbid, your flight gets cancelled. (Oh no!)

Some people let anxiety take over, but others adapt, reschedule, retool, and re-imagine the possibilities.

COVID-19 created severe turbulence for the entire world, and AeroStar was temporarily grounded. So what did we do? We fired up our GPS and course corrected!

When schools were forced to shut their doors, Team AeroStar quickly adapted by developing a new way to provide training.

When nonessential businesses closed and we were told to stay home, Team AeroStar used the down time to improve and expand our curriculum.

As a result, I have some exciting news to share...

## **NEW! AeroVerse E-Learning Platform**

I'm pleased to announce the official launch of the AeroVerse, our new e-learning platform! Now you can study everything from flight to aircraft mechanics and more in the comfort of your own home and at your own pace. We also have LIVE training, so you'll be able to ask questions and get feedback from your favorite instructors. And you know, we have some of the best instructors in the industry!

Click [HERE](#) and have a look around.

Fall session blasts off Tuesday, September 29th, so if you haven't already, register [HERE](#) today!

No turbulence will ever keep AeroStar grounded for long. There's too much work to be done. In the years and decades to come, the industry will need your STEM knowledge and skills, and it's our job to make sure you're ready. We remain energized and mission-focused: to train the next generation of aviation professionals—and that means you! So sign up today!

Giving Wings to Dreams!

Mrs. Holmes  
Founder & CEO  
AeroStar Avion Institute NFP

[Visit The AeroVerse](#)

# AeroStar Training: Your Ticket to Fly!

## Registration for Fall Programs is Now Open!



**Register Now**

### Programs

AeroSparks Online: K - 4th Grade (5 Saturdays, choose 1 or register for all 5)

Online Aviation Program: 5th - 8th Grade (10 week Saturday program)

Online Aviation Program: 9th - 12th Grade (10 week after- school program + 1 week intensive in December)

**We Offer:**

- Virtual Field Trips
- Guest Speakers
- Interactive Activities
- Live Instruction
- Industry Experts
- Mentorship & More!

**Fall Courses Begin 9/29**

**ENROLL TODAY!**

**Financial Assistance Available**

*For more info*  
[www.aaiaverse.com](http://www.aaiaverse.com)

### K-4 Students (\$4.99 per session):

Node 1: Introduction to Aviation and Aerospace

- Session 1: Introduction to Aviation and Aerospace
- Session 2: History of Aviation
- Session 3: Aircraft Anatomy
- Session 4: Theory of Flight
- Session 5: Airport Basics

### 5th-8th Grade | Middle School Students (\$99.99):

Node 1: Introduction to Aviation and Aerospace

Node 2: Intermediate Aviation Exploration

### 9th-12th Grade | High School Students (\$149.99):

Node 1: Introduction to Aviation and Aerospace

Node 2: Intermediate Aviation Exploration

Node 3: Advanced Aviation Concepts

## Course Catalog

### NODE 1 | CADET

#### 1 Introduction to Aviation and Aerospace

We define Aviation and Aerospace and explore their impact on transportation, science, research, and technology. Many inventions developed through aerospace engineering are used in everyday life on a daily basis.

## **2 History of Aviation**

We discuss the history of Aviation and Aerospace, including significant events, inventions, and the individuals who have made contributions.

## **3 Aircraft Anatomy**

We identify exterior and interior aircraft components and discuss how these components function.

## **4 Theory of Flight**

We discuss the forces of flight, the axes of rotation, and Bernoulli's principle.

## **5 Airport Basics**

We define an Airport, its basic components, and the history of airports around the world.

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# **NODE 2 | FIRST OFFICER**

## **6 Aircraft Maintenance**

We discuss aircraft inspections and aircraft maintenance, how they are used to maintain airworthiness, and the various technicians who perform these activities.

## **7 Introduction to Aerospace Engineering**

We discuss aerospace engineering – its importance, disciplines, issues, and future.

## **8 Basic Components of Space**

We discuss the earth's atmosphere and the solar system, and how we overcome the rules of gravity to explore space.

## **9 Weather Basics**

We discuss the basics of weather, including air masses and fronts, the different types of storms, the stages of a thunderstorm, and pressure systems.

## **10 Private Pilot Certificate Requirements**

We discuss the limitations, eligibility requirements, aeronautical knowledge, and aeronautical experience required to obtain a private pilot certificate.

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# **NODE 3 | CAPTAIN**

## **11 Airport and Airline Operations**

In this topic, we introduce and explore airline and airport operations, its many functioning parts, and processes and procedures to include pre and post-flight operations.

## **12 Ground Service Equipment**

In this topic, we discuss the many types and uses of equipment used to service aircraft in between flights

## **13 Air Traffic Control**

In this topic, we discuss the different areas of responsibility of an air traffic control specialist and why their job is critical to daily operations.

## **14 Unmanned Aerial Systems/Vehicles**

In this topic, we identify the equipment that works together to make up an unmanned aerial system and its types, uses, and basic composition.

## **15 Airspace**

In this topic, we define "airspace" and discuss its classes, restrictions, and who is responsible for monitoring and maintaining it.

# **Join Us For Girls in Aviation Day!**

Girls in Aviation Day Online Event takes place  
Saturday, September 26, 2020! This a no-cost

event.

We have an exciting line-up planned for the event that we are sure you will enjoy!

Register today to receive information on how to access the event online, prior to the date of the event.

We look forward to you spending Girls in Aviation Day with us!

[Register Now](#)



**GIRLS IN AVIATION DAY 2020**  
*September 26th*

**About Our Event**  
We have an exciting line-up planned for the event that we are sure you will enjoy!

Register today to receive access to our online celebration, prior to the date of the event.

We look forward to you spending Girls in Aviation Day with us!

**Register Now!**  
[www.aaiaverse.com](http://www.aaiaverse.com)

**AeroStar**  
AVION INSTITUTE  
**FREE EVENT**

## AeroStar Avion Institute Awarded \$125,000 Boeing Youth Training Grant

AeroStar is pleased to announce that Boeing will financially support our mission to train underserved youth in STEM, aviation, and aerospace, preparing them for the aviation/aerospace careers of the future! The grant represents the third year of our Global Engagement Partnership and Boeing's commitment to our mission. We are so proud of our students and dedicated team. Get ready to take off in 2020-2021! Thanks to Boeing's generous support, our training program for students K-12, college, and beyond, as well as our digital infrastructure, will expand, improve, and give wings to dreams!



## Students Taking Flight

For the past decade, AeroStar has transformed the lives of hundreds of youth in Chicago and Gary (Northwest Indiana), providing exposure, training, mentoring, and employment in aviation and STEM fields. We are proud of our students, and in this issue of AeroStar News, we honor some of our rising stars!



**Isaias Toledo, 2020 Graduate, Air Force Academy High School Wing Commander. Incoming Freshman Lewis University, Aviation**

This program not only transformed me, it saved my life. When I came to AeroStars out of 8th grade, I was terribly shy and quiet. I made my .5 GPA high enough to pass. I didn't have a dream and was ready to accept crime. I didn't have any motivation to do anything. I was labeled with ADHD when I couldn't understand a subject.

Thanks to Mrs. Holmes and her initiative to reach out to minorities like me through AeroStar, I truly underwent a transformation. As of today, my GPA is 3.56. I hold a student pilot certificate with 20 logged hours and a solo at KJZI. I've received news coverage on many occasions. I am the top-ranking cadet and Wing Commander for Unit-IL20092. I led our drill team to competitions while conducting a band. This summer, because of AeroStar, I'll attend Tuskegee NEXT, which pays for the flight school expenses to get a Private Pilot License. God is good, and my parents and I are





**Neftaly Mora, 2020 Graduate, Air Force Academy High School Cadet. Incoming Freshman Lewis University, Aviation Flight**

I will be attending Lewis University to major in Aviation Management. I would like to say that I am a very determined person, and I have wanted to go there since my freshman year. I am the first female and Latina to get her student pilot's license at my high school so this is a big deal. From being in 6th grade with the dream of becoming a commercial pilot to actually getting close to accomplishing my long dream, I can say I'm more than happy where I'm at and will continue to be. Thank you to Mrs. Holmes for the opportunity of being a part of AeroStars for the past 4 years. It was so great! It opened my eyes to the world of aviation! And I made lots of spectacular memories!



**Selena Berry, 2020 Graduate, Lewis University, BS Aircraft Maintenance, AeroStar Instructor**

I first joined AeroStar's program at 14 years old. For the past 8 years, I have been a student, an intern, and now an instructor. During my time as an instructor in AeroStar, I developed more professional skills, communication skills, and overall skills to improve myself as a person. I have seen myself grow in confidence and self-esteem. I was able to use my experience as a student in AeroStar to help teach students. Working closely with my co-workers and Mrs. Holmes, I was able to gain abilities that I couldn't imagine having. Honestly, I wouldn't be the successful student, employee, or person I am today if it weren't for AeroStar. I started out being the youngest instructor on the team, but now I have students that I instructed and mentored who have become instructors too.



**Jaylann Westmoreland, 2020 Graduate, Air Force Academy High School Incoming Freshman Lewis University, Aviation Flight Management**

Aviation has always been a great fascination of mine. From a young age, I can remember standing outside my grandmother's back door, watching in awe as the Blue Angels would practice for the Air and Water Show. Right then and there, I knew what I wanted to do. Leonardo Da Vinci said, "Once you have tasted flight, you will forever walk the earth with your eyes turned skyward. For there you have been and there you will always long to return." I will attend Lewis University for Aviation Flight Management. While there I will also do AFROTC so that I can chase my dream of becoming a USAF Fighter Pilot! I'm here because of a helping hand from many, and I would like to thank them for putting me in a position not only to achieve my goals, but to also be the best I can be. I have a long road ahead of me, but in times of discouragement I look to my heroes, The Tuskegee Airmen, to push myself even harder. C.W Lemoine once said, "Make them tell you no." I thank Mrs. Holmes for all the opportunities she has given me along the way and for making my time at AFAHS a memorable one.



Troy Bailey, Pilot and Sophomore at Lewis University, Aviation Flight and Management

Because of this program, I am not going into college uninformed about what's going on in the Aviation industry. Because I am going into college informed, I can take advantage of the opportunity and will have nothing but success if I keep my head in the sky. This program taught me the basics I need to know, and my Flight Instructor was impressed about how much I knew before our first flight. He had to test me to see what he did not have to teach. This program gave me exposure, something most programs and High School does not do at all. I was also put in a leadership position (intern). Although I still need work, I gained some skills and knowledge about being a teacher and how to talk. My advice to other students is join a program that prepares you for success and that does not give you busy work.

This program has helped me get my foot in the door. It gave me a running start to a race I do not know where I will end up. I was shown I could be whatever I want to be in the Aviation field and more. Even if you do not go into Aviation, you can take the skills you learned and apply it somewhere else. Soon AeroStar is not going to be a program for students just to get their foot in but to take a leap. Every time you look up, it's not a shooting star. It's AeroStar!

## On the Radar

### NASA Honors 'Hidden Figure' Mary W. Jackson



NASA's headquarters building in Washington, DC, will be named after Mary W. Jackson, the institution's first African American female mathematician and aerospace engineer. Jackson (1921–2005) successfully overcame segregation and gender bias. Janelle Monáe played Jackson in the 2016 hit movie, *Hidden Figures*. The movie depicted how Jackson and two other African American women, Katherine Johnson (Taraji P. Henson) and Dorothy Vaughan (Octavia Spencer), helped launch astronaut John Glenn into space. ([Full article](#))

[Full Article](#)

## Eugene Bullard, Black Sparrow of Death

Eugene Bullard was the first African American to become a licensed pilot. Born October 9, 1895 in Columbus, Georgia, he grew up during a dangerous time for blacks. Upon witnessing his father's close escape from being lynched, he stowed away on a German ship and landed in Scotland.

He worked in London and later Paris as a boxer and entertainer. When World War I broke out, Bullard joined the 3rd marching regiment of the French Foreign Legion. He was wounded in March 1916, but a few months later, signed up with the French Air Service as an air gunner. On May 5, 1917, Bullard received his pilot's license from the Aéro-Club de France.



Nicknamed "The Black Sparrow of Death," Bullard received many awards for his service in both World War I and II. In August 1994, he was posthumously commissioned a second lieutenant in the U.S. Air Force.

## Credits

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