

08:45	PLENARY SESSIONS										
12:00	LUNCH										
	Room C1/C2	Room C3	Room C4	Room 21	Room 23	Room 24	Room 25	Room 26	Room 27	Room 35	Room 36
	Major cooperative projects	Aircraft and spacecraft technology	Drones and UAS	Drones and UAS	Structures, materials and processes	Structures, materials and processes	Propulsion	Aircraft and spacecraft systems analysis	Sustainable aerospace technology	Systems and sub-systems engineering	Systems and sub-systems engineering
CHAIR	Tomas Ireman Saab	Olle Norberg IRF	Carl-Martin Larsson Sylog Systems	Annette Wahlström FMV	Anders Blom FTF	Zlatan Kapidzic LIU	Richard Avellan GKN	Magnus Tormalm FOI	Dag Waldenström Svenskt Flyg	Petter Krus LIU	Odd Romell Saab
13:00	(KEYNOTE) R&T Development at Airbus <i>K. Witkowski, Airbus</i>	RM Alpha, a Jet engine technology development platform. Demonstrator for collaboration between company and academia <i>P. Andersson, GKN</i>	Drone research for the Swedish Armed Forces <i>L. Forssell, FOI</i>	Drone Detection with YOLOv8 and YOLOv11: An Analysis of Accuracy and Efficiency in Embedded Systems <i>Dr. P. Funk, MDU</i>	Overview of Solid Mechanics research at GKN Aerospace Sweden <i>S. Roychowdhury, GKN</i>	Quality control of Carbon Fiber Structures by Acoustic Method <i>M. Gustavsson, A2 Research</i>	Development of a Virtual Turbofan Engine in Sweden <i>M. Lejon, GKN</i>	Large Eddy Simulations and Computational Aeroacoustics of Supersonic Jets <i>M. Mihaescu, KTH</i>	Regional Sustainable Aviation for Northern Europe: Technology Choices, Demand Modelling, Environmental Impact, and Policy Instruments. <i>C. Jouannet, Saab</i>	Human Factors and HMI for Future Air Domain <i>J. Allredson, Saab</i>	(KEYNOTE) How to Accelerate Next Generation Products by Leveraging Digital Mission Engineering and Model-Based Systems Engineering Methodologies <i>R. Gemma, ANSYS</i>
13:30	Space Sweden North - a hub for innovation <i>J. Bergström-Roos, LTU</i>	Cost-Driven Design of a Hybrid Electric Transport Category Aircraft <i>E. E. Juárez, LIU</i>	Enabling Drone Surveillance with distributed vision system <i>J. Lindén, Saab</i>	Automated Human-AI Interaction and Mission Planning with Unmanned Aircraft System Teams <i>M. Wzorek, LIU</i>	GKN Aerospace Metallic Materials Cluster Research Activities and Collaboration with Academia, Institutes and Industrial Partners <i>S. Roychowdhury, GKN</i>	Structural Health Monitoring methods that could be built into composite structures for multi sensing purposes <i>P. Hallander, Saab</i>	Hybrid Electric Turbofans on an Engine Performance Perspective <i>F. Winkes, GKN</i>	Towards LES for aeronautical applications – exploration of strategies for wall-modelling, accuracy and efficiency <i>S. Arvidson, Saab</i>	Electric-powered air traffic network with integrated aircraft-battery modelling <i>C. Li, CTH</i>	Designing Adaptive Systems with Run-Time Reconfigurable Architectures. <i>I. Sander, KTH</i>	Agile Systems Engineering: Insights from New Space Startups <i>G Svalander, Celestra</i>
14:00	(KEYNOTE) Realizing large-scale simulation frame-works to architect future aviation systems <i>Dr. B. Nagel, DLR</i>	Preliminary design of a subscale floatplane <i>E. B. Medeiros, UFMG</i>	Development of an Unmanned Aerial Vehicle for Atmospheric Research - An International Collaboration <i>R. Mariani, KTH</i>	LIU Activities within the Aeronautical Prototyping and Flight Testing Lab: Mission and Activities <i>D. Lundström, LIU</i>	Challenges in corrosion assessment and prevention fields in the aerospace industry for the next 10 years <i>D. Thierry, RISE</i>	A Non-destructive Method for Evaluating Carbon Fiber Composites Using a Cost-Effective Sub-Terahertz Source and Detector <i>E. Chuma, Unicamp</i>	Nitrogen oxide to carbon dioxide trade-off for a hydrogen composite cycle aircraft engine <i>A. Johansson, CTH</i>	Large Eddy Simulations of a supersonic jet exhausting a Rotating Detonation Combustion chamber <i>T. Goliard, KTH</i>	Airport electrification and electromagnetic emissions – standards and challenges <i>T. Salm, LTU</i>	The Large Language Model Pilot: Generative Artificial Intelligence for Cyber-Physical Flight Simulations <i>J. Lovaco, LIU</i>	Amplitude and Phase Imbalance Calibration for Space-Based Precision Direction Finding Systems <i>J. Melo, ITA</i>
14:30	CONCEPTO: Laboratory Architecture for Conceptual Research of Multi-domain Systems <i>C. Cerqueira, ITA</i>	Mission Planning and Decentralized Execution for Heterogeneous Teammates in Dynamic Environments <i>E. Olsson, Saab</i>	Development of Control Contraction Metric based methods on non-conventional aircraft configuration <i>J. A. Pardo, INTA</i>	Advanced Structural Optimization for Aerospace Applications <i>M. Wallin, LTH</i>	Graphene nanoplatelet-reinforced polymer composites for multifunctional coatings in aerospace applications <i>D. Carastan, UFABC</i>	On the coupled integration of ducted heat-exchanger systems for aviation <i>E. Hasselwander, CTH</i>	The NATO Aerodynamic Missile Challenge <i>M. Tormalm, FOI</i>	Enabling the Decarbonization of Regional Air Transport with Series Hybrid Electric Propulsion <i>D. Bernperis</i>	Impact of HUD Design on Cognitive Load in UAV Control <i>I. Rehder, ITA</i>	Comparing Methods for Damage Localization in Active Structural Health Monitoring Using Piezoelectric Sensors on Composite Plates <i>G. C. Batista, KTH</i>	
15:00	COFFEE BREAK										
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15:30	(KEYNOTE) Platform to facilitate collaborations between innovation ecosystems <i>M. Ahlström, CISE/Saab</i>	Smart technology road mapping applied in defense aviation <i>P. Ulfvengren, KTH</i>	Defining Future Application Scenarios for Heterogeneous Teams: a Capability-based Approach <i>Carlos Ribeiro, ITA</i>	Cognition and Computation in Decision-Making: Applying the Critical Decision Method to Artificial Intelligence for Aviation Event Analysis <i>G. De Moraes, ITA</i>	Effect of Nitriding on High Cycle fatigue of Ti64 Grade 5 Alloy <i>S. Stekovic, LIU</i>	Effect of Induced Delamination Defects on the Mechanical Performance on Composite Laminates <i>A. Giannakopoulou, LIU</i>	Aerothermal performance of an open-source methane fuelled rocket engine <i>A. C. Patrao, GKN</i>	Adaptive Euler - efficient and predictive aerodynamics: validation and development in the High Lift and Aeroelastic prediction workshops <i>J. Jansson, KTH</i>	Technical concepts of airport infrastructure for charging battery-powered electric aircraft <i>S. Käck, VTI</i>	Towards Seamless System Design from Specification Model to Implementation <i>I. Sander, KTH</i>	Active Microwave Components for Next Generation Airborne Sensor and Communication Systems <i>M. Thorsell, Saab</i>
16:00	Building Bridges in the Aerospace sector: Brazil's Model for International Cooperation and Funding Mechanisms <i>Dr. O. Coelho, MCTI</i>	Improving System Safety in Aviation: Supporting STPA with AI Models <i>A. E. A. da Silva, UNICAMP</i>	A New Multi-Agent Simulator Frame-work Using Hopman and Unreal 5.3 <i>A. G. P. Sarmiento, ITA</i>	Context of collaborative human-machine systems architecture design for enhanced functionality awareness and balanced command and control authority <i>V. K. Marini, UFSM</i>	Is it Damage, Plasticity, Rate Dependence or all of the Above? Characterising and Modelling the Non-Linear Behaviours of 3D-Textile Composites <i>C. Oddy, GKN</i>	Advanced Thermal Spray Coatings for Improved Engine Performance <i>M. Gupta, UW</i>	Re-entry flow and aerothermal characteristics of a retro-propulsive booster <i>A. Rovelstad, CTH</i>	Numerical Study on the Aerodynamics of Conformal Weapons on Fighter Aircraft <i>B. Hamad, FOI</i>	Contrail avoidance: Decision making under uncertainty <i>F. Herberichson, CTH</i>	MATE: A Mission Assistant for Training and Evaluation Using an Offline Language Model in Air Combat Operations <i>J. Dantas, ITA</i>	Distributed radar on multiple airborne platforms – challenges and solutions <i>P. Dammert, Saab</i>
16:30	(KEYNOTE) German International Cooperation in Funded Aeronautics Research Projects <i>P. Linde, DLR</i>	Aerodynamic Optimization of SOAR2 – A successful case study of industry and academia in fostering young researchers <i>P. Eliasson, Saab</i>	(INVITE) V-Craft Aeronautics: Swedish High-Capacity Tiltrotor UAS and eVTOL Innovation <i>J. Johansson, V-Craft</i>	SPECIAL SESSION Coffee, career and Airbus - a conversation about women in aerospace <i>K. Witkowski, Airbus</i> <i>S. Stekovic, LIU</i>	Characterization of fatigue-critical roughness parameter in electron beam powder bed fusion manufactured Ti-6Al-4V <i>K. T. Pandian,UW</i>	Supporting Design for Additive Manufacturing: Insights from Product Development Practices in the Aerospace Industry <i>D. Obianade, LTU</i>	Aerodynamic Damping in Separated Flows - Project Summary <i>N. Glodic, KTH</i>	Aerodynamic Efficiency of Longitudinally Unstable Tailless Aircraft <i>S. Riethehausen, LIU</i>	Technology Assessment of Sustainable Propulsion Systems in Aviation: Addressing Technical Challenges <i>A. A. De Paula, ITA</i>	Improving Decision-Making of Civilian and Military Pilots Under Pressure: An Artificial Intelligence-Based Approach Using Prospect Theory <i>G. De Moraes, ITA</i>	On Low Probability of Intercept and Low Probability of detection (LPI/LPD) Communication for Airborne Collaborative Systems <i>B. Granbom, Saab</i>
17:00	(INVITE) CEAS to support scientific cooperation and dissemination and technological development among the European Aerospace Societies <i>A. Alaimo, CEAS</i>	Convolutional Neural Network for Detection and Quantification of Pilot-Induced Oscillations <i>A. L. A. Paladini, LIU</i>			Advancing Wire Arc Additive Manufacturing: Tailored Process Solutions for Industry Applications <i>J. Andersson, UW</i>	Metal Additive Manufacturing Research Progress via GKN Aerospace-University Collaborations: Recent Updates <i>S. Mahade, GKN</i>	RAVEN's Design and Testing of a Student Researched and Developed Hybrid Rocket Propulsion System <i>M. S. Rajaveli, LTU</i>	The role of fluid-structure interaction in the prediction of cabin noise for internal weapons bays <i>S. Nilsson, Saab</i>		Augmenting Aerospace System Design Using Large Language Models <i>P. Krus, LIU</i>	Robust Priority Assignment applied to AFDX networks <i>E. P. de Freitas, UFCSPA</i>
18:30	RECEPTION										
19:30	CONGRESS DINNER										

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SWEDISH AEROSPACE ↔ AT THE CROSSROADS

PLENARY PROGRAMME • Tuesday 14 October

- 08:45** The growing importance of aerospace research in meeting global challenges
Sara Modig, State Secretary, Ministry of Climate and Enterprise, Sweden
- 09:00** Towards efficient disruptive technologies for new aircraft in service by 2035
Sébastien Dubois, Clean Aviation JU, Belgium
- 09:25** The Airbus runway to sustainable aviation
Frank Haselbach, SVP Propulsion, Airbus, France
- 09:50** Joining the quest towards a climate neutral aviation system - a perspective from the Netherlands
Ron van Manen, Director Stichting Luchtvaart in Transitie, The Netherlands

10:15 COFFEE BREAK

- 10:45** Challenges to aviation and candidate propulsion solutions
Henrik Runnemalm, VP Global Technology Centre, GKN Aerospace

- 11:10** ICAS – an evolution in perspectives
Chris Atkin, ICAS President, Professor Univ. of East Anglia, UK

- 11:35** AI on wings - the new era of Air Combat
Peter Nilsson, Head of Advanced Programs, Saab Aeronautics

12:00 LUNCH

PLENARY PROGRAMME • Wednesday 15 October

- 13:00** Swedish Aerospace Research and Innovation - Defence perspectives
Anders Persson, Head of Division at the Ministry of Defence, Sweden

- 13:15** Sweden's Space Endeavors
Ella Carlsson, Director General, Swedish National Space Agency

- 13:40** Exploring the Solar System, a Swedish perspective on Space Science
Olle Norberg, Director General, IRF-Swedish Institute of Space Physics

- 14:05** Swedish Air Force in the future
Jonas Wikman, Commander Swedish Air Force

14:30 COFFEE BREAK

- 15:00** Swedish Concept Air Programme
Carl-Fredrik Edström, Director Air and Space Systems Division FMV

- 15:25** C390 and Brazil-Sweden cooperation
Walter Pinto Jr, COO Embraer Defence & Security, Brazil

- 15:50** Aeronautical research at Saab and within the Swedish ecosystem – challenges and possibilities
Per-Olof Marklund, Director Head of Technology and Innovation, Saab

- 16:15** Summing up and closing (end 16:30)
Svjjetlana Stekovic, Senior Associate Professor, Linköping University.
Dr. Roland Karlsson, Chair, Swedish Society of Aeronautics and Astronautics

Wednesday 15 October 2025 • PROGRAMME

Parallel Technical Sessions 08:30-12:00 • Plenary Programme 13:00 - 16:30

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08:30	The Swedish Aeronautical Research and Innovation Agenda-NRIA 2024 M. Olofsson, Innovair	Flight control investigation using a 3D-printed radio-controlled demonstrator R. Larsson, Saab	Skeldar V-200 – The Multi-Purpose Unmanned Vertical Take Off and Landing System T. Karlsson, Saab	From Classroom to Competition: Linköping University's Engagement in SAE AeroDesign Brazil D. Lundström, LIU	Design and Implementation of a Digital Twin for Welded Aero Structures H. Hultman, GKN	Data Driven Enhanced Process Monitoring for Direct Energy Deposition S. K. D. Weylertorp, GKN	Elements of Cycle Design for Parallel Hybrid Mixed Flow Turbopumps: Select Trade-Offs in Performance and Energy Efficiency L. Carrea, MDU	Numerical investigation of the flow over low-pressure turbine blades with end walls V. Baconnet, KTH	Success Factors for Large Scale Implementation of Digital Twins J. Vallhagen, GKN	Redundant Digital Hydraulic Actuators for Flight Control Surfaces V. J. De Negri, UFSC	A Review of Energy Management in the Context of On-Board Systems Aircraft Integration E. E.-Juárez, LIU
09:00	The Potential of Spillovers – reflections from the Aerospace Industry J. Holtström, LIU	Experimental Evaluation of Classical Washout Filter Configurations for Fighter Jet Motion Cueing E. Villani, ITA	Air Traffic Management Research to Improve Safety Integration of Unmanned Aircraft into the Sky of Florianópolis L. Kroon, Saab J. Lundberg, LIU	Student aircraft for international competition: A complement to the theoretical education P. Miltén, CTH	Demonstration of a Sustainable Inductive Hot Forming Concept E.L. Westman, RISE	In-Operando Machining of Difficult-to-Cut Aerospace Materials Using Large-Scale Infrastructure Facilities H. Boyle, LIU	Design Considerations for the Fan on Blade Compressor E. Elénus, CTH	Exploratory testing of sloshing effects in an external drop tank on a dynamically scaled delta wing A. Elimo, Saab	Mission Engineering: Combining Real-Time Data, Simulation and Evolutionary Algorithms to Maximize Mission Success A. Nyberg, Systecon	HILA-MR - An actuator with morphing wing capability M. Landberg, Saab	On Early Product Development in the Context of Aircraft Thermal Management Design A. Drego, Saab
09:30	A summary of GKN Aerospace's contribution to the two-spool compressor rig project in Clean Sky 2 M. Lejon	Blackwing – Always at the crossroads B. Moberg, Blackwing	The Eco-system of Air Mobility C. Lindholm, Saab	Collaborating for Future Skills in Sustainable Aeronautics A. Öhrwall Rönnbäck, SARC	Fracture Mechanics Simulation of Weld Geometry Influence on Fatigue Life in Aerospace Components E. Ferdien, KTH		DARLING: Damaged and Repaired Blade Modelling with In-situ Repairs C. Rotundo, KTH	Numerical investigation of dynamic stall on wings following curved trajectory Y.-C. Lu, KTH		Scheduling Strategies for HILA-MR Actuation Technology in Unmanned Aircraft R. Braun, LIU	
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10:30	(INVITE) Aeronautical Innovation – Swedish and International Perspectives A. Blom, FTF	GenHEX: A new heat exchanger design framework P. Miltén, CTH	Dynamic Multi-Drone Route Planning with Uncertainty and Constraints (DyMuDRoP) A. Sow, LIU	Do we have the right competencies for the future? Experiences from large-scale industrial use of the INCOSE competency framework E. Herzog, Saab	Finite Element Implementation of a Continuous-Time, High-Cycle Fatigue Model Z. Kapidzic, Saab	Thermo-Mechanical Behaviour in Laser Powder Bed Fusion Inconel 539 – Aerospace Applications and Component Relevant Testing J. Rouse, UoN	HEAVEN: Hydrogen Engine Architecture Virtually Engineered Novelty-Technology development at The University of Nottingham C. Bennett, UoN	Prediction of an airplane infrared signature, from the drawing board to validation based in-flight tests M. Dalenbring, FOI	Quantum-Enhanced Predictive Maintenance for Aerospace Robotic Arms G. Petronillo, UFPA	Logic-Based Benders Decomposition for Joint Routing and Scheduling of TSN networks in Avionics J. Vines, LIU	Design and analysis of time-critical parallel applications on heterogeneous avionics platforms M. Becker, KTH
11:00	(INVITE) A metadata investigation of the aircraft accident at Ndola on 18 September, 1961 R. Karlsson, FTF	Conceptual Study of Launch Abort System and Capabilities for the Nyx Earth Crew Spacecraft S. Mohrdieck, KTH	Robust GNSS-free drone navigation M. Stern, I-CONIC Vision	Supersonic transport: a way to create student interest for aerospace education T. Grönstedt, CTH	Weld solidification cracking susceptibility of new Ni-based superalloy VDM Alloy 780: comparison to Alloy 718 A. Anaseto, UW	Thermo-Mechanical Fatigue Resistance of Forged and Additively Manufactured Inconel 718 N. Nordström, CTH	Experimental and numerical study on the acoustic resonance behaviour of compressor bleed cavities in aero-engines S. Hammer, KTH	Bayesian Networks Applied to Risk Modelling of De-pressurized Flight at High Altitude M. Cardoso, ITA	How Artificial Intelligence (AI) is Transforming the Aviation Industry Dr. P. Funk, MDU	Task and Motion Planning for Autonomous Military Aircraft Mission Management R. Forsling, Saab	Front-End design for a scalable and reconfigurable Structural Health Monitoring system L. B. Trujillo, ITA
11:30	Legion, a new 30cm constellation of EO satellites and the use of very high resolution data. P. Lundblad, Maxar		Impact and Capacity Assessment Framework for U-space Societal Acceptance M. Chellappurath, KTH		Compressive Strength of Half-Hole Pin Bearing Laminated Carbon Fibre Specimens H. Wernming, Saab	TMF (Thermo-mechanical fatigue) Testing: Generating Critical Data for Aerospace Components Y. Ma, Rolls-Royce		Efficient and robust electric machines and control systems for integration in jet engines M. Collins, LTH		Interdisciplinary human-in-the-loop simulation framework for evaluation of actuation system concepts A. Dell'Amico, Saab	Robust Heart Rate Estimation from Deep Learning Data Fusion using Multimodal Sensors E. Chuma, UNICAMP
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The 12th Swedish Aerospace Technology Congress
October 14-15, 2025

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EXHIBITORS



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