



March 13
MONDAY

8:00 a.m.-5:00 p.m.
SAE Aerospace Standards Committee Meetings
Room 102/105/113

3:30 p.m.-4:30 p.m.
AeroFast Kick-off
Room 111

4:30 p.m.-5:30 p.m.
AAFC Spring Meeting
Room 111

6:00 p.m.-8:00 p.m.
SAE Aerospace Standards Reception
All attendees welcome
Room 110A/B

March 14
TUESDAY

8:30 a.m.-10:00 a.m.
Opening Plenary Welcome
- David Schutt, CEO, SAE International
Keynote Addresses
- Matt Holvey, Director, Intelligent Systems-Innovation, Bell, Textron
- Bob Pearce, Associate Administrator, NASA Aeronautics Research Mission Directorate
- David Alexander, Senior Director, Standards, SAE International
Emcee: Michael McNair, SAE ITC
Hangar (Ballroom C)

10:00 a.m.-10:15 a.m.
SAE Annual Business Meeting
*All welcome; SAE Members encouraged to attend
Hangar (Ballroom C)

10:00 a.m.-10:30 a.m.
Networking Break
Exhibit Hall (Ballroom A/B)

10:30 a.m.-12:00 p.m.
NASA ARMD Sustainable Flight and QUESST Overviews
Hangar (Ballroom C)

10:30 a.m.-12:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

12:00 p.m.-1:00 p.m.
Lunch
Exhibit Hall (Ballroom A/B)

1:00 p.m.-3:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

1:00 p.m.-2:45 p.m.
IDEAL Keynote Address:
Gina Covarrubias, BSAE, MSME
Panel Discussion: Life After ARP4754B & ARP4761A
Hangar (Ballroom C)

3:00 p.m.-3:30 p.m.
Networking Break
Exhibit Hall (Ballroom A/B)

3:30 p.m.-5:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

5:00 p.m.-6:30 p.m.
Welcome Reception
Exhibit Hall (Ballroom A/B)

March 15
WEDNESDAY

8:30 a.m.-9:45 a.m.
Opening Plenary Welcome
- Todd Zarfos, President, SAE International
Keynote Addresses
- Amanda Simpson, Vice President, Research and Technology, Airbus Americas
- Julie Brightwell, Flight Deck Chief Engineer, Boeing Commercial Airplanes
Emcee: David Alexander, Senior Director, Standards, SAE International
Hangar (Ballroom C)

9:45 a.m.-10:00 a.m.
SAE Sustainable Aviation Award
Hangar (Ballroom C)

10:00 a.m.-10:30 a.m.
Networking Break
Exhibit Hall (Ballroom A/B)

10:30 a.m.-5:00 p.m.
Advanced Air Mobility (AAM) Track by NASA
Room 202A

10:30 a.m.-12:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

12:00 p.m.-1:00 p.m.
Lunch *Sponsored by Boeing
Exhibit Hall (Ballroom A/B)

1:00 p.m.-2:00 p.m.
Boeing Commercial Market Outlook – Matthew Kosmal
Hangar (Ballroom C)

1:00 p.m.-3:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

3:00 p.m.-3:30 p.m.
Networking Break
Exhibit Hall (Ballroom A/B)

3:30 a.m.-5:00 p.m.
Technical Sessions
Rooms 201B, 202A, 202B, 203A, 203B, 204A

5:00 p.m.-7:00 p.m.
AeroTech Gala Dinner
*Sponsored by Boeing (Ticket required.)
Ballroom C

7:00 p.m.-10:00 p.m.
First Annual AeroTech Pub Crawl
(Ticket required. Transportation available.)
Fort Worth Stockyards

March 16
THURSDAY

8:30 a.m.-10:00 a.m.
Opening Plenary Welcome
- Michael McNair, Vice President, Aerospace, SAE ITC
Keynote Address
- Linda Cadwell Stancin, Vice President, Engineering and Technology, Lockheed Martin
- Ian Fialho, Senior Technical Fellow, Mechanical and Structural Engineering, The Boeing Company
Emcee: Michael McNair, SAE ITC
Hangar (Ballroom C)

10:30 a.m. – 12:00 p.m.
Industry-leading Interactive Panel Discussion
Hangar (Ballroom C)

12:15 p.m. – 3:45 p.m.
Collins Aerospace Wheel and Brake MRO Facility Tour
Ticket required.
Transportation available.
Meet at the main entrance to the conference center at 12:15 p.m.
Bus leaves at 12:30 p.m.

EXHIBIT HOURS

Tuesday 10:00 a.m.–6:30 p.m.
Wednesday 9:30 a.m.–4:00 p.m.

REGISTRATION HOURS

Monday 12:00 p.m.–5:00 p.m.
Tuesday 7:30 a.m.–5:00 p.m.
Wednesday 7:30 a.m.–5:00 p.m.
Thursday 7:30 a.m.–12:00 p.m.

***Registration sponsored by Boeing**

AeroTech Conference Registration provides access to the technical programs of both SAE's AeroTech and ASM's AeroMat.

Registration is open:
<https://www.sae.org/attend/aerotech/registration>

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

08:30 - 10:00

Presentation Session: Opening Plenary - Wednesday, March 15

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)

08:35 - 09:10

Presentation Session: Keynote: Amanda Simpson, Vice President, Research and Technology (R&T) at Airbus Americas

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)

09:10 - 09:45

Presentation Session: Keynote: Julie Brightwell, Flight Deck Chief Engineer, Boeing Commercial Airplanes

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)

09:45 - 10:00

Presentation Session: SAE Sustainable Aviation Award in Honor of Ramesh Agarwal

Hangar (Ballroom

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

C), Fort Worth
Convention Center
(Hybrid)

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)

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)

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)

10:30 - 12:00	<p>Presentation Session: NASA AAM Ecosystem Track: Advanced Air Mobility (AAM) Industry Update Panel</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)
10:30 - 11:15	<p>Presentation Session: Use of MBSE on eVTOL Compliance with AAM</p> <p>Chair: Saulius Pavalkis, Aleczander Jackson</p> <p>Presenter: Ruxandra Duca, Senior System Engineer, Wisk</p>	201B, Fort Worth Convention Center (Hybrid)
11:15 - 12:00	<p>Presentation Session: Using MBSE to Perform Functional Analysis to Analyze Customer Requirements</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)
13:00 - 15:00	<p>Presentation Session: Safety and Security: AADL</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)

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

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

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

13:00 - 15:00	<p>Presentation Session: NASA AAM Ecosystem Track: Advanced Air Mobility R&D Plenary</p> <p>Chair: Lexie Brown, Nancy Mendonca</p> <p>Overview of NASA's mission and what research projects are contributing R&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>
13:00 - 14:00	<p>Presentation Session: Overview of MBSE Efforts Related to AAM/UAM</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>
13:00 - 13:45	<p>Presentation Session: Boeing Commercial Market Outlook</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>
14:00 - 15:00	<p>Presentation Session: Sustainability, Circularity and Decarbonization</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>
14:00 - 15:00	<p>Presentation Session: Digitization of standards for compliance using MBSE as a framework</p> <p>Presenter: Nick Link, Enola Technologies</p>	<p>201B, Fort Worth Convention Center (Hybrid)</p>

15:30 - 16:30	Presentation Session: Safety & Security Chair: Andy Wallington "Zero Trust Architecture Patterns for Cyber-Physical Systems". Saqib Hasan	203A, Fort Worth Convention Center (Hybrid)
15:30 - 17:00	Presentation Session: Engineering 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)
15:30 - 16:30	Presentation Session: Power, Thermal, and Propulsion 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)
15:30 - 17:00	Presentation Session: NASA AAM Ecosystem Track: AAM Ecosystem Modeling Panel 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

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

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

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)

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...

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...

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...
