



GATEWAYS TO  
**BLUESKIES**

## AIRPORTS OF TOMORROW COMPETITION

June 2-3, 2022

NASA's Langley Research Center  
Hampton, VA





# WELCOME

Engaging college students in design ideas and technology innovations to support the climate-friendly aviation industry of tomorrow.

## A Message from Blue Skies Sponsor, Koushik Datta, Ames Research Center (ARC) Project Manager, University Innovation Project



Congratulations, Blue Skies competitors, and welcome to the inaugural Blue Skies Forum! Over the next three decades, NASA intends to push the boundaries of aviation toward a net-zero emissions future. Similarly, NASA is developing strategic links and collaborations with universities via the Blue Skies competition that inspire the next generation of researchers and innovators on this journey toward climate-friendly aeronautics. This year's Blue Skies competition is about identifying and integrating incoming concepts and technologies into future airport operations to improve understanding of necessary retrofits and new construction demands. By competing in this challenge, you are now part of the NASA family, actively engaging with real solutions to advance green aviation. We are excited to provide a platform for you to share your work with a wider audience here at the 2022 Blue Skies Forum, and can't wait to hear your ideas and concepts for flying higher in protecting our planet!

**UCI** University of  
California, Irvine

**Carnegie Mellon University**



# AGENDA

NASA Langley Research Center

## Wednesday, June 1, 2022

7:00 – 8:30 PM

### Blue Skies Forum Check-in

Embassy Suites, Hampton Convention Center  
1700 Coliseum Drive, Hampton, VA, Lobby

## Thursday, June 2, 2022

NASA Langley Research Center, Building 2102

8:15 – 9:00 AM

### Judges Meeting (Rm. 112 - 113)

9:10 – 9:25 AM

### Welcome and Introductions

Reid Ballroom 1 & 2

9:25 – 9:55 AM

### NASA's Aeronautics Research Mission Directorate Presentation

10:00 – 10:45 AM

### Ohio State University

*Project ECOAir*  
Faculty Advisor: Ethan Rivera

10:45 – 11:00 AM

### Break

11:00 – 11:45 AM

### University of Texas, Austin

*What Starts Here Fuels The World: Airports Supporting The Future Of Aviation*  
Faculty Advisor: Dr. Lina Sela

11:50 AM–12:35 PM

### University of California, Irvine

*Blue Skies, Green Fuels, Bright Future*  
Faculty Advisor: Dr. Jacqueline Huynh

12:35 – 1:30 PM

### Lunch

Reid Ballroom 3

1:30 – 2:15 PM

### University of Illinois, Urbana-Champaign

*Modern Day Wright Brothers*  
Faculty Advisor: Dr. Leon Liebenburg

2:20 – 3:05 PM

### Carnegie Mellon University

*Sustainability and Connected Autonomy: A New Era for Aviation*  
Faculty Advisor: Dr. Sebastian Scherer

3:05 – 3:15 PM

### Break

3:15 – 4:00 PM

### Manhattan College

*Soaring into the 2050s*  
Faculty Advisor: Dr. Bahareh Estejab

4:00 – 4:30 PM

### Judges Meeting (Rm. 112 - 113)

4:00 – 4:30 PM

### Team Photos

4:30 PM

### Group Photo

### AGENDA LEGEND

Events open to LaRC employees are **BLACK**.

Events restricted to Judges & Staff are **GREEN**.

Events restricted to Paid Registrants (teams, judges, staff) are **BLUE**.

## Friday, June 3, 2022

9:00 – 9:05 AM

### Welcome, Day 2

NASA LaRC, B. 2102, Reid Ballroom 1 & 2

9:10 – 9:55 AM

### University of Pennsylvania

*Carbon Negative: A Modular Approach to Advancing Green Airport Infrastructure*  
Faculty Advisor: Dr. Jacqueline B. Kirtley

10:00 – 10:45 AM

### University of Texas, Austin

*Bluebonnet Skies*  
Faculty Advisor: Dr. Shannon O'Brien

10:45 – 11:00 AM

### Break

11:00 AM–12:00 PM

### Poster Session

Corridor outside of Reid Ballrooms

12:00 – 1:00 PM

### Lunch

Reid Ballroom 3

1:15 – 3:25 PM

### Teams Tour NASA Langley Research Center

- Model Shop
- ISAAC
- Hangar
- Wind Tunnel

1:15 PM

### Judges Deliver Finalized Scores

1:30 – 3:30 PM

### Deliberation (Room 112 – 113)

5:40 – 6:25 PM

### IMAX Screening

VA Air & Space Science Center  
600 Settlers Landing Road  
Hampton, VA 23669

6:30 – 8:00 PM

### Awards Dinner, Ceremony & Group Photo

VA Air & Space Science Center

8:00 – 9:30 PM

### Gallery & Exhibitions Viewing

VA Air & Space Science Center



A Livestream of the presentations can be viewed at: <https://livestream.com/viewnow/blueskies>

Team Infographics can be viewed at: <https://blueskies.nianet.org/finalists>

Teams may visit NASA's Gift Shop during Lunches & Breaks. Hours of Operation are June 2nd: 1:00 - 5:00 PM; June 3rd: 10:00 AM - 4:30 PM



# 2022 GATEWAYS TO BLUE SKIES JUDGING PANEL



**STEVEN HOLZ**

Blue Skies Co-Chair  
NASA Langley Research Center



**MINA CAPPUCCIO**

Blue Skies Co-Chair  
NASA Ames Research Center



**DR. AZLIN  
BIAGGI-LABIOSA**

NASA Glenn Research Center



**CYNTHIA J. "CJ" BIXBY**

NASA Armstrong Flight  
Research Center



**DR. NATHANIEL  
"NAT" BLAESSER**

NASA Langley Research Center



**DR. JOHN CAVOLETSKY**

NASA Aeronautics Research  
Mission Directorate



**CURTIS HEDGEPEETH**

Harry Reid International Airport



**DR. MARCUS  
JOHNSON**

NASA Ames Research Center



**CHRIS OSWALD**

Airports Council International -  
North America

NATIONAL  
INSTITUTE OF  
AEROSPACE



The Gateways to Blue Skies Competition is sponsored by NASA's Aeronautics Research Mission Directorate and is managed by the National Institute of Aerospace.

<https://blueskies.nianet.org>

