

Saturday

Saturday, 6 June 2026

CE-01 8:00 a.m. - 6:00 p.m.	AIAA Aeroelastic Prediction Workshop	Hillcrest AB
--------------------------------	--------------------------------------	--------------

Saturday, 6 June 2026

CE-02 8:00 a.m. - 6:00 p.m.	AIAA Drag Prediction Workshop	Hillcrest C
--------------------------------	-------------------------------	-------------

Saturday, 6 June 2026

CE-03 8:00 a.m. - 6:00 p.m.	Hypersonic Aerothermodynamics (2-Day Course)	Cortez Hill A
--------------------------------	--	---------------

Saturday, 6 June 2026

CE-04 8:00 a.m. - 6:00 p.m.	Propeller Aerodynamics for Advanced Air Mobility: Fundamentals and Integration Effects (2-Day Course)	Torrey Hills A/B
--------------------------------	---	------------------

Sunday

Sunday, 7 June 2026

CE-05 8:00 a.m. - 6:00 p.m.	3rd AIAA Workshop on Multifidelity Methods for Design and Uncertainty Quantification	Hillcrest C
--------------------------------	--	-------------

Sunday, 7 June 2026

CE-06 8:00 a.m. - 6:00 p.m.	AIAA Drag Prediction and Aeroelastic Prediction Workshop	Hillcrest AB
--------------------------------	--	--------------

Sunday, 7 June 2026

CE-07 8:00 a.m. - 6:00 p.m.	Computational Aeroelasticity (1-Day Course)	Hillcrest D
--------------------------------	---	-------------

Sunday, 7 June 2026

CE-08 8:00 a.m. - 6:00 p.m.	Hypersonic Aerothermodynamics (2-Day Course)	Cortez Hill A
--------------------------------	--	---------------

Sunday, 7 June 2026

CE-09 8:00 a.m. - 6:00 p.m.	Propeller Aerodynamics for Advanced Air Mobility: Fundamentals and Integration Effects (2-Day Course)	Torrey Hills A/B
--------------------------------	---	------------------

Sunday, 7 June 2026

AIAA-01 3:30 - 5:30 p.m.	AIAA Volunteer 101 Training	Promenade AB
-----------------------------	-----------------------------	--------------

Volunteer 101 is an introductory session designed to orient both new and experienced participants to AIAA's structure, mission, and opportunities for engagement. Attendees will gain practical insight into how to navigate volunteer leadership, including understanding key roles, resources, and pathways for meaningful involvement within the organization.					
Sunday, 7 June 2026					
AIAA-02 7:00 - 8:00 p.m.		AVIATION 101			Ocean Beach
Discover how you can make the most of your first week at AIAA AVIATION Forum while meeting fellow attendees. This orientation is ideal for first-time attendees, but all are welcome!					
Monday					
Monday, 8 June 2026					
SP-01 7:30 - 8:00 a.m.		Technical Papers Session Prep			Session Rooms
Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute prep 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).					
Monday, 8 June 2026					
CE-10 8:00 a.m. - 6:00 p.m.		Design of Electrified Propulsion Aircraft (2-Day Course)			Regatta C
Monday, 8 June 2026					
PLNRY-01 8:00 - 9:00 a.m.		Embraer and the Engineer of Tomorrow			Seaport Ballroom D-H
We will explore the aircraft configurations Embraer envisions as potential breakthroughs, the strength of the collaborative innovation ecosystem we've built, and the evolving skill sets we foresee as essential for our engineers—and how we are preparing them to meet those demands. Our goal is to challenge the audience to push boundaries, foster innovation, and elevate people excellence in aeronautics.					
Monday, 8 June 2026					
NW-01 9:00 - 9:30 a.m.		Coffee Break			Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Monday, 8 June 2026					
ACD-01		Hydrogen Powered Aircraft Technologies			Balboa A
Chaired by: C. BIL, RMIT University and S. SWAINE, Purdue University					
9:30 a.m. AIAA-2026-4000 A Comprehensive Design Study of a Hydrogen-Powered Blended Wing	9:50 a.m. AIAA-2026-4001 Systematic Comparison of Hydrogen-Tank Layouts in	10:10 a.m. AIAA-2026-4002 Design and Analysis of Fuel-Cell Powered Short-to Medium-Range and	10:30 a.m. AIAA-2026-4003 Conceptual Design of Electric and Hydrogen Powered Aircraft		

Body Mid-Range Transport Aircraft L. Gingerich, R. Agarwal, Washington University in St Louis, St. Louis, MO; C. Rice, M. Holly, VPE Aerospace Consulting LLC, Saint Louis, MO; M. Kiely, Washington University in St Louis, St. Louis, MO	Blended Wing Body Aircraft M. Voss, B. Fröhler, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany; M. Hoogreef, Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek, Delft, The Netherlands; T. Zill, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany	Hydrogen Engine Powered Long-Range Aircraft Using WUADS Design Code D. Nguyen, M. Kiely, R. Agarwal, Washington University in St Louis, St. Louis, MO	Configurations for Sustainable Aviation D. Singh, R. Pant, Indian Institute of Technology Bombay, Mumbai, India; A. Pashlikar, CSIR National Aerospace Laboratories, Bengaluru, India		
---	---	--	--	--	--

Monday, 8 June 2026

AiMT-01	Models and Tools for Integrating Aviation in Multimodal Transportation	Gaslamp D
---------	--	-----------

Chaired by: V. BULUSU, Crown Consulting

This session will bring together researchers, practitioners, and policymakers interested in the evolving role of aviation within integrated multimodal transportation systems. As cities and regions work toward seamless mobility networks, aviation—from commercial and regional airports to emerging urban air mobility—must be effectively coordinated with ground transportation modes, including rail, bus, and shared mobility services. Participants will be introduced to modeling approaches and analytical tools designed to investigate aviation's connectivity with other transportation modes. Topics include passenger flow modeling across air-ground interfaces, schedule coordination algorithms, infrastructure planning for multimodal hubs, and decision-support systems for integrated network design. The session will showcase example models and tools used for case studies such as regional activity-based modeling and planning, and airport-to-city connections. We will also explore data integration challenges across different transportation operators, and discuss modeling and tool capability needs. Models and tools will span both traditional aviation integration and emerging considerations such as vertiports for electric vertical takeoff and landing (eVTOL) aircraft, energy infrastructure assessment, and the role of aviation in regional mobility networks. Attendees will engage with simulation tools, optimization models, and real-world implementation strategies through interactive demonstrations and collaborative discussions. The session is ideal for transportation planners, aviation professionals, academic researchers in transportation engineering and operations research, technology developers, and government officials involved in infrastructure and mobility policy. Participants will leave with practical insights into tools and methodologies for creating more efficient, sustainable, and passenger-centered integrated transportation systems. Chair: Darshan Sarojini, Assistant Professor, Virginia Tech. Speakers: Joe Castiglione, Executive Director, Zephyr Foundation Jean-luc Lupien, PhD Candidate, UC Berkeley Prajwal Shivaprakash, Head - Aviation System Design & Assessment, DLR Yu (April) Zhang, Professor Organization: University of South Florida

Monday, 8 June 2026

APA-01	Aerodynamic Flow Control: Analytical, Computational, and Experimental I	Balboa B
--------	---	----------

Chaired by: K. GOC, The Boeing Company and B. O'GARA, Textron Aviation

9:30 a.m. AIAA-2026-4004 Effects of Swirl on the Dynamics of Supersonic Jet in Crossflow A. Dhanagopal, S. Roy, G. Araya, The University of Texas at San Antonio, San Antonio, TX	9:50 a.m. AIAA-2026-4005 Perturbation of a Hypersonic Shock-Wave/Boundary-Layer Interaction Using ns-Duration Plasmas	10:10 a.m. AIAA-2026-4006 Gust Load Alleviation Using Counter-Flowing Jets C. Thomas, S. Shkarayev, The University of Arizona, Tucson, AZ	10:30 a.m. AIAA-2026-4007 Exploring the Operational Envelope of a Passive Micro-Cavity Actuator for Dynamic Stall Control E. Butler, J. Bons, N. Webb, The Ohio State University, Columbus, OH; D. Garmann,		
--	---	--	--	--	--

	E. Nicotra, S. Bane, J. Jewell, Purdue University, West Lafayette, IN		Air Force Research Laboratory, Dayton, OH		
Monday, 8 June 2026					
APA-02	Bob Liebeck Memorial Session I				Harbor B
Chaired by: J. MERRET, University of Illinois at Urbana-Champaign					
This session celebrates the life, legacy, and professional accomplishments of the late Dr. Bob Liebeck. Come hear several who interacted closely with Bob, who will provide their recounting of his contributions from his early beginnings in aerodynamics, through his breakthrough innovations in aircraft design, and to his inspirational teaching and mentorship.					
Monday, 8 June 2026					
ATM-01/GA-01/TF-01	Advanced Air Mobility Operations and Infrastructure				Torrey Hills A
Chaired by: V. SCHULTZ, Revolutionary Aerospace LLC and M. VINCENT, NASA LARC/AST					
9:30 a.m. AIAA-2026-4008 Coupled Network Structure, Vehicle Sizing, and Operational Cost Effects in Urban Drone Delivery Systems H. Nam, H. Lee, Inha University, Michuhol-gu, South Korea	9:50 a.m. AIAA-2026-4009 Simulation-Based Evaluation of Hybrid Charging Protocols for Optimizing Throughput and Cost of UAM Operations A. Halder, F. Gandhi, NC State University, Raleigh, NC	10:10 a.m. AIAA-2026-4010 A Systems Engineering Framework for Vision- Language-Enabled UAV Triage and Disaster Response S. Saha, University of Arkansas, Fayetteville, AR; B. Rajanasiriyur Jagadeesha, K. Patnaik, University of Michigan-Dearborn Department of Electrical and Computer Engineering, Dearborn, MI; N. Majumdar, University of Arkansas, Fayetteville, AR	10:30 a.m. AIAA-2026-4011 An Overview of Advanced Air Mobility (AAM) Public Good Applications: Patient Transport and Organ Transport K. Constant-Coup, Constant Technology & Research Solutions, LLC, Shawnee, KS; S. Hasan, R. Goyal, Crown Innovations, Inc., Arlington, VA; M. Patterson, NASA Langley Research Center, Hampton, VA; C. Frankel, W. Spitz, GRA, Incorporated, Alexandria, VA; et al.		
Monday, 8 June 2026					
ATS-01	Airline, Flight, and Airport Operations				Harbor C
Chaired by: M. LI, University of Michigan, Ann Arbor					
9:30 a.m. AIAA-2026-4012 Noise and Uncertainty Aware Routing for Advanced Air Mobility via the Multiple Generalized Traveling Salesman Problem With Stochastic Knapsack Constraints	9:50 a.m. AIAA-2026-4013 Stochastic Programming for Real-Time Aircraft Trajectory Optimization Under Weather Uncertainty G. Schueller, J. Clarke, The University of Texas at Austin, Austin, TX; A. Pinto, Jet	10:10 a.m. AIAA-2026-4015 Enhancing Airline Pilot Training Through Advanced Qualification Program (AQP) Data Analytics and Emerging Training Technologies	10:30 a.m. AIAA-2026-4016 Enabling Future Hydrogen-Powered Flight: CONOPS for Hydrogen Refueling and Defueling at Airports G. Le Bris, L. Nguyen, WSP USA Inc., New York, NY	10:50 a.m. AIAA-2026-4017 Assessing the Operational Impact of the Tug Release Points Concept on Ground Control at Schiphol Airport R. Weijsenborn, A. Murrieta Mendoza, Hogeschool van Amsterdam, Amsterdam, The	

A. Kore, L. Brode, Z. Gan, G. Gutow, Michigan Technological University College of Engineering, Houghton, MI	Propulsion Laboratory, Pasadena, CA	A. Kongala, Embry-Riddle Aeronautical University Worldwide and Online, Daytona Beach, FL		Netherlands; S. Niemeijer, Luchtverkeersleiding Nederland, Schiphol, The Netherlands	
Monday, 8 June 2026					
CFD2030-01	Advances in CFD Technologies				La Jolla A
Chaired by: A. WISSINK, US Army DEVCOM Technology Development Directorate and J. SITARAMAN, U. S. Army and N. HARIHARAN, HPCMP CREATE					
9:30 a.m. AIAA-2026-4018 RANS Laminar-Turbulent Transition Simulations for High Lift Configuration Aircraft C. Aliaga, Synopsys, Montreal, Canada; K. Zore, A. Wakale, Synopsys, Pune, India; J. Selvanayagam, Synopsys, Montreal, Canada; L. Zori, B. Makarov, Synopsys Inc, Sunnyvale, CA	9:50 a.m. AIAA-2026-4019 An Ensemble Model for Efficiently Predicting External Aerodynamics A. Way, A. Sescu, Mississippi State University, Mississippi State University, MS; I. Dettwiller, E. Hall, US Army Engineer Research and Development Center, Vicksburg, MS	10:10 a.m. AIAA-2026-4020 CFD Vision 2030 Roadmap: Progress and Projections in 2026 A. Wissink, US Department of Defense High Performance Computing Modernization Program, Moffett Field, CA; A. Cary, The Boeing Company, Chicago, IL; N. Georgiadis, NASA Glenn Research Center, Cleveland, OH; B. Smith, Lockheed Martin Corporation Aerospace and Defense, Bethesda, MD; N. Wyman, Cadence Design Systems Inc, San Jose, CA; Z. Wang, Univ of Kansas, Lawrence, KS; et al.			
Monday, 8 June 2026					
DGE-01	Digital Twins				La Jolla B
Chaired by: O. PINON-FISCHER, Georgia Institute of Technology					
9:30 a.m. AIAA-2026-4021 Building a Digital Twin Framework for Propulsion Engines With Particle Damage M. Shanmugam, A. Bhattacharjee, K. Lowe, C. Roy, A. Sandu, R. Qiao, Virginia Polytechnic Institute and State University, Blacksburg, VA; et al.	9:50 a.m. AIAA-2026-4022 Simulation Framework for OEM-Controlled Predictive Maintenance and Spare Parts Logistics in the Airline Aftermarket H. Ali, T. Sartou du Jonchay, O. Fischer, D. Mavris, Georgia Institute of Technology, Atlanta, GA	10:10 a.m. AIAA-2026-4023 Real-Time Digital Twin Framework for Environmental Anomaly Detection in Drone-Based Underground Mine Inspection Z. Musayev, H. Khaniani, M. Razavi, N. Mojtabai, M. Hassanalian, New Mexico Institute of Mining and Technology, Socorro, NM			
Monday, 8 June 2026					

F360-01 9:30 - 11:30 a.m.	What Problems are We Really Trying to Solve?				Seaport Ballroom D-H
Where is aviation headed next and how do we get there faster, smarter, and more responsibly. We will explore the next big opportunities in aviation—from sustainable operations and advanced autonomy to increasingly integrated digital ecosystems—and examine what it will truly take to turn these ambitions into reality. Drawing on recent big bets that both succeeded and failed, the discussion will focus on how to identify the right problems, de-risk innovation, and avoid chasing hype at the expense of long-term value. Throughout, we will emphasize making ethical decisions at each step of the lifecycle, ensuring that safety, equity, privacy, and environmental responsibility stay at the center of rapid technological change. Moderator: Graham Warwick, Aviation Week Speakers: Adam Shepherd, Northrop Grumman Craig Martell, Lockheed Robert Gregg, Boeing Marc Fischer, Airbus Scott Lasusky, RTX John Cavolowsky, NASA Venke Sanakran, AFRL					
Monday, 8 June 2026					
FD-02	Novel Methods for CFD				Hillcrest A
Chaired by: M. VYAS, NASA Glenn Research Center					
9:30 a.m. AIAA-2026-4024 Efficient Gradient-Free Linear Reconstruction Scheme for Edge-Based Solvers H. Nishikawa, National Institute of Aerospace, Hampton, VA; B. Diskin, Y. Liu, NASA Langley Research Center, Hampton, VA	9:50 a.m. AIAA-2026-4025 Hex-Dominant Boundary Layer Mesh Adaptation for Accurate Prediction of Surface Heat Flux in Hypersonic Problems Z. Gordon, Rensselaer Polytechnic Institute, Troy, NY; C. Brown, Corvid Technologies LLC, Mooresville, NC; S. Tendulkar, Simmetrix Inc., Clifton Park, NY; M. Gica, Rensselaer Polytechnic Institute, Troy, NY; P. Keistler, G. Salazar, Corvid Technologies LLC, Mooresville, NC; et al.	10:10 a.m. AIAA-2026-4026 Preconditioned Parallel-in-Time Direct Inverse Method for Nonlinear Conservation Law Equations N. Yamaleev, S. Paudel, Old Dominion University, Norfolk, VA			
Monday, 8 June 2026					
FD-03	Stability and Transition I				Hillcrest B
Chaired by: Y. SUN, Syracuse University					
9:30 a.m. AIAA-2026-4027 Kinetic Linear Stability Theory Revisited. Part I: The Continuum Limit Y. Rovinsky, M. Aharoni, Technion Israel Institute of Technology, Haifa, Israel; I. Karpuzcu, University of Illinois Urbana-Champaign, Urbana, IL; A. Burtsev, The University of Texas at Austin, Austin, TX; V. Theofilis, Technion Israel	9:50 a.m. AIAA-2026-4028 Kinetic Linear Stability Theory Revisited. Part II: The BGK Approximation of the Boltzmann Equation M. Aharoni, Y. Rovinsky, Technion Israel Institute of Technology, Haifa, Israel; I. Karpuzcu, University of Illinois Urbana-Champaign, Urbana, IL; A. Burtsev, The University of Texas at Austin, Austin, TX; V.	10:10 a.m. AIAA-2026-4029 Optimized Control of Thermoacoustic Instability Through Active Phase Space Confinement T. Sarangi, Indian Institute of Technology Hyderabad, Hyderabad, India; Y. Weng, University of Minnesota Twin Cities, Minneapolis, MN; R. Ruby, Karunya Institute of Technology and Sciences,	10:30 a.m. AIAA-2026-4030 Transient Growth Analysis of 1D Shocks Using Kinetic and Continuum Linear Stability Theory I. Karpuzcu, D. Levin, University of Illinois Urbana-Champaign, Urbana, IL; V. Theofilis, Technion Israel Institute of Technology, Haifa, Israel		

Institute of Technology, Haifa, Israel; D. Levin, University of Illinois Urbana-Champaign, Urbana, IL	Theofilis, Technion Israel Institute of Technology, Haifa, Israel; D. Levin, University of Illinois Urbana-Champaign, Urbana, IL	Coimbatore, India; V. Unni, Indian Institute of Technology Hyderabad, Hyderabad, India			
---	--	--	--	--	--

Monday, 8 June 2026

FT-01/UAS-01	Advances in Flight Testing of Crewed and Uncrewed Aircraft	Cortez Hill C
--------------	--	---------------

Chaired by: P. COEN and O. DANTSKER, Indiana University Bloomington

9:30 a.m. AIAA-2026-4031 Aero-Optical Diagnostics of Surface Temperature and Stage Separation: Flight Experiment STAJe–N. Temme, J. Kunze, C. Kudisonga, M. Heitzmann, A. Paull, The University of Queensland, Brisbane, Australia	9:50 a.m. AIAA-2026-4032 Flight-Test Validation of a Real-Time Aeroelastic Multipoint Loads Monitoring Model for Flexible Aircraft M. Preisighe Viana, Instituto de Pesquisas e Ensaios em Voo (IPEV), Sao Jose dos Campos, Brazil	10:10 a.m. AIAA-2026-4033 Pole Microphone Predictions Using Ground Plane Microphones D. Mikkelsen, M. Nickerson, Gulfstream Aerospace Corporation, Savannah, GA	10:30 a.m. AIAA-2026-4034 AeroBRIDGE: A Wind-Tunnel-to-Flight Testing Translation Program for Fixed-Wing Advanced Air Mobility Aircraft S. Thapa, R. Ducote, S. Narsipur, Mississippi State University, Mississippi State University, MS; M. Widjaja, J. Lemp, O. Dantsker, Indiana University, Bloomington, IN	10:50 a.m. AIAA-2026-4093 Small UAS Flight Testing of an ACAS sXu Detect and Avoid System I. Jessen, Massachusetts Institute of Technology Lincoln Laboratory, Lexington, MA; S. Uebelhart, L. Rouse, Massachusetts Department of Transportation, Boston, MA; A. Hoover, T. Trinh, Massachusetts Institute of Technology Lincoln Laboratory, Lexington, MA	11:10 a.m. AIAA-2026-4094 Development and Flight Testing of the Bronco UAV Testbed for Airborne Event-Based Sensing: Part 1 P. Coen, B. Cox, O. Dantsker, Indiana University, Bloomington, IN
--	---	--	--	---	--

Monday, 8 June 2026

GT-01/APA-03/AMT-01/FD-04/CFD2030-02	Validation Dialog Between Turbulence Modelers and Turbulence Measurers	Ocean Beach
--------------------------------------	--	-------------

Chaired by: N. TAYLOR, MBDA UK Limited

The processes of verification and validation are widely recognized as being fundamental components of engineering practice. However, the meanings attributed to the terms verification and validation can vary between different groups of stakeholders: different terms may be used for the same concept; different concepts may be labelled with the same term; different relationships may exist between the concepts. A recent study – the Rosetta Stone project – recently reviewed this situation in the context of standard publications produced by four technical societies: ASME, AIAA, INCOSE and NAFEMS. To build on this work, the AIAA ICE Focus Group (TAG-1) established a Validation Discussion Group (VDG) to address the implications of this study from the viewpoint of contemporary practice in the technical community. This panel session will review the context to this work and describe the insights arising from the initial interactions within the VDG. Contributors to include Andrew Cary (Boeing), Shyam Neerarambam (Sikorsky), and Collin Strassburger (Bihrl Applied Research).

Monday, 8 June 2026

HIS-01	People and Places in Aviation History	Torrey Hills B
--------	---------------------------------------	----------------

Chaired by: X. LIU, San Diego State University and G. FOGEL, Natural Selection, Inc.

9:30 a.m. AIAA-2026-4035 On the Importance of the United Airlines Hangar	10:10 a.m. AIAA-2026-4037	10:30 a.m. AIAA-2026-4038 Did Hele Shaw Flow Demonstrations Popularise	10:50 a.m. AIAA-2026-4039 Flying Over Time: The Legacy of Donald A. Hall,		
--	------------------------------	--	---	--	--

and Terminal at San Diego Municipal Airport - Lindbergh Field G. Fogel, San Diego State University, San Diego, CA; B. Martella, Roesling Nakamura Terada Architects, San Diego, CA; D. Shields, Soltek Pacific Construction, San Diego, CA; W. Donaldson, Heritage Architecture and Planning, San Diego, CA	International Power and Politics in Commercial Aviation A. Kadhiresan, Purdue University, West Lafayette, IN	the Equal Transit Time Fallacy to Explain Aerodynamic Lift? G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia	Designer of the Spirit of St. Louis N. Hall, P. Ellsworth, Flying Over Time, Maricopa, AZ		
--	---	---	--	--	--

Monday, 8 June 2026

HSABP-01	Modeling and Simulation	Harbor A
----------	-------------------------	----------

Chaired by: R. ACHARYA, Johns Hopkins University Applied Physics Laboratory

9:30 a.m. AIAA-2026-4040 Application of the Dynamic Zone Flamelet Model to a Supersonic Centerbody Flameholder G. Holum, G. Candler, University of Minnesota Twin Cities, Minneapolis, MN; D. Peterson, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH	9:50 a.m. AIAA-2026-4041 Entropy Layer Effects on Conical ODWs C. Anderson, G. Sidharth, P. Laad, Iowa State University of Science and Technology, Ames, IA	10:10 a.m. AIAA-2026-4042 Cantera Integration for Combustion Analysis With the Numerical Propulsion System Simulation (NPSS) P. Evans, R. Hartfield, Auburn University, Auburn, AL	10:30 a.m. AIAA-2026-4043 Effects of Polynomial Order and Stabilization Technique on the Large Eddy Simulation of an Axisymmetric Scramjet Combustor Using High-Order Flux Reconstruction T. Koeplinger, J. Edwards, NC State University, Raleigh, NC; S. Spiegel, NASA Glenn Research Center, Cleveland, OH	10:50 a.m. AIAA-2026-4807 The Effects of Progress Variable Variance on Scramjet Turbulent Combustion Modeling A. Tuztas, S. Martin, Embry-Riddle Aeronautical University, Daytona Beach, FL; C. Velez, DeepFlow LLC, Daytona Beach, FL	
---	--	---	---	---	--

Monday, 8 June 2026

LTA-01	LTA Systems: Analysis, Design and Applications I	Balboa C
--------	--	----------

Chaired by: C. PATEL, Grid Aero, Inc.

9:30 a.m. AIAA-2026-4044 An Improved Semi-Empirical Method for Aerodynamic Estimation of Airships V. Desai, R. Pant, Indian Institute of Technology Bombay, Mumbai, India	9:50 a.m. AIAA-2026-4045 Analysis of the Eternaus Explorer Hydrogen Airship: Analytical and CFD Investigation at Sea-Level Conditions H. Kraus, Innovair, Sao Paulo, Brazil; F. da Costa, Universidade do Vale do Paraiba, Sao Jose dos Campos, Brazil; A. Nakazato, B. Lima, BRENG Engineering	10:10 a.m. AIAA-2026-4047 Aerodynamic Optimization of a Low-Altitude Airship With Distributed Electroaerodynamic Propulsion R. Terenzi, S. Trovato, D. Usuelli, C. Riboldi, M. Belan, Politecnico di Milano, Milan, Italy	10:30 a.m. AIAA-2026-4048 A Kite Tail Stability Study: Performance of Kite Tails With Varying Length and Geometry K. McNamara, Oklahoma State University, Stillwater, OK; M. Ellis, B. Haskins, N. Hostler, L. Yates, Oklahoma State University College of Engineering Architecture and Technology, Stillwater, OK; G. Bland, NASA Goddard Space		
--	--	--	---	--	--

	and Technology, Sao Paulo, Brazil		Flight Center, Greenbelt, MD; et al.		
Monday, 8 June 2026					
MDO-01	Multidisciplinary Design Optimization Student Paper Competition Special Session				Cortez Hill A
Chaired by: A. CUCO, EMBRAER S.A.					
This is a special session for the finalists of the MDO Student Paper Competition to present their papers. "Computation of Design Derivatives for Time-Domain Nonlinear Aeroelastic Systems" presented by Ben Preston, Imperial College London "Robust Approach to Engine Cycle Modeling to Enable Multidisciplinary Optimization of Advanced Aircraft" presented by Anushka Tahiliani, Massachusetts Institute of Technology "Buffet Alleviation via Linear Stability Adjoint" presented by Rohit Sunil Kanchi, The University of Tennessee Knoxville Tickle College of Engineering "Defect-Tolerant Topology Optimization of Aircraft Structures for Redundancy" presented by Ghanendra K. Das, Georgia Institute of Technology "Surface Mesh Deformation for Large-Scale Multidisciplinary Design Optimization of Aircraft Concepts" presented by Marius L. Ruh, University of California San Diego "Large-Scale Multidisciplinary Design Optimization of a Blended Wing Body Aircraft using Mid-Fidelity, Multi-Point Analysis" presented by Luca Scotzniovsky, University of California San Diego					
Monday, 8 June 2026					
SUST-01	Climate-Aware Aircraft Design and Environmental Assessment				Gaslamp A
Chaired by: A. SHUKLA, Massachusetts Institute of Technology					
9:30 a.m. AIAA-2026-4051 Analysis of the Climate Impact Reduction Potential for Short and Medium Range Aircraft by Avoiding Persistent Contrail-Cirrus Regions Within Preliminary Aircraft Design L. Wortmann, E. Stumpf, Rheinisch-Westfälische Technische Hochschule Aachen, Aachen, Germany; S. Kirschler, D. Piontek, K. Widmaier, C. Voigt, Deutsches Zentrum für Luft- und Raumfahrt DLR, Cologne, Germany; et al.	9:50 a.m. AIAA-2026-4052 Development of an Advanced Concept Aircraft Model in Aviation Environmental Design Tool (AEDT) Y. Tan, N. Kondur, F. Zurita, J. Xie, Y. Cai, M. Kirby, Georgia Institute of Technology College of Engineering, Atlanta, GA; et al.	10:10 a.m. AIAA-2026-4053 Quantifying Aviation's Non-CO ₂ Climate Impact in the Nordic Environment F. Herbertsson, T. Grönstedt, Chalmers tekniska hogskola AB, Gothenburg, Sweden	10:30 a.m. AIAA-2026-4054 A Computationally Efficient Methodology for Assessing the Contrail Climate Impact of Regional Aviation Y. Shen, J. Gladin, D. Mavris, Georgia Institute of Technology, Atlanta, GA	10:50 a.m. AIAA-2026-4055 Impact of Technology Trajectories on the Performance, Emissions, Life Cycle Aspects and Sustainability Assessment of Future Net Zero Regional Aircraft Variants E. Pontika, P. Laskaridis, Cranfield University, Cranfield, United Kingdom; P. Ansell, E. Waddington, University of Illinois Urbana-Champaign, Urbana, IL	
Monday, 8 June 2026					
TP-01 /FD-01	Nonequilibrium Flow Physics and CFD I				Harbor E
Chaired by: D. ANDRIENKO, University of Colorado and A. DEL VAL, University of Minnesota					
9:30 a.m. AIAA-2026-4056 Coupled Finite-Rate Ablation, Pyrolysis, and State-Specific Flowfield	9:50 a.m. AIAA-2026-4057 Alkali Metal Seeding for Enhanced Ionization in Hypersonic Flight	10:10 a.m. AIAA-2026-4058 Computational Modeling of Recombination	10:30 a.m. AIAA-2026-4059 Effects of Non-Thermal Surface Recombination on Wall Heating Under	10:50 a.m. AIAA-2026-4060 A Comparative Study of First Grid Height Estimation Methods for Hypersonic	

Effects on Radiation Spectra S. Jo, H. Nam, University of Central Florida, Orlando, FL	W. Richardson, V. Pasumarthi, Purdue University, West Lafayette, IN; S. Horth, A. Tuba, The University of Arizona, Tucson, AZ; B. Porter, N. Rahman, RTX Corporation, Arlington, VA; et al.	Processes in High Enthalpy Flows S. Crow, N. Singh, Texas A&M University System, College Station, TX	State-to-State Vibrational Kinetic Modeling in a Two-Dimensional Boundary Layer B. Durham, D. Andrienko, University of Colorado Boulder, Boulder, CO	Flow Including the Eckert-Temperature Based Approach G. Atay, K. Yapici, ASELSAN AS, Ankara, Turkey	
Monday, 8 June 2026					
AIAA-03 10:00 - 11:30 a.m.	Meet the Universities				Seaport Ballroom A-C
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.					
Monday, 8 June 2026					
FL-01 10:00 - 11:00 a.m.	A Bright Future for AAM Low Altitude Weather Services				Solana Beach A/B
Scaling hybrid-propelled aircraft and striving for maximum autonomy from testing to full deployment requires a layered ecosystem of infrastructure, data systems, and operational strategy. The FAA has elevated low altitude urban weather to a top priority by recategorizing weather as a hazard to be mitigated to a risk for uncrewed aircraft and weather sensitive electrified air taxis. This session will discuss how leveraging better low altitude weather services from "approved" third-party weather providers can improve flight readiness and Go/No risk-based decisions and enable more flight time per aircraft. A modernized low altitude physical and digital weather infrastructure system will improve service reliability, power and payload weight management, increase revenue generation per aircraft, and improve client ride experience by avoiding turbulence that is difficult to identify in urban airspace today.					
Monday, 8 June 2026					
ACD-02	Advanced Technologies				Balboa A
Chaired by: D. WELLS, NASA Langley Research Center and R. LOVE, General Atomics Aeronautical Systems, Inc.					
1:00 p.m. AIAA-2026-4061 Advanced Aircraft Concepts for Environmental Sustainability (AACES) 2050 Phase I: Aurora Flight Sciences Study Overview D. Neuman, D. Gil, G. Hristov, M. Focaracci, F. Giannini, Aurora Flight Sciences Corporation, Manassas, VA; A. Kutzmann, The Boeing Company, Huntington Beach, CA; et al.	1:20 p.m. AIAA-2026-4062 Tough Challenges in Fail-Safe Approach for Civil Transport Aircraft Configuration Design M. Sadraey, Southern New Hampshire University, Manchester, NH	1:40 p.m. AIAA-2026-4063 Performance Comparison of Truss-Braced Wing Aircraft Model With Boeing 738-800 Aircraft Model Using CFD Simulation M. Rahman, M. Akbar, Tennessee State University, Nashville, TN	2:00 p.m. AIAA-2026-4064 Modeling and Integration of PEM Fuel Cells as Auxiliary Power System for Super-Midsize Business Jets J. Decroix, B. Terzi, L. Wattebled, A. Jazzini, J. Tai, D. Mavris, Georgia Institute of Technology, Atlanta, GA		
Monday, 8 June 2026					
AiMT-02	Models for Multimodal Integration				Gaslamp D

Chaired by: C. YANG, Embry-Riddle Aeronautical University and V. BULUSU, Crown Consulting					
1:00 p.m. AIAA-2026-4065 A Transportation Model for Door-to-Door Regional Air Mobility Applied to West Virginia G. Lee, Z. Wang, D. Hogge, A. Anwar, K. Bhatt, D. Sarojini, Virginia Polytechnic Institute and State University, Blacksburg, VA; et al.	1:20 p.m. AIAA-2026-4066 A Passenger-Centric Dynamical Model for Multimodal Air Transportation J. Lupien, R. Sengupta, University of California Berkeley, Berkeley, CA	1:40 p.m. AIAA-2026-4067 Hybrid Choice Model Insights Into Autonomous Urban Air Mobility Adoption in Los Angeles, Houston, Brisbane, and Tokyo M. Said, P. Yedavalli, Z. Wu, A. Tripathi, Wisk Aero LLC, Mountain View, CA	2:00 p.m. AIAA-2026-4068 Multimodal Understanding of Pilot–Controller Communications for Autonomous Airport Services: A Case Study at Daytona Beach International Airport J. Park, C. Yang, C. Song, R. Wallace, Embry-Riddle Aeronautical University, Daytona Beach, FL; C. Huang, X. Zhong, University of Nebraska Omaha, Omaha, NE	2:20 p.m. AIAA-2026-4069 Dynamic Sky lanes: Integrating Urban Air Mobility Into Door-to-Door Solutions Using Strategic Airspace Allocation J. Park, J. Kam, V. Bulusu, R. Sengupta, University of California Berkeley, Berkeley, CA	
Monday, 8 June 2026					
APA-04	AIAA Aerodynamics Award Lecture				Harbor B
Chaired by: S. NARSIPUR, Mississippi State University					
The AIAA Aerodynamics Award, managed by the Applied Aerodynamics TC, 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. This year's awardee is Dr. Walt Silva . Dr. Silva will be giving a talk titled <i>Model Order Reduction: An Exciting, Multi-Disciplinary Adventure</i> . Dr. Silva is an Emeritus Langley Associate (ELA), previously a Senior Research Scientist in the Aeroelasticity branch at the NASA Langley Research Center. He has more than 40 years of experience in industry, government, and academia in the fields of unsteady aerodynamics, structural dynamics, aeroelasticity, reduced-order models, nonlinear dynamics, and flutter testing. He started his career at the Grumman Aerospace Corporation (Bethpage, NY) where he worked in Propulsion, Loads & Dynamics, and Flight Controls. He has taught several invited short courses in computational/experimental aeroelasticity at national/international organizations. Dr. Silva is a NASA Floyd Thompson Fellow and a Fellow of the AIAA. He is also an adjunct professor at the College of William & Mary where he teaches applied mathematics and applied machine learning. He was awarded a Patent entitled, "Method of Performing Computational Aeroelastic Analysis", based on his Reduced-Order Modeling (ROM) technology and the AEROM software. He is also the recipient of NASA's Exceptional Achievement Medal for his contributions in the development of nonlinear unsteady aerodynamic models. Dr. Silva served as the NASA Lead for Structures for the Low Boom Flight Demonstrator (X-59).					
Monday, 8 June 2026					
ASE-01	Icing Code Development and Usage I				Cortez Hill B
Chaired by: T. OZOROSKI, NASA Glenn Research Center and J. TSAO, Ohio Aerospace Institute					
1:00 p.m. AIAA-2026-4070 Supercooled Large Droplet Modeling in GlennICE W. Wright, HX5, LLC, Cleveland, OH	1:20 p.m. AIAA-2026-4071 GlennICE Simulation of Supercooled Water Droplet Ingestion Into the Honeywell Uncertified Research Engine (HURE) D. Rigby, W. Wright, HX5, LLC, Cleveland, OH	1:40 p.m. AIAA-2026-4072 GlennICE Demonstration of Radial Particle Migration and Mixing Plane Application in an Annulus D. Rigby, HX5, LLC, Cleveland, OH	2:00 p.m. AIAA-2026-4073 Towards Improved Numerical Ice Accretion Modeling: Sensitivity Analysis of Simulation Parameters for Ice		

			Contour Matching on NACA-0012 T. Gehrhardt, K. Müller, Brandenburg University of Applied Sciences, Brandenburg an der Havel, Germany; P. Flassig, A. Vogel, Rolls-Royce Deutschland Ltd und Co KG, Blankenfelde-Mahlow, Germany; R. Flassig, Brandenburg University of Applied Sciences, Brandenburg an der Havel, Germany		
--	--	--	---	--	--

Monday, 8 June 2026

ATM-02/GA-02/TF-02	Safety, Risk, and Human Centered Performance	Torrey Hills A
--------------------	--	----------------

Chaired by: M. LI, University of Michigan, Ann Arbor and K. CONSTANT-COUP, Constant Technology & Research Solutions, LLC

1:00 p.m. AIAA-2026-4074 A Graph Neural Network-Based Approach to Measure Advanced Air Mobility Airspace Congestion S. Roy, Alcifo, Schaumburg, IL; S. Brunswicker, D. Lercel, H. Yeo, I. Hwang, Purdue University, West Lafayette, IN	1:20 p.m. AIAA-2026-4075 An ArcGIS Framework for Mapping Human-Centered Noise Annoyance for AAM Infrastructure Planning S. Saha, Z. Mistry, N. Majumdar, University of Arkansas, Fayetteville, AR	1:40 p.m. AIAA-2026-4076 Kalman Filtering Based Flight Management System Modeling for AAM Aircraft B. Kandoria, University of California Davis, Davis, CA; A. Samy, The University of Texas at Austin, Austin, TX	2:00 p.m. AIAA-2026-4077 A Preliminary Framework for UAV Separation Minima and Tactical Thresholds Z. Chen, X. Xiao, M. Liu, D. Zhao, K. Low, Civil Aviation University of China, Tianjin, China	2:20 p.m. AIAA-2026-4078 Measured Impact of Ready Time Error in the TBFM Approval Request Process D. Howell, L. Tran, G. Schuneman, Regulus Group LLC, Woodstock, VA	2:40 p.m. AIAA-2026-4079 Counterfactual Safety Modeling: Estimating the Impact of ATC Staffing and Scheduling Practices on Risky Events B. Ozturk, K. Meyer, The MITRE Corporation, McLean, VA
---	--	--	---	---	---

Monday, 8 June 2026

ATS-02	Weather Impacts on Air Transportation System	Harbor C
--------	--	----------

Chaired by: M. BRITAIN, Johns Hopkins University Applied Physics Laboratory

1:00 p.m. AIAA-2026-4080 Data-Driven Framework for Assessing Wind Impacts on Approach Stability T. Yoo, J. Souza Dias Garcia, Embry-Riddle Aeronautical University, Daytona Beach, FL	1:20 p.m. AIAA-2026-4081 Future Airport Performance Under Weather Conditions: Combining Historical Statistics With Emerging New Technologies and Procedures F. Knabe, T. Dreyzehner, Deutsches Zentrum für Luft- und Raumfahrt DLR, Cologne, Germany	1:40 p.m. AIAA-2026-4082 Identifying Efficient Use of Airspace Flow Program in the Florida Airspace B. Tolley, G. Enea, T. Reynolds, Massachusetts Institute of Technology Lincoln Laboratory, Lexington, MA			
--	---	---	--	--	--

Monday, 8 June 2026

DGE-02	Digital Thread				La Jolla B
Chaired by: O. PINON-FISCHER, Georgia Institute of Technology					
1:00 p.m. AIAA-2026-4085 A Cognitive Digital Thread Approach to Digital Materiel Management E. Kraft, Edmkraft Inc, Tullahoma, TN	1:20 p.m. AIAA-2026-4084 Cognitive Digital Threads, Digital Twins, and Accelerated Authoritative Decision Making E. Kraft, Edmkraft Inc, Tullahoma, TN	1:40 p.m. AIAA-2026-4086 Implementation of a Closed-Loop Digital Thread for Cryogenic Tank Insulation Design in Liquid Hydrogen (LH2) Fuel Systems J. de Boer, B. Benoy, V. Dezobry, F. Sanchez, Siemens Aktiengesellschaft, Munich, Germany			
Monday, 8 June 2026					
FD-05	Flow Control Open Forum				Balboa B
Chaired by: E. BILGIN, Stanford University					
The goal of this event is to cultivate an open discussion on topics of interest to the aerodynamic flow control community. To that end, we are soliciting one-slide presentations (5 minutes or less) on current research efforts, hot-off-the-press data or discoveries, topics for discussion, and proposals for future efforts.					
Monday, 8 June 2026					
FD-06	Hypersonic Aerodynamics I				Hillcrest A
Chaired by: M. VYAS, NASA Glenn Research Center					
1:00 p.m. AIAA-2026-4087 Experimental Investigation of Heat Flux on a Three-Dimensional Scramjet Inlet Using Fast-Response TSP K. Yoshikawa, H. Ozawa, University of Hawai'i at Manoa, Honolulu, HI; A. Ahmed, A. Gross, New Mexico State University, Las Cruces, NM	1:20 p.m. AIAA-2026-4088 Examination of Nonequilibrium Effects at High Mach Number and Stagnation Enthalpy for Double Cone Model - Part IV C. Eden, D. Knight, Rutgers The State University of New Jersey, New Brunswick, NJ	1:40 p.m. AIAA-2026-4089 Optical Measurements on BOLT and Flat-BOLT in Mach-6 Quiet Flow C. Butler, J. Jewell, Purdue University, West Lafayette, IN	2:00 p.m. AIAA-2026-4090 Multi-Temperature Non-Equilibrium Modeling in Hypersonic Flows: Assessment of Governing Models and Wall Thermal Boundary Conditions R. Kumar, R. Ranjan, The University of Tennessee at Chattanooga, Chattanooga, TN	2:20 p.m. AIAA-2026-4091 Effect of Thermochemical Nonequilibrium on Species Diffusion for RF Blackout Prediction A. Richet, V. Loridan, Commissariat a l'energie atomique et aux energies alternatives Siege administratif, Le Barp, France; T. Magin, Von Karman Institute For Fluid Dynamics, Sint-Genesius-Rode, Belgium; L. Mieussens, Universite de Bordeaux, Talence, France	2:40 p.m. AIAA-2026-4092 Simulation of Plasma Effects on the Radar Signature in Hypersonic Flow D. D'Ambrosio, A. Improta, Politecnico di Torino Dipartimento di Ingegneria Meccanica e Aerospaziale, Turin, Italy; A. Scarabosio, Fondazione LINKS, Turin, Italy; G. Vecchi, Politecnico di Torino Dipartimento di Elettronica e Telecomunicazioni, Turin, Italy
Monday, 8 June 2026					
FL-03 1:00 - 3:00 p.m.	Transforming Aviation for 2050: NASA AACES 2050 Results and Impact, part 1				Solana Beach A/B

NASA and its partners will discuss their work and results pertaining to the Advanced Aircraft Concepts for Environmental Sustainability (AACES) 2050 contracts. NASA will share how this work feeds into its broader aeronautics strategy and how it plans to leverage these results going forward. Moderator: Nat Blaesser, NASA
Speakers: Jesse Quinlan, NASA Parker Vascik, Electra Jai Ahuja, Georgia Tech Marty Bradley, JetZero Start End Speaker Topic 1:00 1:03 Nat Blaesser Session Intro 1:05 1:20 Jesse Quinlan NASA AACES Intro 1:25 1:45 Parker Vascik Electra Work 1:45 1:55 Parker Vascik Q+A and Transition 1:55 2:15 Jai Ahuja Georgia Tech Work 2:15 2:25 Jai Ahuja Q+A and Transition 2:25 2:45 Marty Bradley JetZero Work 2:45 2:50 Marty Bradley Q+A 2:50 2:55 Nat Blaesser Session Close out

Monday, 8 June 2026

GT-02	Advances in Ground Testing and Techniques I	Ocean Beach
-------	---	-------------

Chaired by: J. VOGEL, Pratt & Whitney and N. CAMPBELL, The Hypershield Partnership, LLC

1:00 p.m. AIAA-2026-4095 Metrology Methods for Isolating Form, Critical Waviness, Steps, Flat Spots, and Twist Distributions From Scanned Point Clouds of Small-Scale Laminar Flow Wind Tunnel Models C. Hiemcke, R. Buth, C. Schneider, C. Jones, General Atomics Aeronautical Systems Inc, Poway, CA	1:20 p.m. AIAA-2026-4096 Design, Manufacturing and Calibration of a Mass-Flow Plug-Ejector for Inlet Testing of a High-Speed Wind Tunnel Model R. Habing, B. Soemarwoto, M. Dijkhof, Koninklijk Nederlands Lucht- en Ruimtevaartcentrum Marknesse, Emmeloord, The Netherlands; F. Wubben, German-Dutch Wind Tunnels, Marknesse, The Netherlands; M. Sätterskog, Saab AB Linköping, Linköping, Sweden	1:40 p.m. AIAA-2026-4097 Multivariate Prediction of the Angular Deflections of a Strain-Gage Balance and a Model Support Assembly N. Ulbrich, Amentum Services Inc., Moffett Field, CA; T. Romer, M. Treece, NASA, Moffett Field, CA; R. Kew, Calspan, San Diego, CA	2:00 p.m. AIAA-2026-4098 Improved Estimate of the Upper Bound of the Precision Error of the Drag Coefficient N. Ulbrich, Amentum Services Inc., Moffett Field, CA; A. l'Esperance, NASA, Moffett Field, CA	2:20 p.m. AIAA-2026-4099 Investigation of Dynamic Content From Total Pressure Distortion Screens J. Gonzales, M. Morrison, K. Xu, J. Davis, K. Peralta, T. Lowe, Virginia Polytechnic Institute and State University, Blacksburg, VA	
---	---	---	---	---	--

Monday, 8 June 2026

HMT-01	Advances in Human-Machine Teaming Across Aerospace Applications	La Jolla A
--------	---	------------

Chaired by: E. ATKINS, Virginia Tech

1:00 p.m. AIAA-2026-4100 Safety-Critical Named Entity Recognition for InService Aviation Reports H. Nguyen, D. Whyatt, N. Niraula, N. Sahin, A. Brown, The Boeing Company, Chicago, IL; K. Bryan, Federal Aviation Administration, Washington, D.C.; et al.	1:20 p.m. AIAA-2026-4101 Development of Operational Task Elements for Evaluation of Advanced Air Mobility Aircraft Automation M. Feary, NASA, Moffett Field, CA	1:40 p.m. AIAA-2026-4102 A Systems Engineering Approach to Computational Bone Models: Implications for Preventive Space Medicine C. Finley, University of Illinois Urbana-Champaign, Urbana, IL	2:00 p.m. AIAA-2026-4103 Flight Centric ATC – The New Way of Working or Just an Enabler for Highly Automated ATC T. Finck, M. Weber, V. Bottino, B. Korn, Deutsches Zentrum für Luft- und Raumfahrt DLR, Braunschweig, Germany		
--	--	--	---	--	--

Monday, 8 June 2026

HSABP-02	Fuel Injection, Mixing, and Flameholding	Harbor A
----------	--	----------

Chaired by: C. CARTER, AFRL

1:00 p.m.	1:20 p.m.	1:40 p.m.	2:00 p.m.	2:20 p.m.	
-----------	-----------	-----------	-----------	-----------	--

AIAA-2026-4104 Numerical Investigation of Scramjet Cavity Edge Rounding on Cavity Behavior M. Boller, B. Millard, D. Cuppoletti, University of Cincinnati, Cincinnati, OH	AIAA-2026-4105 Simulations of Cavity Length-to-Depth Ratio on Combustion in an Axisymmetric Scramjet With Pre-Combustion Shock Train D. Baumberger, South Dakota State University, Brookings, SD; D. Peterson, T. Ombrello, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH; J. Doom, South Dakota State University, Brookings, SD	AIAA-2026-4106 Demonstration of Supersonic Autoignition of Ethylene in a Model Scramjet N. Hawley, J. Caldwell, T. Corke, University of Notre Dame, Notre Dame, IN	AIAA-2026-4107 Experimental Characterization of Near-Field Recirculation in Swirling Jets Under Freestream and Supersonic Crossflow Conditions B. Richards, F. Shu, A. Gross, New Mexico State University, Las Cruces, NM	AIAA-2026-4108 Infrared Absorption Measurements of Residence Times in Supersonic Cavity Flameholders B. Millard, D. Cuppoletti, University of Cincinnati, Cincinnati, OH	
---	---	--	---	--	--

Monday, 8 June 2026

LTA-02	LTA Systems: Analysis, Design and Applications II	Balboa C
--------	---	----------

Chaired by: C. PATEL, Grid Aero, Inc.

1:00 p.m. AIAA-2026-4046 Lenticular Hybrid Airship for Agricultural Applications P. Kapoor, University of Hull, Hull, United Kingdom; R. Pant, Indian Institute of Technology Bombay, Mumbai, India; D. Mohd-Nasir, The University of Sheffield, Sheffield, United Kingdom; M. Abdelrahman, M. Ismail, University of Hull, Hull, United Kingdom	1:20 p.m. AIAA-2026-4109 Conceptual Sizing of Hybrid-Electric Propulsion Systems for Airships S. Trivedi, A. Munshi, R. Pant, Indian Institute of Technology Bombay, Mumbai, India	1:40 p.m. AIAA-2026-4110 TADPOLE: Tiny Autonomous Detection Platform for Off-board Lightweight Edge-computing C. Taylor, O. Dantsker, Indiana University, Bloomington, IN			
--	---	--	--	--	--

Monday, 8 June 2026

MDO-02/ACD-03	Aircraft Design Optimization: Aerostructure	Cortez Hill A
---------------	---	---------------

Chaired by: B. PHILLIPS, NASA

1:00 p.m. AIAA-2026-4111 A Multidisciplinary Optimisation Framework for Compliant Trailing-Edge Morphing Wings B. Blaxall, F. Di Fiore, D. Venetsanos, L. Mainini, Imperial College London, London, United Kingdom	1:20 p.m. AIAA-2026-4112 High Aspect Ratio Wing Design Using Nonlinear Aero-Structural Topology Optimization W. Zheng, P. Ranjan, P. Ansell, J. Merret, University of Illinois Urbana-Champaign, Urbana, IL	1:40 p.m. AIAA-2026-4113 N3L-SNAKE: A Low-to-Medium Fidelity Framework for Nonlinear Fluid-Structure Interaction H. Schleez, A. Verri, Embraer SA, Sao Jose dos Campos, Brazil; G. Kleine, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil;			
---	--	--	--	--	--

		J. Fernandes, Embraer SA, Sao Jose dos Campos, Brazil			
Monday, 8 June 2026					
MST-02	Design, Development, Testing, and Validation of Modeling and Simulation Methods				Harbor D
Chaired by: B. APONSO, FAA and S. KOWALCHUK, Sandia National Laboratories					
1:00 p.m. AIAA-2026-4114 Weak form Estimation of Nonlinear Dynamics (WENDy) for System Identification in Aerospace Applications D. Bortz, V. Dukic, A. Cain, Boulder Computational Solutions, Boulder, CO	1:20 p.m. AIAA-2026-4115 A Physics-Based Approach to Simulation Model Stitching Using Flight Test Data F. de Padua, M. Preisighe Viana, IPEV, Instituto de Pesquisas e Ensaios em Voo, Sao Jose dos Campos, Brazil; L. Goes, Instituto Tecnologico de Aeronautica, Sao Jose dos Campos, Brazil	1:40 p.m. AIAA-2026-4116 Sensitivity Analysis of Roll Angle in External Store Separation Dynamics M. Preisighe Viana, A. Tabosa Santiago, R. dos Santos Sampaio, Instituto de Pesquisas e Ensaios em Voo, Sao Jose dos Campos, Brazil; M. Guimarães da Silva, J. Knapp dos Santos, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil	2:00 p.m. AIAA-2026-4117 Simulator Evaluations of Higher Automation Autoflight Concepts for Various eVTOL Vehicle Configurations T. Lombaerts, K. Shish, J. Kaneshige, A. Villa, M. Feary, K. Monk, NASA Ames Research Center, Moffett Field, CA; et al.	2:20 p.m. AIAA-2026-4118 A Framework for Motion Cueing Algorithm Development Demonstrated With a Nonlinear MPC-Based Approach T. Bernhofer, A. Seefried, Deutsches Zentrum fur Luft- und Raumfahrt DLR Institut fur Flugsystemtechnik, Weßling, Germany; C. Oldemeyer, Deutsches Zentrum fur Luft- und Raumfahrt DLR Institut fur Robotik und Mechatronik, Weßling, Germany	2:40 p.m. AIAA-2026-4119 Xavier: xTM Agent Visualization and Interaction EnviRonment K. Kohm, A. Das, NASA Ames Research Center, Moffett Field, CA
Monday, 8 June 2026					
MVCE-01	Advancements in Meshing, Geometric Sensitivities, and Flow Visualization				Gaslamp B
Chaired by: N. BHAGAT, University of Dayton					
1:00 p.m. AIAA-2026-4120 Evaluation of Data Structures and Algorithms for Unstructured CFD Mesh Morphing I. Malcevic, GE Aerospace Research, Niskayuna, NY; T. Malcevic, No Affiliation, Niskayuna, NY	1:20 p.m. AIAA-2026-4121 Overset Structured Mesh Generation on Complex Configurations Using the EPOGS Toolset W. Chan, A. Chuen, J. Jensen, D. Schauerhamer, NASA Ames Research Center, Moffett Field, CA	1:40 p.m. AIAA-2026-4122 Aerodynamic Shape Optimization With Output- Based Mesh Adaptation and Analytically Verified Sensitivities N. McAllister, M. Galbraith, Massachusetts Institute of Technology, Cambridge, MA	2:20 p.m. AIAA-2026-4124 Benchmarking Modern GPU Computing Frameworks for the Efficient Extraction of Flow Acoustics S. Current, R. Krishnan Sudha, C. Kumar, D. Gaitonde, S. Parthasarathy, The Ohio State University, Columbus, OH		
Monday, 8 June 2026					
PDL-02	Plasma Aerodynamics				Gaslamp C
Chaired by: A. TROPINA, Texas A&M University and B. PARENT, University of Arizona					
1:00 p.m. AIAA-2026-4049	1:20 p.m. AIAA-2026-4050	1:40 p.m. AIAA-2026-4125	2:00 p.m. AIAA-2026-4126	2:20 p.m. AIAA-2026-4128	

DBD Plasma Actuation for Enhancing Aerodynamic Performance and Lateral-Directional Stability of a Single-Pivot Oblique Wing in Subsonic and High-Subsonic Conditions M. Avci, S. Tegin, O. Vatandas, M. Türkoğlu, Istanbul Gelisim Universitesi, Istanbul, Turkey	Laser Induced Plasma Near Surfaces in High-Speed Flows J. Letkemann, S. Ellis, E. Chacon, A. Tropina, R. Miles, Texas A&M University System, College Station, TX	Design of a Plasma Fueled MHD Accelerator for Experiments in a Hypersonic Shock Tunnel N. Temme, A. Lefevre, N. Paull, S. Shelar, R. Kurian, V. Wheatley, The University of Queensland, Brisbane, Australia; et al.	Frequency Analysis of an Oblique Shockwave Over a Wedge J. Tam, Air Force Research Laboratory Directed Energy Directorate, Kirtland AFB, NM	Influence of Particle Inertia on PIV Measurements in Supersonic Wall-Mounted Hemisphere Flow D. Kalagotta, S. V. S., R. Kumar, Florida State University Florida Center for Advanced Aero-Propulsion, Tallahassee, FL	
Monday, 8 June 2026					
SAT-01	Urban Air Mobility "Birds of a Feather"				Harbor G
Chaired by: R. HARRIS, Lockheed Martin Aeronautics					
This is a collaborative session with a clear mission focus on urban air mobility; individuals interested in the topic area from novice to SME are invited to discuss the problem statement. Our two topics of interest are “What is the biggest hurdle to widespread adoption of air taxis?” and “In the next 5 years, how do you expect UAVs will integrate into daily life?”					
Monday, 8 June 2026					
SUST-03	Alternative Propulsion Architectures for Sustainable Aviation				Gaslamp A
Chaired by: T. ABDEL-SALAM, East Carolina University and N. SAIYED, NASA Headquarters					
1:00 p.m. AIAA-2026-4129 SoPhAr: Solar Phased-Arrays to Boost the Range of Electric and Hybrid Aircraft in a Solar-Rich World T. Wang, C. Claudel, The University of Texas at Austin, Austin, TX	1:20 p.m. AIAA-2026-4130 Integration of a Medium-Fidelity Hydrogen Fuel-Cell Model Into a Conceptual Aircraft Design Framework N. D’Orásio Leão, C. Rufino, Universidade Estadual de Campinas, Campinas, Brazil; A. de Paula, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil	2:00 p.m. AIAA-2026-4431 Effect of Intermolecular Potentials on NOx Emissions in Ammonia Combustion Using an Equilibrium Approach G. Layhew, A. Tharpe, B. Steger, T. Cannon, R. Roberts, Tennessee Tech University, Cookeville, TN			
Monday, 8 June 2026					
TP-02/FD-07	Nonequilibrium Flow Physics and CFD II				Harbor E
Chaired by: D. ANDRIENKO, University of Colorado and W. TSAI, California State University, Maritime Academy					
1:00 p.m. AIAA-2026-4132 Electronic State-Resolved Model Sensitivities for Nitric Oxide Radiation in Hypersonic Flows	1:20 p.m. AIAA-2026-4133 Quantified Uncertainties Due to Continuum Assumption in Strong Non-Equilibrium Flows	1:40 p.m. AIAA-2026-4134 Influence of Surface Chemistry on Coupled CFD-Radiation Simulations			

S. Manchikanti, T. Aiken, I. Boyd, University of Colorado Boulder, Boulder, CO	M. Nidharia, S. Minniear, N. Singh, Texas A&M University System, College Station, TX	for Hypersonic Atmospheric Entry A. Meini, University of California Irvine, Irvine, CA; S. Jo, University of Central Florida, Orlando, FL; M. Panesi, University of California Irvine, Irvine, CA			
Monday, 8 June 2026					
F360-02 1:30 - 3:00 p.m.	Revolutionary Engineering Methods				Seaport Ballroom D-H
We will dive into the emerging ecosystem of connected data and high-fidelity virtual representations can link requirements, design, manufacturing, ground test, flight test, and in-service operations into a continuous learning loop. We will highlight how advances in physics-based modeling, model-based systems engineering, and integrated test environments enable earlier discovery of issues, smarter test campaigns, and rapid design iteration with higher confidence. Discussion will focus on what must change—in tools, processes, culture, and validation approaches—to realize these methods at scale and unlock step-change gains in speed, cost, and technical risk reduction. Moderator: Andy Bernhard, Lockheed Martin Speakers: Kelley Hashemi, NASA Darcy Allison, Anduril Josh Deaton, AFRL Bjorn Nagel, DLR					
Monday, 8 June 2026					
AIAA-04 3:00 - 5:00 p.m.	Meet the Employers				Seaport Ballroom A-C
Students and young professionals—you are invited to network with AIAA Corporate members during Meet the Employers. This is a can't-miss occasion where you can meet with AIAA Corporate Member recruiters, and ask questions about internships, full-time employment opportunities, organizational culture, fascinating company projects, and anything else you want to know.					
Monday, 8 June 2026					
NW-02 3:00 - 3:30 p.m.	Coffee Break				Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Monday, 8 June 2026					
ACD-05/TF-03/VSTOL-01	eVTOL and Powered Lift Design				Balboa A
Chaired by: N. BLAESSER, NASA Langley Research Center and J. MONTORO, Lockheed Martin Skunk Works					
3:30 p.m. AIAA-2026-4139 Structural Dynamic Analysis in eVTOL Power Distribution Units C. Melo, Eve Holding Inc, Melbourne, FL; A. Verri, Embraer SA, Sao Jose dos Campos, Brazil	3:50 p.m. AIAA-2026-4137 Synchrophasing as a Noise Reduction Tool in Distributed Electric Propulsion Systems During Flight A. Thosar, R. Cepeda-Gomez, T. Geyer, Deutsches Zentrum für Luft- und	4:10 p.m. AIAA-2026-4138 Efficient Modeling of a Tilted Propeller-Wing System Over a Wide Angle-of-Attack Range Based on Wind Tunnel and CFD Data B. Chen, T. Sinnige, E. Smeur, Technische Universiteit Delft Faculteit Luchtvaart- en	4:30 p.m. AIAA-2026-4136 Development of a Methodology for Tilt-Rotor eVTOL Design Using an Existing Preliminary Design Tool P. Zinjarde, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg,		

	Raumfahrt DLR Standort Berlin, Berlin, Germany	Ruimtevaarttechniek, Delft, The Netherlands	Germany; Y. Amer, Deutsches Zentrum für Luft- und Raumfahrt DLR Institut für Flugsystemtechnik, Braunschweig, Germany; T. Zill, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany		
--	---	--	--	--	--

Monday, 8 June 2026

APA-05	Aerodynamic Flow Control: Analytical, Computational, and Experimental II			Balboa B	
--------	--	--	--	----------	--

Chaired by: A. ATTE, Texas A&M University and A. ABOELEZZ, University of Maine

3:30 p.m. AIAA-2026-4140 The Susceptibility of the Flow Over a Lambda Wing to Changes of Leading Edge Shape & Fluidic Actuation U. Urreiztieta, A. Higuera Pierre Noel, H. Kalyankar, L. Taubert, I. Wagnowski, The University of Arizona College of Engineering, Tucson, AZ	3:50 p.m. AIAA-2026-4142 Triangular Porous Texturing Elements for Drag Reduction and Separation Control M. Olvera, J. Mendoza, L. Alvarez, I. Choutapalli, The University of Texas Rio Grande Valley, Edinburg, TX	4:10 p.m. AIAA-2026-4143 Numerical Study of High Lift Performance of a Drooped CoFlow Jet Supercritical Airfoil With Flap F. Ding, Y. Ren, G. Zha, University of Miami, Coral Gables, FL			
---	---	---	--	--	--

Monday, 8 June 2026

APA-06	Bob Liebeck Memorial Session II			Harbor B	
--------	---------------------------------	--	--	----------	--

Chaired by: P. ANSELL, University of Illinois Urbana-Champaign, Grainger College of Engineering

Dr. Bob Liebeck was a man not only of many great professional accomplishments, but one full of wonder, humor, and enthusiasm. Come share your favorite stories about Bob, reminisce about ways he has inspired your career, or share in his love of airplanes and racecars. All are welcome to come and present.

Monday, 8 June 2026

APA-08/MVCE-02	Meshing, Geometry Modeling, and Visualization for Applied Aerodynamics			Gaslamp B	
----------------	--	--	--	-----------	--

Chaired by: S. YOO, NASA Armstrong Flight Research Center and J. DANNENHOFFER, Syracuse University

3:30 p.m. AIAA-2026-4144 The Applicability of Linear Modelling Methods to Represent the Aeroelastic Behaviour of Flexible Wings With Geometric Nonlinearities C. Dalzell, A. Murphy, T. Robinson, Queen's University Belfast, Belfast, United	3:50 p.m. AIAA-2026-4145 Subdivision Surface-Based Geometry Modeling of Fighter Type Aerodynamic Shapes M. Krengel, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Braunschweig, Braunschweig, Germany; M.	4:10 p.m. AIAA-2026-4146 The Conjugate Unscented Transform for Uncertainty Quantification of the Spalart-Allmaras Turbulence Model S. Gosin, R. Glenn, C. Axten, J. Coder, P. Singla, The Pennsylvania State University, University Park, PA			
---	--	--	--	--	--

Kingdom; J. Gaskell, F. Stanley, Rolls-Royce plc, London, United Kingdom	Werner, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Göttingen, Göttingen, Germany; A. Schuette, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Braunschweig, Braunschweig, Germany				
Monday, 8 June 2026					
ASE-02	Icing Code Development and Usage II				Cortez Hill B
Chaired by: W. WRIGHT, HX5, LLC and T. BARTKUS, Ohio Aerospace Institute					
3:30 p.m. AIAA-2026-4147 Ice Accretion Prediction and Experimental Validation for a Slotted Natural-Laminar-Flow Airfoil P. Hart, The Pennsylvania State University, University Park, PA; J. Borden, Elanus Aerospace LLC, White Bear Lake, MN; J. Coder, The Pennsylvania State University, University Park, PA; T. Wayman, Otto Aerospace, Richmond Hill, GA	3:50 p.m. AIAA-2026-4148 A Level-Set Model for Shadow-Driven Roughness Growth in Rime Ice Accretion F. Zabaleta, H. Yu, P. Moin, Stanford University Center for Turbulence Research, Stanford, CA	4:10 p.m. AIAA-2026-4149 Validation of the DICEPS-3D Icing Code P. Buchen, Politecnico di Milano, Department of Aerospace Science and Technology, Milan, Italy; B. Sobotta, M. Gallia, Technische Universität Braunschweig Institut für Strömungsmechanik, Brunswick, Germany	4:30 p.m. AIAA-2026-4150 SLD and Ice Crystal Concentration Factor Analysis Using Lagrangian and Eulerian Particle Tracking Methods I. Ozcer, G. Moula, Synopsys, Montreal, Canada; A. Pueyo, Bombardier Inc, Montreal, Canada		
Monday, 8 June 2026					
ATM-03	Algorithmic and System Innovations in ATM/Aerospace				La Jolla B
Chaired by: V. BULUSU, Crown Consulting and S. SAXENA, NASA Ames Research Center					
3:50 p.m. AIAA-2026-4152 Agent-Based Grid Airspace Modeling and Collaborative Decision-Making for Low-Altitude Flight J. Wang, R. Liu, Z. Chen, K. Low, Civil Aviation University of China, Tianjin, China	4:10 p.m. AIAA-2026-4153 Risk-Budget-Aware Optimization of Maintenance Planning and Spare-Parts Logistics for Predictive Maintenance A. Jinkoji, H. Ali, T. Sartori du Jonchay, D. Mavris, Georgia Institute of Technology, Atlanta, GA				
Monday, 8 June 2026					
ATS-03	Human Factors and Sustainable Aviation				Harbor C

Chaired by: T. PURANIK, The Boeing Company					
3:30 p.m. AIAA-2026-4155 Human Factors Challenges of UAV Integration Into Controlled Airspace in Future Air Transportation Systems H. Wang, Embry-Riddle Aeronautical University, Daytona Beach, FL	3:50 p.m. AIAA-2026-4156 Multi-Stakeholder Strategy Design for Zero-Impact Aviation C. Heraudet, K. Navaneetha Krishnan, B. Bagdatli, D. Mavris, Georgia Institute of Technology, Atlanta, GA	4:10 p.m. AIAA-2026-4157 A Comparative Analysis of Operational Climate Mitigation Measures in Aviation Z. Zengerling, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany; V. Gollnick, Technische Universität Hamburg, Hamburg, Germany	4:30 p.m. AIAA-2026-4158 Fleet-Level Assessment of 50-Seat Hybrid-Electric Aircraft on Regional Networks of Operation M. Mane, S. Das Biswas, A. Edsel, G. Morgan, I. Kalanadha Bhatta, S. Smith, Purdue University, West Lafayette, IN; et al.	4:50 p.m. AIAA-2026-4159 Conceptual Design of an Electric Semi-Autonomous Taxiing System for Commercial Aviation B. Levy, R. Pretorian, E. Burnham, Massachusetts Institute of Technology, Cambridge, MA; Y. Hu, Harvard University, Cambridge, MA; R. Hansman, Massachusetts Institute of Technology, Cambridge, MA	
Monday, 8 June 2026					
F360-03 3:30 - 5:00 p.m.	Engineer of Tomorrow				Seaport Ballroom D-H
The aerospace engineering role is being reshaped by AI, pervasive digital threads, and increasingly integrated test and operations environments. This session will explore the evolving mix of skills engineers need—systems thinking, software and data fluency, model-based methods, and cross-domain collaboration—to thrive in a world of digital twins, advanced automation, and rapid iteration. Moderator: Paige Stanton Wilson, Chief Development Officer, Acubed Speakers: Jeremy Roehm, Chief of Technology & Partnerships, Rolls-Royce Dimitri Mavris, Director of Aerospace Systems Design Laboratory, Georgia Tech Prajwal Shiva Prakasha, Group Lead - Aviation System Design & Assessment, DLR Carlos Cesnik, Professor of Aerospace Engineering, University of Michigan Clint Church. Interim President & CEO, Aurora Flight Sciences Laura Bogusch, Vice President, Digital and Systems Engineering, Boeing					
Monday, 8 June 2026					
FD-09/APA-07	Boundary Layer Transition: Modeling and Applications				Hillcrest B
Chaired by: J. CODER, Pennsylvania State University and C. AXTEN, The Pennsylvania State University					
3:30 p.m. 4460612 Experimental Study of the Boundary Layer Transition Influenced by a Rectangular Bump L. López Lázaro, F. Himeno, M. Faraco de Medeiros, Universidade de Sao Paulo, São Carlos, Brazil	3:50 p.m. AIAA-2026-4160 Theoretical Analysis of Near-Wall Vortex – Jet Dynamics and Instabilities S. Shkarayev, The University of Arizona, Tucson, AZ	4:10 p.m. AIAA-2026-4161 Numerical Study of Tollmien-Schlichting Waves and Surface Gaps Interaction F. Mendes, M. Faraco de Medeiros, Universidade de Sao Paulo, São Paulo, Brazil	4:30 p.m. AIAA-2026-4162 Nonlinear Disturbance Evolution in Boundary Layers Using a Recursive One-Way Navier-Stokes Approach M. Sleeman, S. Glenn, California Institute of Technology, Pasadena, CA; M. Lakebrink, Boeing Technology Innovation, Hazelwood, MO; T. Colonius, California Institute of Technology, Pasadena, CA	4:50 p.m. AIAA-2026-4163 CFD Transition Model Calibration for Transonic, Natural-Laminar-Flow Applications C. Axten, J. Coder, The Pennsylvania State University, University Park, PA; T. Wayman, D. Freund, Otto Aerospace, Fort Worth, TX; A. Vogel, The Pennsylvania State University, University Park, PA; N. Pfeiffer, Pfeiffer Engineering, Wichita, KS	
Monday, 8 June 2026					

FL-04 3:30 - 5:30 p.m.	Transforming Aviation for 2050: NASA AACES 2050 Results and Impact, part 2				Solana Beach A/B
NASA and its partners will discuss their work and results pertaining to the Advanced Aircraft Concepts for Environmental Sustainability (AACES) 2050 contracts. NASA will share how this work feeds into its broader aeronautics strategy and how it plans to leverage these results going forward. Moderator: Nat Blaesser, NASA Speakers: Simon Evans, Pratt & Whitney Aaron Kutzmann, Boeing Jesse Quinlan, NASA Start End Speaker Topic 3:00 3:03 Nat Blaesser Session Intro 3:05 3:25 Simon Evans P&W Work 3:25 3:35 Simon Evans Q+A and Transition 3:35 3:55 Aaron Kutzmann Aurora Work 3:55 4:05 Aaron Kutzmann Q+A and Transition 4:05 4:20 Jesse Quinlan NASA Closing Thoughts 4:20 4:25 N/A Panel Set Up 4:30 5:25 Panel Question and Answer 5:25 5:30 Nat Blaesser Session Close Out					
Monday, 8 June 2026					
FT-03/TF-04/UAS-02	Flight Testing of Uncrewed/Autonomous Systems II				Cortez Hill C
Chaired by: S. HASAN and K. CONSTANT-COUP, Constant Technology & Research Solutions, LLC					
3:30 p.m. AIAA-2026-4164 Parametric Thrust and Drag Identification From Flight Test via Energy Maneuverability S. Jaeger, University of Minnesota Twin Cities, Minneapolis, MN; M. Thome, Technische Universität Dresden, Dresden, Germany; D. Gebre-Egziabher, M. Hemati, University of Minnesota Twin Cities, Minneapolis, MN	3:50 p.m. AIAA-2026-4165 Calibration of Automatic Aerobatic Scoring Through Flight Test T. David, T. Rendall, T. Richardson, University of Bristol, Bristol, United Kingdom; P. Iscold, California Polytechnic State University, San Luis Obispo, CA	4:10 p.m. AIAA-2026-4166 Development and Flight Validation of a Deployable Fixed-Wing Aircraft With Inflatable Wings for Mars Exploration T. Kim, S. Ryu, H. Lee, Inha University, Michuhol-gu, South Korea	4:30 p.m. AIAA-2026-4167 Conceptual Design of an Unmanned Aerial System Capable of In-Flight Decoupling T. Sharma, T. Bay, E. Eason, I. Rocha, D. Honeycutt, Z. Steenhoek, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ; et al.	4:50 p.m. 4531896 Open eVTOL Research Aircraft for eVTOL Enabling techNologies (RAVEN) S. Whiteside, J. Welstead, M. Vincent, NASA Langley Research Center, Hampton, VA	
Monday, 8 June 2026					
GT-03	Advances in Ground Testing and Techniques II				Ocean Beach
Chaired by: M. RIVERS, NASA Langley Research Center and C. JAUCH, North Wind					
3:30 p.m. AIAA-2026-4168 Comparison of Analysis Methods To Reliably Distinguish Crack Formation From Threshold Noise in Aircraft Structural Health Monitoring M. Prebble, M. Lozano, K. Thresher, CNA Corp, Arlington, VA; D. Stephens, Federal Aviation Administration, Egg Harbor Township, NJ; P. Swindell, Diakon Solutions LLC, Cape May Court House, NJ; M.	3:50 p.m. AIAA-2026-4169 Hypersonic Synthetic Environment Test Tunnel (HySETT) Combined With Marshall Enriched Storable Oxidizer (MESO) Combustion Heating J. Herdy, CFD Research Corporation, Huntsville, AL; G. Freeman, United States Army Space and Missile Defense Command, Huntsville, AL	4:10 p.m. AIAA-2026-4170 Characterization of an Inductively Coupled Plasma Wind Tunnel Facility for Hypersonics and Magnetoaerodynamics H. Ali, J. Flores Govea, E. Leong, University of Colorado Boulder College of Engineering and Applied Science, Boulder, CO	4:30 p.m. AIAA-2026-4171 Sharp Cone Projectile Designs and Their Survivability in an Aeroballistic Range for Hypersonic Aerodynamic Studies S. S. E. Cutright, R. Korman, T. Brannigan, B. Schmidt, Case Western Reserve University, Cleveland, OH	4:50 p.m. AIAA-2026-4778 Experimental and Numerical Investigation of Static and Dynamic Stability of a Re-Entry Capsule in Subsonic Flow D. Massari, S. Paris, C. Gasperin, P. Schrooyen, M. Capriati, B. Helber, Von Karman Institute for Fluid Dynamics Aeronautics and Aerospace Department, Sint-Genesius-Rode, Belgium	5:10 p.m. AIAA-2026-4777 Modal Experimental Continuation of an Aircraft During Ground Vibration Test A. Chukwu, C. Stephan, Office National d'Etudes et de Recherches Aérospatiales, Châtillon, France; C. Touzé, O. Doaré, Ecole Nationale Supérieure de Techniques Avancées, Palaiseau, France

Rozenblat, CNA Corp, Arlington, VA					
Monday, 8 June 2026					
HSABP-03	High-Speed Inlets				Harbor A
Chaired by: L. WEIR, NASA					
3:30 p.m. AIAA-2026-4172 A Numerical Study on the Performance of a Scramjet Inlet Operating at Different Ground Test Facilities and Flight Conditions D. Igra, Rafael Advanced Defense Systems Ltd, Haifa, Israel	3:50 p.m. AIAA-2026-4173 High Fidelity Simulation of Circular-Shape Advanced Hypersonic Vehicles Using Dual Mode Scramjet Propulsion E. Arad, Technion Israel Institute of Technology, Haifa, Israel	4:10 p.m. AIAA-2026-4174 Shock Train Control of a Morphing Inlet and Isolator Using Back Pressuring E. Cavanaugh, V. Narayanaswamy, NC State University, Raleigh, NC; M. Murugan, US Army Combat Capabilities Development Command, Aberdeen Proving Ground, MD	4:30 p.m. AIAA-2026-4175 Wall-Modeled Large-Eddy Simulation of Unstart in a Hypersonic Intake K. Wang, V. Rajan, K. Subramani, B. Bornhoft, S. Bose, Cadence Design Systems Inc, San Jose, CA; S. S. Vikram Sarabhai Space Centre, Thiruvananthapuram, India	4:50 p.m. AIAA-2026-4176 Effect of Ramp Surface Inclination Near Separation Zone on the Performance of a Mach4 Scramjet Intakes M. Sameer, S. Dhar, H. D, T. R, S. Paramasivam, Vellore Institute of Technology, Vellore, India	5:10 p.m. AIAA-2026-4177 Computational Exploration of Hypersonic Inlet Stability and Unstart Thresholds Under Uncertainty M. Moss, NC State University, Raleigh, NC; J. Vasile, L. Bravo, US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, Aberdeen Proving Ground, MD; J. Edwards, NC State University, Raleigh, NC
Monday, 8 June 2026					
MDO-03/ACD-04	Aircraft Design Optimization: No-Fossil Powered Solutions				Cortez Hill A
Chaired by: E. QIAN, Georgia Institute of Technology					
3:30 p.m. AIAA-2026-4178 Multidisciplinary Optimization of Hydrogen Fuel Distribution System Architectures for Conceptual Aircraft Design S. Garg, D. Neves, T. Burschyk, L. Boggero, B. Nagel, Deutsches Zentrum fur Luft- und Raumfahrt DLR Institut fur Systemarchitekturen in der Luftfahrt, Hamburg, Germany	3:50 p.m. AIAA-2026-4179 Sizing and Optimization of a Subscale STOL Hybrid Electric Aircraft With COTS Components Using the PEACE Framework R. Bhandari, I. Chakraborty, Auburn University, Auburn, AL; N. Auda, Rune Aero Inc, Atlanta, GA	4:10 p.m. AIAA-2026-4180 Validation of an Accessible Tool for Component-Based Multidisciplinary Analysis of Electric Fixed-Wing UAVs S. Nassau, J. Hicken, K. Xu, Rensselaer Polytechnic Institute, Troy, NY			
Monday, 8 June 2026					
MST-03	Modeling and Simulation of Advanced and Emerging Technologies I				Harbor D
Chaired by: A. SHENOY, MathWorks and S. WALSTROM, Lockheed Martin Aeronautics					

3:30 p.m. AIAA-2026-4181 Multiphysics Simulation of Shape Memory Alloy Actuation and Bolt Fracture in Frangibolt Systems S. Rayi, S. Srivatsan, Birla Institute of Technology and Science, Pilani -Hyderabad Campus, Hyderabad, India	3:50 p.m. AIAA-2026-4182 Data-Enabled Predictive Control of a Twin Rotor MIMO System Y. Govdali, E. Owhadi, University of Salford, Salford, United Kingdom; V. Kumtepli, University of Oxford, Oxford, United Kingdom	4:10 p.m. AIAA-2026-4183 Flight Path Assessment for eVTOLs Using an Integrated Air Traffic Management Environment E. Martinez, J. Clardy, V. Fraticelli, H. Moncayo, Embry-Riddle Aeronautical University, Daytona Beach, FL	4:30 p.m. AIAA-2026-4184 Flutter Prediction of Control Surfaces Mounted in Highly Flexible Wings A. Gomes, A. Verri, Embraer SA, Sao Jose dos Campos, Brazil; F. Bussamra, Instituto Tecnologico de Aeronautica, Sao Jose dos Campos, Brazil		
Monday, 8 June 2026					
PDL-03	Diagnostics and Experimental Techniques				Gaslamp C
Chaired by: R. MILES, Texas A&M University					
3:30 p.m. AIAA-2026-4185 Effect of Magnetic Field on Laser Absorption in Xe Isotopes at 788 nm A. Abbasszadehrad, Texas A&M University, College Station, TX; Y. Wu, MetroLaser Inc, Laguna Hills, CA; A. Dogariu, R. Miles, Texas A&M University, College Station, TX	3:50 p.m. AIAA-2026-4186 Measurement of Radio Frequency Signal Propagation in an Inductively Coupled Plasma Tunnel S. Latimer, H. Ali, University of Colorado Boulder College of Engineering and Applied Science, Boulder, CO	4:10 p.m. AIAA-2026-4187 Investigating RF Plasma Mode Transitions via Absolute TALIF Measurements of Atomic Nitrogen J. Stienike, M. Da Valle, M. Morasco, S. Thompson, A. Yalin, Colorado State University, Fort Collins, CO	4:30 p.m. AIAA-2026-4188 Characterization of Surface Barrier Discharge Behavior by Phase-Resolved Surface Potential Measurement Y. Nakamura, T. Fujino, Tsukuba Daigaku, Tsukuba, Japan; A. Komuro, Sangyo Gijutsu Sogo Kenkyujo Tsukuba, Tsukuba, Japan		
Monday, 8 June 2026					
SAT-02/GA-03/ATM-04	Society and Aerospace Technology				Torrey Hills B
Chaired by: J. HAYS, Hays Research, LLC					
3:30 p.m. AIAA-2026-4189 A Spatial Modeling Framework for Socially Informed Advanced Air Mobility Implementation Planning N. Bretz, N. Majumdar, University of Arkansas, Fayetteville, AR	3:50 p.m. AIAA-2026-4190 Analysis of Response Metrics for sUAS First Responder Operations in an Urban Environment: The Tulsa Testbed A. Haddox, B. Revard, J. Jacob, Oklahoma State University, Stillwater, OK	4:10 p.m. AIAA-2026-4191 Obtaining and Executing High-Altitude FAA Public Operator COAs in and Near Class C Airspace: sUAS for Weather Study C. Swan, J. Jacob, Oklahoma State University, Stillwater, OK	4:30 p.m. AIAA-2026-4192 Aviation Growth, Efficiency, and Aircraft Noise: When No Single Authority Owns the Outcome T. Lintner, FRAeS, The Aloft Group, Ashburn, VA	4:50 p.m. AIAA-2026-4193 Augmented Reality for Supplementing Physical Conceptualization in Engineering Education L. Moore, M. Hassanalian, New Mexico Institute of Mining and Technology, Socorro, NM	
Monday, 8 June 2026					
SUST-04	Operational Pathways to Low-Emission Air Transportation				Gaslamp A
Chaired by: N. SAIYED, NASA Headquarters					
3:30 p.m.	3:50 p.m.	4:10 p.m.	4:30 p.m.	4:50 p.m.	

AIAA-2026-4194 Quantum-Inspired Optimization for Resilient and Sustainable Aerospace Logistics P. Maharana, U. Singh, A. A. K. Kumar, R. Lineswala, A. Chopra, BosonQ Psi Corp, Syracuse, NY	AIAA-2026-4195 Quantifying the Environmental Impact of Aircraft Maintenance Using Parametric Life Cycle Simulation J. Albano, M. Höller, A. Rahn, A. Pohya, G. Wende, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany	AIAA-2026-4196 Sustainability Assessment of ATR 72-600 Operations in Brazilian Regional Aviation A. De Andrade, R. Orselli, Universidade Federal do ABC, Santo André, Brazil; A. de Paula, Instituto Tecnológico de Aeronautica, São José dos Campos, Brazil	AIAA-2026-4197 Environmental Benefits of a Free Flight Single European Sky (SES) for Airline Operators R. Curran, City St George's University of London, London, United Kingdom	AIAA-2026-4198 Sustainability Performance Metrics for Aviation Network Robustness and Resilience Using a Capacity, Delay, Emissions and Cost Simulator R. Curran, City St George's University of London, London, United Kingdom	
--	--	--	---	---	--

Monday, 8 June 2026

TP-03	Ablation I and Aerothermodynamics III (Part 1)	Harbor E
-------	--	----------

Chaired by: D. PYTEL, Retired and M. SHARMA PRIYADARSHINI, Virginia Tech

3:30 p.m. AIAA-2026-4199 Uncertainty-Aware Air Carbon Ablation Model From Molecular Beam Data A. del Val, G. Larson, University of Minnesota Twin Cities, Minneapolis, MN	3:50 p.m. AIAA-2026-4200 Ultrasonic Monitoring of Ablation in Ceramic-Coated Thermal Protection Materials S. Bano, P. Fraser, G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia	4:10 p.m. AIAA-2026-4201 Computational Analysis of Plasma Jet Flow Over a Wedge Geometry in the PlasmatronX ICP Facility A. Singh, A. Munaf, K. Stephani, M. Panesi, University of California Irvine, Irvine, CA	4:30 p.m. AIAA-2026-4202 Thermochemically-Closed Sonic-Flow Inversion for Enthalpy and Temperature in Multispecies Arc-Jet Flows J. Rodrigues, NASA Postdoctoral Program at NASA Ames Research Center, Moffett Field, CA	4:50 p.m. AIAA-2026-4203 A Machine Learning Augmented Approach for Heat Transfer Analysis of High-Speed Systems R. Tramel, Falcon Dancer INC, Huntsville, AL	
--	---	---	---	---	--

Monday, 8 June 2026

UAS-03	Novel Concepts and Applications for Uncrewed/Autonomous Systems I	Torrey Hills A
--------	---	----------------

Chaired by: D. DOUGHERTY, Northrop Grumman Aeronautics Systems

3:30 p.m. AIAA-2026-4204 Foreign Object Debris Detection in UAS-Based Thermal and RGB Imagery Using Deep Learning C. Caldwell, O. Ahmed, A. Khalid, Kennesaw State University, Kennesaw, GA	3:50 p.m. AIAA-2026-4205 Automated UAS Post Hurricane Damage Assessment Using Deep Learning B. Hardy, M. Karim, O. Ahmed, S. AlShafian, H. Xu, D. Hu, Kennesaw State University, Kennesaw, GA; et al.	4:10 p.m. AIAA-2026-4206 Onboard Voice-to-Mission UAV Autonomy With Language-Conditioned Navigation and Semantic Perception J. Xie, A. Dutta, P. Sun, N. Singh, San Diego State University, San Diego, CA	4:30 p.m. AIAA-2026-4207 Design and Analysis of an Electromagnetic Separation Fixed-Wing UAV With Controller Architecture for Tandem and Lateral Flying-Wing Configurations F. Abdullahi, S. Maimako, J. Mintah, L. Moore, M. Hassanalian, New Mexico Institute of Mining and Technology, Socorro, NM	4:50 p.m. AIAA-2026-4208 Analysis of a Controller Workload Parameter of a Morphing Geometry Quadcopter, as a Function of Open-Source Flight Controller Firmware N. Mercier, C. Kernaghan, S. Gururajan, Saint Louis University, St. Louis, MO	
--	--	--	--	--	--

Monday, 8 June 2026

AWARDS 5:30 - 7:00 p.m.	AIAA Awards Recognition Ceremony	Seaport Ballroom D-H
AIAA is honored to honor you—the very best! A primary goal of the Institute is to recognize those who are making earthshaking achievements that make us stand up from our seats and cheer.		
Tuesday		
Tuesday, 9 June 2026		
AIAA 10:30 - 11:15 a.m.	Careers in Aviation	Harbor G
What does the first decade of a career in aviation and aerospace actually look like? Join a panel of aviation professionals as they discuss the realities of working in engineering and technical roles across the industry. From breaking into the field and developing in-demand skills to navigating graduate school decisions and career uncertainty, this session is designed to give students and young professionals an honest look at building a career in aviation.		
Tuesday, 9 June 2026		
HUB-02 2:00 - 2:30 p.m.	Bridging Simulation and Reality: Building Trustworthy Physics AI for Aircraft Design Through Data Fusion	The HUB
Physics AI is rapidly reshaping how aircraft are designed, promising orders-of-magnitude acceleration over traditional simulation-driven workflows. Yet a surrogate model is only as trustworthy as the data it learns from. Models trained purely on simulation inherit the systematic biases of assumptions and simplifications in modeling. This talk presents a path forward: highly accurate Physics AI built by fusing large-scale simulation datasets with sparse, high-value experimental measurements. We will discuss the principles behind experimental grounding as a data fusion strategy, why a small correction layer on top of a simulation-trained foundation model can recover physical truth without sacrificing inference speed, and what this means for the future of aerodynamic design, certification, and broader aerospace engineering workflows. The goal is a new design paradigm in which engineers can trust AI predictions because the models have been anchored to physical reality — not just to the simulations that trained them. Presented by: Juan Alonso; CTO & Co-founder of Luminary and Chair of the Department of Aeronautics & Astronautics at Stanford University		
Tuesday, 9 June 2026		
HUB-03 2:30 - 3:00 p.m.	High Performance Electric Power Trains for Electrified Propulsion	The HUB
At RTX Technology Research Center (RTRC), our innovation model is built on working hand in hand with government, academia and industry to bridge the gap between ideation and technology maturation. RTRC is a leader in the development of high performance Electric Drive Train (EDT) technologies. The Ultra-Light, inTegrated, Reliable, Aviation-class, Co-Optimized Motor & Power converter with Advanced Cooling Technology (ULTRA-COMPACT) developed at RTRC will enable a wide range of Electrified Aviation Propulsion (EAP) configurations and applications. Presented by: Jagadeesh Tangudu & Ebad Jahangir – Strategic Technologies & Partnerships Office, RTX Technology Research Center		
Tuesday, 9 June 2026		
HUB-05 3:30 - 4:00 p.m.	Lockheed Martin Project Dragonfly: Development of an additively manufactured unmanned aircraft	The HUB
Lockheed Martin Skunk Works® has been leading a project called Dragonfly to design and build an unmanned aircraft using an advanced manufacturing process called additive manufacturing. Lockheed Martin partnered with Divergent, a company that has developed a novel approach to additive manufacturing of automotive and aerospace structures, to rapidly design and build an aluminum airframe for an unmanned aircraft. In this presentation, Juan Montoro will share some highlights and lessons learned from the project. Presented by: Juan Montoro		
Tuesday, 9 June 2026		

HUB-01 1:30 - 2:00 p.m.	GA-ASI Small UAS	The HUB
General Atomics has been working on distinctive Small UAS that are designed to focus on unmanned air launched effects. Our goal is to incorporate our long-standing core company focus on long endurance UAS with Small UAS capable of achieving those effects. This continues our history of unmanned long endurance platforms, with a refocus on lower cost expendable launched effects. For operational flexibility, GA is designing these UAS for ground-launched scenarios as well, while providing the useability and high readiness that GA has become known for. This presentation will address several of the small UAS we are displaying at the Forum, including our PELE aircraft which is focused on an exportable effect that can be produce in large mass, our Sparrowhawk aircraft, which is being used to continue to mature our air recovery technology, and our Advanced Air Launched Effect that has a more conformal shape for easy host integration. Presented by: Donald Sauder III, Director of Launched Effects, Advanced Programs, General Atomics Aeronautical Systems, Inc.		
Tuesday, 9 June 2026		
LTA-03	LTA Aircraft Operations and Testing	Balboa C
Chaired by: C. PATEL, Grid Aero, Inc.		
3:30 - 4:30 PM: Mark Ketcham - Modern Ultralong Duration High Altitude Balloons 4:30 - 5:30 PM: Chinmay Patel - An Academic, Practical, and Financial Introduction to LTA Vehicles		
Tuesday, 9 June 2026		
RUN 6:30 - 7:30 a.m.	AIAA AVIATION Forum Fun Run	Hotel Main Entrance
Start your morning by joining fellow attendees for an all-levels fun run. This is a one-to-three-mile social run designed to be completed in one hour. Afterwards, stay behind for some impromptu networking. Please arrive 5 minutes early to sign a waiver. Meeting Point: by the Market (Kettner Blvd Entrance)		
Tuesday, 9 June 2026		
SP-02 7:30 - 8:00 a.m.	Technical Papers Session Prep	Session Rooms
Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute prep 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).		
Tuesday, 9 June 2026		
CE 8:00 a.m. - 6:00 p.m.	Design of Electrified Propulsion Aircraft (2-Day Course)	Regatta C
Tuesday, 9 June 2026		
PLNRY-02 8:00 - 9:00 a.m.	AI: Hype, Reality and Readiness in Aerospace	Seaport Ballroom D-H
AI doesn't replace human ingenuity—it amplifies it, accelerating workflows so humans can make the next great leap in aviation faster. While AI can compress design cycles and experience from years into weeks, days, hours, or even minutes, groundbreaking aviation platforms like the F-35 Lightning II still require human creativity, innovation and leadership. AI becomes a force multiplier when thoughtfully integrated into workflows, enabling humans to iterate rapidly toward solutions that AI alone can't envision.		
Tuesday, 9 June 2026		

NW-03 9:00 - 9:30 a.m.	Coffee Break				Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Tuesday, 9 June 2026					
ACD-07	Fleet (SOS) and Technology Portfolio Analysis				Balboa A
Chaired by: D. LEVY, Sierra Nevada Corporation and N. BLAESSER, NASA Langley Research Center					
9:30 a.m. AIAA-2026-4209 Aurora Flight Sciences AACES Technology Identification, Prioritization, and Roadmapping D. Neuman, D. Gil, F. Giannini, M. Focaracci, G. Hristov, Aurora Flight Sciences Corporation, Manassas, VA; A. Kutzmann, The Boeing Company, Huntington Beach, CA; et al.	9:50 a.m. AIAA-2026-4210 Assessing Impacts of Design Range and Payload on Next-Generation Single-Aisle Transport Fuel Burn and Noise N. Cocoves, T. Ergan, S. Benhissoune, Y. Cai, J. Gladin, D. Mavris, Georgia Institute of Technology, Atlanta, GA	10:10 a.m. AIAA-2026-4211 Fleet Level Scenario Assessment of Future Aircraft Concepts D. Neuman, Aurora Flight Sciences Corporation, Manassas, VA; A. Kutzmann, M. Neubauer, The Boeing Company, Huntington Beach, CA; M. Focaracci, Aurora Flight Sciences Corporation, Manassas, VA	10:30 a.m. AIAA-2026-4212 Fleet-Level Assessment of Mission-Optimized Next-Generation Single-Aisle Aircraft With Varying Payload Y. Cheng, T. Ergan, J. Xie, M. Kirby, J. Gladin, D. Mavris, Georgia Institute of Technology, Atlanta, GA	10:50 a.m. AIAA-2026-4213 Integrated Optimization Framework for Performance and Operational Design of Airborne Wildfire Suppression Platforms G. Lee, Hanseo University Graduate School, Seosan-si, South Korea; D. Lee, Hanseo University, Seosan-si, South Korea	
Tuesday, 9 June 2026					
ASE-03	Icing Facilities and Instrumentation				Cortez Hill B
Chaired by: R. MOSER, AeroTex GmbH and G. BOTURA, United Technologies Aerospace Systems					
9:30 a.m. AIAA-2026-4214 Effects of Supercooled Large Droplet Thermal Residence Times on Icing Wind Tunnel Simulations: Consequences for Ice Accretion Morphology and Aerodynamic Performance L. Chen, F. Lien, E. Yee, University of Waterloo Faculty of Engineering, Waterloo, Canada; D. Orchard, National Research Council Canada, Ottawa, Canada	9:50 a.m. AIAA-2026-4215 Collection Efficiency Measurements Using Linear Microstrip Sensors and Blotting Media A. Okwo, J. Usher, B. Herrera, Y. Li, S. McClain, Baylor University, Waco, TX	10:10 a.m. AIAA-2026-4216 Experimental and Numerical Study of Ice Mass and Accretion on a Pitot Probe N. Doiron, E. Matida, H. abo el Ella, Z. Milani, Carleton University, Ottawa, Canada; P. Forsyth, National Research Council Canada, Ottawa, Canada; N. Szulga, Thales Aerospace, La Défense, France; et al.			
Tuesday, 9 June 2026					
ATS-04	Air Transportation Safety and Reliability I				Harbor C

Chaired by: M. BRITAIN, Johns Hopkins University Applied Physics Laboratory					
9:30 a.m. AIAA-2026-4217 Multi-Objective Optimization for Metroplex Departure Scheduling Through Trajectory-Based Probabilistic Estimation Y. Lee, H. Kim, Korea Aerospace University, Goyang-si, South Korea	9:50 a.m. AIAA-2026-4218 Supervisory Control Architecture for Safe eVTOL Routing C. Rutili de Lima, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil; F. J. O. Moreira, Embraer SA, Sao Jose dos Campos, Brazil; M. R. O. A. Maximo, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil	10:10 a.m. AIAA-2026-4219 Identifying Atypical Approaches and Their Relationship to Go-Arounds: An Energy Trajectory Analysis at Schiphol Airport J. van Renssen, A. Murrieta Mendoza, Hogeschool van Amsterdam, Amsterdam, The Netherlands; K. Noordeloos, E. Westerveld, Luchtverkeersleiding Nederland, Schiphol, The Netherlands	10:30 a.m. AIAA-2026-4220 Towards Automated Air Traffic Safety Assessment Around Non-Towered Airports Using Large Language Models T. Darrell, M. Ghazanfari , The George Washington University, Washington, D.C.; J. Kam, A. Bayen, University of California Berkeley, Berkeley, CA; A. Tabrizian, P. Wei, The George Washington University, Washington, D.C.	10:50 a.m. AIAA-2026-4221 Midair Collision-Related and Weather-Related Accident Rates as a Function of ADS-B in Equipage D. Howell, L. Tran, T. McInerney, Regulus Group LLC, Woodstock, VA	
Tuesday, 9 June 2026					
CSS-01	Cybersecurity				La Jolla A
Chaired by: R. SAMPIGETHAYA, Embry-Riddle Aeronautical University					
9:30 a.m. AIAA-2026-4222 moved to IS-06 at 2:20 p.m.	9:50 a.m. AIAA-2026-4223 SoK: Security and Privacy in Unmanned Aerial Vehicle Swarm Networks H. Coleman, D. Hamilton, Texas A&M University, College Station, TX	10:30 a.m. AIAA-2026-4225 Modernizing Aviation Infrastructure—Cybersecurity Challenges in the Era of Remote Tower Operations A. Aggarwal, University of North Texas, Denton, TX	10:50 a.m. AIAA-2026-4226 Radiation-Resilient Lattice-Based Cryptography Communication Protocol for Satellites E. Johnson, K. Crabb, J. Leiden, D. Hamilton, Texas A&M University System, College Station, TX	11:10 a.m. AIAA-2026-4227 A Cybersecurity Service for UAS Traffic Management: Development and Field Testing O. Leon, S. Lee, M. Ades, K. Lei, S. Roy, Texas A&M University, College Station, TX	
Tuesday, 9 June 2026					
DGE-03	MBSE and AI for Digital Engineering				La Jolla B
Chaired by: O. PINON-FISCHER, Georgia Institute of Technology					
9:30 a.m. AIAA-2026-4228 Improving the Explainability of Autoencoder Processes With Application to Airfoil Shapes K. Markgraf, K. Müller, Brandenburg University of Applied Sciences, Brandenburg an der Havel,	9:50 a.m. AIAA-2026-4229 Structure-Aware Retrieval for CFR Title 14: A Knowledge Graph and LLM-Enabled Approach K. Sawant, X. Jing, C. Chandra, T. Oderinde, B. Sampaio Felix, J. Bhanpato, Georgia Institute of	10:10 a.m. AIAA-2026-4230 Development of a Hybridization-Aware Digital Integrated Systems Model for a Baseline Aircraft Inner Fixed Structure C. Stockhausen, B. Govindaraju Pillai Ramanathan, V. Modi,	10:30 a.m. AIAA-2026-4231 Using Simulation and Augmented Virtual Reality With Value Operations Methodology (VOM) for Transdisciplinary Emergent Learning Platforms in Aviation R. Curran, K. LUKAS, K. Pamment, N. MORAR, City St	10:50 a.m. AIAA-2026-4232 Innovative AI Enhanced Model Based Solution for Main Cargo Door Actuation in Passenger to Freightier Conversion V. Donato, G. Giangreco, F. Mattei, C. Conte, G. Rufino, D. Accardo, Universita degli	

Germany; P. Flässig, Rolls-Royce Deutschland Ltd und Co KG, Blankenfelde-Mahlow, Germany; D. Bestle, Brandenburgische Technische Universität Cottbus-Senftenberg, Cottbus, Germany; R. Flässig, Brandenburg University of Applied Sciences, Brandenburg an der Havel, Germany	Technology, Atlanta, GA; et al.	University of Michigan, Ann Arbor, MI; S. Kestler, Collins Aerospace, Chula Vista, CA; G. Cinar, University of Michigan, Ann Arbor, MI	George's University of London, London, United Kingdom	Studi di Napoli Federico II, Naples, Italy; et al.	
---	---------------------------------	--	---	--	--

Tuesday, 9 June 2026

F360-04 9:30 - 11:30 a.m.	AI Hype vs. Reality – Past vs. Prediction	Seaport Ballroom D-H
------------------------------	---	----------------------

In this thought-provoking session, we take a clear-eyed look at how AI is impacting design today—and where it's headed next. Moving beyond buzzwords, we'll discuss the real challenges in applying AI to product design, such as balancing speed, accuracy, and creative control. We will explore how to use large language models (LLMs) intelligently as part of a broader toolkit, while focusing on delivering tangible products. The discussion will highlight lessons learned, practical strategies for building data-driven design tools, and predictions on where informed, purposeful AI integration will make the biggest difference. Moderator: Tracy Elving, University of Illinois Urbana-Champaign Speakers: Ella Atkins, Virginia Tech Jeff Allred, RTX Pooja Narayan, Airbus

Tuesday, 9 June 2026

FD-12	Supersonic/Hypersonic Flow Physics I	Hillcrest A
-------	--------------------------------------	-------------

Chaired by: C. TINNEY, University of Mississippi

9:30 a.m. AIAA-2026-4233 Numerical Investigation of Supersonic Turbine Trailing-Edge Flows H. Lui, W. Wolf, Universidade Estadual de Campinas, Campinas, Brazil	9:50 a.m. AIAA-2026-4234 Influence of Thermochemistry Models in Flowfield Simulations Around Symmetric Mach Reflections at High Enthalpy Flow Conditions M. Nidharia, S. Iyer, B. Leonov, N. Singh, Texas A&M University, College Station, TX	10:10 a.m. AIAA-2026-4235 Startup and Shutdown Nozzle Side Loads for Powered Descent of Reusable Launch Vehicles C. Tinney, J. Valdez, The University of Texas at Austin Applied Research Laboratories, Austin, TX			
--	--	---	--	--	--

Tuesday, 9 June 2026

FD-13	Weapons Bay Cavity and Store Separation	Balboa B
-------	---	----------

Chaired by: B. JOLLY, AeroSME LLC

Followup to the successful AIAA course on Weapons Bay Cavity and Store Separation a session on the same would be highly beneficial. It consists of Cavity flow techniques, methods, applications, and research with focus on Store Separation. Store separation techniques that incorporate unsteady / acoustics from cavity flow is highly encouraged.

Tuesday, 9 June 2026

FL-05 9:30 - 11:00 a.m.	Putting AAM to Work: How State, Local, Territorial, and Tribal Governments Enable the Industry to Take Flight				Solana Beach A/B
Putting AAM to Work: How State, Local, Territorial, and Tribal Governments Enable the Industry to Take Flight Moderator: Tom Davis, Crown Innovations, Inc. Panelists: Tina Buelo, FAA - eIPP Program Director, FAA Lisa Abeyta, Associate Deputy Director for Aviation, City of Albuquerque Josh Duplantis, Assistant Director for Aviation, Louisiana Dept. of Transportation Warren Carroll, Metro Aviation, NCDOT Lavera Alexander, Director of California Advanced Air Mobility Corridors Initiative, Monterey Bay Economic Partnership					
Tuesday, 9 June 2026					
FT-04	Flight Testing GNC and Analysis				Cortez Hill C
Chaired by: A. FREEBORN, USAF Test Pilot School and J. SERGEANT, Retired					
9:30 a.m. AIAA-2026-4236 Closed-Loop Stability Margin Identification From Flight-Test Data Using DFT, Spectral Methods and Nonlinear Frequency Analysis S. Balcan, A. Küçüker, O. Albostan, Tusas-Türk Havacilik ve Uzay Sanayii AS, Ankara, Turkey	9:50 a.m. AIAA-2026-4237 Flight Test Techniques for Assessing Cross-Coupling Between Longitudinal and Lateral-Directional Dynamics F. de Padua, M. Preisighe Viana, IPEV, Instituto de Pesquisas e Ensaios em Voo, Sao Jose dos Campos, Brazil; L. Goes, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil	10:10 a.m. AIAA-2026-4238 A Framework for Extracting Stable Cruise Segments From Operational Performance Data L. Bays, M. Grenn, The George Washington University, Washington, D.C.			
Tuesday, 9 June 2026					
GA-04	Training and Decision-Making for General Aviation Pilots				Torrey Hills B
Chaired by: N. FALA, Auburn University					
9:30 a.m. AIAA-2026-4239 Engine Failure Turnback Maneuver Decision Altitudes Using Nonlinear Trajectory Optimization N. Melville, Vance Air Force Base, Vance AFB, OK	9:50 a.m. AIAA-2026-4240 Impact of Information Presentation on Pilot Estimation of Weather Conditions S. Swaine, B. Caldwell, Z. Hass, Purdue University, West Lafayette, IN	10:10 a.m. AIAA-2026-4241 Enhancing Student Pilot Training Through Real-Time LLM-Driven Maneuver Feedback L. Alarcon-Aneiva, N. Fala, Auburn University, Auburn, AL	10:30 a.m. AIAA-2026-4242 Assessing Pilot Proficiency in Aircraft Energy Management Using Flight Simulation T. Olatunji, N. Majumdar, R. Davis, University of Arkansas, Fayetteville, AR; N. Kondur, Georgia Institute of Technology, Atlanta, GA	10:50 a.m. AIAA-2026-4243 Effect of Virtual Reality Flight Simulation on Simulator Sickness in Ab Initio Trainees A. Somerville, K. Joiner, G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia	
Tuesday, 9 June 2026					
GT-05/APA-09/AMT-02/FD-11/CFD2030-03	Meet the Turbulence Modelers				Ocean Beach
Chaired by: R. DECKER, USAF Academy					

According to Feynman, "Turbulence is the most important unsolved problem of classical physics." How turbulence is modeled is a key aspect of many Computational Fluid Dynamics (CFD) processes: understanding how turbulence models should be used is central to the task of CFD validation. The language of turbulence modeling can become very mathematical, which can be a barrier toward its effective use. To help address this problem, this session will consist of a series of informal presentations made by Subject Matter Experts (SME) to outline the principles underpinning the use of AI/ML to facilitate the modelling of turbulence. These presentations will be framed in a manner that may be understood by Turbulence Measurers and others in the broader CFD stakeholder community, too. These presentations will be followed by facilitated interactive discussion. This will build on previous specials sessions focusing on RANS turbulence models (Aviation 2025) and the use of LES to resolve turbulent scales (SciTech 2026). Contributors to include Xiang Yang (Penn State), Tobias Knopf (DLR), and Paola Cinnella (Sorbonne).

Tuesday, 9 June 2026

H2AERO-01	H2-Aero Vision & Executive Keynotes	Mission Beach A/B
-----------	-------------------------------------	-------------------

H2Aero-02 - H2-Aero Vision & Executive Keynotes Chair: Jesse Schneider, ZEV Station Speakers: H2-Aero Mission: Decarbonize Aviation & Airports Whitepaper (update 2026) Jesse Schneider, CEO, ZEV Station (H2-Aero Symposium Chair) Fuel Cell Powertrains & Liquid Hydrogen Fueling Val Miftakhov, CEO, ZeroAvia Hydrogen Business Jet using GH2 Infrastructure Eloa Guillotin, CEO, Beyond Aero UK CAA H2-Aerospace Roadmap Helen Leadbetter, Zero Emissions Flight Lead, UK CAA EASA H2-Aerospace Roadmap Dr. Linda Brussaard, Hydrogen Technologies & New Electrical Systems Expert, EASA The path to Hydrogen-Aviation Certification Interactive Panel Moderated by Jesse Schneider, ZEV Station

Tuesday, 9 June 2026

HSABP-04/INPSI-01/PGC-01	Pulse and Rotating Detonation Engines	Harbor A
--------------------------	---------------------------------------	----------

Chaired by: S. BALAKRISHNAN, Purdue University

9:50 a.m. AIAA-2026-4245 Experimental Pressure Characteristics of Hydrogen Fueled Rotating Detonation Combustor A. Cojocea, M. Gall, I. Porumbel, Institutul National de Cercetare-Dezvoltare Turbomotoare, Bucharest, Romania; T. Cuciuc, Universitatea de Stat din Moldova Facultatea de Fizica si Inginerie, Chisinau, Moldova (the Republic of); G. Vrabie, Institutul National de Cercetare-Dezvoltare Turbomotoare, Bucharest, Romania	10:10 a.m. AIAA-2026-4246 A Parametric Study of the Effects of Two-Dimensional Mixture Inhomogeneity on Methane-Oxygen Detonation T. Tanaka, S. Ketu, S. Martin, Embry-Riddle Aeronautical University, Daytona Beach, FL				
---	---	--	--	--	--

Tuesday, 9 June 2026

LTA-04	History of LTA Vehicles	Balboa C
--------	-------------------------	----------

Chaired by: C. PATEL, Grid Aero, Inc.

9:30 - 10:30 AM: Prof. Barry Prentice - The Compelling Economic Case for Airships 10:30 - 11:30 AM: Richard VanTreuren - Thank Airships for Helium

Tuesday, 9 June 2026					
MDO-04/ACD-06	Aircraft Design Optimization: Advancing Frameworks for Novel Configurations				Cortez Hill A
Chaired by: M. MUIR, Airbus					
9:30 a.m. AIAA-2026-4247 Large-Scale Multidisciplinary Design Optimization of a Blended Wing Body Aircraft Using Mid-Fidelity, Multi-Point Analysis L. Scotzniovsky, N. Orndorff, A. Fletcher, University of California San Diego, La Jolla, CA; J. Kao, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH; J. Hwang, University of California San Diego, La Jolla, CA	9:50 a.m. AIAA-2026-4248 Robust Design of Composite Laminates Enabled by Physics-Based Uncertainty Modeling N. Rowshan, F. Danzi, University of California, Merced, CA	10:10 a.m. AIAA-2026-4249 Linking Stability & Control and Trajectory Analysis Tools in a High-Speed Vehicle Conceptual Design Process S. Atchison, T. Takahashi, J. Camberos, Air Force Institute of Technology, Wright-Patterson Air Force Base, OH	10:30 a.m. AIAA-2026-4250 Extensions to a Gradient-Based MDAO Framework for Aircraft Conceptual Design H. Hajdik, Electra.aero, Manassas, VA; S. Kaneko, A. Lopez Cotrina, M. Arnson, T. Ho, University of Michigan, Ann Arbor, MI; A. Lamkin, Supercritical, Ann Arbor, MI; et al.		
Tuesday, 9 June 2026					
MST-04	Modeling and Simulation of Advanced and Emerging Technologies II				Harbor D
Chaired by: M. MADDEN, NASA-Langley Research Center and S. KENNEY, NASA-Langley Research Center					
9:30 a.m. AIAA-2026-4251 Nonlinear Aeroelastic Prediction of Limit Cycle Oscillations in High-Aspect-Ratio Wings With Hinged Folding Wingtips A. Moni, C. Wales, D. Jones, A. Gaitonde, University of Bristol, Bristol, United Kingdom	9:50 a.m. AIAA-2026-4252 Experimental Investigation of Multi-Rotor Gust-Response and Rejection Using a 3-DOF Twin-Rotor Test-Rig H. Kim, M. Benedict, Texas A&M University, College Station, TX	10:10 a.m. AIAA-2026-4253 The Paradigm Shift in Aircraft System Identification Approaches: A Review of Classical and Data-Driven Methods K. Sommer-Kohrt, D. Bansal, S. Brunswicker, J. Goppert, Purdue University System, West Lafayette, IN	10:30 a.m. AIAA-2026-4254 Open-Source Simulation Environment for Detect-and-Avoid Development and Risk Assessment J. Estupinan, E. Martinez, H. Moncayo, R. Prazenica, Embry-Riddle Aeronautical University, Daytona Beach, FL	10:50 a.m. AIAA-2026-4255 Numerical and Parametric Analysis of a SysML-Python Integrated Simulation Platform for Hydrogen Turbofan Propulsion Systems S. Tan, F. Kong, S. Cimtalay, D. Mavris, Georgia Institute of Technology College of Engineering, Atlanta, GA	
Tuesday, 9 June 2026					
PDL-04	Plasma Modeling and Simulations				Gaslamp C
Chaired by: C. DUMITRACHE, Colorado State University					
9:30 a.m. AIAA-2026-4256 Development of a High-Fidelity Radiative Transfer	9:50 a.m. AIAA-2026-4257 Pre-Ionization Thresholds for Continuous-Wave Sustainment of	10:10 a.m. AIAA-2026-4258 Modeling and Analysis of Sputtering and Erosion in an Ion Gridded Thruster	10:30 a.m. AIAA-2026-4259 Numerical Modeling of the Propagation of		

Tool for Laser-Produced Plasmas S. Yeh, S. Thirani, D. Vatansever, D. Levin, University of Illinois Urbana-Champaign, Urbana, IL	Femtosecond-Initiated Plasmas M. Hooshyar, C. Dumitrache, Colorado State University, Fort Collins, CO	C. Cardenas, L. Massa, Virginia Polytechnic Institute and State University, Blacksburg, VA; C. Collazos, Universidad Manuela Belfran, Bogotá, Colombia	Shaped Laser Beams Through Aerosols M. Maikov, K. Eugene, A. Tropina, R. Miles, Texas A&M University System, College Station, TX		
Tuesday, 9 June 2026					
SUST-06	Sustainable Aviation Workshop: Current Status, Recent Developments, and Future Needs				Gaslamp A
Chaired by: P. ANSELL, University of Illinois Urbana-Champaign, Grainger College of Engineering					
Following previous events in 2024 and 2025, the Sustainable Aviation Workshop is back with a third installment at AIAA Aviation 2026. During this year's workshop, the latest updates to sustainable development outcomes from across the aviation landscape will be covered, and the audience will be engaged to capture the breadth of perspectives of sustainability needs from across the AIAA community of practice. Come engage, share your thoughts, and provide your contributions that will help push this field forward.					
Tuesday, 9 June 2026					
TP-04	Aerothermodynamics and Thermal Protection Systems I				Harbor E
Chaired by: D. ZAKAR and M. SHARMA PRIYADARSHINI, Virginia Tech					
9:30 a.m. AIAA-2026-4260 Definition and Evaluation of Continuum Breakdown Parameters F. Portis, D. D'Ambrosio, Politecnico di Torino, Turin, Italy; A. Schettino, Centro Italiano Ricerche Aerospaziali, Capua, Italy	9:50 a.m. AIAA-2026-4261 Boundary Layer Analysis of Shock Tube Flows A. Fagnani, ORAU at NASA Ames Research Center, Moffett Field, CA; O. Chazot, Von Karman Institute For Fluid Dynamics, Sint-Genesius-Rode, Belgium; B. Cruden, AMA Inc. at NASA Ames Research Center, Moffett Field, CA	10:10 a.m. AIAA-2026-4262 CFD Simulations of the Truncated IHF Semi-Elliptical Nozzle Arc-Jet Facility: A Plate Deflection Study T. Gokcen, AMA Inc. at NASA Ames Research Center, Mountain View, CA	10:30 a.m. AIAA-2026-4756 Conservative Numerical Modeling of an Ablative Charring Heat Shield Under Deformations Validated Through Arc-Jet Tests A. Cas, C. Baranger, Commissariat a l'energie atomique et aux energies alternatives Siege administratif, Gif-sur-Yvette, France; H. Beaugendre, Institut de Mathematiques de Bordeaux, Talence, France; S. Peluchon, Commissariat a l'energie atomique et aux energies alternatives Siege administratif, Gif-sur-Yvette, France	10:50 a.m. AIAA-2026-4507 A Multi-Solver Approach for Particle-Laden Hypersonic Flows H. Nam, S. Jo, University of Central Florida, Orlando, FL	
Tuesday, 9 June 2026					
UAS-04	Sensors and Data Systems for Uncrewed/Autonomous Systems				Torrey Hills A
Chaired by: R. KAPANIA					
9:30 a.m. AIAA-2026-4263	9:50 a.m. AIAA-2026-4264	10:10 a.m. AIAA-2026-4265	10:30 a.m. AIAA-2026-4266		

Visual Attention and Risk Appetite in Drone Flight Operations J. Murray, P. Bergen, P. Fraser, A. Somerville, U. Turhan, G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia	Estimating Quadcopter States From External Video Feeds F. Bueno, S. Gururajan, Saint Louis University, St. Louis, MO	Collision Detection for UAVs Using Rochelle Salt Cuttlebone Composite Piezoelectric Structural Sensors P. Oh, N. Palmer, Q. He, E. Tantay, J. Xie, Y. Yang, San Diego State University, San Diego, CA	Ultra-Wideband Sensor Fusion for Robust 3D Localization of Lighter-Than-Air UAVs S. Connelly, M. Widjaja, A. Meighan, P. Coen, C. Taylor, O. Dantsker, Indiana University, Bloomington, IN		
--	---	--	---	--	--

Tuesday, 9 June 2026

F360-15 12:30 - 1:30 p.m.	Special Preview of PBS Documentary on the Voyager 1/2 Spacecraft	Seaport Ballroom D-H
------------------------------	--	----------------------

A new PBS documentary that tells the story of the Voyager 1/II spacecraft and its team of operators will air in 2027 in line with the 50th anniversary of Voyager I/II missions. Join us for this session to get a special screening of portions of the film, followed by discussion with the producers, Voyager team members, and other high-profile experts. Additionally, this is a celebration of the "Light Day" distance from Earth that Voyager will achieve in November.

Tuesday, 9 June 2026

ACD-10/HIS-02/TF-06	Flight Test Lessons Learned I	Balboa A
---------------------	-------------------------------	----------

Chaired by: X. LIU, San Diego State University

1:00 p.m. AIAA-2026-4267 The Kinalog System: A Pioneering Integrated and Anticipatory Cockpit Display G. Fogel, San Diego State University, San Diego, CA	1:20 p.m. AIAA-2026-4268 Piloted Supersonic Cruise Vehicle Flying Quality Evaluation D. Cerantola, P. Dass, Space Engine Systems, Edmonton, Canada	1:40 p.m. AIAA-2026-4269 Rethinking the Flying Qualities of the Avro Canada CF-105, the First Stability Augmented Supersonic Fighter T. Takahashi, B. Gaydusek, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ	2:00 p.m. AIAA-2026-4270 Subscale Flight and Wind Tunnel Testing of STUART: Transportable, Autonomous Aerial Rescue Vehicle K. Disotell, C. Nietert, J. Taylor, A. Pisano, V. Chitivel, A. Chittari, The Ohio State University, Columbus, OH; et al.	2:20 p.m. AIAA-2026-4271 Testing of a Ducted-Fan Blown Lift Aircraft Concept T. Long, M. Drela, B. Chow, A. Vliet, B. Levy, A. Contreras, Massachusetts Institute of Technology, Cambridge, MA; et al.	
--	---	--	---	---	--

Tuesday, 9 June 2026

APA-10/ACD-09	Airfoil/Wing/Configuration Aerodynamics I	Balboa C
---------------	---	----------

Chaired by: A. AVERY, Oklahoma State University and N. BHAGAT, University of Dayton

1:00 p.m. AIAA-2026-4272 Sensitivity Analyses to Reynolds and Mach Numbers of Several Lift-Induced Drag Formulations C. Fournis, V. Gaultier, Office National d'Etudes et de	1:20 p.m. AIAA-2026-4273 An Externally Blown High Lift Airfoil in Ground Effect D. Heathcote, Aurora Flight Sciences Corporation, Cambridge, MA; J. Lankford, Aurora Flight Sciences Corporation, Manassas, VA; L. Drexler-Bruce, Aurora Flight	1:40 p.m. AIAA-2026-4274 Performance Analysis of Blended Wing Body (BWB) Aircraft Model Using Computational Fluid Dynamics (CFD) Techniques and Wind Tunnel Testing	2:00 p.m. AIAA-2026-4275 Aerodynamic Investigation of a Morphing Control Surface for Enhanced Control Using Vortex-Panel Methods	2:20 p.m. AIAA-2026-4276 Estimation of Aerodynamic Characteristics of Wing-Tail Configurations With Control Surfaces Using 2D Numerical Predictions R. Kumar, S. Ghosh, J. George, Indian Institute of	
---	--	---	--	---	--

Recherches Aerospatiales, Meudon, France	Sciences Corporation, Cambridge, MA	C. Savage, Tennessee Tech University, Cookeville, TN; M. Rahman, Tennessee State University, Nashville, TN; A. Rahman, A. Saha, Tennessee Tech University, Cookeville, TN; M. Akbar, Tennessee State University, Nashville, TN; B. Jo, Tennessee Tech University, Cookeville, TN	G. Fernandes, Florida Polytechnic University, Lakeland, FL	Technology Madras, Chennai, India	
---	--	---	--	--------------------------------------	--

Tuesday, 9 June 2026

APA-11	Special Session: Cavity Flow Effects on Stores and Store Separation	Balboa B
--------	---	----------

Chaired by: C. COLEY, United States Air Force Academy and B. JOLLY, AeroSME LLC

1:00 p.m. AIAA-2026-4277 Effects of Inflow Boundary Layer Thickness on Supersonic Cavity Flow D. Dickerson-Evans, R. Kumar, FAMU-FSU College of Engineering, Tallahassee, FL	1:20 p.m. AIAA-2026-4278 Monte-Carlo 6-DoF With Weapons Bay Cavity Acoustic Influence B. Jolly, C. Coley, US Air Force Academy, Air Force Academy, CO	1:40 p.m. AIAA-2026-4279 Aeroacoustic Analysis of a Generic Jet-Fighter Weapon Bay at Transonic Mach Number D. Bacci, University of Oxford, Oxford, United Kingdom; A. Saddington, Cranfield University, Cranfield, United Kingdom; B. Hadar, Technion Israel Institute of Technology, Haifa, Israel	2:00 p.m. AIAA-2026-4280 On Some Proposed Modifications to the J- factor Store Trajectory Repeatability Prediction Metric C. Marshall, J. McCarthy, Defence Science and Technology Group, Melbourne, Australia; E. Hale, University of Melbourne - Queen's College, Parkville, Australia; B. Jolly, US Air Force Academy, Air Force Academy, CO		
---	--	--	--	--	--

Tuesday, 9 June 2026

APA-36/SPSN-02	NASA X-59 Historic First Flight: From Design to First Flight-Leadership Perspective	Harbor B
----------------	---	----------

Chaired by: L. OZOROSKI, NASA LARC

This panel will pull back the curtain on the innovative design and relentless determination that transformed a one-of-a-kind concept into reality. From the early development to the challenges overcome to get to First Flight, you'll hear what it really took to push the boundaries of aviation. Experience the thrill of that historic moment through the eyes of the X-59's lead test pilot, sharing firsthand insights from the First Flight and the flight tests happening right now. The panel will dive into key discoveries, unexpected lessons, and the evolving flight test plan. Finally, look ahead as the discussion connects the X-59 to NASA's ambitious mission to redefine supersonic travel—turning the traditional “speed limit” into a revolutionary “sound limit.” Discover what's next once the aircraft moves beyond envelope expansion and paves the way for a quieter, faster future of flight.

Panelist

Catherine Bahm, X-59 Project Manager

Peter Coen, Mission Manager

Nils Larson, X-59 Pilot

Michael Buonanno, X-59 Air Vehicle Manager

Lori Ozoroski, Deputy Project Manager for Civil Supersonics, High-Speed Flight Project

Tuesday, 9 June 2026					
ASE-04	NATO AVT 388: Operation of Unmanned Aerial Vehicles (UAVs) in Icing Environments				Cortez Hill B
Chaired by: R. HANN, NTNU and A. AVERY, Oklahoma State University					
1:00 p.m. AIAA-2026-4281 UAV Icing: Operational Risk Management of Icing Conditions for Beyond Visual Line of Sight (BVLOS) Missions R. Hann, Norges teknisk-naturvitenskapelige universitet, Trondheim, Norway	1:20 p.m. AIAA-2026-4282 Assessment of Performance Degradation of UAV in Icing Conditions I. Savoldi, A. Donizetti, T. Bellosta, A. Guardone, Politecnico di Milano, Milan, Italy	1:40 p.m. AIAA-2026-4283 Experimental Study of the Aerodynamic Performance of a Low Reynolds Number UAV Model With Artificial Ice Shapes I. Savoldi, A. Donizetti, A. Guardone, Politecnico di Milano, Milan, Italy	2:00 p.m. AIAA-2026-4284 UAV Icing: Comparison of 2D and 3D Numerical Tools for the Predictions of the Ice Accretion on UAV Propellers N. Müller, R. Hann, NTNU, Trondheim, Norway	2:20 p.m. AIAA-2026-4285 UAV Icing: Experimental and Numerical Investigation of Aerodynamic Performance Degradation of the RG-15 Airfoil at Low Reynolds Numbers J. Röb, U. Deck, Universitat Stuttgart Institut fur Aerodynamik und Gasdynamik, Stuttgart, Germany; R. Hann, Norges teknisk-naturvitenskapelige universitet, Trondheim, Norway	2:40 p.m. AIAA-2026-4286 Assessment of Backlight Optical Imaging for Time-Resolved 2D Characterization of Ice Accretion on Airfoils M. Gallia, Technische Universität Braunschweig, Brunschweig, Germany
Tuesday, 9 June 2026					
ATS-05	Air Transportation Safety and Reliability II				Harbor C
Chaired by: M. HASSAN, The Boeing Company					
1:20 p.m. AIAA-2026-4288 Uncovering Causal Chains From Terminal Airspace Collision Events L. Charles , P. Mutyala, J. Souza Dias Garcia, Embry-Riddle Aeronautical University, Daytona Beach, FL	1:40 p.m. AIAA-2026-4289 Provably Safe Optimization of Arrival Flows Into Terminal Airspace S. Dane, K. Sun, A. Nomi, Y. Hu, E. Boccaccio, University of Michigan, Ann Arbor, MI; J. Glottmann, Federal Aviation Administration, Washington, D.C.; et al.	2:00 p.m. AIAA-2026-4290 Coordinating the Sky Above: NASA's Development and Evaluation of a Cooperative Higher Airspace Traffic Management (HATM) Concept P. Lee, C. Dang-Gabriel, J. Homola, F. Omar, NASA Ames Research Center, Moffett Field, CA; C. Brasil, D. Bakowski, San Jose State University, San Jose, CA; et al.	2:20 p.m. AIAA-2026-4291 Reliability-Oriented Optimization of a Command-and-Control System for Advanced Air Mobility D. Goodman, E. Sabziyan Varnousfaderani, S. Shihab, R. Del Rosario, Kent State University, Kent, OH	2:40 p.m. AIAA-2026-4292 Reliability, Robustness, and Resilience Modeling for Surveillance System in Advanced Air Mobility Operations E. Dulia, C. Adams, S. Shihab, R. Del Rosario, Kent State University College of Aeronautics and Engineering, Kent, OH	
Tuesday, 9 June 2026					
CSS-02	Cyber Resilience in a Connected Aviation Ecosystem				La Jolla A
Chaired by: G. ELKIN, MIT Lincoln Laboratory					

The aviation ecosystem has evolved into a connected system of systems where modern aircraft, air traffic control infrastructure, airline operations, and cloud-enabled services continuously exchange data across complex, IP-based networks. These connections drive benefits in flight efficiency, predictive maintenance, and passenger experience, yet also expand the attack surface for increasingly sophisticated cyber threats. In addition to increased connectivity, digitization is another major enabler that is revolutionizing aviation, driving such advances as automation, intelligent systems for control, flight management, and flight safety. Ensuring cyber resilience in this environment is not a matter of adding defenses after the fact. It demands a lifecycle approach where trust, security, and resilience are built in from concept through operations, spanning hardware and software supply chains, engineering design and fabrication, software development and testing, flight operations, and maintenance. This challenge is not only technical, but also encompasses issues of policy, culture and education/training. This panel will bring together experts from industry, government, and academia to explore strategies, frameworks, and innovations for embedding cyber resilience into aviation systems, ensuring that the next generation of aircraft and airspace systems remain both connected and secure for seamless air travel. This panel will bring together experts from industry, government, and academia to explore strategies, frameworks, and innovations for embedding cyber resilience into aviation systems, ensuring that the next generation of aircraft and airspace systems remain both connected and secure for seamless air travel.

Tuesday, 9 June 2026

DE-01/ACD-08/MDO-05/SAT-03/TF-05	Advances in Design Education, Mission Engineering, and Rapid Prototyping	La Jolla B
----------------------------------	--	------------

Chaired by: M. PATTERSON, NASA Langley Research Center and S. ROY, Alcifo Inc.

1:00 p.m. AIAA-2026-4293 Development of a Structured Approach for Establishing Mission Engineering Requirements T. Fazzini, D. Herber, Colorado State University, Fort Collins, CO	1:20 p.m. AIAA-2026-4294 Design Thinking and Sociotechnical Theory in Agriculture Drone Design G. Wroblewski, University of Illinois Urbana-Champaign, Urbana, IL	1:40 p.m. AIAA-2026-4295 Enhancing Experiential STEM Learning in Secondary Schools: Utilizing the Tadpole Unmanned Aerial System as a Modular Educational Tool O. Dantsker, C. Taylor, M. Loveless, Indiana University, Bloomington, IN	2:00 p.m. AIAA-2026-4296 Educating the Next Generation of Aeronautical Engineers Through Project-Based Learning in eVTOL Design L. Sasset, A. de Paula, Instituto Tecnológico de Aeronautica, São José dos Campos, Brazil; D. Zancanella, Universidade Federal de Santa Catarina, Florianópolis, Brazil; J. R. G. Daros, Universidade de Brasília, Brasília, Brazil; C. Silva, Instituto Tecnológico de Aeronautica, São José dos Campos, Brazil; D. Leite, Embraer SA, São José dos Campos, Brazil	2:20 p.m. AIAA-2026-4297 DiscThruster Is a Hyper-Efficient Pressure-Thrust Driven Air Breathing and Rocket Propulsion Concept, the Flipside of Conventional Momentum-Thrusters. Testing Shows Potential. B. Pande, iPropulsion, Midway, UT	
---	--	--	--	---	--

Tuesday, 9 June 2026

EXPO 1:00 - 4:00 p.m.	Expo Hall	Grand Hall
--------------------------	-----------	------------

Join exhibitors, colleagues and future friends in the Expo Hall to learn about amazing new technologies and make career changing connections. Open to all registrants.

Tuesday, 9 June 2026

FD-14	Accelerating CFD Simulations with Agentic AI and OpenFOAM	Gaslamp A
-------	---	-----------

Chaired by: D. KALAGOTLA, FCAAP-FSU					
This 90-minute hands-on workshop demonstrates how to drive OpenFOAM with AI agents through the Model Context Protocol (MCP). We will showcase a live CFD case using two approaches: a frontier cloud model and a fully local Ollama-hosted model, both utilizing the same reusable MCP servers. Unlike automation-first frameworks that obscure CFD processes, this workshop focuses on expert-rooted augmentation. Every choice the agent makes regarding meshing, schemes, and boundary conditions is narrated, cited, and validated against reference data, allowing novices to learn the underlying logic while experts focus on the numerical details. Attendees will leave with a take-home repository and contribute to a shared, citable corpus of CFD reasoning by authoring a tutorial annotation from their own domain during the session.					
Tuesday, 9 June 2026					
FD-15	Stability and Transition II				Hillcrest B
Chaired by: C. TINNEY, University of Mississippi					
1:00 p.m. AIAA-2026-4298 Nonlinear Analysis of Reattaching Hypersonic Boundary Layer Transition to Turbulence A. Dwivedi, University of Minnesota Twin Cities, Minneapolis, MN; G. Sidharth, Iowa State University of Science and Technology, Ames, IA	1:20 p.m. AIAA-2026-4299 Receptivity Analysis of a Planar Wedge Geometry With Shock-Perturbation Interactions V. Anantharaman, O. Kamal, T. Colonius, California Institute of Technology, Pasadena, CA	1:40 p.m. AIAA-2026-4300 Resolvent Analysis of High-Speed Flow Over Cone-Cylinder-Flare: Effect of Flare Angle C. Kumar, The Ohio State University, Columbus, OH; U. Sasidharan, Florida State University, Tallahassee, FL; D. Gaitonde, The Ohio State University, Columbus, OH	2:00 p.m. AIAA-2026-4301 Receptivity and Growth of Unsteady Disturbances in Hypersonic Blunt Forebody Flow G. Sidharth, Iowa State University of Science and Technology, Ames, IA; A. Dwivedi, University of Minnesota Twin Cities, Minneapolis, MN	2:20 p.m. AIAA-2026-4302 Hypersonic Transition Prediction Using Bi-Orthogonally Decomposed Receptivity Data: Amplitude Method and Data-Driven Models Z. Zou, S. He, X. Zhong, University of California Los Angeles, Los Angeles, CA	
Tuesday, 9 June 2026					
FD-16	Supersonic/Hypersonic Flow Physics II				Hillcrest A
Chaired by: N. WEBB, The Ohio State University					
1:00 p.m. AIAA-2026-4303 Forward-Facing Cavity Effects on Supersonic Blunt-Body Wakes C. Prasad, T. Zeringue, Oklahoma State University, Stillwater, OK; A. Strawn, C. Moran, L. Paquin, NC State University, Raleigh, NC	1:20 p.m. AIAA-2026-4304 Pressure Gradient Effects in Spatially Developing Supersonic Turbulent Boundary Layers Over Concave and Convex Surfaces L. Souza, H. Lui, W. Wolf, Universidade Estadual de Campinas, Campinas, Brazil	1:40 p.m. AIAA-2026-4305 Linear Analysis of High-Speed Turbulent Boundary Layers Over Curved Walls M. Thakor, D. Roy, L. Duan, D. Gaitonde, The Ohio State University, Columbus, OH			
Tuesday, 9 June 2026					
GA-05	General Aviation Operations, Safety, and Certification				Torrey Hills B
Chaired by: N. MAJUMDAR, University of Arkansas					
1:00 p.m. AIAA-2026-4306	1:20 p.m. AIAA-2026-4307	1:40 p.m. AIAA-2026-4308	2:00 p.m. AIAA-2026-4309		

ORACLE: Operating Risk Assessment Calculator for Limited-infrastructure Environments S. Swaine, K. Marais, W. Crossley, Purdue University, West Lafayette, IN	Loss of Engine Power in General Aviation: A Quantitative Analysis of Accident Data N. K C, S. Satappagol, N. Majumdar, University of Arkansas, Fayetteville, AR	Detecting Hidden Airspace Safety Risks at Non-Towered Airports Using ADS-B-Based Proximity Analytics A. Almaghrebi, University of Nebraska-Lincoln, Lincoln, NE; C. Huang, X. Zhong, University of Nebraska Omaha, Omaha, NE; L. Quad, K. James, M. Alahmad, University of Nebraska-Lincoln, Lincoln, NE; et al.	A Model-Based Framework for Data-Driven Certification of eVTOL Aircraft D. Pleffken, Embry-Riddle Aeronautical University, Daytona Beach, FL; J. Cavalcanti, Instituto de Estudos Avancados, Sao Jose dos Campos, Brazil; C. Cerqueira, Embry-Riddle Aeronautical University, Daytona Beach, FL		
Tuesday, 9 June 2026					
INPSI-02	Aerodynamics and Acoustics of Nozzles				Harbor A
Chaired by: D. CROWE, University of Dayton					
1:00 p.m. AIAA-2026-4312 Flow Interaction Analysis of Axisymmetric Truncated Aerospike Using PIV Measurement Technique B. Masse, M. Libsig, C. Rey, French-German Research Institute of Saint-Louis, Saint-Louis, France; D. Bonnet, Y. Bailly, Université Louis et Marie Pasteur, Belfort, France	1:20 p.m. AIAA-2026-4313 Exit Topology Effects on Low-Mach Jet Impingement A. Garcia, M. Olvera, I. Choutapalli, The University of Texas Rio Grande Valley, Edinburg, TX	1:40 p.m. AIAA-2026-4314 Numerical Investigation of the Aerothermal Characteristics of a Film-Cooled Plate Under a Rectangular Nozzle Exhaust B. Gisi, Y. Karakus, Tusas-Turk Havacilik ve Uzay Sanayii AS, Ankara, Turkey	2:00 p.m. AIAA-2026-4315 Design and Certification of the Quiet Technology Aerospace Thrust Reverser Upgrade for Honeywell HTF7000 Engines on Business Jet Aircraft R. Segall, Sea-Gal Aero. Consulting, LLC,, Smyrna, GA; M. Gardner, Quiet Technology Aerospace, Inc., Hollywood, FL	2:20 p.m. AIAA-2026-4316 Jet Noise Prediction and Validation Using OpenFOAM and Custom Acoustic Post-Processing Pipeline S. Tanriverdi Yarkin, R. Karaaslan, Tusas-Turk Havacilik ve Uzay Sanayii AS, Ankara, Turkey	
Tuesday, 9 June 2026					
MDO-06	Special/Invited Session: MDO for Sustainable Aviation I				Cortez Hill A
Chaired by: L. MAININI, Imperial College London and F. DI FIORE					
1:00 p.m. 4458519 Multi-Fidelity Aeroelastic Design Optimizations of Novel Aircraft Configurations M. Rumpfkeil, University of Dayton, Dayton, OH; D. Bryson, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH	1:20 p.m. 4460532 Recent Advances in Collaborative Gradient-Based MDO for Sustainable Aircraft Design S. Goertz, G. Sven, Deutsches Zentrum fur Luft- und Raumfahrt DLR, Cologne, Germany	1:40 p.m. 4460672 Topology Optimization for Sustainable Aviation H. Kim, University of California San Diego, La Jolla, CA			
Tuesday, 9 June 2026					

MST-05	Topics in Modeling and Simulation Technologies				Harbor D
Chaired by: F. WEILAND, Mosaic ATM and V. KUMAR, Joby Aviation					
1:00 p.m. AIAA-2026-4317 Sensitivity of Longitudinal Stability to the Precision of Aerodynamic Coefficients & Derivatives H. Kline, Reliable Robotics, Mountain View, CA	1:20 p.m. AIAA-2026-4318 Explicit Formulation of Apparent Mass Dynamics A. Jain, C. Leake, Karana Dynamics Inc, Los Angeles, CA; C. O'Farrell, P. Burkhart, Jet Propulsion Laboratory, Pasadena, CA	1:40 p.m. AIAA-2026-4319 Simulator Evaluations of Increasing Automation in an eVTOL Vehicle on Pilot Performance of Secondary Tasks A. Villa, M. Feary, K. Monk, L. Haworth, M. Steglinski, J. Kaneshige, NASA Ames Research Center, Moffett Field, CA; et al.			
Tuesday, 9 June 2026					
PDL-05	Plasma-Assisted Combustion				Gaslamp C
Chaired by: H. ZHONG, Michigan State University					
1:20 p.m. AIAA-2026-4321 Lean Flame Stability Enhancement Using Nanosecond Pulsed Discharges in a Staged Combustor Z. Kinzler, B. Windom, A. Yalin, C. Dumitrache, Colorado State University, Department of Mechanical Engineering, Fort Collins, CO	1:40 p.m. AIAA-2026-4322 Experimental Investigation of a Femtosecond-Initiated Continuous Optical Discharge in High-Pressure Nitrogen J. Loconzolo, M. Hooshyar, C. Dumitrache, Colorado State University, Fort Collins, CO				
Tuesday, 9 June 2026					
RLA-01 1:00 - 3:00 p.m.	Rising Leaders In Aerospace: Young Professional Panel & Social Hour: Novel Aircraft Configurations				Harbor G
This panel will highlight recent developments in novel aircraft configurations by bringing together engineers and researchers working at the forefront of advanced aircraft concepts. The discussion will feature how these configurations are being conceived, analyzed, tested, and transitioned into real programs. Panelists also will share lessons learned from recent demonstrators and development efforts, highlight the multidisciplinary skills required to work in this field, and discuss how young professionals can position themselves to contribute to nontraditional aircraft projects.					
Tuesday, 9 June 2026					
SFTE-01 1:00 - 3:00 p.m.	The Flight Test Engineer: What We Do				Solana Beach A/B
Oral presentations highlighting recent leading-edge flight test programs from the perspective of flight test engineers SESSION CHAIR: David Mitchell, Mitchell Aerospace Research and SFTE Tech Council Chair; Member SFTE; Fellow and Emeritus Member AIAA 1300 – 1320: "SFTE – Who We Are and What We Can Do for You," Jen Uchida, The Boeing Company 1320 – 1340: "Flight Testing Variable Configuration AAM," Martin Shubert; Consultant, Tilt Rotor Consulting LLC, Tall Timber,					

MD; Member AIAA and SFTE; Fellow SETP 1340 – 1400: "Testing to Prove a Negative: Flight Testing for Pilot-Induced Oscillations," David Mitchell, Mitchell Aerospace Research and SFTE Tech Council Chair; Member SFTE; Fellow and Emeritus Member AIAA 1400 – 1420: "Space Test Engineering: Educating the Space Force's Newest Test Leaders," Andrew Freeborn, PhD; Technical Director - Space, US Air Force Test Pilot School, Edwards AFB, CA; Member SFTE, Associate Fellow AIAA, Associate Fellow SETP 1420 – 1440: "Becoming a Professional FTE," Kevin Switick, CEO/Friend/Employee-Owner, Avian Holdings, Inc.; Member SFTE 1440 – 1500: "Ethics in Flight Test," Kevin Switick, CEO/Friend/Employee-Owner, Avian Holdings, Inc.; Member SFTE

Tuesday, 9 June 2026

SUST-05/H2AERO-02	Economic and Policy Dimensions of Net-Zero Aviation	Mission Beach A/B
-------------------	---	-------------------

Chaired by: H. SMITH, Flexcompute

1:00 p.m. AIAA-2026-4324 A Learning-Based Approach to Multi-Stakeholder Decision-Making in the Transition Toward Net-Zero Aviation I. Baali, B. Bagdatli, D. Mavris, Georgia Institute of Technology, Atlanta, GA	1:20 p.m. AIAA-2026-4325 Evaluating Stakeholder Economics in Zero-Impact Aviation: Cost Modeling Under Divergent Scenarios N. Levy, R. Almarzooqi, K. Navaneetha Krishnan, B. Bagdatli, D. Mavris, Georgia Institute of Technology, Atlanta, GA	1:40 p.m. AIAA-2026-4326 Commercial Aircraft Life Cycle Resource, Labor, and Capital Economic Estimation Using a Common Scenario Approach E. Waddington, S. Hince, P. Ansell, University of Illinois Urbana-Champaign, Urbana, IL	2:00 p.m. AIAA-2026-4327 Development of an Airline Simulation and Gaming Platform, SkyChess, That Facilitates Airline Carbon Emissions Tracking P. Clark, R. Curran, City St George's University of London, London, United Kingdom		
--	--	--	---	--	--

Tuesday, 9 June 2026

TP-05	Aerothermodynamics and Thermal Protection Systems II	Harbor E
-------	--	----------

Chaired by: E. MUSSONI, Sandia National Laboratories and W. TSAI, California State University, Maritime Academy

1:00 p.m. AIAA-2026-4330 Master-Equation-Informed Reduced-Order Model for Thermal Non-Equilibrium Dissociation: Application to N ₂ A. Zhou, A. Carroll, G. Blanquart, California Institute of Technology, Pasadena, CA	1:20 p.m. AIAA-2026-4331 Partially Catalytic Boundary Effects on Shock Boundary-Layer Interactions A. Blanco, University of Dayton, Dayton, OH; N. Bisek, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH	1:40 p.m. AIAA-2026-4332 Initial Assessment of the SHOTT Nozzle Flow Using the Master Equation Model D. Andrienko, I. Boyd, University of Colorado Boulder, Boulder, CO	2:00 p.m. AIAA-2026-4757 Development and Testing of a New Slug Calorimeter for Plasma Wind Tunnels J. Flores Govea, H. Ali, University of Colorado Boulder, Boulder, CO	2:20 p.m. AIAA-2026-4506 Parametric Study of Rain Droplet Interactions With a Hypersonic Vehicle C. Roseman, C. Morency, I. Boyd, University of Colorado Boulder, Boulder, CO	
--	---	--	--	--	--

Tuesday, 9 June 2026

UAP-02	Scientific Methods, Data Gaps, and Challenges in the Study of Unidentified Anomalous Phenomena (UAP)	Gaslamp D
--------	--	-----------

Chaired by: N. ORENSTEIN, Manifest Space

1:00 p.m. AIAA-2026-4333 Exploring the Radar Equation for Real-Time	1:20 p.m. AIAA-2026-4334 The Challenge of Addressing UAP Safety				
---	---	--	--	--	--

Detection, Evaluation, and Characterization of Unidentified Aerial Phenomena R. Groves, H. Owen, American Institute of Aeronautics and Astronautics, Jacksonville, FL	Issues Using Existing Aviation Safety Resources T. Curtis, Vaughn College of Aeronautics and Technology, Flushing, NY				
Tuesday, 9 June 2026					
UAS-05	Uncrewed and Autonomous Systems Student Paper Competition I				Torrey Hills A
Chaired by: D. JACK, Adaptive Aerospace Group, Inc. and R. FONTANELLA, Leonardo S.p.A.					
1:00 p.m. AIAA-2026-4335 Optimal Control-Based Adaptive Fleet Sizing of UAV Communication Relays for Post-Disaster Network Connectivity Recovery J. Choi, M. Li, University of Michigan, Ann Arbor, MI	1:20 p.m. AIAA-2026-4336 Suspension Parameter Optimization in a Paramotor UAV Using Monte Carlo Analysis P. Mhaske, University of Maryland, College Park, MD; C. Claudel, The University of Texas at Austin, Austin, TX	1:40 p.m. AIAA-2026-4380 Longitudinal Linear Parameter Varying System Modeling and Analysis of an Avian-Inspired Tail Morphing UAV K. Bordner, C. Cook, University of California Davis, Davis, CA; T. Henry, US Army Combat Capabilities Development Command, Aberdeen Proving Ground, MD; K. Haughn, Rose Hulman Institute of Technology, Terre Haute, IN; C. Harvey, University of California Davis, Davis, CA			
Tuesday, 9 June 2026					
F360-05 1:30 - 3:00 p.m.	A Discussion with Senior FAA and NASA Leadership				Seaport Ballroom D-H
Join FAA Deputy Administrator Chris Rocheleau and NASA Senior Advisor Todd Ericson for a forward-looking discussion on the future of aviation. Hear how federal leadership is advancing innovation, ensuring safety, and shaping the next generation of airspace and aerospace collaboration.					
Tuesday, 9 June 2026					
NW-04 3:00 - 3:30 p.m.	Coffee Break				Grand Hall
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Tuesday, 9 June 2026					
ACD-11	Advanced Propulsion Technologies				Balboa A
Chaired by: D. WELLS, NASA Langley Research Center and T. TAKAHASHI, Arizona State University					

3:30 p.m. AIAA-2026-4337 Throttle Dependent Forces Associated With Sub-Critical and Super-Critical Flows Over Internally Diffusing Pitot Inlets A. Beaty, Wright State University College of Engineering and Computer Science, Dayton, OH; T. Takahashi, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ	3:50 p.m. AIAA-2026-4338 Wind Tunnel Investigation of Power and Ground Effects on DARPA Liberty Lifter L. Drexler-Bruce, D. Heathcote, Aurora Flight Sciences Corporation, Cambridge, MA	4:10 p.m. AIAA-2026-4339 Initial Assessment of the Liquefied Natural Gas Powered Athena Aircraft Concept J. Ahuja, C. Perron, T. Ly, D. Mavris, Georgia Institute of Technology, Atlanta, GA	4:30 p.m. AIAA-2026-4340 The Infinity Fan Concept: Aircraft-Level Analysis of a Novel Turbofan Architecture Designed to Reach Over 35:1 By-Pass Ratio E. Lobao C Coelho, Aerospace Technology Institute, Cranfield, United Kingdom; G. Knight, Specialised Aero Services Ltd, Derby, United Kingdom		
Tuesday, 9 June 2026					
APA-12	Aerodynamic Design: Application I				Gaslamp A
Chaired by: E. HUBBARD, NASA Glenn Research Center and E. SZWABOWSKI, Boeing Research & Technology					
3:30 p.m. AIAA-2026-4341 Design and Optimization of Hydrogen-Powered Blended Wing Body Aircraft for Mid-Range Civil Transport I. Nazim, R. Agarwal, Washington University in St Louis, St. Louis, MO; C. Rice, M. Holly, VPN Aerospace Consulting LLC, Saint Louis, MO	3:50 p.m. AIAA-2026-4342 Multipoint Adjoint-Based Aerodynamic Shape Optimization of Transonic High-Mach Number Wings F. Celestino, G. Olichevis Halila, Pontificia Universidade Catolica do Parana, Curitiba, Brazil; J. Azevedo, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil	4:10 p.m. AIAA-2026-4343 Aerodynamic Shape Optimization of Multi-Element Motorsports Airfoils Using the Discrete Adjoint Method C. Beck, G. Olichevis Halila, Pontificia Universidade Catolica do Parana, Curitiba, Brazil; D. Sanjaya, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN; J. Azevedo, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil	4:30 p.m. AIAA-2026-4344 An Overview of Transonic Truss-Braced Wing Technology B. Yue, Duke University Pratt School of Engineering, Durham, NC		
Tuesday, 9 June 2026					
APA-13/GT-08	High Lift Common Research Model Ecosystem				Harbor D
Chaired by: A. CLARK, Boeing Commercial Airplanes					
3:30 p.m. (Presentation only) CRM-HL Ecosystem Update and ties to HLPW6	3:50 p.m. AIAA-2026-4594 Definition of a Simplified, Low-Cost, Constant Cross-Section High-Lift Wing Configuration Based on	4:10 p.m. AIAA-2026-4372 Side-Wall Splitter Plate Design and Validation for the Kirsten Wind Tunnel J. Osorio Tovar, A. Pulimeno, University of Washington, Seattle, WA; M. Salguero,	4:30 p.m. (Presentation only) Preliminary Results from Artificial Ice Testing at the European Transonic Wind Tunnel (ICED CRM)		

	the Common Research Model (CRM-HLS) O. Williams, A. Pulimeno, L. Vos, University of Washington, Seattle, WA; M. Salguero, University of Washington Aeronautical Laboratory (UWAL), Seattle, WA; D. Lacy, A. Clark, The Boeing Company, Seattle, WA	University of Washington Aeronautical Laboratory (UWAL), Seattle, WA; A. McComas, J. Lubenow, B. Starnes, TLG Aerospace LLC, Seattle, WA; et al.			
--	---	--	--	--	--

Tuesday, 9 June 2026

APA-14	Missile/Projectile/Munition Aerodynamics, Carriage and Store Separation	Balboa B
--------	---	----------

Chaired by: C. COLEY, United States Air Force Academy

3:30 p.m. AIAA-2026-4345 Mass and Mass Moment of Inertia Configuration Change Effects on Unstable Tumbling Aerodynamic Bodies N. Parsons, H. Dennison, V. Clark, N. Michek, R. McLaughlin, C. Griffin, West Virginia University, Morgantown, WV; et al.	3:50 p.m. AIAA-2026-4346 Investigation of the Unsteady Wake Flow of a Generic Finned Supersonic Projectile at Angle-of-Attack S. Murawski, D. Gaitonde, The Ohio State University, Columbus, OH; V. Bhagwandin, J. Vasile, J. DeSpirito, US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, Aberdeen Proving Ground, MD	4:10 p.m. AIAA-2026-4347 Dynamic Response of a Fully Unstable Tumbling Aerodynamic Body to Outer Mold Line Configuration Changes V. Clark, H. Dennison, N. Parsons, N. Michek, C. Griffin, C. Jensen, West Virginia University, Morgantown, WV; et al.	4:30 p.m. AIAA-2026-4348 Numerical Validation of a Transonic Viscous-Coupled Panel-Method Flow Solver for Store Aerodynamics Analysis R. Gastaldo, VirtualCAE, San Jose de Campos, Brazil; V. Ahuja, Siemens Aktiengesellschaft, Munich, Germany		
--	---	---	---	--	--

Tuesday, 9 June 2026

APA-16	Verification, Validation, and Other Topics in Applied Aerodynamics	Gaslamp B
--------	--	-----------

Chaired by: J. RAULEDER, Georgia Institute of Technology and D. TRUONG, Embry-Riddle Aeronautical University

3:30 p.m. AIAA-2026-4350 Turbulence Modelling and Turbulence Measuring: Implications for CFD Validation II - A Succinct Account of a Panel Session Held at AIAA SciTech 2026 X. Yang, The Pennsylvania State University, University Park, PA; J. Larsson, University of Maryland, College Park,	3:50 p.m. AIAA-2026-4351 Verification and Validation: Progress Toward More Consistent Understandings A. Cary, The Boeing Company, Chicago, IL; S. Neerarambam, Sikorsky Aircraft Corp, Stratford, CT; V. Romero, Sandia National Laboratories, Albuquerque, NM; C. Strassburger, Bihrl	4:10 p.m. AIAA-2026-4520 Calculation of Lofting Deformation Impacts on Aircraft Airframe and Trim Drag Using Mesh Morphing and Monte Carlo Method P. Secchi, M. Mestriner, Embraer SA, Sao Jose dos Campos, Brazil	4:30 p.m. AIAA-2026-4521 Aerodynamic Optimisation of a Leading- and Trailing-Edge Camber-Morphing NACA 2412 Aerofoil M. Abbadi, Kingston University, London, United Kingdom; Y. Yao, University of the West of England, Bristol, United Kingdom; J. Wang, S.	4:50 p.m. AIAA-2026-4758 Design, Simulation, and Thermal Test of a 3D Printed Valveless Pulsejet F. Palacios Hervas, Eastlake High School, Sammamish, WA	
--	---	---	---	---	--

MD; E. Benitez, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH; B. Schmidt, Case Western Reserve University, Cleveland, OH; N. Taylor, MBDA UK Ltd, Bristol, United Kingdom	Applied Research, Hampton, VA; N. Taylor, MBDA Holding SAS, Filton, United Kingdom		Lo, Kingston University, London, United Kingdom		
Tuesday, 9 June 2026					
APA-45/SPSN-03	NASA X-59 Historic First Flight: From Design to First Flight-Technical Deep Dives				Harbor B
Chaired by: A. ELMILIGUI, NASA Langley Research Center					
Get an inside look at the X-59 performance in this deep-dive panel. Explore how innovative design, rigorous analysis, and exhaustive testing came together to give the team the ultimate 'go' for First Flight. See how design meets reality as the panel compares pre-flight predictions with actual results from First Flight and the latest flight tests—revealing what the team got right, what surprised them, and what it all means. Hear about the most compelling discoveries and insights emerging from the flights. Looking ahead, the panel will spotlight upcoming flights and the critical data the team is chasing next, offering a view into to the envelope expansion of X-59 that will ultimately enable the overall mission. Panelist Daniel Jones, X-59 Air-Data Technical Lead Randall Bailey, X-59 eXternal Vision System. Technical Lead Raymond Castner, X-59 Propulsion System Technical Lead Mark Santerick, X-59 STRUCTURE Technical Lead Christopher Bellido, Shaped Boom Performance Lead for Lockheed Martin X-59					
Tuesday, 9 June 2026					
ASE-05	UAM/UAV Icing				Cortez Hill B
Chaired by: A. DONIZETTI, Politecnico di Milano and P. STRUK, The Boeing Company					
3:30 p.m. AIAA-2026-4352 Investigation of Ice Accretion on UAV Airfoils at Low Reynolds Numbers M. Gallia, K. Soy, Technische Universität Braunschweig Institut für Strömungsmechanik, Brunswick, Germany	3:50 p.m. AIAA-2026-4353 Atmospheric Icing Considerations for UAS: System-Level Design, Simulation Tools, Testing Methods, and AI-Enabled Mitigation I. Feier, US Air Force Academy Engineering Division, Air Force Academy, CO	4:10 p.m. AIAA-2026-4354 Numerical Investigation of Three-Dimensional Unsteady Rotor Ice Accretion in Forward Flight Y. Kim, Y. Hong, S. Shon, K. Yee, Seoul National University, Gwanak-gu, South Korea	4:30 p.m. AIAA-2026-4355 An Experimental Study of Droplet Impinging Dynamics on Rotating UAV Propellers Under Freezing Rain Conditions J. Wang, K. Bowers, C. Valentin, H. Hu, Iowa State University of Science and Technology, Ames, IA		
Tuesday, 9 June 2026					
CSS-03	Cyber Resilience for Connected Aircraft Systems				Harbor C
Chaired by: G. ELKIN, MIT Lincoln Laboratory					
"Cyber Test Program and Aerospace Red Team" presented by Brian Nelson, Associate Technical Fellow, Boeing Test & Evaluation Adversarial activity is on the rise, particularly within the Aerospace domain. Not only the number of events, but the capability of the adversary is on the rise. Join me to better understand how we are adapting to the changing threat landscape by incorporating inside out testing, specialized tools, and a sprinkle of AI. This talk also covers Aerospace Red Team topics including Exploit Development, Reverse Engineering, and RF threat scenarios.					
Tuesday, 9 June 2026					

DE-02/ACD-12/MDO-07		Novel Tools and Processes for Multipurpose Aerospace Applications				La Jolla B			
Chaired by: I. MARKS, Northrop Grumman and N. JOHNSON, Click Bond, Inc.									
3:30 p.m. AIAA-2026-4356 Aircraft Design With Implicit Modeling G. Allen, T. Antonsen, M. Jacobs, Y. Okada, T. Laughlin, S. Musuvathy, nTop, New York, NY; et al.		3:50 p.m. AIAA-2026-4357 Configuration Geometry Analyses in OpenVSP R. McDonald, Self, San Luis Obispo, CA		4:30 p.m. AIAA-2026-4359 Quantum-Enhanced Optimization for Efficient Utilization of Weapons for Mission-Critical Applications K. Kumar, A. A. P. Maharana, U. Singh, A. Chopra, R. Lineswala, BosonQ Psi Corp, Syracuse, NY		4:50 p.m. AIAA-2026-4360 GRUBS: Data Efficient Surrogate Modeling via Gradient and Uncertainty Driven Adaptive Sampling A. Shah, J. Alonso, Stanford University, Stanford, CA			
Tuesday, 9 June 2026									
F360-06 3:30 - 5:00 p.m.		AI, Autonomy, and Assurance: Operational Implications					Seaport Ballroom D-H		
Advanced analytics and automation are reshaping aerospace operations across commercial, defense, and low altitude fleets, while raising critical technical, safety, and regulatory issues. The session focuses will address the following: Integration of digital workflows for strategic traffic management and operator coordination. Technical and regulatory challenges in enabling autonomous taxi, approach, and landing across diverse airspace classes. Assurance frameworks for certifiability, transparency, and trust in safety-critical AI systems. Secure interoperability with legacy ATC systems and scalable evidence pipelines for accelerated validation. Preparing for degraded conditions and GNSS disruptions to ensure continuity and resilience. Integrated Autonomy: Hazard detection, contingency management, and ATC integration for autonomous ops. Advanced Assurance: Runtime architectures and model-based pipelines for certifying autonomy at scale.									
Tuesday, 9 June 2026									
FD-17		Stability and Transition III					Hillcrest B		
Chaired by: A. BERGER, Florida State University and A. GROSS, New Mexico State University									
3:30 p.m. AIAA-2026-4361 Energetic Analysis of Tollmein-Schlichting Wave Suppression Using Phononic Subsurfaces C. Klauss, University of Maryland, College Park, MD; M. Hussein, University of Colorado Boulder, Boulder, CO; C. Brehm, University of Maryland, College Park, MD		3:50 p.m. AIAA-2026-4362 Influence of Pressure Gradient and Wall Catalyticity on the Stability of Reacting Flow B. Barraza, A. Gross, Q. Liu, New Mexico State University, Las Cruces, NM		4:10 p.m. AIAA-2026-4363 Linear and Numerical Analysis of Interfacial Instabilities in Vibrated Cylindrical Containers T. Chu, B. Wilfong, Georgia Institute of Technology, Atlanta, GA; T. Koehler, R. McMullen, Sandia National Laboratories, Albuquerque, NM; S. Bryngelson, Georgia Institute of Technology, Atlanta, GA		4:30 p.m. AIAA-2026-4364 Adaptive Gaussian Process Control of Turbulent Transition via Dynamic Wavelength Plasma Roughness (DWPR) at Mach 6 A. Jobbins, N. Hawley, University of Notre Dame, Notre Dame, IN; E. Matlis, Embry-Riddle Aeronautical University, Daytona Beach, FL; T. Corke, University of Notre Dame, Notre Dame, IN			
Tuesday, 9 June 2026									
FD-18		Supersonic/Hypersonic Flow Physics III					Hillcrest A		

Chaired by: M. VYAS, NASA Glenn Research Center					
3:30 p.m. AIAA-2026-4365 Computational Modeling of Acoustic Disturbances and Boundary Layer Transition in the NASA Langley Mach 6 Tunnel J. Signorelli, B. Vollmer, D. Bodony, University of Illinois Urbana-Champaign, Urbana, IL	3:50 p.m. AIAA-2026-4366 A Numerical Investigation of Droplet Aerobreakup at High Mach Numbers With and Without Interface Sharpening F. Ayoub, A. Ragheb, M. Viqueira-Moreira, University of Maryland, College Park, MD; S. Prakhar, W. van Noordt, WOOSH HPC Lab LLC, KENSINGTON, MD; J. Langhorn, Stevens Institute of Technology, Hoboken, NJ; et al.	4:10 p.m. AIAA-2026-4367 Exploration of Supersonic Turbulent Boundary Layers Over Periodic Curvature S. Peltier, C. Clifford, A. Garner, D. Ramsey, Air Force Research Laboratory, Arnold AFB, TN	4:30 p.m. AIAA-2026-4368 Numerical Modeling of High Speed Liquid Droplet Impingement A. Ragheb, F. Ayoub, M. Viqueira-Moreira, C. Brehm, University of Maryland, College Park, MD	4:50 p.m. AIAA-2026-4369 Characterization of a Mach 3 Turbulent Boundary Layer Over a Compliant Panel Using DIC and PIV S. Peltier, C. Clifford, J. Thayer, Air Force Research Laboratory, Arnold AFB, TN; R. Perez, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH; G. Jones, Canvas LLC, Arnold AFB, TN	
Tuesday, 9 June 2026					
GT-06	Ground Test Facilities: Design, Development, and Performance of New/Modified Capabilities				Ocean Beach
Chaired by: P. GOULDING, NASA Ames Research Center and D. BACCARELLA, University of Tennessee and K. LUKACOVIC, National Full-Scale Aerodynamics Complex					
1:00 p.m. AIAA-2026-4370 Development of Low-Cost and Reliable Data Acquisition System for Static Ejection Test of External Stores Q. Pham, N. Nguyen, V. Nguyen, B. Nguyen, P. Nguyen, Viettel Aerospace Institute, Hanoi, Viet Nam	1:20 p.m. AIAA-2026-4371 Characterizing Supersonic Jet Flows Using Advanced Flow Diagnostic Techniques K. Bowers, J. Wang, H. Hu, Iowa State University of Science and Technology, Ames, IA	1:40 p.m. AIAA-2026-4373 Upgrade of the University of Tennessee Arcjet Tunnel to Quasi-Continuous Operation: Final Design Z. Colovos, K. Samuels, C. Isaacs, M. Trotsky, D. Baccarella, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN	2:00 p.m. AIAA-2026-4310 Design and Characterization of the Notre Dame Mach 4 Reflected Shock Tunnel (M4ST) N. Hawley, A. Jobbins, T. Corke, University of Notre Dame, Notre Dame, IN	2:20 p.m. AIAA-2026-4311 Extending mARC II Arc-Jet Test Duration via Design and Implementation of Model System Cooling Sleeve K. Edwards, Sierra Lobo Inc., Moffett Field, CA; J. Rodrigues, NASA Postdoctoral Program at NASA Ames Research Center, Moffett Field, CA; D. Philippidis, NASA Ames Research Center, Moffett Field, CA	
Tuesday, 9 June 2026					
INPSI-03	Propellers, Fans and Diffusers				Harbor A
Chaired by: R. ACHARYA, Johns Hopkins University Applied Physics Laboratory and R. POWERS, Naval Air Warfare Center					
3:30 p.m. AIAA-2026-4374 Comparison of Blade Element Theory and CFD	3:50 p.m. AIAA-2026-4375 Characterizing Fan Performance Sensitivity to BLI Driven Intake Distortion	4:30 p.m. AIAA-2026-4377 Optimization of Active Flow Control for a Programmable Diffuser	4:50 p.m. AIAA-2026-4378 Controlled Distortion and Recovery in an		

Simulation as Methods for Propeller Design A. Niec, R. Roberts, Tennessee Tech University, Cookeville, TN	N. Iyer, J. Friedrichs, Technische Universität Braunschweig, Brunswick, Germany	Z. Stratton, J. Spyropoulos, Naval Air Systems Command, Patuxent River, MD; M. Mani, Massachusetts Institute of Technology, Cambridge, MA; J. Fletcher, B. Vukasinovic, A. Glezer, Georgia Institute of Technology, Atlanta, GA	Aggressive, Modular Diffuser J. Fletcher, S. Wang, B. Vukasinovic, J. Mace, A. Glezer, Georgia Institute of Technology, Atlanta, GA; M. Mani, Massachusetts Institute of Technology, Cambridge, MA; et al.		
Tuesday, 9 June 2026					
MDO-08	Special/Invited Session: MDO for Sustainable Aviation II				Cortez Hill A
Chaired by: L. MAININI, Imperial College London and F. DI FIORE					
3:30 p.m. 4461008 Evolutionary Optimization of a Morphing High-Lift System Using Radial Basis Functions M. Minervino, D. Quagliarella, Centro Italiano Ricerche Aerospaziali, Capua, Italy	3:50 p.m. 4461012 Realizing Large-Scale Simulation Frameworks To Optimize Sustainable Aviation Systems B. Nagel, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Hamburg, Hamburg, Germany	4:10 p.m. 4461099 Scalable Operation-Aware Aerodynamic Design R. Liem, Imperial College London, London, United Kingdom; A. Yang, The Hong Kong University of Science and Technology School of Engineering, Hong Kong, Hong Kong	4:30 p.m. 4461647 Sustainable Aviation - How to Know Your Objective(s) and Your Design Variables? - A System-of-Systems Approach to Guide Overall Aircraft Design to a Robust Optima M. Muir, Airbus UK, Filton, United Kingdom		
Tuesday, 9 June 2026					
MST-06	Modeling and Simulation Technologies Student Paper Competition				Torrey Hills B
Chaired by: M. MARTIN, Georgia Tech Research Institute					
This is a special session for the finalists of the MST Student Paper Competition to present their papers.					
Tuesday, 9 June 2026					
PDL-06	Fusion Energy Research: Pathways, Challenges, and Emerging Opportunities				Gaslamp C
Chaired by: C. DUMITRACHE, Colorado State University					
This talk will provide a broad overview of the current progress and challenges in magnetically confined fusion, outlining the physical principles, main experimental devices worldwide, and recent advances that bring fusion energy closer to realization. Emphasis will be placed on ongoing research at the DIII-D National Fusion Facility and within the DOE Frontier Plasma Research program, including studies of plasma–material interaction, 3D magnetic field effects, and control of plasma dynamics. The presentation will conclude with a discussion of potential areas for collaboration between the fusion and aerospace communities — such as advanced materials, diagnostics, modeling, and control systems.					
Tuesday, 9 June 2026					
SFTE-02 3:30 - 5:30 p.m.	Panel Discussion: Challenges for the Future of Flight Testing				Solana Beach A/B

This will be a panel discussion, co-presented by the AIAA Flight Test Technical Committee, with short descriptions of recent flight test campaigns by experienced testers, followed by Q&A. SESSION CHAIR: Johana D. Fischer, Flight Test Instrumentation Engineer, Boeing; Member AIAA and Associate Member SFTE Panelists: David Mitchell, Mitchell Aerospace Research Jen Uchida, The Boeing Company Martin Shubert; Tilt Rotor Consulting LLC Andrew Freeborn, US Air Force Test Pilot School Kevin Switick, Avian Holdings, Inc

Tuesday, 9 June 2026

SUST-07	Sustainable Aviation Workshop: Engineering for Outcomes	Cortez Hill C
---------	---	---------------

Chaired by: P. ANSELL, University of Illinois Urbana-Champaign, Grainger College of Engineering

With the current status and key developmental needs identified from the previous Sustainable Aviation Workshop session, this workshop event provides an opportunity for attendees to work with others in small groups towards ideating solutions to the most pressing sustainability challenges facing our community. Come join us and share your knowledge, opinions, and vision as we work to advance the sustainable aviation field together.

Tuesday, 9 June 2026

TP-06	Thermophysics Award Lecture	Harbor E
-------	-----------------------------	----------

Chaired by: V. VISHWANATHAN, Johns Hopkins University Applied Physics Laboratory and D. PYTEL, Retired

The Thermophysics Award Recipient is Dr. Christopher O. Johnston, NASA-Langley Research Center For ground-breaking advancements in the field of shock-layer radiative heating with significant impacts to entry vehicle designs, crew safety, and planetary protection threat assessments.

Tuesday, 9 June 2026

UAS-06	Uncrewed and Autonomous Systems Student Paper Competition II	Torrey Hills A
--------	--	----------------

Chaired by: D. JACK, Adaptive Aerospace Group, Inc. and R. FONTANELLA, Leonardo S.p.A.

3:30 p.m. AIAA-2026-4381 Programmed Disassembly of Unmanned Aerial Vehicles N. Prophet, V. Wallace, J. Cartwright, R. Kapania, D. Sarojini, J. Schetz, Virginia Polytechnic Institute and State University College of Engineering, Blacksburg, VA; et al.	3:50 p.m. AIAA-2026-4382 Unmanned Microgravity Automated Aerial Vehicle (UMAAV) Development and Testing H. Coyle, D. Herr, West Virginia University, Morgantown, WV	4:10 p.m. AIAA-2026-4383 A Multi-Salvo Missile Defense Strategy Using Virtual Targets J. Graham, D. Jacques, Air Force Institute of Technology Graduate School of Engineering and Management, Wright-Patterson Air Force Base, OH; I. Weintraub, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH; E. White, Air Force Institute of Technology Graduate School of Engineering and Management, Wright-Patterson Air Force Base, OH	4:30 p.m. AIAA-2026-4384 A Synthetic Terrain Data Generation Pipeline for Testing Perception on the Next-Gen Mars Helicopter D. Petrizzo, A. Johnson, Jet Propulsion Laboratory, Pasadena, CA		
--	--	--	--	--	--

Tuesday, 9 June 2026

H2AERO-03	H2-Aero Technologies	Mission Beach A/B
-----------	----------------------	-------------------

Chair: Monterey Gardiner, National Laboratory of the Rockies Enabling the Cryogenic Airliner: A Commercialization Roadmap Romar Frazier, Head of Propulsion & Karmel Graham, Sust. Strategy JetZero Aviation Hydrogen Fuel Cell Powerplants Dr. Anita Sengupta, CEO, Hydroplane H2 VTOL Gyroplane Drone Gad Shaanan, CEO, Unmanned Aerospace NLR Hydrogen Test & Validation Facilities Dr. Monterey Gardiner, Chief Engineer, National Lab of the Rockies Hydrogen Aircraft Development Challenges Panel Moderated by Monterey Gardiner, NLR

Tuesday, 9 June 2026

WELCOME 5:30 - 7:00 p.m.	Welcome Reception	Grand Hall
-----------------------------	-------------------	------------

Join us for an evening 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

Wednesday, 10 June 2026

HUB-08 10:45 - 11:15 a.m.	Piloting Your Career: Strategies for Ascending to Leadership in Aviation (Presented by WoAA)	The HUB
------------------------------	--	---------

The aviation industry thrives on precision, resilience, and passion. Women of Aeronautics and Astronautics (WoAA) wants to use this panel to present trailblazing women - from seasoned executives to emerging young professionals leaving their mark on the industry. This discussion is meant to be inspirational to other young professionals and students with panelists sharing authentic stories beyond their job titles and focusing on the challenges they overcame and the strategies they used to pave their ways in this industry. Attendees will leave with actionable advice, real world insights, and heap of inspiration to take charge and charter their own careers. Presented by: Lalitha Dhyaram; VP for Women of Aeronautics

Wednesday, 10 June 2026

HUB-12 1:15 - 1:45 p.m.	Thread: Provenance-Aware Adaptive Sampling for High-Dimensional Aerodynamic Database Generation	The HUB
----------------------------	---	---------

"Modern aerospace programs — from eVTOLs to next-generation transports — increasingly require aerodynamic databases that span fifteen or more independent dimensions, yet most teams still construct them as collections of two-dimensional sweeps tabulated by hand and stored as flat files. The result is data that has lost its lineage by the time anyone needs to reason about it, and an aerodynamic database that cannot be repeated, audited, or trusted under a geometry change. This presentation introduces Flexcompute Thread, a provenance-aware engineering data platform that captures the full chain of evidence behind every artifact — geometry, mesh, solver run, script, and the human context that surrounds them — so that nothing flattens on its way to a plot. Built on Thread is Tailor: solver-context-aware adaptive sampling across fidelity cascades that constructs high-dimensional aerodynamic databases natively rather than as stitched-together 2D slices, using signals from inside the solvers to find the aerodynamic nonlinearities that drive surprises at flight test. Examples on the NASA X-57 Maxwell and on synthetic high-dimensional cases will show how this approach reduces sampling budgets while improving response-surface fidelity, and how the same provenance substrate enables design-review traceability that PLM systems have promised for decades and not delivered. Presented by: Harry Smith; Director of Flight Sciences, Flexcompute

Wednesday, 10 June 2026

HUB-14 2:15 - 2:45 p.m.	Meet AFid: Plugging machine vision into mesh generation	The HUB
----------------------------	---	---------

Every CFD engineer knows the frustration of slow, inconsistent mesh generation, where two engineers running the same simulation can end up with different results. Now there's a solution. AFid is a machine vision plug-in that automates feature recognition and mesh spacing with zero training datasets. Validated on a Boeing 737 study, it reduces hours of manual clicking to seconds, delivering a 720x execution speedup while building a fully traceable digital audit trail. Come and hear how it solves a common engineering problem - and fits straight into existing workflows. Presented by: "Lee Sanders; Founder; Fluid Dynamic Sciences LLC Max Kopacz; Lead Developer; Fluid Dynamic Sciences LLC

Wednesday, 10 June 2026		
HUB-16 3:15 - 3:45 p.m.	Cadence Physical System Design and Analysis: From Point Tools to Platforms	The HUB
"With the acquisition of Hexagon's Design and Engineering business (formerly MSC Software) completed, Cadence Design Systems now offers a comprehensive simulation suite spanning fluids, structures, acoustics, multibody dynamics, materials, and much more. For aerospace, this is a notable consolidation: trusted tools that have underpinned aircraft design and certification for decades — NASTRAN, Adams, Marc, Actran — now sit alongside Fidelity CFD solvers and leading pre and post-processors like Fidelity Pointwise and ANSA/META from BETA CAE. This talk surveys the integrated portfolio through an aviation lens and argues that the real opportunity is the workflows, not the inventory. Aeroelastic flutter, aeroacoustics, icing, battery thermal management, and certification-by-analysis all sit at interfaces between disciplines historically served by incompatible tools and data models. Unified geometry, meshing, and solver infrastructure — accelerated by GPUs and AI surrogates — is enabling better, safer, more performant and more sustainable designs. And the timing couldn't be better to architect this integration for a new class of users: AI superagents that can plan studies, set up cases in the various cockpits, drive solvers, interpret results, and iterate designs under engineering oversight. The "cockpit" increasingly has a "co-pilot". Presented by: Frank Ham, Ph.D.; R&D Fellow		
Wednesday, 10 June 2026		
HUB-07 9:45 - 10:15 a.m.	Advancing Airworthiness Certification Through High-Fidelity Simulation and Analysis	The HUB
As aerospace systems become increasingly complex, traditional certification approaches that rely heavily on physical testing face growing challenges in cost, schedule, scalability, and risk reduction. At the same time, advances in computational modeling, multiphysics simulation, and digital engineering are expanding the role that high-fidelity analysis can play in demonstrating compliance with airworthiness requirements. Certification by Analysis (CbA) represents a continuing evolution toward greater use of credible modeling and simulation to support certification activities. Realizing this vision requires more than accurate physics. Confidence in simulation results depends on rigorous verification and validation processes, traceability to requirements, clear documentation of model assumptions, and alignment with regulatory expectations. This presentation examines the technical foundations of Certification by Analysis and the factors driving its adoption across the aerospace industry. Key topics include model credibility, verification and validation methodologies, digital traceability, and the integration of high-fidelity simulation within certification workflows. The discussion will highlight both the opportunities and challenges associated with expanding the use of simulation to support airworthiness compliance, offering perspectives relevant to aircraft manufacturers, suppliers, researchers, and regulatory stakeholders. Attendees will gain an understanding of how advances in simulation technology and digital engineering practices are helping enable a future in which analysis plays an increasingly significant role in certification decision-making. Presented by: George Bauer		
Wednesday, 10 June 2026		
SP-03 7:30 - 8:00 a.m.	Technical Papers Session Prep	Session Rooms
Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute prep 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).		
Wednesday, 10 June 2026		
PLNRY-03 8:00 - 9:00 a.m.	Aerospace Life-Cycle	Seaport Ballroom D-H
Wednesday, 10 June 2026		
EXPO 8:45 a.m. - 4:00 p.m.	Expo Hall	Grand Hall
Join exhibitors, colleagues and future friends in the Expo Hall to learn about amazing new technologies and make career changing connections. Open to all registrants.		

Wednesday, 10 June 2026					
NW-05 8:45 - 9:30 a.m.	Coffee Break				Grand Hall
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Wednesday, 10 June 2026					
ACD-13	High Performance Aircraft Design				Balboa A
Chaired by: D. DOUGHERTY, Northrop Grumman Aeronautics Systems and T. TAKAHASHI, Arizona State University					
9:30 a.m. AIAA-2026-4385 Investigation of Spin Susceptibility Requirements for High-Speed Vehicles T. Takahashi, W. Lorenzo, Air Force Institute of Technology, Wright-Patterson Air Force Base, OH	9:50 a.m. AIAA-2026-4386 Influence of Planform Geometry on the Radar Cross Section of a Generic Future Fighter Configuration J. Silva, V. Souza, J. Rodrigues, Universidade de Brasília, Brasília, Brazil; A. de Paula, N. Sêcco, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; S. Rondineau, Universidade de Brasília, Brasília, Brazil	10:10 a.m. AIAA-2026-4387 Innovative Segmented-Sweep Configurations for Radar Signature Reduction in Generic Future Fighter Concepts V. Souza, J. Silva, J. Rodrigues, Universidade de Brasília, Brasília, Brazil; N. Sêcco, A. de Paula, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; S. Rondineau, Universidade de Brasília, Brasília, Brazil	10:30 a.m. AIAA-2026-4388 Rapid Aerodynamic Optimization Using Digital DATCOM and SLSQP E. Camusoğlu, S. Çakmakçioğlu, H. Kurt, Tusas-Türk Havacılık ve Uzay Sanayii AS, Ankara, Turkey	10:50 a.m. AIAA-2026-4389 Conceptual Sizing, Mission Design & Vehicle Engineering for a Supersonic Unmanned Combat Aerial Vehicle M. Kumar, D. Mittal, S. Muriki, P. Mangal, D. Shukla, Indian Institute of Technology Bombay, Mumbai, India	
Wednesday, 10 June 2026					
APA-17	Aerodynamic Flow Control: Analytical, Computational, and Experimental III				Balboa B
Chaired by: B. CHYNOWETH, Purdue University					
9:30 a.m. AIAA-2026-4390 Aeroelastic Analysis of Surface Jets for Load Alleviation on Transport Aircraft F. Siebert, Technische Universität Braunschweig, Brunswick, Germany; T. Strothteicher, Deutsches Zentrum für Luft- und Raumfahrt DLR Institut für Flugsystemtechnik, Brunswick, Germany; D. Hahn, M. Haupt, A. Bauknecht, Technische Universität Braunschweig, Brunswick, Germany	9:50 a.m. AIAA-2026-4391 Experimental Study of Active Flow Control System Based on Shape-Morphing Airfoils J. Donati, A. Pacheco, J. Marañon Di Leo, J. Delnero, Universidad Nacional de la Plata, La Plata, Argentina	10:10 a.m. AIAA-2026-4392 Experimental Investigation on the Performance of Vortex Generators and Vortex Slots Under Gust and Turbulence Conditions J. Modrzynski, M. Lobb, A. Finnemore, C. Proe, A. Celik, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom			
Wednesday, 10 June 2026					

APA-18/FD-19/MST-07	CFD Methods for Aerodynamics Applications I				Harbor D
Chaired by: I. FIALHO, The Boeing Company and V. BHAGWANDIN, U. S. Army Research Laboratory (APG)					
9:30 a.m. AIAA-2026-4393 Learning Nonlinear Six-DoF Re-Entry Dynamics With Neural Ordinary Differential Equations B. Tiwari, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN; A. Kassem, S. Romeo, Oklahoma State University, Stillwater, OK; L. Musharrat, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN; K. Kara, Oklahoma State University, Stillwater, OK; O. San, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN	9:50 a.m. AIAA-2026-4394 In a Nutshell - The Apparent Vertical Filter for Smaller Motion Systems C. Seehof, J. Buch, D. Niedermeier, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Braunschweig, Brunswick, Germany	10:10 a.m. AIAA-2026-4395 Accuracy of Mixed-Precision Stencil Computations in GPU-Accelerated DNS of Turbulent Shear Layers and Vortices D. Lusher, A. Sansica, JAXA Chofu Aerospace Center, Tokyo, Japan	10:30 a.m. AIAA-2026-4396 Anisotropic hp-Adaptation for Modal Discontinuous Galerkin With Applications to Aircraft Configurations S. Anton, J. Chapelier, Office National d'Etudes et de Recherches Aérospatiales, Châtillon, France; R. Laraufie, Airbus Operations SAS, Toulouse, France; S. Pernet, ONERA Toulouse, Toulouse, France	10:50 a.m. AIAA-2026-4397 Modification of Turbulence Model for High-Angles-of-Attack Flow Around Aircraft Configuration Using Equation Inference Technique M. Kanamori, T. Ishida, K. Kubota, Uchu Koku Kenkyu Kaihatsu Kiko Koku Gijutsu Bumon, Chofu, Japan	
Wednesday, 10 June 2026					
APA-19/FD-20	Hypersonic Aerodynamics II				Hillcrest A
Chaired by: S. YOO, NASA Armstrong Flight Research Center and D. CUPPOLETTI, University of Cincinnati					
9:30 a.m. AIAA-2026-4398 Characterization of Hypersonic Waverider Wake With Spectral Proper Orthogonal Decomposition N. Giampetro, J. Lindau, J. Coder, The Pennsylvania State University, University Park, PA	9:50 a.m. AIAA-2026-4399 Free-Flight Aerodynamics of an Ogive-Cylinder-Flare at Mach 6 J. Sherman, R. de Silva, S. Laurence, University of Maryland, College Park, MD	10:10 a.m. AIAA-2026-4400 Computations of Shock-Wave Laminar Boundary-Layer Interaction Over a 2D Hypersonic Double-Cone K. Özden, S. Coskun, Roketsan Roket Sanayii ve Ticaret AS, Ankara, Turkey	10:30 a.m. AIAA-2026-4401 Probabilistic Machine Learning Aerodatabase for the Orion Crew Module J. Scoggins, K. Bibb, NASA Langley Research Center, Hampton, VA	10:50 a.m. AIAA-2026-4402 Coupling Fidelity and Stability in a Trajectory-Resolved Aerothermoelastic Analysis of a Maneuvering Hypersonic Vehicle E. Hall, A. Schemmel, J. Foster, US Army Engineer Research and Development Center Information Technology Laboratory, Vicksburg, MS	
Wednesday, 10 June 2026					
APA-21	Propeller/Rotorcraft/Wind Turbine Aerodynamics I				Balboa C
Chaired by: J. COLE, The Pennsylvania State University and N. HARRISON, Boeing Research & Technology					
9:30 a.m. AIAA-2026-4349	9:50 a.m. AIAA-2026-4403	10:10 a.m. AIAA-2026-4404	10:30 a.m. AIAA-2026-4405		

On the Far-Field Breakdown of Propeller Thrust and Torque C. Fournis, M. Nadal, F. Falissard, M. Meheut, Office National d'Etudes et de Recherches Aérospatiales, Meudon, France	An Inverse Design Methodology for Improved Hover Performance of the UH60A Rotor D. Tyler, M. Ku, L. Sankar, Georgia Institute of Technology, Atlanta, GA	Experimental Investigation of a Toroidal Propeller in Ground Effect M. Chen, C. Moore, D. Bhatt, J. Richard, J. Edwards, T. Fang, NC State University, Raleigh, NC	A Hoist Control System for Reducing Helicopter Hoist Load Spin L. Stransky, M. Konshin, C. Brossart, D. Shaker, A. Gray, X. Liu, San Diego State University, San Diego, CA		
---	---	---	---	--	--

Wednesday, 10 June 2026

ASE-06	Overcoming In-Flight Icing Challenges in Disruptive Aircraft: The Role of Technology and Innovation	Cortez Hill B
--------	---	---------------

Chaired by: R. HANN, NTNU

As the aerospace industry embraces the rapid evolution of disruptive aircraft designs, including UAVs, eVTOLs, and fully electric aircraft, the challenge of in-flight icing remains a critical hurdle to their operational viability, safety, and certification. This session will focus on cutting-edge technological solutions and innovations developed to address icing risks unique to these advanced platforms. Featuring insights from leading experts across industry, research, and regulatory bodies, the discussion will delve into the latest advancements in ice detection, protection, and prevention systems tailored for the unique configurations and missions of modern aircraft. Key topics include the development of adaptive and modular ice protection systems, breakthroughs in materials and coatings for lightweight and energy-efficient ice resistance, the use of icing CFD codes, the development of novel testing facilities, and the use of AI and machine learning for predictive ice detection. Participants will gain an understanding of the technological and regulatory pathways needed to certify and deploy safe, reliable, and cost-effective icing solutions in the burgeoning field of advanced air mobility. This session provides a unique networking opportunity to connect with stakeholders and foster collaborations focused on advancing safe, resilient flight in icing environments.

Wednesday, 10 June 2026

ATS-07	Integration of AAM/UAM/UAS in the NAS I	Harbor C
--------	---	----------

Chaired by: S. HASAN, Crown Innovations, Inc.

9:30 a.m. AIAA-2026-4406 Capacity Estimation for Multi-FATO Vertiports Using a CTMC Queueing Model: Layout Comparison S. Park, H. Kim, Korea Aerospace University, Goyang-si, South Korea	9:50 a.m. AIAA-2026-4407 Integrity Risk Evaluation for Map-Based Data Association in Vision-Aided UAS Surface Navigation N. Zafi, M. Joerger, Virginia Polytechnic Institute and State University, Blacksburg, VA	10:10 a.m. AIAA-2026-4408 Digital Agreements and Cooperative Airspace Oversight in Advanced Air Mobility J. Henderson, S. Priess, A. Patel, L. Weitz, The MITRE Corporation, McLean, VA	10:30 a.m. AIAA-2026-4409 A Throughput Based Model for Estimating eVTOL Operations and Aircraft Utilization S. Das Biswas, W. Crossley, D. DeLaurentis, Purdue University System, West Lafayette, IN		
--	--	--	---	--	--

Wednesday, 10 June 2026

EPATS-01	EPATS Keynote I - Markets, Models, and Metal: Launching the Electric Era of Aviation	Coronado A
----------	--	------------

Markets, Models, and Metal: Launching the Electric Era of Aviation Major inflection points in aviation have historically been driven by advances in propulsion, structures, and control systems. Today, the convergence of electric propulsion, distributed systems, and aero-propulsive integration places the industry at the threshold of a new era. While much attention has focused on the challenges of electrification, the more important question is how to translate emerging technologies into viable aircraft and sustainable markets. This keynote argues that the electric era of aviation will not be defined by batteries or motors but rather the market forces, the modeling that shapes decisions, and the realities of building and flying hardware. Drawing on experience from the design, build, and flight of

four full-scale electric aircraft, this talk will share practical lessons, both successes and hard-earned failures, on closing the gap between concept and reality. The result is a perspective on what it will actually take to launch, not just study, the electric era of aviation.

Wednesday, 10 June 2026

F360-07 9:30 - 11:30 a.m.	Beyond Acquisition: Building the Future of the Air Force, Faster	Seaport Ballroom D-H
------------------------------	--	----------------------

Is the traditional acquisition process stifling critical innovation in aviation? Join a distinguished panel of senior leaders from across the Department of Defense as we explore collaborative strategies for accelerating the development and deployment of next-generation aviation technologies at a better cost to the taxpayer.

Wednesday, 10 June 2026

FD-22	Multiphase Flows I	Gaslamp B
-------	--------------------	-----------

Chaired by: P. VIJGEN

9:30 a.m. AIAA-2026-4410 Dynamics of Drop Deformation and Breakup Under High-Speed Shock- Wave Interaction A. Pal, M. Sussman, K. Shoele, Florida State University, Tallahassee, FL	9:50 a.m. AIAA-2026-4411 Effects of Interface Regularization Models on Shock-Droplet Interactions W. White, E. Johnsen, University of Michigan, Ann Arbor, MI	10:30 a.m. AIAA-2026-4413 Interference-Induced Shock Formation Between Two Cylinders at Various Spacings in a Subsonic Viscous Free-Stream A. Kula, R. Nguyen, D. Aslangil, Colorado School of Mines, Golden, CO			
---	--	---	--	--	--

Wednesday, 10 June 2026

FD-23	Turbulent Flows I	Hillcrest B
-------	-------------------	-------------

Chaired by: M. MILLER, Penn State University and G. NICHOLSON, Sandia National Laboratories

9:30 a.m. AIAA-2026-4414 Reynolds-Averaged Navier-Stokes Simulations of a Hypersonic Turbulent Flow Over a Wavy Surface J. Ray, Sandia National Laboratories California, Livermore, CA; M. Barone, C. Stack, H. Stroud, Sandia National Laboratories, Albuquerque, NM	9:50 a.m. AIAA-2026-4775 Wall-Modeled Large-Eddy Simulations of High-Speed Flow Over the CUBRC Cone-Flare R. Agrawal, D. Phillips, C. Ivey, S. Bose, Cadence Design Systems Inc, San Jose, CA	10:10 a.m. AIAA-2026-4776 Machine-Learning-Based Wall-Modeled Large-Eddy Simulation of Entry, Descent, and Landing Vehicles With Surface Roughness R. Ma, Massachusetts Institute of Technology, Cambridge, MA; A. Lozano-Duran, California Institute of Technology, Pasadena, CA; C. Pederson, NASA Langley Research Center, Hampton, VA	10:30 a.m. AIAA-2026-4415 An Experimental Investigation of an Adverse Pressure Gradient Turbulent Boundary Layer Over D-Type Roughness C. Meglio, Z. Chen, B. Sun, C. Atkinson, Monash University, Melbourne, Australia; C. Greco, Universita degli Studi di Napoli Federico II, Naples, Italy; J. Soria, Monash University, Melbourne, Australia		
---	---	--	---	--	--

Wednesday, 10 June 2026

FI-18 9:30 - 11:00 a.m.	Advancing Capabilities for Wildfire Aerial Operations				Solana Beach A/B
Hosting AVIATION in Southern California during wildfire season highlights just how essential aerial assets have become for rapid, coordinated wildfire response. NASA is working closely with federal agencies, state partners, and industry to advance the technologies, data services, and airspace-management tools needed to operate safely in complex, fast-moving fire environments. Managing mixed fleets and diverse missions—crewed and uncrewed aircraft, beyond visual line of sight (BVLOS) operations, and flight in degraded visual conditions—presents real operational challenges. Yet the benefits of automation, digital airspace services, and next-generation coordination tools are significant and increasingly within reach. Join NASA and its partners to learn about the latest findings, emerging concepts of operation, technology transfer efforts, and opportunities for agencies and organizations to get involved in shaping the future of aerial wildfire response.					
Wednesday, 10 June 2026					
GT-09/APA-20/AMT-03/FD-21/CFD2030-04	Meet the Turbulence Measurers				Ocean Beach
Chaired by: R. DECKER, USAF Academy					
This session is a companion to “Meet the Turbulence Modelers” (GT-05/APA-09/AMT-02/FD-11/CFD2030-03). While its companion session addresses the use of AI/ML techniques for turbulence modelling, this session will focus on the human learning aspects of CFD validation. Using the concept of V&V TV (developed in previous special sessions), a series of informal presentations will be made by Subject Matter Experts (SME) to demonstrate how the subjects of Verification and Validation are approached by the turbulence measurement community. The principles of uncertainty quantification will also be outlined and practical methods for quantifying uncertainty illustrated. Facilitator is Nigel Taylor (MBDA). Panelists to include Elizabeth Benitez (AFRL), Pavlos Zachos (Cranfield University), and Blake Lance (SANDIA).					
Wednesday, 10 June 2026					
INPSI-04	Propulsive and Thermal System Modeling				Harbor A
Chaired by: K. ACHESON, Boeing Commercial Airplanes					
9:30 a.m. AIAA-2026-4416 Modeling Realistic In-Service Aeroengine Deterioration Trends Using an Integrated Cycle Model M. Gurrola Arrieta, Safran SA, Paris, France; K. Bolas, V. Gkoutzamanis, A. Kalfas, Aristoteleio Panepistémio Thessalonikis, Thessaloniki, Greece	9:50 a.m. AIAA-2026-4417 Development of Design Methodology Based on the Performance Evaluation of a UAV With a Hybrid Propulsion System A. Rahman, A. Saha, B. Jo, Tennessee Tech University, Cookeville, TN	10:10 a.m. AIAA-2026-4418 The NASA Turbulent Heat Flux Experiments: Summary and Lessons Learned N. Georgiadis, M. Wernet, M. Borghi, NASA Glenn Research Center, Cleveland, OH; C. Winkler, The Boeing Company, Chicago, IL; M. Emory, Luminary Cloud, San Mateo, CA; R. Locke, HX5, Cleveland, OH			
Wednesday, 10 June 2026					
IS-02	Guidance, Navigation and Advanced Control				La Jolla A
Chaired by: T. LOMBAERTS, NASA Ames Research Center					
9:30 a.m. AIAA-2026-4419 Designing Orbit Estimation Tool in the Presence of	9:50 a.m. AIAA-2026-4420 Trajectory Tracking and Roll Control of a	10:10 a.m. AIAA-2026-4421 A Novel Vision-Based Pose Estimation Framework for	10:30 a.m. AIAA-2026-4422 Formal and Fast Trajectory Planning for Fixed-Wing		

Lorentz Force and Traditional Perturbation Forces V. Vohra, A. Das, D. Giri, Indian Institute of Technology Kanpur, Kanpur, India	Biomimetic Autonomous Underwater Vehicle for Various Disturbances B. Tripathy, S. Dash, A. Routray, Indian Institute of Technology Kharagpur, Kharagpur, India	Autonomous Landing of Fixed-Wing Aircraft I. Parasuraman, Boeing India Private Limited, New Delhi, India; S. Ghosh, Indian Institute of Technology Madras, Chennai, India; A. Kumar, S. Chopra, Boeing India Private Limited, New Delhi, India	Aircraft via Learning-Guided Optimization S. Byeon, W. Sribunma, S. Brunswicker, I. Hwang, Purdue University, West Lafayette, IN		
--	---	---	---	--	--

Wednesday, 10 June 2026

MDO-09	Special/Invited Session:Topology Optimization for Aerospace Structures	Cortez Hill A
--------	--	---------------

Chaired by: M. HENSON, Lockheed Martin Aeronautics

9:30 a.m. AIAA-2026-4423 Flow Distortion Generation Using Topology Optimization N. Langlet, P. Grenson, J. Dandois, Office National d'Etudes et de Recherches Aeronautiques, Meudon, France	9:50 a.m. AIAA-2026-4424 Defect-Tolerant Topology Optimization of Aircraft Structures for Redundancy G. Das, G. Kennedy, K. James, Georgia Institute of Technology, Atlanta, GA	10:10 a.m. AIAA-2026-4425 Z-Beam Wingbox Bend-Twist Optimisation of an Aeroelastic High-Aspect-Ratio Wing E. Bontoft, A. Bhuwal, T. Liu, V. Toropov, Queen Mary University of London, London, United Kingdom; L. Iorga, Airbus Operations UK Ltd, Bristol, United Kingdom			
--	--	--	--	--	--

Wednesday, 10 June 2026

MVCE-03/DE-04	Unlocking High Speed Iteration with High Fidelity Models	La Jolla B
---------------	--	------------

Chaired by: M. MUELLER, nTop

The "geometry bottleneck"—where fragile CAD models break during rapid iteration—remains a primary obstacle in transition from design to high-fidelity analysis. This workshop explores how implicit modeling and Signed Distance Fields (SDFs) provide a robust alternative, enabling aircraft geometries that are "analysis-ready" and topologically flexible. We will demonstrate live implicit modeling workflows and discuss the state of the art in geometry-to-mesh pipelines. Through breakout sessions, we will identify current bottlenecks where engineers sacrifice fidelity for speed and synthesize future directions for implicit tools to accelerate the path from conceptual design to simulation. **Agenda** - Intro to SDFs: History of CAD and the shift to implicit geometry. Modeling Demo: Rapid aircraft iteration using nTop. - Design Needs: State of the art and pain points in the modeling-to-analysis pipeline. - Discussion: Identifying bottlenecks in iteration speed vs. model fidelity. - Synthesis: Opportunities for innovation in implicit tools.

Wednesday, 10 June 2026

PDL-07	Plasmadynamics and Lasers Award Lecture	Gaslamp C
--------	---	-----------

Chaired by: A. TROPINA, Texas A&M University

This session will be dedicated to our annual PDL award lecture. This award is bestowed to a person who has brought significant contributions to the field of Plasmadynamics and Lasers over the past decade. Last year's winner was Professor Mark Capelli from Stanford University.

Wednesday, 10 June 2026

SPSN-01	Supersonics				Torrey Hills B
Chaired by: D. LAZZARA, Boom and T. MAGEE, Boeing Research & Technology					
9:30 a.m. AIAA-2026-4426 Development of Optical Surface Heat Flux Sensor for Hypervelocity Ground Testing C. Yu, D. Gildfind, D. Mee, T. McIntyre, S. Lock, The University of Queensland, Brisbane, Australia	9:50 a.m. AIAA-2026-4427 Hypervelocity Heat Flux Measurements in an Expansion Tube Using Atomic Layer Thermopile Gauges C. Yu, R. Truffinet, D. Gildfind, R. Morgan, D. Mee, P. Jacobs, The University of Queensland, Brisbane, Australia; et al.	10:10 a.m. AIAA-2026-4428 A Comparative Evaluation of Engineering-Level and RANS-Based Aerodynamic Models on the Flight Dynamics of a Generic Hypersonic Vehicle A. Dodge, The University of Kansas, Lawrence, KS; S. Lindörfer, The University of Tennessee Space Institute, Tullahoma, TN; S. Keshmiri, The University of Kansas, Lawrence, KS			
Wednesday, 10 June 2026					
SUST-08/H2AERO-04	Invited Session: Challenges and Opportunities for Cryogenic Aircraft Technologies I				Mission Beach A/B
Chaired by: P. ANSELL, University of Illinois Urbana-Champaign, Grainger College of Engineering and M. BACIC, Rolls-Royce PLC					
9:30 a.m. AIAA-2026-4429 How & When Might Cryogenics Win for Aviation H. Morvan, Rolls-Royce plc, London, United Kingdom	9:50 a.m. AIAA-2026-4430 Analysis of Alternative Energy Carriers for Aviation D. Barone, The Boeing Company, Dayton, OH	10:10 a.m. 4475699 Cryogenic Fuel Aviation - Challenges and Opportunities V. Lvovich, W. Johnson, I. Jakupca, D. Perkins, T. Lavelle, NASA Glenn Research Center, Cleveland, OH; C. Hartman, Analytical Mechanics Associates Inc, Hampton, VA; et al.	10:30 a.m. 4505822 Hydrogen's Flight Path: Market Realities and Embraer's Roadmap Insights on Hydrogen Adoption, Economic Challenges, and Embraer's Strategy to Enable Future Zero-Emission Flight V. Di Nucci, Embraer SA, Sao Jose dos Campos, Brazil	10:50 a.m. Dreaming of Clean Skies: Rolls-Royce's Hydrogen Technology Demonstrator Shaping the Future of Sustainable, Zero-Emission Aviation presented by Mirko Bacic	
Wednesday, 10 June 2026					
TP-07	Advanced Thermal Management Technology Development and Validation				Harbor E
Chaired by: V. VISHWANATHAN, Johns Hopkins University Applied Physics Laboratory and E. SHORT, Retired					
9:30 a.m. AIAA-2026-4433 The Effect of Turbofan-Representative Distortion on Surface Heat Exchanger Performance	9:50 a.m. AIAA-2026-4434 A Compact Low-loss Additive-manufactured Redirecting Heat Exchanger (CLARE):	10:10 a.m. AIAA-2026-4435 A Compact Low-loss Additive-manufactured Redirecting Heat Exchanger (CLARE):	10:30 a.m. AIAA-2026-4436 Vascular Transpiration in a Carbon-Carbon Composite Leading Edge M. Olima, The University of Tulsa College of Engineering	10:50 a.m. AIAA-2026-4575 An Experimental Investigation on Convective Heat Transfer Characteristics of a	11:10 a.m. AIAA-2026-4576 Experimental Investigation of Cryogenic Tank Chilldown and Boil-Off

D. Stewart, J. Coull, P. Ireland, University of Oxford, Oxford, United Kingdom	Numerical Benchmark of Aerothermal Performance J. Inkoferer, D. Kozulovic, M. Bitter, Universität der Bundeswehr München Fakultät für Luft- und Raumfahrttechnik, Neubiberg, Germany	Experimental Validation Strategy & First Results M. Bitter, S. Dankerl, J. Inkoferer, D. Kozulovic, Universität der Bundeswehr München Fakultät für Luft- und Raumfahrttechnik, Neubiberg, Germany	and Computer Science, Tulsa, OK; M. Abdul Latheef, The University of Tulsa Russell School of Chemical Engineering, Tulsa, OK; W. LePage, The University of Tulsa College of Engineering and Computer Science, Tulsa, OK; H. Ramsurn, The University of Tulsa Russell School of Chemical Engineering, Tulsa, OK; M. Keller, The University of Tulsa College of Engineering and Computer Science, Tulsa, OK	Human Hand Model Exposed to Frozen-Cold Winds S. Haque, A. Alremawi, J. Wang, M. Zhang, R. Li, G. Song, Iowa State University of Science and Technology, Ames, IA; et al.	Phenomena Using Liquid Nitrogen A. Zumbo, F. De Carlo, C. Bertani, A. Ferrero, F. Masseni, D. Pastrone, Politecnico di Torino, Turin, Italy
--	---	---	---	--	--

Wednesday, 10 June 2026

UAS-07	UAS Autonomy - Concepts and Technologies I	Torrey Hills A
--------	--	----------------

Chaired by: R. FONTANELLA, Leonardo S.p.A.

9:30 a.m. AIAA-2026-4437 Operational Policy Evaluation for CASEVAC Under Contested Airspace and Constrained MTF Capacity Y. Chang, C. Johnson, D. Mavris, Georgia Institute of Technology College of Engineering, Atlanta, GA	9:50 a.m. AIAA-2026-4438 Benchmarking Small LLMs at the Edge for UAV Command Synthesis and Path Planning P. Sun, N. Singh, A. Dutta, J. Xie, San Diego State University, San Diego, CA	10:10 a.m. AIAA-2026-4439 Photonic Computing and Optical Communication Framework for SLM-Driven UAV L. Baskaran, B. Vijayakumar, Rowan University, Glassboro, NJ			
--	---	---	--	--	--

Wednesday, 10 June 2026

EPATS-23	EPATS Keynote IV - An Overview of Distributed Electric Propulsion	Coronado A
----------	---	------------

The emergence of electric propulsion technologies in aircraft development has enabled new capabilities in the overall efficiency, capabilities, and robustness of future air vehicles. The distributed electric propulsion (DEP) systems feature a novel approach of strategically utilizing multiple electrically-driven propulsors connected electrically to energy sources and/or power-generating devices. This presentation provides a brief overview of DEP technology, including the origin of the concept, NASA R&D efforts in DEP aircraft, and future aircraft possibilities of using the technology.

Wednesday, 10 June 2026

FL-09 11:00 - 11:30 a.m.	Pilot Models and Simulated Pilots for AAM Design, Automation, and Certification	Solana Beach A/B
-----------------------------	---	------------------

As Advanced Air Mobility (AAM) moves toward highly automated and eventually autonomous operations, simulation and digital twins will carry a growing share of the safety and certification burden. In those simulations, a key question is often left implicit: who is the pilot? This session will bring together researchers and practitioners using pilot models, reactive "sim-pilots," and digital pilot concepts to design, evaluate, and certify AAM aircraft and operations. Panelists will discuss recent work on the Task-Pilot-Vehicle approach for UAM handling qualities and certification, reactive pilot models that automatically fly eVTOL missions, and human-operator models from rotorcraft and UAS that are now being adapted to electric air taxi vehicles. They will also explore emerging "digital pilot" assurance

concepts and how simulated pilots and pilot models can be embedded in digital twins, mission-level simulation environments, and airspace-level Sim-Pilot agents. The goal is to identify practical best practices and open questions for using simulated pilots as credible, auditable evidence in AAM automation and flight-control safety cases, and to outline how this capability can support future certification by analysis for AAM vehicles and operations. Moderator: Speakers:

Wednesday, 10 June 2026

LUNCH 11:30 a.m. - 12:30 p.m.	Luncheon	Seaport Foyer
----------------------------------	----------	---------------

Join colleagues and future friends and make career changing connections. Lunch provided to all attendees.

Wednesday, 10 June 2026

ACD-14/GA-06	Aircraft Performance and Flight Simulation	Balboa A
--------------	--	----------

Chaired by: J. MERRET, University of Illinois at Urbana-Champaign and D. DOUGHERTY, Northrop Grumman Aeronautics Systems

1:00 p.m. AIAA-2026-4440 Revisiting Roskam's Empirical Predictions for Takeoff & Landing to Support MIL 3013 Multi-Engine Aircraft Design T. Takahashi, Air Force Institute of Technology Graduate School of Engineering and Management, Wright-Patterson Air Force Base, OH	1:20 p.m. AIAA-2026-4441 Extending WUADS Analysis and Design Capabilities to General Aviation Aircrafts With Piston and Turboprop Engines and Hydrogen Fuel N. Igic, R. Agarwal, M. Kiely, Washington University in St Louis, St. Louis, MO	1:40 p.m. AIAA-2026-4442 Capturing Aeropropulsive Coupling Effects in Mission Analysis for Unconventional Aircraft Conceptual Design E. Harrison, S. Moore, L. Stucki, R. D'Cruz, D. Mavris, Georgia Institute of Technology, Atlanta, GA	2:00 p.m. AIAA-2026-4443 Transfer of a Nonlinear Aircraft Simulation Model Into a CPACS Data Structure for Application in a Flight Dynamic Simulation C. Christmann, V. Lang, C. Schwarz, D. Kiehn, German Aerospace Center (DLR), Braunschweig, Germany	2:20 p.m. AIAA-2026-4444 Numerical Simulation of Water Takeoff and Scooping Procedure of CS-25 Amphibious Firefighting Aircraft D. Glenis, Positive Aviation, Blagnac, France	
---	--	--	---	--	--

Wednesday, 10 June 2026

APA-22	Applied CFD: External Aerodynamics I	Gaslamp A
--------	--------------------------------------	-----------

Chaired by: B. BORNHOFT, Cadence Design Systems, Inc. and G. BOTURA, United Technologies Aerospace Systems

1:00 p.m. AIAA-2026-4445 Predictions of Transonic Buffet Phenomena Over a Full-Aircraft Configuration by Wall-Modeled LES H. Maeyama, H. Asada, S. Kawai, S. Kawai, Tohoku Daigaku, Sendai, Japan	1:20 p.m. AIAA-2026-4446 Application of the HEMLAB Algorithm to DPW-8 Cases With Anisotropic Adaptive Mesh Refinement I. Asar, M. Sahin, Istanbul Teknik Universitesi, Istanbul, Turkey	1:40 p.m. AIAA-2026-4447 Mixed Convection Heat Transfer Around the MMRTG of a Mars Exploration Rover Under Variable Operational Scenarios J. Fernández Antón, R. Bardera, Instituto Nacional de Técnica Aeroespacial, Torrejón de Ardoz, Spain; A. Rodríguez-Sevillano, Universidad Politécnica de Madrid, Madrid, Spain; E. Barderas, J. Matias-Garcia, Instituto Nacional de Técnica	2:00 p.m. AIAA-2026-4448 A Non-Viscous Investigation of Aerodynamic Tail Effects on Combat Aircraft W. Gomes, L. de Abreu, Sao Paulo State University Julio de Mesquita Filho - College of Engineering of Sao Joao, Sao Joao da Boa Vista, Brazil; A. de Paula, R. da Silva, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; L. Nepomuceno, Pontificia Universidade Católica do Paraná, Curitiba, Brazil; G. Dourado, Georgia Institute of	2:20 p.m. AIAA-2026-4449 HEMLAB Algorithm Applied to the ARD Capsule O. Yildiz, M. Sahin, Istanbul Teknik Universitesi Ucak ve Uzay Bilimleri Fakultesi, Istanbul, Turkey	
--	--	---	--	--	--

		Aerospacial, Torrejón de Ardoz, Spain	Technology, Atlanta, GA; et al.		
Wednesday, 10 June 2026					
APA-23/FD-24/MST-08	CFD Methods for Aerodynamics Applications II				Harbor D
Chaired by: B. CHYNOWETH, Purdue University					
1:00 p.m. AIAA-2026-4450 Verification and Efficiency Study of the Time-Spectral RANS Method for Fast Predictions of Gust- and Motion-Induced Airloads R. Haupt, C. Kaiser, A. Stueck, Deutsches Zentrum für Luft- und Raumfahrt DLR, Göttingen, Germany	1:20 p.m. AIAA-2026-4451 Analysis of Energy Transfer Between Proper Orthogonal Decomposition Modes With Application to Low-Pressure Turbine Cascade M. Hoque, A. Gross, New Mexico State University, Las Cruces, NM	1:40 p.m. AIAA-2026-4452 Cost Reduction Approaches for a GPU-Based Parallel Immersed Boundary CFD Solver P. Secchi, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; J. Azevedo, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil			
Wednesday, 10 June 2026					
APA-24/FD-25	Hypersonic Aerodynamics III				Hillcrest A
Chaired by: N. CAMPBELL, The Hypershield Partnership, LLC					
1:00 p.m. AIAA-2026-4453 Wall-Modeled Large-Eddy Simulations of Flat-Bolt Configuration A. Haas, J. McQuaid, Whoosh HPC, Kensington, MD; S. Wernz, RTX Corporation, Arlington, VA; W. van Noordt, Whoosh HPC, Kensington, MD; M. Joly, RTX Corporation, Arlington, VA; J. Larsson, University of Maryland, College Park, MD; et al.	1:20 p.m. AIAA-2026-4454 Simulations of Surface Heat Transfer Measurements in a Hypersonic Flow C. Bowen, H. Fitzpatrick, S. Smith, Howard University, Washington, D.C.	1:40 p.m. AIAA-2026-4455 An Experimental Crossflow Study With a Micro-Pitot Traverse System in the Boeing-AFOSR Mach 6 Quiet Tunnel J. Wozniak, J. Jewell, Purdue University, West Lafayette, IN			
Wednesday, 10 June 2026					
APA-25	Special Session: NATO AVT 387: Common Research Wind Tunnels for CFD Verification and Validation I				Balboa C
Chaired by: W. DEVENPORT, Virginia Tech and K. RICHTER, DLR - German Aerospace Center					
1:00 p.m. AIAA-2026-4456 The NATO AVT-387 Common Research	1:20 p.m. AIAA-2026-4457 Experimental Characterization and	1:40 p.m. AIAA-2026-4458	2:00 p.m. AIAA-2026-4459 VT Stability Tunnel: Experimental	2:20 p.m. AIAA-2026-4460 VT Stability Tunnel: Recommendations for	

Wind/Water Tunnel CFD-Validation Initiative W. Devenport, Virginia Polytechnic Institute and State University, Blacksburg, VA; K. Richter, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Braunschweig, Brunswick, Germany; G. Tanguy, ONERA Lille, Lille, France; M. Otero, Naval Surface Warfare Center Carderock Division, West Bethesda, MD	Development of a 1D Model of the ONERA S3Ch Transonic Wind Tunnel V. Brion, N. Rembaut, Office National d'Etudes et de Recherches Aérospatiales, Meudon, France; G. Tanguy, Office National d'Etudes et de Recherches Aérospatiales, Lille, France	Numerical Simulation of Flows in the ONERA S3Ch Transonic Wind Tunnel J. Hantrais-Gervois, Office National d'Etudes et de Recherches Aérospatiales, Meudon, France; G. Tanguy, Office National d'Etudes et de Recherches Aérospatiales, Lille, France; N. Rembaut, Office National d'Etudes et de Recherches Aérospatiales, Meudon, France; M. Werner, Deutsches Zentrum für Luft- und Raumfahrt DLR, Göttingen, Germany; D. Di Pasquale, P. Thurier, Cranfield University, Cranfield, United Kingdom; et al.	Characterization of Boundary Conditions for Subsonic Wind Tunnels A. Borgoltz, N. Intaratep, W. Devenport, C. Roy, A. HogePatil, Virginia Polytechnic Institute and State University, Blacksburg, VA	CFD Model Validation in Subsonic Wind Tunnels A. HogePatil, C. Roy, W. Devenport, A. Borgoltz, N. Intaratep, Virginia Polytechnic Institute and State University, Blacksburg, VA	
--	---	--	---	---	--

Wednesday, 10 June 2026

ASE-07	Ice Crystal Icing	Cortez Hill B
--------	-------------------	---------------

Chaired by: M. BRAVIN, Boeing Commercial Airplanes and D. RIGBY, HX5, LLC

1:00 p.m. AIAA-2026-4461 Ice Crystal Environment-Modular Axial Compressor Rig: Altitude Scaling of Accretion Using Freeze-Out Ice Crystals M. Neuteboom, National Research Council Canada, Ottawa, Canada; E. Fleurent-Wilson, Transport Canada, Ottawa, Canada	1:20 p.m. AIAA-2026-4462 Influence of Thermal and Liquid-Fraction Gradients During Ice-Crystal Icing Accretion on Ice-Layer Growth and Substrate Surface Temperature P. Stratakos, Technische Universität Braunschweig Fakultät für Maschinenbau, Brunswick, Germany; J. Senoner, L. Bennani, Office National d'Etudes et de Recherches Aérospatiales Département Physique Instrumentation Environnement Espace, Toulouse, France; G. Rosi, D. Rival, Technische Universität Braunschweig Fakultät für Maschinenbau, Brunswick, Germany	1:40 p.m. AIAA-2026-4463 Validation of ICE-MACR Observations Against ALF502 LF11 PSL Engine Test Data M. Neuteboom, National Research Council Canada, Ottawa, Canada	2:00 p.m. AIAA-2026-4464 Ice Crystal Environment – Modular Axial Compressor Rig: Time to Transition to Continuous Accretion Growth and Corresponding Ice Mass Consumed M. Neuteboom, National Research Council Canada, Ottawa, Canada; J. Mason, Federal Aviation Administration, Washington, D.C.		
--	--	---	---	--	--

Wednesday, 10 June 2026

ATS-08	Integration of AAM/UAM/UAS in the NAS II	Harbor C
--------	--	----------

Chaired by: M. BRITAIN, Johns Hopkins University Applied Physics Laboratory					
1:00 p.m. AIAA-2026-4465 Multilateral Negotiation Among Traffic Management Service Providers S. Park, S. Kim, Korea Aerospace University, Goyang-si, South Korea	1:20 p.m. AIAA-2026-4466 Queue-Constrained Wasserstein DRO for Robust UAV Charging Network Design W. Imliki, C. Adane Deresa, H. Choi, Korea Advanced Institute of Science and Technology, Daejeon, South Korea	1:40 p.m. AIAA-2026-4467 Economic Tradeoffs of Fault-Tolerant Technologies Under Part 108 Uncrewed Aerial Systems Operations A. Kamat, K. Hu, M. Li, University of Michigan, Ann Arbor, MI	2:00 p.m. AIAA-2026-4468 Layered Run-Time Assurance for BVLOS UAS Using Integrated Sensor Systems A. Assifuah, J. Jacob, Oklahoma State University College of Engineering Architecture and Technology, Stillwater, OK		
Wednesday, 10 June 2026					
DE-03/MVCE-04	Higher Speed with Higher Fidelity: GPU Computing's Role in Modern MDAO				La Jolla B
Chaired by: M. MUELLER, nTop and I. MARKS, Northrop Grumman					
Engineers are forced to choose between fast iteration on low fidelity models or slow iteration on high fidelity models, sacrificing either the ability to make accurate performance predictions or the ability to fully explore the design space. New technologies that leverage modern GPU computing are enabling engineers to create higher fidelity models that are still capable of rapid and robust iteration. Early in the conceptual design phase, this helps teams avoid getting sucked into a local optimum and forced to make costly changes later in the development cycle. Later in the detailed design phase, this helps maintain accurate performance predictions while running trade studies and performing MDAO. This panel will highlight some key innovations in modeling technologies that are unlocking rapid design space exploration with higher fidelity. Speakers will cover how implicit models are enabling geometry generation, GPU based physics solvers are enabling data generation, and AI techniques are enabling inverse design generation, all with higher speed and higher fidelity. The focus of the panel discussion will be on identifying the key bottlenecks limiting either iteration speed or model fidelity throughout the design process and exploring how modern computing capabilities can help design technology keep pace with engineering ambitions. Panelists - Jan Vandenbrande – Fellow, nTop (Former Boeing & DARPA) - Juan J. Alonso – CTO, Luminary.ai & Professor of Aeronautics & Astronautics, Stanford University - Neil Ashton – Distinguished Engineer and Product Architect, NVIDIA - Han Park – VP of AI Integration, Northrop Grumman					
Wednesday, 10 June 2026					
EPATS-03	AACES 2050 Summary I				Coronado A
Chaired by: P. VASCIK and V. SCHULTZ, Revolutionary Aerospace LLC					
1:00 p.m. AIAA-2026-4469 Future Scenarios and Technology Assessments for Novel 2050-Timeframe Transport Aircraft A. Mahseredjian, P. Vascik, A. Uranga, Electra.Aero, Manassas, VA	1:20 p.m. Invited Oral Presentation: Aircraft MDAO Framework and Design Space Exploration toward Environmental Sustainability	1:40 p.m. 4460680 Trade-Offs in Ultra-Efficient Aircraft Design: Electrification and Integration Technologies for 2050 M. Arnson, University of Michigan, Ann Arbor, MI; H. Hajdik, Electra.aero, Manassas, VA; A. Lopez Cotrina, T. Ho, J. Martins, G. Cinar, University of Michigan, Ann Arbor, MI; et al.	2:00 p.m. 4462482 Next-Generation Transport Aircraft: Ultra- Efficient Vehicles Enabled by Integration Technologies A. Uranga, Electra.aero, Manassas, VA; M. Arnson, University of Michigan, Ann Arbor, MI; H. Hajdik, Electra.aero, Manassas, VA; A. Tahiliani, Massachusetts Institute of Technology, Cambridge, MA; A. Lopez	2:20 p.m. AIAA-2026-4470 Modeling Demand for Novel Aircraft in a Competitive Market: A 2050 to 2100 Case Study for Hybrid Electric Aircraft S. Abdulhak, D. Kwon, S. Huang, University of Michigan, Ann Arbor, MI; A. Mahseredjian, P. Vascik, Electra.aero, Manassas, VA; M. Li, University of Michigan, Ann Arbor, MI	

			Cotrina, University of Michigan, Ann Arbor, MI; A. Mahseredjian, Electra.aero, Manassas, VA; et al.		
Wednesday, 10 June 2026					
EPATS-05	Opportunities and Challenges for Startups in Aircraft Electrification				Coronado D
Chaired by: G. CINAR, University of Michigan					
This panel brings together startups from Europe and the United States that are developing new hybrid and electric aircraft. We will discuss the progress startups are making, the challenges they face, the opportunities they have, and their position in an industry governed by the large OEMs. Moderator: Gokcin Cinar, University of Michigan Speakers: Dr. Nando van Arnhem, Head of Flight Physics, Vaeridion Dr. Chris Courtin, Vice President, Technology, Electra.aero Dr. Reynard de Vries, Chief Engineer/Co-Founder, Elysian Aircraft Luc Van Bavel, CTO/Co-Founder, Evio					
Wednesday, 10 June 2026					
EPATS-25 1:00 - 3:00 p.m.	AI Helping Design and Implementation of Electrified Aircraft				Coronado E
This is an interactive workshop for professionals and students. The workshop will be addressing provisions for accelerated design, development and introduction in service of electrified aircraft. Artificial Intelligence (AI), Autonomous flights, Accelerated testing, Design for certification, and manufacturability will be discussed as major contributors. AI theory and AI based tools will be demonstrated. This workshop will be led by Confirmed Speakers: Arif Salam, Honeywell and Evgeni Ganey, EMPS.					
Wednesday, 10 June 2026					
FD-26	Machine Learning for Fluid Dynamics and Aeroacoustics				Gaslamp C
Chaired by: S. PAN, Rensselaer Polytechnic Institute					
1:00 p.m. AIAA-2026-4471 Investigation of Spatial Superresolution Methods for Turbulent Fields Using Uniform Isotropic Turbulence Data and Dictionary Learning A. Ban, T. Nagata, T. Nonomura, Nagoya Daigaku, Nagoya, Japan	1:20 p.m. AIAA-2026-4472 Deep-Learning-Driven Optimization of Airfoil Morphing: Toward Three-Dimensional Flow Validation O. Nazempour, S. Alizadeh, Y. Suzen, North Dakota State University, Fargo, ND	1:40 p.m. AIAA-2026-4473 A Sample-Efficient and Failure-Aware Surrogate-Assisted Workflow for Thick-Airfoil Slat Optimization I. Khan, S. Hebert, F. Corbett, A. Gerber, J. Carretero, T. Jeans, University of New Brunswick, Fredericton, Canada	2:00 p.m. AIAA-2026-4474 A Hybrid Physics–Machine-Learning Framework for Enhancing Coarse-Grid Spectral Element Simulations for Large-Scale Computing J. Jung, E. Constantinescu, R. Balin, B. Lusch, Argonne National Laboratory, Lemont, IL	2:20 p.m. AIAA-2026-4475 Airfoil Shape Optimization for Extremely Gusty Environments Using Deep Learning B. Lopez-Doriga, K. Taira, University of California Los Angeles, Los Angeles, CA	
Wednesday, 10 June 2026					
FD-27	Multiphase Flows II				Gaslamp B
Chaired by: C. TINNEY, University of Mississippi					
1:00 p.m. AIAA-2026-4476 Development of a Digital Inline Holography	1:40 p.m. AIAA-2026-4478 Film-to-Rivulet Transition on a NACA0012 Under				

Technique to Characterize 3D Shapes of Rising Air Bubbles J. Wang, M. Shohan, H. Hu, Iowa State University of Science and Technology, Ames, IA	High Aerodynamic Shear: Area-Resolved LED-Induced Fluorescence Analysis H. Mina, V. Bodoc, B. Déjean, Office National d'Etudes et de Recherches Aérospatiales, Toulouse, France; J. Hussong, Technische Universität Darmstadt, Darmstadt, Germany				
---	--	--	--	--	--

Wednesday, 10 June 2026

FD-28	Turbulent Flows II	Hillcrest B
-------	--------------------	-------------

Chaired by: G. NICHOLSON, Sandia National Laboratories

1:00 p.m. AIAA-2026-4479 Influence of Adverse Pressure Gradients on Coherent Structures Driving Extreme Backflows in Turbulent Boundary Layers L. Silva, W. Wolf, Universidade Estadual de Campinas, Campinas, Brazil	1:20 p.m. AIAA-2026-4480 Characterization of Turbulent Boundary Layers Under State-to-State Accelerating and Decelerating Flows A. Maschhoff, T. Jaroslowski, B. McKeon, Stanford University, Stanford, CA	1:40 p.m. AIAA-2026-4481 Fractal Inspired Passive Control Strategies for Transonic and Supersonic Flows Over Cavities M. Pegoda, A. Sescu, E. Luke, Mississippi State University, Mississippi State University, MS; R. Schmit, R. Speth, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH	2:00 p.m. AIAA-2026-4482 A Grid-Adaptation Methodology for Wall-Modeled LES of Non-Equilibrium Pressure-Gradient Driven Flows R. Agrawal, C. Ivey, D. Phillips, S. Bose, Cadence Design Systems Inc, San Jose, CA	2:20 p.m. AIAA-2026-4483 Using Streamwise and Spanwise Shear Stress Components in Wall-Sensing Drag Reduction Control of Turbulent Channel Flow A. Kalelkar, A. Subedi, Y. Peet, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ	2:40 p.m. AIAA-2026-4773 Phase-Locked Hot-Wire Measurements of Marine Propeller Wake Evolution in a Compressed-Air Wind Tunnel Y. Han, M. Miller, The Pennsylvania State University, University Park, PA
--	---	--	--	---	---

Wednesday, 10 June 2026

FL-10 1:00 - 2:00 p.m.	How to work as an ATCO in a sectorless environment – a brief introduction to the future of air traffic control	Solana Beach A/B
---------------------------	--	------------------

The idea of sectorless airspace, in which several air traffic controllers or teams of air traffic controllers share responsibility for aircraft in a large airspace, was first published by EUROCONTROL in 2001. After many years of analyzing and validating the concept's feasibility in various studies, the current FCA project, part of the Single European Sky ATM Research (SESAR) programme, will reach technical readiness level (TRL) 6 in March 2026. The aim of this concept is to improve the distribution of air traffic controllers' workload, increase airspace capacity by removing restrictions based on individual sector capacities, and reduce fuel consumption through longer-term solutions. This session will present the results of the 25-year-long study and clarify the question of how air traffic controllers can work in a sectorless airspace in the future.

Wednesday, 10 June 2026

FVS-01	Flow Visualization Showcase	Harbor Foyer
--------	-----------------------------	--------------

Chaired by: M. MILLER, Penn State University

This showcase allows entrants to display their flow visualizations to the broader community and helps participants better understand the beauty and complexity of fluid dynamics.

Wednesday, 10 June 2026					
HSABP-05	Scramjet Flowpath Analysis				Harbor A
Chaired by: T. SMITH, Boeing Engineering Operations & Technology					
1:20 p.m. AIAA-2026-4488 Numerical Comparison of Square and Circular Cross-Section Dual-Mode Scramjet Isolators N. Wendel, D. Gaitonde, The Ohio State University, Columbus, OH	1:40 p.m. AIAA-2026-4489 Enhanced Performance of a Simple Physics-Based Isolator Model Across Wide Mach Number and Temperature Ranges S. Kim, M. Kim, H. Choi, J. Byun, D. Park, Agency for Defense Development, Daejeon, South Korea	2:00 p.m. AIAA-2026-4490 Uncertainty Quantification of Particle Inertia Effects in Supersonic Particle Image Velocimetry D. Kalagotla, W. Oates, R. Kumar, Florida State University Florida Center for Advanced Aero-Propulsion, Tallahassee, FL			
Wednesday, 10 June 2026					
IS-03	Autonomous Systems and Multi-Agent Navigation				La Jolla A
Chaired by: V. MAKKAPATI, Honda Aircraft Company					
1:00 p.m. AIAA-2026-4491 Filtering Framework for Aircraft Localization During Taxiing Using Semantic Segmentation E. Prince, O. Bruvik, M. Schlichting, S. Katz, C. Cahilly, A. Tzikas, Stanford University, Stanford, CA; et al.	1:20 p.m. AIAA-2026-4492 Optimization of Camera Placement for On-Ground Situational Awareness M. Kadiyala, V. Makkapati, Honda Aircraft Company Inc, Greensboro, NC	1:40 p.m. AIAA-2026-4493 Biped: A Unified Embedded Hardware-Software Platform for Urban Air Mobility and Autonomous Applications S. Yu, University of Illinois Urbana-Champaign, Urbana, IL; S. Zhu, Multiped LLC, Urbana, IL; L. Sha, University of Illinois Urbana-Champaign, Urbana, IL; O. Dantsker, Indiana University, Bloomington, IN	2:00 p.m. AIAA-2026-4494 Information-Theoretic Multi-Agent Path Planning for Risk-Aware Navigation Under Environmental Uncertainty A. Nimmagadda, J. Park, Old Dominion University, Norfolk, VA; A. Von Moll, D. Casbeer, I. Weintraub, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH	2:20 p.m. AIAA-2026-4495 Strategic Evasion Using a Multi-Hypothesis Control Barrier Function S. Shah, Stanford University School of Medicine, Stanford, CA; A. Von Moll, I. Weintraub, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH	2:40 p.m. AIAA-2026-4496 Analytical and Numerical Analysis of UAV Energy Consumption Models for Advanced Air Mobility C. Long, S. Calderon Ochoa, L. Sun, Baylor University, Waco, TX
Wednesday, 10 June 2026					
MDO-10	Emerging Methods, Algorithms, and Software Development in MDO I				Cortez Hill A
Chaired by: R. LIEM, Imperial College London - Access Management					
1:00 p.m. AIAA-2026-4497 A Unified Objective Layer for Multidisciplinary Optimization of Aircraft Arrival Trajectories	1:20 p.m. AIAA-2026-4498 Battery-Aware Energy Optimization for UAVs Through Operational Control	1:40 p.m. AIAA-2026-4499 Robust Approach to Engine Cycle Modeling to Enable Multidisciplinary Optimization of Advanced Aircraft	2:00 p.m. AIAA-2026-4500 A Distributed Algorithm for Large-Scale Multidisciplinary Design Optimization With Global Constraints	2:20 p.m. AIAA-2026-4501 Efficient and Robust Enforcement of Geometric Non-interference Constraints for Large-Scale	

A. Moharir, A. Behere, D. Mavris, Georgia Institute of Technology, Atlanta, GA	D. Cheng, Horace Greeley High School, Chappaqua, NY; H. Hu, X. Xu, Purdue University, West Lafayette, IN; H. Tu, H. Fang, The University of Kansas Department of Mechanical Engineering, Lawrence, KS	A. Tahiliani, Massachusetts Institute of Technology, Cambridge, MA; H. Hajdik, Electra.aero, Manassas, VA; A. Lamkin, Supercritical Inc., Ann Arbor, MI; M. Folk, Massachusetts Institute of Technology, Cambridge, MA; A. Uranga, Electra.aero, Manassas, VA	N. Orndorff, University of California San Diego, La Jolla, CA; C. Lupp, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH; J. Hwang, University of California San Diego, La Jolla, CA	Multidisciplinary Design Optimization A. Fletcher, University of California San Diego Jacobs School of Engineering, San Diego, CA; H. Smith, Air Force Research Laboratory Aerospace Systems Directorate, Wright-Patterson Air Force Base, OH; J. Hwang, University of California San Diego Jacobs School of Engineering, San Diego, CA	
--	---	---	--	--	--

Wednesday, 10 June 2026

SUST-10/H2AERO-05	Invited Session: Challenges and Opportunities for Cryogenic Aircraft Technologies II	Mission Beach A/B
-------------------	--	-------------------

Chaired by: H. MORVAN and D. BARONE, The Boeing Company

1:00 p.m. AIAA-2026-4502 Aeroelastic Design Analysis of a LH2 Blended Wing Body Aircraft With Conformal Tanks P. Ranjan, C. Ongole, University of Illinois System, Urbana, IL; J. Whitlock, R. Frazier, JetZero Inc, Long Beach, CA; P. Ansell, University of Illinois System, Urbana, IL	1:20 p.m. 4498279 H2 Stands for Hard 2-Phase Flows: Physics Lessons for Multiphase Hydrogen Systems J. Leachman, K. Matveev, Washington State University, Pullman, WA	1:40 p.m. AIAA-2026-4503 On Hydrogen Gas Turbines for Civil Aerospace - Fuel and Control System Perspective M. Bacic, Rolls-Royce plc, London, United Kingdom; M. Yates, Cranfield University, Cranfield, United Kingdom	2:00 p.m. AIAA-2026-4504 Hydrogen Hybrid Power Architectures for Aviation Sustainable Systems R. Gupta, M. Guidotti, S. Hince, P. Ansell, University of Illinois Urbana-Champaign, Urbana, IL	2:20 p.m. AIAA-2026-4505 Multi-Fuel Combustion – Enabling the Transition to Hydrogen S. Evans, N. Terwilliger, G. Chere, S. Bradshaw, R. Stratton, RTX Corporation, East Hartford, CT	2:40 p.m. Hydrogen Aircraft LH2 to Propulsion-Development Needs H2-Aero Panel, Moderated by Dominic Barone, Boeing
--	--	---	--	--	---

Wednesday, 10 June 2026

UAS-08	UAS Autonomy - Concepts and Technologies II	Torrey Hills A
--------	---	----------------

Chaired by: R. FONTANELLA, Leonardo S.p.A.

1:20 p.m. AIAA-2026-4509 LLM-Guided Real-Time Vision-and-Voice UAV Perception for Search and Rescue A. Sadek, High Bluff Academy, San Diego, CA; M. Islam, University of San Diego, San Diego, CA	1:40 p.m. AIAA-2026-4510 Hybrid-Intelligence Autonomous Aerial System for Infrastructure-Aware Urban Safety: Fusing AI Vision and Classical Sensing for Reliable Autonomous Inspection A. Shaik, University of Maryland, College Park, MD	2:00 p.m. AIAA-2026-4511 Inspired by Metropolitan Transit: A Preliminary Generative Approach for Interchange-Centric UAM Networks X. Wang, H. Chen, G. Jiang, K. Low, Civil Aviation University of China, Tianjin, China	2:20 p.m. AIAA-2026-4512 Communication Channel Allocation for Advanced Air Mobility S. Ahn, E. Atkins, Virginia Polytechnic Institute and State University, Blacksburg, VA		
--	--	---	---	--	--

Wednesday, 10 June 2026

F360-08 1:30 - 3:00 p.m.	Advancing Airpower: Advancing and Operationalizing Collaborative Combat Aircraft (CCA)			Seaport Ballroom D-H	
The future of air dominance will be defined by how manned and unmanned platforms collaborate across domains. This technical session explores emerging Collaborative Combat Aircraft (CCA) concepts and their role in shaping next-generation air operations. Experts will discuss cutting-edge testing protocols, rapid experimentation frameworks, and integration pathways to bring CCA capabilities from design to deployment. Participants will gain insight into how CCAs will be operationalized within current and future force structures, ensuring mission resilience, combat adaptability, and enhanced decision speed in contested environments.					
Wednesday, 10 June 2026					
RLA-02 1:30 - 3:30 p.m.	Rising Leaders In Aerospace: Speed Mentoring			Harbor G	
Leaders in the aerospace industry will take time to meet with young professionals and students and share their experiences. This event is a great way to get insight and make new contacts. Mentees will meet with a new mentor every 8-10 minutes in a 4-5 mentee group to maximize participation and conversation.					
Wednesday, 10 June 2026					
FL-11 2:00 - 3:00 p.m.	100% Electric Cold-Jet Propulsion for Extended-Range (349 Miles) eVTOL and Large Multi-Mission Capable Drones			Solana Beach A/B	
The aviation industry is approaching a propulsion bottleneck: current ducted-fan and propeller-based electric systems cannot deliver the range, thrust, or efficiency required for next-generation high-performance aircraft. eJet Aerospace has introduced SMAPAD® (Articulated Mechatronics' Aerodynamic System for Propulsion and Aircraft Vertical Takeoff)—a 100% electric cold-jet propulsion system based on a patented aerodynamic principle known as the Aubourg Effect. The session will explore the scientific validation and CFD methodology underpinning cold-jet propulsion, pathways for FAA certification and dual-use deployment across civil (XAM) and defense (eTSA) applications, comparative performance and thrust-to-weight scalability vs conventional eVTOL propulsion, and workforce and policy implications for advancing the U.S. electric propulsion ecosystem.					
Wednesday, 10 June 2026					
NW-06 3:00 - 3:30 p.m.	Coffee Break			Grand Hall	
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Wednesday, 10 June 2026					
ACD-15	Aircraft Structural Design			Balboa A	
Chaired by: C. BIL, RMIT University					
3:30 p.m. AIAA-2026-4513 Bi-Level Optimization and Dimensionality Reduction of Ply Configurations in Composite Panels via Autoencoders A. Bhuwal, T. Liu, V. Toropov, Queen Mary University of London, London, United Kingdom	3:50 p.m. AIAA-2026-4514 Investigation of Different Structural Beam Model Boundary Formulations for Swept Wings M. Dagilis, M. Lendraitis, S. Kilikevičius, Kauno technologijos universitetas, Kaunas, Lithuania	4:10 p.m. AIAA-2026-4515 Optimizing Aircraft Wing Design Through Non-Conventional Structural Infill K. Deenadayalan, K. Murugan, S. Patel, Birla Institute of Technology and Science - Hyderabad Campus, Hyderabad, India			

Wednesday, 10 June 2026					
APA-27	Aerodynamic Flow Control: Analytical, Computational, and Experimental IV				Balboa B
Chaired by: S. YOO, NASA Armstrong Flight Research Center					
3:30 p.m. AIAA-2026-4517 Design Study of Injection Duct Spanwise Area Distribution for Co-Flow Jet Wings F. Ding, Y. Ren, G. Zha, University of Miami, Coral Gables, FL	3:50 p.m. AIAA-2026-4518 Onboard Electric Compressor System Design and Analysis for Active Flow Control Applications E. Tinga, A. Pisano, N. Mark, J. Bons, M. McCrink, The Ohio State University, Columbus, OH	4:10 p.m. AIAA-2026-4519 Numerical Study on Flapped Active Flow Control Airfoils for Simple-Hinged High Lift Systems J. Prabahar, G. Zha, University of Miami, Coral Gables, FL			
Wednesday, 10 June 2026					
APA-29	Applied Aeroelasticity and Fluid-Structure Interaction I				Balboa C
Chaired by: M. BRAVIN, Boeing Commercial Airplanes and A. ATTE, Texas A&M University					
3:30 p.m. AIAA-2026-4522 Combined Direct and Indirect Adaptive Wing Section Control With Parameter Convergence K. Lee, Catholic Kwandong University, Gangneung-si, South Korea; S. Singh, University of Nevada Las Vegas, Las Vegas, NV; S. Roy, Indraprastha Institute of Information Technology Delhi, New Delhi, India	3:50 p.m. AIAA-2026-4523 Fluid-Thermal-Structural Interactions Induced by an Asymmetric Shock-Wave/Boundary-Layer Interaction in a Mach-6 Compression Corner T. Duchene, A. Schöneich, S. Laurence, University of Maryland, College Park, MD; B. Bathel, J. Weisberger, G. Buck, NASA Langley Research Center, Hampton, VA; et al.	4:10 p.m. AIAA-2026-4524 Flutter Assessment of a Modified Gulfstream IV SP Using CFD-Based Reduced-Order Models S. Kodali, N. Falkiewicz, M. Jones, Massachusetts Institute of Technology Lincoln Laboratory, Lexington, MA	4:30 p.m. AIAA-2026-4525 Fluid-Structure Interaction Based Jig-Shape (FSBJ) for Transonic Wings W. Menezes, B. Oliveira, A. Verri, Embraer SA, Sao Jose dos Campos, Brazil; F. Bussamra, Instituto Tecnológico da Aeronautica, São José dos Campos, Brazil	4:50 p.m. AIAA-2026-4526 Transonic Flutter Prediction for a Benchmark Supercritical Wing at High Angles of Attack R. Kikuchi, Hokkaido Daigaku Kogakubu Daigakuin Kogakuin Kogaku Kenkyuin, Sapporo, Japan	5:10 p.m. AIAA-2026-4527 Effect of Varying Control Surface Deployment on Active Gust Load Alleviation of a High Aspect Ratio Wing M. Hillebrand, T. Lutz, Universität Stuttgart Fakultät 6 Luft- und Raumfahrttechnik und Geodäsie, Stuttgart, Germany
Wednesday, 10 June 2026					
APA-30/CFD2030-05	CFD 2030 Grand Challenge Workshop Scoping and Development				Harbor D
Chaired by: N. GEORGIADIS, NASA Glenn Research Center					
This panel will discuss a proposed CFD2030 Grand Challenge Workshop, bringing together multiple AIAA workshop communities in support of a CFD 2030 grand challenge. Panelists will be discussing the format and content of the workshop including a dialog with the audience. Panelists: Chad Winkler, The Boeing Company (PAW) Ben Rider, Boeing (DPW) Kevin Jacobson, NASA Langley (AePW) Adam Clark, Boeing (HLPW) Brent Pomeroy (DPW)					
Wednesday, 10 June 2026					
APA-31	Special Session: NATO AVT 387: Common Research Wind Tunnels for CFD Verification and Validation II				Gaslamp B

Chaired by: W. DEVENPORT, Virginia Tech and K. RICHTER, DLR - German Aerospace Center					
3:30 p.m. AIAA-2026-4528 Experimental Characterization of Flow Conditions in the Transonic Wind Tunnel Göttingen With Perforated Test-Section M. Bruse, H. Uhlemann, German-Dutch Wind Tunnels, Göttingen, Germany; M. Werner, S. Koch, H. Barth, K. Richter, German Aerospace Center, Göttingen, Germany	3:50 p.m. AIAA-2026-4529 Numerical Simulation of Flows in the Transonic Wind Tunnel Göttingen With Perforated Test-Section M. Werner, Deutsches Zentrum für Luft- und Raumfahrt DLR, Goettingen, Germany; S. Melber-Wilkending, K. Richter, Deutsches Zentrum für Luft- und Raumfahrt DLR Standort Braunschweig, Brunswick, Germany; M. Bruse, German-Dutch Wind Tunnels DNW, Goettingen, Germany; A. Elmiligui, NASA Langley Research Center, Hampton, VA; A. Katırcı, Roketsan Roket Sanayii ve Ticaret AS, Ankara, Turkey; et al.	4:10 p.m. AIAA-2026-4530 Experimental Characterization of Flow Conditions in the William B. Morgan Large Cavitation Channel (LCC) Water Tunnel M. Otero, W. Flores, M. Jemison, Naval Surface Warfare Center Carderock Division, West Bethesda, MD	4:30 p.m. "Numerical Simulation of Flow Conditions in a Water Tunnel at the William B. Morgan Large Cavitation Channel (LCC)"		
Wednesday, 10 June 2026					
ASE-08	Iced Aerodynamics and Ice Shape Characterization				Cortez Hill B
Chaired by: A. BROEREN, NASA Glenn Research Center and M. NEUTEBOOM					
3:30 p.m. AIAA-2026-4532 Roughness and Scallop Analyses of the IPW2 CRM65 Midspan Hybrid Model Extra Cases S. McClain, Baylor University, Waco, TX; T. Ozoroski, NASA Glenn Research Center, Cleveland, OH	3:50 p.m. AIAA-2026-4533 Experimental Investigation of Intermittency in Transitional Boundary Layers Affected by Large Leading-Edge Roughness M. Picciolo, E. Radenac, ONERA Toulouse, Toulouse, France; M. Gallia, Technische Universität Braunschweig, Brunswick, Germany; M. Forte, ONERA Toulouse, Toulouse, France	4:10 p.m. AIAA-2026-4534 Geometrical Comparison and Characterization of 2D and 3D Ice Shapes A. Donizetti, Politecnico di Milano, Milan, Italy; W. Breiffuss, A. Ramos Vieira, AeroTex GmbH, Vienna, Austria; I. Savoldi, A. Guardone, Politecnico di Milano, Milan, Italy			
Wednesday, 10 June 2026					
ATS-09	Integration of AAM/UAM/UAS in the NAS III				Harbor C
Chaired by: J. KIM, Sejong University					
3:30 p.m. AIAA-2026-4535	3:50 p.m. AIAA-2026-4536	4:10 p.m. AIAA-2026-4537	4:30 p.m. AIAA-2026-4538		

Probabilistic Risk Modeling for Urban Air Mobility (UAM) Vertiport Operations With Non-Cooperative Airspace Users S. Oh, Hanseo University, Seosan-si, South Korea; H. Yoon, T. Yun, Hanwha Systems Co Ltd, Jung-gu, South Korea; S. Lee, Y. Jang, J. Kim, Sejong University, Gwangjin-gu, South Korea; et al.	Towards the Development of Advanced Air Mobility High-Resolution Weather Requirements M. McPartland, G. Enea, T. Bonin, B. Dubree, C. Engholm, Massachusetts Institute of Technology, Cambridge, MA; J. Cohen, SkyGrid, Austin, TX; et al.	Field Evaluation of Multi-Object Tracking and Classification Algorithms for High-Density BVLOS UAS Operations O. Ajeigbe, C. Zhu, S. Roy, Texas A&M University, College Station, TX	Flight Test Design for Real-Time UAS Traffic Management Services Evaluation S. Roy, O. Ajeigbe, C. Zhu, Texas A&M University, College Station, TX; J. Ancheta, J. Williams, M. Westhoff, Alaska Center for UAS Integration, Fairbanks, AK; et al.		
---	---	--	--	--	--

Wednesday, 10 June 2026

EPATS-06	AACES 2050 Summary II	Coronado A
----------	-----------------------	------------

Chaired by: P. VASCIK and V. SCHULTZ, Revolutionary Aerospace LLC

3:30 p.m. Invited Oral Presentation: Robust Approach to Engine Cycle Modeling to Enable Multidisciplinary Optimization of Advanced Aircraft	3:50 p.m. AIAA-2026-4539 Battery Modeling To Enable Gradient-Based Optimization of Electrified Aircraft Mission and Design A. Sebastian, S. Kaneko, University of Michigan, Ann Arbor, MI; H. Hajdik, A. Uranga, Electra.aero, Manassas, VA; J. Martins, V. Viswanathan, University of Michigan, Ann Arbor, MI	4:10 p.m. AIAA-2026-4540 Thermal Management System Modeling and Architectures for Conceptual Design of Electrified Aircraft M. Arnson, G. Cinar, University of Michigan, Ann Arbor, MI; A. Uranga, Electra.aero, Manassas, VA	4:30 p.m. AIAA-2026-4541 Acoustic Modeling Within Multidisciplinary Design and Optimization of Novel Transport Aircraft H. Hassanandani, M. Mott, University of California Irvine, Irvine, CA; A. Lopez Cotrina, University of Michigan, Ann Arbor, MI; S. Yeung, University of California Irvine, Irvine, CA; A. Uranga, Electra.aero, Manassas, VA; J. Huynh, University of California Irvine, Irvine, CA	4:50 p.m. AIAA-2026-4542 Incorporating Contrail Avoidance in Aircraft Design and Optimization A. Shukla, P. Prakash, P. Ranjan, R. Speth, Massachusetts Institute of Technology, Cambridge, MA	
--	---	--	--	---	--

Wednesday, 10 June 2026

EPATS-07	Design, Diagnostics and Reliability of Insulation Systems	Coronado E
----------	---	------------

Chaired by: G. MONTANARI

The session would finally open to a fundamental topic: how to design a reliable insulation system in aviation and aerospace which satisfies specification life and reliability. further, how to evaluate, through diagnostics, the health condition in order to prompt CBM strategies. Participants: Gian Carlo Montanari, Research Faculty, Florida State University Parag Kshirsagar, Discipline Lead, Assoc. Director, RTX Vyacheslav Khozikov, Associate Technical Fellow, Boeing Maricela Liscano, Research Materials Engineer, NASA

Wednesday, 10 June 2026

EPATS-08	Technology Demonstration of a MW-Class Electrical Machine for Turbo-Electric Propulsion	Coronado D
----------	---	------------

Chaired by: S. PATNAIK, Air Force Research Laboratory

3:30 p.m. AIAA-2026-4543 Performance Assessment of a 1 MW Air-Cooled Electrical Machine Demonstrator for Turbo-Electric Propulsion Z. Spakovszky, E. Constant, H. Kakudo, W. Nolan, D. Otten, E. Greitzer, Massachusetts Institute of Technology, Cambridge, MA; et al.	3:50 p.m. AIAA-2026-4544 Mechanical Design, Manufacturing, and Rotordynamic Validation of a 1 MW Electrical Machine Demonstrator H. Kakudo, E. Constant, Z. Spakovszky, E. Greitzer, Massachusetts Institute of Technology, Cambridge, MA; M. Amato, Innova Logic, Saunderstown, RI	4:10 p.m. AIAA-2026-4545 Thermal Performance Assessment of an All-Air-Cooled 1 MW Electric Machine for Turboelectric Propulsion E. Constant, H. Kakudo, Z. Spakovszky, E. Greitzer, Massachusetts Institute of Technology, Cambridge, MA; M. Amato, Innova Logic, Saunderstown, RI	4:30 p.m. AIAA-2026-4546 Power Electronics and Drive System Development for a 1 MW Air-Cooled Electrical Machine W. Nolan, D. Otten, J. Lang, D. Perreault, Z. Spakovszky, Massachusetts Institute of Technology, Cambridge, MA		
--	--	---	--	--	--

Wednesday, 10 June 2026

F360-09 3:30 - 5:00 p.m.	Certification Readiness for Sustainable Aviation: Challenges and Paths to Acceleration	Seaport Ballroom D-H
-----------------------------	--	----------------------

The drive toward sustainable aviation depends on the rapid progress in new technologies, yet certification remains one of the most significant obstacles to timely deployment. Emerging propulsion systems, alternative energy sources, and unconventional aircraft architectures do not fit naturally within today's regulatory framework. Many companies and start-ups developing sustainable aviation solutions have already encountered delays as they face unfamiliar failure modes, limited certification precedents, and a regulatory landscape that has not fully adapted to these innovations. The urgency of global climate goals creates pressure to bring these technologies to market without compromising safety. Experts from certification offices, industry, start-ups, investors, and policy will discuss the current state of certification readiness for sustainable aviation and identify ways to accelerate the certification process, while looking at challenges, lessons learned, and emerging strategies needed to support the faster and safer certification of next-generation technologies.

Wednesday, 10 June 2026

FD-30	CFD Methods for Supersonic and Hypersonic Flows	Hillcrest A
-------	---	-------------

Chaired by: J. NEEDELS, Sandia National Laboratories

3:30 p.m. AIAA-2026-4547 Numerical Investigation of the Shock Buffet Phenomenon for the ONERA OAT15A Airfoil Using Wall-Modeled Large Eddy Simulations Y. Feldner, M. Adam, A. Beck, Universität Stuttgart Fakultät 6 Luft- und Raumfahrttechnik und Geodäsie, Stuttgart, Germany	3:50 p.m. AIAA-2026-4548 Benchmarking of Finite Element and Finite Volume Solvers for Nonequilibrium Turbulent Flow at Mach 11 C. Morency, N. Campbell, I. Boyd, K. Jansen, University of Colorado Boulder, Boulder, CO	4:10 p.m. AIAA-2026-4549 High-Fidelity Simulation of Turbulent Transition on a Hypersonic Fin Cone A. Thombs, Texas A&M University, College Station, TX; B. Morreale, Lawrence Livermore National Laboratory, Livermore, CA; K. Grosse, The Charles Stark Draper Laboratory Inc, Cambridge, MA; R. Bowersox, Texas A&M University, College Station, TX	4:30 p.m. AIAA-2026-4550 Validation of the Flow Solver CODA for Viscous and Inviscid Supersonic Flows M. Konopka, ArianeGroup GmbH, Bremen, Germany; C. Amato, Deutsches Zentrum für Luft- und Raumfahrt DLR, Göttingen, Germany		
--	--	---	---	--	--

Wednesday, 10 June 2026

FD-31	Low-Reynolds-Number and Bio-Inspired Flows	Gaslamp C
-------	--	-----------

Chaired by: C. TINNEY, University of Mississippi

3:30 p.m. AIAA-2026-4551 Compressibility Effects on Dynamic Stall for Pitching NACA0012 Airfoil at Low Reynolds Number K. Lopez Lopez , S. Haramura Bastos, M. Hoque, A. Gross, New Mexico State University, Las Cruces, NM	3:50 p.m. AIAA-2026-4552 Wall-Resolved LES and Wind Tunnel Experiment of Flow Over NACA 4-Digit Airfoils at Re=10,000 Y. Sato, T. Nagata, T. Uchida, T. Nonomura, Nagoya Daigaku Kogakubu Daigakuin Kogaku Kenkyuka, Nagoya, Japan	4:10 p.m. AIAA-2026-4553 Effects of Pitching Parameters on the Unsteady Aerodynamics of a NACA 0012 at Low Reynolds Number G. Lim, H. Kurahashi, M. Okawa, T. Ikami, H. Nagai, Tohoku Daigaku Ryutai Kagaku Kenkyujo, Sendai, Japan	4:30 p.m. AIAA-2026-4554 Avian Gust Response Studies for Future Flight Concepts C. Proe, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom; L. France, Oxford University Department of Zoology, Oxford, United Kingdom; A. Finnemore, M. Lobb, J. Modzynski, E. Shepard, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom; et al.	4:50 p.m. AIAA-2026-4555 Experimental Study of Dynamic Stall of Porous Avian-Inspired Airfoils F. Jackson, University of California Davis, Davis, CA; J. Hrynuik, US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, Aberdeen Proving Ground, MD; C. Harvey, University of California Davis, Davis, CA	
--	---	--	---	--	--

Wednesday, 10 June 2026

FD-32	Turbulence Modeling and Applications	Hillcrest B
-------	--------------------------------------	-------------

Chaired by: S. PAN, Rensselaer Polytechnic Institute

3:30 p.m. AIAA-2026-4556 Numerical Model Validation of Turbulent Airspace in Urban Environments for UAM Operation S. Sen, L. Kliment, Wichita State University, Wichita, KS; N. Sathyanarayana, Wichita State University National Institute for Aviation Research, Wichita, KS	3:50 p.m. AIAA-2026-4557 Reynolds-Averaged Navier-Stokes Modeling of Compressible Turbulent Flow on Corrugated Surfaces B. Boda, S. GS, Iowa State University of Science and Technology College of Engineering, Ames, IA	4:10 p.m. AIAA-2026-4558 Assessment of Shear Stress Transport Turbulence Model Variants in Hypersonic Separated Flows S. Kinney, I. Boyd, J. Evans, University of Colorado Boulder, Boulder, CO	4:30 p.m. AIAA-2026-4559 The Development of a Two-Scale RANS Turbulence Model and Its Assessment on Airfoils Under High Free-Stream Turbulence S. Coroama, J. Vaquero, N. Renard, Office National d'Etudes et de Recherches Aerospatiales, Meudon, France; F. Chedevergne, Office National d'Etudes et de Recherches Aerospatiales, Toulouse, France	4:50 p.m. AIAA-2026-4774 Field Inversion-Enhanced Simulation of Tornado-Like Vortices H. Blumhoefer, A. Sharma, Iowa State University of Science and Technology, Ames, IA	
---	---	--	---	--	--

Wednesday, 10 June 2026

FL-12 3:30 - 5:00 p.m.	Hybrid-Electric Propulsion - The Way Forward	Solana Beach A/B
---------------------------	--	------------------

In the last two years, the AAM market has swung its focus strongly to hybrid-electric propulsion. Battery-electric solutions will work for very short-range missions, but enabling longer mission range and endurance, while meeting critical energy reserve requirements, will require hybrid-electric solutions. How big can these systems get, and will they ever have an impact on the single-aisle airliner market? What are the current certification paths for these systems and what needs to change to make certification of hybrid powerplants easier? Why hybrid-electric (powered mostly by jet fuel) and not hydrogen fuel cells? What about hydrogen combustion? For CTOL applications, can hybrid-electric solutions truly impact efficiency? Moderator: Gonzalo Ramos Panelists: Eric Bartsch, CEO, VerdeGo Aero Kevin Noertker,

Co-founder & CEO, Ampaire Ram Ranjan, Director, Advanced Tech Programs, Collins Aerospace Chris Harris, Propulsion R&D Program Manager, Research and Advanced Design, Northrop Grumman

Wednesday, 10 June 2026

GT-10	Invited Session: Flight Systems RDT&E Risk Management Sufficiency	Ocean Beach
-------	---	-------------

Chaired by: S. DUNN, Amentum Technology, Inc. and P. GOULDING, NASA Ames Research Center and J. MONDRAGON

3:30 p.m. AIAA-2026-4560 Flight Systems RDT&E Risk Management Sufficiency I: An Approach to Improve System Anomaly Management Prior to Full-Scale Flight Testing S. Dunn, Amentum Technology, Inc., Hampton, VA; P. Goulding, Beyond New Horizons LLC, Moffett Field, CA; J. Mondragon, Amentum Technology, Inc., Hampton, VA	3:50 p.m. 4461299 Flight Systems RDT&E Risk Management Sufficiency II: An Approach to Improve System Safety (Anomaly Management) Prior to Full-Scale Flight Testing S. Dunn, Amentum Technology, Inc., Hampton, VA; P. Goulding, Beyond New Horizons LLC, Moffett Field, CA; J. Mondragon, Amentum Technology, Inc., Hampton, VA	4:10 p.m. Panel and Audience Discussion			
--	---	--	--	--	--

Wednesday, 10 June 2026

H2AERO-06	Hydrogen Aerospace Studies	Mission Beach A/B
-----------	----------------------------	-------------------

Chair: Jesse Schneider, ZEV Station Liquid Hydrogen Fueling Coupling for Land/Air/ Sea Gerhard Kopplin, Technical Director, Manntek Hydrogen Airport Standardization with SAE & EUROCAE Jesse Schneider, CEO/CTO ZEV Station (Chair SAE AE-5H) Advances in Carbon Fiber LH2 Storage Paul Gloyer, President, Gloyer-Taylor Laboratories (GTL) LH2 Aircraft Fueling Development Archie West, LH2 Management Systems Engineer, ZeroAvia LH2 Fueling & Validation in conjunction with SAE AIR8546 Albert Gil Esmendia, National FC Research Center, UC Irvine Making the Standard Liquid Hydrogen for Aerospace Moderator: Jesse Schneider, ZEV Station

Wednesday, 10 June 2026

HSABP-06	Advanced Diagnostics in Ground Testing	Harbor A
----------	--	----------

Chaired by: T. MCMANUS, North Wind

3:30 p.m. AIAA-2026-4561 Development of a Modular Test Section for Transonic Investigations of Trailing Edge Wake Flows A. Dietz, A. D'Aguanno, S. Lavagnoli, Von Karman Institute For Fluid Dynamics, Sint-Genesius-Rode, Belgium	3:50 p.m. AIAA-2026-4562 Hypersonic Flow Characterization in the BT-1 Hypersonic Shock Tunnel F. da Costa, A. Prestes, Universidade do Vale do Paraiba, Sao Jose dos Campos, Brazil; G. da Costa, A. Brito, P. de Souza Jr, Instituto Tecnológico de Aeronautica, Sao Jose dos	4:10 p.m. AIAA-2026-4563 Development of an Automated Hot-Fire Control System for an Optically Clear PMMA/GOx Hybrid Rocket Motor T. Person, E. Mikhail, W. Roden, O. Nazempour, W. Refling, J. Estevadeordal,			
---	---	--	--	--	--

	Campos, Brazil; A. Nakazato, BRENG Engineering and Technology, Sao Jose dos Campos, Brazil; et al.	North Dakota State University, Fargo, ND			
Wednesday, 10 June 2026					
IS-04	Trusted Autonomy and Human-Automation Systems				La Jolla A
Chaired by: H. MONCAYO, Embry-Riddle Aeronautical University					
3:30 p.m. AIAA-2026-4564 Flight-Envelope Informed Control Barrier Function Constraints for Safety-Critical Pilot-in-the-Loop NASA GUAM VTOL M. Budihartono, E. Martinez, H. Moncayo, F. Bustamante, J. Clardy, Embry-Riddle Aeronautical University, Daytona Beach, FL	3:50 p.m. AIAA-2026-4565 Experimental Evaluation of a Plan and Goal Recognition Based Assistance System in Tactical Helicopter Operations D. Künzel, A. Schulte, University of the Bundeswehr Munich, Neubiberg, Germany	4:10 p.m. AIAA-2026-4566 Investigating Feature Detection Integrity Metrics for Use in Visual Odometry M. Variny, J. Wilhelm, Ohio University, Athens, OH	4:30 p.m. AIAA-2026-4567 LMPC-Based Path Following for Low-Level Helicopter Flight With High-Fidelity Simulator Evaluation V. Wuwer, M. Gerdt, A. Schulte, University of the Bundeswehr Munich, Neubiberg, Germany	4:50 p.m. AIAA-2026-4568 Addressing Logical Safety Constraints in an Exact, Continuous Way: A Differentiable Convex Programming Approach A. Chriat, Mississippi State University, Mississippi State University, MS; C. Sun, Villanova University, Villanova, PA	5:10 p.m. AIAA-2026-4379 Heterogeneous Graph Neural Networks for Fault Propagation and Isolation in Aerospace Systems S. Meda Sheshadri, Georgia Institute of Technology, Atlanta, GA; A. Martinez Martinez, JetZero Inc, Long Beach, CA; D. Mavris, Georgia Institute of Technology, Atlanta, GA
Wednesday, 10 June 2026					
MDO-11	Emerging Methods, Algorithms, and Software Development in MDO II				Cortez Hill A
Chaired by: R. LIEM, Imperial College London - Access Management					
3:30 p.m. AIAA-2026-4569 Surface Mesh Deformation for Large-Scale Multidisciplinary Design Optimization of Aircraft Concepts M. Ruh, J. Hwang, University of California San Diego, La Jolla, CA	3:50 p.m. AIAA-2026-4570 Local Failure Domain Approximation for the Stochastic Optimization of Random Vibration Problems L. Ballesteros Martínez, S. Missoum, The University of Arizona, Tucson, AZ	4:10 p.m. AIAA-2026-4571 Adaptive Multi-Fidelity Machine Learning for Nonlinear Structural Buckling in Aerospace Vehicles S. Salupo, H. Bae, Wright State University, Dayton, OH; M. Thapa, Clarkson University, Potsdam, NY; S. Mulani, The University of Alabama, Tuscaloosa, AL; R. Grandhi, Air Force Institute of Technology, Wright-Patterson Air Force Base, OH	4:30 p.m. AIAA-2026-4572 Machine Learning Assisted Topology Optimization of Fluid-Thermal-Structural Systems W. Bello, A. Sharma, U. Bansal, K. James, Georgia Institute of Technology, Atlanta, GA	4:50 p.m. AIAA-2026-4573 Faster Thermal Profiling of a Lunar Rover With Machine Learning Adapted Finite Difference Model S. Weber, University at Buffalo, Buffalo, NY; Z. Hasnain, Zij Sciences, Ashburn, VA; S. Chowdhury, University at Buffalo, Buffalo, NY	5:10 p.m. AIAA-2026-4574 Transformer-Guided Deep Reinforcement Learning for Optimal Takeoff Trajectory Design of an eVTOL Drone N. Roberts, X. Du, Missouri University of Science and Technology, Rolla, MO
Wednesday, 10 June 2026					
TP-10	Latest Ice Accretion Research at the University of Florida				Harbor B
Chaired by: D. PYTEL, Retired					

Dr. SA Sherif Professor of Mechanical and Aerospace Engineering University of Florida This presentation will cover on-going research on aircraft icing at the University of Florida. This includes investigating the role of atmospheric turbulence on cloud droplet distribution and droplet impact on aircraft wings, developing new models for computing the droplet collection efficiency, developing a rigorous framework for an improved Messinger/Myers model of ice accretion under conditions of variable properties and unsteady aircraft icing, and developing models that capture the transition from rime ice to glaze ice. Validated results will be presented in each of the topics discussed.

Wednesday, 10 June 2026

UAS-09	Novel Concepts and Applications for Uncrewed/Autonomous Systems II	Torrey Hills A
--------	--	----------------

Chaired by: D. DOUGHERTY, Northrop Grumman Aeronautics Systems

3:30 p.m. AIAA-2026-4577 SAVIOR: A Posture-Aware Aerial Triage System for Edge-Deployed UAS Emergency Response R. Arteaga, Top Gun Drones, Lancaster, CA	3:50 p.m. AIAA-2026-4578 A Preliminary Framework for Maritime Operations Risk Assessment (MORA) of Low-Altitude Logistics UAVs G. Jiang, X. Wang, Z. Chen, X. Wang, K. Low, Civil Aviation University of China, Tianjin, China	4:10 p.m. AIAA-2026-4579 Design and Prototyping of a Novel Shape-Morphing Quadcopter Drone With Integrated Robotic Gripper A. Mishra, Indian Institute of Technology Kanpur Department of Design, Kanpur, India; P. Kumar, N. Tiwari, Indian Institute of Technology Kanpur, Kanpur, India	4:30 p.m. AIAA-2026-4580 Influence of Wing Design on Fixed Wing UAV Deep Stall Landings H. Ramirez Zeigler, A. Avery, Oklahoma State University, Stillwater, OK		
---	---	---	--	--	--

Wednesday, 10 June 2026

EPATS-04	AAM Logistics and Reality	Coronado E
----------	---------------------------	------------

Chaired by: R. APPARICIO, ricardo@belairmachine.com

Approach to the aftermarket evolution, maintenance and a deep look into the proposal of a mass transportation vs reality of traffic and logistics

Thursday

Thursday, 11 June 2026

HUB-19 9:15 - 9:45 a.m.	Aurora Flight Sciences / Boeing AACES commercial aircraft concepts for 2050.	The HUB
----------------------------	--	---------

NASA's Advanced Aircraft Concepts for Environmental Sustainability (AACES) 2050 contract predicted future scenarios, prioritized technologies, and conceptualized commercial airplanes for 2050. This presentation will briefly summarize the airplanes that were examined by the Aurora / Boeing team, and show their relative performance. Presented by: Aaron Kutzmann, NASA AACES Aurora Chief Engineer, Associate Technical Fellow – Integrated Vehicle Systems

Thursday, 11 June 2026

HUB-20 11:45 a.m. - 12:15 p.m.	San Diego State University AIAA Design/Build/Fly Team Presentation	The HUB
-----------------------------------	--	---------

Join the 2026 San Diego State University AIAA Design/Build/Fly team as they present an overview of their aircraft design project and competition experience. The session will highlight key engineering decisions, challenges, and lessons learned throughout the design, build, and testing process. Presented by: Carla Leon, Team Lead

Thursday, 11 June 2026		
HUB-21 10:15 - 10:45 a.m.	Meet AFid: Plugging machine vision into mesh generation	The HUB
Every CFD engineer knows the frustration of slow, inconsistent mesh generation, where two engineers running the same simulation can end up with different results. Now there's a solution. AFid is a machine vision plug-in that automates feature recognition and mesh spacing with zero training datasets. Validated on a Boeing 737 study, it reduces hours of manual clicking to seconds, delivering a 720x execution speedup while building a fully traceable digital audit trail. Come and hear how it solves a common engineering problem - and fits straight into existing workflows. Presented by: "Lee Sanders; Founder; Fluid Dynamic Sciences LLC Max Kopacz; Lead Developer; Fluid Dynamic Sciences LLC		
Thursday, 11 June 2026		
HUB-22 10:45 - 11:15 a.m.	University of California, Los Angeles AIAA Design/Build/Fly Team Presentation	The HUB
Join the 2026 University of California, Los Angeles AIAA Design/Build/Fly team as they present an overview of their aircraft design project and competition experience. The session will highlight key engineering decisions, challenges, and lessons learned throughout the design, build, and testing process. Presented by: Petr Tupitsyn - Chief Engineer; Kelsey Dignan - Outgoing Project Manager; Aayush Sehgal - Incoming Vice Project Manager		
Thursday, 11 June 2026		
HUB-23 11:15 - 11:45 a.m.	University of Southern California AIAA Design/Build/Fly Team Presentation	The HUB
Join the 2026 University of Southern California AIAA Design/Build/Fly team as they present an overview of their aircraft design project and competition experience. The session will highlight key engineering decisions, challenges, and lessons learned throughout the design, build, and testing process. Presented by: Yuya Sugo, Chief Engineer (Vice President) Kathleen Flynn, Project Manager (President)		
Thursday, 11 June 2026		
HUB-25 12:15 - 12:45 p.m.	Paper Airplane Competition	The HUB
Join attendees of all ages to see who can fold and fly the best paper airplane.		
Thursday, 11 June 2026		
EPATS-00 5:30 - 7:00 p.m.	EPATS & EATTC Reception	Coronado Foyer/Terrace
Join us for an evening mixing with fellow attendees and prominent speakers. This is the perfect opportunity to network, share insights, and maintain the momentum of this unique week.		
Thursday, 11 June 2026		
SP-04 7:30 - 8:00 a.m.	Technical Papers Session Prep	Session Rooms
Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute prep 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).		
Thursday, 11 June 2026		

PLNRY-04 8:00 - 9:00 a.m.	The Supersonic Renaissance: Breaking the Sound Barrier and Restoring Supersonic Passenger Flight				Seaport Ballroom D-H
Blake Scholl shares the behind-the-scenes story of building the first independently developed supersonic jet, solving sonic boom, and the path toward bringing back supersonic passenger flight.					
Thursday, 11 June 2026					
EXPO 8:45 a.m. - 2:00 p.m.	Expo Hall				Grand Hall
Join exhibitors, colleagues and future friends in the Expo Hall to learn about amazing new technologies and make career changing connections. Open to all registrants.					
Thursday, 11 June 2026					
NW-07 8:45 - 9:30 a.m.	Coffee Break				Grand Hall
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Thursday, 11 June 2026					
ACD-16/HIS-03	Flight Test Lessons Learned II				Balboa A
Chaired by: G. FOGEL, Natural Selection, Inc. and T. TAKAHASHI, Arizona State University					
9:30 a.m. AIAA-2026-4581 High-Speed Aircraft Controllability Due to High-Altitude Atmospheric Turbulence – A History J. Nugent, Embry-Riddle Aeronautical University Worldwide and Online, Prescott, AZ; T. Takahashi, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ	9:50 a.m. AIAA-2026-4582 The Origin of Radio-Controlled Soaring in the United States G. Fogel, San Diego State University, San Diego, CA	10:10 a.m. AIAA-2026-4583 Exploring the High-Speed Controllability Limits of the Bell X-1E B. Bryan, T. Takahashi, Arizona State University Ira A Fulton Schools of Engineering, Tempe, AZ	10:30 a.m. AIAA-2026-4584 A Mission-Focused Flight-Simulation Workflow: Towards the GoAERO Competition Fly-Off A. Adkar, M. Palamarchuk, E. Johnson, R. Axten, The Pennsylvania State University, University Park, PA	10:50 a.m. AIAA-2026-4585 Development of a High-Payload Electric Vertical Takeoff and Landing Multirotor for the GoAERO Competition X. You, V. Cattaneo, S. Yanagisawa, S. Larson, M. Lee, R. Kurup, Purdue University College of Engineering, West Lafayette, IN; et al.	
Thursday, 11 June 2026					
APA-32	Aerodynamic Design: Application II				Gaslamp A
Chaired by: H. PEHLIVAN SOLAK, Imperial College London and N. HARRISON, Boeing Research & Technology					
9:30 a.m. AIAA-2026-4586 Numerical Study of FishBAC Morphing Wing for Enhanced Aerodynamic Performance	9:50 a.m. AIAA-2026-4587 Aerodynamic Optimization of Lift-Offset Coaxial Rotor Blades for High-Speed Forward Flight	10:10 a.m. AIAA-2026-4588 Flight Dynamics of Boomerangs: Impact of Center of Mass Z. Wang, P. Manchala, V. Talla, P. Gudem, University of	10:30 a.m. AIAA-2026-4589 Passive Flow Control With Turbulators on the ROAMX-0201 Airfoil at Low Reynolds Numbers	10:50 a.m. AIAA-2026-4590 Numerical Study and Experimental Comparison of a NACA0020 Airfoil at Low Reynolds Number Regime	

A. Sinha, J. Yuan, University of Southampton, Southampton, United Kingdom	Y. Lim, S. Lee, Y. Jung, Pusan National University, Geumjeong-gu, South Korea	California San Diego, La Jolla, CA	D. Guo, The Bishop's School, La Jolla, CA	J. Pansiera, R. Orselli, Universidade Federal do ABC, Santo André, Brazil; A. de Paula, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; K. Burr, Universidade Federal do ABC, Santo André, Brazil	
---	---	------------------------------------	---	--	--

Thursday, 11 June 2026

APA-34/GT-11	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing I	Gaslamp C
--------------	--	-----------

Chaired by: R. DETERS, Embry-Riddle Aeronautical University and M. LYNCH, Amentum

9:30 a.m. AIAA-2026-4591 The Evolution of Instrumentations in High-Speed Wind Tunnel Experiments for Thermal-Structure Interaction Measurements in Aerospace Application P. Li, G. Wild, University of New South Wales, Canberra, Australia	9:50 a.m. AIAA-2026-4592 Hypersonic Aerodynamic Stability Study of a KRUPS Re-Entry Vehicle A. O'Neal, University of Colorado Boulder College of Engineering and Applied Science, Boulder, CO; R. de Silva, University of Maryland, College Park, MD; A. Martin, University of Kentucky Stanley and Karen Pigman College of Engineering, Lexington, KY; S. Laurence, University of Maryland, College Park, MD	10:10 a.m. AIAA-2026-4593 On the Validity of Applying a Conventional Wedge Probe to Transonic Vortical Flows J. Storr, D. Kozulovic, M. Bitter, Universität der Bundeswehr München Fakultät für Luft- und Raumfahrttechnik, Neubiberg, Germany	10:30 a.m. AIAA-2026-4595 On the Influence of Leading-Edge Geometry for Moving Surface Boundary Layer Control System J. Modrzynski, M. Lobb, A. Finnemore, C. Proe, A. Celik, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom		
--	--	---	---	--	--

Thursday, 11 June 2026

APA-35	Aero-Propulsive Interactions and Aerodynamics of Integrated Propeller Systems I	Balboa B
--------	---	----------

Chaired by: W. HINMAN, University of Calgary

9:30 a.m. AIAA-2026-4596 Experimental Study of Discrete Gust Interaction With a Single and Side-by-Side Propeller A. Finnemore, M. Lobb, J. Modrzynski, C. Proe, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom; M. Westin, Embraer SA, Sao Jose dos Campos, Brazil; A. Celik, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom	9:50 a.m. AIAA-2026-4597 An Experimental Dataset of Mid-Small Scale Propeller Aerodynamic and Acoustic Characteristics S. Rosenbaum, D. DeTurris, N. Hiremath, California Polytechnic State University, San Luis Obispo, CA	10:10 a.m. AIAA-2026-4598 Mid-Fidelity Aerodynamic Optimization of a Distributed Electric Propulsion Wing Model for Wind Tunnel Testing M. Meroli, V. Cavallieri, L. Das, A. Cocco, Politecnico di Milano, Milan, Italy; S. Mancini, Airbus Defence and Space GmbH Friedrichshafen, Friedrichshafen, Germany; A. De Gaspari, Politecnico di Milano, Milan, Italy; et al.	10:30 a.m. AIAA-2026-4599 Actuator Line Model Considering Swept Blades and Transonic Flow for Open Rotor Engine Analysis H. Fujiwara, K. Tashima, Y. Tamaki, T. Imamura, Tokyo Daigaku, Bunkyo, Japan	10:50 a.m. AIAA-2026-4600 Aerodynamic Performance of Various Strut-Braced Wing Designs for Distributed Electric Propulsion Configurations in Forward Flights F. Han, University of Bristol, Bristol, United Kingdom; Z. Ciera, University of Strathclyde, Glasgow, United Kingdom; B. Turhan, University of Bristol, Bristol, United Kingdom; M. Fossati, University of Strathclyde, Glasgow, United Kingdom; D.	
--	--	---	--	---	--

				Rezgui, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom	
Thursday, 11 June 2026					
APA-37	Propeller/Rotorcraft/Wind Turbine Aerodynamics II				Balboa C
Chaired by: H. BEN-GIDA, Technion - Israel Institute of Technology					
9:30 a.m. AIAA-2026-4601 Experimental and Computational Investigation of Aerial Screw Aerodynamics and Acoustics S. Desai, R. Berlin, C. Cotoia, K. Marepally, C. Johnson, J. Baeder, University of Maryland, College Park, MD	9:50 a.m. AIAA-2026-4602 Experimental Evaluation of Forward Flight Performance for a Stacked Rotor in Trimmed Conditions P. Magier, Universite de Sherbrooke Faculte de Genie, Sherbrooke, Canada; M. Dghim, University of Pittsburgh Johnstown, Johnstown, PA; H. Fellouah, Universite de Sherbrooke Faculte de Genie, Sherbrooke, Canada	10:10 a.m. AIAA-2026-4603 Rotary-Wing Optimization for Martian VTOL UAS W. Han, M. Carreno Ruiz, D. D'Ambrosio, Politecnico di Torino, Turin, Italy	10:30 a.m. AIAA-2026-4604 Experimental Investigation on Aeroacoustic and Wake Flow Characteristics of Toroidal Propellers for Hybrid UAV Propulsion K. Bowers, Iowa State University of Science and Technology, Ames, IA; S. Rovani, Clarkson University, Potsdam, NY; A. Samad, American University of Bahrain, Riffa, Bahrain; J. Hrynuik, US Army Combat Capabilities Development Command, Aberdeen Proving Ground, MD; H. Hu, Iowa State University of Science and Technology, Ames, IA	10:50 a.m. AIAA-2026-4605 Hover Predictions on Various Rotor Designs Using Viscous Surface- Vorticity Compressible- Flow Panel Method S. Shahjahan, V. Ahuja, Siemens Digital Industries Software Inc, Plano, TX	11:10 a.m. AIAA-2026-4606 Analysis of Horizontal Axis Wind Turbine Using a Surface-Vorticity Panel Method Flow Solver U. Rauf, Auburn University, Auburn, AL; V. Ahuja, Altair Engineering Inc, Troy, MI; R. Hartfield, A. Ahmed, Auburn University, Auburn, AL
Thursday, 11 June 2026					
APA-38	Reduced Order Aerodynamics Modeling and System Identification				Gaslamp B
Chaired by: A. VOEGELE, The Aerospace Corporation and A. HELETKANYCZ					
9:30 a.m. AIAA-2026-4607 Contour-Based Sampling Methods in High- Dimensional Space P. Hawkins, K. Quinlan, Lawrence Livermore National Laboratory, Livermore, CA; B. Burchett, US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, Aberdeen Proving Ground, MD; J. Acton, B. Perfect, S. Movva, Lawrence Livermore National Laboratory, Livermore, CA	9:50 a.m. AIAA-2026-4608 Data-Driven 6DoF Aerodynamic Modeling of the T-38 Using CFD- Based Kriging and Neural Network Surrogates M. Ghoreyshi, J. Seidel, US Air Force Academy, Air Force Academy, CO; D. Masegur, A. Da Ronch, University of Southampton, Southampton, United Kingdom	10:10 a.m. AIAA-2026-4609 Comparative Assessment of Physics-Informed Neural Network Formulations for the Parabolized Stability Equations G. Dalinajara Abreu Smith Borges, Pontificia Universidade Catolica do Parana, Curitiba, Brazil; V. Silva Figueredo, Universidade Federal do Parana, Curitiba, Brazil; G. Olichevis Halila, Pontificia Universidade	10:30 a.m. AIAA-2026-4610 A Multi-Fidelity Physics- Informed Neural Network Approach for Predicting Wing Surface Pressure Distributions C. Mascarenhas Dias Filho, M. Bomfim, J. Eguea, Universidade de Sao Paulo, São Carlos, Brazil	10:50 a.m. AIAA-2026-4611 Graph Neural Networks for Predicting Pressure Distributions of High-Lift Aircraft D. Hines, P. Bekemeyer, Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Braunschweig, Brunswick, Germany	

		Catolica do Parana, Curitiba, Brazil; J. Magalhaes, Georgia Institute of Technology, Atlanta, GA; J. Azevedo, Instituto de Aeronautica e Espaco, Sao Jose dos Campos, Brazil			
--	--	--	--	--	--

Thursday, 11 June 2026

ASE-09	Ice Protection, Shedding and Runback	Cortez Hill B
--------	--------------------------------------	---------------

Chaired by: K. NARAYANASAMY, Honeywell Aerospace and S. LEE, HX5, LLC

9:30 a.m. AIAA-2026-4612 An Experimental Investigation on Dynamic Icing Process of Runback Water Droplets Over Frozen-Cold Surfaces With Different Wettability Y. Zhao, J. Wang, H. Hu, Iowa State University of Science and Technology, Ames, IA	9:50 a.m. AIAA-2026-4613 Numerical Icing Simulations of the PICTUR NACA0012 Geometry With Comparisons to Wind Tunnel and Flight Test Results Z. Milani, L. Nichman, National Research Council Canada, Ottawa, Canada; E. Matida, Carleton University, Ottawa, Canada; A. Benmeddour, N. Bliankinshtein, P. Borque, National Research Council Canada, Ottawa, Canada; et al.	10:10 a.m. AIAA-2026-4614 Image-Based Characterization of Ice Accretion and Shedding Dynamics on Fan Blades K. Müller, K. Markgraf, Brandenburg University of Applied Sciences, Brandenburg an der Havel, Germany; A. Vogel, P. Flassig, Rolls-Royce Deutschland Ltd und Co KG, Blankenfelde-Mahlow, Germany; R. Flassig, Brandenburg University of Applied Sciences, Brandenburg an der Havel, Germany			
--	--	--	--	--	--

Thursday, 11 June 2026

ATS-10	ML/AI in Air Transportation Systems I	Harbor C
--------	---------------------------------------	----------

Chaired by: D. TRUONG, Embry-Riddle Aeronautical University

9:30 a.m. AIAA-2026-4615 LLM-Based Approach for Entity-Level Evaluation of Speech-to-Text Models Fine-Tuned for Pilot-Controller Communication A. Arra, A. Payan, D. Mavris, Georgia Institute of Technology College of Engineering, Atlanta, GA	9:50 a.m. AIAA-2026-4616 AI-Driven Generative Learning for Drone Safety Prediction: Advancing Data-Centric Risk Modeling in the National Airspace System D. Truong, Embry-Riddle Aeronautical University, Daytona Beach, FL	10:10 a.m. AIAA-2026-4617 Machine Learning-Enabled Analysis of Loss of Separation Events in Air Traffic Management Simulations O. Vural, Utah State University, Logan, UT; D. Thipphavong, R. Windhorst, NASA Ames Research Center, Moffett Field, CA	10:30 a.m. AIAA-2026-4618 Explainable Multi-Aircraft Deconfliction via Reinforcement Learning Fine-Tuned Language Models N. Xue, Purdue University, West Lafayette, IN; K. Chour, NASA Ames Research Center (METIS), Moffett Field, CA	10:50 a.m. AIAA-2026-4014 Forecasting Impact of Tropical Cyclone on Traffic Flow Over Bay of Bengal Airspace R. Dutta, Y. Zhang, B. Ghosh, Y. Lim, X. Geng, Y. Zhang, Agency for Science Technology and Research, Singapore, Singapore; et al.	
---	--	--	---	---	--

Thursday, 11 June 2026

EPATS-09	EPATS Keynote II Aerospace Electrification: Status, Challenges and Opportunities				Coronado A
NASA and industry have identified Electrified Aircraft Propulsion (EAP) for its potential to benefit energy efficiency, mission flexibility, and market growth in the next generation of aircraft. Megawatt (MW) class EAP technologies are advantageous for large regional turboprops and single aisle aircraft and can provide significant benefits during the ground taxi and takeoff climb segments of a typical flight profile. This keynote will address EAP progress and highlights the remaining challenges and opportunities to make aerospace electrification a reality. Speaker: Gaudy Bezos O'Connor					
Thursday, 11 June 2026					
F360-10 9:30 - 11:30 a.m.	NASA Aeronautics: Vision, Outlook, and Leadership Insights				Seaport Ballroom D-H
NASA's Aeronautics Research Mission Directorate (ARMD) is shaping the future of U.S. aviation by pioneering high-speed flight, transforming airframes and propulsion, automating airspace and safety management capabilities, and revolutionizing engineering methods. This session will offer a look at the strategic direction and top priorities of NASA Aeronautics to ensure the United States remains at the forefront of aviation innovation. Join us for a conversation with NASA ARMD leaders as they share perspectives on the opportunities and challenges ahead. Moderator: Aerospace America Speakers: Bob Pearce, NASA Nateri Madavan, NASA Parimal Kopardekar, NASA Kate McMurtry, NASA John Cavolowsky, NASA Lori Arnett, NASA					
Thursday, 11 June 2026					
FD-33	Flow Control Devices and Applications I				Hillcrest B
Chaired by: X. AN, Kent State University					
9:30 a.m. AIAA-2026-4619 Investigating the Use of a Gliding Arc for the Control of the Shock-Wave/Boundary Layer Interaction J. Caldwell, T. Corke, University of Notre Dame, Notre Dame, IN	9:50 a.m. AIAA-2026-4620 Active Flow Control of Blade Section in Dynamic Stall S. Haramura Bastos, A. Gross, New Mexico State University, Las Cruces, NM	10:10 a.m. AIAA-2026-4621 Effects of Tip Wear on Drag Reduction Performance of Sharp Single Bevel Riblet K. Kaneko, M. Kurita, H. Abe, M. Sasamori, S. Koga, JAXA, Mitaka, Japan; F. Kuroda, Ryoyu Systems Co., Ltd., Mitaka, Japan	10:30 a.m. AIAA-2026-4622 Three-Dimensional Visualization of Supersonic Jet Shear Layers Excitation Using Localized Arc Filament Plasma Actuators S. Matsuo, M. Akamine, S. Teramoto, G. Ichikawa, Tokyo Daigaku Daigakuin Kogakukei Kenkyuka Koku Uchu Kogaku Senko, Bunkyo, Japan; K. Okamoto, Tokyo Daigaku Daigakuin Shinryoiki Sosei Kagaku Kenkyuka Kiban Kagaku Kenkyukei, Kashiwa, Japan; M. Mitchell, The Ohio State University Department of Mechanical and Aerospace Engineering, Columbus, OH; et al.	10:50 a.m. AIAA-2026-4623 Development and Control of Görtler Vortices in the SD-2 Serpentine Diffuser A. Nekkanti, Stanford University, Stanford, CA; R. Agrawal, S. Bose, Cadence Design Systems Inc, San Jose, CA; P. Moin, Stanford University, Stanford, CA	11:10 a.m. AIAA-2026-4624 Effect of Reaction Surface Geometry on Control Authority of Asymmetric Plasma Actuation Over Subsonic Axisymmetric Jet Aerodynamics Z. Hamid, A. Barnhouse, J. Patel, N. Webb, The Ohio State University, Columbus, OH
Thursday, 11 June 2026					
FD-34	Shock-Boundary Layer Interactions I				Hillcrest A
Chaired by: M. VYAS, NASA Glenn Research Center and A. BERGER, Florida State University					
9:30 a.m.	9:50 a.m.	10:10 a.m.	10:30 a.m.	10:50 a.m.	11:10 a.m.

AIAA-2026-4625 Experimental Investigation of Fin-Junction Flow Unsteadiness in Mach 5 Laminar and Turbulent Configurations A. Hoang, New Mexico State University, Las Cruces, NM; L. Saenz, Von Karman Institute For Fluid Dynamics, Sint-Genesius-Rode, Belgium; M. Gomez Fierro, C. Ross, A. Gross, F. Shu, New Mexico State University, Las Cruces, NM	AIAA-2026-4626 Global Stability Analysis of ROTEX-T Cone-Flare Laminar Separation Bubble at Mach 6 J. Assis, Universidade Federal Fluminense Escola de Engenharia, Niterói, Brazil; R. Freitas, Centro Federal de Educação Tecnológica do Rio de Janeiro, Nova Iguaçu, Brazil; L. Alves, Universidade Federal Fluminense Escola de Engenharia, Niterói, Brazil	AIAA-2026-4627 Parametric Study of 3-D Turbulent Shock-Wave/Boundary Layer Interactions on an Axisymmetric Cone Z. Zou, S. Quiroz, University of California Los Angeles, Los Angeles, CA; S. He, H. Chin, M. Adler, Lawrence Livermore National Laboratory, Livermore, CA	AIAA-2026-4628 Effect of Angle of Attack on the Shockwave-Boundary Layer Interaction Over an Axisymmetric Body A. Lakshmi Narasimha Prasad, U. Sasidharan, Florida State University, Tallahassee, FL	AIAA-2026-4629 Effects of Rectangular Duct Aspect Ratio on Shock Train Behavior J. Sullivan, D. Gaitonde, The Ohio State University, Columbus, OH	AIAA-2026-4630 Resolvent Analysis of Shock-Boundary Layer Interactions Over Supersonic Turbines G. Hamada, W. Wolf, Universidade Estadual de Campinas, Campinas, Brazil; C. Junqueira-Junior, J. Robinet, Ecole Nationale Supérieure d'Arts et Metiers, Paris, France
---	--	---	--	---	---

Thursday, 11 June 2026

FL-14	ATI – UK Aerospace Strategy and Modelling Insights	Solana Beach A/B
-------	--	------------------

This session will cover some of the analysis, insights and models developed by the Aerospace Technology Institute (ATI) in the last year. It will explain a novel ATI propulsion system concept, share our investigations into the impact of reducing cruise speed, and describe the fuel cell model that ATI developed with Loughborough University. Agenda Introduction to the ATI and Overview of the UK Strategic Roadmaps – Jacqueline Castle Electrification Roadmaps and Modelling Insights – Alex Thirkell Whole Aircraft Design Modelling Insights – Eduardo Lobo Manufacturing Roadmap – Jacqueline Castle Non-CO2 Roadmap and Programme insights – Jacqueline Castle Moderator: Jacqueline Castle, CTO, ATI Speakers: Alex Thirkell, Advanced Technologist – Advanced Systems and Propulsion, ATI Eduardo Lobo, Senior Technologist – Whole Aircraft, ATI

Thursday, 11 June 2026

GT-12/APA-39/AMT-04/FD-35/CFD2030-06	Turbulence Modelling and Turbulence Measuring: Shared Implication for Numerics and Uncertainty Quantification	Ocean Beach
--------------------------------------	---	-------------

Chaired by: R. DECKER, USAF Academy

A more conventional panel session, to complement the sessions held earlier in the Forum, this will bring together Subject Matter Experts (SME) from the Turbulence Modeling and Turbulence Measuring communities specifically to address the challenges posed by CFD validation. Attention will be drawn to the topics raised by both groups of SMEs in their dedicated special sessions, with a view towards developing balanced perspectives on topics related to human and machine learning. The overarching intent will be to help establish a shared understanding of the challenges and opportunities, and in so doing, identify potential ways in which the computational and physical testing communities can work together to advance the state-of-the art of CFD validation. Facilitator is Nigel Taylor (MBDA). Panelists to include Xiang Yang (Penn State), Elizabeth Benitez (AFRL), and Blake Lance (SANDIA).

Thursday, 11 June 2026

HSABP-07	Exploring Modern AI for Innovation in Propulsion Systems: Accelerating the Future of Aerospace Beyond Classical Engineering	Harbor D
----------	---	----------

Chaired by: R. ACHARYA, Johns Hopkins University Applied Physics Laboratory

Modern propulsion has been facing a “Complexity Wall” as traditional physics-based simulations take weeks to run and struggle with non-linear variables. As we look toward 2030, propulsion systems won't just be “machines we build”—they will be “systems that learn.” The objective of this panel is to separate hype from facts as well as pose research questions for congruent development of AI. **Panelists:** Dr. Ragini Acharya, Johns Hopkins University APL Overview of the panel – brief introduction to modern AI, strategic direction undertaken by HSABP TC, panelist introduction. **Prof. Juan Alonso**, Stanford University Success and limitations of past

NN based approaches covered under Machine Learning umbrella? Where can Agentic AI or AI developments in regenerative AI become a step-change when even deep learning methods have failed. Data quality and quantity restrictions – can small datasets be utilized? **Dr. Umesh Paliath**, GE Aerospace Status on strategic investments that major aerospace industry is undertaking? How are the partnerships and collaborations with hyper-scalers shaping up? **Prof. Venkat Narayanaswamy**, North Carolina State University What are the technological wants from high-speed experimental testing and diagnostics for HSABP that can be potentially addressed by modern AI. How can data analyses be expedited by code-building abilities of modern AI tools. **Dr. Tom McManus**, North Wind Accelerating data-driven high-speed propulsion surrogate model development using LLM-augmented workflows. : lessons learned on applying ML for propulsion surrogate model development, technological gaps in that workflow, and the power of surrogate model in design optimization.

Thursday, 11 June 2026

INPSI-05/TF-07	Transformative Propulsion Systems to Reduce Emissions	Harbor A
----------------	---	----------

Chaired by: E. HARRISON, Georgia Institute of Technology and G. FERNANDES, Texas Tech University

9:30 a.m. AIAA-2026-4631 CFD Modeling of an NH3-Fueled GT Combustor With an NH3 Cracking Sleeve A. Tharpe, G. Layhew, R. Roberts, Tennessee Tech University, Cookeville, TN	9:50 a.m. AIAA-2026-4632 Uncertainty Quantification and Computational Cost Reduction of a Chemical Reactor Network for a Hydrogen Combustor V. Madonia, L. Folcarelli, A. Ferrero, F. Masseni, D. Pastrone, Politecnico di Torino, Turin, Italy	10:10 a.m. AIAA-2026-4633 Performance Analysis of a UAV With Hybrid Propulsion Systems A. Saha, A. Rahman, B. Jo, Tennessee Tech University, Cookeville, TN			
--	--	--	--	--	--

Thursday, 11 June 2026

IS-05	Machine Learning and AI for Aviation Safety	La Jolla A
-------	---	------------

Chaired by: T. PURANIK, The Boeing Company

9:50 a.m. AIAA-2026-4634 Explainable Artificial Intelligence for Aviation-Related Decision Trees J. Krozel, A. Krozel, M. Peters, The Innovation Laboratory, Inc., Portland, OR; R. Kicing, B. Hackney, Metron Aviation, Inc., Ashburn, VA	10:10 a.m. AIAA-2026-4635 Explainable Neural Network Models for Aircraft Trajectory Event Detection R. Kicing, B. Hackney, Metron Aviation, Inc., Ashburn, VA; J. Krozel, M. Peters, The Innovation Laboratory, Inc., Portland, OR	10:30 a.m. AIAA-2026-4636 Generalized 3D Energy-Aware Path Planning Under Dynamic Turbulent Wind Conditions S. Aranda Rocha, L. Sun, Baylor University, Waco, TX	10:50 a.m. AIAA-2026-4637 Progress and Challenges in Assurance of Learned Functions in Aircraft Systems P. Sharma, J. Neighbor, M. Jahn, The Boeing Company, Chicago, IL	11:10 a.m. AIAA-2026-4638 Augmenting Combat: Plane for Heuristic-Based Reinforcement Learning in Simplified Aerial Combat M. Rahman, A. Kemp, S. Aakur, N. Fala, Auburn University, Auburn, AL	
---	---	---	---	---	--

Thursday, 11 June 2026

MDO-12/APA-33	Aerodynamic Design: Methods and Techniques	Cortez Hill A
---------------	--	---------------

Chaired by: X. DU and P. BLONIGAN, Sandia National Laboratories

9:30 a.m. AIAA-2026-4639	9:50 a.m. AIAA-2026-4640	10:10 a.m. AIAA-2026-4641	10:30 a.m. AIAA-2026-4642		
-----------------------------	-----------------------------	------------------------------	------------------------------	--	--

Transonic Buffet Alleviation via Linear Stability Adjoint R. Kanchi, S. He, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN; E. Jonsson, J. Martins, University of Michigan, Ann Arbor, MI	Interlinked Parameterisations for Sequential Topology and Aerodynamic Shape Optimisation S. Lovett, T. Rendall, C. Allen, D. Poole, University of Bristol, Bristol, United Kingdom; N. Taylor, J. Fincham, MBDA Holding SAS, Bristol, United Kingdom; et al.	Data-Driven Design Exploration and Optimisation of Air Inlets for Hydrogen Fuel Cell Air Intake System A. Prasannakumar, S. Jayakanth, P. Scholz, Technische Universität Braunschweig Institut für Strömungsmechanik, Brunswick, Germany	VortexAD: A Graph-Based Linear Potential Flow Analysis Framework for Large-Scale MDO L. Scotzniovsky, J. Hwang, University of California San Diego, La Jolla, CA		
--	---	---	---	--	--

Thursday, 11 June 2026					
TP-11	AI/ML, V&V/UQ and MBSE with Respect to Thermophysics I				Harbor E

Chaired by: M. STUBBLEBINE and S. JO, University of Central Florida					
9:30 a.m. AIAA-2026-4643 Tree-Based Surrogate Modelling of Aerothermochemistry for Space Debris Reentry J. Longlune, Vrije Universiteit Brussel, Brussels, Belgium; T. Magin, Université Libre de Bruxelles, Brussels, Belgium; A. Bellemans, Vrije Universiteit Brussel, Brussels, Belgium	9:50 a.m. AIAA-2026-4644 Optimizing Experiments for Thermochemistry Model Validation Using Bayesian Experimental Design A. Ghosh, A. del Val, University of Minnesota Twin Cities, Minneapolis, MN	10:10 a.m. AIAA-2026-4645 ML-Accelerated Investigation of Atomistic Hardening Mechanisms in MPEAs N. Imtiaz, P. Manyin, M. Sharma Priyadarshini, Virginia Polytechnic Institute and State University, Blacksburg, VA			

Thursday, 11 June 2026					
UAS-10	Systems Design and Optimization for Uncrewed/Autonomous Systems				Torrey Hills A

Chaired by: J. JACOB, Oklahoma State University and E. BIRD, Texas A&M Univ at Corpus Christi					
9:50 a.m. AIAA-2026-4647 Design and Analysis of an EDF-Driven Monocoiler UAV With Fin-Based Stabilization S. Maimako, L. Moore, D. Nguyen, F. Abdullahi, M. Hassanalian, New Mexico Institute of Mining and Technology, Socorro, NM	10:10 a.m. AIAA-2026-4648 Simulation-Based Analysis of Autonomous UAV Swarm Spraying for Precision Agriculture R. Davis, N. Majumdar, C. Koparan, University of Arkansas System, Fayetteville, AR				

Thursday, 11 June 2026					
EPATS-10	Environmental Design				Coronado D

Chaired by: A. JANKOVSKY, NASA Glenn Research Center and E. GANEV, EMPSc					
--	--	--	--	--	--

10:30 a.m. AIAA-2026-4650 The Influence of Humidity on Partial Discharge Inception at Triple Points of Surface Insulation Sub-Systems S. Myneni, G. Montanari, Florida State University, Tallahassee, FL	10:50 a.m. AIAA-2026-4651 Threats for Surface Insulation System Reliability: Partial Discharge Inception vs Surface Flashover? G. Montanari, S. Myneni, Florida State University, Tallahassee, FL				
Thursday, 11 June 2026					
EPATS-18	The Economic Case for Electrified Aviation: Lower Costs, Higher Access, Real-World Lessons				Coronado A
Chaired by: V. SCHULTZ, Revolutionary Aerospace LLC					
Electrification is reshaping the future of aviation, offering a path to dramatically lower operating costs, reduced emissions, and improved access to underserved regions. This session provides a pragmatic introduction to electric air platforms and explores how real-world flight programs (spanning trainers, rotorcraft, commuter aircraft, and emerging AAM vehicles) demonstrate the commercial viability of electric propulsion today. Drawing on lessons from more than seven electric flight programs, we unpack the true cost drivers of electrified aviation, including energy usage, battery cycles, maintenance profiles, and infrastructure requirements. We discuss how electrification enables new route economics, lowers pilot training costs, improves community acceptance through noise reduction, and supports new operational models such as short-hop commuter services and remote-area access. Speakers: Rachael Barritt and Ben Lox, magniX					
Thursday, 11 June 2026					
FL-15 10:30 - 11:30 a.m.	The Future of Sustainable Aircraft Design				Solana Beach A/B
Future aircraft configurations have long demonstrated theoretical aerodynamic and structural efficiency advantages over conventional tube-and-wing architectures – yet the path from wind-tunnel test to commercially viable aircraft has proven difficult. That calculus is now shifting with advances in composite manufacturing, improvements in systems design, and the entrance of a new class of developers' futuristic concepts from the drawing board toward flight test. Meanwhile, growing pressure to reduce fuel burn and cut emissions has renewed industry and government investment in alternative airframe configurations. This panel brings together industry experts with deep experience in new configuration aerodynamic design, systems integration, and commercial development to examine the critical engineering and programmatic questions: Where do the most significant technical risks lie? How are developers approaching certification basis for non-conventional configurations? What does the propulsion integration trade space look like for next-generation sustainable aircraft? And what will it realistically take to achieve entry into service? Moderator: Speakers: Aleksey Matyushev, CEO & Co-Founder, Natilus Mark Page, Former CTO & Co-Founder, JetZero Dino Roman, Technical Fellow, Configuration Aerodynamics, Boeing					
Thursday, 11 June 2026					
EPATS-26	As eIPP Launches, AAM Aircraft are Nearly Ready but a \$16.6 Billion Infrastructure Gap Remains				Coronado A
Low-altitude airspace is emerging as the next frontier of innovation and economic activity. Drone services and use cases are rapidly developing. Advanced Air Mobility (AAM) is entering a decisive phase, as the Vertical Mobility Economy moves toward full commercial realization. Aircraft certification programs are advancing, regulatory frameworks are rapidly evolving, and the Federal Aviation Administration has launched the eVTOL Integration Pilot Program (eIPP) to accelerate operational deployment across multiple regions of the United States. These developments represent critical progress for the sector. Yet they also highlight a parallel requirement that has received less attention: the infrastructure needed to support scalable AAM operations and the means to pay for it.					
Thursday, 11 June 2026					
ACD-17	Unique and Unusual Missions				Balboa A

Chaired by: D. LEVY, Sierra Nevada Corporation and R. LOVE, General Atomics Aeronautical Systems, Inc.					
1:00 p.m. AIAA-2026-4652 Toward Sustainable Aviation: On the Design of NoEmi - No-Emission Electric Amphibious Aircraft K. Sasaki, T. Brødeskift, K. Kierulf, S. Wiechmann, R. Misevicius, S. Rao, Noemi Aerospace, Sandefjord, Norway; et al.	1:20 p.m. AIAA-2026-4653 Design and Development of a Modular, Multi-Sensor Quad-Rotor Drone for Geotechnical Data Gathering J. Mintah, S. Maimako, F. Abdullahi, L. Moore, New Mexico Institute of Mining and Technology, Socorro, NM; A. Mostafanejad, EarthScope, SOCORRO, NM; H. Khaniani, New Mexico Institute of Mining and Technology, Socorro, NM; et al.	1:40 p.m. AIAA-2026-4654 Design and Early Validation of a Single-Passenger eVTOL for Rapid Emergency Response Z. Tremblay, McGill University, Montreal, Canada			
Thursday, 11 June 2026					
APA-41/GT-13	Aerodynamic Testing: Ground, Wind-Tunnel, and Flight Testing II				Gaslamp C
Chaired by: J. AHUJA, Georgia Institute of Technology					
1:00 p.m. AIAA-2026-4655 Experimental Aerodynamics of Non-Conventional Airfoils for RPAS E. Barderas, R. Bardera, Instituto Nacional de Tecnica Aeroespacial, Madrid, Spain; A. Rodríguez-Sevillano, Universidad Politecnica de Madrid, Madrid, Spain; J. Matias-Garcia, J. Fernández Antón, Instituto Nacional de Tecnica Aeroespacial, Madrid, Spain	1:20 p.m. AIAA-2026-4656 Experimental Study of Obstacle-Induced Flow Turbulence in Ground Proximity Using an Atmospheric Boundary Layer Wind Tunnel S. Soloarivony, A. Zhan, C. Badrya, University of California Davis, Davis, CA	1:40 p.m. AIAA-2026-4657 Sparse-Data Reconstruction of Bladeless Fan Downstream Flow Using Navier-Stokes Physics-Informed Neural Networks Y. Meligy, A. Aboelezz , University of Maine System, Bangor, ME	2:00 p.m. AIAA-2026-4658 Boundary Layer Characterization of the FSU Polysonic Wind Tunnel E. Smith, Air Force Research Laboratory Munitions Directorate, Eglin Air Force Base, FL; A. Karns, J. Adamski, R. Kumar, FAMU-FSU College of Engineering, Tallahassee, FL		
Thursday, 11 June 2026					
APA-42	Applied Aeroelasticity and Fluid-Structure Interaction II				Balboa C
Chaired by: H. BEN-GIDA, Technion - Israel Institute of Technology					
1:00 p.m. AIAA-2026-4659 Robust Optical Registration for Dense Structural-Marker	1:20 p.m. AIAA-2026-4660 Computational Modeling of the HyMAX Experiment With Modifications to	1:40 p.m. AIAA-2026-4661 Multi-Fidelity Fluid-Thermal-Structural Assessment of Heat-Pipe-	2:00 p.m. AIAA-2026-4662 SU2-Nastran Framework for Transonic Static Aeroelastic Deflections	2:20 p.m. AIAA-2026-4663 Mechanisms of Supersonic and Hypersonic Shock	2:40 p.m. AIAA-2026-4664 Large-Eddy Simulations for the Flutter Prediction of

Reconstruction in Aeroelastic Wind-Tunnel Tests L. de Santana, Koninklijk Nederlands Lucht- en Ruimtevaartcentrum Marknesse, Marknesse, The Netherlands	Induce Limit-Cycle Oscillations T. Xu, E. Dowell, Duke University, Durham, NC	Cooled Hypersonic Leading Edges N. Poudel, K. Shoele, FAMU-FSU College of Engineering, Tallahassee, FL	B. Kronbauer de Oliveira, W. Menezes, Embraer SA, Sao Jose dos Campos, Brazil; F. Bussamra, ITA, Sao Jose dos Campos, Brazil; A. Verri, Embraer SA, Sao Jose dos Campos, Brazil	Focusing and Attenuation in Particle Arrays: Comparative 2D and 3D Analysis D. Vazquez-Alvarez, F. Shu, Y. Wang, New Mexico State University, Las Cruces, NM	the NASA Benchmark Supercritical Wing H. Yu, Stanford University Center for Turbulence Research, Stanford, CA; S. Bose, Cadence Design Systems Inc, San Jose, CA
Thursday, 11 June 2026					
APA-43	Applied CFD: External Aerodynamics II				Gaslamp A
Chaired by: C. BELLIDO, Lockheed Martin Aeronautics					
1:00 p.m. AIAA-2026-4665 Validation of a Compressible-Flow Panel Method on a Transonic High Sweep Canard + Wing Configuration S. Shahjahan, V. Ahuja, Siemens Digital Industries Software Inc, Plano, TX	1:20 p.m. AIAA-2026-4666 Wing in Extreme Ground Effect Over Waves – A Computational Modeling Study S. Jain, J. Seo, R. Mittal, Johns Hopkins University, Baltimore, MD	1:40 p.m. AIAA-2026-4667 Effects of Inertial Properties on Chaotic Tumbling Dynamics of an Aerodynamic Body H. Dennison, W. Huebsch, C. Griffin, West Virginia University, Morgantown, WV	2:00 p.m. AIAA-2026-4668 Effects of Mass, Inertial Properties, and Flight Conditions on the Pitch Reversal Phenomenon for Tumbling Flight H. Dennison, C. Griffin, W. Huebsch, West Virginia University, Morgantown, WV	2:20 p.m. AIAA-2026-4669 Shock-Boundary Layer Interactions Between a Pair of Fins on a Half Cylinder at Mach 2.5 T. Liang, V. Bhagwandin, US DEVCOM Army Research Laboratory, Aberdeen Proving Ground, MD; J. Schwandt, V. Narayanaswamy, NC State University, Raleigh, NC	
Thursday, 11 June 2026					
APA-46/FD-40	Unsteady Aerodynamics and Massively Separated Flows				Balboa B
Chaired by: W. HINMAN, University of Calgary					
1:00 p.m. AIAA-2026-4484 GPU-Accelerated Simulation of Flow Over Wing Section With Active Flow Control O. Mendoza Ruiz, L. Trujillo Corona, D. Espinoza Gutierrez, F. Shu, A. Gross, Q. Liu, New Mexico State University, Las Cruces, NM	1:20 p.m. AIAA-2026-4485 Compressibility Effects on Near-Stall Flow Separation Over NACA 0012 Airfoil N. Singh, U. Sasidharan, Florida State University, Tallahassee, FL	1:40 p.m. AIAA-2026-4486 Local Solver-Compatible Closure Learning for a Laminar Viscous-Inviscid Integral Boundary-Layer Solver S. Mehta, K. Ramesh, Arizona State University, Tempe, AZ	2:00 p.m. AIAA-2026-4670 Low-Order Hydrodynamic Modeling of Morphing Airfoils in the Presence of Upstream Disturbances S. Mares, A. Atre, P. Ramaprabhu, J. Hall, A. Suresh Babu, UNC Charlotte, Charlotte, NC	2:20 p.m. AIAA-2026-4671 LCO Annihilation in an Aeroelastic Wing Using Variable Stiffness Fluidic Artificial Muscles A. Patel, M. Hughes, M. Bryant, NC State University, Raleigh, NC	
Thursday, 11 June 2026					
ASE-10/TF-08	Wake Turbulence, Contrails, and Atmospheric and Space Environments				Cortez Hill B
Chaired by: C. ZHENG, Utah State University and G. FERNANDES, Texas Tech University					
1:00 p.m. AIAA-2026-4672	1:20 p.m. AIAA-2026-4673	1:40 p.m. AIAA-2026-4674	2:00 p.m. AIAA-2026-4675	2:20 p.m. AIAA-2026-4676	2:40 p.m. AIAA-2026-4677

Comparison of Correlated and Uncorrelated Autoregressive Models for Stochastic Wind Speed Modeling M. Rhudy, Penn State Berks, Reading, PA	A Risk-Based Framework for Enhancing Safety in Suborbital Spaceflight Operations I. Antonaros, R. Curran, City St George's University of London, London, United Kingdom	Are Ice Super Saturated Regions and Turbulent Regions Spatially Related? H. Wong, R. Palacios, E. Gryspeerd, Imperial College London, London, United Kingdom	Predicting Observations of Aircraft Induced Persistent Contrails With Satellite Sounding Fusion Data S. Gutierrez-Nolasco, E. Cook, D. Bell, B. Sridhar, Universities Space Research Association, Washington, D.C.; W. Smith, NASA, Washington, D.C.; D. David, Analytical Mechanics Associates Inc, Hampton, VA	Enhancing Contrail Forecasts Through Better Near-Field Dynamics Representation at Initialization: A Sensitivity Study of CoCip and APCEMM in Pycontrails P. Saulgeot, A. Lasne, N. Bonne, Office National d'Etudes et de Recherches Aerospatiales, Palaiseau, France	Towards Numerical Simulation and Modeling of Extreme Events in the Urban Boundary Layer for a UAV Flight Application B. Caro, J. Rolland, Laboratoire de Mecanique des Fluides de Lille - Kampe de Fariet, Villeneuve-d'Ascq, France; G. Tanguy, Office National d'Etudes et de Recherches Aerospatiales, Châtillon, France
---	--	---	---	---	--

Thursday, 11 June 2026

ATS-11	ML/AI in Air Transportation Systems II	Harbor C
--------	--	----------

Chaired by: G. WILD, University of New South Wales

1:00 p.m. AIAA-2026-4678 Smart Sensor Placement Using Machine Learning and Bayes Risk for Structural Health Monitoring of Air Vehicles O. Chung, B. Chen, A. Rushing, J. Huynh, University of California Irvine, Irvine, CA	1:20 p.m. AIAA-2026-4679 Physically Consistent UAV Trajectory Prediction via Structured State-Space Representations and Autoregressive Transformers X. Chen, J. Xiang, J. Chen, San Diego State University, San Diego, CA	1:40 p.m. AIAA-2026-4680 Hybrid Physics-Based Framework for GNSS-Interference Anomaly Detection From Open ADS-B Data E. Rigole, G. Ghazi, J. Montecinos, Ecole de technologie superieure, Montreal, Canada	2:00 p.m. AIAA-2026-4681 Robustness Analysis of Neural Network Surrogates for Urban Air Mobility Flight Dynamics V. Amaya, J. Xiang, J. Chen, San Diego State University, San Diego, CA	2:20 p.m. AIAA-2026-4682 Transformer-Based Deep Learning for Flight Phase Classification in ATSB Aviation Safety Reports A. Nanyonga, G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia	2:40 p.m. AIAA-2026-4683 Ground-Based Aircraft Localization Using a Multi-Camera Vision System M. Compere, J. Estupinan, G. Nelson, A. Williams, A. Hannah, R. Prazenica, Embry-Riddle Aeronautical University, Daytona Beach, FL
--	--	---	--	---	--

Thursday, 11 June 2026

EPATS-11	Challenges and opportunities in Aircraft Design for Electrification: Electra NASA AACES 2050	Coronado A
----------	--	------------

Chaired by: V. SCHULTZ, Revolutionary Aerospace LLC

For the past two years a multidisciplinary team of researchers from academia and industry, supported by NASA, have studied the opportunities which increasing levels of electrification and aero propulsive integration may bring to commercial aircraft design. Together they have produced an open-source electrified aircraft design tool built on NASA's Aviary MDAO framework and exercised this framework for a large trade study of aircraft and subsystem opportunities in 2050. This panel will assemble the principal investigators from the project to discuss the development of the MDAO framework, trade study findings, and conceptual aircraft. Moderator - Parker Vascik, Electra Panelists: Prof. Gokcin Cinar, University of Michigan Prof. Jacqueline Huynh, University of California Irvine Dr. Alejandra Uranga, Electra

Thursday, 11 June 2026

EPATS-12	Design Considerations I	Coronado D
----------	-------------------------	------------

Chaired by: M. LI, University of Michigan, Ann Arbor and E. GANEV, EMPSc

1:00 p.m. AIAA-2026-4684	1:20 p.m. AIAA-2026-4685	1:40 p.m. AIAA-2026-4686			
-----------------------------	-----------------------------	-----------------------------	--	--	--

Multifunctional Pulsating Heat Pipe Conductors for Megawatt-Class Electrical Machines in Aerospace Propulsion J. Diebold, J. Sonnek, R. Abdelmaksoud, Advanced Cooling Technologies Inc, Lancaster, PA; P. Bajaj, A. Banerjee, University of Illinois Urbana-Champaign, Urbana, IL	Comparative Electrochemical Behavior Analysis of a Tubular Solid Oxide Fuel Cell on Hydrogen and Jet-A Reformate for Aircraft Auxiliary Power Units E. Pesterfield, D. Schafer, C. Roberson, R. Roberts, Tennessee Tech University College of Engineering, Cookeville, TN	Development of Fuel Cell System Design Method for eVTOL Aircraft J. Park, J. Cho, I. Lee, K. Yee, Seoul National University, Gwanak-gu, South Korea			
---	--	--	--	--	--

Thursday, 11 June 2026

EPATS-13	Electric Aircraft Flight Testing Results and Design Best Practices	Coronado E
----------	--	------------

Chaired by: R. DE VRIES, Elysian Aircraft

1:00 p.m. AIAA-2026-4687 Power Optimal Control Allocation for Distributed Electric Propulsion in a Series Hybrid Powertrain J. Litt, NASA Glenn Research Center, Cleveland, OH	1:20 p.m. AIAA-2026-4688 Flight-Test Results of a Subscale Integrated High Lift Propulsor Testbed B. Ward, Wayfarer Aircraft Research and Development, San Diego, CA; K. Collins, M. Chavez Rangel, C. Ferreira De Moura, Embry-Riddle Aeronautical University, Daytona Beach, FL	1:40 p.m. AIAA-2026-4690 Conceptual Design of Electrified Aircraft: A Practical Guide for Engineering Students and Practitioners R. de Vries, Elysian Aircraft, Hoofddorp, The Netherlands; A. Jeyaraj, MDA Space, Montreal, Canada; F. Salucci, Argonne National Laboratory, Lemont, IL; A. Brown, Massachusetts Institute of Technology, Cambridge, MA; M. Clarke, P. Ansell, University of Illinois Urbana-Champaign, Urbana, IL; et al.			
---	--	--	--	--	--

Thursday, 11 June 2026

FD-36	Flow Control Devices and Applications II	Hillcrest B
-------	--	-------------

Chaired by: X. AN, Kent State University

1:00 p.m. AIAA-2026-4691 Simulation of Flapped CoFlow Jet Airfoil with Integrated Micro-Compressor Actuator at VTOL Hover Enabled by Deflected Slipstream	1:20 p.m. AIAA-2026-4692 Investigation of Switched Vortex Valves for Continuous Modulation of Hydrogen Fuel Flows in Jet Engines	1:40 p.m. AIAA-2026-4693 Effect of Inflow Confinement on a Finite Wing With Partial-Span Coandă Actuation X. Yan, M. McCrink, J. Bons, The Ohio State University, Columbus, OH	2:00 p.m. AIAA-2026-4694 Flow Mechanisms Governing Oscillation in a Sonic Fluidic Oscillator C. Nicholls, University of Oxford, Oxford, United Kingdom; M. Fenelon, Y. Zhang, L. Cattafesta, Illinois	2:20 p.m. AIAA-2026-4695 Large Eddy Simulation of Flapped Coflow Jet Airfoil at Low Reynolds Numbers J. Jeon, G. Zha, University of Miami, Coral Gables, FL	
---	--	---	--	--	--

F. Ding, Y. Ren, G. Zha, University of Miami, Coral Gables, FL	M. Cloud, B. Tang, C. Nicholls, M. Basic, University of Oxford, Oxford, United Kingdom		Institute of Technology, Chicago, IL		
Thursday, 11 June 2026					
FD-38	Scale-resolving Simulation including DNS/LES/Hybrid Methods				Gaslamp B
Chaired by: B. BORNHOFT, Cadence Design Systems, Inc.					
1:20 p.m. AIAA-2026-4697 Investigation of the Effect of Probe Length on Turbulent Boundary Layer Measurements Using Scale Resolving Simulations J. DeBonis, K. Zaman, N. Georgiadis, NASA Glenn Research Center, Cleveland, OH	1:40 p.m. AIAA-2026-4698 LES of a Commercial Aircraft Wing in Transonic Flow T. Lürkens, M. Meinke, D. Krug, W. Schroeder, Rheinisch-Westfälische Technische Hochschule Aachen Aerodynamisches Institut und Lehrstuhl für Stromungsmechanik, Aachen, Germany				
Thursday, 11 June 2026					
FD-39	Shock-Boundary Layer Interactions II				Hillcrest A
Chaired by: C. TINNEY, University of Mississippi and A. BERGER, Florida State University					
1:00 p.m. AIAA-2026-4699 Comparison of Turbulent Mach 2.3 Shockwave Boundary Layer Interactions With 20 and 30 Degrees Sweep N. Boydston, A. Gross, New Mexico State University, Las Cruces, NM	1:20 p.m. AIAA-2026-4700 Experimental Analysis of Boundary Layer State and Shock Strength in Transitional Shockwave- Boundary Layer Interactions on a Hollow- Cylinder-Flare Model at $M_\infty = 7$ S. Edwards, N. Webber, C. Smith, M. Gragston, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN	1:40 p.m. AIAA-2026-4701 Assessing the Impact of Impinging Shock Sweep on the Aeroelastic Behavior of Thermally Buckled Panels K. Brouwer, Air Force Research Laboratory, Wright- Patterson Air Force Base, OH; Z. Riley, The Ohio State University, Columbus, OH; R. Perez, T. Beberniss, S. Spottswood, Air Force Research Laboratory, Wright- Patterson Air Force Base, OH			
Thursday, 11 June 2026					
FD-50	Fluid Dynamics Award Lecture				Harbor D
Chaired by: M. VYAS, NASA Glenn Research Center					
The Fluid Dynamics Award lecture will be given by Professor Brian J. Cantwell, the recipient of 2026 American Institute of Aeronautics and Astronautics Fluid Dynamics Award for lifelong seminal advancements of fluid dynamics principles and turbulence modeling including the development of a highly accurate					

Universal Velocity Profile for wall-bounded flows. This award is presented for outstanding contributions to the understanding of the behavior of liquids and gases in motion as related to needs in aeronautics and astronautics. This prestigious award is proudly sponsored by the AIAA Fluid Dynamics Technical Committee. More information can be found here: <https://aiaa.org/awards/fluid-dynamics-award/> **A New Data-derived Wall Damping Function for the Universal Velocity Profile** Brian J. Cantwell Department of Aeronautics and Astronautics, Stanford University Classical mixing length theory is combined with a new mixing length model of the turbulent shear stress to solve the momentum equation for the pipe/channel velocity profile. The solution takes the form of an integral that is uniformly valid from the wall to the channel centerline at all Reynolds numbers from zero to infinity, and provides an accurate fit to pipe, channel and boundary layer data including boundary layers with zero, favorable and adverse pressure gradients. The Universal Velocity Profile (UVP) does not need a buffer layer function connecting the wall and log layer, and the wake model is known explicitly. Near the wall the mixing length is proportional to a damping function which, in the current formulation, is a van Driest type decaying exponential that depends on two of the five parameters in the model. While this formulation provides an accurate fit to velocity data, the approximation to Reynolds shear stress and velocity gradient data is not fully satisfactory. To address this, a new wall damping function has been developed where numerical simulation data near the wall is used to construct the function, and the two parameters of the current model are replaced by one. The reduction from five to four parameters makes it much easier to find optimal parameter values through a visual search process. In addition, the Reynolds shear stress and velocity gradient data is reproduced more accurately, as is the velocity data. The model parameters vary relatively little with Reynolds number enabling the data to be well approximated using averaged parameter values. The two wake parameters of the UVP are correlated with a modified Clauser pressure gradient parameter. This forms the basis of a boundary layer integral method that can be used to rapidly evaluate viscous drag of aerodynamic shapes at arbitrary Reynolds numbers.

Thursday, 11 June 2026

FL-16 1:00 - 2:00 p.m.	Building the Foundation of Flight: Scalable Vertiport and Airspace Infrastructure for Advanced Air Mobility	Solana Beach A/B
---------------------------	---	------------------

Advanced air mobility (AAM) promises to redefine the way people and goods move, bridging gaps in urban, suburban, and regional transport. To realize this vision, the physical and digital infrastructure enabling seamless, safe, and economically viable operations must mature in parallel with vehicle technology. This panel will explore the critical components of AAM infrastructure—particularly the design, regulation, and operational integration of vertiports—alongside the emerging frameworks for low-altitude airspace management. Focusing primarily on vertiport ecosystems, the discussion will address scalable design methodologies, environmental compliance, economic feasibility, and integration challenges within existing urban fabric. Complementary coverage of air traffic management topics such as digital sky corridors, detect-and-avoid (DAA) systems, and UAM-ATM interoperability will ensure the conversation reflects the full systemic connectivity required for sustainable AAM operations.

Thursday, 11 June 2026

GT-14	Flow Quality, Data Quality, and Uncertainty Quantification I	Ocean Beach
-------	--	-------------

Chaired by: B. CHYNOWETH, Purdue University

1:00 p.m. AIAA-2026-4702 N ₂ and N ₂ ⁺ Quantitative Emission Spectroscopy in the C-D Nozzle of an Arcjet Wind Tunnel K. Samuels, D. Baccarella, The University of Tennessee Knoxville Tickle College of Engineering, Knoxville, TN; S. Banerjee, S. Jo, University of Central Florida, Orlando, FL	1:20 p.m. AIAA-2026-4703 Investigation of Freestream Flow Uniformity in HyMETS Using NO Fluorescence Imaging J. Flores Govea, University of Colorado Boulder, Boulder, CO; P. Danehy, S. Splinter, N. Rodrigues, NASA Langley Research Center, Hampton, VA; C. McDougall, C. Johansen, University of Calgary, Calgary, Canada	1:40 p.m. AIAA-2026-4704 Development of a Two-Camera PIV Configuration for Ejecta Velocimetry in Vacuum Using Machine Vision Cameras M. Diaz-Lopez, Johns Hopkins University, Baltimore, MD; N. Rodrigues, NASA Langley Research Center, Hampton, VA	2:00 p.m. AIAA-2026-4705 Genetic Optimization of Hypersonic Pitot-Static Probe Geometry and Condensation Characterization of the Notre Dame STEM Mach 6 Ludwig Tube A. Jobbins, J. Caldwell, University of Notre Dame, Notre Dame, IN; E. Matlis, Embry-Riddle Aeronautical University, Daytona Beach, FL; T. Corke, University of Notre Dame, Notre Dame, IN		
--	--	---	--	--	--

Thursday, 11 June 2026					
GT-15/APA-44/AMT/FD-37/CFD2030-07	Geometry Modelling for Computational Simulation				Cortez Hill C
Chaired by: R. DECKER, USAF Academy and S. DUNN, Amentum Technology, Inc.					
Geometry modelling constitutes an essential aspect of many forms of computational modelling. Accordingly, the AIAA has established a Committee of Standards tasked with producing an AIAA Guide on the subject. This document is currently in the final stages of drafting. This panel session will afford interested members of the AIAA technical community with an opportunity to interact with members of the committee who have developed the draft, who will outline its objectives, approach, and content, before the Guide is published later in the year. The panel has been convened by the AIAA ICE Focus Group (TAG-1) since geometry modelling forms an essential part of the way boundary conditions are imposed in CFD. In the context of CFD validation, the associated errors (and uncertainties) fall under the general heading of Model Inputs. Facilitator is Nigel Taylor (MBDA). Panelists to include Henry Bucklow (ITI Transcendata) and Trevor Robinson (Queens University Belfast). Facilitator: Nigel Taylor					
Thursday, 11 June 2026					
HSABP-08	High-Speed Combustion and Propulsion Systems				Harbor A
Chaired by: T. ABDEL-SALAM, East Carolina University					
1:00 p.m. AIAA-2026-4706 Modeling of Electrically Controlled Propellant Combustion for Solid-Fueled Propulsion S. Miller-Smith, L. Massa, Virginia Polytechnic Institute and State University, Blacksburg, VA					
Thursday, 11 June 2026					
IS-06	Reinforcement Learning and Traffic Behavior Analysis				La Jolla A
Chaired by: C. KULKARNI, NASA Ames Research Center					
1:00 p.m. AIAA-2026-4709 Sparsity-Based Safety Conservatism for Constrained Offline Reinforcement Learning M. Cho, University of Illinois Urbana-Champaign, Urbana, IL; C. Sun, Villanova University, Villanova, PA	1:20 p.m. AIAA-2026-4710 Inverse Reinforcement Learning for Safety-Critical VTOL Flight Control J. Zou, Y. Xie, University of Texas at Arlington Research Institute, Arlington, TX; E. Martinez, M. Budihartono, H. Moncayo, Embry-Riddle Aeronautical University, Daytona Beach, FL	1:40 p.m. AIAA-2026-4711 Bi-level Clustering of Arrival Trajectories in Terminal Areas With Operational Factors H. Choi, A. Behere, D. Mavris, Georgia Institute of Technology, Atlanta, GA	2:00 p.m. AIAA-2026-4712 Vision-Based Perception for Autonomous Aircraft Landing: A Review A. Alam, S. Banga, S. Dresselhaus-Marais, Acubed by Airbus, Sunnyvale, CA	2:20 p.m. AIAA-2026-4222 Using AI Coding for Aviation Applications: Assurance, Cybersecurity and Other Considerations J. Straub, University of West Florida, Pensacola, FL	
Thursday, 11 June 2026					

TP-12	AI/ML, V&V/UQ and MBSE with Respect to Thermophysics II				Harbor E
Chaired by: M. STUBBLEBINE and S. JO, University of Central Florida					
1:00 p.m. AIAA-2026-4713 Physics-Constrained Surrogate Model for Non-Boltzmann Radiative Heat Transfer R. Dhandapani, S. Jo, University of Central Florida, Orlando, FL	1:20 p.m. AIAA-2026-4714 Data-Driven Design of Single-Phase High-Entropy Ultra-High-Temperature Ceramics M. Ehsan, Virginia Polytechnic Institute and State University, Blacksburg, VA; A. Castellanos, The University of Texas at El Paso, El Paso, TX; M. Sharma Priyadarshini, Virginia Polytechnic Institute and State University, Blacksburg, VA	1:40 p.m. AIAA-2026-4715 Mixed Uncertainty Quantification for Hypersonic Entry Into Hydrogen-Helium Atmospheres C. Leszcz, T. Aiken, I. Boyd, University of Colorado Boulder, Boulder, CO	2:00 p.m. AIAA-2026-4716 Evaluation of B-Si-C Chemistry Models in High-Enthalpy Air Experiments N. Campbell, I. Boyd, University of Colorado Boulder, Boulder, CO; D. Fletcher, University of Vermont, Burlington, VT		
Thursday, 11 June 2026					
F360-11 1:30 - 3:00 p.m.	Faster, Higher, Farther: Supersonic, Hypersonic and Suborbital Point-to-Point				Seaport Ballroom D-H
New high-speed flight concepts are about to reshape global mobility, drawing on the AIAA High-Speed Flight Task Force's recent cross-community work on civil flight beyond Mach 1. Building from their recommendations to integrate technical, economic, environmental, and regulatory perspectives, the session will connect supersonic, hypersonic, and suborbital point-to-point concepts into a coherent roadmap for future transport systems.					
Thursday, 11 June 2026					
NW-08 3:00 - 3:30 p.m.	Coffee Break				Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Thursday, 11 June 2026					
ACD-18	Clean Aviation AWATAR project				Balboa A
This session will present all the result from Clean Aviation AWATAR project dealing with the maturation of the strut braced wing configuration. Key technologies are developped in order to mature this new configuration : OAD enhancement, cruise performance result, USF integration, laminar flutter assessment and innovative leading edge technologies.					
Thursday, 11 June 2026					
APA-47/HSABP-09/INPSI-06	Aerodynamics of Inlets and Nozzles				Hillcrest B
Chaired by: M. CONWAY, Aerospace Corporation and J. AHUJA, Georgia Institute of Technology and L. WEIR, NASA					
3:30 p.m. AIAA-2026-4717	3:50 p.m. AIAA-2026-4718	4:10 p.m. AIAA-2026-4719			

Characteristics Derived Boundary Condition for Axisymmetric Nozzle Design of Hypersonic Wind Tunnels C. Yen, B. Martindale, Amentum Technology, Inc., Tullahoma, TN	Unsteady Effects Induced by Inflow Contamination in a Mixed Compression Inlet G. Dashora, U. Sasidharan, R. Kumar, Florida State University, Tallahassee, FL	Experimental Flowfield Characterization of a Mixed Compression Intake Using Particle Image Velocimetry R. Smith, U. Sasidharan, R. Kumar, FAMU-FSU College of Engineering, Tallahassee, FL			
Thursday, 11 June 2026					
APA-48	Aero-Propulsive Interactions and Aerodynamics of Integrated Propeller Systems II				Balboa B
Chaired by: A. ABOELEZZ , University of Maine and J. SALERNO, Johns Hopkins University Applied Physics Laboratory and K. SHOELE					
3:30 p.m. AIAA-2026-4720 Decomposing Aeropropulsive Phenomena Governing Stability and Control Sizing of Aft-Propeller Aircraft G. Neves, T. Araújo, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil; T. Sinnige, Technische Universiteit Delft, Delft, The Netherlands; R. Da Silva, Instituto Tecnológico de Aeronautica, Sao Jose dos Campos, Brazil	3:50 p.m. AIAA-2026-4721 Effects of Discrete One-Minus-Cosine Gusts on a Propeller-Wing System M. Lobb, A. Finnemore, C. Proe, J. Modrzynski, Swansea University, Swansea, United Kingdom; M. Westin, Embraer SA, Sao Jose dos Campos, Brazil; A. Celik, Swansea University, Swansea, United Kingdom	4:10 p.m. AIAA-2026-4722 Unsteady Aerodynamic Response of Single and Side-by-Side Propellers in Continuous Gusts A. Finnemore, M. Lobb, J. Modrzynski, C. Proe, X. Yuying, Swansea University Faculty of Science and Engineering, Swansea, United Kingdom; Y. Yuan, University of Glasgow, Glasgow, United Kingdom; et al.	4:30 p.m. AIAA-2026-4723 Tandem Propeller-Wing Interaction Under Discrete and Continuous Gusts M. Lobb, A. Finnemore, C. Proe, J. Modrzynski, X. Yuying, Swansea University, Swansea, United Kingdom; M. Westin, Embraer SA, Sao Jose dos Campos, Brazil; et al.	4:50 p.m. AIAA-2026-4724 Aerodynamic Interaction Between Wing and Propellers in Distributed Electric Propulsion Configuration M. Bomfim, C. Mascarenhas Dias Filho, J. Eguea, Universidade de Sao Paulo Escola de Engenharia de Sao Carlos, São Carlos, Brazil	
Thursday, 11 June 2026					
APA-49	HLPW6 Mini-Workshop I and All-Hands Tagup				Harbor B
Chaired by: A. CLARK, Boeing Commercial Airplanes and L. WANG, NASA Langley Research Center					
This panel session will serve as the first mini-workshop of HLPW6. Updates from all four technical focus groups will be provided, including RANS, Scale Resolving, High-Order, and AI / Machine Learning, and will include progress reports towards workshop goals. The session will be a mix of presentations, Q&A, and open discussion. This session is open to all interested in the subject.					
Thursday, 11 June 2026					
APA-51	Special Session: NATO AVT 390: Prediction of Vortex Dominated Flows About Generic Missile Airframes				Gaslamp A
Chaired by: N. TAYLOR, MBDA UK Limited					
3:30 p.m. AIAA-2026-4725 Wall-Modeled Large Eddy Simulations on the DLR LK6E2 Airframe	3:50 p.m. AIAA-2026-4726 The Influence of Adaptive Mesh Refinement on	4:10 p.m. AIAA-2026-4727 The Influence of Compressibility Corrections on RANS	4:30 p.m. AIAA-2026-4728 AVT-390: Current Status of the Work Undertaken on		

J. Angel, A. Gbate, G. Kenway, M. Wong, C. Kiris, Volcano Platforms Inc., Palo Alto, CA	RANS Computations on the DLR LK6E2 Airframe E. Dikbas, Roketsan Roket Sanayii ve Ticaret AS, Ankara, Turkey	Computations on the DLR LK6E2 Airframe A. Rausa, Politecnico di Milano, Milan, Italy	DLR LK6E2 and MBDA OTC1 Airframes N. Taylor, MBDA UK Ltd, Bristol, United Kingdom		
---	--	---	--	--	--

Thursday, 11 June 2026

EPATS-14	Design Considerations II	Coronado D
----------	--------------------------	------------

Chaired by: A. SALAM, Honeywell Aerospace

3:30 p.m. AIAA-2026-4729 Power Optimization Strategies for a Converter-Free Multi-Stack Fuel Cell System in Near MW-Range K. Sommer, T. Braun, C. Bansch, Deutsches Zentrum für Luft- und Raumfahrt DLR, Stuttgart, Germany	3:50 p.m. AIAA-2026-4730 Iso-Performance Control Allocation for Distributed Electric Propulsion Systems Z. Wang, S. Hu, Shanghai Jiao Tong University, Shanghai, China	4:10 p.m. AIAA-2026-4731 Exploration of the CLEAN Ammonia Fed SOFCC-GT Turbofan for Use in Commercial Aerospace G. Layhew, D. Schafer, M. Mckaskle, T. Cannon, R. Roberts, Tennessee Tech University, Cookeville, TN	4:30 p.m. AIAA-2026-4732 Design and Analysis of Fuel Cell and Its Auxiliary System in Electric Aircraft J. Zheng, J. Guo, University at Buffalo School of Engineering and Applied Sciences, Buffalo, NY; J. Gladin, Georgia Institute of Technology, Atlanta, GA; P. Andrei, FAMU-FSU Department of Electrical & Computer Engineering, Tallahassee, FL	4:50 p.m. AIAA-2026-4733 Battery Specific Energy and C-Rate Considerations for Hybrid-Electric VTOL and CTOL Aircraft J. Kwak, T. Venkatesh, M. Bradley, M. Luhar, S. Byahut, University of Southern California, Los Angeles, CA	
--	---	---	---	---	--

Thursday, 11 June 2026

EPATS-15	Design Your Own (Hybrid-) Electric Plane: An Interactive Workshop for Students and New Professionals	Coronado A
----------	--	------------

Chaired by: R. DE VRIES, Elysian Aircraft

Ready to design your own electrified aircraft? This hands-on workshop aims to familiarize students and engineers with the conceptual design process for electrified aircraft. The design method is presented and, using an interactive Jupyter Notebook, participants will size a hybrid-electric commuter aircraft from the ground up — working from top-level requirements to outputs like take-off mass, installed power, and wing area — followed by sensitivity analyses to see how design choices affect the resulting aircraft. Hosted by the AIAA Electrified Aircraft Technologies Technical Committee. Bring a laptop and get ready for a fun and instructive session!

Thursday, 11 June 2026

F360-12/EPATS-22 3:30 - 5:00 p.m.	More Electric, Efficient & Timely: UAM, AAM & Regional Markets	Seaport Ballroom D-H
--------------------------------------	--	----------------------

Significant progress has been made to mature underlying technologies to enable aircraft electrification, but how big is the remaining gap separating us from full implementation of the promising technologies? This session is a look back at significant advances by NASA and aviation industry leaders and a look forward to remaining challenges.

Thursday, 11 June 2026

FD-41	High-Order Methods: Spatial and Temporal Discretizations	Gaslamp B
-------	--	-----------

Chaired by: E. BILGIN, Stanford University

3:30 p.m. AIAA-2026-4734 Comparison of Modal Discontinuous Galerkin and Nodal DGSEM Schemes for Shock-Vortex Interaction Problems J. Chapelier, Office National d'Etudes et de Recherches Aérospatiales, Châtillon, France; T. Marchal, CERFACS, Toulouse, France	3:50 p.m. AIAA-2026-4735 A Third-Derivative-Free Fourth-Order Accurate Navier-Stokes Scheme for Arbitrary Tetrahedral Grids H. Nishikawa, National Institute of Aerospace, Hampton, VA	4:10 p.m. AIAA-2026-4736 A New Diffusion Scheme in High-Order Flux Reconstruction Framework: Single- and Symmetric-Reconstruction (SSR) Diffusion Scheme I. Homma, H. Asada, S. Kawai, Tohoku Daigaku, Sendai, Japan			
--	---	---	--	--	--

Thursday, 11 June 2026

FD-42	Hypersonic Boundary Layer Transition	Hillcrest A
-------	--------------------------------------	-------------

Chaired by: A. BERGER, Florida State University

3:30 p.m. AIAA-2026-4737 DSMC Study of Hypersonic Boundary-Layer Unsteadiness Using Data-Driven Analysis M. Senkardesler, I. Karpuzcu, D. Levin, University of Illinois Urbana-Champaign, Urbana, IL; V. Theofilis, Technion Israel Institute of Technology, Haifa, Israel	3:50 p.m. AIAA-2026-4738 On the Scaling of Particulate-Seeded Second-Mode Disturbances in Hypersonic Boundary Layers M. Senkardesler, University of Illinois Urbana-Champaign, Urbana, IL; S. Dungan, University of Maryland, College Park, MD; I. Karpuzcu, D. Levin, University of Illinois Urbana-Champaign, Urbana, IL; C. Brehm, University of Maryland, College Park, MD	4:10 p.m. AIAA-2026-4739 Numerical Investigation of the Hypersonic Boundary Layer Transition Over a Blunt Cone Using High-Order Discontinuous Galerkin Methods and Stability Theories A. Ghyoot, Université Libre de Bruxelles, Brussels, Belgium; V. Romano, A. Testa, G. Perrucci, P. Schrooyen, Von Karman Institute for Fluid Dynamics Aeronautics and Aerospace Department, Sint-Genesius-Rode, Belgium; D. Henneaux, Cnraero ASBL, Gosselies, Belgium; et al.			
---	---	--	--	--	--

Thursday, 11 June 2026

FL-17 3:30 - 5:00 p.m.	Technical Deep Dive and Update on the Blended Wing Body	Solana Beach A/B
---------------------------	---	------------------

Moderator: Dan Pike, US Air Force Speakers: Fay Collier, NASA Romar Frazier, JetZero John Vassberg, JetZero Norm Princen, JetZero Florentina Viscotchi, JetZero

Thursday, 11 June 2026

GT-16	Flow Quality, Data Quality, and Uncertainty Quantification II	Ocean Beach
-------	---	-------------

Chaired by: S. MULLER, Amentum and E. HUBBARD, NASA Glenn Research Center

3:30 p.m. AIAA-2026-4741	3:50 p.m. AIAA-2026-4742	4:10 p.m. AIAA-2026-4743	4:30 p.m. AIAA-2026-4744		
-----------------------------	-----------------------------	-----------------------------	-----------------------------	--	--

Supersonic Swirling Flow Characterization by Mie Scattering L. Jimenez, A. Stoica, P. Lax, I. Sniff, University of Notre Dame College of Engineering, Notre Dame, IN; A. Houpt, Inertial, LLC, Chicago, IL; S. Leonov, University of Notre Dame College of Engineering, Notre Dame, IN	Prediction of Perturbed Inflow State for Laval Nozzles in Hypersonic Ludwig Tubes J. Heinrich, M. Meinke, D. Krug, W. Schroeder, Rheinisch-Westfälische Technische Hochschule Aachen Aerodynamisches Institut und Lehrstuhl für Strömungsmechanik, Aachen, Germany; L. Lühr, R. Radespiel, Technische Universität Braunschweig Institut für Strömungsmechanik, Brunswick, Germany	Impact of Storage-Tube Heating Configurations on Flow Quality and Transition in a Hypersonic Ludwig Tube L. Lühr, F. Colombo, Y. Chang, K. Soy, D. Rival, R. Radespiel, Technische Universität Braunschweig, Brunswick, Germany; et al.	Integrating Uncertainty Analysis Into Wind Tunnel Model Design K. Guenther, D. Eichner, D. Currison, United States Military Academy at West Point, West Point, NY		
---	--	--	--	--	--

Thursday, 11 June 2026

GT-17/APA-52/CFD2030-08	Why Are We Modeling our Wind Tunnels?	Cortez Hill C
-------------------------	---------------------------------------	---------------

Chaired by: S. DUNN, Amentum Technology, Inc. and R. DECKER, USAF Academy

Providers of aerospace ground test services are developing and using digital models of their facilities to both improve understanding of their capabilities and to provide improved services to test customers. This session will introduce this topic from both the service provider and customer/ user perspectives by exploring why this is happening in terms of the technical gains and the associated business cases. It will also speak to the advantages gained toward advancing availability of an integrated (physical test and CFD) toolkit for researchers and producers. Panel and Audience Discussion Moderator: Steven Dunn (Amentum) Panelists: Mr. Dave Roberts, ARA Mr. John Fussell, Boeing Ms. Melissa Rivers, NASA Mr. Jeff Jepson, RTX

Thursday, 11 June 2026

INPSI-07	Performance of Electric Ducted Fans and Hybrids	Harbor A
----------	---	----------

Chaired by: J. LITT, NASA Glenn Research Center and S. BALAKRISHNAN, Purdue University

3:30 p.m. AIAA-2026-4745 Design and System Integration for Experimental Testing of Electric Ducted Fans (EDFs) O. Odukoya, A. Saha, A. Rahman, C. Savage, B. Jo, Tennessee Tech University, Cookeville, TN	3:50 p.m. AIAA-2026-4746 Experimental Investigation and Performance Evaluation of an Electric Ducted Fan (EDF) for Distributed Propulsion Systems O. Odukoya, B. Jo, Tennessee Tech University, Cookeville, TN	4:10 p.m. AIAA-2026-4747 Hybrid Electric Powertrain, Power and Propulsion Systems (HEPPPS) for Conventional UAVs and Their Design Criteria A. Rahman, A. Saha, B. Jo, Tennessee Tech University, Cookeville, TN			
---	---	--	--	--	--

Thursday, 11 June 2026

MDO-14	Multidisciplinary Sensitivity Analysis and Optimization	Cortez Hill A
--------	---	---------------

Chaired by: J. DEATON, Air Force Research Laboratory

3:30 p.m. AIAA-2026-4748 Computation of Design Derivatives for Time-Domain Nonlinear Aeroelastic Systems B. Preston, U. Fasel, R. Palacios, Imperial College London, London, United Kingdom; A. Castrichini, Airbus UK, Filton, United Kingdom	3:50 p.m. AIAA-2026-4749 Aero-Structural Sensitivity Computation Workflow Using the CFD Software by ONERA, DLR and AIRBUS F. Volle, M. Widhalm, A. Büchner, F. Kasielke, Deutsches Zentrum für Luft- und Raumfahrt DLR, Cologne, Germany	4:10 p.m. AIAA-2026-4750 Graph-Based Element Removal Method for Gradient-Based Topology Optimization S. Simoes, F. Danzi, University of California Merced, Merced, CA			
---	---	--	--	--	--

Thursday, 11 June 2026

MDO-17	MDO Award Lecture	Harbor D
--------	-------------------	----------

Chaired by: A. CUCO, EMBRAER S.A.

This MDO lecture will be given by Anne Gazaix, Airbus Operations SAS, the recipient of the 2026 AIAA MDO award, presented to an individual for outstanding contributions to the development and/or application of techniques of multidisciplinary design optimization in the context of aerospace engineering. This prestigious award is proudly sponsored by the AIAA MDO Technical Committee.

Thursday, 11 June 2026

SSIF-01	Detection and Identification Methods	La Jolla A
---------	--------------------------------------	------------

Chaired by: C. CONTE, University of Naples Federico II and M. RHUDY, Penn State Berks

3:30 p.m. AIAA-2026-4751 Certifiability-Aware Vision-Assisted Decision-Support Framework for Reliable Vertiport Identification in Advanced Air Mobility (AAM) Operations A. Shaik, University of Maryland, College Park, MD	3:50 p.m. AIAA-2026-4752 Autonomous Thermal-Vision Human Condition Detection Using Unmanned Aerial Systems O. Ahmed, J. Stanziano, A. Khalid, Kennesaw State University, Kennesaw, GA	4:10 p.m. AIAA-2026-4753 Real-Time Vehicle Detection and Enumeration Using Unmanned Aerial Systems A. Khalid, O. Ahmed, E. Debeb, Kennesaw State University, Kennesaw, GA	4:30 p.m. AIAA-2026-4754 Event-Based Object Detection on a Lighter-Than-Air UAV B. Cox, P. Coen, O. Dantsker, Indiana University, Bloomington, IN	4:50 p.m. AIAA-2026-4755 AI-Based Flight State Identification for Aerospace Control Systems A. Iqbal, G. Wild, University of New South Wales Canberra at ADFA, Canberra, Australia; K. Iqbal, The University of Lahore, Sargodha, Pakistan	
--	--	--	--	---	--

Thursday, 11 June 2026

EPATS-20	EPATS Rolling Recap	Coronado E
----------	---------------------	------------

Chaired by: S. KESTLER, Collins Aerospace and H. SCHLICKENMAIER, HS Advanced Concepts

The Rolling Recap is a long-standing service to the AIAA electrified aircraft community that has highlighted aircraft electrification technical papers and key industry events for a decade. Traditionally, these highlighted reports have been one-chart summaries of the past forums and related conferences. This year, the approach will be to build an annotated bibliography of aircraft electrification technical papers, in a form suitable for distribution to a wider community. The Rolling Recap session will present highlights from the annotated bibliography and solicit comments from all participants to identify the best aspects to carry forward in subsequent years. A lively Q&A session will follow the short overview.

Friday

Friday, 12 June 2026					
SP-05 7:30 - 8:00 a.m.		Technical Papers Session Prep			Session Rooms
Authors who are presenting papers will meet with session chairs and co-chairs in their session rooms for a short 30-minute prep 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).					
Friday, 12 June 2026					
PLNRY-05 8:00 - 9:00 a.m.		Transforming the Global Airspace: Rethinking the Human-Autonomy Team Architecture			Seaport Ballroom D-H
When people and computers interact, it's usually a given that the computer serves as an aide while the human acts as a supervisor. With automation appearing more and more across daily life—including in air—that division of labor could soon shift. Tasks we think of as belonging to humans may soon be taken over by computers, and there could be consequences to that shift that haven't yet been imagined. Automation can take specific tasks out of human hands, but automation can also make it more complex and more difficult for a human to act as supervisor. For example, an airplane flying at 30,000 feet may be on autopilot, but the human pilot is ready to take over. During an average flight, a human pilot is manually flying for just two to seven minutes, while for the rest of that time, pilots are managing the aircraft's flight. They are watching outside, talking with air traffic control, and communicating with personnel from their airline, all while being on-call for those two to seven minutes. Automation is a moving target because it goes with our presumption of what is ascribed to the human. As vehicles of all kinds gain automation, the traditional architecture of how humans and computers interact may get muddy. Fundamental questions need to be addressed, such as: Are humans still expected to be supervisors? As we near full automation, does the ultimate responsibility for what happens in an airplane still lie with the human operator?					
Friday, 12 June 2026					
NW-09 9:00 - 9:30 a.m.		Coffee Break			Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					
Friday, 12 June 2026					
APA-54		Unmanned Aerial Vehicles/Systems, and Micro Air Vehicles			Balboa C
Chaired by: R. GRIFFITHS, Texas A&M University					
9:30 a.m. AIAA-2026-4759 Installed Thrust Measurements of Small Quadrotor Propellers K. Anantha, D. Turchiaro, R. Deters, S. Kleinke, Embry-Riddle Aeronautical University Worldwide and Online, Daytona Beach, FL; B. Cox, O. Dantsker, Indiana University, Bloomington, IN	9:50 a.m. AIAA-2026-4760 Aerodynamic Effects of Fuselage-Package Separation Distance on UAV Performance S. Bhujel, University of North Dakota, Grand Forks, ND; Y. Pang, The University of Texas at Austin, Austin, TX; P. Snyder, C. Tang, J. Hu, University of North Dakota, Grand Forks, ND	10:10 a.m. AIAA-2026-4761 Multi-Fidelity Data Fusion Methods for Aerodynamic Database Generation of a Small UAS M. Ang, H. Shah, N. Sathyanarayana, S. Sen, Wichita State University National Institute for Aviation Research, Wichita, KS	10:30 a.m. AIAA-2026-4762 URANS-Based Aerodynamic Assessment of a Ducted Fan in Hover for eVTOL Applications M. Mumasha, R. Ajaj, Khalifa University, Abu Dhabi, United Arab Emirates; K. Djidjeli, University of Southampton, Southampton, United Kingdom; M. Abraham, Khalifa University, Abu Dhabi, United Arab Emirates		
Friday, 12 June 2026					

EPATS-17	EPATS Keynote III Challenges and Opportunities in Electrified Propulsion Aircraft Certification & Commercialization				Coronado A
Challenges and Opportunities in Electrified Propulsion Aircraft Certification & Commercialization Certification and commercialization of electrified propulsion aircraft poses several opportunities and challenges. Technical progress has been made in batteries, propulsors, and integrated aircraft design to reduce weight, improve efficiency, and improve integration and safety. To date, though, there are no certified electrified propulsion aircraft in the U.S. Certification poses regulatory challenges due to the introduction of novel technology and integrations. Ampaire will provide an update on their progress in commercializing the hybrid electric Grand Caravan and certification pathways highlighting where key risks are retired. Opportunities for implementation of improved technologies and their impact on aircraft design and utility will also be discussed and how it might impact research priorities.					
Friday, 12 June 2026					
F360-13 9:30 - 11:00 a.m.	NASA ULI at 10: Accelerating the Future of Flight				Harbor G
How do we transform today's brightest university minds into the aviation pioneers of tomorrow? In this panel, we will explore NASA Aeronautics' University Leadership Initiative (ULI) and how it achieves the dual goals of supporting breakthrough research while cultivating a future generation of aerospace workers. Celebrating a decade of success, we will discuss the program's early beginnings, its realized value, and its exciting trajectory as NASA looks forward to leveraging promising innovations with new awards in 2026 and beyond. Ultimately, we will highlight how empowering faculty and student teams to identify big problems and providing the resources to creatively solve them accelerates the future of aviation, delivering profound, lasting benefits to both the university community and the general public. Moderator: John Cavolowsky – Director of the NASA Transformative Aeronautics Concepts Program Panelists: Andy Provenza – Deputy Project Manager, NASA ARMD University Innovation Rory Roberts – Jon Yarbrough Endowed Professor, Mechanical and Nuclear Engineering, Tennessee Technological University Alex Tharpe – PhD candidate, Mechanical and Nuclear Engineering, Tennessee Technological University Irewole (Wally) Orisamolu – Associate Director, Advanced Concepts & Technologies Group, Pratt & Whitney Jon Gladin – Chief, Propulsion and Energy Division, Aerospace Systems Design Laboratory, Georgia Institute of Technology Darshan Sarojini – Assistant Professor, Aerospace and Ocean Engineering Department, Virginia Polytechnic Institute and State University					
Friday, 12 June 2026					
FD-43	CFD Methods for Applied Aerodynamics				Hillcrest B
Chaired by: P. VIJGEN and E. BILGIN, Stanford University					
9:30 a.m. AIAA-2026-4763 Solver and Modeling Sensitivity Analysis of a Four-Engine Rocket Launch Flame Deflector U. Erol, A. Ünsal, Roketsan Roket Sanayii ve Ticaret AS, Ankara, Turkey	9:50 a.m. AIAA-2026-4764 BDF Dual Time-Stepping Positivity-Preserving Entropy Stable Spectral Collocation Schemes for 3-D Navier-Stokes Equations N. Yamaleev, M. Sayyari, Old Dominion University, Norfolk, VA	10:10 a.m. AIAA-2026-4765 Surface Interpolation Methods for Loosely Coupled Aero-Thermal Problems J. Crean, T. Voskuilen, Sandia National Laboratories, Albuquerque, NM	10:30 a.m. AIAA-2026-4766 GPU-Accelerated Simulations of Moving Boundary Problems and Fluid-Structure Interaction at Extreme Scales S. Kumar, Johns Hopkins University, Baltimore, MD; J. Romero, NVIDIA Corp, Santa Clara, CA; J. Seo, Johns Hopkins University, Baltimore, MD; M. Fatica, NVIDIA Corp, Santa Clara, CA; R. Mittal, Johns Hopkins University, Baltimore, MD	10:50 a.m. AIAA-2026-4767 High-Fidelity Simulations of Ground Effect Aerodynamics and Water Wave Interactions A. Schemmel, C. Shelton, J. Allen, N. Prewitt, J. Foster, US Army Engineer Research and Development Center, Vicksburg, MS	
Friday, 12 June 2026					
FD-44	Data-Driven Methods for CFD Modeling and Applications I				Hillcrest A

Chaired by: O. SCHMIDT, University of California, San Diego and X. YANG, Penn State University					
9:30 a.m. AIAA-2026-4768 Data Driven Turbulence Model Correction in Industrial Flows Based on Detached Eddy Simulations G. Laruelle, T. Perret, F. Billard, F. Chalot, M. Mallet, CTE Dassault Aviation, Saint-Cloud, France; F. Chedeveergne, ONERA Toulouse, Toulouse, France	9:50 a.m. AIAA-2026-4769 Semi-A Priori Evaluation of Backscatter-Admitting Machine Learning Sub-Grid Scale Models in WRF Hurricane Simulations M. Hasan, M. Yu, T. Oates, University of Maryland Baltimore County, Baltimore, MD	10:10 a.m. AIAA-2026-4770 The Engineering Turbulence Problem and a Data-Driven Solution J. Li, R. Kunz, The Pennsylvania State University, University Park, PA; G. Huang, Wright State University, Dayton, OH; X. Yang, The Pennsylvania State University, University Park, PA	10:30 a.m. AIAA-2026-4771 Uncertainty and Error Quantification in General-Purpose Data-Driven Wall Model for Low-Speed Flows I. Hayat, California Institute of Technology, Pasadena, CA; Y. Ling, Massachusetts Institute of Technology, Cambridge, MA; K. Goc, The Boeing Company Seattle, Seattle, WA; A. Lozano-Duran, California Institute of Technology, Pasadena, CA	10:50 a.m. AIAA-2026-4772 Subgrid Stress Modeling for Complex Geometry Using a Graph Attention Neural Network A. Wu, S. Lele, Stanford University School of Engineering, Stanford, CA	
Friday, 12 June 2026					
MDO-15	Metamodeling, Reduced-Order Modeling, Multifidelity Methods and Approximation for MDO				Cortez Hill A
Chaired by: P. BLONIGAN, Sandia National Laboratories and X. DU					
9:30 a.m. AIAA-2026-4779 An Efficient Thermo-Structural Analysis Framework for Reusable Vehicles Using a Multi-Fidelity Reduced-Order Aero-Thermal Model E. Kim, M. Park, Y. Jeong, S. Park, J. Cho, Inha University, Michuhol-gu, South Korea	9:50 a.m. AIAA-2026-4780 Optimizing Electric Aircraft Batteries: Tackling Flight and Material Uncertainties With Robust Designs Using a Multifidelity Approach A. Guibert, Á. Díaz-Flores Caminero, M. Bookwala, H. Kim, University of California San Diego, La Jolla, CA	10:10 a.m. AIAA-2026-4781 Adaptive Multitask Gaussian Process Surrogate Models for Supersonic Fluid-Structure Interactions S. Adhikary, V. Narayanaswamy, NC State University, Raleigh, NC; A. Renganathan, The Pennsylvania State University, University Park, PA	10:30 a.m. AIAA-2026-4782 Computational Framework for High-Fidelity Aerodynamic Shape Optimization Using Weighted POD S. van Schie, J. Hwang, University of California San Diego, La Jolla, CA		
Friday, 12 June 2026					
SEAP-1	Water Flying Special Session				Mission Beach A/B
This half-day special session examines the re-emergence of seaplane and wing-in-ground-effect (WIG) systems as a distinct, commercially viable aviation category. From business case analytics and infrastructure economics, to OEM technical challenges, to operator experiences in coastal markets, the session brings together the leading voices across the seaplane ecosystem. It establishes why distributed maritime operations, coastal mobility, and runway-independent access are driving a renewed epoch in water-based aviation, and proposes a sustained role for AIAA in formalizing this multidisciplinary domain. Moderator: Bruce Holmes Speakers: "Water Flying Business Case and the Future Infrastructure for AAM" Michael Dymant, NEXA Capital Partners					
Friday, 12 June 2026					
SSIF-02	Sensors Systems and Estimation Methods				La Jolla A
Chaired by: C. CONTE, University of Naples Federico II					

9:30 a.m. AIAA-2026-4783 HARBOR: Heading Analysis and Reconstruction from Behavioral Observation and Radar J. Dantas, P. Silva Filho, J. Cunha, G. Dietzsch, Instituto de Estudos Avancados, Sao Jose dos Campos, Brazil	9:50 a.m. AIAA-2026-4784 Development of Low Altitude Sounding Rocket for Collecting Eulerian Slices of Atmospheric Boundary Layer J. Pippin, A. Avery, Oklahoma State University, Stillwater, OK	10:10 a.m. AIAA-2026-4785 Thermal Human Head Temperature Estimation Using Unmanned Aerial Systems for Search and Rescue Operations O. Ahmed, J. Guye, A. Khalid, Kennesaw State University, Kennesaw, GA			
Friday, 12 June 2026					
EPATS-02	Building the Future of Autonomous Flight: Product Management Lessons from Next-Generation eVTOL Development				Coronado E
Chaired by: A. TRIPATHI					
This session will examine the unique role of product management in shaping the next generation of autonomous eVTOL aircraft and the broader Advanced Air Mobility ecosystem. Unlike traditional aviation development, AAM product teams must orchestrate a tightly integrated system spanning aircraft requirements, autonomy stack design, vertiport operations, remote supervision, C2/UTM integration, and commercialization strategy. Through a panel and interactive roundtable discussion, the session will highlight how product managers balance safety, performance, manufacturability, customer needs, and regulatory constraints to develop aircraft and operating models that are technically feasible, economically competitive, and scalable. Topics will include: – Translating ConOps and customer research into system-level requirements – Roadmapping autonomy capabilities – Cost modeling (e.g., CASM/RASM), operations modeling, and deployment planning – Managing trade studies – Aligning engineering, certification, commercial, and partner ecosystems – Approaches for creating and iterating product strategy in a first-of-its-kind market This session is aimed at attendees who want a deeper understanding of how disciplined product thinking can accelerate the safe, commercially viable introduction of autonomous AAM systems.					
Friday, 12 June 2026					
EPATS-16	Standards Development Supporting Evolving Electric Aircraft Regulations				Coronado D
Chaired by: V. SCHULTZ, Revolutionary Aerospace LLC					
It's important to get the perspective from those developing the industry standards and certification basis for electric aircraft technologies. This panel will explore the current efforts happening to build consensus amongst the standards organizations and the regulatory bodies responsible for certification of electric aircraft.					
Friday, 12 June 2026					
EPATS-19	Design Considerations III				Coronado D
Chaired by: A. JANKOVSKY, NASA Glenn Research Center					
1:00 p.m. AIAA-2026-4786 Preliminary Dynamic Modeling of a Quarter-Scale Distributed Electric Propulsion Aircraft J. Litt, NASA Glenn Research Center, Cleveland, OH; E. Hernandez, The University of	1:20 p.m. AIAA-2026-4787 Investigation of Different Hybridization Schemes for VTOL Aircraft Using Conceptual Design Tools S. Das Biswas, W. Crossley, D. DeLaurentis, Purdue University System, West Lafayette, IN	1:40 p.m. AIAA-2026-4788 Geometry-Based Design Methodology of Axial-Flux Permanent-Magnet Synchronous Motors for Electrified Aircraft	2:00 p.m. AIAA-2026-4789 Wiring Innovation for Electrified Aircraft D. Rad, Asterope, LLC, Nashville, TN		

Texas at El Paso College of Engineering, El Paso, TX; S. Liu, University of Illinois Urbana-Champaign, Champaign, IL; J. Steiner, The Ohio State University, Columbus, OH; T. Sowers, A. Owen, HX5, LLC, Brook Park, OH; et al.		J. Ryu, J. Kim, J. Park, K. Yee, Seoul National University, Gwanak-gu, South Korea			
Friday, 12 June 2026					
EPATS-21	Progress and Pathways in Electric Aircraft Certification				Coronado A
Chaired by: V. SCHULTZ, Revolutionary Aerospace LLC					
Significant Barriers remain to be overcome to overcoming these barriers, in particular the area of certification. How is industry building confidence with the regulatory bodies to reach full implementation of this promising technology.					
Friday, 12 June 2026					
FD-47	Data-Driven Methods for CFD Modeling and Applications II				Hillcrest A
Chaired by: X. YANG, Penn State University					
1:00 p.m. AIAA-2026-4790 Data-Driven Wave Speed Estimation for Flux Difference Splitting Methods A. Barman, A. Sharma, Iowa State University of Science and Technology, Ames, IA	1:20 p.m. AIAA-2026-4791 Local-State Super-Resolution for Vorticity Fields in Remeshed Vortex Methods S. Chen, K. Ramesh, Arizona State University, Tempe, AZ	1:40 p.m. AIAA-2026-4792 Comparing Point Cloud Networks for Aerodynamic Prediction of a Rotorcraft Fuselage J. Shin, Y. Kang, S. Lee, Korea Institute of Industrial Technology, Incheon, South Korea; K. You, Seoul National University, Gwanak-gu, South Korea; S. Jeong, Kyunghee University College of Engineering, Yongin-si, South Korea; S. Lee, CLEW Inc., Seoul, South Korea; et al.	2:00 p.m. AIAA-2026-4793 Evaluation of Deep Learning Models for Hypersonic Heating Predictions J. Douglas, S. Bhushan, A. Way, Mississippi State University, Mississippi State University, MS	2:20 p.m. AIAA-2026-4794 Numerical Simulation of NOx Emissions in a Lean Premixed Hydrogen Combustor Using Different Levels of Fidelity L. Folcarelli, S. Marci, V. Madonia, A. Ferrero, F. Masseni, D. Pastrone, Politecnico di Torino, Turin, Italy	
Friday, 12 June 2026					
FD-48	Instrumentation and Diagnostic Techniques				Ocean Beach
Chaired by: A. BERGER, Florida State University					
1:00 p.m. AIAA-2026-4795 A Synthetic Sensitivity and Parameter Analysis for Transient Multi Hole Probe Measurements S. Eilers, D. Kozulovic, M. Bitter, Universitat der	1:20 p.m. AIAA-2026-4796 Programmable Synthesis of Unsteady Turbulent and Shear Flows Using a Modular Fan-Array Wind Wall	1:40 p.m. AIAA-2026-4797 Validation of Film-Based Pressure-Sensitive Paint-Derived Forces Against Force Balance Measurements on an Elliptic Cone	2:00 p.m. AIAA-2026-4798 Evaluation of Unsteady Loads on an Elliptical Cone Through Integration of Global Pressure Data L. Aagaard, A. Berger, Florida State University, Tallahassee,		

Bundeswehr Munchen Fakultat fur Luft- und Raumfahrttechnik, Neubiberg, Germany	C. Brashear, M. Timsina, A. Balantrapu, The University of Utah, Salt Lake City, UT	B. Akherya, A. Berger, Florida State University, Tallahassee, FL	FL; A. Garner, S. Peltier, Air Force Research Laboratory Aerospace Systems Directorate, Arnold AFB, TN		
Friday, 12 June 2026					
FD-49	Reduced-Order Modeling and Data-Driven Methods for Fluid Dynamics and Aeroacoustics				Hillcrest B
Chaired by: O. SCHMIDT, University of California, San Diego					
1:00 p.m. AIAA-2026-4799 Use of Machine Learning and Sparse Data Estimation Technique to Reconstruct Flow Around a NACA0012 Airfoil O. Razafimino, V. Shinde, Mississippi State University, Starkville, MS	1:20 p.m. AIAA-2026-4800 Autoencoder-Based Feedback Linearising Control of Vortex Shedding J. Proudfoot, M. Basic, C. Nicholls, University of Oxford, Oxford, United Kingdom	1:40 p.m. AIAA-2026-4801 Autoencoder-Based Oscillator Extraction From Multifrequency Flows Y. Kim, University of California Los Angeles, Los Angeles, CA; K. Yawata, H. Nakao, Institute of Science Tokyo, Tokyo, Japan; K. Taira, University of California Los Angeles, Los Angeles, CA			
Friday, 12 June 2026					
MDO-16	Machine Learning and AI-driven Approaches in MDO				Cortez Hill A
Chaired by: P. BLONIGAN, Sandia National Laboratories and S. CHOWDHURY, University at Buffalo					
1:00 p.m. AIAA-2026-4802 Multifidelity Surrogate Modeling for 3D Aerodynamic Flow Field Prediction Using Graph Neural Networks M. Sperry, J. Hwang, University of California San Diego, La Jolla, CA	1:20 p.m. AIAA-2026-4803 Bayesian Algorithm for Collaborative Optimisation With Application to Aircraft Design M. Belhafnaoui, Y. Diouane, Polytechnique Montreal Departement de Mathematiques et de Genie Industriel, Montreal, Canada	1:40 p.m. AIAA-2026-4804 Designing Active Tether- Net Systems for Space Debris Capture With Graph-Learning-Aided Mixed-Combinatorial Optimization F. Liu, A. Boonrath, G. Madhu, E. Botta, S. Chowdhury, University at Buffalo School of Engineering and Applied Sciences, Buffalo, NY	2:00 p.m. AIAA-2026-4805 Data-Driven Stagnation Pressure Closure Models for Improved Modified Newtonian Aerodynamics Predictions J. Needels, P. Blonigan, Sandia National Laboratories, Livermore, CA; M. Barone, J. Murray, Sandia National Laboratories, Albuquerque, NM	2:20 p.m. AIAA-2026-4806 Reduced Jacobian Supervision for Data- Efficient Operator Learning in High- Dimensional Design Spaces M. Warner, J. Hwang, University of California San Diego, La Jolla, CA	
Friday, 12 June 2026					
NW-10 3:00 - 3:30 p.m.	Coffee Break				Seaport Foyer
Coffee breaks allow even more time for making new contacts, continuing discussions from sessions, visiting the Expo Hall, or checking emails and voicemails to keep in touch with the office while you are at the event.					