

AVIATION + ASCEND™

21–25 JULY 2025

22–24 JULY 2025

PROGRAM GUIDE

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Learn more on page 7

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AHEAD OF **READY**



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TWO EVENTS. ONE VENUE.

You have an all-access ticket to attend the sessions of your choice from these two signature events. Both events will deliver full technical programs, a hallmark that attendees count on from AIAA.

This unique experience also includes full admission to networking events and receptions that are specially designed for everyone, with more opportunities to connect with leading industry executives, government officials, and academia.



ON-SITE Wi-Fi

NETWORK NAME: **ASAV25**

PASSWORD: **Ansys2025**

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AIAA would like to thank the following organizations for their support of the 2025 AIAA AVIATION Forum and 2025 ASCEND.

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We are dedicated to advancing the future of aerospace
as we continue exploring our world and beyond.

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AIAA EVENTS APP



Download the AIAA Events App and click
Open for the 2025 AVIATION Forum and
2025 ASCEND

Get immediate access to these features:

- ✦ Program
- ✦ Speakers
- ✦ Schedule
- ✦ Exhibitors
- ✦ Technical Paper Abstracts
- ✦ Committee Meeting List

Create a login to gain access to these customized functions:

- ✦ Create your Profile
- ✦ Create your Personalized Onsite Schedule
- ✦ Sync your Planner (desktop schedule) to your mobile device app
- ✦ Add notes
- ✦ Favorite Sessions & Speakers
- ✦ Network with other attendees (login required for all parties)



Login Information

Username: **Confirmation ID** *Found on your badge (4 digits) or in your Registration Confirmation email*

Password: **Last Name**



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COMBINED EVENTS OVERVIEW

	MONDAY, 21 JULY		TUESDAY, 22 JULY		WEDNESDAY, 23 JULY	
8 a.m.	Plenary		Plenary	Macro	Plenary	Macro
9 a.m.	☕ Coffee Break		☕ Coffee Break		☕ Coffee Break	
10 a.m.	Forum 360	Tech Sessions	Forum 360	Tech Sess	Metas + Micros	Tech Sess
11 a.m.						
12 p.m.			☕ Lunch	2025 AIAA David W. Thompson Lecture in Space Commerce	☕ Lunch	2025 AIAA Wright Brothers Lecture in Aeronautics NASA Directorate Leadership Roundtable
1 p.m.	Forum 360	Tech Sessions	Forum 360	Tech Sess	Metas + Micros	Tech Sess
2 p.m.						
3 p.m.	☕ Coffee Break		☕ Coffee Break		☕ Coffee Break	
4 p.m.	Forum 360	Tech Sessions	Forum 360	Tech Sess	Metas + Micros	Tech Sess
5 p.m.						
6 p.m.			☕ 2025 Awards Recognition Ceremony			
7 p.m.			☕ Aero + Space Reception with the Exhibitors			

	THURSDAY, 24 JULY				FRIDAY 25 JULY	
8 a.m.	Plenary		Macro		Plenary	
9 a.m.	☕ Coffee Break				☕ Coffee Break	
10 a.m.	Forum 360	Tech Sess	Metas + Micros	Tech Sess	Forum 360	Tech Sessions
11 a.m.						
12 p.m.	Pickering Lecture					
1 p.m.	Forum 360	Tech Sess	Metas + Micros	Tech Sess	Forum 360	Tech Sessions
2 p.m.						
3 p.m.	☕ Coffee Break					
4 p.m.	Forum 360	Tech Sess	Metas + Micros	Tech Sess		
5 p.m.						
6 p.m.						

NETWORKING AND JOINT AIAA AVIATION FORUM & ASCEND EVENTS

Monday, 21 July

Coffee Break

9–9:30 a.m.

Summit Ballroom Foyer

Meet the Universities

10:30 a.m.–12 p.m.

Summit 208

Considering grad school? Meet with representatives from some of the top aerospace research universities and hear all about how you can advance your education and research goals.

Meet the Employers

3–5 p.m.

Summit 207

Students and young professionals—you are invited to network with AIAA Corporate Members during this can't-miss occasion where you can meet with recruiters and ask questions about internships, full-time employment opportunities, organizational culture, company projects, and anything else you want to know.

Coffee Break

3–3:30 p.m.

Summit Ballroom Foyer

AVIATION/ASCEND 101

7–8 p.m.

Summit 208

Discover how you can make the most of your week at AIAA AVIATION Forum and ASCEND while meeting fellow attendees. This orientation is ideal for first-time attendees, but all are welcome!

Tuesday, 22 July

Coffee Break

9–9:30 a.m.

Expo Hall

Sponsored by: 

Lunch

11:30 a.m.–1 p.m.

Summit Ballroom/Expo Hall

Rising Leaders in Aerospace: Young Professionals Panel and Social Hour

2–4 p.m.

Summit 229

Role of Young Professionals in Building a Sustainable Future of Space

Space activity in terms of the number of orbital launches, commercial involvement, and public / private investment has increased over the last few years and is projected to grow in the future. This panel brings together leading voices from academia, government, industry, nonprofits,

and think tanks to discuss the emerging issues of space debris, challenges of removal, and balancing increased space exploration activity with a sustainable future for space. The role of new and emerging technologies in sustainable design, advanced tracking / detection, and active debris removal (ADR) in responding to these challenges will be critical. The important role that young professionals can play in ensuring a sustainable future for human activity in space will be discussed, as well as special challenges in coordinating across organizations (government, private industry, international organizations) and domains (engineering, policy, law), and the need for new frameworks to address these challenges.

Sponsored by: 

Coffee Break

3–3:30 p.m.

Expo Hall

Sponsored by: 

Awards Recognition Ceremony

5:45–6:30 p.m.

Academy 407

Aero + Space Reception

6:30–7:30 p.m.

Summit Ballroom/Expo Hall

Join us for an evening exploring air and space in the Expo Hall, mixing with fellow attendees and prominent speakers. This is the perfect opportunity to network, share insights, and maintain the momentum of this unique week.

Wednesday, 23 July

Coffee Break

9–9:30 a.m.

Expo Hall

Lunch

11:30 a.m.–1 p.m.

Summit Ballroom/Expo Hall

Rising Leaders in Aerospace: Speed Mentoring

1–3 p.m.

Summit 229

Leaders in the aerospace industry take time to meet with the Rising Leaders participants and share their experiences. This event is a great way to get insight and make new contacts.

Coffee Break

3–3:30 p.m.

Expo Hall

Aeroacoustics Conference Dinner

6:30–9:30 p.m.

Fogo de Chao Las Vegas

The Aeroacoustics Conference will have a dinner event at Fogo de Chão Las Vegas, a Brazilian-style steakhouse (vegetarian/vegan menu option available). The cost of the

event is \$135, and ticket purchase is required during the registration process. You must register for the forum to attend this event. Transportation to and from the event will be provided. Buses will depart from Caesars Forum at approximately 6 p.m. and will return to Caesars Forum at the conclusion of the dinner.

Thursday, 24 July

Coffee Break

9-9:30 a.m.

Expo Hall

Rising Leaders in Aerospace: Professional Development Workshop

10-11:30 a.m.

Summit 229

Let's Talk About It: Giving & Getting Better Feedback

Giving or receiving feedback doesn't have to be uncomfortable—or unhelpful. This interactive session will provide practical tools to give and receive feedback more effectively. Through real-world scenarios and live role-play, participants will walk away with strategies they can immediately apply in teams, projects, and everyday collaboration.

Coffee Break

3-3:30 p.m.

Expo Hall

Friday, 25 July

Coffee Break

9-9:30 a.m.

Summit Ballroom Foyer

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For more information, visit us at aerospace.org.



AIAA REGISTRATION HOURS

Registration is in the Foyer at Caesars Forum.

Sunday, 20 July: 3–7 p.m.

Monday, 21 July: 7 a.m.–7 p.m.

Tuesday, 22 July: 7 a.m.–5:30 p.m.

Wednesday, 23 July: 7 a.m.–5:30 p.m.

Thursday, 24 July: 7 a.m.–5:30 p.m.

Friday, 25 July: 7 a.m.–3 p.m.

WI-FI INFORMATION

Network Name: **ASAV25** Password: **Ansys2025**

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STUDENT LOUNGE HOURS

An exclusive, students-only place to unwind, connect, and relax. Location in the Summit 220.

Monday, 21 July: 9 a.m.–5 p.m.

Tuesday, 22 July: 9 a.m.–5 p.m.

Wednesday, 23 July: 9 a.m.–5 p.m.

Thursday, 24 July: 9 a.m.–5 p.m.

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COMMON TERMS

AIAA AVIATION FORUM

Plenary

Keynote speaker(s) that kicks off the day at AIAA AVIATION Forum. This is the only event at that time so everyone is encouraged to attend.

Forum 360

High-level panel session that tackles the most pressing issues impacting the future of aerospace.

Technical Sessions

A series of paper or oral-only technical presentations. Each session contains a maximum of six presentations.

Technical Panels

In-depth panel session focusing on a technical topic.

Technical Lectures

In-depth session with one or two invited subject matter experts focusing on a technical topic.

Technical Workshops

Longer sessions focusing on a technical topic, often in a collaborative environment.

Rising Leaders in Aerospace (RLA)

These events, organized by the Young Professionals Group, are geared toward Young Professional participants.

The HUB

Stage/presentation area in the middle of the Expo Hall. Contains product demonstrations, special panels, sponsor presentations, and fun activities.

ASCEND

Special Programming & Networking Sessions

The von Kármán Lecture in Astronautics, David W. Thompson Lecture in Space Commerce, William H. Pickering Lecture, AIAA committee-led sessions, daily opening sessions, networking coffee breaks, and receptions.

Macro Sessions

Some of the world's most inspired thinkers and speakers, providing broad and bold perspectives on a wide range of topics around building our off-world future.

Meta Sessions

Mind-expanding knowledge from industry leaders and doers focus on spurring large-scale discussions of the trends, economic forces, technical challenges, and policymaking hurdles facing every member of the space ecosystem.

Micro Sessions

Presentations, discussions, and interactive roundtables featuring different perspectives and opinions across one of our 16 targeted session topics.

Technical Sessions

Explore the wide array of research and developments focused on interdisciplinary approaches to the art and science of space technology, exploration, economics, and more via one of our six paper topic themes.

Workshop Sessions

Collaborative, hands-on sessions to leverage active learning environments and build concrete skillsets.

RECOGNITION

AIAA is committed to ensuring that aerospace professionals are recognized and celebrated for their achievements, innovations, and discoveries that make the world safer, more connected, more accessible, and more prosperous. From the major missions that reimagine how our nation utilizes air and space to the inventive new applications that enhance everyday living, aerospace professionals leverage their knowledge for the benefit of society. AIAA continues to celebrate that pioneering spirit showcasing the very best in the aerospace industry.

PREMIER LECTURES

Tuesday, 22 July

2025 AIAA David W. Thompson Lecture in Space Commerce

11:45 a.m.–12:45 p.m.

Forum 128

This premier lecture recognizes a prominent industry leader or senior management team who has created or grown a space-related business and generated substantial economic benefits and market value.

Jamie M. Morin

Vice President of Defense Strategic Space and Executive Director of the Center for Space Policy and Strategy, The Aerospace Corporation

LECTURE: “**Accelerating Space and Defense Innovation Through Savvy Policy**”

Wednesday, 23 July

2025 AIAA Wright Brothers Lecture in Aeronautics

11:45 a.m.–12:45 p.m.

Academy 407

This lecture commemorates the accomplishment of the Wright Brothers in creating the first practical airplane and also recognizes the success of their approach to problem-solving – beginning with study of the literature, and including innovative thinking, constructive debate, systematic testing, and teamwork. In particular, the Wright Brothers Lectureship is awarded for the recent accomplishment of a significant “First in Aeronautical Engineering”. The lecture will highlight the details of the accomplishment and the approaches to meeting both the technical and programmatic challenges involved.

Susan Ying

CEO, AMP2FLY

LECTURE: “**Emergence of Hybrid Electric Aircraft**”

Please celebrate the following AIAA awards at the 2025 Awards Recognition Ceremony on Tuesday, 22 July, 5:45–6:30 p.m. in the Academy 407 Ballroom. This is a free event.

AIAA PREMIER AWARD

2025 AIAA Aerospace Excellence Award

This award honors a unique achievement by a group or team in the aerospace community that is shaping the future of aerospace – and inspiring the next generation to pursue careers in aerospace.

SpaceX

Accepting on behalf of SpaceX, Nick Cummings, Senior Director of Government Systems Advanced Development

For demonstrating controlled landings of the Starship Super Heavy booster by catching it with arms on the launch tower and accelerating the development of the space economy through this fully reusable launch vehicle.

AIAA TECHNICAL EXCELLENCE AWARDS

2025 AIAA Aeroacoustics Award

This award is presented for an outstanding technical or scientific achievement resulting from an individual's contribution to the field of aircraft community noise reduction.

Anastasios “Tasos” Lyrintzis

Embry-Riddle Aeronautical University

For seminal contributions to aeroacoustics, including the introduction of surface integral methods for the extension of CFD results to the far-field.

2025 AIAA Aerodynamics Award

This award is presented for meritorious achievement in the field of applied aerodynamics, recognizing notable contributions in the development, application, and evaluation of aerodynamic concepts and methods.

Richard A. Wahls

NASA Headquarters

For outstanding leadership and technical contributions advancing high-confidence computational and experimental aerodynamic tools for prediction and analysis of airplane configurations and technologies.

RECOGNITION

2025 AIAA Aircraft Design Award

This award is presented to an individual or team for an original concept or career contributions leading to a significant advancement in aircraft design or design technology.

Isabelle Bloy, A321XLR Chief Engineer, Team Airbus

Ahmet Kiryaman, Chief Airworthiness A321XLR Engineer, now Chief Engineer Single Aisle, Germany

Thierry Diez, Chief Pilot, A321XLR

For contributions to the Airbus A321XLR, a narrowbody aircraft opening long-haul services to airlines, successfully launched in 2019 with an entry into service in 2024.

2025 AIAA Fluid Dynamics Award

This award is presented for outstanding contributions to the understanding of the behavior of liquids and gases in motion as related to need in aeronautics and astronautics.

Ari Glezer

Georgia Institute of Technology

For groundbreaking contributions to fundamental understanding, application, and invention of actuation strategies for active flow control.

2025 AIAA Ground Testing Award

This award is presented for outstanding achievement in the development or effective utilization of technology, procedures, facilities, or modeling techniques for flight simulation, space simulation, propulsion testing, aerodynamic testing, or other ground testing associated with aeronautics and astronautics.

Nicole L. Key

Purdue University

For outstanding contributions to the rigorous testing of advanced high-speed compressor and fan technologies, with application of state-of-the-art diagnostic methods.

2025 AIAA Hap Arnold Award for Excellence in Aeronautical Program Management

This award is presented to an individual for outstanding contributions in the management of a significant aeronautical or aeronautical related program or project.

Richard (Rick) A. Rezacbek

Lockheed Martin (retired)

For outstanding leadership and management of the X-35 throughout the technically innovative, challenging, safe, and successful design, development, and flight test.

2025 AIAA Losey Atmospheric Sciences Award

This award is presented in recognition of outstanding contributions to the atmospheric sciences as applied to the advancement of aeronautics and astronautics.

Philippe Villedieu

ONERA

For distinguished contributions to the advancement of aeronautics through research, leadership, and teaching in the atmospheric science of ice crystal and supercooled liquid icing.

2025 AIAA Plasmadynamics and Lasers Award

This award is presented to an individual who has made outstanding contributions to the understanding of the physical properties and dynamical behavior of matter in the plasma state and lasers as related to aeronautics and astronautics.

Mark A. Cappelli

Stanford University

For impactful computational and experimental research in plasma flow control, plasma assisted combustion, spacecraft electric propulsion, laser diagnostics, and the mentoring of future aerospace leaders.

2025 AIAA Thermophysics Award

This award is presented for an outstanding singular or sustained technical or scientific contribution by an individual in thermophysics, specifically as related to the study and application of the properties and mechanisms involved in thermal energy transfer and the study of environmental effects on such properties and mechanisms.

Deborah Ann Levin

University of Illinois at Urbana-Champaign

In recognition of her pioneering work into deriving new thermo-physical insights into complex, multiscale high-speed flows using particle kinetic simulation approaches.

2025 AIAA von Braun Award for Excellence in Space Program Management

This award gives national recognition to an individual(s) for outstanding contributions in the management of a significant space or space-related program or project.

Thomas H. Zurbuchen

ETH Zurich

For exemplary leadership of NASA's science program and its successful civilization-scale science missions, including the James Webb Space Telescope, Mars 2020, and Parker Solar Probe.

RECOGNITION

PROFESSIONAL BEST PAPER AWARDS

2024 AIAA Applied Aerodynamics Best Paper

"Wind Tunnel Testing of AFC over a Deflected Aileron on the High-Lift Common Research Model," (AIAA 2024-3672)

AUTHORS: **LaTunia Pack Melton**, **Mehti Koklu**, **Marlyn Y. Andino**, and **Judith A. Hannon**, NASA Langley Research Center

2024 AIAA Ground Testing Best Paper Award

"Testing of Two Mars Powered Descent Vehicle Concepts in the Langley Unitary Plan Wind Tunnel," (AIAA 2024-3970)

AUTHORS: **Karl T. Edquist**, NASA Langley Research Center; **Bryan Falman**, Jacobs Technology Inc; **Devin E. Burns**, **Anthony Watkins**, and **Harry Pham**, NASA Langley Research Center; and **Heather Houlden**, TMC Technologies

2024 AIAA Modeling and Simulation Best Paper Award

"Advancements in Flight Simulation Visual Systems: An In-Depth Analysis of Variable Collimation Display Technology," (AIAA 2024-4205)

AUTHORS: **Robert Batchko**, **Andrew Apodaca**, **Steven Winston**, **Samuel Robinson**, **Samuel Morales**, **Taeten Prettyman**, **David Perez**, and **Hye Jin Kim**, Holochip Corporation; and **Benito Graniela**, Naval Air Warfare Center Training Systems Division (NAWCTSD)

2024 AIAA V/STOL Best Paper

"Thrust Testing and Experimental Validation of a Magnetically Levitated Rotor for Electric Flight Applications," (AIAA 2024-4314)

AUTHORS: **Peter R. O'Regan**, **Torbjörn A. Lembke**, **Ian M. Randall**, **Spencer B. Gedestad**, **Justin O. Juranovits**, **Archit N. Hardikar**, **Bernardo M. Concia**, and **Phillip C. Gomez**, MagLev Aero, Inc.

2025 AIAA Electrified Aircraft Technology Best Paper

"Aluminum-Air Batteries for Aircraft Applications," (AIAA 2025-0506)

AUTHORS: **Cole S. Pawlak**, **Emily A. Lory** and **Phillip J. Ansell**, University of Illinois Urbana-Champaign

2025 AIAA Fluid Dynamics Best Paper

"Closed-Loop Simulations of Human-Scale Mars Lander Descent Trajectories on Frontier," (AIAA 2024-3535)

AUTHORS: **Gabriel C. Nastac**, **Zachary Ernst**, **Alexandra M. Hickey**, **Aaron C. Walden**, **Kevin E. Jacobson**, **William T. Jones**, **Eric J. Nielsen**, **Boris Diskin**, **Li Wang**, and **Ashley M. Korzun**, NASA Langley Research Center; **Patrick J. Moran**, NASA Ames Research Center; and **Hayden Dean**, **Alexandra Hickey**, **Dimitri N. Mavris**, and **Bradford E. Robertson**, Georgia Institute of Technology; **Justin Luitjens**, **Marc Nienhaus**, **Dragos Tatulea**, and **Rajko Yasui-Schoeffel**, NVIDIA Corporation; **Boris Diskin**, National Institute of Aerospace; and **Mohammad Zubair**, Old Dominion University

2025 AIAA Thermophysics Best Paper

"Analysis of Fast Thin-Film Temperature Gauges for Hypersonic Environments," (AIAA 2025-2843)

AUTHORS: **Sunyoung Lee**, **Luke Vergeer**, **Julian Marin**, **Andreas Gross**, **Fangjun Shu**, and **Jay Frankel**, New Mexico State University

2025 AIAA/CEAS Aeroacoustics Best Paper

"Identification of Sources of Sub-Convective Wall Pressure Fluctuations Using Space-Time Pressure-Velocity Correlations," (AIAA 2024-3166)

AUTHORS: **Humza Butt**, **Shishir Damani**, **William J. Devenport**, and **Todd K. Lowe**, Virginia Polytechnic Institute and State University

STUDENT BEST PAPER AWARDS

2025 AIAA David Weaver Thermophysics Best Student Paper

"Simultaneous, Pathlength-Amplified Laser Absorption Measurements of Excited Air Species in a Shock Tube," (AIAA 2025-1995)

AUTHORS: **Devin Merrell**, **Dylan Drescher**, **Zev N. Granowitz**, **Efaine Chang**, **Jesse W. Streicher**, **Christopher Strand**, and **Ronald K. Hanson**, Stanford University

AIAA STUDENT PAPER COMPETITION

Friday, 25 July

8-9 a.m.

Forum 128

Winners will be announced during the AVIATION Plenary Session.

EXPO HALL

Tuesday, 22 July

Aero + Space Reception

6:30–7:30 p.m.

Expo Hall

Join us for an evening exploring air and space in the Expo Hall, mixing with fellow attendees, prominent speakers, and astronauts—analogue, ISS, and from the silver screen. This is the perfect opportunity to network, share insights, and maintain the momentum of this unique week.

EXPO HALL HOURS

Tuesday, 22 July: 9 a.m.–5 p.m.

Lunch: 11:45 a.m.–1 p.m.

Aero + Space Reception: 6:30–7:30 p.m.

Wednesday, 23 July: 9 a.m.–5 p.m.

Lunch: 11:45 a.m.–1 p.m.

Thursday, 24 July: 9 a.m.–2 p.m.

Need to identify a place to meet up with colleagues?

Make the HUB that place! Centrally located within the venue, the Expo Hall will serve as a bridge between both events' communities, showcasing the latest technologies, products, and services from exhibitors in both the air and space domains. This multi-use area built into the heart of Expo Hall features innovative programming, product demonstrations, charging stations, a lounge area, and more.

University of Kansas
Jayhawk Global

dSPACE

Western Michigan University College of Engineering and Applied Sciences

Glenair

Airborne Systems



ValveTech, Inc.

Altair

Volcano Platforms Inc.

SurgeStreams

General Atomics Aeronautical Systems, Inc.

Enduralock

Aegis Aerospace

HEAD acoustics Inc.

Radeus Labs, Inc.

ARA

Tec-Masters, Inc.

GKS Lifting and Moving Solutions, LLC

Oklahoma Aerospace Institute for Research and Education (OAIRE)

Ennova Technologies Inc.

Specialized Manufacturing

Cadence

Taber Industries

Concurrent Real-Time

Caltech CTME

Flexcompute

Kulite Semiconductor Products, Inc.

Gulfstream Aerospace

Advanced Test Equipment Corp.

Calspan

ZEISS Industrial Quality Solutions

Metacomp Technologies, Inc.

Valcor Engineering Corporation

University of Southern California Viterbi School of Engineering

M4 Engineering, Inc.

TechnoMile

Heller Machine Tools

IC2

DEWESoft LLC

ESTECO

Image Systems

Luminary Cloud, Inc.

AIAA Los Angeles - Las Vegas Section

Zero Hour Parts

Dassault Systemes SIMULIA

Toray Group

Ansys

Tecplot

BQP

University of Central Florida

Lockheed Martin

The Boeing Company

EXHIBITORS

Advanced Test Equipment Corp.

314

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AIAA Los Angeles - Las Vegas Section

713

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The mission of the LA-LV Section is to benefit AIAA members within our territory by:

- Advancing the arts, sciences and technology of aeronautics, astronautics, and their allied fields
- Facilitating communication between scientists and engineers in the Section and with other professional groups
- Encouraging original research
- Fostering dissemination of new knowledge
- Furthering the professional development of those engaged in scientific and engineering activities
- Improving public understanding of the profession and its contributions
- Recognizing outstanding professional accomplishments

Airborne Systems

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Ansys

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BQP

704

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BQP is a deep-tech startup that is accelerating digital engineering using a next-gen simulation platform, BQPhy®, powered by quantum algorithms. The platform is providing 10X performance improvement on GPUs today and 100-1000X on forthcoming quantum computers. With the platform, BQP is exponentially compressing product cycles and R&D cycles for aerospace and heavy-industry manufacturers by years and saving \$Bn. The startup is working with major aerospace and defense manufacturers, and showcased 10X reduction in time and improvement in accuracy.



BOSONQ Psi

BQP is founded and led by two Aerospace engineers and computational scientists with degrees from Rutgers University, Rensselaer Polytechnic Institute, and University of Minnesota. BQP has raised \$1.7M from investors and won \$600K in government grants. BQP is also winners of HUSTLE Defense Accelerator (by Griffiss Institute & AFRL RI) and Quantum World Congress Startup Competition 2023. The team comprises of 25 subject-matter & industry experts.

Cadence

421

www.cadence.com/en_US/home/tools/system-analysis/computational-fluid-dynamics.html

Cadence is a pivotal leader in electronic design, building upon more than 30 years of computational software expertise. We apply our underlying Intelligent System Design strategy to deliver software, hardware, and IP that turn design concepts into reality. Our customers are the world's most innovative companies, delivering extraordinary electronic products from chips to boards to systems for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare. Seven years in a row, Fortune magazine has named Cadence one of the 100 Best Companies to Work For. Learn more at www.cadence.com.



Calspan

312

www.calspan.com

For over 75 years, Calspan has been an industry-leading research, testing and manufacturing partner to the great innovators of the aerospace and automotive industries. We assist companies in overcoming developmental and technical challenges to ensure their creative concepts become viable commercial products. Our teams ensure a streamlined process from aerospace model design and manufacturing to wind tunnel testing and secure data delivery. We also excel at the design and build of test engine cells, turbomachinery, force measurement balances, and hypersonic model testing. Calspan diligently helps to accelerate pioneering innovations on land or into the sky.



Caltech CTME

622

www.ctme.caltech.edu

Technology engineering leaders choose Caltech CTME for customized professional development and learning programs that build organizational capabilities, skilled teams, and solutions-oriented mindsets. Learners tackle project-based challenges guided by Caltech faculty and our networks of pioneering systems engineering experts. Programs specialties: Advanced Systems Engineering/MBSE, Data Analytics, Cybersecurity, Leadership, Production & Operations, Project & Program Management, and Strategic Technology Marketing. Client programs are uniquely tailored for company context, products, complexity/difficulty, team dynamics, client case studies and processes, location, format, guest speakers, group facilitation, skill-breadth/depth, and desired learning-outcomes. Programs are available for commercial, government, and individual learners across aerospace, chemical, electronics/high-tech, energy, life sciences, and manufacturing.



EXHIBITORS

Concurrent Real-Time

523

www.concurrent-rt.com



Concurrent Real-Time is a global provider of real-time Linux computer hardware and software solutions for mission-critical applications in markets that include aerospace and defense, automotive, robotics, energy, transportation and finance. These solutions enable customers to minimize risk, reduce costs, speed time-to-market and maximize profits. Since 1966, customers have relied on Concurrent Real-Time solutions to deliver hard real-time performance for the most sophisticated XIL simulation, high-speed data acquisition, process control and low-latency transaction processing applications. Concurrent Real-Time is headquartered in Pompano Beach, FL, with sales and support available from offices throughout North America, Europe and Asia. For more information, visit www.concurrent-rt.com. Concurrent Real-Time is part of HBK's Virtual Test Division.

Dassault Systemes SIMULIA

708

www.3ds.com



Dassault Systèmes SIMULIA reveals the world we live in through realistic simulation of product, nature & life. We provide high-value end-to-end industry processes for digital engineering that employ state-of-the-art connected multidisciplinary-multiscale simulation applications. With SIMULIA, customers can reduce testing, increase confidence & quality, and get to market faster using always-available virtual worlds for discovery and testing. www.3ds.com/simulia

DEWESoft LLC

714

www.dewesoft.com



DEWESoft, offers a full suite of hardware for in-vehicle & lab data acquisition applications. Scalable from 4 to 1,000's of channels our instruments are available as small USB & EtherCat devices, stand-alone battery-powered systems, rack-mounted configurations, & ruggedized field-ready solutions. Powered by the latest DEWESoft X software, we acquire & control many multi-domain test sets that include analog in/out, digital in/out, video, CAN, FlexRay, XCP, GPS, & more.

dSPACE

434

www.dspace.com/en/pub/home/applicationfields/ind-appl/aerospace.cfm



The aerospace industry has the highest standards when it comes to validation and verification – no margin for error. In the toughest, most extreme situations of a mission, reliability is essential. dSPACE has been a trusted partner for development and testing of safety-critical systems in aeronautics and astronautics for decades. With high-performance hardware and software from dSPACE, engineers get the tools they need to rise to the challenges in design, implementation, and test of airborne or space systems.

Enduralock

726

www.enduralock.com



Enduralock, the SBA 2022

winner for National Security and Defense, has:

1) Satellite docking system incorporating a mechanical latch, electrical connections, and fuel transfer in one connector 2) Eliminating safety wire with mechanically locking, high vibration resistant (10x aerospace requirement) fasteners, that are reversible & reusable with a standard hex socket. They remain locked with loss of preload. Through an AF Phase II SBIR, they were scaled to 3mm to eliminate safety wire in missiles & spacecraft. An end effector was developed for robotic installation. 3) Nut plates that engage off-axis bolts & then self-align. Through an AF Phase II SBIR, the first mechanically locking nut plate was developed for use in extreme vibration environments. 4) A mechanically locking, vibration resistant fuel line/hydraulic connector is being developed for the B-2 (AF Phase II SBIR). Enduralock currently has 2 other AF Phase II SBIRs for qualifying its products on the B-1, B-2, KC-135 and AGE.

Ennova Technologies Inc

423

www.ennova-cfd.com



Ennova Technologies delivers today's most scalable simulation platform combining the power of cloud based computing, advanced geometry repair tools, and mixed mode meshing to create an extremely efficient pre and post processing simulation environment.

ESTECO

613

www.esteco.com



ESTECO is an independent software vendor who develops digital engineering technology for MDAO (multidisciplinary design analysis & optimization) and SPDM (simulation process data management). Its COTS products VOLTA and modeFRONTIER are used to integrate and automate simulation workflows, conduct design of experiments, trade - and numerical optimization studies, and collaborate among geographically dispersed engineering teams.

Flexcompute

521

www.flexcompute.com



Flexcompute is a solver technology company focused on dramatically reducing the time and costs of high-fidelity simulations. Run the fastest and most accurate CFD you've experienced from anywhere, without licenses or hardware, using the groundbreaking Flow360 solver.

With emerging hardware as our template, we rewrote from scratch, a full stack proprietary code that unlocked solving speeds orders of magnitude faster than anything else on the market. Run steady simulations in minutes and unsteady simulations in hours. This enables teams to run high-fidelity CFD at all stages of design. All with the goal of shortening your design cycles, reducing simulation costs, and improving product outcomes.

EXHIBITORS

General Atomics Aeronautical Systems, Inc.

627

www.ga-asi.com



General Atomics-Aeronautical Systems, Inc. (GA-ASI), an affiliate of General Atomics, is a leading designer and manufacturer of proven, reliable remotely piloted aircraft (RPA) systems, radars, and electro-optic and related mission systems, including the Predator® RPA series and the Lynx® Multi-mode Radar. GA-ASI is actively developing the next generation of RPA systems leveraging state-of-the-art technologies including multi-functional structures using additive manufacturing, airborne manned-unmanned teaming (MUM-T) capabilities, revolutionary controller capabilities that reduce manpower requirements, and low cost, modular RPA solutions. Additionally, GA-ASI produces ground control stations and sensor control/image analysis software, offers pilot training and support services, and develops meta-material antennas. www.ga-asi.com

GKS Lifting and Moving Solutions, LLC

320

www.gksweb.com



For over 50 years GKS has provided reliable, long lasting, and a fully complemented range of products for safe lifting and effortless moving of heavy loads. Worldwide our hydraulic toe jacks and transport dollies are solving problems of various magnitudes where heavy loads have to be moved in a variety of environments.

Glenair

428

www.glenair.com



Glenair manufactures high-reliability connectors and cables for mission-critical land, sea, air, and space applications. The company began operations in 1956 producing electrical connector backshells and accessories. Building on that foundation, we now offer dozens of full-spectrum connector product lines designed to meet every electrical and optical interconnect requirement, including a broad range of military qualified and signature connector designs such as the MIL-DTL-38999 Series III and our micro miniature Series 80 Mighty Mouse.

Gulfstream Aerospace

621

www.gulfstream.com



Inspired by the belief that aviation could fuel business growth, Gulfstream Aerospace Corp. invented the first purpose-built business aircraft, the Gulfstream I, which first flew in 1958. Today, more than 2,900 aircraft are in service around the world. Together with parent company General Dynamics, Gulfstream consistently invests in the future, dedicating resources to researching and developing innovative new aircraft, technologies and services. With a fleet that includes the super-midsize Gulfstream G280, the high-performing Gulfstream G650 and Gulfstream G650ER, and a next-generation family of aircraft including the all-new Gulfstream G400, the award-winning Gulfstream G500 and Gulfstream G600, the flagship Gulfstream G700 and the ultralong-range Gulfstream G800, Gulfstream offers an aircraft for every mission. All are backed by Gulfstream's Customer Support network and its worldwide team. Visit our website at gulfstream.com.

HEAD acoustics, Inc.

725

www.headacoustics.com



Since foundation in 1986, HEAD acoustics has been a reliable partner wherever acoustics, vibrations, or speech, audio and sound quality play an important role. We are not only one of the world's leading companies in the comprehensive analysis of sound and vibration; our expertise and pioneering role in the measurement and optimization of speech and audio quality in all areas of communications technology are also recognized worldwide. Our customers value the combination of cutting-edge measurement technology with decades of experience in an industrial setting. With our hardware and software, we offer scalable solutions for the specific problems posed by a wide variety of applications. As a service, our experts develop acoustic optimization approaches – in close cooperation with our customers and tailored to their individual needs.

Heller Machine Tools

513

<https://www.heller.biz/de>



HELLER Machine Tools is one of the leading machine tool manufacturers in the field of aerospace and high-volume precision production. We employ over 2,500 people worldwide across five production facilities located in Troy, Michigan, Germany, UK, Asia, and Brazil ensuring reliable delivery to our customers. Furthermore, we are represented in all major markets with our own sales and service offices and qualified service partners. Visit our website and follow us on socials to learn more!

IC2

615

www.thinkic2.com



Interdisciplinary Consulting Corporation (IC2) is a precision instrumentation company dedicated to advancing the science of measurement in the most demanding environments. With a mission to deliver innovative precision instrumentation solutions to the global test and measurement community, IC2 empowers aerospace engineers, researchers, and system integrators to capture high-fidelity data in wind tunnels, flight tests, and propulsion systems. Our technologies enable deeper understanding of aerodynamic and aeroacoustic phenomena—fueling breakthroughs in aerospace research. Headquartered in Gainesville, Florida, our team of engineers, scientists, and technicians are united by a shared commitment to innovation, technical rigor, and customer success.

Image Systems

712

<https://temaplatfom.com/>



Image Systems Motion Analysis offers accurate and valuable measuring results – fast. Our software is used in hundreds of different applications where the movement, orientation or shape of an object shall be measured and analyzed.

EXHIBITORS

Kulite Semiconductor Products, Inc.

620

www.kulite.com



Globally recognized as the leader in transducer technology, Kulite Semiconductor Products maintains its edge with vigilant research, ingenious designs and forward-thinking minds. Employing solid-state silicon on silicon technology, Kulite creates and customizes the most reliable transducers, designed to perform in the harshest conditions. Ongoing research and development has led to pioneering of new sensing technologies with applications in aviation, wind tunnel and flight test engineering.

Lockheed Martin

405

www.lockheedmartin.com



Lockheed Martin is a global defense technology company driving innovation and advancing scientific discovery. Our all-domain mission solutions and 21st Century Security vision accelerate the delivery of transformative technologies to ensure those we serve always stay ahead of ready. More information at Lockheedmartin.com.

Luminary Cloud, Inc.

715

www.luminarycloud.com



Luminary Cloud is a modern CAE SaaS platform, delivering insights in minutes rather than weeks, enabling analysis and iteration which were previously impossible.

M4 Engineering, Inc.

515

www.m4-engineering.com



M4 Engineering, Inc. works with inventors, startups, established companies and government agencies to solve "unsolvable" problems, and move their ideas from concepts to prototypes. We also develop software using our expertise in multidisciplinary design analysis and optimization (MDAO) to support our customers, and can help you save time and reduce the costs associated with the design, analysis and optimization of high-performance systems and structures. The complex systems typically found in electric aircraft, eVTOL, Urban Air Mobility, as well as more conventional aircraft and spacecraft present unique challenges that many new and established companies may not have encountered before. This is where M4 Engineering comes in. We have a broad range of capabilities to complement in-house engineering resources when either specialized knowledge or extra bandwidth is needed.

Metacomp Technologies, Inc.

304

www.metacompotech.com



Metacomp Technologies is at the forefront of cutting edge simulation technology with software products for Computational Fluid Dynamics ICFD++, Aero-Acoustics ICAA++, Mesh Generation IMIME and Structural Mechanics ICSM++ including MetaFSI for fluid-structure interactions. Founded in 1994 by pioneers in CFD, validated by industry, government institutions, and universities worldwide, and with an unparalleled reputation for high-level support, Metacomp will be an Integral part of your success.

Oklahoma Aerospace Institute for Research and Education (OAIRE)

321

oire.okstate.edu



OKLAHOMA
AEROSPACE INSTITUTE
FOR RESEARCH AND EDUCATION

Acting as the center of gravity for a statewide initiative to answer industry and federal demand for innovation, excellence, and expertise in aerospace.

Radeus Labs, Inc.

723

www.radeuslabs.com



Radeus Labs is dedicated to transforming challenges into solutions with innovative, reliable, and purpose-driven technology. With decades of expertise, we engineer advanced systems designed to meet the diverse needs of industries ranging from defense to satellite communication. Our commitment to quality, performance, and sustainability drives every product we create, ensuring exceptional value for our clients.

Specialized Manufacturing

522

www.specializedmfg.com



We are a contract manufacturing company with a full range of services in electrical cable/harness assembly and precision sheet metal fabrication. We have been in business for over 20 years providing products for aircraft and other high-tech equipment and have the capabilities to prototype and manufacture your unique project.

Surgestreams

728

www.surgestreams.com



Surgestreams has pioneered IT services in New York since 2018, consistently delivering business value with the latest technology.

Taber Industries

520

www.taberindustries.com



Taber Industries is a world leader in the design and manufacture of high reliability Pressure Transducers and Materials Test & Measurement Instruments. Taber pressure measurement products are engineered for hostile and high-reliability environments (space, satellite, aerospace, military applications) along with demanding scientific and industrial markets (national labs, steel rolling mills, marine). Taber's history of providing high-quality instrumentation for critical pressure measurement applications has involved Taber transducers in countless programs involving life support, ground support, and flight hardware for space, aviation systems and testing, and military vehicle applications.

Tec-Masters, Inc.

322

www.tecmasters.com



Tec-Masters, Inc. (TMI), driven by innovation and creative problem-solving, offers tailored solutions for diverse clients through multidisciplinary teamwork. We excel in digital engineering, prototyping, and training, supporting both military and civilian personnel. Our adaptability and expertise in experimentation, wargaming, and distributed simulations keep us at the forefront of emerging technologies, making us a trusted partner in an

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ever-changing world. "Where Technology Meets Imagination" embodies Tec-Masters' commitment to groundbreaking collaboration and exceptional results.

TechnoMile

614

www.technomile.com



TechnoMile is relied upon by GovCon, aerospace and defense, and other types of companies doing business with the government, providing a transformative cloud platform for go-to-market through contract closeout that elevates enterprise performance and provides an information advantage.

Tecplot

605

www.tecplot.com



Tecplot empowers those working fluid dynamics to discover, analyze and understand information in complex data. Whether performing simulations or experiments, visualization provides insight and understanding hidden inside your data. This information can be critical in pinpointing and solving problems, optimizing designs, and in explaining physical observations. Professional, high-resolution images and animations can be exported to help you effectively communicate your results to others.

Toray Group

707

www.toray.us/



Toray is the global leader in next-generation composite materials, pioneering advancements in aerospace, defense, automotive, industrial, and consumer markets. With a steadfast commitment to innovation and quality, Toray delivers cutting-edge solutions tailored to enhance customers' competitive edge. Toray's extensive portfolio - TORAYCA™ carbon fiber, thermoset prepreg, and thermoplastic composite materials - supports all stages of production from prototyping to high volume manufacturing and are recognized for their performance, quality, and consistency in processing. Backed by state-of-the-art manufacturing facilities worldwide, including carbon-free zones for sensitive applications, Toray upholds stringent quality standards such as ISO 14001:2015, AS9100, and Nadcap certifications. Toray is committed to sustainability and societal impact, and continues to shape a better future through technological excellence and global partnerships.

University of Central Florida Foundation, Inc.

705

<https://ucffoundation.org/>

Founded in 1969, the UCF Foundation, Inc., is a 501(c)(3) nonprofit organization. Led by a volunteer board of directors and staffed by more than 100 professionals including fundraisers, information experts, accountants, communicators and more, today's foundation works with donors to the University of Central Florida to help them maximize the impact of gifts ranging from \$5 to many millions. Gifts are used to fund student scholarships, invest in faculty excellence, construct new facilities, expand important programs and much more.



UNIVERSITY OF
CENTRAL FLORIDA

University of Kansas Jayhawk Global

436

<https://jayhawkglobal.ku.edu/>



Jayhawk Global provides an engaging, accessible educational experience you can access anywhere around the world by bringing the exceptional educational programming you've come to expect from the University of Kansas and its renowned faculty and supportive student guidance.

University of Southern California Viterbi School of Engineering

512

<https://viterbigradadmission.usc.edu>



The University of Southern California, Viterbi School of Engineering offers 40+ graduate programs entirely online including the Masters and Graduate Certificate programs in Astronautical Engineering. These programs encompass the dynamic and cutting-edge field of advanced space technology, with a unique focus on spacecraft engineering.

Valcor Engineering Corporation

413

www.valcor.com



Valcor Engineering Corporation (www.valcor.com), founded in 1951, designs and manufactures solenoid valves and control components for liquids and gases in critical applications in the aerospace, nuclear, light industrial and scientific industries. Headquartered in Springfield, New Jersey, Valcor's world-class staff of engineers, designers, and technical support personnel utilize fully-equipped, modern test facilities to test the most precise and exacting standards.

Valcor Aerospace specializes in the design and manufacture of custom valves and control components (solenoid, relief, check, fill & drain valves, pressure regulators, accumulators, actuators) for liquids (propellants and fuel) and gases in critical aerospace (launch vehicle, missile, spacecraft, etc.) applications.

ValveTech, Inc.

637

www.valvetech.net



From the ocean depths to deep space and everything in between, ValveTech provides custom, precision fluid control components and systems. Both our product line and workforce are diverse and capable of solving difficult fluid management problems.

Our products are used across, above and beneath the world in spacecraft and satellites, launch vehicles, missiles, commercial and military aircraft, submersibles, fuel cells, high rise buildings, high technology development programs, laser systems and many other applications that require precision fluid control.

Volcano Platforms Inc.

631

www.volcanoplatforms.com



Volcano Platforms Inc., is an early-stage technology startup that focuses on providing solutions for physics-based SaaS modeling and simulations to accelerate digital transformation of physical prototyping to predictive, fast, and cost-effective

EXHIBITORS

computing. We provide the missing piece in digital-twin for industrial research & development. Our secret sauce is breakthrough-fast algorithms combining rapid pre- and post-processing with high-fidelity modeling. Volcano ScaLES exploits graphics co-processors to complete in hours what now takes weeks. Initial products will be targeting Aerospace & Defense, Automotive, Emerging Urban Air Mobility, and Space Vehicles market segments.

Western Michigan University College of Engineering and Applied Sciences

430

www.wmich.edu/construction-research



WESTERN MICHIGAN UNIVERSITY
College of Engineering
and Applied Sciences

Western Michigan University's College of Engineering and Applied Sciences is located at the heart of the University's Parkview Campus. The 343,000-square-foot facility was completed in the fall of 2003. The \$100 million high-tech academic facility is the University's largest.

ZEISS Industrial Quality Solutions

308

www.zeiss.com

ZEISS

ZEISS is an internationally leading technology enterprise operating in the optics and optoelectronics industries. As a company wholly owned by a foundation, ZEISS is rooted in and committed to responsibility in all its activities. As the pioneer of scientific optics, we continue to challenge the limits of human imagination. With our passion for excellence we create value for our customers and inspire the world to see in new ways.

Zero Hour Parts

609

www.zerohourparts.com



Zero Hour Parts has built a storied reputation for providing the fastest turnarounds for all of your machining needs. For consistently high-quality, rapid results, Zero Hour is always ready to deliver.

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Phuriwat Anusonti-Inthra, U. S. Army CCDC

Craig Reimann, RTX

Geoffrey Jeram, U.S. Army CCDC

PROGRAM

MONDAY, 21 JULY

7:30–8 a.m.	Session Rooms	SP-01	Technical Papers Speaker Prep
8–9 a.m.	Academy 407	PLNRY-01	Aviation in 2050
9–9:30 a.m.	Summit Ballroom Foyer	CB-01	Coffee Break
9:30–11:30 a.m.	Academy 407	F360-01	Aviation in 2050
9:30–11:30 a.m.	Academy 412	AERO-02	Early Use Cases for AAM Multi-Modal Integration, Part I
9:30–11:30 a.m.	Academy 419	FD-01	In Memory of Peter Bradshaw
10:30–12 p.m.	Summit 208	AIAA-01	Meet the Universities
1–2 p.m.	Alliance 309	FL-12	NASA Interns Present
1–2:30 p.m.	Alliance 309	FD-53	Fluid Dynamics Award Lecture
1–3 p.m.	Academy 412	AERO-01	Sustainable Aviation Workshop: Defining the Future Scenario
1–3 p.m.	Alliance 314	GT-03/APA-09/ AMT-01/CFD2030-03	Meet the Turbulence Measurers
1:30–3 p.m.	Academy 407	F360-02	International Cooperation for 2050
3–3:30 p.m.	Expo Hall	CB-02	Coffee Break
3–5 p.m.	Summit 207	AIAA-02	Meet the Employers
3:30–5 p.m.	Academy 407	F360-03	Aviation Concept Visions for 2050
3:30–5:30 p.m.	Alliance 306	HIST-02/ACD-03	The Aircraft Designers: A Northrop Grumman Historical Perspective
3:30–5:30 p.m.	Academy 412	AERO-03	Early Use Cases for AAM Multi-Modal Integration, Part II
5:30–6:30 p.m.	Academy 309	APA-22	Applied Aerodynamics Award Lecture
5:30–7 p.m.	Academy 407	AA-10	CEAS Aeroacoustics Award Lecture
7–8 p.m.	Summit 208	AIAA-03	AVIATION/ASCEND 101

TUESDAY, 22 JULY

7:30–8 a.m.	Session Rooms	SP-02	Technical Papers Speaker Prep
8–9 a.m.	Academy 407	PLNRY-02	Breaking Down the System
9–9:30 a.m.	Expo Hall	CB-03	Coffee Break
9:30–11 a.m.	Summit 227	FD-08	Integrating Artificial Intelligence/Machine Learning and CFD
9:30–11:30 a.m.	Academy 407	F360-04	Connective and Collaborative Airspace
9:30–11:30 a.m.	Alliance 305	LTA-04	History of LTA Vehicles
9:30–11:30 a.m.	Academy 412	AERO-04	Sustainable Aviation Workshop: Sustainability Challenges of Energy Systems
9:30–11:30 a.m.	Academy 419	FD-10	Special Session Commemorating Contributions of Mike Holden
9:30–11:30 a.m.	Alliance 313	CSS-01	Zero Trust Airspace: Enhancing Cybersecurity in the Aviation Domain
9:30–11:30 a.m.	Alliance 307	GT-06	NPAT Wind Tunnel Community Forum
11:30 a.m.–1 p.m.	Expo Hall	LUNCH-01	Luncheon
1–2 p.m.	Academy 407	F360-05	Is Technical Fellow Your Destiny? A Discussion with Lockheed Martin Sr. Fellows
1–3 p.m.	Academy 412	AERO-05	Aero Mobility Hubs for Seamless Integration into Multi-Modal Transportation
1–3 p.m.	Summit 225	GT-08/APA-17/AMT-02/ CFD2030-04	Meet the Turbulence Modelers
2–4 p.m.	Summit 229	AIAA-04	Rising Leaders in Aerospace: Young Professionals Panel and Social Hour
3–3:30 p.m.	Expo Hall	CB-04	Coffee Break
3:30–5 p.m.	Academy 407	F360-06	Growing the Industry: What Investors Are Thinking
3:30–5:30 p.m.	Alliance 305	LTA-05	Airship Operations

PROGRAM

3:30–5:30 p.m.	Academy 412	AERO-06	Sustainable Aviation Workshop: Sustainability Challenges of Airspace Operations and Safety
5:45–6:30 p.m.	Academy 407	AWARDS-01	Awards Recognition Ceremony
6:30–7:30 p.m.	Summit Ballroom/Expo Hall	HH-01	Aero + Space Reception

WEDNESDAY, 23 JULY

7:30–8 a.m.	Session Rooms	SP-03	Technical Papers Speaker Prep
8–9 a.m.	Academy 407	PLNRY-03	Powering the Transition
9–9:30 a.m.	Expo Hall	CB-05	Coffee Break
9:30–11:30 a.m.	Academy 407	F360-07	Efficiency: Analyzing the Impact
9:30–11:30 a.m.	Alliance 305	FD-16	Data-driven Reduced-Complexity Modeling of Fluid Flows: A Community Challenge
11:30 a.m.–1 p.m.	Summit Ballroom/Expo Hall	LUNCH-02	Luncheon
11:45 a.m.–12:45 p.m.	Academy 407	LECTURE-01	2025 AIAA Wright Brothers Lectureship in Aeronautics
1–2 p.m.	Academy 412	AERO-08	FlightPath – Charting a Path to the Future of Aviation
1–3 p.m.	Summit 229	AIAA-05	Rising Leaders in Aerospace: Speed Mentoring
1–4 p.m.	Alliance 305	FD-54	Flow Control Open Forum
1–4 p.m.	Summit Ballroom/Expo Hall	FVS-01	Flow Visualization Showcase
1:30–3 p.m.	Academy 407	F360-08	The Future Takes Shape: Bringing the JetZero Blended Wing Body Aircraft to Market
2–3 p.m.	Academy 412	AERO-09	U.S.-Saudi Business Council – AAM Trade Mission
3–3:30 p.m.	Expo Hall	CB-06	Coffee Break
3:30–5 p.m.	Academy 407	F360-09	Developing Propulsion Systems for 2050
3:30–5 p.m.	Alliance 309	AA-26	AIAA Aeroacoustics Award Lecture
3:30–5:30 p.m.	Academy 412	AERO-10	Sustainable Aviation Workshop: Operational Energy, Resiliency, and Efficiency Challenges in Military Aviation
3:30–5:30 p.m.	Alliance 313	GT-12	Ground Test Facility Capabilities
5:30–7 p.m.	Alliance 306	FT-04	Chanute Award Lecture
6:30–9:30 p.m.	Fogo de Chão Las Vegas	AA-27	Aeroacoustics Conference Dinner

THURSDAY, 24 JULY

7:30–8 a.m.	Session Rooms	SP-04	Technical Papers Speaker Prep
8–9 a.m.	Academy 407	PLNRY-04	Injecting Intelligence
9–9:30 a.m.	Expo Hall	CB-07	Coffee Break
9:30–11 a.m.	Academy 407	F360-10	Injecting Intelligence in Military Programs
9:30–11:30 a.m.	Summit 227	AA-29	Hybrid Anechoic Wind Tunnel Workshop I
9:30–11:30 a.m.	Academy 412	AERO-12	Communication, Navigation, Surveillance and Security for Advanced Air Mobility Workshop
9:30–11:30 a.m.	Alliance 306	ACD-13	Special Session: Egbert Torenbeek Memorial Session
9:30–11:30 a.m.	Alliance 313	GT-14/APA-36/AMT-03/ CFD2030-05	Turbulence Modelling and Measuring for CFD Validation
9:30 a.m.–5:30 p.m.	Academy 418	HSABP-06	How to Design a Scramjet Flow-Path
10–11:30 a.m.	Summit 229		Rising Leaders in Aerospace: Professional Development Workshop
1–3 p.m.	Summit 227	AA-34	Hybrid Anechoic Wind Tunnel Workshop II
1–3 p.m.	Academy 412	AERO-11	Sustainable Aviation Workshop: Sustainability Challenges of Aircraft Technology

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Design of Gas Turbine Engines: From Concept to Details

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 Starts 7 October

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 Starts 6 October

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 Starts 20 October

Launch Vehicle Coupled Loads Analysis: Theory and Approaches

 Starts 4 November

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Fundamentals of Space Domain Awareness: An Introduction to Safe Operations, Security and Defense

 Starts 3 September

Hypersonic Aerothermodynamics

 Starts 16 September

Space Domain Awareness: A Comprehensive Guide to Safe Operations, Security and Defense

 Starts 22 September

Fundamentals of Astrodynamics for Space Missile Defense

 Starts 30 September

Weapons Bay Cavity and Store Separation

 Starts 14 October

Scramjet Propulsion: The Systems and Technologies to Enable Hypersonic Flight

 Starts 21 October



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PROGRAM

1–3 p.m.	<i>Alliance 305</i>	FD-32	Transition Open Forum
1–3 p.m.	<i>Academy 407</i>	F360-11	Aviation: Revolutionizing Disaster Relief
3–3:30 p.m.	<i>Expo Hall</i>	CB-08	Coffee Break
3:30–4:30 p.m.	<i>Academy 412</i>	AERO-13	High-Speed Task Force Committee Meeting
3:30–5 p.m.	<i>Academy 407</i>	F360-12	AI Certification: Busting the Myth
3:30–5 p.m.	<i>Alliance 310</i>	AA-37	Panel Discussion: Overview of NASA's Acoustic Damping Capstone Project (Invited)
3:30–5:30 p.m.	<i>Alliance 313</i>	GT-16	RDT&E Ground Test Workforce Challenges: Individual and Organizational Responsibilities for People Development Part 2
4:30–5:30 p.m.	<i>Summit 225</i>	PDL-02	Plasmadynamics and Lasers Award Lecture
5:30–6:30 p.m.	<i>Academy 407</i>	AA-40	Aeroacoustics Keynote Lecture

FRIDAY, 25 JULY

7:30–8 a.m.	<i>Session Rooms</i>	SP-05	Technical Papers Speaker Prep
8–9 a.m.	<i>Forum 128</i>	PLNRY-05	The X-59: A High-Speed Journey from Finite Element Models to Aeroservoelasticity
9–9:30 a.m.	<i>Summit Ballroom Foyer</i>	CB-09	Coffee Break
9:30–11 a.m.	<i>Forum 128</i>	F360-13	Changing the Fleet

FLIGHT LAB SESSIONS

MONDAY, 21 JULY

1–2 p.m.	<i>Alliance 309</i>	FL-12	NASA Interns present...
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TUESDAY, 22 JULY

2–3 p.m.	<i>Alliance 309</i>	FL-02	Carbon Emissions and Sustainability in Aviation
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WEDNESDAY, 23 JULY

9:30–11 a.m.	<i>Alliance 309</i>	FL-03	High Altitude Operations: Unlocking the Stratosphere's Potential
1–2 p.m.	<i>Alliance 309</i>	FL-04	Flight Centric ATC - A New Way to Structure the Airspace
2–3 p.m.	<i>Alliance 309</i>	FL-09	The Future Flight Tester: Meeting the Challenges

THURSDAY, 24 JULY

9:30–10:30 a.m.	<i>Alliance 309</i>	FL-05	Path to Autonomy in Aviation: Lessons from Simulation Systems, Autonomous Driving, and Connected Vehicle Platforms
10:30–11:30 a.m.	<i>Alliance 309</i>	FL-10	Advanced Architectures for Motor Drive Systems in Electric Vertical Take-Off and Landing (eVTOL) Aircraft
1–2 p.m.	<i>Alliance 309</i>	FL-06	AI and Predictive Maintenance in Aeronautics
2–3 p.m.	<i>Alliance 309</i>	FL-07	Expansion and Security of Aviation Fuel Availability Globally
3:30–5 p.m.	<i>Alliance 309</i>	FL-08	Embracement Instead of Acceptance: The Tangible Steps Needed to Improve Public Perception of Advanced Air Mobility

AERONAUTICS DOMAIN WORKSHOPS

Monday, 21 July

AERO-01: Sustainable Aviation Workshop: Defining the Future Scenario

1–3 p.m.

Academy 412

Phil Ansell, Sustainability IOD Chair, University of Illinois Urbana-Champaign

Kicking off the 2025 AIAA Sustainable Aviation Workshop, this session will establish the future aviation scenario that will be utilized throughout subsequent workshop sessions. It also will provide a review of the 2024 Sustainable Aviation Workshop and an overview of sessions scheduled throughout the week.

AERO-02: Early Use Cases for AAM Multi-Modal Integration, Part I

9:30–11:30 a.m.

Academy 412

Husni Idris, NASA Ames & Vishwanath Bulusu, Crown Consulting

This workshop seeks to identify the challenges of integrating AAM operations (and aviation in general) as part of a multi-modal transportation system, such as passenger connectivity, urban planning, mobility hub development, vehicle automation, data privacy, and policy implications. Specific real-world use case development will be examined for a deep dive into innovation areas that inform the advancement of AAM and the integration across multiple related disciplines.

The outcomes will empower stakeholders to collaboratively envision a future of seamless, sustainable, and efficiently integrated transportation systems.

AERO-03: Early Use Cases for AAM Multi-Modal Integration, Part II

3:30–5:30 p.m.

Academy 412

Husni Idris, NASA Ames & Vishwanath Bulusu, Crown Consulting

Attendees will gain detailed insights into the challenges and opportunities through a deep dive into current real-world use cases where stakeholders are dabbling with them. The outcomes will empower stakeholders to collaboratively envision a future of seamless, sustainable, and efficiently integrated transportation systems.

Tuesday, 22 July

AERO-04: Sustainable Aviation Workshop: Sustainability Challenges of Energy Systems

9:30–11:30 a.m.

Academy 412

Phil Ansell, Sustainability IOD Chair, University of Illinois Urbana-Champaign

Integrating renewable energy systems into aviation applications is a pivotal component of fostering sustainability. Between challenges of infrastructure compatibility, scalability of production pathways, regulatory and airworthiness certification of alternate fuels, and lofty capital investment requirements, a great deal of work will be necessary to ensure aviation has access and safe use of clean energy systems. A panel will discuss the opportunity spaces for further innovation and development for clean energy integration on aircraft. Attendees then will be gathered in small groups to discuss and inform the developments necessary to achieve a future vision of clean energy systems for aircraft.

AERO-05: Aero Mobility Hubs for Seamless Integration into Multi-Modal Transportation

1–3 p.m.

Academy 412

Husni Idris, NASA Ames & Vishwanath Bulusu, Crown Consulting

This panel discussion seeks to identify technological, regulatory, policy, and urban planning challenges to the seamless integration of aviation solutions such as AAM as part of a multi-modal transportation system. How can existing and new airports enable the seamless transfer of passengers, cargo, and energy between multiple modes of a transportation network? The discussion will focus on the role of these new Aero Mobility Hubs and identify the roadmap toward developing them.

AERO-06: Sustainable Aviation Workshop: Sustainability Challenges of Airspace Operations and Safety

3:30–5:30 p.m.

Academy 412

Phil Ansell, Sustainability IOD Chair, University of Illinois Urbana-Champaign

Recent developments in pre-departure trajectory optimization have revealed how airspace operations can have an immediate impact on aviation sustainability goals. Additional concepts that may impact future climate effects of aviation, such as trajectory design to limit non-CO₂ emission impacts, will require further consideration and development. A panel of operations experts from across government, industry, and academic groups will provide insights into the opportunity space for further development in airspace operations and safety. Attendees then will be gathered in small groups to discuss and inform the developments necessary to achieve a future vision of efficient, sustainable aircraft operations.

Wednesday, 23 July

AERO-08: FlightPath– Charting a Path to the Future of Aviation

1–2 p.m.

Academy 412

AIAA Aeronautics Domain leadership will present highlights from the past year in AAM, sustainability, and high-speed flight, and invite a town hall atmosphere for new participant feedback and engagement. This is your chance to highlight activities/actions that the AIAA can work to advance.

AERO-09: U.S.-Saudi Business Council – AAM Trade Mission

2–3 p.m.

Academy 412

A briefing regarding the Kingdom of Saudi Arabia's investment in AAM.

AERO-10: Sustainable Aviation Workshop: Operational Energy, Resiliency, and Efficiency Challenges in Military Aviation

3:30–5:30 p.m.

Academy 412

Phil Ansell, Sustainability IOD Chair, University of Illinois Urbana-Champaign

The national security implications of climate change have been documented as early as the 2000s when climate change was first described as a threat multiplier. The potential benefits of accounting for climate change include improving the resiliency of U.S. military installations, furthering mission capabilities, and ensuring force readiness. Many of the levers available to tackle climate change in civil aviation translate to military aviation; however, there are unique aspects of military aviation that need to be considered. Following a panel discussion, attendees will be gathered in small groups to discuss and inform the developments necessary to foster sustainability within military aviation systems.

Thursday, 24 July

AERO-12: Communication, Navigation, Surveillance and Security for Advanced Air Mobility Workshop

9:30–11:30 a.m.

Academy 412

Samantha Magill, NASA

Communication, navigation, surveillance (CNS) and security are widely recognized as key components of AAM. Over the past several years, identifying candidate CNS and security research efforts and requirements that would yield notable impacts has proven challenging. NASA will host an open workshop to bring a broad community together as well as invited stakeholders. Content format will be varied to best represent and inform the complexity of this issue and need for consensus.

AERO-11: Sustainable Aviation Workshop: Sustainability Challenges of Aircraft Technology

1–3 p.m.

Academy 412

Phil Ansell, Sustainability IOD Chair, University of Illinois Urbana-Champaign

Representatives from across the aviation technology ecosystem will provide perspectives regarding the improvements in airframe, propulsion, and subsystem efficiencies that can be expected across a 2050 time horizon by technology maturation. This panel will lead into an audience-engaged workshop, where small groups are convened to discuss and inform what specific developments are anticipated and necessary to meet these future efficiency goals.

TECHNICAL SESSIONS

AEROACOUSTICS

Monday	9:30–11:30 a.m.	Alliance 310	AA-01/TF-01	Advanced Air Mobility Noise I
Monday	9:30–11:30 a.m.	Alliance 311	AA-02	Jet Aeroacoustics I
Monday	9:30–11:30 a.m.	Alliance 308	AA-03	Special Session: IFAR Acoustic Liner Research
Monday	1–3 p.m.	Alliance 310	AA-04/TF-03	Advanced Air Mobility Noise II
Monday	1–3 p.m.	Alliance 311	AA-05	Jet Aeroacoustics II
Monday	1–3 p.m.	Alliance 308	AA-06/FD-03	Sonic Boom
Monday	3:30–5:30 p.m.	Alliance 310	AA-07/TF-05	Advanced Air Mobility Noise III
Monday	3:30–5:30 p.m.	Alliance 311	AA-08	Jet Aeroacoustics III
Monday	3:30–5:30 p.m.	Alliance 308	AA-09	Propeller, Rotorcraft, and Wind Turbine Noise I
Monday	5:30–7:00 p.m.	Academy 407	AA-10	CEAS Aeroacoustics Award Lecture
Tuesday	9:30–11:30 a.m.	Alliance 310	AA-11	Airframe/High-Lift Noise and Computational Aeroacoustics I
Tuesday	9:30–11:30 a.m.	Alliance 308	AA-13/FD-09	Reduced-Order Modeling and Machine Learning for Fluid Dynamics and Aeroacoustics
Tuesday	1–3 p.m.	Alliance 308	AA-14	Acoustics/Fluid Dynamics Interactions I
Tuesday	1–3 p.m.	Alliance 310	AA-15	Airframe/High-Lift Noise and Computational Aeroacoustics II
Tuesday	1–3 p.m.	Alliance 311	AA-16	Jet Aeroacoustics IV
Tuesday	3:30–5:30 p.m.	Alliance 308	AA-17	Acoustics/Fluid Dynamics Interactions II
Tuesday	3:30–5:30 p.m.	Alliance 310	AA-18	Interior Noise / Structural Acoustics and Metamaterials and Flight Vehicle Community Noise
Tuesday	3:30–5:30 p.m.	Alliance 311	AA-19	Propeller, Rotorcraft, and Wind Turbine Noise II
Wednesday	9:30–11:30 a.m.	Alliance 310	AA-20	Flight Vehicle Community Noise
Wednesday	9:30–11:30 a.m.	Alliance 311	AA-21	Propeller, Rotorcraft, and Wind Turbine Noise III
Wednesday	1–3 p.m.	Alliance 308	AA-23	Acoustics/Fluid Dynamics Interactions III
Wednesday	1–3 p.m.	Alliance 311	AA-25	Propeller, Rotorcraft, and Wind Turbine Noise IV
Wednesday	3:30–5 p.m.	Alliance 309	AA-26	AIAA Aeroacoustics Award Lecture
Wednesday	6:30–9:30 p.m.	Fogo de Chao Las Vegas	AA-27	Aeroacoustics Conference Dinner
Thursday	9:30–11:30 a.m.	Alliance 308	AA-28	Computational Aeroacoustics III
Thursday	9:30–11:30 a.m.	Summit 227	AA-29	Hybrid Anechoic Wind Tunnel Workshop I
Thursday	9:30–11:30 a.m.	Alliance 311	AA-30	Propeller, Rotorcraft, and Wind Turbine Noise V
Thursday	9:30–11:30 a.m.	Alliance 310	AA-31	Turbomachinery and Core Noise I
Thursday	1–3 p.m.	Alliance 308	AA-32	Acoustics/Fluid Dynamics Interactions IV
Thursday	1–3 p.m.	Summit 227	AA-34	Hybrid Anechoic Wind Tunnel Workshop II
Thursday	1–3 p.m.	Alliance 311	AA-35	Propeller, Rotorcraft, and Wind Turbine Noise VI
Thursday	3:30–5:30 p.m.	Summit 227	AA-36	Duct Acoustics / Turbomachinery and Core Noise II
Thursday	3:30–5 p.m.	Alliance 310	AA-37	Panel Discussion: Overview of NASA's Acoustic Damping Capstone Project (Invited)
Thursday	3:30–5:30 p.m.	Alliance 311	AA-38	Propeller, Rotorcraft, and Wind Turbine Noise VII
Thursday	5:30–6:30 p.m.	Academy 407	AA-40	Aeroacoustics Keynote Lecture

AERODYNAMIC MEASUREMENT TECHNOLOGY

Monday	1–3 p.m.	Alliance 314	GT-03/APA-09/AMT-01/CFD2030-03	Meet the Turbulence Measurers
Tuesday	1–3 p.m.	Summit 225	GT-08/APA-17/AMT-02/CFD2030-04	Meet the Turbulence Modelers
Thursday	9:30–11:30 a.m.	Alliance 313	GT-14/APA-36/AMT-03/CFD2030-05	Turbulence Modelling and Measuring for CFD Validation

TECHNICAL SESSIONS

AEROSPACE TRAFFIC MANAGEMENT

Tuesday	9:30–11:30 a.m.	Academy 415	TF-06/ATM-01/ UAS-07	Airspace and Autonomy for Transformational Vehicle Designs and Operations
Tuesday	1–3 p.m.	Summit 227	ATM-02	Advanced Air Mobility and Innovative Approaches
Tuesday	3:30–5:30 p.m.	Summit 227	ATM-03	Advanced Air Mobility Operations and Enabling Technologies

AIR TRANSPORTATION SYSTEMS

Monday	9:30–11:30 a.m.	Summit 226	ATS-01	Advanced Operational Concepts for ATM
Monday	1–3 p.m.	Summit 226	ATS-02	Sustainable Aviation
Monday	3:30–5:30 p.m.	Summit 226	ATS-03	UAS Operations
Tuesday	9:30–11:30 a.m.	Summit 226	ATS-04	Advanced Air Mobility I
Tuesday	1–3 p.m.	Summit 226	ATS-05	Modeling and Simulation of ATM Technologies and Procedures
Wednesday	9:30–11:30 a.m.	Summit 226	ATS-07	ML/AI in Air Transportation I
Wednesday	1–3 p.m.	Summit 226	ATS-08	ML/AI in Air Transportation II
Wednesday	3:30–5:30 p.m.	Summit 226	ATS-09	ML/AI in Air Transportation III
Thursday	9:30–11:30 a.m.	Summit 226	ATS-10	Air Transportation Safety and Reliability
Thursday	1–3 p.m.	Summit 226	ATS-12	ML/AI in Air Transportation IV
Thursday	3:30–5:30 p.m.	Summit 226	ATS-13	Advanced Air Mobility II
Friday	9:30–11:30 a.m.	Summit 211	ATS-14	Flight Planning, Operations, and Decision Making

AIRCRAFT DESIGN

Monday	9:30–11:30 a.m.	Alliance 304	ACD-01	Unique Missions
Monday	1–3 p.m.	Alliance 304	ACD-02	Novel Propulsion Systems and Subsystems
Monday	3:30–5:30 p.m.	Alliance 304	ACD-04	Transport Category Aircraft Design
Tuesday	9:30–11:30 a.m.	Alliance 304	ACD-05	High Speed Aircraft Design
Tuesday	1–3 p.m.	Alliance 304	ACD-06	Aerodynamic Technologies for Design
Tuesday	3:30–5:30 p.m.	Alliance 306	ACD-07	Hydrogen Powered Aircraft Concepts
Wednesday	9:30–11:30 a.m.	Alliance 306	DE-02/ACD-08	Design Methods, Tools, and Processes for Air Vehicles
Wednesday	9:30–11:30 a.m.	Alliance 304	ACD-09	Stability, Control and Flying Qualities
Wednesday	1–3 p.m.	Alliance 304	ACD-10	Aircraft Operational and Systems Studies I
Wednesday	3:30–5:30 p.m.	Alliance 304	ACD-11	Aircraft Operational and Systems Studies II
Thursday	9:30–11:30 a.m.	Alliance 304	ACD-12	Aircraft Structural Design
Thursday	9:30–11:30 a.m.	Alliance 306	ACD-13	Special Session: Egbert Torenbeek Memorial Session
Thursday	1–3 p.m.	Alliance 304	APA-37/ACD-14	Airfoil/Wing/Configuration Aerodynamics I
Thursday	1–3 p.m.	Alliance 306	ACD-15/TF-11	Environment to Design and Analyze Advanced Aircraft and Propulsion Systems
Thursday	3:30–5:30 p.m.	Alliance 304	APA-40/ACD-16	Airfoil/Wing/Configuration Aerodynamics II
Thursday	3:30–5:30 p.m.	Alliance 306	ACD-17/TF-12	EVTOL

APPLIED AERODYNAMICS

Monday	9:30–11:30 a.m.	Alliance 301	APA-01/MDO-01	Aerodynamic Design I
Monday	9:30–11:30 a.m.	Alliance 302	APA-02	Aerodynamic Flow Control I
Monday	9:30–11:30 a.m.	Alliance 303	APA-03	Aero-Propulsive Interactions and Aerodynamics of Integrated Propeller Systems I
Monday	9:30–11:30 a.m.	Alliance 313	MVCE-01/APA-04	Meshing Strategies and Workflows
Monday	1–3 p.m.	Academy 415	APA-07/GT-02	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing I
Monday	1–3 p.m.	Alliance 303	APA-08	Aero-Propulsive Interactions and Aerodynamics of Integrated Propeller Systems II

TECHNICAL SESSIONS

Monday	1–3 p.m.	Alliance 314	GT-03/APA-09/ AMT-01/ CFD2030-03	Meet the Turbulence Measurers
Monday	3:30–5:30 p.m.	Alliance 302	APA-10	Aerodynamic Flow Control II
Monday	3:30–5:30 p.m.	Academy 415	APA-11	DPW-8/AePW-4: Overview and Recent Progress
Monday	3:30–5:30 p.m.	Alliance 301	APA-12	Propeller/Rotorcraft/Wind Turbine Aerodynamics I
Tuesday	9:30–11:30 a.m.	Alliance 302	APA-13/MDO-03	Aerodynamic Design II
Tuesday	9:30–11:30 a.m.	Alliance 301	APA-14/GT-05	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing II
Tuesday	1–3 p.m.	Alliance 301	APA-15	Applied Aeroelasticity and Fluid-Structure Interaction
Tuesday	1–3 p.m.	Summit 225	GT-08/APA-17/ AMT-02/ CFD2030-04	Meet the Turbulence Modelers
Tuesday	3:30–5:30 p.m.	Alliance 302	APA-18	APA Student Paper Competition
Tuesday	3:30–5:30 p.m.	Academy 415	APA-20	DPW-8/AePW-4: High-Speed Working Group
Tuesday	3:30–5:30 p.m.	Alliance 301	APA-21	Propeller/Rotorcraft/Wind Turbine Aerodynamics II
Monday	5:30–6:30 p.m.	Alliance 309	APA-22	Applied Aerodynamics Award Lecture
Wednesday	9:30–11:30 a.m.	Alliance 301	APA-24/FD-15	CFD Methods for Aerodynamic Applications I
Wednesday	9:30–11:30 a.m.	Academy 419	APA-25/FD-17	Hypersonic Aerodynamics I
Wednesday	9:30–11:30 a.m.	Academy 415	GT-10/APA-26	Special Session: CRM-HL Ecosystem
Wednesday	1–3 p.m.	Alliance 302	APA-27	Applied CFD: External Aerodynamics I
Wednesday	1–3 p.m.	Alliance 301	APA-28/FD-20	CFD Methods for Aerodynamic Applications II
Wednesday	1–3 p.m.	Academy 419	FD-21/APA-29	Hypersonic Aerodynamics II
Wednesday	3:30–5:30 p.m.	Alliance 302	APA-30	Applied CFD: External Aerodynamics II
Wednesday	3:30–5:30 p.m.	Academy 415	APA-31	DPW-8/AePW-4: Buffet Working Group - ONERA OAT15A Test Case
Wednesday	3:30–5:30 p.m.	Alliance 301	APA-32	Other Topics in Aerodynamics I
Thursday	9:30–11:30 a.m.	Alliance 301	APA-33	Other Topics in Aerodynamics II
Thursday	9:30–11:30 a.m.	Alliance 302	APA-34	Propeller/Rotorcraft/Wind Turbine Aerodynamics III
Thursday	9:30–11:30 a.m.	Alliance 313	GT-14/APA-36/ AMT-03/ CFD2030-05	Turbulence Modelling and Measuring for CFD Validation
Thursday	1–3 p.m.	Alliance 304	APA-37/ACD-14	Airfoil/Wing/Configuration Aerodynamics I
Thursday	1–3 p.m.	Alliance 301	APA-39/FD-33	Unsteady Aerodynamics and Massively Separated Flows I
Thursday	3:30–5:30 p.m.	Alliance 304	APA-40/ACD-16	Airfoil/Wing/Configuration Aerodynamics II
Thursday	3:30–5:30 p.m.	Academy 415	APA-41	DPW-8/AePW-4: Aeroelasticity Applications
Thursday	3:30–5:30 p.m.	Alliance 302	APA-42	Reduced Order Aerodynamics Modeling and System Identification
Thursday	3:30–5:30 p.m.	Alliance 301	APA-43/FD-36	Unsteady Aerodynamics and Massively Separated Flows II
Friday	9:30–11:30 a.m.	Forum 125	FD-42/APA-45	Unsteady Aerodynamics and Massively Separated Flows III
Friday	1–3 p.m.	Forum 121	FD-43/APA-46/ MST-05	CFD Methods for Applied Aerodynamics
Friday	1–3 p.m.	Forum 125	APA-47	Special Session: Cavity Flow Effects on Stores and Store Separation

ATMOSPHERIC AND SPACE ENVIRONMENTS

Monday	9:30–11:30 a.m.	Academy 416	ASE-01	Aircraft Wake Turbulence
Monday	1–3 p.m.	Academy 416	ASE-02	Atmospheric Environment
Tuesday	9:30–11:30 a.m.	Academy 416	ASE-03	AAM Icing I
Tuesday	1–3 p.m.	Academy 416	ASE-04	AAM Icing II
Tuesday	3:30–5:30 p.m.	Academy 416	ASE-05	AAM Icing III
Wednesday	9:30–11:30 a.m.	Academy 416	ASE-06	Airframe Icing I
Wednesday	1–3 p.m.	Academy 416	ASE-07	Airframe Icing II

TECHNICAL SESSIONS

Thursday	3:30–5:30 p.m.	Academy 416	ASE-10	GlennICE Development
Friday	9:30–11:30 a.m.	Summit 209	ASE-11	Facility and Instrumentation
Friday	1–3 p.m.	Summit 209	ASE-12	Ice Crystal Icing

CFD VISION 2030

Monday	9:30–11:30 a.m.	Summit 227	CFD2030-01	Machine Learning and Quantum Computing for CFD Applications
Monday	1–2:20 p.m.	Summit 227	CFD2030-02	Advances in Computing, Design and UQ Methodologies
Monday	1–3 p.m.	Alliance 314	GT-03/APA-09/ AMT-01/ CFD2030-03	Meet the Turbulence Measurers
Tuesday	1–3 p.m.	Summit 225	GT-08/APA-17/ AMT-02/ CFD2030-04	Meet the Turbulence Modelers
Thursday	9:30–11:30 a.m.	Alliance 313	GT-14/APA-36/ AMT-03/ CFD2030-05	Turbulence Modelling and Measuring for CFD Validation

CYBERSECURITY

Tuesday	9:30–11:30 a.m.	Alliance 313	CSS-01	Zero Trust Airspace: Enhancing Cybersecurity in the Aviation Domain
Tuesday	1–2 p.m.	Alliance 313	CSS-02	Cybersecurity for Autonomy and AI-Enabled Applications in Aviation

DESIGN ENGINEERING

Tuesday	1–3 p.m.	Alliance 306	DGE-03/DE-01	Data-Driven Approaches for Aerospace System Design and Analysis
Wednesday	9:30–11:30 a.m.	Alliance 306	DE-02/ACD-08	Design Methods, Tools, and Processes for Air Vehicles
Wednesday	1–3 p.m.	Alliance 306	DE-03	Innovative Aerospace Component Design, Prototyping, and Effectiveness
Wednesday	3:30–5:30 p.m.	Alliance 306	DE-04	AI and ML Applications for Aerospace Design

DIGITAL ENGINEERING

Tuesday	9:30–11:30 a.m.	Alliance 306	DGE-02	Enhancing Aviation Safety Analysis with Large Language Models
Tuesday	1–3 p.m.	Alliance 306	DGE-03/DE-01	Data-Driven Approaches for Aerospace System Design and Analysis

FLIGHT TESTING

Wednesday	9:30–11:30 a.m.	Academy 417	FT-01	Flight Testing I
Wednesday	1–3 p.m.	Academy 417	FT-02	Flight Testing II
Wednesday	3:30–5:30 p.m.	Academy 417	FT-03	Flight Testing III
Wednesday	5:30–7 p.m.	Alliance 306	FT-04	Chanute Award Lecture

FLOW VISUALIZATION SHOWCASE

Wednesday	1–4 p.m.	Summit Ballroom/Expo Hall	FVS-01	Flow Visualization Showcase
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FLUID DYNAMICS

Monday	9:30–11:30 a.m.	Academy 419	FD-01	In Memory of Peter Bradshaw
Monday	1–3 p.m.	Alliance 308	AA-06/FD-03	Sonic Boom
Monday	1–3 p.m.	Academy 419	FD-04	Turbulence Modeling and Applications I
Monday	3:30–5:30 p.m.	Alliance 303	FD-05	Boundary Layer Transition Modeling and Applications
Monday	3:30–5:30 p.m.	Academy 419	FD-06	Turbulence Modeling and Applications II
Tuesday	9:30–11:30 a.m.	Alliance 303	FD-07	Flow Control Devices and Applications I
Tuesday	9:30–11:30 a.m.	Summit 227	FD-08	Integrating Artificial Intelligence/Machine Learning and CFD
Tuesday	9:30–11:30 a.m.	Alliance 308	AA-13/FD-09	Reduced-Order Modeling and Machine Learning for Fluid Dynamics and Aeroacoustics
Tuesday	9:30–11:30 a.m.	Academy 419	FD-10	Special Session Commemorating Contributions of Mike Holden
Tuesday	1–3 p.m.	Alliance 303	FD-11	Flow Control Devices and Applications II
Tuesday	3:30–5:30 p.m.	Alliance 303	FD-14	Flow Control Devices and Applications III
Wednesday	9:30–11:30 a.m.	Alliance 301	APA-24/FD-15	CFD Methods for Aerodynamic Applications I

TECHNICAL SESSIONS

Wednesday	9:30–11:30 a.m.	Alliance 305	FD-16	Data-driven Reduced-Complexity Modeling of Fluid Flows: A Community Challenge
Wednesday	9:30–11:30 a.m.	Academy 419	APA-25/FD-17	Hypersonic Aerodynamics I
Wednesday	9:30–11:30 a.m.	Alliance 303	FD-19	Stability and Transition I
Wednesday	1–3 p.m.	Alliance 301	APA-28/FD-20	CFD Methods for Aerodynamic Applications II
Wednesday	11–3 p.m.	Academy 419	FD-21/APA-29	Hypersonic Aerodynamics II
Wednesday	1–3 p.m.	Alliance 303	FD-22	Stability and Transition II
Wednesday	3:30–5:30 p.m.	Academy 419	FD-23	CFD Methods for High-Speed Flows
Wednesday	3:30–5:30 p.m.	Alliance 303	FD-24	Stability and Transition III
Wednesday	3:30–5:30 p.m.	Alliance 308	FD-25	Turbulent Flows I
Thursday	9:30–11:30 a.m.	Alliance 303	FD-27	High-Order CFD Methods
Thursday	1–3 p.m.	Alliance 303	FD-30	Scale-Resolving Simulations with DNS/LES/Hybrid
Thursday	1–3 p.m.	Academy 419	FD-31	Supersonic/Hypersonic Flow Physics
Thursday	1–3 p.m.	Alliance 305	FD-32	Transition Open Forum
Thursday	1–3 p.m.	Alliance 301	APA-39/FD-33	Unsteady Aerodynamics and Massively Separated Flows I
Thursday	3:30–5:30 p.m.	Alliance 301	APA-43/FD-36	Unsteady Aerodynamics and Massively Separated Flows II
Thursday	3:30–5:30 p.m.	Alliance 305	FD-37	Vortex Dynamics and Rotating Flows
Friday	9:30–11:30 a.m.	Forum 121	FD-38	Data-Driven Methods for CFD
Friday	9:30–11:30 a.m.	Forum 122	FD-39	Multiphase Flows I
Friday	9:30–11:30 a.m.	Forum 123	FD-40	Shock-Boundary Layer Interactions I
Friday	9:30–11:30 a.m.	Forum 124	FD-41	Turbulent Flows II
Friday	9:30–11:30 a.m.	Forum 125	FD-42/APA-45	Unsteady Aerodynamics and Massively Separated Flows III
Friday	1–3 p.m.	Forum 121	FD-43/APA-46/MST-05	CFD Methods for Applied Aerodynamics
Friday	1–3 p.m.	Forum 122	FD-44	Multiphase Flows II
Friday	1–3 p.m.	Forum 123	FD-45	Novel CFD Methods and Algorithms for CFD
Friday	1–3 p.m.	Forum 124	FD-46	Shock-Boundary Layer Interactions II
Thursday	3:30–5:30 p.m.	Academy 419	FD-52	Wall-Modeling for Turbulence Flows
Wednesday	1–4 p.m.	Alliance 305	FD-54	Flow Control Open Forum
GENERAL AVIATION				
Monday	9:30–11:30 a.m.	Alliance 306	TF-02/GA-01	Safety and Certification of Transformational Vehicle Designs
Tuesday	9:30–11:30 a.m.	Academy 417	GA-02	General Aviation Sustainability
Tuesday	1–3 p.m.	Academy 417	GA-03	Improving General Aviation Safety, Affordability, Utility, and Experience
GROUND TESTING				
Monday	9:30–11:30 a.m.	Alliance 307	GT-01	Design, Development, and Performance of New/Modified Ground Test Facilities I
Monday	1–3 p.m.	Academy 415	APA-07/GT-02	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing I
Monday	1–3 p.m.	Alliance 314	GT-03/APA-09/AMT-01/CFD2030-03	Meet the Turbulence Measurers
Monday	3:30–5:30 p.m.	Alliance 307	GT-04	Design, Development, and Performance of New/Modified Ground Test Facilities II
Tuesday	9:30–11:30 a.m.	Alliance 301	APA-14/GT-05	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing II
Tuesday	9:30–11:30 a.m.	Alliance 307	GT-06	NPAT Wind Tunnel Community Forum
Tuesday	1–3 p.m.	Alliance 307	GT-07	Special Session Purdue – Stratolaunch: Wind Tunnel Experiments and Computational Modeling of the Talon-P Hypersonic Vehicle
Tuesday	1–3 p.m.	Summit 225	GT-08/APA-17/AMT-02/CFD2030-04	Meet the Turbulence Modelers

TECHNICAL SESSIONS

Wednesday	9:30–11:30 a.m.	Academy 415	GT-10/APA-26	Special Session: CRM-HL Ecosystem
Wednesday	3:30–5:30 p.m.	Alliance 312	GT-11	Flow Quality, Data Quality, and Uncertainty Quantification
Wednesday	3:30–5:30 p.m.	Alliance 313	GT-12	Ground Test Facility Capabilities
Thursday	9:30–11:30 a.m.	Alliance 312	GT-13	Other Topics in Ground Testing I
Thursday	9:30–11:30 a.m.	Alliance 313	GT-14/APA-36/ AMT-03/ CFD2030-05	Turbulence Modelling and Measuring for CFD Validation
Thursday	1–3 p.m.	Alliance 312	GT-15	Other Topics in Ground Testing II
Thursday	3:30–5:30 p.m.	Alliance 313	GT-16	RDT&E Ground Test Workforce Challenges: Individual and Organizational Responsibilities for People Development Part 2

GUIDANCE, NAVIGATION, AND CONTROL

Tuesday	3:30–5:30 p.m.	Summit 224	IS-03/GNC-01	GNC in Intelligent Systems
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HIGH-SPEED AIR BREATHING PROPULSION

Monday	9:30–11:30 a.m.	Academy 418	HSABP-01	High-Speed Combustion
Monday	3:30–5:30 p.m.	Academy 418	HSABP-02	High-Speed Propulsion System Design and Integration
Wednesday	3:30–5:30 p.m.	Academy 418	HSABP-05/INPSI-04	High-Speed Intake Systems
Thursday	9:30 a.m.–5:30 p.m.	Academy 418	HSABP-06	How to Design a Scramjet Flow-Path

HISTORY

Monday	11–3 p.m.	Summit 225	HIS-01	Aviation History
Monday	3:30–5:30 p.m.	Alliance 306	HIS-02/ACD-03	The Aircraft Designers A Northrop Grumman Historical Perspective by Michael V. Ciminera, AIAA Gardner-Lasser Aerospace History Literature Award Nominee

HUMAN MACHINE TEAMING

Thursday	1–3 p.m.	Summit 224	HMT-02	Human-Machine Teaming Investigations and Assessment Techniques
Thursday	3:30–5:30 p.m.	Summit 224	HMT-03	Tools and Methods to Support Human-Machine Teaming

INFORMATION SYSTEMS

Tuesday	9:30–11:30 a.m.	Summit 224	IS-01/ISG-01	Adaptive Systems and Sensor Systems
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INLETS, NOZZLES & PROPULSION SYSTEMS INTEGRATION

Monday	1–3 p.m.	Academy 418	INPSI-01	Supersonic and Subsonic Inlets
Tuesday	1–3 p.m.	Academy 418	INPSI-02	Engine Systems and Nozzles
Wednesday	1–3 p.m.	Academy 418	INPSI-03	Subsonic Diffusers, S-Ducts, and Distortion
Wednesday	3:30–5:30 p.m.	Academy 418	HSABP-05/ INPSI-04	High-Speed Intake Systems

INTELLIGENT SYSTEMS

Tuesday	9:30–11:30 a.m.	Summit 224	IS-01/ISG-01	Adaptive Systems and Sensor Systems
Tuesday	1–3 p.m.	Summit 224	IS-02	Learning, Reasoning, and Data Driven Systems
Tuesday	3:30–5:30 p.m.	Summit 224	IS-03/GNC-01	GNC in Intelligent Systems
Wednesday	9:30–11:30 a.m.	Summit 224	IS-04	Autonomous Systems I
Wednesday	1–3 p.m.	Summit 224	IS-05	Autonomous Systems II

LIGHTER-THAN-AIR-SYSTEMS

Monday	9:30–11:30 a.m.	Alliance 305	LTA-01	Design and Optimization (Low Altitude)
Monday	1–3 p.m.	Alliance 305	LTA-02	LTA Craft Operations and Testing
Monday	3:30–5:30 p.m.	Alliance 305	LTA-03	Design and Optimization (High Altitude)
Tuesday	9:30–11:30 a.m.	Alliance 305	LTA-04	History of LTA Vehicles
Tuesday	3:30–5:30 p.m.	Alliance 305	LTA-05	Airship Operations

TECHNICAL SESSIONS

MESHING, VISUALIZATION, AND COMPUTATIONAL ENVIRONMENTS

Monday	9:30–11:30 a.m.	Alliance 313	MVCE-01/APA-04	Meshing Strategies and Workflows
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MODELING AND SIMULATION TECHNOLOGIES

Tuesday	1–3 p.m.	Academy 415	TF-07/MST-01	Transformational Vehicles Integration within Multi-Modal Transportation Systems
Thursday	1–3 p.m.	Alliance 314	MST-02	Modeling and Simulation of Vehicle Systems and Digital Engineering
Thursday	3:30–5:30 p.m.	Alliance 314	MST-03	X-in-the-Loop Simulators
Friday	1–3 p.m.	Forum 121	FD-43/APA-46/MST-05	CFD Methods for Applied Aerodynamics
Friday	9:30–11:30 a.m.	Summit 212	MST-06	Modeling and Simulation of Air Vehicle Dynamics, Systems, and Environments

MULTIDISCIPLINARY DESIGN OPTIMIZATION

Monday	9:30–11:30 a.m.	Alliance 301	APA-01/MDO-01	Aerodynamic Design I
Tuesday	9:30–11:30 a.m.	Alliance 302	APA-13/MDO-03	Aerodynamic Design II
Wednesday	9:30–11:30 a.m.	Alliance 307	MDO-04	Aeroelastic and Aerostructural Optimization I
Wednesday	1–3 p.m.	Alliance 307	MDO-05	Aeroelastic and Aerostructural Optimization II
Wednesday	3:30–5:30 p.m.	Alliance 307	MDO-06	Aircraft Design Optimization I
Thursday	9:30–11:30 a.m.	Alliance 307	MDO-07	Aircraft Design Optimization II
Thursday	1–3 p.m.	Alliance 307	MDO-08	Emerging Methods, Algorithms, and Software Development in MDO
Thursday	3:30–5:30 p.m.	Alliance 307	MDO-09	Machine Learning and AI-Driven Approaches in MDO
Tuesday	1–3 p.m.	Alliance 302	MDO-12	Non-Deterministic Design Methods and Applications
Tuesday	3:30–5:30 p.m.	Alliance 307	MDO-13	MDO Student Paper Competition Special Session

PLASMA DYNAMICS AND LASERS

Thursday	1–3 p.m.	Summit 225	PDL-01	Plasma and Laser Physics and Computational Methods
Thursday	4:30–5:30 p.m.	Summit 225	PDL-02	Plasmadynamics and Lasers Award Lecture
Friday	9:30–11:30 a.m.	Summit 210	PDL-03	Diagnostics and Experimental Techniques
Friday	1–3 p.m.	Summit 210	PDL-04	Plasma Aerodynamic and Combustion

SOLID ROCKETS

Tuesday	1–3 p.m.	Alliance 305	SR-01	Solid Rocket Motor Design, Combustion, and Performance Analysis
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SUPERSONICS

Monday	1–3 p.m.	Alliance 306	SPSN-01/TF-04	Supersonic Concepts, Design and Experimental Methods
Monday	3:30–5:30 p.m.	Summit 225	SPSN-02	Supersonics Design and Analysis
Tuesday	9:30–11:30 a.m.	Summit 225	SPSN-03	Supersonic Transport Research at DLR: The STORMIE Project

TERRESTRIAL ENERGY SYSTEMS

Monday	9:30–11:30 a.m.	Academy 417	TES-01	Terrestrial Energy Systems I
Monday	1–3 p.m.	Academy 417	TES-02	Terrestrial Energy Systems II
Monday	3:30–5:10 p.m.	Academy 417	TES-03	Terrestrial Energy Systems III

TECHNICAL SESSIONS

THERMOPHYSICS

Monday	9:30–11:30 a.m.	Alliance 312	TP-01	Invited Session: Agency Perspective on Thermophysics
Monday	3:30–5:30 p.m.	Alliance 313	TP-03	Aerothermodynamics
Monday	3:30–5:30 p.m.	Alliance 312	TP-04	Heat Transfer I
Tuesday	9:30–11:30 a.m.	Alliance 312	TP-05	Invited Session: ML/UQ in Hypersonics
Tuesday	1–3 p.m.	Alliance 312	TP-06	Invited Session: Flight Tests
Tuesday	3:30–5:30 p.m.	Alliance 312	TP-07	Heat Transfer II
Tuesday	3:30–5:30 p.m.	Alliance 313	TP-08	UQ/Sensitivity Analysis
Wednesday	9:30–11:30 a.m.	Alliance 313	TP-09	Nonequilibrium I
Wednesday	9:30–11:30 a.m.	Alliance 312	TP-10	Thermal Protection Systems I
Wednesday	1–3 p.m.	Alliance 313	TP-11	Nonequilibrium II
Wednesday	1–3 p.m.	Alliance 312	TP-12	Thermal Protection Systems II

TRANSFORMATIONAL FLIGHT

Monday	9:30–11:30 a.m.	Alliance 310	AA-01/TF-01	Advanced Air Mobility Noise I
Monday	9:30–11:30 a.m.	Alliance 306	TF-02/GA-01	Safety and Certification of Transformational Vehicle Designs
Monday	1–3 p.m.	Alliance 310	AA-04/TF-03	Advanced Air Mobility Noise II
Monday	1–3 p.m.	Alliance 306	SPSN-01/TF-04	Supersonic Concepts, Design and Experimental Methods
Monday	3:30–5:30 p.m.	Alliance 310	AA-07/TF-05	Advanced Air Mobility Noise III
Tuesday	9:30–11:30 a.m.	Academy 415	TF-06/ATM-01/ UAS-07	Airspace and Autonomy for Transformational Vehicle Designs and Operations
Tuesday	1–3 p.m.	Academy 415	TF-07/MST-01	Transformational Vehicles Integration within Multi-Modal Transportation Systems
Wednesday	3:30–5:30 p.m.	Summit 225	TF-09	Novel Propulsion Systems for Transformational Flight Applications
Thursday	1–3 p.m.	Alliance 306	ACD-15/TF-11	Environment to Design and Analyze Advanced Aircraft and Propulsion Systems
Thursday	3:30–5:30 p.m.	Alliance 306	ACD-17/TF-12	EVTOL

UNCREWED AND AUTONOMOUS SYSTEMS

Tuesday	9:30–11:30 a.m.	Alliance 314	UAS-01	Autonomous Mission Management Concepts and Technologies
Tuesday	1–3 p.m.	Alliance 314	UAS-02	Advanced Technologies: Enhancing Human-Machine Collaboration in Uncrewed Operations
Tuesday	3:30–5:30 p.m.	Alliance 314	UAS-03	Autonomous Task and System Integration
Wednesday	9:30–11:30 a.m.	Summit 227	UAS-04	Systems Design and Optimization for UAS I
Wednesday	1–3 p.m.	Summit 227	UAS-05	Systems Design and Optimization for UAS II
Wednesday	3:30–5:30 p.m.	Summit 227	UAS-06	Systems Design and Optimization for UAS III

VERTICAL/SHORT TAKE-OFF AND LANDING (V/STOL) AIRCRAFT SYSTEMS

Wednesday	9:30–11:30 a.m.	Alliance 314	VSTOL-01	Advances in V/STOL Flight Control and Handling
Wednesday	1–2:20 p.m.	Alliance 314	VSTOL-02	Developments in Modern V/STOL Technology
Wednesday	3:30–5:30 p.m.	Alliance 314	VSTOL-03	V/STOL Design and Development

WELCOME TO ASCEND

The 2025 ASCEND Guiding Coalition welcomes you to Las Vegas! Powered by AIAA, ASCEND starts with a vision and every aspect progresses through a program of activities, presentations, and conversations that focus on action. ASCEND's unique environment facilitates interaction and discussion. Take advantage of the opportunity to connect with them to further fuel collaboration.

Thank you for your attendance and make it a great week!

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GUIDING COALITION

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Virgin Galactic

Kevin Bell
The Aerospace Corporation

Sandy Brown
Raytheon/RTX

Steve (Bucky) Butow
Defense Innovation Unit (DIU)

Carissa Christensen
BryceTech

Laura Crabtree
Epsilon3

Kara Cunzeman
The Aerospace Corporation

Ariel Ekblaw
Aurelia Institute

Debra Facktor
Airbus U.S. Space & Defense, Inc.

Nicola Fox
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Michael Gazarik
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SpaceX

Kristin Houston
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Phil Ingle
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Northrop Grumman

Steve Smith
BAE Systems

Julie Van Kleeck

Matthew Weinzierl
Harvard Business School

Vanessa Wyche
NASA

Noelle Zietsman
Boeing Exploration Systems

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Human Spaceflight

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Space and Society

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Hao Chen, Stevens Institute of Technology
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Space Security and Protection

Derek Doyle, Modern Technology Solutions, Inc.
Sean Phillips, Air Force Research Laboratory

Space Technology Development

Mohammad Ayoubi, Santa Clara University
Christine Edwards, Lockheed Martin Space Systems

PROGRAM

TUESDAY, 22 JULY

7:30–8 a.m.	Session Rooms	SP-02	Technical Papers Speaker Prep
8–9 a.m.	Forum 128	MACRO-01	The Next Step to Our Off-World Future
9–9:30 a.m.	Summit Ballroom/Expo Hall	CB-03	Coffee Break
9:30–10:30 a.m.	Forum 128	META-01	Modern Finance Strategies of the Space Industry
9:30–10:30 a.m.	Forum 130	META-02	From ISS to Artemis: The Future of Human Spaceflight
9:30–10:30 a.m.	Summit 207	META-03	The Critical Evolution of Space Domain Awareness
10:45–11:30 a.m.	Forum 128	MICRO-01	The Future of Finance at NASA
10:45–11:30 a.m.	Forum 130	MICRO-02	NASA's Crew Health and Performance Ecosystem and Collaboration Opportunities
10:45–11:30 a.m.	Summit 207	MICRO-03	Key Technology Challenges to Deliver Integrated Air & Missile Defense (Golden Dome for America)
11:45 a.m.–12:45 p.m.	Forum 128	LEC-01	2025 AIAA David W. Thompson Lecture in Space Commerce
11:30 a.m.–1 p.m.	Summit Ballroom/Expo Hall	LUNCH-01	Luncheon
1–1:45 p.m.	Forum 128	MICRO-04	Founder's Panel
1–1:45 p.m.	Forum 130	MICRO-05	Commercial Space Health: Partnering to Benefit All Who Fly in Space
1–3 p.m.	Summit 202	WKSHP-01	Lessons Learned, Forward Path, and Collaboration from the Oxygen from Regolith (O2fR) Collaborative Systems Interface Workshop
2–3 p.m.	Forum 128	MICRO-07	The Role of Remote Sensing and Science in Addressing the Global Megafire Crisis
2–3 p.m.	Forum 130	MICRO-08	Recent Highlights of Human Space Research
2–3 p.m.	Summit 207	MICRO-09	Zero Trust in Zero G: Enhancing Cybersecurity in the Space Domain
3–3:30 p.m.	Summit Ballroom/Expo Hall	CB-04	Coffee Break
3:30–4:15 p.m.	Forum 128	META-04	Astrodebates
3:30–4:15 p.m.	Forum 130	META-05	Optimizing Human Performance in Space: Learning from Yesterday, Designing for Tomorrow
3:30–4:15 p.m.	Summit 209	SPEC-01	Detection, Characterization, and Evaluation of Unidentified Anomalous Phenomena (UAP)
3:30–4:30 p.m.	Summit 207	META-06	Zero Trust Microsegmentation in Space Systems: Enhancing Security for Modern Satellite Architectures
4:30–5:30 p.m.	Summit 209	SPEC-02	Getting Started with the Aranya Project: Open-Source Zero Trust for Distributed and Edge Platforms
4:30–5:30 p.m.	Forum 128	SPEC-07	The ASCENDANTS
5:45–6:30 p.m.	Academy 407	AWARDS-01	Awards Recognition Ceremony
6:30–7:30 p.m.	Summit Ballroom/Expo Hall	HH-01	Aero + Space Reception

WEDNESDAY, 23 JULY

7:30–8 a.m.	Session Rooms	SP-03	Technical Papers Speaker Prep
8–9 a.m.	Forum 128	MACRO-02	Securing the Final Frontier: A Fireside Chat with Lt. Gen. Garrant, USSF
9–9:30 a.m.	Summit Ballroom/Expo Hall	CB-05	Coffee Break
9:30–10:30 a.m.	Summit 202	ISSRDC-01	Taking a Giant Leap in Fostering New Space Innovators: Orbital Edge Accelerator and the ISS National Laboratory
9:30–10:30 a.m.	Forum 128	META-07	Strategic Recommendations for the New Administration's Space Policy
9:30–10:30 a.m.	Forum 130	META-08	From the 'Innovator's Dilemma' to the 'Integrator's Dilemma' – How the Space Enterprise Is Advancing Interoperability
9:30–10:30 a.m.	Summit 207	META-09	Mission to Market: The Evolution of CLPS
9:30 a.m.–3 p.m.	Summit 211	ISSRDC-03	Genes in Space
10:45–11:30 a.m.	Forum 128	MICRO-10	Mission Authorization and Regulation
10:45–11:30 a.m.	Summit 202	ISSRDC-02	Preserving Research and Commercial Leadership in Low Earth Orbit
10:45–11:30 a.m.	Forum 130	MICRO-11	Building Tomorrow: Engineering the Sci-Fi Future in Space
10:45–11:30 a.m.	Summit 207	MICRO-12	Architectural Approaches to Lunar Surface Logistics

PROGRAM

11:30 a.m.–1 p.m.	Summit Ballroom/Expo Hall	LUNCH-02	Luncheon
11:45am–12:45pm	Forum 128	SPEC-10	NASA Directorate Leadership Roundtable
1–1:45 p.m.	Forum 128	MICRO-13	Orbital Reentry: Shaping Policy for Safe and Sustainable Return from Space
1–1:45 p.m.	Forum 130	MICRO-14	Exploring Serviceability for NASA's Habitable Worlds Observatory
1–1:45 p.m.	Summit 207	MICRO-15	Beyond the Landing: Building Sustainable Infrastructure on the Moon
1–3 p.m.	Summit 202	WKSHP-03	Why Learning the Language of Business Can Increase the Likelihood of Funding Request Approval
2–3 p.m.	Forum 128	META-10	Navigating the Evolving Threat Landscape in Space
2–3 p.m.	Forum 130	META-11	SOS/Save Our [X-Band] Spectrum: The Unique Value of X-Band for Space and How to Save It
2–3 p.m.	Summit 207	META-19	Orion: Our Ride to Deep Space
3–3:30 p.m.	Summit Ballroom/Expo Hall	CB-06	Coffee Break
3:30–4:15 p.m.	Forum 128	MICRO-16	Securing GPS for a Resilient Future: Addressing Threats, Upgrades, and Innovation
3:30–4:15 p.m.	Forum 130	MICRO-17	Dark and Quiet Skies: Best Practices, Industry Standards, and Technologies
3:30–4:15 p.m.	Summit 207	MICRO-20	The Things I Wish My Younger Aerospace Self Knew. . .
3:30–4:15 p.m.	Summit 202	SPEC-06	Space Architecture: The Next Decade of Progress
3:30–5:30 p.m.	Summit 210	SPEC-08	Cislunar & Lunar Ecosystem and Economics Workshop
4:30–5:30 p.m.	Forum 128	MICRO-21	Closing the Kill Chain: Accelerating Data-to-Decision in Space and Defense Operations
4:30–5:30 p.m.	Summit 210	SPEC-09	'Alcohol in Space' Film Screening
4:30–5:30 p.m.	Summit 207	SPEC-11	Live Recording: SpaceNews's 'Space Minds' Podcast

THURSDAY, 24 JULY

7:30–8 a.m.	Session Rooms	SP-04	Technical Papers Speaker Prep
8–9 a.m.	Forum 128	MACRO-03	Opportunities for Momentum on Cross-Cutting Space Science Priorities
9–9:30 a.m.	Summit Ballroom/Expo Hall	CB-07	Coffee Break
9:30–10:30 a.m.	Forum 128	META-12	Sustaining Essential Low Earth Orbit Capabilities through ISS Transition
9:30–10:30 a.m.	Forum 130	META-14	Where's the Demand? A Discussion on Growing Economic Activity in Space
9:30–10:30 a.m.	Summit 207	META-15	Solving the "Flight-Proven" Paradox: Building Trust to Deploy Innovative Space Capabilities
9:30–10:30am	Summit 202	WKSHP-05	Establishing Frameworks for Effective Space Science Communication
10:45–11:30 a.m.	Summit 207	MICRO-26	Large Language Models: How Do They Work and How Can You Use Them?
10:45–11:30 a.m.	Forum 128	MICRO-24	Navigating the Future of LEO Microgravity Strategy
10:45–11:30 a.m.	Forum 130	MICRO-25	Vertical Integration vs. Diverse Supply Chain
10:45–11:30am	Summit 202	MICRO-34	Trillion-dollar Space Economy: Vision, Hype, or Reality?
11:45am–12:45pm	Forum 128	LEC-03	Pickering Lecture: SPHEREx: NASA's All-Sky Spectroscopic Mapping Machine
1–1:45 p.m.	Forum 128	MICRO-27	NASA's Human System Capability Needs for Mars
1–1:45 p.m.	Forum 130	MICRO-28	Evolution of Multi-Mission Orbital Vehicles
1–1:45 p.m.	Summit 207	MICRO-29	Powering the Future: High-Performance Computing in Space and Defense
1–3 p.m.	Summit 202	WKSHP-04	AstroTactics: Wargaming Space Assets
2–3 p.m.	Forum 128	META-16	Commercial Pathways towards Sustainable Mars Exploration
2–3 p.m.	Forum 130	META-17	Space Nuclear Mission Concepts and Architectures
2–3 p.m.	Summit 207	META-18	Frontiers for AI & Autonomy in Space
3–3:30 p.m.	Summit Ballroom Foyer	CB-08	Coffee Break
3:30–4:15 p.m.	Summit 207	MICRO-06	DIU 3.0
3:30–4:15 p.m.	Forum 128	MICRO-30	Importance of Mars Samples and Bringing Them Back
3:30–4:15 p.m.	Forum 130	MICRO-31	Power Technologies to Enable Moon to Mars and Beyond
3:30–4:15 p.m.	Summit 207	MICRO-32	Harnessing the Power of AI to Mitigate Evolving Threats to Space Security
4:30–5:30 p.m.	Forum 128	MICRO-33	Pipe Dream or Reality: Behind the Scenes of Tech in Space



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Submission Opens: **8 July**
Submission Deadline: **18 September**
Author Notifications: **16 December**
Manuscript Deadline: **14 April**

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TECHNICAL SESSIONS

TUESDAY, 22 JULY

1–3 p.m.	Summit 209	EXPL-01	Launch Vehicles
1–3 p.m.	Forum 125	SEC-01/SUST-01	Orbital Debris Management
1–3 p.m.	Forum 122	SPL-01	Governance of Space Activities
1–3 p.m.	Forum 123	TECH-01	Guidance and Control Systems and Mechanisms
1–3 p.m.	Forum 124	TECH-02/SUST-02	Sustainable Lunar Architecture and Systems Engineering
3:30–5:30 p.m.	Forum 122	ECON-01/PPP-01	The Space Economy Startups, Partnerships, and Entrepreneurship
3:30–5:30 p.m.	Forum 124	EXPL-02	Lunar Surface Missions
3:30–5:30 p.m.	Forum 121	HUMAN-02	Habitats and ECLSS
3:30–5:30 p.m.	Forum 125	TECH-03/DUAL-01	Space Situational Awareness Technologies
3:30–5:30 p.m.	Forum 123	TECH-04	Space Power Systems: Generation, Transmission, and Management

WEDNESDAY, 23 JULY

9:30–11:30 a.m.	Forum 123	TECH-05	Lunar In Situ Resource Utilization
9:30–11:30 a.m.	Forum 122	TECH-06	Constellation Management, Rendezvous, and Proximity Operations
1–3 p.m.	Forum 121	HUMAN-03/HEALTH-01	The Big Picture of Human Spaceflight / Space Medicine
1–3 p.m.	Forum 122	SPSC-01	Academic Pathways to Space
1–3 p.m.	Forum 125	TECH-07/DUAL-02	Missions Enabled by Autonomy and AI
1–3 p.m.	Summit 209	TECH-08	Advanced Propulsion Systems
1–3 p.m.	Forum 123	TECH-09	Enabling Technologies: Radiation and Thermal
3:30–5:30 p.m.	Forum 124	ECON-03	Policy and Strategies for the New Space Economy
3:30–5:30 p.m.	Forum 122	EXPL-03	Deep Space Missions: Getting There and Exploring
3:30–5:30 p.m.	Forum 123	EXPL-04/SUST-03	Lunar In Situ Construction
3:30–5:30 p.m.	Forum 121	HUMAN-04/HEALTH-02	Behavioral Health and Performance
3:30–5:30 p.m.	Forum 125	TECH-10/DUAL-03	PNT for Earth, Lunar, and Beyond
3:30–5:30 p.m.	Summit 209	TECH-11/DUAL-04	Sustainable Propulsion and Nuclear

THURSDAY, 24 JULY

9:30–11:30 a.m.	Forum 122	HUMAN-05/SUST-04	Crew-Technology Synergy in Surface Exploration Systems
9:30–11:30 a.m.	Forum 123	TECH-12/SUST-05	Sustainable Mars Exploration and Resource Utilization
1–3 p.m.	Forum 124	ECON-04	Earth Orbit Economy
1–3 p.m.	Forum 121	HUMAN-06/HEALTH-03	Space Health Countermeasures
1–3 p.m.	Forum 122	SPSC-02	Space Sector Growth: Connections and Inclusion
1–3 p.m.	Forum 123	TECH-13	In-Space Manufacturing, Recycling, and Servicing
1–3 p.m.	Summit 209	TECH-14	Lunar Launch and Landing Technologies
3:30–5:30 p.m.	Forum 125	SEC-02/DUAL-05	Sensing in Space, Detection, Characterization, and Mitigation
3:30–5:30 p.m.	Forum 122	TECH-16	Lunar Rovers and Robotics
3:30–5:30 p.m.	Forum 124	TECH-17	Systems Engineering for Mission and Technology Management

ISSRDC-01: Taking a Giant Leap in Fostering New Space Innovators: Orbital Edge Accelerator and the ISS National Laboratory

ISSRDC-02: Preserving Research and Commercial Leadership in Low Earth Orbit

ISSRDC-03: GENES in SPACE™ 2025 Competition

Genes in Space:

Genes in Space™ is an annual student research competition founded by Boeing and miniPCR™ bio and supported by the ISS National Laboratory and New England Biolabs. Students in grades 7 through 12 can propose pioneering DNA experiments that utilize the unique environment of the ISS. The winning proposals are developed into flight projects carried out on the space station.

SPACE DOMAIN WORKSHOPS

Tuesday, 22 July

WKSHP-01: Lessons Learned, Forward Path, and Collaboration from the Oxygen from Regolith (O2fR) Collaborative Systems Interface Workshop

1–3 p.m.

Summit 202

In September 2024, the Lunar Surface Innovation Consortium (LSIC) In-Situ Resource Utilization (ISRU) Focus Area hosted the Oxygen from Regolith (O2fR) Collaborative Systems Interface Workshop. We will summarize the findings of the workshop, present a path forward, and most importantly, encourage and facilitate further community participation. LSIC team members will guide participants through the O2fR Collaborative Systems Interface Workbook and facilitate discussion about the most important interfaces in an Oxygen from Regolith ISRU system.

Wednesday, 23 July

WKSHP-03: Why Learning the Language of Business Can Increase the Likelihood of Funding Request Approval

1–3 p.m.

Summit 202

Engineers (e.g., innovators) must possess the skills to convince finance professionals to invest in their projects. Investors want to know that innovators understand that one goal of engaging with investors is to generate an adequate return on any capital provided to innovators. Innovators must develop the ability to present their proposals in the language of business. This seminar explores the essential elements innovators must master to learn the language of business and apply it effectively when constructing business proposals.

SPEC-08: Cislunar & Lunar Ecosystem and Economics Workshop

3:30–5:30 p.m.

Summit 210

The workshop brings together the three Space Domain Task Forces focused on architecture, economics, policy, strategy in partnership with the Digital Engineering Integration Committee focused on digital engineering environment as a common

foundation for coordination, collaboration, and integration. These combined efforts represent an enterprise integration approach for developing the cislunar and lunar surface ecosystem in a greenfield environment. Participants will engage with the task forces/committee members in a collaborative setting to learn about evolving architectures, economic enablers, market support mechanisms, digital marketplace, and common operating picture developments.

Thursday, 24 July

WKSHP-05: Establishing Frameworks for Effective Space Science

9:30–10:30am

Summit 202

The ASCEND Host Program is designed to offer young professionals in the space industry an intimate look at the inner workings of content development and to provide an opportunity to enhance public speaking skills as they prepare for their future as a thought leader. ASCEND Hosts have the opportunity to meet and network with the brightest minds in the aerospace field and gain a greater understanding of how to develop messaging, networking skills, and a holistic view of the industry.

WKSHP-04: AstroTactics: Wargaming Space Assets

1–3 p.m.

Summit 202

This workshop will use a paper wargame to demonstrate different space assets and capabilities, including launch vehicles, communication satellites, and global positioning system (GPS), and potential applications in various military contingencies. Princeton Satellite Systems and Princeton University School of Public and International Affairs' Center for International Security Studies are developing a miniature wargame that could be played within 45 minutes with general fantasy nations, "blue" and "red," in combat. The workshop intends to develop better ways to incorporate space assets and capabilities in paper wargames so that players come away with a more robust understanding of how space assets are deployed in combat and the potential range of applications available with the use of certain space systems.

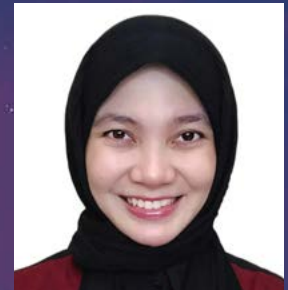
2025 ASCEND HOST PROGRAM

The ASCEND Host Program is designed to offer young professionals in the space industry an intimate look at the inner workings of content development and an opportunity to enhance your public speaking skills as you prepare for your future as a thought leader. As an ASCEND Host you'll have the opportunity to meet and network with the brightest minds in the field and gain a greater understanding of how you can develop your message and personal brand as you expand your universe.



2025

ASCENDANTS



The 2025 cohort of ASCENDANTS are influential thinkers and emerging leaders from around the world. These individuals represent an exclusive ASCEND community built over the past six years of exceptionally minded and passionate activists devoted to realizing a sustainable future beyond Earth. These authors are the featured speakers in a series of rapid-fire lightning talks highlighting their vision for a sustainable space ecosystem.

What needs to happen for space to be more transparent, more predictable? How can we use a globally accessible pool of evidence to help make decisions and hold people accountable for their behaviors in this shared domain?

Find out at the ASCENDANTS session Tuesday, 22 July, 4:30–5:30 p.m., Forum 128

Read their OpEds and access the full archive of ASCENDANTS OpEds at ascend.events/ascendants



GENERAL INFORMATION

Conference Proceedings

Proceedings for the forum will be available online. The cost is included in the registration fee where indicated. Online proceedings will be available for viewing and downloading around 20 July 2025. Please follow the instructions below to access the proceedings:



1. To view proceedings visit aiaa.org >ARC>Meeting Papers.
 - a. Log in with the link at the top right of the page.
 - b. Select the appropriate forum from the list.
 - c. **Search for individual papers** with the **Quick Search** toolbar at the top of the page:
 - i. By paper number, click on the “Anywhere” dropdown and select “Find by paper,” select the forum year, and enter the paper number.
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Manuscript Corrections

1. The manuscript in the proceedings is the version of record and may not be edited or replaced. Corrections to manuscripts will be available through the Crossmark feature. To view corrections made to a manuscript click the Crossmark icon, located on every article’s webpage and PDF.
2. Corrections **will be available online** approximately 15 business days after the last day of the conference.



Restrictions

Photos, video, or audio recording of sessions or exhibits, as well as the unauthorized sale of AIAA-copyrighted material, is prohibited.

Certificate of Attendance

All attendees will receive a Certificate of Attendance on the last day of the AIAA forum via email. Claims of hours or applicability toward professional education requirements are the responsibility of the participant.

Badge Policy

AIAA forum badges are provided to those individuals who have paid for a registration to the event. Badges must be worn at all times to participate in all forum activities. Badges are not provided at the registration desk for committee meetings attendance. In order to obtain an event badge, one must register for the forum.

Nondiscriminatory Practices

AIAA accepts registrations irrespective of age, race, creed, sex, sexual orientation, color, physical handicap, and national or ethnic origin.

Anti-Harassment Policy

It is the policy of AIAA to maintain a professional environment at its events that is free from all forms of discrimination, harassment and conduct that can be considered unprofessional, disruptive, inappropriate or discourteous. Full details can be found at aiaa.org/about/Governance/Anti-Harassment-Policy

AIAA Photography and Video Notice

Attendance at, or participation in, this American Institute of Aeronautics and Astronautics (hereinafter “AIAA”) event constitutes consent to the use and distribution by AIAA, its employees, agents, and assignees of the attendee’s image and/or voice for purposes related to the mission of AIAA, including but not limited to publicity, marketing, other electronic forms of media, and promotion of AIAA and its various programs and events. Please contact AIAA Communications Director Rebecca Gray at rebccag@aiaa.org with requests or questions.

AUTHOR & SESSION CHAIR INFORMATION

Technical Papers Session Prep in Session Rooms

Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute briefing on the day of their sessions to exchange bios and review final details prior to the session. Please attend on the day of your session(s). Laptops preloaded with the Speakers’ preparation slides will be provided in each session room. Speakers’ Prep will be held, 21–25 July: 7:30 a.m.

Speaker Ready Room

Speakers who wish to practice their presentations may do so in the Summit Ballroom 224. A sign-up sheet will be posted on the door.

Session Chair Reports

All session chairs are asked to complete a session chair report to evaluate their session for future planning purposes, including session topics and room allocations. Please submit your session chair report electronically by 30 July 2025.

Audiovisual

Each session room will be preset with the following: Laptop computer, LCD projector, screen, microphone and sound system (if necessitated by room size), and a laser pointer. You may use your own laptop if you wish. Any additional audiovisual equipment requested onsite will be at

cost to the presenter. Please note that AIAA does not provide security in the session rooms and recommends that items of value not be left unattended.

“No Paper, No Podium” and “No Podium, No Paper” Policies

If a written paper is not submitted by the final manuscript deadline, authors will not be permitted to present the paper at the forum. It is also the responsibility of those authors whose papers or presentations are accepted to ensure that one of the authors attends the forum to present the paper. If a paper is not presented at the forum, it will be withdrawn from the forum proceedings. These policies are intended to eliminate no-shows, to improve the quality of the forum for all participants, and to ensure that the published proceedings accurately represent the presentations made at a forum.

Journal Publication

Authors of appropriate papers are encouraged to submit them for possible publication in one of the Institute’s archival journals: *AIAA Journal*; *Journal of Aerospace Information Systems*; *Journal of Air Transportation*; *Journal of Aircraft*; *Journal of Guidance, Control, and Dynamics*; *Journal of Propulsion and Power*; *Journal of Spacecraft and Rockets*; or *Journal of Thermophysics and Heat Transfer*. You may now submit your paper online at <http://mc.manuscriptcentral.com/aiaa>.

COMMITTEE MEETINGS

All meetings are taking place within Caesars Forum.

Please use the QR code to access the committee meeting schedule.



JOIN A COMMITTEE

What are AIAA Technical Committees?

AIAA Technical Committees (TCs) bring together worldwide experts in their fields to shape the future of aerospace. As a TC member, you'll contribute to developing, supporting, and administering AIAA products and services, including forums, publications, awards, and student design contests and competitions.

How to Apply for Technical Committee Membership

APPLICATION PORTAL:

The application portal opens 1 September annually.

TERM DURATION:

TC members serve one-year terms, renewable for up to three years.

ACTIVE PARTICIPATION:

TC members actively participate in committee meetings and contribute to technical products.

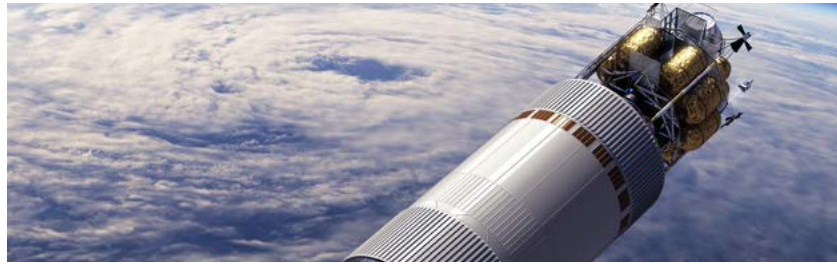
MEMBERSHIP REQUIREMENT:

TC members must also be AIAA members.

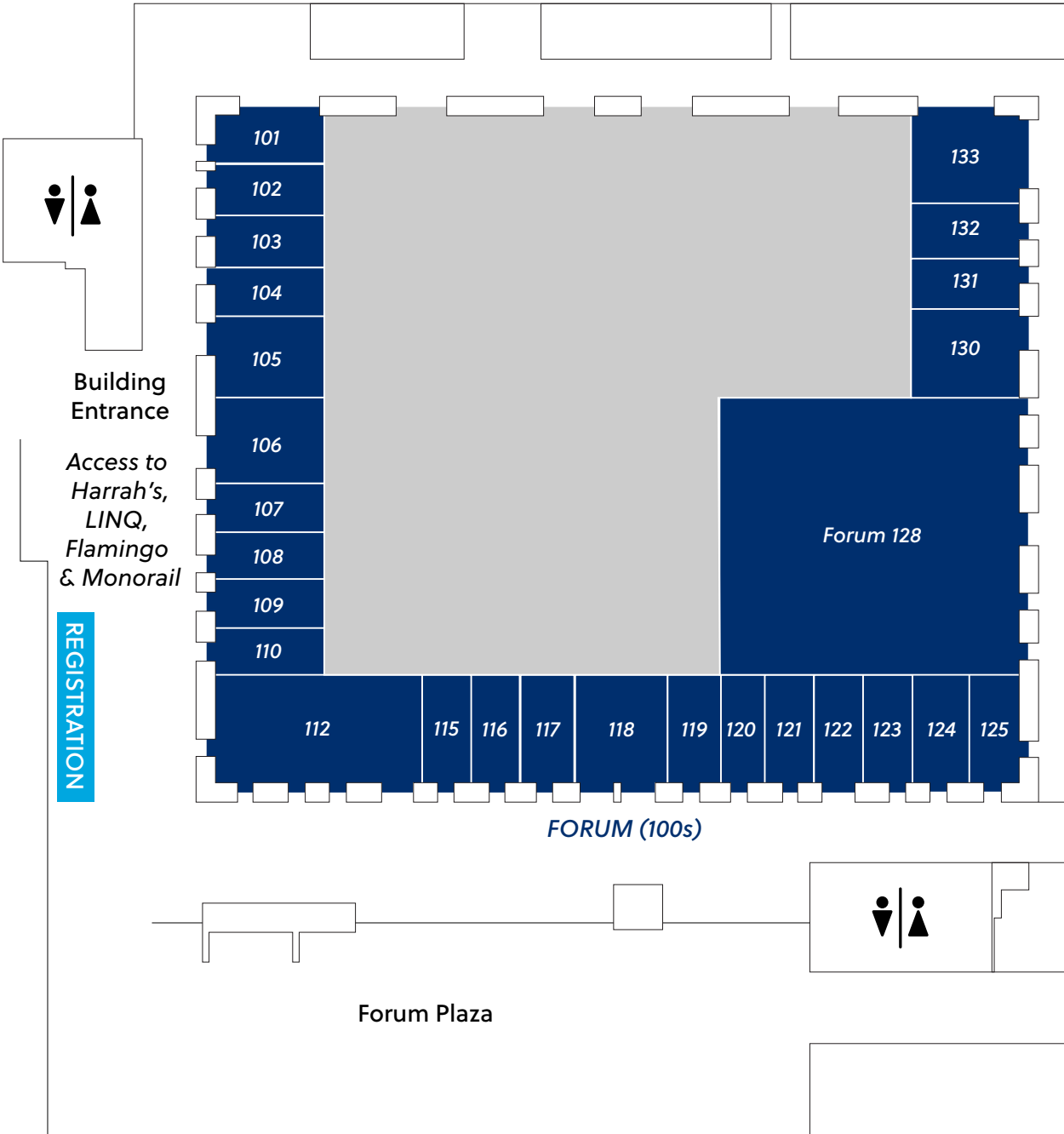
To learn more about AIAA Technical Committees
aiaa.org/technicalcommittees

QUESTIONS?

Reach out to Angie Lander at AngieL@aiaa.org for more information.



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