



# Welcome to AeroStar News

## Celebrating Women's History Month



Happy Spring AeroStar Family and Friends!

I am thrilled to be writing to you in celebration of Women's History Month. This month, we recognize and honor the tremendous contributions women have made throughout history, and we continue to work towards gender equality and representation in STEM fields.

At The AeroStar Avion Institute, we are dedicated to empowering the next generation of leaders, including young women who will shape the future of our world. We believe that every young person deserves access to opportunities and resources that will help them thrive and achieve their goals, regardless of their gender, ethnicity, or background.

One field that has historically been dominated by men is aviation and space. However, throughout

history, many brave and innovative women have broken through barriers and made significant contributions to these fields. I would like to share some inspiring quotes from some of these trailblazing women:

- *"The air is the only place free from prejudices."* - Bessie Coleman
- *"I have no fear of flying into storms, for I am learning how to sail my ship."* - Mary Pickford
- *"The most difficult thing is the decision to act, the rest is merely tenacity."* - Amelia Earhart

These women, along with many others, have paved the way for women to thrive in aviation and space. Despite progress, there is still work to be done. According to the Federal Aviation Administration, only about 7% of pilots are women, and women make up only a small fraction of astronauts who have been to space.

AeroStar is committed to helping close these gaps and empowering young women to pursue their dreams, whether it be in aviation, space, or any other field. We believe that everyone deserves the opportunity to reach their full potential, and we will continue to work towards a future where gender equality is the norm.

Thank you for your support, and happy Women's History Month!  
Here is how you can help.

1. SHARE this newsletter
2. Register a youth for the AeroSTEM Expo on June 25th
3. Make a donation
4. Refer a friend/colleague/employer to our network

In this month's issue of AeroStar News, you will learn about the **STATE OF GIRLS IN STEM** report findings, **pioneering women in aviation and space, Upcoming AeroSTEM Expo And American Airlines Aviation Day with SIU**. You will also learn about **scholarships, summer jobs and internships!**

Thank you to all of our amazing donors, partners, and supporters. Without your continued generosity, we would not be where we are today!

**To donate, in-kind services, and sponsorships click [HERE](#). Collaborate and volunteer (click [HERE](#) to volunteer). Support AeroStar and the future of aviation. Please contact me today at [Tholmes@aerostarcorp.com](mailto:Tholmes@aerostarcorp.com) for branded sponsorship opportunities.**

Thank you for Giving Wings to Dreams!

Tammera L. Holmes  
President & CEO, AeroStar Consulting Corporation  
Founder & CEO, AeroStar Avion Institute NFP

[#BoeingInspires](#) [#GoodLeadstheWay](#) [#AeroStarAvion](#) [#WingstoDreams](#)

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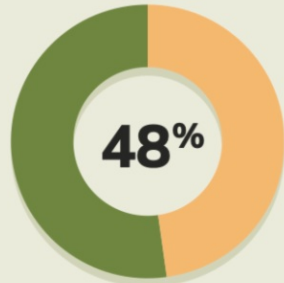
## The State of Girls in STEM

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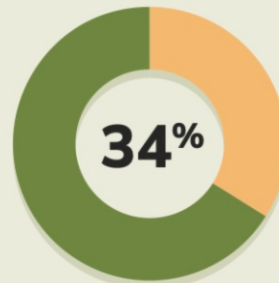
The National Girls Collective Project has released a March 2023 press statement about the state of women and girls in the STEM field. The collective has pulled data from various different sources, examining the economic, educational, and career outcomes for women in the world of science, math, technology, and other STEM related fields.

# STEM Workforce

Women remain underrepresented in the science and engineering workforce, with the greatest disparities occurring in engineering and computer sciences.



Women constitute 48% of the total workforce.



Women constitute 34% of the STEM workforce.

Women STEM professionals are concentrated in different fields that men, with relatively high shares of women in

SOCIAL SCIENCES

65%

LIFE SCIENCES

48%

and relatively low shares of women in

COMPUTER AND  
MATHEMATICAL  
SCIENCES

26%

ENGINEERING

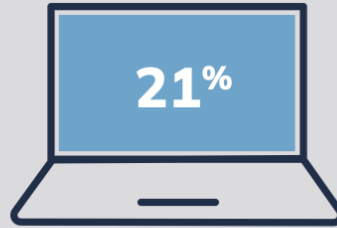
16%

According to the NGC, women remain underrepresented in engineering and scientific workforces, despite girls' and young women's achievements in math and science being on par with boys and men. The report mentions the intersectionality of the gender work gap, highlighting that women of color from lower socioeconomic communities are hindered from joining STEM fields.

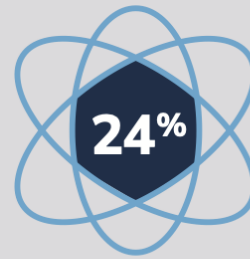
Women earn a majority of bachelor's degrees in psychology, biological sciences, and social sciences, but they earn only



in Engineering



in Computer Science



in Physics

For more information on the National Girls Collaborative Project, click [here](#)

Source: National Girls Collaborative Project--The State of Girls in STEM (March 2023)

Photo Credit: The National Girls Collaborative Project

## UPCOMING AEROSTAR EVENT

The 5th Annual AeroSTEM Expo  
June 25, 2023



The 5th Annual AeroSTEM Expo, in partnership with Illinois Tech is a one-of-a-kind, hands on aviation science technology engineering and math immersion for youth grades 5th through 12th in the Chicagoland area.

Participants in the expo will experience aviation/ space activities, learn about industry careers, hear from colleges and universities regarding post secondary programs and meet meet and receive mentoring from professionals within aviation and space industries.

The long-standing partnership with Illinois Tech serves as a model for public-private partnerships commitment to diversity, equity, and inclusion in STEM education, and has made this event one of AeroStar's top recruitment activities for year-round programming.

**Please join us on Sunday, June 25th, 2023 at 9 AM, Illinois Institute of Technology, Hermann Hall**



*Join us on a flight from  
O'Hare to Carbondale to see what  
a career in aviation is like!*

**Registration begins March 1st at 10:00 AM  
on our website**

**[aviation.siu.edu](http://aviation.siu.edu)**

**SIU** Southern Illinois University  
CARBONDALE

The SIU Aviation Department is holding their annual American Airlines Career Day on April 15<sup>th</sup>, 2023. This event is open to high school students in the Chicagoland area who are interested in a career in aviation. This is a free event that will depart from Chicago O'Hare on Saturday morning, April 15, 2023..... and return to O'Hare that afternoon.

Students will be provided lunch and dinner as well as the opportunity to interact with American Airlines employees who are alumni of our aviation program. We will also give tours of our facility as well as campus. Students will also receive an event T-Shirt.

The application will be available on our [website](#): starting Wednesday, March 1st.... At 10:00 AM. This event is a first come first serve basis so make sure your students are paying attention to our website and checking the email they used to register.

National I AM Declared to Celebrate Women's Empowerment

# NATIONAL I AM SHE RIBBON CUTTING OF I AM DAY FOR WOMEN'S HISTORY MONTH

LATEST NEWS LOCAL JOLIET NEWS

PUBLISHED ON MARCH 16, 2023

BY **TIMES WEEKLY STAFF**



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Joyce Dawkins, founder of She ROCKS It (center) takes photo with a few of the women who attended the launch of the National I AM Day.



The second Sunday in March celebrates National I AM Day as a reminder to set time aside for daily positive affirmation and self-care.

### **#NATIONALIAMDAY**

There is power in words. When we can believe what we speak in our own lives, we can impact the lives of others through our positive outlook on life.

I AM are two powerful words you can say that will change the way you think and feel about yourself. Also known as daily positive affirmations, the words I AM can help you overcome fear, self-doubt, and reduce self-sabotage. In fact, saying daily I AM affirmations will help you believe in yourself so you can achieve becoming your highest self. National I AM Day encourages everyone to reach their full potential through self-empowerment, self-motivation, and self-encouragement. Starting with I AM.

### **10 Reasons to Why I AM Affirmations Work**

1. Helps you focus to achieve goals.
2. Changes negative thinking patterns.
3. Improves mental health.
4. Restores self-esteem.
5. Reduces stress.
6. Provides relaxation alternatives during stressful moments.
7. Improves your daily self-care routine.
8. Boosts confidence.
9. Replaces negative thoughts through positive reinforcement.
10. Sets a reminder that things are temporary.

### **National I AM Day Tips**

- Always practice affirmations using the present tense.
- Avoid using words that give a negative intention.
- Set aside time when you wake up or are ready for bed to say your affirmations.
- Say your affirmations out loud and listen to your voice speak your affirmation phrases.
- Find and use affirmations that have meaning to you, your life, and experiences.
- Create your own affirmations based on areas you feel need change.

# These Pilots Are the First Black Women to Fly a Commercial Plane Together



Two Black female pilots—Captain Annabel Vundla and First Officer Refilwe Moreetsi—were the first Black women to fly a commercial airplane together. This South African flight traversed from Johannesburg to Cape Town. Vundla and Moreetsi respectively have extensive and impressive careers in aviation. Vundla, who joined the South African military in 1999, is South Africa's first Black woman flight instructor and pilot. She was even the pilot for the late Nelson Mandela. Moreetsi is a recipient of the Military Studies certificate and a Bachelor of Military Science in Aeronautics/Aviation/Aerospace Science and Technology.

Photo Credit: South African Airways Twitter

[Read the Full Article HERE](#)

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## Muslim women pilots in aviation industry, no longer a taboo





Stigma and tabooess regarding female pilots in Muslim majority countries such as India are steadily decreasing as more Muslim women receive jobs in aviation. Muslim women are beginning to make significant strides in industries that historically excluded them. This article examines the history of Islamic female pilots, the women in these spaces who are making history, and the cultural challenges these women face in the world of STEM.

Photo Credit: Jamaica-Gleaner

[Read the Full Article HERE](#)

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**Museum of Flight hosts 'Women Fly' event to inspire next generation of aviation professionals**



The Museum of Flight—which is located in Tukwila, Washington—hosted an event focusing on teaching women and girls how to fly. The intention of the event, titled ‘Women Fly’, is to encourage girls to pursue careers in aerospace, aviation, and science. The Museum of Flight is actively pushing to create a more diverse and inclusive workforce in aviation.

Photo Credit: The Museum of Flight

[Read the Full Article HERE](#)

## Remembering a Legend: Kalpana Chawla---The First South Asian American Woman in Space



Kalpana Chawla is the first South Asian American woman to go to space. Chawla, who

was born in India, received her PhD and worked at NASA even before officially becoming an American citizen. NASA selected her to become an astronaut in 1994, and started training in 1995. Chawla tragically passed while aboard the space shuttle Columbia, which broke apart upon landing.

Photo Credit: Air and Space Museum

[Read the Full Article HERE](#)

## Reserve a Spot for the 6th Annual Chicago Black College Expo



The 6th Annual Chicago Black College Expo is almost here! On April 1st, Black juniors, seniors, and college transfer students will be given the opportunity to connect with various HBCUs and universities. This event is accessible to students of all ages, and is completely free! This expo is a great chance for Black students, regardless of background and career path, to receive resources and valuable information about higher education opportunities. This event will be held at Chicago State University.



## Scholarship & Internships in Aviation and STEM

**ARE YOU CURIOUS  
ABOUT HOW  
SCIENCE AND  
ENGINEERING  
CAN BE USED  
TO HELP THE  
ENVIRONMENT?**

This summer at the Adler Planetarium in Far Horizons Teens, high school students will learn about light pollution and what we can do to prevent it. Through hands-on activities, participants will develop skills in electronic circuitry, computer programming, structural design, and teamwork.

June 26, 2023–July 14, 2023 | Mon.–Fri. | 10:00 am–4:00 pm  
Successfully complete the workshop series to earn a \$350 stipend  
APPLICATION CLOSES MARCH 3

YOU SHOULD APPLY TO FAR HORIZONS TEENS IF YOU'RE . . .

- Enrolled in 8th–11th grade during the 2022–2023 school year
- Interested in learning new STEM skills and passionate about science
- A team player who collaborates well with peers

**A SUMMER  
WORKSHOP  
LIKE NO  
OTHER!**

Also at the Adler Planetarium, in Mission Near Space, teens become part of a unique team of engineers and astronomers whose goal is to prepare, launch, track, and retrieve a scientific payload sent to the stratosphere aboard a high altitude balloon. The week ends with a showcase in which participants present their exploration results to family members. [bit.ly/MNS2023](https://bit.ly/MNS2023)

- Each session will be Monday–Friday, 9:00 am–3:00 pm  
Session One: June 19, 2023–June 23, 2023

- Session Two: July 24, 2023–July 28, 2023
- Session Three: July 31, 2023–August 4, 2023

Successfully complete the full-week session to earn a \$100 Visa Gift Card  
APPLICATION CLOSES MARCH 3

Participant Eligibility:

- Applicants must be enrolled in 7th–8th grade during the 2022–2023 school year
- Applicants must attend a Chicago Public School (CPS)
- Priority is given to participants attending CPS neighborhood or charter schools
- Priority is given to participants who identify as African American and/or Latinx
- Participants will be selected to ensure geographic representation of Chicago

For more information on these Adler summer opportunities, [click here](#).

A promotional banner for the AMAC Foundation Scholarship Application. The background is a teal-tinted image of a woman in a headset working at a computer. On the left, a vertical orange bar contains the year '2023'. The text 'AMAC FOUNDATION SCHOLARSHIP APPLICATION' is prominently displayed in white and orange. Below this, a question asks if the applicant is a woman and/or minority student pursuing a career in aviation or aerospace. A red button says 'APPLY TODAY' and the deadline is 'March 10, 2023'. The website 'www.amac-org.com/foundation/scholarships' is listed at the bottom. The AMAC Foundation logo is in the bottom right corner.

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2  
3

AMAC FOUNDATION  
SCHOLARSHIP APPLICATION

Are you a woman and/or  
minority student pursuing a  
career in the aviation or  
aerospace industry?

**APPLY TODAY** Deadline: March 10, 2023

[www.amac-org.com/foundation/scholarships](http://www.amac-org.com/foundation/scholarships)

THE AMAC  
FOUNDATION  
OPPORTUNITIES ON THE WING

To apply for the AMAC Foundation Scholarship, click [HERE](#)



Students will gain insight into some hot topics with hands-on research experience as they interact with graduate students and faculty while learning how to work as a team member and understand how to conduct real-world research.

**Participants will receive a stipend of \$550 per week.**

The applicants are required to have a *foundational background in mathematics* (calculus, differential equations, and linear algebra) and some *programming skills*. All applications received by **March 15th** will receive full consideration. Applications will be received until the positions are filled. The SURE program anticipates funding from the National Science Foundation, which is gratefully acknowledged.

Apply Scan



### Speedier Simulations

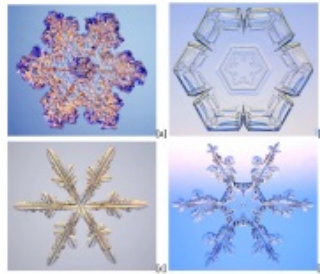
*Advisers: Dr. Sou-Cheng Choi and Dr. Fred Hickernell*

Monte Carlo methods are used to solve problems involving uncertainty, such as financial risk and geophysical problems whose parameters are not known precisely. The speedy simulations research group develops and implements algorithms in an open-source Python package called QMCPy that speeds up Monte Carlo simulations. By joining the speedy simulations research group, students will experience teamwork, learn to identify and solve research problems, follow good practices in technical software development, and hone their communication skills.

### From the formation of snowflakes to crystal growth

*Adviser: Dr. Shuwang Li*

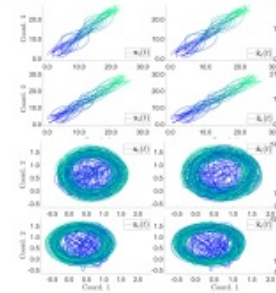
In this project, students will learn the underlying physics of snowflake formation and evolution. In particular, students will be exposed to the general concepts of mathematical modeling and hands-on scientific computing.



### Learning and modeling collective behaviors

*Advisers: Dr. Yubin Lu and Dr. Ming Zhong*

In this project, students will learn how to model collective behaviors with the help of proper machine-learning tools and possibly validate the learning method on experimental data.



If you have any questions, feel free to email [yding2@iit.edu](mailto:yding2@iit.edu)



## STUDENTS FOR ENERGY AND ENTREPRENEURIAL DEVELOPMENT SEED

Chain Reaction Innovations (CRI), the entrepreneurship program at Argonne National Laboratory, offers an internship program to empower Chicago area college students attending a Minority Serving Institution\* to develop skills in science and technology entrepreneurship.

The SEED program provides an exciting way for students to combat climate change through internships with CRI's clean energy and climate technology startup companies. SEED supports a robust pipeline for students so they can make an impact through business and science careers with a focus on entrepreneurship.

### OVERVIEW

- Chicago-based students who attend an accredited Minority Serving Institution\*
- Academic year spring/fall
- Collaborative partnerships between CRI, Argonne, and clean energy startup companies
- Career development

### BENEFITS

- Paid internship
- Entrepreneurial experience
- Skill building
- Inclusive support
- Mentorship
- Professional networking
- Flexible work schedule

\* [www.minorityhealth.hhs.gov/assets/PDF/2020\\_Minority\\_Serving\\_Institutions.pdf](http://www.minorityhealth.hhs.gov/assets/PDF/2020_Minority_Serving_Institutions.pdf)

The goal is to SEED and grow STEM skills beyond the classroom and into the career realm.

### LEARN MORE

Chain Reaction Innovations  
Email: [chainreaction@anl.gov](mailto:chainreaction@anl.gov)  
[chainreaction.anl.gov/seed-internship](http://chainreaction.anl.gov/seed-internship)



**U.S. DEPARTMENT OF ENERGY**

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U.S. DEPARTMENT OF ENERGY  
Energy Efficiency & Renewable Energy  
ADVANCED MANUFACTURING OFFICE

January 2023

To apply, click [HERE](#)

## Aviation Job Opportunities

AeroStar is seeking new and dedicated people to join our team. Your support will help the AeroStar Avion Institute train and prepare students to pursue the aviation and aerospace careers of their dreams!

## AEROSTAR IS LOOKING FOR A

# SUMMER PROGRAM SPECIALIST!

The **Program Specialist** is to manage and coordinate programs that align with AAI's mission and strategic goals; for example: program implementation, recruitment, fundraising, partnership development and assisting with the planning of outreach strategies. The Program Manager works alongside the Chief Operating Officer to accomplish these goals. Other responsibilities include: assisting with scheduling and staffing volunteers for events; leading group volunteer experiences in AAI; delivering orientation and guiding volunteers at program locations; managing AAI'S event calendar and ensuring opportunities are posted on multiple Chicago volunteer sites, and more.

Submit resume and cover letter to [HR@avioninstitute.org](mailto:HR@avioninstitute.org) with the subject line, Program Specialist Applicant.



A career at Southwest offers several benefits and perks, including unlimited space available flight privileges, our 9.3% 401(k) Company match, career mobility resources, and more! Apply [here!](#)

- **Aircraft Appearance Technicians** are essentially "airplane detailers." These folks clean the hangars and refresh our aircrafts and equipment to provide a safe environment for our Maintenance Technicians as well as our Customers. This role could be a great starting point for individuals who hope to pursue a career in aviation maintenance. **Pay starts at \$17/hour.**
- **Material Specialists** maintain Company storeroom logs and records, deliver aircraft parts to various Technical Operations Teams with Southwest Hospitality, and multitask effectively to meet required deadlines. This role could serve as an entry-point into a career in supply chain management or logistics. **Pay starts at \$17/hour.**
- **Virtual Job Chats with Southwest Employees:** Are you curious about what it's like to work for an airline or what jobs are available after graduation? Southwest Airlines is excited to host quarterly virtual conversations with Southwest Employees to share about possible career paths in the aviation industry! Our first conversation will focus on working in the day-to-day operation. Click [HERE](#) for more information.
- **Southwest Scholarship Opportunities:** The Southwest Airlines Scholarship provides access to education and is available to those seeking diverse educational pathways. This scholarship is open to students across the country who have a career interest in the airline industry—whether that interest is in frontline operations, maintenance, corporate roles, or the many roles in between. Click [HERE](#) for more information.
- **OBAP Aerospace Career Education (ACE):** Academies are week-long summer programs designed to introduce middle and high school students to the history of aviation, fundamentals of aerodynamics, and aerospace careers available. Join Southwest at academies around the country. To apply, click [HERE](#)
- **Explore Aerospace:** Over the course of 12 weeks, students will learn about principles of flight, aerodynamics, and take virtual tours. They'll also be able to meet with guest speakers from the aviation industry to learn more about aerospace careers. To apply, click [HERE](#)

Join Southwest on April 12 at 2:00 p.m. CT or 5:00 p.m. CT for their second virtual job chat featuring Southwest Ramp Agents, Appearance Technicians, and Material Specialists. These roles are great for students who are looking to enter the workforce immediately after high school. Our panel will share a little about their experiences before opening the floor to questions, so let your students know they'll be able to participate in the chat too!

Learn more and register by clicking the following links:



RSVP for 2PM CST Session

RSVP for 5PM CST Session

## Donate Today!

### YOUR CONTRIBUTION CAN CHANGE LIVES!

You can help expand our mission to train and employ youth in this exciting industry. Now we need your help more than ever before. To give, click **HERE**. Your donation is tax deductible, and 100% of your gift goes toward training the next generation of aviation and aerospace professionals.

*Invest in the passion...the mission...the future of aviation...**DONATE NOW!***

**Give Wings to Dreams!**

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