



# AeroTech

March 14-16, 2023 | Fort Worth, Texas

Program

## AeroTech 2023 (AEROTECH23)

March 14 16, 2023 CDT | <https://www.sae.org/aerotech>

Tue, Mar 14 2023 CDT

08:30 - 10:00	<b>Presentation Session: Opening Plenary -- Tuesday, March 14</b> Chair: Michael McNair Welcome and Keynote Addresses Welcome Keynote: Mr. Matt Holvey, Director, Intelligent Systems – Innovation, Bell, Textron Inc. Keynote: Mr. Robert A. Pearce, Associate Administrator NASA Aeronautics Research Mission Directorate (ARMD) Technical Keynote: Mr. David Alexand...	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
08:35 - 09:10	<b>Presentation Session: Keynote: Matt Holvey, Director, Intelligent Systems – Innovation at Bell, Textron Inc.</b> Mr. Matt Holvey serves as director of Intelligent Systems for Bell’s Technology and Innovation team where he uses his engineering expertise to develop experimental aerospace products using artificial intelligence and other advanced technologies. He leads a dynamic team of technic...	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
09:10 - 09:45	<b>Presentation Session: Keynote: Bob Pearce, NASA Associate Administrator for the Aeronautics Research Mission Directorate</b>	Hangar (Ballroom C), Fort Worth

Mr. Robert A. Pearce is the Associate Administrator for the NASA Aeronautics Research Mission Directorate (NASA ARMD). Pearce manages the agency's aeronautics research portfolio and guides its strategic direction, including research in quiet supersonic flight over land, urban ...

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**09:45 - 10:00**      **Presentation Session: Technical Keynote: David Alexander, Senior Director, Standards, SAE International**      Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)

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**10:00 - 10:15**      **Presentation Session: SAE International Annual Business Meeting**  
Annual Business Meeting of SAE International. All are welcome to attend. SAE Members are encouraged to attend. Presenters: David Schutt, CEO, SAE International and Todd Zarfos, President, SAE International      Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)

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**10:30 - 12:00**      **Presentation Session: Aircraft Systems**  
Chair: Tammy Reeve  
"Whats new with Airborne Hardware Design Assurance for Aviation? newly released FAA AC20-152A harmonized with EASA ". Tammy Reeve  
"System Integration for MOSA-compliant Integrated Avionics Architectures ". Wolfram Zischka      202B, Fort Worth Convention Center (Hybrid)

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**10:30 - 12:00**      **Presentation Session: AeroFast Fastening, Assembly, and Tooling 101**  
Chair: Nathan Pogue  
"Fully automated sealant application for the industrial aircraft production". Nihat Biyiklioglu      204A, Fort Worth Convention Center (Hybrid)

<b>10:30 - 11:15</b>	<b>Presentation Session: NASA Sustainable Flight National Partnership Overview (subsonic)</b> <b>- Rich Wahls</b> NASA Aeronautics Research Mission Directorate (ARMD)	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
<b>10:30 - 11:00</b>	<b>Presentation Session: Aviation Cybersecurity Technical Keynote: Prof. Krishna Sampigethaya</b> Chair: Aharon David Aviation Cyber-Physical System Security: Challenges and Opportunities Prof. Krishna Sampigethaya, Chair and Associate Professor, Cyber Intelligence & Security Dept. at Embry-Riddle Aeronautical University	202A, Fort Worth Convention Center (Hybrid)
<b>10:30 - 12:00</b>	<b>Presentation Session: MBSE and Digital Engineering: Value of Digital Standards</b> Chair: Saulius Pavalkis, Aleczander Jackson Learn how you can leverage digital standards into your product lifecycle, including: How to incorporate digital standards into your MBSE projects How to transition from digital standards in MBSE to a full model-based engineering solution, covering model-based design, analysis a...	201B, Fort Worth Convention Center (Hybrid)
<b>11:00 - 11:45</b>	<b>Presentation Session: Aviation Cybersecurity Challenges Panel</b> Chair: Aharon David Aviation Cyber-Physical System Security: Challenges and Opportunities Moderator(s): Ms. Gloria D'Anna, Ford Motors, SAE G-32 co-chair Panelists: • Prof. Krishna Sampigethaya, Chair and Associate Professor, Cyber Intelligence & Security Dept. at Embry-Riddle Aeronautical Universit...	202A, Fort Worth Convention Center (Hybrid)

11:15 - 12:00	<b>Presentation Session: NASA QUESST Overview (supersonic) - Peter Coen</b> NASA Aeronautics Research Mission Directorate (ARMD)	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
11:45 - 12:00	<b>Presentation Session: Do You Want to See Something REALLY Scary?</b> Chair: Aharon David Aviation's Cybersecurity Twilight Zone • G-32 "Midnight Special" Team with Doug Britton, Chief Strategy Officer and Director at RunSafe Security Inc	202A, Fort Worth Convention Center (Hybrid)
13:00 - 15:00	<b>Presentation Session: Advanced Air Mobility</b> Chair: John Macomber "eVTOL vs. eSTOL". Thomas McNally "Advantages of Parawing and Fixed Wing Type eSTOL Vehicle Systems vs. eVTOL for AAM Ecosystem". Thomas McNally "Optimizing E/E systems development to capture eVTOL market share". Steve Caravella "ADAS Sensor Data Handling in the world of Autonomous Mobily". Rojalin samantaray	203A, Fort Worth Convention Center (Hybrid)
13:00 - 15:00	<b>Presentation Session: Aircraft Systems</b> Chair: Tammy Reeve "A Review of Digital Twin for Vehicle Predictive Maintenance System". Chengwei Wang "Evaluating Aircraft Hydraulic Pump Suction Pressure During Change of Regulating Pressure ". Ayşe Dilek Özkan	202B, Fort Worth Convention Center (Hybrid)
13:00 - 15:00	<b>Presentation Session: Manufacturing</b>	203B, Fort Worth

Chair: John Mazurowski

"The Digital T's - Threads, Twins, Technology, and Transformation". Don A. Kinard

"TPM – Total Productive Maintenance – Unprecedented implementation in a Paint Booth

Complex – An organic system rather than a single machine.". Gilberto Ferreira de Castro

"Machine Learning Methods to Improve the Accuracy of Industrial Robots". Lauren McGarry

Convention Center  
(Hybrid)

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**13:00 - 13:30**

**Presentation Session: Aviation Cybersecurity Technical Keynote: Aharon David, AFuzion Inc**

Chair: Aharon David

Aviation / Cyber-Physical Systems Existing and Emerging Standards & Regulations Mr. Aharon David – AFuzion Inc.: Aviation Cybersecurity Certification Instructor, SAE G-32 SWA co-chair, JA6678 editor

202A, Fort Worth  
Convention Center  
(Hybrid)

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**13:00 - 13:45**

**Presentation Session: IDEAL Keynote: Engineering or Management: What is My Right Career Path? by Gina Covarrubias, BSAAE, MSME**

Chair: Gina Covarrubias

Get inspired, motivated to take yourself and your career to new heights, and gain expert guidance from an engineering life coach. A tremendous opportunity to arm yourself with the tools for advancement - free at AeroTech. Visit <https://deliberatedoing.com/about/> for more info.

"Engineering or Management: What is My Right Career Path?". Gina Covarrubias

Hangar (Ballroom  
C), Fort Worth  
Convention Center  
(Hybrid)

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**13:00 - 14:00**

**Presentation Session: Using MBSE Models to Enable Industry Standards Development**

Chair: Saulius Pavalkis, Alecander Jackson

Using MBSE Models to Enable Industry Standards Development Presenter: Russell Mitchell, Principal Systems Engineer, System Safety, Belcan and Cynthia Dean, Global MBSE Transformation Leader, Dassault Systemes

201B, Fort Worth  
Convention Center  
(Hybrid)

<b>13:00 - 14:00</b>	<p><b>Presentation Session: How to Write a Digital-Ready Standard</b>  Chair: Leslie McKay  As the world moves from analog to digital, engineering resources need to be accessed in a digital format. This drive for digitization promotes interoperability between different systems to help drive efficiencies and development of complex products. Digital standards are going to be us...</p>	<p>204A, Fort Worth Convention Center  (Hybrid)</p>
<b>13:30 - 14:15</b>	<p><b>Presentation Session: Aviation Cybersecurity Certification Panel</b>  Chair: Aharon David  Aviation Cybersecurity Certification Moderator(s): Mr. Aharon David – AFuzion Inc.: Aviation Cybersecurity Certification Instructor, SAE G-32 SWA co-chair, JA6678 editor Panelists: • Ms. Teresa Merklin – Lockheed Martin (Cyber Fellow) • Doug Britton, Chief Strategy Officer and Director ...</p>	<p>202A, Fort Worth Convention Center  (Hybrid)</p>
<b>13:45 - 14:45</b>	<p><b>Presentation Session: Interactive Panel Discussion: SAE S-18 Aircraft and System Development and Safety Assessment Committee – Life After ARP4754B &amp; ARP4761A Publication</b>  Chair: Jonathan Archer  Learn from and interact with (including asking questions of) industry veterans providing an update on and practical information related to Aircraft and System Development and Safety Assessment standards, ARP4754B and ARP4761A. Moderator: Jonathan Archer, Direct...</p>	<p>Hangar (Ballroom C), Fort Worth Convention Center  (Hybrid)</p>
<b>14:00 - 15:00</b>	<p><b>Presentation Session: Deep Dive into End-to-End Model Based Digital Engineering Certification from MBSE to Design</b>  Chair: Saulius Pavalkis, Aleczander Jackson  Presenter: Sailius Pavalkis, Global MBSE Transformation Leader, Dassault Systemes</p>	<p>201B, Fort Worth Convention Center  (Hybrid)</p>

<b>14:15 - 15:00</b>	<p><b>Presentation Session: SAE G-32 Overview</b>  Chair: Aharon David  Overview of G-32 activities and major products Mr. Bill Scofield – Boeing, SAE G-32 co-chair</p>	<p>202A, Fort Worth  Convention Center  (Hybrid)</p>
<b>15:30 - 16:30</b>	<p><b>Presentation Session: Advanced Air Mobility -- AFWERX</b>  Chair: John Macomber  Advanced Air Mobility (AAM) -- AFWERX presentations  <b>"Predicting eVTOL Simulator Performance Using Basic Performance Resources"</b>. Elizabeth Combs  <b>"eVTOL Flight: Forecasting future training requirements in an emerging aviation market"</b>. Steve Ellis, Samantha N. Emerson</p>	<p>203A, Fort Worth  Convention Center  (Hybrid)</p>
<b>15:30 - 17:00</b>	<p><b>Presentation Session: Power, Thermal, and Propulsion</b>  Chair: Melissa Bravin  <b>"System wide reliability impact of power converters in More-Electric Aircraft applications"</b>. Kieran Millar  <b>"Advanced Electric Propulsion Integrated System with High Power Density and High Efficiency Cooling"</b>. XiangWen Xiong  <b>"Numerical Analysis of Battery Thermal Management System using Passive Cooling Technique"</b>. Ramesh Chinnakurli Suryanarayana</p>	<p>202B, Fort Worth  Convention Center  (Hybrid)</p>
<b>15:30 - 17:00</b>	<p><b>Presentation Session: Manufacturing</b>  Chair: John Mazurowski  <b>"Demonstration of Measurement Assisted Determinate Assembly of a Regional Aircraft Wingbox Mock-Up"</b>. Joseph Griffin  <b>"A High-Performance Milling Machine for Aerospace Applications"</b>. Burton Bigoney</p>	<p>203B, Fort Worth  Convention Center  (Hybrid)</p>

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<b>15:30 - 16:00</b>	<p><b>Presentation Session: Aviation Cybersecurity Technical Keynote: Teresa Merklin, Lockheed Martin</b>  Chair: Aharon David  Cybersecurity Resiliency Ms. Teresa Merklin – Lockheed Martin (Cyber Fellow)</p>	<p>202A, Fort Worth Convention Center  (Hybrid)</p>
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<b>15:30 - 17:00</b>	<p><b>Presentation Session: Digital Engineering and MBSE - Perspectives and Insights From Government and Industry</b>  Chair: Saulius Pavalkis, Aleczander Jackson  Deep Dive into End-to-End Model Based Digital Engineering Certification from MBSE to Design  Moderator: Aleczander Jackson, Enola Panelist: Yvonne Bijan, Lockheed Martin, Bruce DeCleene, FAA, Jim Murphy, NASA, Ruxandra Duca ,Wisk and Russell Mitchell, Belcan</p>	<p>201B, Fort Worth Convention Center  (Hybrid)</p>
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<b>16:00 - 16:45</b>	<p><b>Presentation Session: SAE G-32 Illustrative Example – from EV Charging to UAS</b>  Chair: Aharon David  Multimedia presentation of G-32's Electric Vehicle charging – Cybersecurity, with aerospace applications Ms. Gloria D'Anna and ret. USAF Col. Dr. Bill Bryant – Technical Fellow at MTSI</p>	<p>202A, Fort Worth Convention Center  (Hybrid)</p>
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<b>16:30 - 17:00</b>	<p><b>Presentation Session: Advanced Air Mobility (AAM)</b>  Chair: John Macomber  "Spin Testing Improves Electrified Propulsion Rotor Design for Production and Certification".  Hiroaki Endo</p>	<p>203A, Fort Worth Convention Center  (Hybrid)</p>
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<b>16:45 - 17:00</b>	<p><b>Presentation Session: Aviation Cybersecurity Summary &amp; Wrap-Up</b></p>	<p>202A, Fort Worth</p>



Chair: Aharon David

Summary and wrap-up of the Aviation Cybersecurity track Mr. Bill Scofield – Boeing, SAE G-32 co-chair

Convention Center  
(Hybrid)

**Wed, Mar 15 2023 CDT**

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<b>08:30 - 10:00</b>	<b>Presentation Session: Opening Plenary - Wednesday, March 15</b> Chair: David Alexander Must-attend presentations, including welcome and keynote addresses Welcome and Keynote Addresses 8:30 am – Welcome 8:35 am – Keynote: 9:10 am – Keynote: Julie Brightwell, Flight Deck Chief Engineer, Boeing Commercial Airplanes 9:45 am – SAE Awards, including the first S...	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
<b>08:35 - 09:10</b>	<b>Presentation Session: Keynote: Amanda Simpson, Vice President, Research and Technology (R&amp;T) at Airbus Americas</b> Amanda Simpson, Vice President, Research and Technology (R&T) at Airbus Americas, is responsible for establishing the strategic direction and funding opportunities for partnerships with scientific and research communities in North America. Ms. Simpson brings more than ...	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
<b>09:10 - 09:45</b>	<b>Presentation Session: Keynote: Julie Brightwell, Flight Deck Chief Engineer, Boeing Commercial Airplanes</b> Ms. Julie Brightwell is the Boeing Commercial Airplanes Flight Deck Chief Engineer. Her team is responsible for the design of the major components, interfaces, and human factors for all Boeing Commercial Flight Decks and ensure a pilot/machine interface across all Boeing models th...	Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)
<b>09:45 - 10:00</b>	<b>Presentation Session: SAE Sustainable Aviation Award in Honor of Ramesh Agarwal</b>	Hangar (Ballroom

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SAE Awards, including the first SAE Sustainable Aviation Award in honor of Ramesh Agarwal

C), Fort Worth  
Convention Center  
(Hybrid)

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**10:30 - 12:00**

**Presentation Session: Aircraft Systems**

Chair: Tammy Reeve

"Hardware Change Impact Analysis: What is Major and What is Minor for DO-254?". Tammy Reeve

"Built-In-Test for Fiber Optic Links". John Mazurowski

"Reducing aircraft operating costs - how documentation and diagnostics can improve your bottom line". Steve Caravella

202B, Fort Worth  
Convention Center  
(Hybrid)

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**10:30 - 12:00**

**Presentation Session: Manufacturing**

Chair: John Mazurowski

"Improvements in Sleeveless Coldworking". Paul Shemeta

"Improvements to waterjet NDI process". Josh Elrod

"Joining of Nylon using Friction Stir Welding (FSW) Techniques ". Ramesh Chinnakurli Suryanarayana

203B, Fort Worth  
Convention Center  
(Hybrid)

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**10:30 - 12:00**

**Presentation Session: AeroFast Fastening, Assembly, and Tooling 201**

Chair: Kip R Kuldell, Dan Thurnau

"Development of a robotic system for automated drilling and inspection of small aerostructures". Roger Holden

"The Backup Carriage Advance (BUCA) method of Machine Clampup". Peter Zieve

204A, Fort Worth  
Convention Center  
(Hybrid)

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<b>10:30 - 12:00</b>	<p><b>Presentation Session: NASA AAM Ecosystem Track: Advanced Air Mobility (AAM) Industry Update Panel</b></p> <p>Chair: Lexie Brown, Nancy Mendonca</p> <p>Industry members will highlight their AAM mission perspectives on economics, industry progression, tech development, etc. Panelists will highlight what standards activities each organization is participating in and discuss where is development needed. Moderator: Starr Gin...</p>	202A, Fort Worth Convention Center (Hybrid)
<b>10:30 - 11:15</b>	<p><b>Presentation Session: Use of MBSE on eVTOL Compliance with AAM</b></p> <p>Chair: Saulius Pavalkis, Aleczander Jackson</p> <p>Presenter: Ruxandra Duca, Senior System Engineer, Wisk</p>	201B, Fort Worth Convention Center (Hybrid)
<b>11:15 - 12:00</b>	<p><b>Presentation Session: Using MBSE to Perform Functional Analysis to Analyze Customer Requirements</b></p> <p>Chair: Saulius Pavalkis, Aleczander Jackson</p> <p>The theory of Systems Engineering says we start at the top with customer needs, define requirements for the top level system in our product hierarchy, then decompose those requirements into the subsystem requirements at the next level down in the hierarchy- or do...</p>	201B, Fort Worth Convention Center (Hybrid)
<b>13:00 - 15:00</b>	<p><b>Presentation Session: Safety and Security: AADL</b></p> <p>Chair: Andy Wallington</p> <p>Safety and security presentations centering on AADL</p> <p>"Using AADL to analyse ROS based robotic applications; demonstration on a prototype industrial robot and software.". Dominique Blouin</p> <p>"Compliance of AADL Models with Modeling Guidelines using Resolint". Isaac Amundson</p> <p>"A bi-directional incremental transformation between FACE and AADL models". Dominique Blouin</p> <p>"Using AADL to Assess Architectural Properties for Cyber Security". Charles Payne</p>	203A, Fort Worth Convention Center (Hybrid)

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**13:00 - 14:00**      **Presentation Session: Supply Chain, Obsolescence, and Sustainment**      203B, Fort Worth Convention Center  
Chair: Courtney E. Howard      (Hybrid)  
Supply Chain Resilience; Obsolescence Management / End of Life (EOL); Sustainment of Platforms, Systems & Programs; Product Lifecycle Management (PLM) & Enterprise Resource Planning (ERP)  
"Unintentional Obsolescence". Aj Denogean

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**13:00 - 15:00**      **Presentation Session: Engineering**      202B, Fort Worth Convention Center  
Chair: John Macomber      (Hybrid)  
"DESIGN AND STEADY STATE THERMAL ANALYSIS OF INTAKE MANIFOLD VALVE BY USING ANSYS TOOLS". Ramesh Chinnakurli Suryanarayana  
"Preliminary Studies in the Logistics and Ground Processing for a Rocket-Based Relief Cargo". Gabriel Perez  
"EFFECTS OF RADIAL BAFFLES AND COMPRESSED FLOW AREA REGION ON THE PERFORMANCE CHARACTERISTICS OF A LRE PINTLE INJECTOR". Yadnyesh Gandhe  
"Unbalance Budgeting Optimizes Rotor Design for Assembly Performance - Straight, Balanced Rotors Run Smoother!". Andreas Buschbeck

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**13:00 - 14:00**      **Presentation Session: Thomas H. Speller Awards - AeroFast Fastening, Assembly, and Tooling**      204A, Fort Worth Convention Center  
Chair: Monica Brockway, Mark Smith      (Hybrid)  
Presentation of the Thomas H. Speller Awards in the AeroFast track at AeroTech  
"Thomas Speller Award Presentation". Mark Smith

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<b>13:00 - 15:00</b>	<p><b>Presentation Session: NASA AAM Ecosystem Track: Advanced Air Mobility R&amp;D Plenary</b></p> <p>Chair: Lexie Brown, Nancy Mendonca</p> <p>Overview of NASA's mission and what research projects are contributing R&amp;D to enable AAM. This plenary session will also highlight the NASA activities supporting standards efforts and gaps research. Moderator - Nancy Mendonca, NASA Panelist: Pat Hanlon - NASA RVL T Project Portfol...</p>	<p>202A, Fort Worth Convention Center (Hybrid)</p>
<b>13:00 - 14:00</b>	<p><b>Presentation Session: Overview of MBSE Efforts Related to AAM/UAM</b></p> <p>Chair: Saulius Pavalkis, Alec zander Jackson</p> <p>Presenter: Jim Murphy, System Architect, NASA</p>	<p>201B, Fort Worth Convention Center (Hybrid)</p>
<b>13:00 - 13:45</b>	<p><b>Presentation Session: Boeing Commercial Market Outlook</b></p> <p>Chair: Les Clark</p> <p>Get ahead of future market trends by learning from Matthew Kosmal, Regional Director of Market Analysis at Boeing, who will present projections for Commercial Airplanes and the near-term outlook, and address questions from attendees in the audience.</p>	<p>Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)</p>
<b>14:00 - 15:00</b>	<p><b>Presentation Session: Sustainability, Circularity and Decarbonization</b></p> <p>Chair: Courtney E. Howard</p> <p>"Development, Evaluation, and Deployment of the HaloJet™ ID HVOF Coating System as a Replacement for Hexavalent Hard Chromium Plating in Landing Gear Applications". Mike Hankirk</p>	<p>203B, Fort Worth Convention Center (Hybrid)</p>
<b>14:00 - 15:00</b>	<p><b>Presentation Session: Digitization of standards for compliance using MBSE as a framework</b></p> <p>Presenter: Nick Link, Enola Technologies</p>	<p>201B, Fort Worth Convention Center (Hybrid)</p>

<b>15:30 - 16:30</b>	<b>Presentation Session: Safety &amp; Security</b> Chair: Andy Wallington "Zero Trust Architecture Patterns for Cyber-Physical Systems". Saqib Hasan	203A, Fort Worth Convention Center (Hybrid)
<b>15:30 - 17:00</b>	<b>Presentation Session: Engineering</b> Chair: John Mazurowski "AI inspired ATC, based on ANN and using NL". Ramesh Chinnakurli Suryanarayana "Steps towards a connected digital factory cost model". Christopher Tierney "Stitching The Digital Thread, Creating The Product Digital Quilt". Mohamed Y. Hamada	202B, Fort Worth Convention Center (Hybrid)
<b>15:30 - 16:30</b>	<b>Presentation Session: Power, Thermal, and Propulsion</b> Chair: Melissa Bravin "Mathematical Modeling and Analysis of the Turbojet Engine Dynamic Parameters Based on Ground Test Mode of Operations". Neno Novakovic "Experimental and computational study of auto-ignition in the new prototype engine with focusing compression due to supermulti-jets colliding". Tomotaka Kobayashi	204A, Fort Worth Convention Center (Hybrid)
<b>15:30 - 17:00</b>	<b>Presentation Session: NASA AAM Ecosystem Track: AAM Ecosystem Modeling Panel</b> Chair: Lexie Brown, Nancy Mendonca This session will include presentations from the panelists on recent activities and initiatives in modeling across the AAM Ecosystem. Moderator: Jim Murphy, NASA Panelists: • Tony Facciolo – International Forum for Aviation Research (IFAR) Modeling • Ernest Huffman - NCTC...	202A, Fort Worth Convention Center (Hybrid)

**15:30 - 17:00**      **Presentation Session: MBSE Discussion: Pain Points/Best Practices/Knowledge Sharing**      201B, Fort Worth Convention Center (Hybrid)  
Chair: Saulius Pavalkis, Aleczander Jackson  
Moderator: Jason Wilson, Dassault Systems Panelist: Yvonne Bijan, Lockheed Martin, Jim Murphy, NASA, Ruxandra Duca, Wisk, Russell Mitchell, Belcan

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**16:00 - 16:30**      **Presentation Session: Materials**      203B, Fort Worth Convention Center (Hybrid)  
Additive Manufacturing Materials; Coatings and Sealants; Composites; Environmental Sustainability & Recycling; Graphene; Material Qualification; Metals; Materials Development (Powder, Resin, Fiber, etc.); Nanomaterials; New Materials  
"Effect of hot extrusion on microstructure and tensile properties of Al6061 hybrid composite". Ramesh Chinnakurli Suryanarayana

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**16:00 - 17:00**      **Presentation Session: Derived Safety Requirements Identified from Safety Analyses: Improving Efficiency in Showing Completeness and Correctness**      203A, Fort Worth Convention Center (Hybrid)  
Daniel Fogarty The Boeing Company

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**16:30 - 17:00**      **Presentation Session: Defense**      203B, Fort Worth Convention Center (Hybrid)  
Presentations relevant to defense/military aircraft, systems, technologies, pilots, etc.  
"Reproducing Pilot Performance Using VC Simulation, Deep Learning, and Agents". Marwen Elkamel

**Thu, Mar 16 2023 CDT**

**08:30 - 10:00**      **Presentation Session: Opening Plenary - Thursday March 16**      Hangar (Ballroom C), Fort Worth  
Chair: Michael McNair

Must-attend presentation, including welcome and keynote address Keynote: Linda Cadwell Stancin, Vice President Engineering and Technology, Lockheed Martin Convention Center (Hybrid)

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**08:35 - 09:05**      **Presentation Session: Keynote: "Capabilities and Technologies to Stay Ahead of Ready" -- Linda Cadwell Stancin, Vice President Air Vehicle Engineering, Aeronautics, Lockheed Martin - Capabilities and Technologies to Stay Ahead of Ready**      Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)

Linda Cadwell Stancin is currently serving as Vice President, Air Vehicle Engineering at Lockheed Martin Aeronautics Company. The Directorates in AVE include Military Operations Analysis, Conceptual Design, Flight Sciences, Vehicle Systems, Model Base Systems Engineering, Structur...

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**09:05 - 10:00**      **Presentation Session: Keynote: Ian Fialho, Senior Technical Fellow, Mechanical and Structural Engineering, The Boeing Company**      Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)

Ian Fialho is an engineering executive Senior Technical Fellow at The Boeing Company. His areas of expertise include multi-physics modeling and simulation, loads and dynamics, shock and vibration, active/passive vibration isolation, control-structure interaction, aerial refueling syste...

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**10:30 - 12:00**      **Presentation Session: Industry-leading Interactive Panel Discussion**      Hangar (Ballroom C), Fort Worth Convention Center (Hybrid)

Aerospace industry leaders take the stage at AeroTech to discuss the state of industry and technology, touching on myriad pressing topics, industry and government priorities, future mobility, and more. Audience participation highly encouraged - bring your questions, commen...

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