CHALLENGING TIMES
UNIQUE OPPORTUNITIES

aiaa.org/aviation
#AIAAaviation
The future battlespace calls for future-forward solutions. That’s why Lockheed Martin aims to connect every system across every domain. With integrated advanced sensors, network connectivity and data analysis, you can gain insights to make critical decisions in a split second. So while the enemy is outpaced and outmaneuvered, you win in every domain.

Learn more at lockheedmartin.com

When you integrate data from every domain, you win from every angle.

Lockheed Martin. Your Mission is Ours®.
CONTENTS

Welcome 4
Executive Steering Committee 4
Technical Program Committee 5
Sponsors & Supporters 7
Forum Overview 8
Online Platform Tour 9
COVID-19 Health & Safety Protocols 11
Program 12
ITAR Sessions 19
Recognition 20
Exposition Hall 22
the HUB 23
Exhibitors 25
General Information 30
Author & Session Chair Information 31
Committee Meetings 32
Venue Map 34

ON-SITE Wi-Fi
NETWORK NAME: Hilton Chicago Meeting
PASSWORD: AVIATION

STAY CONNECTED

#AIAAaviation

aiaa.org/EngageAVIATION
twitter.com/aiaa
linkedin.com/companies/aiaa
facebook.com/AIAAfan
instagram.com/AIAAerospace
youtube.com/AIAATV
flickr.com/aiaaevents

The American Institute of Aeronautics and Astronautics (AIAA) is the world’s largest aerospace technical society. With nearly 30,000 individual members from 91 countries, and 100 corporate members, AIAA brings together industry, academia, and government to advance engineering and science in aviation, space, and defense. For more information, visit aiaa.org, or follow AIAA on Twitter, Facebook, or LinkedIn.
The 2022 AIAA AVIATION Forum Executive Steering Committee welcomes you to Chicago and online! We have worked hard this past year curating exciting and thought-provoking content around the forum theme, Challenging Times, Unique Opportunities. We hope these industry leaders, topics, and discussions inspire you! Make it a great week!

EXECUTIVE STEERING COMMITTEE

Ed Waggoner  
Aeronautics Research Mission Directorate, NASA (Forum General Chair)

“Siva”kumar Balasubramanian  
Spirit AeroSystems

Ming Chang  
AIAA Aeronautics Domain Lead

Ed Gerding  
Boeing Global Services

Jim Hileman  
FAA

Dimitri Mavris  
Georgia Institute of Technology

Linda O’Brien  
Lockheed Martin Aeronautics

Craig Wanke  
MITRE Corporation
TECHNICAL PROGRAM COMMITTEE

FORUM TECHNICAL CHAIRS
Nash’at Ahmad, NASA Langley Research Center (Forum Technical Chair, Aerospace Sciences Group)

Patrick Yee, The Aerospace Corporation (Deputy Forum Technical Chair, Aerospace Sciences Group)

David Levy, Sierra Nevada Corporation (Forum Technical Chair, Aircraft Technology, Integration, and Operations Group)

Daniel DeLaurentis, Purdue University (Deputy Forum Technical Chair, Aircraft Technology, Integration, and Operations Group)

Vincent Schultz, NASA Langley Research Center (Forum Technical Chair, Integration and Outreach Division)

TECHNICAL DISCIPLINE CHAIRS
AEROSPACE TRAFFIC MANAGEMENT
Joseph Post, University of South Florida

Edward Stanton, Aerospace Traffic Management Integration and Outreach Committee

AIR TRANSPORTATION SYSTEMS
David P Thipphavong, NASA Ames Research Center

Peng Wei, George Washington University

Min Xue, NASA Ames Research Center

AIRCRAFT DESIGN
Timothy Takahashi, Arizona State University

Peter Schmollgruber, ONERA

APPLIED AERODYNAMICS
Mehdi Ghoryeshi, U.S. Air Force Academy

Sally A. Viken, NASA

Ovais Khan, Texas A&M University Kingsville

ATMOSPHERIC AND SPACE ENVIRONMENTS
Hui Hu, Iowa State University

Steven Barrett, Massachusetts Institute of Technology

CFD2030
Dimitri Mavriplis, University of Wyoming

COMPUTATIONAL FLUID DYNAMICS
Manan Vyas, NASA Glenn Research Center

Reetesh Ranjan, University of Tennessee at Chattanooga

COMPUTER SYSTEMS
Miroslav Velev, Aries Design Automation, LLC

Christopher Coley, U.S. Air Force Academy

DESIGN ENGINEERING
Olivia Pinon Fischer, Georgia Institute of Technology

Franz-Josef Kahlen, Kahlen GPS

DIGITAL ENGINEERING
Olivia Pinon Fischer, Georgia Institute of Technology

Dave Kepczynski, General Electric

Natalie Straup, Northrop Grumman

Mathew French, Northrop Grumman

FLIGHT TESTING
James Childress, The Boeing Company

Or Dantsker, University of Illinois at Urbana-Champaign

Derek Spear, U.S. Air Force

FLOW VISUALIZATION SHOWCASE
Ivan Bermejo-Moreno, University of Southern California

CJ Doolittle, FlexCompute Inc.

FLUID DYNAMICS
Andrew Magstadt, Sierra Nevada Corporation

CJ Doolittle, FlexCompute Inc.

GENERAL AVIATION
Nicholas Borer, NASA Langley Research Center

GROUND TESTING
Brandon Chynoweth, Purdue University

Matthew Kuester, Virginia Tech

HIGH-SPEED AIR BREATHING PROPULSION
Zekai Hong, National Research Council Canada

Justin Kirik, Northrop Grumman

HYBRID ROCKETS
Trevor Elliott, University of Tennessee at Chattanooga

Matthew Hitt, U.S. Army Space and Missile Defense Command

INLETS, NOZZLES, AND PROPULSION SYSTEMS INTEGRATION
Ragini Acharya, University of Tennessee Space Institute

Ann Khidekel, Collins Aerospace, RTX

ITAR
Scott Sherer, Air Force Research Laboratory

Rick Graves, Air Force Research Laboratory

MESHING, VISUALIZATION, AND COMPUTATIONAL ENVIRONMENTS
David McDaniel, DoD HPCMP CREATE™

MODELING AND SIMULATION TECHNOLOGIES
Nishanth Goli, Engenius Micro

Thomas Powelson, Lockheed Martin

MULTIDISCIPLINARY DESIGN OPTIMIZATION
Geojoe Kuruvila, The Boeing Company

Turaj Ashuri, Kennesaw State University

PLASMA DYNAMICS AND LASERS
Eric Matlis, University of Notre Dame

PRESSURE GAIN COMBUSTION
Mirko Gamba, University of Michigan

SOLID ROCKETS
Reid Young, Northrop Grumman

Wes Ryan, NASA

SUPERSONICS
David Lazzara, The Boeing Company

Darcy Allison, Raytheon

TERRESTRIAL ENERGY SYSTEMS
Tarek Abdel-Salam, East Carolina University

Pablo Bueno, Southwest Research Institute

THERMOPHYSICS AND HEAT TRANSFER
Danii Andrienko, University of Colorado Boulder

Kyle Hanquist, University of Arizona

Sandra Boetcher, Embry-Riddle Aeronautical University

TRANSFORMATIONAL FLIGHT SYSTEMS
Siddhartha Krishnamurthy, NASA Langley Research Center

Cedric Justin, Georgia Institute of Technology

VERTICAL/SHORT TAKE-OFF AND LANDING (V/STOL) AIRCRAFT SYSTEMS
Jacob Cook, NASA

Geoffrey Jeram, U.S. Army

Sienna Whiteside, NASA
BROADENING OUR HORIZONS.

When we work together, we create better opportunities for everyone. Boeing is proud to partner with those who open doors for success, as we build a better world for all.
AIAA would like to thank the following organizations for their support of the 2022 AIAA AVIATION Forum.

**EXECUTIVE SPONSORS**

- LOCKHEED MARTIN
- BOEING
- NORTHROP GRUMMAN

**SPONSORS**

- AXIENT
- Caltech
- CLEARPLAN
- HEXAGON
- SMARTUP

**MEDIA SPONSOR**

- AEROSPACE
# FORUM OVERVIEW

<table>
<thead>
<tr>
<th>SAT. 25</th>
<th>SUN. 26</th>
<th>MONDAY 27</th>
<th>TUESDAY 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>0730 hrs</td>
<td></td>
<td>Speaker Briefing</td>
<td>Speaker Briefing</td>
</tr>
<tr>
<td>0800 hrs</td>
<td></td>
<td>Plenary</td>
<td>Plenary</td>
</tr>
<tr>
<td>0830 hrs</td>
<td></td>
<td>Networking Break</td>
<td>Networking Break</td>
</tr>
<tr>
<td>0900 hrs</td>
<td></td>
<td>In-Person Technical Sessions 0930–1110 hrs</td>
<td>In-Person Technical Sessions 0930–1110 hrs</td>
</tr>
<tr>
<td>0930 hrs</td>
<td></td>
<td>Forum 360</td>
<td>Forum 360</td>
</tr>
<tr>
<td>1000 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1100 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1130 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1230 hrs</td>
<td>Continuing Education Workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1430 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1530 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1630 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1700 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1730 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1830 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Chicago**: Physical location for events.
- **Virtual**: Virtual sessions or meetings.
- **Hybrid**: Combination of physical and virtual events.

aiaa.org/aviation
## FORUM OVERVIEW

<table>
<thead>
<tr>
<th>Time (hrs)</th>
<th>Wednesday 29</th>
<th>Thursday 30</th>
<th>Friday 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0730</td>
<td>Speaker Briefing</td>
<td>Speaker Briefing</td>
<td>Speaker Briefing</td>
</tr>
<tr>
<td>0800</td>
<td>Plenary</td>
<td>Plenary</td>
<td>Plenary</td>
</tr>
<tr>
<td>0830</td>
<td>Networking Break in Exposition Hall</td>
<td>Networking Break in Exposition Hall</td>
<td>Networking Break</td>
</tr>
<tr>
<td>0900</td>
<td>In-Person Technical Sessions (0930–1110 hrs) Forum 360</td>
<td>In-Person Technical Sessions (0930–1110 hrs) Forum 360</td>
<td>In-Person Technical Sessions (0930–1110 hrs) Forum 360</td>
</tr>
<tr>
<td>1000</td>
<td>Exposition Hall Open</td>
<td>Exposition Hall Open</td>
<td>Exposition Hall Open</td>
</tr>
<tr>
<td>1030</td>
<td>In-Person Technical Sessions (1000–1030 hrs) Forum 360</td>
<td>In-Person Technical Sessions (1000–1030 hrs) Forum 360</td>
<td>In-Person Technical Sessions (1000–1030 hrs) Forum 360</td>
</tr>
<tr>
<td>1100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td>Rising Leaders Lunch Panel</td>
<td>Exposition Hall Open</td>
<td>Networking Lunch on Your Own</td>
</tr>
<tr>
<td>1230</td>
<td></td>
<td>Exposition Hall Open</td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td></td>
<td>Exposition Hall Open</td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td></td>
<td>Exposition Hall Open</td>
<td></td>
</tr>
<tr>
<td>1400</td>
<td>In-Person Technical Sessions (1400–1540 hrs) Forum 360</td>
<td>In-Person Technical Sessions (1400–1540 hrs) Forum 360</td>
<td>In-Person Technical Sessions (1400–1540 hrs) Forum 360</td>
</tr>
<tr>
<td>1500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600</td>
<td>Virtual Technical Sessions (1600–1715 hrs)</td>
<td>Virtual Technical Sessions (1600–1715 hrs)</td>
<td>Virtual Technical Sessions (1600–1715 hrs)</td>
</tr>
<tr>
<td>1630</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1730</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Want to watch virtual events while on site?
Head to rooms 5A - 5I on the 5th floor to watch virtual sessions, network, and relax with fellow attendees.
ONLINE PLATFORM TOUR

virtualaviation.aiaa.org

PLAN
Explore all the AIAA AVIATION program has to offer through topic listing and descriptions, contributors, and speaker lists. View and favorite upcoming sessions, download the reminder to your personal calendar or join live sessions straight from the Schedule page. Be sure to adjust your time zone or filter for specific features. Multiple sessions within one time slot? Click the “+” at the bottom left of the card and those sessions will expand. After a session occurs, the on-demand recordings will be available on the same session card.

EXPLORE
Sharpen your skills and see the latest and greatest products and offerings from cutting-edge companies and organizations. Be sure to check out all our supporting sponsors and partners!

CONNECT
Looking for an old colleague or friend? Those who have opted in to having their profile shared will be displayed here. You’ll also have the ability to send a direct message if they have that feature turned on. Click on the top right circle to update your profile or permissions on your profile page.

ON-SITE Wi-Fi
NETWORK NAME: Hilton Chicago Meeting
PASSWORD: AVIATION

QUICK ACCESS TO VIRTUAL PLATFORM
The health and safety of all participants is AIAA’s top priority as we come back together in person. For everyone’s protection, in conjunction with the facility, we have put the following protocols in place.

AIAA has partnered with InHouse Physicians (IHP) to provide a comprehensive COVID health security solution for on-site participants. IHP will be managing the proof of vaccination or COVID test uploads, the daily health screenings, as well as help administer our check-in verification points and provide on-site medical support and clinicians. Please be on the lookout for correspondence from IHP via text and email.

**Required**
- Proof of full vaccination or negative COVID test taken and uploaded 24 hours prior to your arrival
- Completion of Daily Health Screening — look for the email or text each morning or scan QR code below
- Get vetted for forum participation each day at one of the check-in stations
- Face masks are required indoors when not eating or drinking

**General Health and Safety Precautions**
- Social distancing will be observed as much as possible within the facility
- Please be respectful of each individual’s personal space and comfort level — there are green, yellow, red, and orange ribbons to indicate your level of comfort should you choose to wear them
- Speakers at the podium may be unmasked while speaking*
- Food and beverage will be provided using attendants or in individual packaging where possible
- Masks are available at the registration table and hand sanitizer stations are placed around the facility

Contact an AIAA staff member or email carmelab@aiaa.org with any questions or issues.

*May be subject to change based on recent state guidelines.
7th AIAA Drag Prediction Workshop ("DPW-VII: Expanding the Envelope")
0800–1700 hrs // Williford A & B
Predict the effect of shock-induced separation on the variation of lift and pitching moment with increasing angle of-attack at transonic conditions.

2nd AIAA Workshop for Multifidelity Modeling in Support of Design and Uncertainty Quantification
0800–1700 hrs // Williford C
Multifidelity modeling encompasses a broad range of methods that use approximate models together with high-fidelity models to accelerate a computational task that requires repeated model evaluations.

2nd AIAA Leadership Symposium
1300–1700 hrs // Waldorf
Join AIAA leadership at the 2nd annual Leadership Symposium as we focus on how disruptive change results in growth and impact. AIAA President Laura McGill, AIAA Executive Director Dan Dumbacher, and other members of the Board of Trustees and the Council of Directors will provide insight on the Institute’s vision and strategic trajectory as we move forward. As a leader in the organization, we invite you to collaborate across divisions and committees by sharing best practices and institutional knowledge to help both new and experienced leaders have productive and engaging experiences.

Meet the Employers
1600–1800 hrs // Grand Ballroom
This fun and dynamic event offers students and young professional attendees the chance to meet AIAA corporate members and learn about possible employment opportunities. There is no cost to participate and forum registration is not required.
PLENARY
State of the Industry
0800–0900 hrs // International Ballroom
Hear from Kevin Michaels, a globally recognized expert on the aviation and aerospace manufacturing industries, as he examines the current state and future of the industry.
SPEAKER: Kevin Michaels, Managing Director, AeroDynamic Advisory

FORUM 360
Current State of the Industry
0930–1100 hrs // International Ballroom
This panel of experts will consider how the aviation industry is reacting to current challenges, including downturn in demand and extended life of platforms. They’ll also reflect on opportunities provided, including shifting government and industry roles, and engineering support to product operations.
MODERATOR: Graham Warwick, Executive Editor, Technology, Aviation Week
PANELISTS:
Roderick McLean, Vice President and General Manager, Air Mobility and Maritime Missions, Lockheed Martin Aeronautics Company
Mike Sinnett, Vice President and General Manager, Product Development, Boeing Commercial Airplanes
Jim Tighe, Chief Technical Officer, Wisk

Taste of Chicago Lunch
1130–1330 hrs // Continental A-C
Proof of purchase is required and included in the registration fee where indicated.

FORUM 360
Meeting the Current Workforce Challenges
1430–1600 hrs // International Ballroom
The aviation industry faces a shortage of available talent for all positions. This shortage is complicated by the demand from all industries for individuals with specific skillsets needed now and in the future. Join us as we discuss how the community can work together to ensure that students and workers have the education and training they need to maintain the high standards of engineering excellence demanded by the industry.
MODERATOR: Dimitri Mavris, Langley Distinguished Regents Professor, Georgia Tech
PANELISTS:
Tim Booher, Vice President, Combat Systems, Lockheed Martin
Ahsan Choudhuri, Professor, Aerospace and Mechanical Engineering, and Associate Vice President, Aerospace Center, University of Texas at El Paso

Brian Connolly, Vice President and Senior Chief Engineer, Cyber Systems, The Boeing Company
Mike Kincaid, Associate Administrator, Office of STEM Engagement, NASA

Speed Mentoring
1500–1700 hrs // Continental A-C
Leaders in the aerospace industry will take time to meet with Rising Leaders participants and share their experiences. The event is a great way to get new insights and make connections.

FORUM 360
Women of Aeronautics and Astronautics (WoAA) Panel: Propelling the Aerospace Industry with Allyship
1630–1730 hrs // International Ballroom
This event will see aerospace industry leaders sharing their experiences of implementing and promoting allyship during their careers. Panelists who identify with minority groups will speak about encountering allyship and how it can play a crucial role in enabling them to thrive at work and otherwise.
MODERATOR: Shireen Datta, Aerospace Systems Engineer, Aurora Flight Sciences
PANELISTS:
Nayan Bohidar, Research Engineer and Manager, Propulsion Engineering Team, Aurora Flight Sciences
Kate Gunderson, Mechanical/Aerospace Engineer, National Test Pilot School
Jessica Jones, Staff Aeroelastician, Aurora Flight Sciences
Linda O’Brien, Vice President and Chief Engineer, Lockheed Martin Aeronautics

Trivia Night
1800–1930 hrs // Continental A-C
Join fellow students and young professionals to test your knowledge of aerospace trivia, have the chance to win cool prizes, and meet new people. Light snacks will be provided. Hosted by the AIAA University of Illinois Chicago Student Branch.

NETWORKING BREAKS
0900–0930 hrs // International and Continental Foyers
1600–1630 hrs // International and Continental Foyers
PLENARY
Supply Chain
0800–0900 hrs // International Ballroom

SPEAKER: Ron Epstein, Managing Director, Aerospace & Defense, Bank of America Merrill Lynch

FORUM 360
Supply Chain – The Greater Picture
0930–1100 hrs // International Ballroom

We’re in the midst of a supply chain crisis, with disruptions being felt in our daily lives as well as across the industry. Our panel of experts will consider the issues and problems we’re facing and explore potential solutions, including how to ensure the future resilience of the supply chain.

MODERATOR: Tom Edwards, Chief Technology Officer, Crown Consulting Inc.

PANELISTS:
Abe Eshkenazi, CEO, Association for Supply Chain Management
Jeff Gajda, Chief Procurement Officer, Vice President, Sourcing and Procurement, Honeywell
Samantha Marnick, Executive Vice President and Chief Operating Officer; President, Commercial, Spirit AeroSystems
Maciek Nowak, Interim Dean, Professor, Quinlan School of Business, Loyola University Chicago

Technical Lecture: History of High-Speed Air-Breathing Propulsion
0930–1030 hrs // Lake Ontario

FORUM 360
Aviation Supply Chain: Challenges, Opportunities, and Path Forward
1430–1600 hrs // International Ballroom

This panel will focus on the aviation industry supply chain, discussing its importance, challenges that have been encountered, and the path forward to resilience to support the entire aviation ecosystem.

MODERATOR: Parimal “PK” Kopardekar, Director, NASA Aeronautics Research Institute

PANELISTS:
Mohamed Denden, Vice President of Procurement, Airbus Americas
Ronald Epstein, Managing Director, Aerospace & Defense, Bank of America Merrill Lynch
Joseph Hernandez, Vice President of Technology, FEAM
Robie I. Samanta Roy, Chief Operating Officer, Electra.aero

FORUM 360
Evaluation of the Transport Airplane Risk Assessment Methodology
1630–1800 hrs // International Ballroom

The FAA developed a report regarding the methodology and effectiveness of the Transport Airplane Risk Assessment Methodology (TARAM) process with the National Academies of Sciences, Engineering, and Medicine (National Academies). TARAM is used to identify potential risks in currently operating airplanes, which will alert FAA officials if action is needed to prevent potential accidents. The National Academies appointed an ad hoc committee of 12 members to undertake a study to evaluate the FAA’s TARAM process. This discussion will cover:

› Role and objectives of TARAM within the FAA’s overall safety oversight system
› Assessment of the TARAM analysis process
› Effectiveness of TARAM for the purposes of improving aviation safety
› Recommendations to improve the methodology and effectiveness of TARAM as an element of aviation safety

MODERATOR: George Ligler, Proprietor, GTL Associates; Professor, Multidisciplinary Engineering, Texas A&M University; Chair, National Academies Committee on Transport Airplane Risk Assessment Methodology

PANELISTS:
John-Paul Clarke, Professor and Ernest Cockrell Jr. Memorial Chair in Engineering, University of Texas at Austin
Karen Feigh, Professor and Associate Chair for Research, Georgia Institute of Technology
Jeff Guzzetti, President, Guzzetti Aviation Risk Discovery, LLC
Jan Schilling, Chief Engineer for Advanced Products, GE Aviation (retired)

NETWORKING BREAKS
0900–0930 hrs // International and Continental Foyers
1600–1630 hrs // Salon A

Taco Tuesday Lunch
1130–1330 hrs // Continental A-C

Proof of purchase is required and included in the registration fee where indicated.

2022 Fluid Dynamics Award Lecture
1400–1500 hrs // Williford C

Welcome Happy Hour
1730–1900 hrs // Exposition Hall
PLENARY
0800–0900 hrs // International Ballroom

SPEAKER: Mel Johnson, Director, Compliance and Airworthiness Division, Aircraft Certification Services, Federal Aviation Administration

FORUM 360
How Do We Engineer for Safety?
0930–1100 hrs // International Ballroom

Safety is paramount in the aviation industry. As we add new entrants and vehicles, how do we improve on this standard? Hear from experts as they discuss incorporating autonomous systems, digital engineering, and new methods of testing, among other advances, to engineer for safety.

MODERATOR: Shweta Mulcare, Outcome Lead, Aviation Safety Information Analysis and Sharing (ASIAS) and Advanced Analytics Evolution, The MITRE Corporation

PANELISTS:
Ludovic Aron, Representative to the United States, European Union Aviation Safety Agency (EASA)
Capt. Bob Fox, First Vice President and National Safety Coordinator, Air Line Pilots Association, Int’l (ALPA)
Dan Freeman, Vice President, Safety Management System, The Boeing Company
Dan Heller, Vice President, Corporate Engineering, Lockheed Martin
Jacqueline S. Janning-Lask, Director of Engineering and Technical Management and Chief Engineer, Air Force Life Cycle Management Center
Kevin Matthies, Senior Vice President and General Manager, Boeing Programs, Spirit AeroSystems

Lunch Panel: Interactive Discussion with Young Professionals on Career Transitions and New Opportunities
1200–1330 hrs // Continental A

Join young leaders in the aerospace industry to discuss topics of importance to young professionals in the workplace. Boxed lunches are provided on a first-come, first-served basis.

TECHNICAL LECTURE: High-Speed Air-Breathing Propulsion Flight Test and Captive Flight Test
1400–1500 hrs // Lake Ontario

Industry leaders will describe their latest work in hypersonic flight test and answer your questions about plans for new fleets of high-speed transports and testbed.

NASA Aeronautics Aviation Sustainability Strategy
1430–1630 hrs // International Ballroom

One of the most daunting challenges facing the global aviation industry revolves around sustainability. NASA Aeronautics technology leadership will discuss several critical initiatives in its aviation sustainability strategy. These initiatives directly address accelerating the implementation of technologies that focus on key sustainability barriers including hybrid-electric propulsion, advanced composite manufacturing, advanced configurations, and propulsion systems. Join NASA leadership as they discuss these crucially important sustainable aviation topics.

MODERATOR: Rich Wahls, Deputy Director (Acting) and Strategic Technical Advisor, Advanced Air Vehicles Program, Aeronautics Research Mission Directorate, NASA

SPEAKER: Robert Pearce, Associate Administrator, Aeronautics Research Mission Directorate, NASA

PANELISTS:
John Cavolowsky, Director, Transformative Aeronautics Concepts Program, Aeronautics Research Mission Directorate, NASA
Barbara Esker, Director (Acting) and Deputy Director, Advanced Air Vehicles Program, Aeronautics Research Mission Directorate, NASA
Lee Noble, Director, Integrated Aviation Systems Program, Aeronautics Research Mission Directorate, NASA
Akbar Sultan, Director, Airspace Operations & Safety Program, Aeronautics Research Mission Directorate, NASA

Special Session: Supersonic Aircraft
1430–1540 hrs // 4F

Chanute Flight Test Award Lecture
1730–1830 hrs // Williford A

My Journey: Honest Ed’s to the.....”Blackbird” at Mach 3.2!
Rogers Smith
PLENARY
0800–0900 hrs // International Ballroom

SPEAKER: Laurence Wildgoose, Assistant Administrator for Policy, International Affairs, and Environment, Federal Aviation Administration

FORUM 360
Government Perspectives on the U.S. Civil Government Aviation Climate Action Plan
0930–1100 hrs // International Ballroom

On 9 November 2021, the U.S. government published the United States Aviation Climate Action Plan, which describes a whole-of-government approach to put the sector on a path toward achieving net-zero emissions by 2050. The plan builds on individual and sector-wide commitments announced by the U.S. aviation industry, and highlights specific actions and policy measures to foster innovation and drive change across the entire U.S. aviation sector.

MODERATOR: R. John Hansman, T. Wilson Professor of Aeronautics & Astronautics, Massachusetts Institute of Technology; Director, MIT International Center for Air Transportation

PANELISTS:
Roberto I. Guerrero, Deputy Assistant Secretary of the Air Force for Operational Energy, Office of the Assistant Secretary of the Air Force for Energy, Installations and Environment
James Hileman, Chief Scientific and Technical Advisor, Environment and Energy, Federal Aviation Administration
Richard Wahls, Deputy Director (Acting) and Strategic Technical Advisor, Advanced Air Vehicles Program, Aeronautics Research Mission Directorate, NASA

PEGASAS Annual Meeting
0930–1600 hrs // Buckingham

PEGASAS researchers, FAA program managers and technical monitors, industry affiliates, and advisory board members meet annually to showcase the progress of PEGASAS research. The general aviation-focused meeting is packed with technical tracks covering PEGASAS projects that support FAA research requirements and topic-relevant invited talks. For more information, visit our website www.pegasas.aero or contact info@pegasas.aero.

Lunch with Exhibitors
1130–1330 hrs // Exposition Hall - Salon A
Proof of purchase is required and included in the registration fee where indicated.

FORUM 360
Industry Perspectives on the U.S. Civil Government Aviation Climate Action Plan
1430–1600 hrs // International Ballroom

This is the second of two sessions on the November 2021 Aviation U.S. government Aviation Climate Action Plan. Hear perspectives from across the aviation industry on the plan, recent advances in technology and policy, and the industry’s commitment to action.

MODERATOR: Nancy Young, Chief Sustainability Officer, Alder Fuels

PANELISTS:
Lauren Riley, Managing Director, Global Environmental Affairs and Sustainability, United Airlines
Brian Ripsin, Americas Sustainability Manager, Shell Aviation
Michael Winter, Senior Fellow, Advanced Technology, Pratt & Whitney
Brian Yutko, Chief Engineer, Sustainability and Future Mobility, Boeing

Stay fit with your fellow attendees!
See the sights of Chicago on foot with AIAA staff on Tuesday, 28 June, and Thursday, 30 June, at 0600 hrs. Meet in the lobby at the Hilton Chicago for a run/walk. All levels are welcome for a 1-3 mile route.

NETWORKING BREAKS
0900–0930 hrs // Salon A
1600–1630 hrs // International and Continental Foyers
FOR MOST UP-TO-DATE SCHEDULE CHECK ONLINE

PEGASAS Annual Meeting
0930–1100 hrs // Buckingham
PEGASAS researchers, Federal Aviation Administration program managers and technical monitors, industry affiliates, and advisory board members meet annually to showcase the progress of PEGASAS research. The general aviation-focused meeting is packed with technical tracks covering PEGASAS projects that support FAA research requirements and topic-relevant invited talks. For more information, visit our website www.pegasas.aero or contact info@pegasas.aero.

FORUM 360
Future Airspace Operations
0930–1100 hrs // International Ballroom
The density and diversity of airspace operations is likely to change significantly with developments related to drones, eVTOLs, sTOLs, advanced air mobility, supersonics, and commercial space transportation. NASA, the FAA, and industry are keen on ensuring that future airspace operations continue to scale to accommodate the diversity and density in the same manner. The panel will discuss the lessons learned from current air traffic operations and unmanned aircraft system traffic management and identify various capabilities that need to be developed to prepare for the future in a safe manner.

MODERATOR: Lisa Ellman, Executive Director, Commercial Drone Alliance and Partner, Hogan Lovells
PANELISTS:
Ella Atkins, Professor of Aerospace Engineering; Director, Autonomous Aerospace Systems (A2SYS) Lab; Associate Director of the Robotics Institute, University of Michigan
Steve Bradford, Chief Scientist, NextGen, FAA
Todd Briscoe, Director of Commercial Advanced Product Development, Core Engineering and Materials and Process Engineering, Spirit AeroSystems
Bob Ellithorpe, Vice President, Program Management, Archer
Akbar Sultan, Director, Airspace Operations and Safety Program, Aeronautics Research Mission Directorate, NASA
Frank Matus, Director, ATC and Digital Aviation Solutions - Americas, Thales
DON’T MISS THIS WEBINAR!

Automation and Autonomy in General Aviation: Opportunities and Challenges for Safety, Accessibility, and Sustainability

13 July 2022, 1200-1330 hrs ET

FOCUS: How introducing more automation and/or autonomy for general aviation could increase safety, accessibility, and sustainability by reducing pilot workload, preventing loss of control in flight, and lowering training requirements and proficiency training.

› Discussion of what needs to be addressed to make this happen
› Current examples
› Challenges that prevent this from being certified and adopted

THIS WEBINAR IS OPEN TO THE PUBLIC AND FREE OF CHARGE.

REGISTER AT: aiaa.org/events-learning/aiaa-webinars

Co-organized by PEGASAS and the AIAA Intelligent Systems Technical Committee
ITAR SESSIONS

AIAA offers authors the opportunity to present information that is covered by the U.S. International Traffic in Arms Regulations (ITAR), in U.S.-only sessions during the forum. These sessions provide an opportunity for discussion of topics and presentations that is not possible in an open forum.

If you want to attend any of these special sessions, you will need to complete an additional registration and verification process. In addition to a forum registration that includes access to sessions, a separate registration process is required to attend these restricted sessions. To register, please bring the required documentation with you to the on-site ITAR registration desk: most important is proof of U.S. citizenship. (Please note that a CAC card is NOT official proof of U.S. citizenship.)

See the specific requirements below to determine individual requirements.

Access to ITAR Sessions
All attendees, presenters, and session chairs participating in ITAR sessions will need to register for the forum (using one of the options that includes access to sessions), and then complete the ITAR registration process, including validating U.S. citizenship as well as government employment or contractor status. The following are the documents required to register for the ITAR sessions:

Proof of U.S. Citizenship -
(One of the following is required for all those registering for ITAR sessions)
Valid U.S. passport
Birth certificate
Certificate of citizenship
-CAC Cards are not Proof of U.S. citizenship-

U.S. Government Attendees*
AIAA forum badge
Proof of U.S. citizenship
CAC card or other proof of government employment

Non-U.S. Government Attendees
AIAA forum badge
Proof of U.S. citizenship
Corporate badge, or business card and photo ID
Copy of approved and active DD2345 contractor certificate** ^

*Please note that if your paycheck comes from someone other than the U.S. government, for example, a university, you will need to follow the process of the non-U.S. Government Attendees.

** If you are not familiar with the DD2345, please check with your Corporate Security Officer.

-DD2345 certificates are office location specific.
-CAC Cards are not proof of U.S. citizenship.

ITAR Registration Hours:
Sunday, 26 June 1600-1900 hrs Registration
Monday, 27 June 0800-1600 hrs Room 4M
Tuesday, 28 June 0800-1600 hrs Room 4M
Wednesday, 29 June 0800-1500 hrs Room 4M

MONDAY, 27 JUNE
0930-1110 hrs // 4M
ITAR-01: General Topics

1400-1540 hrs // 4M
ITAR-02: Kinetic Weapon Integration

TUESDAY, 28 JUNE
0930-1110 hrs // 4M
ITAR-03: USAF Transformational S&T I

1400-1540 hrs // 4M
ITAR-04: USAF Transformational S&T II

WEDNESDAY, 29 JUNE
0930-1110 hrs // 4M
ITAR-05: Directed Energy I

1400-1540 hrs // 4M
ITAR-06: Directed Energy II

ITAR badges must be worn during the sessions. Photo IDs and ITAR badges will be checked upon entrance to the ITAR session room(s).

ITAR Electronics Policy
Cell phones, computers, tablets, cameras, personal fitness devices, or other electronic devices with cameras, recording, or two-way transmission capabilities will not be permitted into the ITAR session room(s). There will be a check-in desk in front of the room where you can leave these devices. Large briefcases and bags will also need to be left at the desk.

Please be advised that all policies and procedures MUST be followed or admittance to the restricted sessions will not be permitted. Anyone wishing to enter the restricted session room MUST abide by the policies, procedures, and submission of verified documents mandated by the DoD. No Exceptions!
SERVICE AWARDS
The following 2022 AIAA Sustained Service Awards will be presented at the AIAA Leadership Summit on 26 June 2022.

João Luiz F. Azevedo, Instituto de Aeronáutica e Espaço, Brazil
For more than 10 years of service as Deputy Director–Region VII and as a member of the AIAA Education Series Editorial Advisory Board.

Carlos E. S. Cesnik, University of Michigan
For nearly three decades of sustained and meritorious service to AIAA in a variety of leadership roles within its technical activities.

John R. Chawner, Cadence Design Systems, Inc.
For over 40 years of continuous involvement and advocacy to drive CFD engagement and advancements in AIAA through workshops and technical and integration committees.

Farzad Mashayek, University of Illinois Chicago
For outstanding, sustained contributions to the Institute at the section and regional levels and to national technical committees with role-model activities in terrestrial energy generation and storage.

TECHNICAL AWARDS
Join us each morning as the following awards will be presented at the plenary sessions.

2021 Elmer A. Sperry Award
Michimasa Fujino, HondaJet
In recognition of his singular achievement of research and development of new technologies for business aviation including the Over-the-Wing Engine Mount and Natural Laminar Flow airfoil, and the introduction to the market of commercial aircraft based on these technologies through the formation of HondaJet.

2022 AIAA Aerodynamics Award
Marilyn J. Smith, Georgia Institute of Technology
For contributions to the computational and theoretical aerodynamic analysis of static and dynamic systems with separated flows, particularly for vertical takeoff and landing rotorcraft vehicles.

2022 AIAA Aircraft Design Award
Steve Ericson, Overair
For a lifetime of innovative aircraft designs and exceptional skills in configuration design, as well as mentoring young engineers in aircraft design.

2022 AIAA Chanute Flight Test Award
Rogers E. Smith, Consultant/SDI
For career-long achievements and contributions to the safe practices and teaching of flight testing, particularly in-flight controls and flying qualities, and significant collaboration with a diverse set of aerospace stakeholders.

2022 AIAA Fluid Dynamics Award
Mujeeb R. Malik, NASA Langley Research Center
For numerous and significant contributions to the understanding and control of laminar turbulent boundary-layer transition, and for exceptional leadership, particularly in the area of certification-by-analysis.

2022 AIAA Ground Testing Award
James C. Ross, NASA Ames Research Center
In recognition of decades of exemplary service and leadership in ground testing, advancing critical technologies including heavy vehicles, military aircraft, and NASA’s Multipurpose Crew Vehicle Program.

2022 AIAA Hap Arnold Award for Excellence in Aeronautical Program Management
Paul W. Niewald, The Boeing Company
For championing the use of innovative tools such as digital engineering to transform aircraft development, saving time and cost while enhancing performance and safety.

2022 AIAA James A. Van Allen Space Environments Award
Henry B. Garrett, Jet Propulsion Laboratory, California Institute of Technology
For a lifetime of contributions to the understanding of the interactions of spacecraft with the Earth’s magnetosphere and those of other planets.

2022 AIAA Losey Atmospheric Sciences Award
Fred H. Proctor, NASA (retired)
For leading fundamental research to characterize atmospheric-related aviation hazards and to develop advanced sensor algorithms for identifying and mitigating these hazards.

2022 AIAA Thermophysics Award
Karen A. Thole, Pennsylvania State University, START Lab
For pioneering research at the intersection of additive manufacturing and heat transfer in gas turbine engines that enables innovative combustor and turbine cooling designs.

2022 AIAA Plasmadynamics and Lasers Award
Sergey O. Macheret, Purdue University
For pioneering work on novel plasma generation and control methods and on aerospace applications of plasmas.
BEST PROFESSIONAL PAPER
These awards will be presented during the sponsoring committee’s meeting.

2021 AIAA Ground Testing Best Paper Award

2021 AIAA Modeling and Simulation Best Paper Award
“A Gaussian Process Enhancement to Linear Parameter Varying Models” (AIAA-2021-3006) by Stefan Schuet, Carlos Malpica and Jeremy Aires, NASA Ames Research Center

2022 AIAA Aircraft Design Best Paper Award
“Aerodynamic Performance Benefits of Over-the-Wing Distributed Propulsion for Hybrid-Electric Transport Aircraft” (AIAA-2022-0128) by Reynard de Vries and Roelof Vos, Delft University of Technology

2022 AIAA Applied Aerodynamics Best Paper Award

2022 AIAA Fluid Dynamics Best Paper Award
“Formation of a Nacelle Inlet Ground Vortex in Crosswind” (AIAA-2022-1698) by Derek A. Nichols, Bojan Yukanovic, and Ari Glezer, Georgia Institute of Technology; and Bradley Rafferty, The Boeing Company

2022 AIAA Plasmadynamics and Lasers Best Paper Award

2022 AIAA Solid Rockets Best Paper Award
“Solid Rocket Motor Internal Ballistics with a Surface-Vorticity Solver” (AIAA-2022-1898) by Griffin A. DiMaggio, Joseph Majdalani, and Roy J. Hartfield, Jr., Auburn University; and Vivek Ahuja, Research in Flight

2022 AIAA Thermophysics Best Professional Paper Award
“Direct Molecular Simulation of Rovibrational Relaxation and Chemical Reactions in Air Mixtures” (AIAA-2022-1010) by Erik Torres, University of Minnesota; and Eric C. Geistfeld and Thomas E. Schwartzentruber, University of Minnesota

2022 AIAA/CEAS Aeroacoustics Best Paper Award
“Extension of Traditional Beamforming Methods to the Continuous-Scan Paradigm” (AIAA-2022-1154) by David Morata and Dimitri Papamoschou, University of California, Irvine

BEST STUDENT PAPERS
This award will be presented during the sponsoring committee’s meeting.

2022 AIAA David Weaver Thermophysics Best Student Paper Award
“Numerical Investigation of Film Coefficient Engineering Methodology for Dissociated, Chemically Reacting Boundary Layers” (AIAA-2022-1907) by Justin Cooper, NASA Johnson Space Center; Giovanni Salazar, Corvid Technologies; and Alexandre Martin, University of Kentucky

STUDENT PAPER COMPETITIONS
The following Student Paper Competitions are being held in conjunction with the forum:

Applied Aerodynamics
Atmospheric and Space Environments
Computational Fluid Dynamics
Multidisciplinary Design Optimization
EXPOSITION HALL

EXPOSITION HOURS

TUESDAY, 28 JUNE
1300–1630 hrs // Exposition Hall Open
1730–1900 hrs // Welcome Happy Hour

WEDNESDAY, 29 JUNE
0845–1630 hrs // Exposition Hall Open

THURSDAY, 30 JUNE
0845–1400 hrs // Exposition Hall Open
1130–1330 hrs // Lunch with the Exhibitors
The HUB is open Tuesday–Thursday during Exposition Hall hours!

This multi-use area built into the heart of AIAA expositions features attendee-favorites like Q&As, innovating programming, charging stations, a lounge area, and more.

Check out the complete schedule of activities:
aiaa.org/aviation/program/the-hub

Need to identify a place to meet up with friends?
Make the HUB that place!

AIAA PUBLICATIONS PAVILION IN THE HUB

Stop by the AIAA Publications Pavilion, located in the Exposition Hall, to browse publications and merchandise, learn about your membership benefits, and meet AIAA staff.

30% OFF ALL BOOKS

AIAA Publications is offering a special show discount on all titles featured at the AIAA AVIATION Forum. Attendees can take advantage of a 30% discount off the list price of all books for sale at the AIAA Publications Pavilion. This show special will only be available during the forum!

Take advantage of these super savings!

During the 2022 AIAA AVIATION Forum, tune in to the STUDIO to hear additional insights from speakers following their presentations and watch exclusive Q&As on the aviation industry’s most relevant topics. The STUDIO is an online destination for attendees to experience brief, one-on-one interviews on the impact of what’s being discussed at the forum. Hosted by Kate Gunderson (@theplaneKate), the STUDIO interviews will be posted on the virtual platform.

Check out all the STUDIO interviews starting on 29 June, 2022:
virtualaviation.aiaa.org/thestudio
AIAA online courses help you stay sharp while strengthening your knowledge base. We're committed to assisting in your professional development and maximizing your success year-round. Learn from the industry’s leading experts. Member and student member pricing available.

### UPCOMING ONLINE COURSES

**FIND SUCCESS WITH AIAA CONTINUING EDUCATION**

AIAA online courses help you stay sharp while strengthening your knowledge base. We’re committed to assisting in your professional development and maximizing your success year-round. Learn from the industry's leading experts. Member and student member pricing available.

- **Aircraft Reliability & Reliability Centered Maintenance**
  - Starts 13 September

  - Starts 20 September

- **Introduction to Aviation Data Science with Machine Learning**
  - Starts 27 September

- **Fundamentals and Applications of Pressure Gain Combustion**
  - Starts 28 September

- **Business Development for Aerospace Professionals**
  - Starts 28 September

- **Propeller Aerodynamics for Advanced Air Mobility: Fundamentals and Integration Effects**
  - Starts 4 October

- **Higher Fidelity Designs for the Aerospace Industry with Fluid-Thermal Structural Interaction**
  - Starts 11 October

- **Aviation Cybersecurity**
  - Starts 18 October

- **eVTOL Infrastructure Considerations for Advanced Air Mobility**
  - Starts 1 November

- **Practical Design Methods for Aircraft and Rotorcraft Flight Control for Unpiloted, UAV, and AAM Applications with Hands-on Training using CONDUIT®**
  - Starts 14 November

- **AI for Air Traffic Safety Enhancement**
  - Starts 7 February 2023

Can’t attend the live online lectures? Most courses are available on demand.

**BROWSE THE FULL COURSE CATALOG**

[learning.aiaa.org](http://learning.aiaa.org)
EXHIBITORS

Aerospace Research Central (ARC)  the HUB
12700 Sunrise Valley Dr., Suite 200
Reston, VA 20191
www.arc.aiaa.org

AIAA has earned an international reputation as the preeminent publisher of cutting-edge aerospace journals and books, and as the leading source of aerospace industry archives, dating back to the early 1900s. Over the past eight decades, AIAA and its predecessor organizations have published over 300 books and almost 200,000 technical articles. AIAA’s current publications include eight technical journals, a magazine, three book series, national and international standards documents, a growing number of eBooks and other electronic products, and a full-service, interactive website. For the most authoritative technical publications, look to AIAA.

AIAA Illinois Section  106
104 S Wright St.
Urbana, IL 61801
www.aiaa.org/IllinoisSection

The Illinois Section of AIAA, a part of Region III, contains three Student Branches of AIAA. These branches include University of Illinois Urbana-Champaign, University of Illinois Chicago, and Illinois Institute of Technology. Members from the board of each group will be staffing the table and would love to talk about what we do on a more local level of AIAA, whether that be questions or just a chat!

Aurora Flight Sciences, A Boeing Company  201
9950 Wakeman Dr.
Manassas, VA 20110
www.aurora.aero

Aurora Flight Sciences, a Boeing Company, advances the future of flight by developing and applying innovations across aircraft configurations, autonomous systems, propulsion technologies, and manufacturing processes. With a passionate and agile team, Aurora delivers solutions to its customers’ toughest challenges while meeting high standards of safety and quality. Learn more at www.aurora.aero.

Boeing  201
7755 E. Marginal Way S
Seattle, WA 98108
www.boeing.com

As a leading global aerospace company, Boeing develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. As a top U.S. exporter, the company leverages the talents of a global supplier base to advance economic opportunity, sustainability and community impact. Boeing’s diverse team is committed to innovating for the future and living the company’s core values of safety, quality and integrity. Learn more at www.boeing.com.

DARcorporation  113
910 E 29th St.
Lawrence, KS 66046
www.darcorp.com

DARcorporation (Design, Analysis and Research Corporation) is an aeronautical engineering firm, located in Lawrence Kansas, that has been offering aeronautical engineering, consulting services, software and books since 1991. Experience in the design, detailed analysis and building of prototypes gives DARcorporation a unique advantage over other companies, since we can go from initial design all the way through full size prototype manufacturing and testing. The unique tools we developed for design and analysis make DARcorporation the best choice for any new or existing aeronautical project. We will work with you to design and optimize your aircraft for performance, manufacturability and cost.

Darktrace  509
555 Mission Street, Suite 3225
San Francisco, CA 94105
www.darktrace.com

Darktrace AI interrupts in-progress cyber-attacks in seconds, including ransomware, email phishing, and threats to cloud environments and critical infrastructure. Join over 6,800 organizations worldwide that rely on a digital immune system to avoid cyber disruptions, without impacting regular business operations.

Dassault Systemes SIMULIA  214
1301 Atwood Ave, 101 West
Johnstown, RI 02919
www.3ds.com

Dassault Systemes 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
EXHIBITORS

Defense Systems Information Analysis Center (DSIAC) 403
4695 Millennium Drive
Belcamp, MD 21017
www.dsiac.org
The Defense Systems Information Analysis Center (DSIAC) is a component of the DoD - USD (R&E) comprised of scientists, engineers, researchers, analysts, and information specialists. We offer free research services to DoD and federal government users - including subject matter expert connections, trainings, database management, and more - intended to eliminate interdepartmental redundancy, foster collaboration, and stimulate innovation. Visit our website at www.dsiac.org.

DEWESoft LLC 506
10730 Logan Street
Whitehouse, OH 43571
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.

Digital Twin Consortium 507
9C Medway Road, PMB274
Milford, MA 01757
www.digitaltwinconsortium.org
Digital Twin Consortium drives the awareness, adoption, interoperability, and development of digital twin technology. Through a collaborative partnership with industry, academia, and government expertise, the Consortium is dedicated to the overall development of digital twins. We accelerate the market by propelling innovation and guiding outcomes for technology end-users.

ESTECO 406
39555 Orchard Hill Place, Suite 457
Novi, MI 48375
www.engineering.esteco.com
ESTECO is an independent software company, highly specialized in numerical optimization and simulation process and data management. With more than 20 years of experience, ESTECO supports over 300 international organizations in excelling in their digital engineering experience, accelerating the decision-making process and reducing development time. Ford Motor Company, Honda, Lockheed Martin, Toyota and Whirlpool are just a few of the major companies relying on ESTECO technology. ESTECO is the owner of VOLTA, the innovative enterprise platform for Simulation Process and Data Management and design optimization, and modeFRONTIER, the leading software solution for simulation process automation and optimization in the engineering design process.

Fabreeka International 417
1023 Turnpike St.
Stoughton, MA 02072
www.fabreeka.com
Headquartered in Stoughton, MA, Fabreeka International brings decades of expertise to the aerospace industry with high-tech low frequency vibration isolation solutions. Our talented engineers combine excellent results with great service to provide engineered vibration and shock control systems across industries since 1936.
Our work in the aerospace industry assists engineers in developing safe, reliable aircraft for flight, space and beyond. Our Precision Aire™ Leveling (PAL) pneumatic isolators are exceptionally designed for applications in the aerospace industry. Fabreeka’s engineers design advanced soft support systems to reduce low frequency vibration that may otherwise obscure the results of ground vibration testing.

Flexcompute 308
130 Trapelo Road
Belmont, MA 02478
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.

Gamma Technologies 408
601 Oakmont Lane, Suite 220
Westmont, IL 60559
www.gtisoft.com
Gamma Technologies [GT], a leading multi-physics CAE simulation software provider, develops a suite of integrated solutions that guides and accelerates the engineering transformation of today’s products. The trend toward electrified skies continues to accelerate and simulation solutions continue to evolve to manage the complexity that comes with electric strategies. Stop by our Gamma Technologies’ booth to learn how GT-SUITE can shorten development time for early concept propulsion architecture studies for optimizing range; battery, fuel cell, ICE, and hybrid concepts; maximize product life and performance; and perform real-time capable models for controls validation.

Gulfstream Aerospace 101
500 Gulfstream Road
Savannah, GA 31407
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.
EXHIBITORS

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 supermidsize 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.

Hexagon 413
250 Circuit Drive
North Kingstown, RI 02852
hexagonmi.com/mscsoftware

Hexagon is a global leader in sensor, software and autonomous solutions. Hexagon’s Manufacturing Intelligence division uses data from design and engineering, production and metrology to make manufacturing smarter. Our CAE solutions, developed through the acquisition of the MSC Software portfolio, help engineers accelerate product innovation. For more information, visit hexagonmi.com/mscsoftware.

IC2 (Interdisciplinary Consulting Corp) 309
5745 SW 75th St, #364
Gainesville, FL 32608
www.thinkic2.com

IC2 brings over 20 years of experience as scientific-grade sensor designers and trusted consultants pushing the bounds of measurement accuracy and performance for aerospace measurements. With a team of in-house sensor developers, IC2 uses industry-proven development techniques to maximize performance. Through intimate exposure to experimental aerodynamics and aeroacoustics and decades of interdisciplinary research and development, IC2 has deep understanding of measurement challenges aerospace engineers and researchers face, and how to precisely overcome them. IC2 offers custom MEMS transducer and system design consulting services in addition to a suite of novel aerospace sensors, including the DirectShear Wall Shear Stress Sensing System.

Intelligent Light 320
301 State RT 17, 7th Floor
Rutherford, NJ 07070
www.ilight.com

For decades Intelligent Light has been at the forefront of CFD, visualization, high performance computing and data science. We developed FieldView, the global market leading analysis and visualization tool for large scale CFD. We commercialized VisIt, the U.S. Department of Energy’s open source visualization software. We assembled a team of leading domain experts to conduct research that advanced the needs of our clients: from NASA and JAXA to Boeing, GE, Sikorsky, Ford, Rolls Royce and a host of top Formula One teams among many others. And now we are delivering transformative tools for advanced risk reduction (SpectreUQ and Snapshot), and compression of workflows to harvest valuable data (Kombyne).

Kulite Semiconductor Products, Inc. 508
One Willow Tree Road
Leonia, NJ 07605
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 Corporation 301
7501 Calmont Ave
Fort Worth, TX 76116
www.lockheedmartin.com

Lockheed Martin is a global security and aerospace company principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. Please visit us at Booth 301 where we will be showcasing our products, introducing our employees, and recruiting talented individuals who are ready to research and develop innovative aerospace solutions. We deliver next-generation technology to protect the generations to come.

NASA 107
300 E Street SW
Washington, DC 20546
www.nasa.gov/topics/aeronautics/index.html

Thanks to advancements in aeronautics developed by NASA, today’s aviation industry is better equipped than ever to transport passengers to their destinations. In fact, every U.S. aircraft flying today and every U.S. air traffic control tower uses NASA-developed technology.

National Test Pilot School 112
1030 Flightline, Building 72
Mojave, CA 93501
www.ntps.edu

The National Test Pilot School (NTPS) is the Premier Total Flight Test Education and Training Organization in the World. A lofty claim perhaps, yet the diversity and breadth of the flight test education and training conducted at NTPS is unsurpassed in the industry. NTPS is the World’s first and only Accredited Test Pilot School and the first to attain EASA certification. We offer over 30 different flight test courses, from the year-long Professional Courses to numerous short courses to our Master’s degrees. NTPS can truly meet all your flight test education and training needs. NTPS also conducts flight test research both internally and partnered with notable research organizations. Celebrating 40 years of service to civil industry, government organizations, and military services in both the USA and around the world; NTPS is indeed the World’s Test Pilot School. Come learn with us.
YOUR DIGITAL ARCHIVE OF AIAA EVENT VIDEOS IS HERE!

Access on-demand video presentations from AIAA virtual events in 2020/2021 and beyond through single technical paper or full conference proceedings purchases.

Videos are now available for the following AIAA events:

2020

Aviation Forum

Propulsion Forum

ASCEND

2021

SciTech Forum

Aviation Forum

Propulsion Forum

AIAA/IEEE Electric Aircraft Technologies Symposium (EATS)

ASCEND

2022

SciTech Forum

Aviation Forum

Coming soon

Log in to start browsing videos today!
video.aiaa.org
Northrop Grumman is a technology company, focused on global security and human discovery. Our pioneering solutions equip our customers with capabilities they need to connect, advance and protect the U.S. and its allies. Driven by a shared purpose to solve our customers’ toughest problems, our 90,000 employees define possible every day.

NTS is the undisputed leader in testing, inspection and certification for the aerospace industry. With 1,300 employees and over 28 labs in North America, NTS leverages rich experience and technical expertise to create best-in-class queue times, on-time delivery, and rigorous testing programs. NTS provides advanced commercial and government aviation and aerospace testing for aircraft, airframes, systems and components. Key services include the full suite of RTCA DO-160 requirements including direct effects lightning, MIL-STD-810, and MIL-STD-461. With the top experts in aviation and space testing, NTS is able to offer a one-stop-shop, globally accredited by leading regulatory agencies.

Photron is a worldwide leader in high-speed imaging. Used in internationally renowned research laboratories, industrial test facilities and universities in more than 30 countries, Photron FASTCAM high-speed cameras are trusted to provide high quality results in the challenging high-speed applications found in aerospace, military, manufacturing, and research environments. Photron’s comprehensive product range and ability to record video at up to 2.1M fps with unmatched light sensitivity make us the first choice of engineers, scientists, technicians, and other camera users around the world. Photron cameras set new standards for resolution, frame rate, and light sensitivity in small, lightweight, and High-G camera bodies.

Research in Flight is the maker of the FlightStream® flow solver software. FlightStream® is a 21st century reimagining of panel methods that couples viscous flow, flow-separation, advanced CAD import and complex vehicle aero-propulsion analysis. FlightStream® eliminates the costly process of volume mesh generation and mesh-dependency on flow-field solutions and stability, making it a very useful tool in conceptual and preliminary design phases. FlightStream® provides the ability to design airplanes within an optimization pipeline in a fraction of the time taken by conventional CFD solvers.

Rolls-Royce pioneers cutting-edge technologies that deliver clean, safe and competitive solutions to meet our planet’s vital power needs. We are one of the largest providers of defense and civil aero-engine products and services globally with 16,000 engines in the service of 160 customers in 103 countries. We power aircraft in every major sector, including commercial and business aviation, defense transport, combat, patrol, trainers, helicopters and UAVs. Rolls-Royce is heavily invested in SAF compatibility, hybrid and all-electric propulsion, future energy storage and distribution, STOVL technology, microgrids, SMRs, and so on.

Scope AR is the pioneer of enterprise-class augmented reality solutions, delivering the industry’s only cross-platform AR tools for empowering frontline workers the knowledge they need, when they need it. The company revolutionized the way enterprises work and collaborate by offering a visual “knowledge base” solution that provides effective and efficient knowledge-sharing to conduct complex remote tasks, employee training, product and equipment assembly, maintenance and repair, field and customer support, and more.

Society for Industrial and Applied Mathematics (SIAM) is the leading professional association for the applied mathematics and computational science and engineering communities. Topics include computational fluid dynamics, modeling and simulation, dynamical systems, control, and computational, network, and data science. Interested in writing a book? Speak to the editor, who will explain how SIAM partners with authors to publish quality books at competitive prices.

Tecplot, Inc. is the leading post-processing software developer in CFD data visualization. We believe visual analysis is the key to unlocking information hidden in complex data, leading to world-changing discoveries and innovation. Not only do we empower engineers and scientists to visualize, analyze, and understand information in simulation and test data results, but through our high-resolution images and animations, we help them clearly communicate their results to stakeholders.
AIAA Registration Hours

Registration is located at Salon A on the Lower Lobby Level of the Chicago Hilton.

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUN, 26 JUNE</td>
<td>1300–1900 hrs</td>
</tr>
<tr>
<td>MON, 27 JUNE</td>
<td>0700–1700 hrs</td>
</tr>
<tr>
<td>TUES, 28 JUNE</td>
<td>0700–1730 hrs</td>
</tr>
<tr>
<td>WED, 29 JUNE</td>
<td>0700–1730 hrs</td>
</tr>
<tr>
<td>THUR, 30 JUNE</td>
<td>0700–1700 hrs</td>
</tr>
<tr>
<td>FRI, 1 JULY</td>
<td>0700–1530 hrs</td>
</tr>
</tbody>
</table>

Wi-Fi Internet Access On Site

AIAA provides limited Wi-Fi service for attendees to use while onsite. To keep this service available and optimized for all attendees, please do not download files larger than 2MB, create multiple sessions across multiple devices, or download multiple files in one session. If you receive an error message that an AIAA server is blocking your current IP address, please inform the AIAA registration desk.

Network Name: Hilton Chicago Meeting
Password: AVIATION

Social Media at #AIAAaviation

Follow us on Twitter @aiaa and Instagram @aiaaerospace throughout the event for more news and event details, and use the hashtags #AIAAaviation to join the conversation!

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 on 27 June 2022. 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.
      ii. Use the Search textbox to find papers by author, title, or keyword. The Advanced Search link provides additional search information and options.
2. Direct any questions concerning access to proceedings and/or ARC to arcsupport@aiaa.org.

Be sure to catch all the technical presentations from authors on the event’s platform and after the event in the AIAA Video Library. Access to these videos is included with your conference proceedings. video.aiaa.org

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.

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.

Employment Opportunities

AIAA members can post and browse resumes, browse job listings, and access other online employment resources by visiting the AIAA Career Center at careercenter.aiaa.org.

Membership

AIAA is your vital lifelong link to the collective creativity and brainpower of the aerospace profession and a champion for its achievements. aiaa.org/member.

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 AIAA AVIATION Forum 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

Restrictions

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

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 Senior Manager Rebecca Gray at rebeccag@aiaa.org with requests or questions.
AUTHOR & SESSION CHAIR INFORMATION

Speakers’ Briefing 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’ Briefing preparation slides will be provided in each session room. Speakers’ Briefings will be held, 27 June - 1 July: 0730 hrs

Speaker Ready Room
Speakers who wish to practice their presentations may do so in room 4P on the 4th level. A sign-up sheet will be posted on the door. In consideration of others, please limit practice time to 30-minute increments.

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 Wednesday, 6 July.

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

<table>
<thead>
<tr>
<th>TIME</th>
<th>COMMITTEE AND ANCILLARY MEETINGS/EVENTS</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Sunday, 26 June</strong></td>
<td></td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Education Subcommittee</td>
<td>4A</td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Liaisons Subcommittee</td>
<td>4B</td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Honors &amp; Awards Subcommittee</td>
<td>4C</td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Membership Subcommittee</td>
<td>4E</td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Planning Subcommittee</td>
<td>4F</td>
</tr>
<tr>
<td>1500-1600</td>
<td>APATC Publicity &amp; Publications Subcommittee</td>
<td>4G</td>
</tr>
<tr>
<td>1500-1730</td>
<td>GTTC New Members Briefing, Awards and Conferences Subcommittees</td>
<td>Marquette</td>
</tr>
<tr>
<td>1600-1700</td>
<td>APATC Technical Activities</td>
<td>4K</td>
</tr>
<tr>
<td>1700-1800</td>
<td>APATC Steering Committee</td>
<td>4A</td>
</tr>
<tr>
<td>1800-2000</td>
<td>ATIO Group Meeting</td>
<td>McCormick</td>
</tr>
<tr>
<td>1800-2000</td>
<td>Applied Aerodynamics Technical Committee</td>
<td>Marquette</td>
</tr>
<tr>
<td></td>
<td><strong>Monday, 27 June</strong></td>
<td></td>
</tr>
<tr>
<td>1100-1200</td>
<td>Computational Methods for Multi-Phase Flows</td>
<td>PDR #1</td>
</tr>
<tr>
<td>1300-1500</td>
<td>Standards Committee (Nomenclature Discussion)</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1300-1600</td>
<td>Public Policy Committee Meeting</td>
<td>Pullman</td>
</tr>
<tr>
<td>1600-1800</td>
<td>Flight Testing Technical Committee Meeting</td>
<td>McCormick</td>
</tr>
<tr>
<td>1730-1830</td>
<td>Reduced Complexity Modeling &amp; Analysis (FFP)</td>
<td>Waldorf</td>
</tr>
<tr>
<td>1800-1900</td>
<td>Laminar Flow Control (FFP)</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1800-2000</td>
<td>General Aviation Technical Committee Annual Meeting</td>
<td>Pullman</td>
</tr>
<tr>
<td>1800-2000</td>
<td>UQ in Fluid Dynamics DG (FDTC)</td>
<td>PDR #5</td>
</tr>
<tr>
<td>1800-2100</td>
<td>Cadence Reception</td>
<td>Joliet</td>
</tr>
<tr>
<td>1900-2000</td>
<td>APATC Workshop Collaboration Working Group</td>
<td>PDR #1</td>
</tr>
<tr>
<td>1900-2000</td>
<td>Leading Edge Vortices (FAC)</td>
<td>Waldorf</td>
</tr>
<tr>
<td>1900-2000</td>
<td>Turbulence Model Benchmarking (CFD)</td>
<td>4K</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Uncertainty Quantification in Fluid Dynamics (CFD)</td>
<td>McCormick</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Transition Discussion Group Meeting</td>
<td>C5</td>
</tr>
<tr>
<td>1900-2200</td>
<td>HyTASP Technical Committee</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1900-2230</td>
<td>Aircraft Design Technical Committee Meeting</td>
<td>C3</td>
</tr>
<tr>
<td>2000-2100</td>
<td>Massively Separated Flows (FFP)</td>
<td>PDR #6</td>
</tr>
<tr>
<td></td>
<td><strong>Tuesday, 28 June</strong></td>
<td></td>
</tr>
<tr>
<td>0900-1000</td>
<td>Product Support Technical Committee Meeting</td>
<td>Pullman</td>
</tr>
<tr>
<td>0900-1100</td>
<td>The Boeing Company Career Networking Event</td>
<td>Buckingham</td>
</tr>
<tr>
<td>0900-1200</td>
<td>AIAA Aeronautics Domain AAM Task Force Kickoff Meeting</td>
<td>McCormick</td>
</tr>
<tr>
<td>1000-1200</td>
<td>Flow Quality Working Group</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1300-1500</td>
<td>The Boeing Company Career Networking Event</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1300-1600</td>
<td>Future of Ground Test Working Group</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1600-1900</td>
<td>High-Order CFD Methods</td>
<td>Lake Michigan</td>
</tr>
<tr>
<td>1800-2000</td>
<td>Human Machine Teaming Technical Committee Meeting</td>
<td>Pullman</td>
</tr>
<tr>
<td>1800-2000</td>
<td>CFD2030 Steering Committee Strategy Meeting</td>
<td>PDR #1</td>
</tr>
</tbody>
</table>
## COMMITTEE MEETINGS

<table>
<thead>
<tr>
<th>TIME</th>
<th>COMMITTEE AND ANCILLARY MEETINGS/EVENTS</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday, 28 June</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800-2000</td>
<td>Transformational Flight Integration Committee</td>
<td>Joliet</td>
</tr>
<tr>
<td>1800-2100</td>
<td>Air Transportation Systems Technical Committee Meeting</td>
<td>McCormick</td>
</tr>
<tr>
<td>1800-1930</td>
<td>High Speed Air-Breathing Propulsion Technical Committee Meeting</td>
<td>Willford C</td>
</tr>
<tr>
<td>1900-2000</td>
<td>FDTC Fluid Applications and Control Subcommittee</td>
<td>4K</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Atmospheric and Space Environments Technical Committee Meeting</td>
<td>Willford A</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Thermophysics Technical Committee Meeting</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Plasmadynamics and Lasers Technical Committee Meeting</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1900-2100</td>
<td>CFD Sub-committee Meeting</td>
<td>Astoria</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Meshing, Visualization &amp; Computational Environments Technical Committee Meeting</td>
<td>Willford B</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Fundamentals of Fluid Phenomena Subcommittee</td>
<td>C2</td>
</tr>
<tr>
<td>1900-2200</td>
<td>Solid Rocks Technical Committee Meeting</td>
<td>PDR #4</td>
</tr>
<tr>
<td><strong>Wednesday, 29 June</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900-1100</td>
<td>The Boeing Company Career Networking Event</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1100-1200</td>
<td>2023 AIAA AVIATION Forum Technical Program Planning</td>
<td>Continental C</td>
</tr>
<tr>
<td>1300-1400</td>
<td>Model Deformation Measurement Working Group</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1300-1500</td>
<td>The Boeing Company Career Networking Event</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1300-1800</td>
<td>PEGASAS Team Meeting</td>
<td>PDR #1</td>
</tr>
<tr>
<td>1700-2030</td>
<td>Vertical and Short Takeoff and Landing Technical Committee Meeting</td>
<td>Willford B</td>
</tr>
<tr>
<td>1730-1830</td>
<td>APATC Low Boom Discussion Group</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1800-2000</td>
<td>JHTO/UCAH Hypersonic Community Career and Networking Social</td>
<td>Continental A</td>
</tr>
<tr>
<td>1900-2000</td>
<td>Inlets, Nozzles and Propulsion Systems Integration Technical Committee Meeting</td>
<td>McCormick</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Multidisciplinary Design Optimization Technical Committee Meeting</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Aircraft Operations Technical Committee Meeting</td>
<td>Pullman</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Modeling and Simulation Technical Committee Meeting</td>
<td>PDR #4</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Fluid Dynamics Technical Committee Plenary Meeting</td>
<td>Continental C</td>
</tr>
<tr>
<td>1900-2100</td>
<td>Unmanned Systems Integration &amp; Outreach Committee (USIOC)</td>
<td>C1</td>
</tr>
<tr>
<td>1900-2200</td>
<td>Air Traffic Management Integration Committee Annual Meeting</td>
<td>PDR #1</td>
</tr>
<tr>
<td><strong>Thursday, 30 June</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0800-1200</td>
<td>WT Uncertainty Committee on Standards</td>
<td>PDR #6</td>
</tr>
<tr>
<td>0800-1500</td>
<td>The Boeing Company Interviews</td>
<td>Continental B</td>
</tr>
<tr>
<td>0930-1600</td>
<td>PEGASAS Annual Meeting</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1300-1400</td>
<td>Writing Qualities</td>
<td>PDR #6</td>
</tr>
<tr>
<td>1730-2030</td>
<td>Ground Test Technical Committee Conference Close-Out Meeting</td>
<td>Continental A</td>
</tr>
<tr>
<td><strong>Friday, 1 July</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0800-1500</td>
<td>The Boeing Company Interviews</td>
<td>Continental B</td>
</tr>
<tr>
<td>0930-1600</td>
<td>PEGASAS Annual Meeting</td>
<td>Buckingham</td>
</tr>
<tr>
<td>1130-1330</td>
<td>PEGASAS Team Meeting</td>
<td>PDR #1</td>
</tr>
</tbody>
</table>
VENUE MAP

KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House

EIGHTH FLOOR
- LAKE ERIE
- LAKE HURON
- LAKE MICHIGAN
- LAKE ONTARIO

FIFTH FLOOR
- 5J
- 5H
- 5C
- 5G
- 5F
- 5E

FOURTH FLOOR
- 4R, 4Q, 4P
- 4L
- 4K
- 4M

THIRD FLOOR
- PRIVATE DINING ROOMS 5-7
- JOLIET
- MARQUETTE

SECOND FLOOR
- INTERNATIONAL BALLROOM
- GRAND BALLROOM
- GRAND BALLROOM FOYER
- NORMANDIE LOUNGE

LOBBY LEVEL
- CONTINENTAL BALLROOM
- CONTINENTAL FOYER
- 8TH STREET SOUTH REGISTRATION
- 8TH STREET NORTH REGISTRATION
- BUCKINGHAM ROOM

LOWER LEVEL
- SALON D
- SALON C

In-house Physicians Medical Desk

Plenary and Forum 360

Registration

Exposition Hall

4G, 4H, 4I, 4J
PULLMAN BOARDROOM
4E, 4F
McCORMICK BOARDROOM
4A, 4B, 4C, 4D
WALDORF
PRIVATE DINING ROOMS 1-4
ASTORIA
WILLIFORD ROOM

BOULEVARD FOYER
BOULEVARD ROOM

Escalator Access to International Ballroom
GRAND TRADITION

DESIGN OF ELECTRIFIED PROPULSION AIRCRAFT
ONLINE SHORT COURSE

Learn how design variables are unique to electric and hybrid-electric aircraft, how to execute the sizing and performance process of the powertrain components, and standard reporting parameters. Updated for 2022 with the latest developments in electrified propulsion, this online course will review historical and recent electric and hybrid-electric aircraft system studies and recommend standard reporting parameters.

DETAILS
› 19 July–11 August 2022
› Tuesdays and Thursdays, 1300-1500 hrs ET, USA
› 16 Total Hours
› Available On Demand
› Cost: $895 USD Members  
  $495 USD Student Members  
  $1,095 USD Nonmembers

ENROLL NOW learning.aiaa.org
SEE YOU NEXT YEAR IN SAN DIEGO!

The AIAA AVIATION Forum is the only aviation event that covers the entire integrated spectrum of aviation business, research, development, and technology.

CALL FOR PAPERS OPENS 22 AUGUST 2022
Abstracts are due 4 November 2022, 2000 hrs ET USA

AIAA.ORG/AVIATION