



NASA Aeronautics

October 2023
No. 29

Monthly STEM Newsletter

INSIDE

National Hispanic
Heritage Month

Connect with Us
Virtually & In-Person

NCAS, Gateways to
Blue Skies, and More!



NASA Glenn Research Center's Pilatus PC-12 aircraft will take on a key role in the agency's investigation of how to manage the emerging Advanced Air Mobility (AAM) ecosystem. Credit: NASA.

October 2023

Happy October, Aeronauts! This month we continue to celebrate National Hispanic Heritage month and highlight many of our talented colleagues and their contributions. Join us in honoring Jessica Arreola, our crew highlight for October and her contributions to the NASA Aeronautics mission. Be on the lookout for Girls in Aviation Day events in your community that will continue into early October. Don't miss the annular eclipse happening on October 14th. Join Johnson Space Center for their open house on the same day and enjoy this celestial event on NASA grounds. Langley Research Center also has an open house, too! Check out NASA internships, challenges, and other opportunities that have deadlines coming up this month. Did you know the Pilatus PC-12 is scheduled to fly this week? Read on to find out how you can stay up to date with new flights and opportunities to engage with NASA Aeronautics.

Do you need to see more of something or have a new idea for upcoming newsletters? Let us know! Do you know someone else who needs this monthly update? [Sign up for our monthly STEM newsletter](#). Have questions or want to be removed from the list? Send an email to april.a.lanotte@nasa.gov.

Let's Fly!

National Hispanic Heritage Month

September 15 - October 15

Hispanic Heritage Month is observed in the U.S. from September 15th to October 15th each year. Back in 1968, Hispanic Heritage was only observed for one week. In 1988, under President Ronald Reagan, it was extended to one month, celebrating Latin American cultures and contributions around the nation. Take a look at NASA opportunities to celebrate or visit your local library and community to find out other ways you can celebrate National Hispanic Heritage Month.

NASA celebrates the work that many of our colleagues and partners have and continue to contribute to aerospace, particularly in aeronautics and aviation. [Watch this dedication](#) celebrating our Hispanic and Latin culture here at NASA. We continue to create content to reach our diverse communities, so stay tuned to our social media channels and our website for lots of great content en Español! In the meantime, focus on these resources:

NASA's Hispanic Heritage Month web page

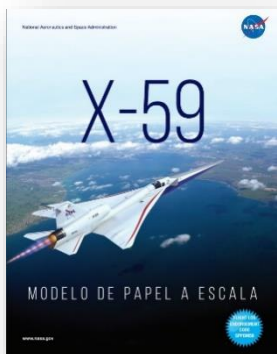
Find inspiration [here](#) for yourself and your students with stories about just a few of our NASA teammates who contribute to our work every day.

Universo curioso de la NASA

In honor of Hispanic Heritage Month, NASA has new content for the agency's first Spanish-language podcast, Universo curioso de la NASA. Check out [new episodes](#) released weekly.

Aeronáutica en Español

This [web page](#) contains NASA Aeronautics materials in Spanish. Links to articles, social media posts, and STEM materials can be found here, completely in Spanish! Here is a sample of some of the STEM materials available.



Aeronautics Crew Highlight

Jessica Arreola, NASA Aeronautics Mission Directorate Social & Public Engagement Lead



Jessica Arreola is the Aeronautics Mission Directorate's lead for Social & Public Engagement. She began her NASA career at the agency's Armstrong Flight Research Center in Edwards, California and has contributed to the agency's Spanish language communication efforts in all of her roles at NASA. Currently, she serves on the board of the Hispanic Outreach and Leadership Alliance ([HOLA](#)), an Employee Resource Group at NASA Headquarters. Jessica was born and raised in southern California in a traditional household where she spoke both English and Spanish. Growing up, she was fascinated with aviation and traveling and received her bachelor's degree in communication studies from the California State University of San Bernardino.

Jessica's personal & professional goal is to maintain a good work life balance. She loves her career and her family, so it's important that she gives proper time to both and enjoy it all while she is here on this Earth. Personally, she'd love to give back to mother nature by keeping her lawn alive because it's been a dry summer at her house. She has plans to expand her family by maybe getting a puppy soon, and who doesn't love puppies? Professionally, Jessica would like to pursue a leadership position and further diversify that area of the agency. One goal is to "be the change you want to see."

Travel is a big part of Jessica's job, and her favorite part about working for NASA. The coolest place she has been able to travel to for work was Dubai, UAE! It was her first time in the Middle East, and she had a great time getting to know the local

[Modelo de Papel a Escala: X-59](#): Build a paper model of the X-59 with all instructions and background information in Spanish. An [English version](#) is also available.

Virtual Opportunities

Coming Soon! Celebrate the X-59 Roll-Out

Host or participate in a Virtual Watch Party! As the X-59 gets closer to its grand unveiling, we're working to put together plans to help you host a virtual watch party. Stay tuned for more information to come!

Internship Opportunities

Calling all high school and college students! Are you interested in joining NASA? Do you desire first-hand experience under the guidance of a NASA mentor?

Don't miss your chance to [apply for a NASA internship](#).

We are now accepting applications for the Spring 2024



session. There are many different projects for STEM and non-STEM majors at various NASA centers that offer in-person, virtual, and hybrid opportunities. The deadline for Spring 2024 internships is quickly approaching on **October 20, 2023**. Get your application in today!

Design Challenges and Grant Proposals

2024 Gateways to Blue Skies Challenge

As climate change increases the frequency and intensity of many natural disasters, NASA Aeronautics asks collegiate teams to conceptualize aviation-related system(s) that can be onboarded to improve aerial disaster management efforts immediately and into the next 10 years.

GATEWAYS TO BLUESKIES
Inspire. Innovate. Impact.

2024 Theme: Advancing Aviation for Natural Disasters
<https://blueskies.nianet.org>

Based on a review of proposal and video submissions, up to 8 finalist teams will be selected to receive an **\$8,000 stipend** to develop a final technical paper, an infographic, and to present at the 2024 Gateways to Blue Skies Competition Forum at NASA's Ames Research Center in Mountain View, CA, May 30-31, 2024.

But wait...there's more! As the competition prize, **NASA is offering 6 internship opportunities** within its Aeronautics Research Mission Directorate!

culture. Other than traveling, Jessica enjoys yoga and binge-watching her favorite shows and movies. If she could pick a superpower, it would be the ability to speak all the languages in the world! Join us in celebrating Jessica's accomplishments and her dedication to NASA's mission towards a brighter future. Thank you, Jessica!

Professional Development

NASA CONNECTS: Are you interested in professional development opportunities? Create a new account or log into NASA's STEM Gateway to find a session that interests you.

Come See Us in Person!*

[Johnson Space Center Open House](#)

Saturday Oct. 14th, 2023: Johnson Space Center will open their gates to help celebrate NASA's 65th anniversary and you're all invited! Take a look at the link above to find out how to join in on the fun.

[NASA Langley Research Center Open House](#)

Saturday October 21st, 2023: Join NASA's Langley Research Center for a chance to look at our state-of-the-art technologies, labs, and facilities that help us get to the moon, advance the latest aeronautics research, and help us understand more about our own planet.

[2023 Annular Solar Eclipse Events](#)

Saturday, October 14th, 2023: NASA and NASA partners will be all around the country hosting or participating in events highlighting the upcoming annular eclipse. Join NASA during this celestial event and learn more about solar eclipses!

**please note that all in-person engagements in the near term are dependent on continued government funding.*

Did you know?

October is Breast Cancer Awareness Month. Get regular screenings to ensure early detection of any anomalies. Talk to your healthcare provider for more information about breast cancer awareness for everyone.



Submit a non-binding Notice of Intent (NOI) by October 16, 2023, to [let us know you're interested in participating](#) in this year's Blue Skies Competition - and get regular communication updates from the Blue Skies Team!

NASA Community College Aerospace Scholars (NCAS)

NASA Community College Aerospace Scholars (NCAS) has three missions designed to challenge and build student's knowledge and skills. Mission 1: Discover [registration](#) is open **October 10 through December 11, 2023!** Students will collaborate to work on real NASA missions and goals. Commencing in February, Mission 1: Discover takes students through a 5-week, self-paced online course where they gain broad knowledge of NASA's mission directorates and discover NASA career paths. Students can expect to hear from subject matter experts and learn about NASA's missions dedicated to space exploration, technology, and aeronautics research. Engineering design challenges are hosted at a partner institution or a NASA field center. NCAS alumni are also eligible for NASA internship opportunities.



For more information, eligibility, and the application process join an information session or visit the [NCAS website](#).

University Student Research Challenge



The [newest solicitation window](#) is now open! Join the NASA University Student Research Challenge family and collaborate with peers to contribute to the evolving field of aeronautics! NASA is seeking creative ideas and concepts relevant to NASA Aeronautics from interdisciplinary student teams.

- Receive up to \$80,000 to pursue your ideas
- Gain technical and entrepreneurial experience

World Space Week is October 4-10th and NASA Aeronautics celebrates the Ingenuity Helicopter flying on Mars. The Ingenuity Helicopter was the first aircraft to fly on another planet and just completed its 60th flight. Congratulations Ingenuity! Thank you for furthering the strive towards space exploration with the help of aviation technology. Learn more about the Ingenuity Mars Helicopter [here](#) and [check out this STEM activity](#) that challenges you to be an engineer and help the Perseverance deploy its parachute before it's too late.

The Annular Eclipse happens October 14th. [An annular eclipse](#) is when a new moon comes between Earth and the Sun but doesn't completely cover the sun. Instead, it creates a "ring of fire" with the Sun's rays glowing around the moon. Remember it is never safe to look at an eclipse without proper eyewear. Learn how NASA plans to [enjoy the eclipse and remain safe](#) and check out some cool [eclipse activities presented by Space Place](#).

Books for Treats Day is October 31st. Instead of candy, give someone a book, a comic book, or maybe read someone a story. Check out these [leveled readers from NASA Aeronautics](#) with more coming soon.

In case you missed it...

Advanced Air Mobility's first flight of the Pilatus PC-12

Our latest flight opportunity was on Pilatus PC-12 aircraft that flew on September 27th. The PC-12 will take on a key role in the agency's investigation of how to manage the emerging Advanced Air Mobility (AAM) ecosystem testing the reliability of communication systems between aircraft and air service providers by conducting a series of research flights.

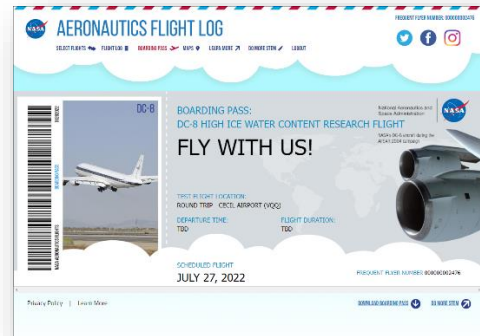
Don't miss another flight! We have new flights being added all the time, including an upcoming flight on our DC-8, and before we know it, we'll be flying on the X-59!! Add your email to our [contact list](#) to stay up to date on upcoming flights and other opportunities. The newest update is now

- Open to all majors and interdisciplinary teams (engineering, business, etc.)
- Interface with NASA experts and receive exposure to the aerospace industry

Proposals for the next round are due **November 9, 2023**.



live, allowing for more interaction, additional STEM content, and new opportunities to engage with us. It's a great time to come fly with us!



Links to our Aeronautics STEM Resources:

[Aeronautics Research Resources](#): (all ages) This link takes you to a wide variety of educator resources, Aeronautics@Home, ebooks, National Academies Reports, webinars, lithographs and mini posters, the NASA Aeronautics Research Institute, and more.

[Aeronautics@Home](#): (K-12) This web page contains aeronautics-based activities, videos, games, and more that can be completed at home, in the classroom, or in any number of settings. Topic areas include: "Build It!" "Explore It!" "Watch It!" "Solve It!" "Color It!" and "Aero Educator Resources". Coming soon: "Read It!" and "Do It!"

[Aeronautics Innovations Challenges](#): Keeping up with our many design challenges and opportunities for both post-secondary and K-12 can be tough. In response, we created a "one-stop shop" to pull them all together in one location.

[Flight Log Experience](#): (K-12, post-secondary, general public) Sign up to send your name with NASA Aeronautics on X-planes, UAS flights, and more as you build your virtual NASA flight log. Earn virtual endorsement stamps and mission patches and access aeronautics STEM activities and resources. Educators can sign up their entire class.

[NASA Express Sign-Up](#): (K-12, post-secondary) Have you signed up for NASA's NASA EXPRESS weekly newsletter? This newsletter contains the latest information for educators (K-12 and post-secondary) about new resources, design challenges, internships, and workshops. It is THE go-to for the latest STEM news.

[Aeronaut-X](#): (K-12) Our Next Gen STEM: Aeronaut-X team provides new and exciting STEM activities that focus on cutting-edge aeronautics education and the future of flight.

[Museum and Informal Education Alliance](#): (Informal Educators and Museums) Not in a classroom? Looking for informal education materials? Join NASA's Museum and Informal Education Alliance, where you have access to NASA resources—including aeronautics—for your program, organization, museum, science center, or library. Find out about events happening near you and in the virtual world, and let the MIE Alliance help you build your programs! Access to guest speakers, the latest announcements about grant programs, and an active community network allow you to connect with other like-minded people in a supportive, engaging, and aerospace-focused neighborhood.

[NASA Aeronautics for Educators Facebook Page](#): (K-12, post-secondary) Join our NASA Aeronautics for Educators Facebook page, where the latest aeronautics updates, professional development opportunities, lessons and ideas are freely shared.

[NASA Connects](#): (K-12, post-secondary) NASA Connects is a network of educators who come together to collaborate, share NASA resources, and create personal collections of materials that can then be shared with others. Members can join groups tailored to their specific interests.

National Aeronautics and Space Administration

Headquarters
300 E. Street, SW
Washington, DC 20546

www.nasa.gov/aeroresearch