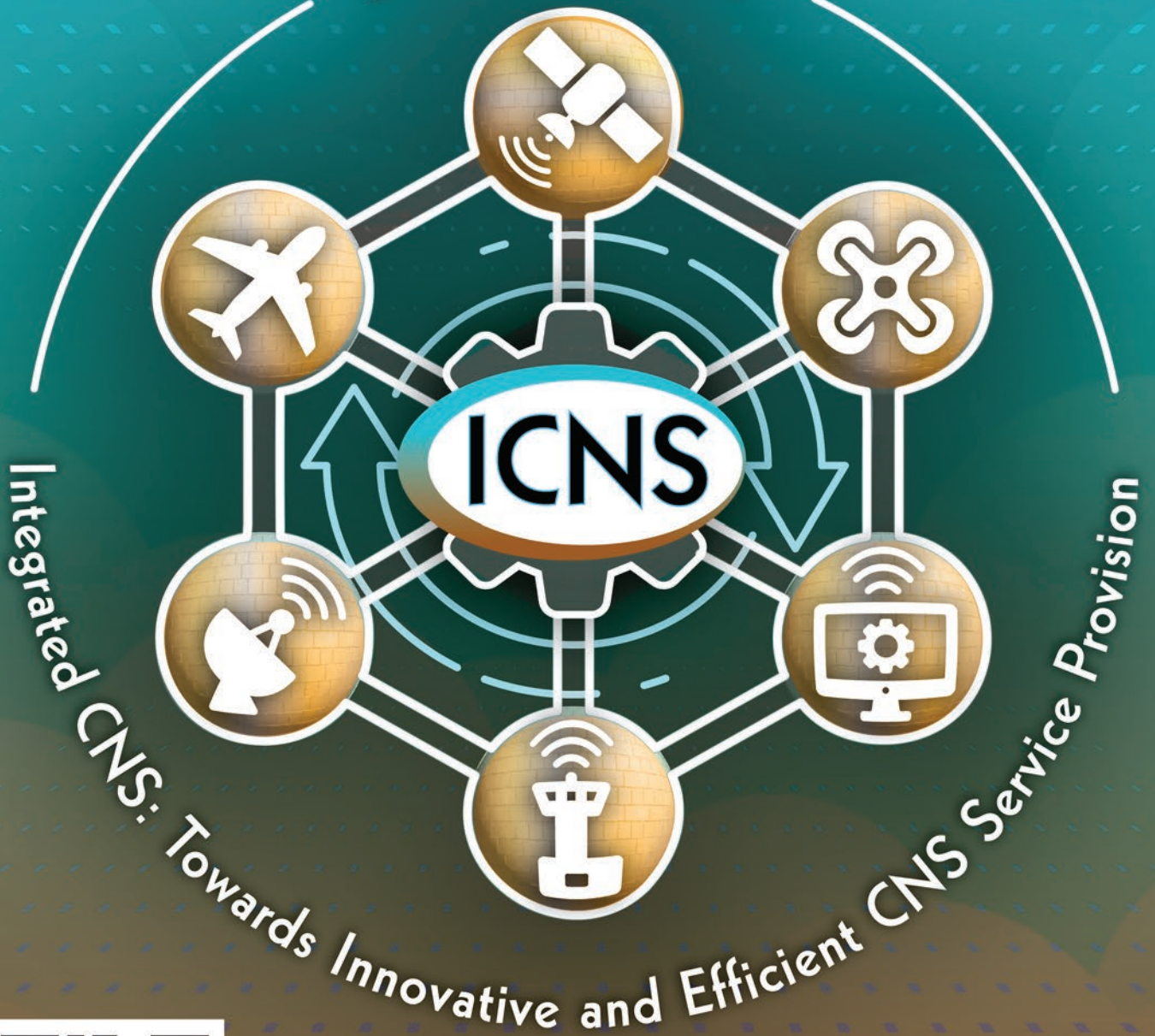


ICNS 2025

years!

25th Anniversary



EUROCONTROL • Brussels, Belgium

i-cns.org

April 8–10, 2025

ICNS 2025 Conference

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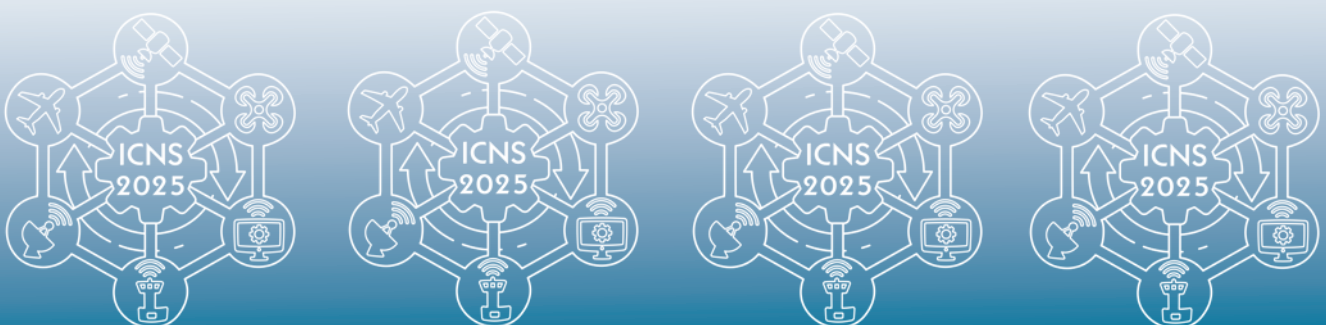
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Welcome to ICNS 2025!

This year marks the 25th anniversary of the Integrated Communication, Navigation, and Surveillance Conference (ICNS). Over the years, ICNS has become the premier global event for promoting, maturing, and disseminating CNS policies, standards, and innovation, shifting the focus from isolated communications, navigation, and surveillance functions to integrated services. This integration optimizes aviation RF spectrum use, incorporates technological advancements, and enhances safety, efficiency, and capacity.

ICNS addresses both long-term research and development, as well as the practical implementation of integrated CNS technologies. As our regular attendees can attest, the conference is structured around three pillars:

- **Panel Sessions (mornings):** Discussing key topics, policies, and technological advancements in CNS.
- **Technical Paper Presentations (afternoons):** Showcasing cutting-edge CNS research and developments.
- **Networking Opportunities (throughout the day):** Fostering informal exchanges among policymakers, regulators, industry leaders, researchers, scholars, professionals, students, and experts worldwide.

A Special Milestone

This year's conference is particularly significant as it is our silver jubilee — 25 years of ICNS — and, for the first time, is being held outside the United States. This milestone underscores the conference's international reach and reflects our commitment to global collaboration in advancing CNS technologies and supporting harmonized developments and timely operational innovations. We also welcome a record number of participants from more than 40 countries.

The 2025 edition is hosted by EUROCONTROL, the SESAR Deployment Manager (SDM), and the SESAR Joint Undertaking (SJU) at EUROCONTROL's Brussels headquarters.

Get ready for three days filled with insightful discussions, groundbreaking presentations, and valuable networking opportunities!

Plenary Program

Our plenary program comprises welcomes from the top management of our hosts: EUROCONTROL's Director General, Raúl Medina, SDM's Executive Director, Mariagrazia La Piscopia, and SJU's Executive Director, Andreas Boschen. We also have four outstanding keynotes: EASA's Executive Director, Florian Guillermet, European Commission's Head of Single European Sky Unit, Flor Diaz Pulido, ICAO's Deputy Air Navigation Bureau Director, Pascal Luciani, and ESA Lead Astronaut, Luca Parmitano.

The plenary program includes six panels, two per day, all covering very topical subjects, with the second day panels building upon our 2025 theme: **"Integrated CNS: Towards Innovative and Efficient CNS Service Provision."**

Each plenary session features outstanding facilitators and speakers representing policymakers, regulators, industry, air navigation service providers, airlines, associations, academia, and other key CNS stakeholders.

Technical Program

This year's technical program sets an all-time record with about 140 outstanding CNS-related research and development presentations across six tracks: air traffic management, operational efficiency, communication and security, navigation and surveillance, unmanned aircraft systems, and advanced air mobility developments.

More than 400 authors from Europe, North and South America, Africa, the Middle East, and the Asia-Pacific region contributed to this year's technical program. Notably, one-third of the technical presentations are from students, reflecting strong engagement from young researchers.

Networking and Recognition

Beyond the formal sessions, ICNS offers numerous networking opportunities during morning and afternoon breaks, lunches, and evening events.

Join us in the Europa Foyer after the first day's technical program for a networking reception to thank our sponsors and supporters. During the reception, we will announce the Best Paper Awards for both professional and student papers — please join us to celebrate the winners.

On the evening of day two (Wednesday), we will celebrate ICNS's 25th anniversary with a reception at the Belvue Museum, near the Brussels Royal Palace. We will also announce the winner of the ICNS Champion Award, selected from your nominations recognizing outstanding contributions to CNS advancements.

Support and Gratitude

For ICNS 2025, the generous support of our financial sponsors and hosts allows us to offer fully complimentary participation for all attendees. We are especially grateful to our financial sponsors: platinum sponsor **NASA**, gold sponsor **Airbus**, silver sponsors **Frequentis**, **Aireon**, **Viasat**, and **Indra**, exhibitors **Startical**, **Sunhillo**, and **Honeywell** and our supporters **ESSP** and **L3Harris**. Special thanks to our hosts, **EUROCONTROL**, **SDM**, and **SJU**, for helping cover conference expenses and supporting this milestone event.

ICNS is a not-for-profit event, organized by volunteers investing their personal and supporting organizations' time. We want to acknowledge the outstanding support and contributions of the members of the ICNS 2025 organizing committee: Technical Program, Plenary Program, Sponsor, Awards, Student Paper, Communication, Local Arrangements, Finance, Publication & Registration, and IEC Chairs, the ICNS Executive Committee (IEC) members, and all involved in making this event a success. We also want to thank the AIAA Digital Avionics Technical Committee (DATC), the owner of our conference, and the DATC Chair in particular, for all the support in navigating around organizational challenges we encountered this year.

We are particularly grateful to our outstanding keynote speakers, plenary facilitators and panellists, authors, track and session chairs, reviewers, and hosts' supporting staff for their invaluable contributions to the conference's success.

Your Contribution Matters

Lastly, **YOU** — the participants — are the heart of this conference. Your contributions through presentations, discussions, and engagement make ICNS the leading event for CNS advancements.

Take full advantage of ICNS 2025 — inspire and be inspired. Help shape the future of aviation CNS with technological excellence and shared knowledge, while addressing evolving operational needs.

We wish you a fruitful and enriching conference.

Nikos Fistas and Brent Phillips

ICNS 2025 Conference General Co-Chairs

Conference General Co-chairs

Dr. Nikos Fistas, EUROCONTROL



Dr. Nikos Fistas has been with EUROCONTROL for almost 30 years. Nikos is currently leading the standardization team activities. In this role, he oversees the development and maintenance of operational and technical, civil, and military standards, published in the form of EUROCONTROL specifications and guidelines and is also responsible for EUROCONTROL's cooperation with standardization groups.

Previously, Nikos has contributed to and led the EUROCONTROL development activities for new aviation communication systems, progressing from research and investigations to the definition and standardization of datalinks for communication, including both terrestrial and satellite-based systems, as well as surveillance. He supported the SESAR Deployment Manager datalink activities for 2 years and, for five years until 2024, served as the EUROCONTROL NM datalink manager, supporting the stakeholders to deploy and operate CPDLC in Europe. Prior to that, he led initiatives related to the Future Aeronautical Communication Infrastructure (FCI) and coordinated the SESAR Joint Undertaking research activities, guiding the development and standardization of AeroMACS, LDACS, and SATCOM systems.



Brent Phillips, FAA

Brent Phillips is a senior systems engineer with the Federal Aviation Administration's NextGen Organization and the U.S. panel member to the International Civil Aviation Organization (ICAO) Communications Panel. Mr. Phillips is also the program co-lead for the joint FAA/SESAR Future Communications Infrastructure Study and the Next Generation SATCOM Systems. He is currently leading the internet protocol suite (IPS) standards development for aviation use in the FAA. He is also serving as the communications lead on the NAS Enterprise Architecture Roadmap Team.

Plenary Program Co-chairs



Cristian Pradera, SESAR Deployment Manager (SDM)

Cristian Pradera is an aeronautical engineer specialized in rocket engines, graduated in the Polytechnic University of Madrid in 2008. He started his professional career as a consultant in ENAIRE, working for 5 years in the Planning and Strategy division, where he contributed to the development of ENAIRE's business plan and to the elaboration of the European ATM Master Plan under the SJU. He then joined EUROCONTROL for 3 years, working in the ATM Master Plan Unit and then he moved to the SESAR Deployment Manager in 2017, where he became the planning manager, in charge of the planning activities related to the implementation of the Common Projects, DataLink Services and ADS-B Out.



Sherry Yang, The Boeing Company

Sherry Yang is senior manager of Airspace Operational Efficiency (AOE) at Boeing Research & Technology (BR&T). She is responsible for executing AOE's missions and collaborating with government agencies and industry partners for advanced technology development in the areas of trajectory-based operations (TBO), artificial intelligence and machine learning (AI/ML), air traffic management (ATM), and advanced air mobility (AAM). Working across technologies and businesses, Yang facilitates public and private partnerships to develop and evaluate new technologies and operation concepts for the aviation ecosystem. She is an associate fellow of American Institute of Aeronautics and Astronautics (AIAA), a technical advisor to the ICC AIA Member of the ICAO Information Management Panel, and a member of AIA, ATCA, and CANSO.

Technical Program Co-chairs



Dr. Rainer Kölle, EUROCONTROL

Rainer Kölle heads the Operational Performance Review Service with EUROCONTROL, Directorate European Green Sky, Aviation Intelligence Unit, Brussels. Prior to joining EUROCONTROL in 2005, he served as a career officer in the German Air Force with 18 years of service experience. His professional career saw him working as aviator, air traffic controller, and in the wider field of air traffic management.

Rainer represents EUROCONTROL in standardization activities and performance related R&D projects and policy working groups (e.g., ICAO's performance expert group, multi-national performance benchmarking group). His research interests apply data science to operational air transport and air navigation performance and promoting higher levels of transparency using open data for operational performance measurement.

Rainer holds a Master of Science in electrical engineering (communication systems) from the University of the German Federal Armed Forces, Hamburg, 1994, and a doctorate from Lancaster University, United Kingdom, 2013.

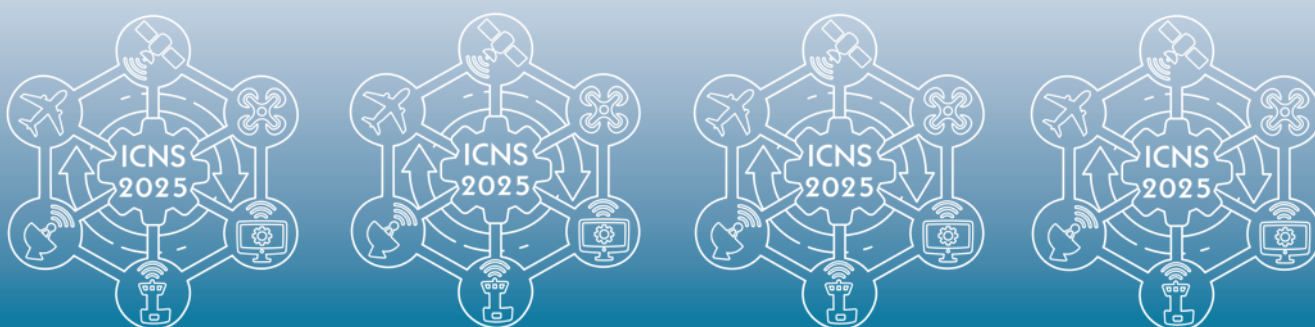


Paul Prisaznuk, ARINC (Retired), Airlines Electronic Engineering Committee (AEEC)

Paul Prisaznuk is an aviation professional that has served ARINC, EUROCAE, RTCA, and ICAO in various technical capacities for over 35 years. Most recently Paul served as the head of standards development at ARINC. In that role Paul led the development of over 250 technical standards used in the design and construction of commercial air transport, large military aircraft, and other aircraft. These include many air/ground standards applied to communications, navigation, and surveillance (CNS) systems.

Paul is a contributing author to the CRC Press publication, Digital Avionics Handbook. His contributions describe the ARINC 429, Digital Information Transfer System, and the ARINC 653, Avionics Application Software Standard Interface. Paul has taught an introductory course on the "Fundamentals of Avionics" offered by the University of Kansas. Paul has briefed ICNS and DASC conferences on the application of ARINC Standards. He is a member of ICAO's ICNS and Spectrum Task Force.

Paul holds a bachelor's degree in electronic engineering from the University of Dayton. He is active in the collector car community and has owned several unique vehicles over his lifetime.



ICNS 2025 Agenda Overview

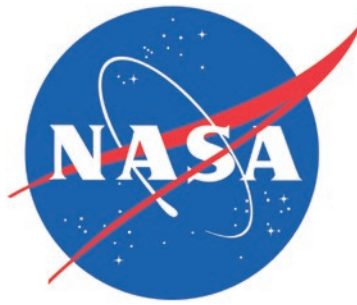
Location	Tuesday, 08 April	Wednesday, 09 April	Thursday, 10 April
Foyer	Welcome Networking Coffee 0800-0900		
Europa	0900-0910 Host Welcome Raúl Medina Director General, EUROCONTROL	0900-0910 Host Welcome Mariagrazia La Piscopia Executive Director, SESAR Deployment Manager	0900-0910 Host Welcome Andreas Boschen Executive Director, SESAR Joint Undertaking
Europa	0910-0940 Opening Keynote “Connectivity for Tomorrow’s Aviation Needs: EASA’s Role in Realizing a Future CNS That Is Resilient And Safe” Florian Guillermet Executive Director, EASA	0910-0925 Opening Keynote “CNS Evolution, a Policy Perspective from DG MOVE” Flor Diaz Pulido Head of Single European Sky Unit, DG MOVE, European Commission	0910-0940 Opening Keynote “Harmonized CNS for the Future – Prerequisites” Pascal Luciani Deputy Director, ANB, ICAO
Europa	0940-1050 Plenary I: CNS Evolution and Global Harmonization Co-chairs Coleen Hawrysko Director, Africa, Europe, Middle East Office, FAA Predrag Vranjkovic CNS Program Manager, EUROCONTROL Panelists José Luis Chinchilla García, Director, Indra Hughes de Beco, Head of ATM Program, Airbus Raza Ali Gulam, CNSS Technical Officer, ICAO Agnès Leroux, Director, EU Government Affairs, Boeing	0925-1030 Plenary III: CNS Service Provision Chair Paul Bosman Head of ATM Infrastructure, EUROCONTROL Panelists Dieter Eier, President, Frequentis USA, Inc. Fabrizio Fiori, Telecommunications Engineer, Techno Sky Pierre Lahourcade, Chief Strategy and Development Officer, ESSP Manuel Rivas Vila, ATM Oversight Section Manager, EASA Jon Standley, Director, Business Development, L3Harris Technologies	0940-1050 Plenary V: Cybersecurity and PNT Resilience Chair Paco Salabert CNS and Spectrum Policy Officer, European Commission Panelists Per Andersen, SWIM and Cybersecurity Expert, SESAR Deployment Manager Mathieu Hiale-Guilhamou, Business Manager, Airbus Jorge Pereira, Head, Communications, Navigation, Surveillance and Security Unit, EUROCONTROL Krishna Sampigethaya, Chair, Department of Cyber Intelligence and Security, Embry-Riddle Aeronautical University
Foyer	Morning Networking Coffee Break		
	1050-1120	1030-1055	1050-1120

(All times and programming are subject to change. Please visit <http://i-cns.org> for the latest updates.)

ICNS 2025 Agenda Overview

Location	Tuesday, 08 April	Wednesday, 09 April	Thursday, 10 April
Europa	<p>1120-1230 Plenary II: CNS Incentivization: How to Accelerate Voluntary Deployment</p> <p>Co-chairs Achim Baumann Policy Director, Airlines for Europe (A4E)</p> <p>Véronique Travers Sutter Head of iCNS Unit, EUROCONTROL</p> <p>Panelists Manuel Garcia, Head of Communications Division, ENAIRE</p> <p>Jörg Pikolin, Advisor ATM for Lufthansa Group</p> <p>Gregory Saccone, Technical Fellow, Airspace Operational Efficiency, Boeing</p> <p>Lendina Smaja, Policy Officer, European Commission</p> <p>Anna von Groote, Director General, EUROCAE</p>	<p>1055-1200 Plenary IV: Space-based CNS Services</p> <p>Chair Vojislav Milosavljević CNS Expert, EUROCONTROL</p> <p>Panelists Dr. Michael Garcia, Chief Innovation Scientist, Aireon</p> <p>Miguel Muñoz Martínez, Technical Director, ATM, Startical</p> <p>Ghislain Nicolle, Vice President, Air Traffic Services, Viasat</p> <p>Davide Tomassini, Iris Project Implementation Manager, ESA</p>	<p>1120-1230 Plenary VI: CNS Evolution Impact on Human Role in ATM/ Resources, Skills, and Training Needs for Future CNS Professionals</p> <p>Chair Luna Babusci Airspace Management Team Leader, Air Traffic Controller, SESAR Deployment Manager</p> <p>Panelists Carlos Sequeira, Airline Pilot and Human Factor Expert, Ryanair</p> <p>Konstantinos Simaiakis, CNS and Regulatory Expert, IFATSEA</p> <p>Helena Sjöström Falk, President and CEO, IFATCA</p> <p>Roberta Zimmerman, Director, Air Traffic Data Analytics and Strategic Vision, United Airlines</p>
Foyer	Networking Lunch		
	1230-1330	1200-1300	1230-1330
See Technical Program Detail for rooms and times	Technical Program Sessions		
	1330-1800	1300-1730	1330-1530
	Afternoon Networking Coffee Break		
Foyer	1530-1600	1500-1530	
Refer to each event's specific times and locations	Evening Programs		
	<p>1800-1930 Sponsors and Exhibitors Reception</p> <p>Best Paper Awards</p> <p>Foyer</p>	<p>1730-1800 Evening Keynote Luca Parmitano, Lead Astronaut, EAC/JSC Liaison Officer, ESA</p> <p>Europa</p>	
		<p>1930-2230 25 Years Celebration Reception ICNS Champion Award BELvue Museum</p>	

(All times and programming are subject to change. Please visit <http://i-cns.org> for the latest updates.)



NASA's Glenn Research Center is located next to Cleveland Hopkins Airport in Northeast Ohio, where the first successful demonstration of two-way VHF (very high frequency) radio communication for air traffic control took place in 1930, marking a significant milestone in aviation communication. Building on this legacy, Glenn Research Center established the ICNS Conference in 2001 to provide a forum for national and international discussion and collaboration on developing a future integrated, highly efficient, capable, and secure CNS infrastructure for both the nation and the world, while also informing NASA's aeronautical CNS R&D program.

NASA Glenn has conducted research and development in aeronautical communications, navigation, surveillance and information technologies for the national airspace system (NAS) for more than 20 years, building on more than 40 years of experience in advanced communications systems research and development: The Emmy award-winning Communications Technology Satellite, CTS (1976), the Advanced Communications Technology Satellite, ACTS (1993- 2003), technologies for space missions and infrastructure such as the Cassini mission, TDRSS, and International Space Station, and many others.

The aeronautical communications accomplishments includes: the demonstration of the first networked broadband airborne satellite communications; development, testing, and demonstration of the Aeronautical Mobile Airport Communications System (AeroMACS) airport surface wireless communications network; next generation network protocol standards for secure mobile networks; satellite-based distribution of aviation weather information; spectrum allocations for future ground and air-mobile aviation communications; and future global aviation communications.

Under the EUROCONTROL/FAA Future Communications Study, NASA Glenn collaborated in the development of the next-generation mobile communications network architecture for aviation; developed advanced CNS simulation capabilities for NASA's Shadow Mode Assessment using Realistic Technologies for the National Airspace System (SMART NAS) project; and led the development and testing of the first prototype L-Band/C-Band UAS control and non-payload communications radio.

NASA's Glenn Research Center continues to look towards the future and is currently investigating modern air-ground communication solutions for advanced air mobility. It is also engaged in the research and development of future air-to-air communications to enable future airspace operations. The center continues to expand its capabilities and commitment through the acquisition of new aircraft assets and expanding laboratory facilities to meet existing and future CNS challenges.

Glenn has unique research facilities enabling development and testing of next-generation secure wireless aeronautical mobile communications and network standards and extensive modeling and simulation, and system analysis capabilities covering all aspects of communications, navigation, surveillance, and information. A staff of over 30 experienced CNS research engineers is engaged in the development of the nation's next-generation CNS infrastructure, in collaboration with government, academic and industrial partners.

www.nasa.gov/glenn

Host Welcome



Raúl Medina, Director General, EUROCONTROL

Raúl Medina has been the director general of EUROCONTROL since January 2023. Previously, between 2015 and 2022, he was director general of civil aviation at the Spanish Ministry of Transport, Mobility and Urban Agenda and president of the Spanish Aviation Safety and Security Agency (AESA). During those years, he was also member of the boards of directors of ENAIRE (Spanish Air Navigation Service Provider), SENASA (Services and Studies for Air Navigation and Aeronautical Safety) and INTA (National Institute for Aerospace Technology), as well as member of the ENAIRE Foundation, which works to promote aviation culture. At international level, Raúl was vice-president of ECAC (European Civil Aviation Conference) and a member of the ECAC Coordinating Committee. He was the president of the ICAO Technical Commission during the last ICAO Assembly. He has also worked as a consultant for the World Bank's Sustainable Development Department in Washington D.C. and as a systems engineer for Siemens.

Opening Keynote:

“Connectivity for Tomorrow’s Aviation Needs: EASA’s Role In Realizing a Future CNS That Is Resilient And Safe”

From trajectory-based operations (TBO) to new service delivery models and open air traffic management (ATM) architectures, the aviation landscape is evolving rapidly. Global communication, navigation, and surveillance systems must adapt to innovation and increasing service demands while remaining safe, resilient, and cost-effective. The European Union Aviation Safety Agency (EASA) is helping the aviation industry meet these challenges by supporting regulatory innovations and concepts such as the hyperconnected ATM system.



Florian Guillermet, Executive Director, EASA

Florian Guillermet has been executive director of the European Union Aviation Safety Agency (EASA) since April 2024. He has worked in the aviation sector for over 25 years, holding top-level management posts in France and the European Union. In addition to extensive leadership experience, he has acquired profound knowledge of many aviation domains, particularly safety and air traffic management (ATM). Guillermet joined EASA from France's air navigation service provider DSNA, where he had been director of air navigation services since June 2021. Prior to that, he was executive director at SESAR Joint Undertaking (SJU). He stepped up to this role in 2014, after two years as deputy executive director of the SJU. He held various positions at EUROCONTROL from 2003 to 2011, ranging from system developments to operational service delivery. His earlier work experience involved various aviation roles in France.

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Plenary I: CNS Evolution and Global Harmonization

Participants will have the opportunity to engage with industry leaders on the challenges of communication, navigation, and surveillance (CNS) evolution and global interoperability. The co-chairs will lead discussions on the following:

- Key drivers of global CNS evolution and the sector's main challenges.
- Interdependencies, synergies, and opportunities in CNS modernization.
- How CNS infrastructure can best support operations to maximize the benefits of trajectory-based operations.

Co-chairs



Coleen Hawrysko, Director, Africa, Europe, Middle East Office, FAA

Coleen Hawrysko is the FAA's Director of the Africa, Europe, and Middle East Office located in Brussels and is responsible for planning, directing, and coordinating all non-operational activities within the regions. She advises the FAA administrator, the assistant administrator, and other key agency officials on all matters under the purview of the office and leads all efforts in coordination with the appropriate elements of the U.S. and other diplomatic missions within the area. She is the senior FAA spokesperson in relationships with civil and military officials of these missions and other national and international organizations. Ms. Hawrysko was formerly the director of the Air Traffic Organization International Office where she ensured seamless operations and promoted harmonized international air traffic management standards by collaborating with international organizations, other air navigation service providers, and airlines in support of the FAA's global leadership initiatives.



Predrag Vranjkovic, CNS Program Manager, EUROCONTROL

Predrag Vranjkovic is an experienced senior aviation expert with a demonstrated history of working across the aviation industry, in both private and public international sector. Skilled in air traffic management (ATM) policy planning and development, ATM innovation and deployment, international relations and negotiation, Predrag has been in various roles since he joined EUROCONTROL in 2009. This also includes the secondments to the European Commission DG MOVE where he worked on the Single European Sky file and in the SESAR Deployment Manager where he was leading the ATM implementation programs. Currently, Predrag leads the CNS program manager team in EUROCONTROL that aims to deliver the European CNS Evolution Plan, the document driving the evolution of CNS infrastructure in the European network. Predrag also supports EUROCONTROL director general as a senior advisor.

Panelists



José Luis Chinchilla García, Director, Indra

José Luis brings over 36 years' experience in technology and in business management in the air traffic management domain at Indra. He started at Indra as an engineer developing solutions for 3D military radars, secondary radars, both IFF and SSR radars, antenna measurement systems, and other radiofrequency systems. He assumed the responsibility for approximately 10 years for Indra CNS R&D Department creating the ATM-CNS Indra portfolio. He developed the Indra voice communications switching over IP, introducing the digitalization of DVOR and DME Nav aids, and the surveillance systems portfolio MSSR, PSR, 2D and 3D, ADS-B, MLAT, WAM, SMR and data analysis tools. During this period, he shared the responsibility of the ENAIRE account for surveillance and communications business.

FREQUENTIS

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Frequentis, a trusted leader in safety-critical communications and air traffic management (ATM) solutions, has a mission: to make the world safer through innovative technology. The company has over 75 years of experience supporting air navigation service providers (ANSPs) and aviation stakeholders around the world. Frequentis' solutions emphasize seamless integration, digital transformation, and operational resilience, delivering technology that ensures airspace remains **Digital, Sustainable, and Safe**.

At the forefront of Frequentis' offerings is **OneATM**, a visionary approach designed to address the complex needs of modern ATM environments by uniting the latest technology into a single, open ATM ecosystem. This integrated approach simplifies operations, enhances performance, and provides a flexible foundation to support current and future demands in air traffic management.



Aireon pioneered the first global air traffic surveillance system using a space-based Automatic Dependent Surveillance-Broadcast (ADS-B), meeting the stringent real-time Air Traffic Service (ATS) requirements. The company continues to innovate by leveraging its high-quality data to develop new products for the aviation industry to improve efficiency, enhance safety and reduce emissions.

Founded in 2011, Aireon's service leverages space-qualified ADS-B receivers installed in the 66 satellites of Iridium NEXT, Iridium's second-generation satellite network. This pioneering system meets the stringent real-time Air Traffic Service (ATS) requirements and provides global coverage, ensuring comprehensive surveillance capabilities anywhere in the world. By harnessing high-quality data, Aireon continues to innovate, developing new products to enhance the aviation industry's performance and safety.

Plenary I: CNS Evolution and Global Harmonization—continued

Panelists



Hugues de Beco, Head of ATM Program, Airbus

Hugues de Beco has 37 years' experience in the aerospace industry, particularly in aircraft systems. He started as an avionics engineer in Sextant Avionics (Thales) in 1987 and then joined Airbus in 1992. Hugues has been in various positions in aircraft systems in engineering, procurement, and program management. Hugues is now heading the multi program projects and air traffic management organization in Airbus.



Raza Ali Gulam, CNSS Technical Officer, ICAO

Raza Gulam is a technical officer for CNS and Spectrum at ICAO, serving as secretary of the Communication Panel Data Communication Infrastructure Working Group, and a distinguished career spanning over three decades. Since 2020, Raza has been working in the CNS and Spectrum section of ICAO's Air Navigation Bureau. Also, a certified ICAO instructor, he conducts ICAO training courses. In 2016, he transitioned to ICAO headquarters in Montreal as a regional program officer, supporting regional aviation planning and safety groups. He joined the ICAO in 2007 as a regional officer CNS in the Middle East Office, supporting states in implementing ICAO SARPs for CNS systems and coordinated frequency assignments.



Agnès Leroux, Director, EU Government Affairs, Boeing

As a EU government affairs director at Boeing, Agnès focuses on aviation safety and digital policy, supporting international cooperation and interoperability. Prior to this role, she was a policy director at Airlines for Europe (A4E) where she was the COVID crisis coordinator and supported airlines on security and cargo topics. With a background in European political sciences and over 14 in Brussels, Agnès has a good overview of political challenges and dynamics at stakes in the European aviation ecosystem.

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Plenary II: CNS Incentivization: How to Accelerate Voluntary Deployment

Participants will engage with industry leaders on the challenges of communication, navigation, and surveillance (CNS) evolution and global interoperability. Co-chairs will lead discussions on the following:

- The good, the bad, and the ugly of incentivizing voluntary deployment.
- Why organizations are deploying and the information they need.
- How to use or improve the current regulatory framework for incentivization.

Co-chairs



Véronique Travers Sutter, Head of iCNS Unit, EUROCONTROL

Véronique Travers Sutter is an aeronautical engineer with over 25 years of experience in CNS avionics, trajectory management and certification expertise. She was previously working for Airbus where she was leading the SESAR program contribution and more recently serving as head of Airbus' transformation and system integration. Now part of EUROCONTROL NM team, she is the head of iCNS team, focusing on maintaining, evolving, and implementing the iCNS strategy and objectives. Together with her new team, she will be working on European CNS infrastructure projects and products supporting the technical performance of the European CNS infrastructure. This also includes coordinating the allocation of pan-European scarce resources, such as spectrum and radio frequency bands, etc. and working closely with the SESAR deployment manager (SDM) and the SESAR 3 Joint Undertaking on research and innovation and on supporting the ATM Master Plan.



Achim Baumann, Policy Director, Airlines for Europe (A4E)

Achim Baumann has worked in aviation for over three decades, gaining experience across a variety of topics, cultures, and organizations. His career has been defined by a holistic approach aimed at finding optimal solutions for all stakeholders. Achim joined Airlines for Europe (A4E) as a policy director in December 2017, where he manages regulatory and technical matters related to airline operations, safety, engineering, maintenance, and security. Before joining A4E, Achim served as IATA director of Safety and Flight Operations for the Middle East and North Africa (MENA) region, focusing on improving safety and efficiency in the region's aviation industry. Prior to IATA, he worked at Deutsche Flugsicherung GmbH (DFS) as a senior consultant and regional manager.

Panelists



Manuel García, Head of Communications Division, ENAIRE

Manuel García is head of the Communications Division of the Spanish Air Navigation Service (ENAIRE). He has more than 30 years' experience in CNS/ATM (communications, navigation, surveillance, and air traffic management) project management. Active participation in international working groups for the specification, development, and editing of the requirements of new communication systems within the framework of aeronautics (ICAO, EUROCONTROL, SDM). His responsibilities at the international level include the following: official Spanish representative on the ICAO Aeronautical Communications Panel (ACP) and Frequency Management Panel (FSMP); spanish representative in the governing groups of pan-European projects: PEB (PENS Executive Board), DEB (Datalink Executive Board) and others; chairman of the technical group of the AEFMP Plan (Algeria, Spain, France, Morocco and Portugal), developing technical and operational coordination between these five countries for the homogeneous and harmonized development of their respective air navigation systems.

ABOUT EUROCONTROL

SUPPORTING
EUROPEAN
AVIATION



Who we are

EUROCONTROL is an intergovernmental organization consisting of 42 Member States and two associated states. Our mission is to support European aviation – both civil and military – by addressing operational and technical matters.



How we work

We work very closely with the European Commission, the European Union Aviation Safety Agency, the SESAR Joint Undertaking, the SESAR Deployment Manager and aviation stakeholders (including air navigation service providers, airspace users, airports and aircraft/equipment manufacturers) in a joint effort to make aviation in Europe safer, more efficient, more cost-effective and with a minimal environmental impact.



Beyond ensuring the safe, secure, and efficient deployment of new ATM solutions, we also work in partnership with standardization organizations to provide technical specifications and guidelines for the European ATM network.

CNS Programme Manager

Starting in 2024, at the request of the European Commission, EUROCONTROL assumed the role of Europe's CNS Programme Manager (CNS PM), tasked with accelerating the upgrade of Communications, Navigation, and Surveillance (CNS) infrastructure across Europe.

The CNS PM oversees a comprehensive CNS programme, ensuring the successful development and implementation of the CNS Evolution Plan and addressing both the optimization and future evolution of ground and airborne CNS infrastructure.

Our core activities include:



- coordinating real-time traffic flows across Europe from the EUROCONTROL **Network Manager's** state-of-the-art Operations Centre in Brussels (BE) on behalf of our States and with a mandate from the European Commission. We also contribute to airport integration, capacity studies, airspace design, and enhancing resilience and security of CNS infrastructure, as well as driving digitalization and information management.
- managing directly over 1.7 million flights a year from our **Upper Area Control Centre in Maastricht (NL)**, which handles all flights in the upper airspace above Belgium, the Netherlands and Luxembourg, and is Europe's first cross-border civil-military ATC Centre.
- providing world-leading aviation sustainability and data analysis services from our **European Green Sky Directorate** in Brussels, supporting States and stakeholders in their policymaking.
- defining future ATM concepts, tools and systems from the **EUROCONTROL Innovation Hub** in Paris (FR), leveraging decades of experience in delivering innovative solutions to ATM challenges.
- helping stakeholders meet their learning and training needs from the **EUROCONTROL Aviation Learning Centre** in Luxembourg (LU), which provides online and in-person training courses to more than 50,000 participants annually.
- supporting our Member States to ensure civil-military interoperability with reduced costs in a secure single pan-European Sky from our **Civil-Military Cooperation Division** and the Network Manager.
- billing, collecting and redistributing to our States around €10 billion in route charges every year from our **Central Route Charges Office** in Brussels, thereby ensuring the smooth financing of the European air traffic control system.



CHECK OUR WEBSITE



Plenary II: CNS Incentivization: How to Accelerate Voluntary Deployment–continued

Panelists



Jörg Pikolin, Advisor ATM for Lufthansa Group

Jörg Pikolin is currently an advisor for the Lufthansa Group in the field of ATM development, and he has had a long and significant experience in management positions within the Lufthansa Group. From October 2019 to September 2024, he was head of ATM Development and Regulatory Affairs for Flight Operations. Prior to that, starting in September 2016, he was the head of Flight Operations Efficiency and Innovation, focusing on the concepts of efficiency and innovation within the LH Group and being responsible for the development and implementation of efficiency concepts and measures for the Lufthansa airline. Previously, he was director of product management Airline Operations Solutions at Lufthansa Systems, where he was overseeing the product development and consulting for all products of Airline Operations Solutions (i.e., flight planning, EFB). His career at Lufthansa Systems also includes the position of vice-president Product Management Airline Solutions. He is vice chair of NDTECH, vice chair of IATA RCG EUR and a technical expert to IATA ATM WG.



Greg Saccone, Technical Fellow, Airspace Operational Efficiency, Boeing

Greg Saccone has worked for more than 30 years in the aeronautical data link communication area. At Boeing he works in the Airspace Operational Efficiency group on advanced air traffic management concepts, research, operational trials, and implementation, specializing in data link communication, trajectory-based operations, and flight data processing. He is the focal for Internet Protocol Suite projects at Boeing, leading both internal and joint industry research projects, and he is currently the co-chair of the Airlines Electronics Engineering Committee (AEEC) Internet Protocol Suite for Aviation Safety Services and Hyperconnected Air Traffic Management groups. Additionally, he has been active in the ICAO Aeronautical Communications Panel and the RTCA SC-214 NextGen Data Link group, serving as co-chair of the Validation Subgroup. Prior to joining Boeing he was the technical director of data link research and development projects at Raytheon Canada, investigating implementing and integrating data link applications into flight data processor functionality of Raytheon commercial and military air traffic control systems.



Lendina Smaja, Policy Officer, European Commission

Currently serving as a policy officer at the European Commission (DG MOVE), Lendina is engaged in high-level discussions, strategic initiatives, and regulatory advancements that drive European ATM modernization, CNS evolution, and the integration of new entrants into airspace. She is an experienced ATM strategic policy advisor with 18 years of expertise in air traffic management (ATM), combining technical proficiency with high-level political acumen. Through various roles in the ATM/CNS domain, Lendina has contributed to the adoption of satellite navigation procedures, particularly performance-based navigation (PBN) and Ground-Based Augmentation System (GBAS), to enhance efficiency and sustainability in air traffic management.



Anna von Groote, Director General, EUROCAE

Anna von Groote joined the EUROCAE Secretariat in 2011 and was appointed EUROCAE director general in 2022. Before joining EUROCAE, she worked at the European Committee for Standardization (CEN) since 2006, where she assumed responsibilities for the organization's work program in different sectors. In her role as program manager at CEN, she was responsible amongst others for the aerospace and air traffic management sector. Anna holds a master's degree in European studies from the Centre for European Integration Studies, University of Bonn (Germany) and a Master of Laws in technology and intellectual property law from the University of Liverpool (UK).

Sponsors and Exhibitors Reception

1800-1930

Best Paper Award

Foyer

Modernising European ATM #AsOne

SESAR is a key **EU initiative modernising Europe's Air Traffic Management (ATM)**. **SESAR Deployment Manager (SDM)** coordinates the implementation of **CP1**, a European regulation that sets out essential requirements for the implementation of ATM functionalities to enhance the performance of the European aviation system. SDM oversees the **coordination & synchronised deployment** of SESAR solutions to **benefit passengers, citizens, economy and environment**.

The first 300 completed ATM modernisation projects have



saved **260 mln minutes** of passenger's time = fewer delays, smoother journeys



saved **4.3 mln tons** of jet fuel = lowering costs and environmental impact



saved **13.6 mln tons** of CO2 = equivalent to taking 2 million cars off the road



enabled over **16.8 billion** operational improvements for the aviation industry

SESAR deployment



Brings faster, more efficient flights



Lowers emissions

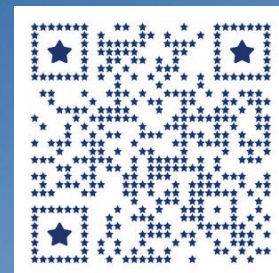


Provides an economic boost



Increases safety & resilience

Discover how #SESARdelivers to European aviation



SESAR deployment **benefits are being delivered thanks to thousands of people** in more than 100 European aviation partners. Airports, Airlines, Air Navigation Service Providers, Meteorological Service Providers, the Network Manager and Military stakeholders **working together as one team**.

Host Welcome



Mariagrazia La Piscopia, Executive Director, SESAR Deployment Manager

Mariagrazia has more than 25 years of experience in aviation and air traffic management covering technical, operational, and strategic areas, spanning from research & development to deployment. Her background is operational with extensive experience in air traffic management and in technical/innovation domains. Since 2022 she has been the executive director of the SESAR Deployment Manager, the European function that has the task of coordinating and synchronizing the modernization of the European ATM systems and infrastructure through the adoption of Common Projects, as mandated by European Union regulations. Ten years ago, she joined the SESAR Deployment Manager covering the position of chief of program. Her career in aviation started in ENAV, the Italian air navigation service provider where she covered several positions.

Opening Keynote:

“CNS Evolution, a Policy Perspective from DG MOVE”

Flor Diaz Pulido will share a strategic vision for the evolution of CNS systems and services. Her keynote will address ongoing efforts, the role of the CNS program manager, and the objectives and vision for this task as assigned to the network manager by the European Commission. She will also provide an update on the EU regulatory framework for CNS systems and services, as well as the use of EU space systems—including EGNOS, Galileo, and IRIS2—in air traffic management.



Flor Diaz Pulido, Head of Single European Sky Unit, DG MOVE, European Commission

Flor Diaz Pulido has been the Head of the Single European Sky Unit of DG MOVE since January 2025. In this role, she focuses on policies to enhance the performance of air traffic management (ATM) and air navigation services in Europe through a harmonized regulatory framework, a technology private-public partnership (SESAR), and international cooperation (ICAO + bilateral agreements). In June 2018, she was Head of the Aviation Policy Unit of DG MOVE. Before that, in 2017, she joined the European Space Policy (now DG DEFIS – Defence and Space) as Deputy Head of Unit, overseeing the Galileo space program.

Previously, in 2013, she moved to DG GROW (internal market, industry, entrepreneurship, and SMEs) as Deputy Head of Unit C2, focusing on Resource Efficiency and Raw Materials.

Plenary III: CNS Service Provision

The session will focus on the ICNS 2025 conference theme of efficient and innovative communication, navigation, and surveillance (CNS) service provision. Speakers will address current key topics, including lessons learned, best practices, and challenges.

Chair



Paul Bosman, Head of ATM Infrastructure, EUROCONTROL

Paul Bosman has been working for EUROCONTROL for more than 30 years and is currently the manager of the ATM Infrastructure Division in EUROCONTROL Network Manager. Working in close cooperation with all European institutions and stakeholders to manage and support European infrastructure deployment programs digitizing the SES European Sky. Responsibilities include European common infrastructure services, modernizing air traffic management, cyber and artificial intelligence.

Panelists



Dieter Eier, President, Frequentis USA, Inc.

Dieter Eier has been president of Frequentis USA, Inc., since 2023, where he oversees the development, production, and maintenance of communication and information solutions for the FAA, NASA, and various state and local government organizations. Previously, he was the vice president of Products and Solutions, a position he held since 2007. Mr. Eier significantly contributed to the introduction of new digital voice communication systems into the U.S. National Airspace through the FAA's IVSR program. He also integrated the company's IP-based voice communication technology into NASA's mission voice network for space flight. Under his leadership, Frequentis introduced remote digital tower technologies to the U.S. National Airspace. Since 2022, he has worked with RTX/Collins to achieve full FAA type certification for the company's flagship smartVision digital tower, the first such certification in the United States.

Delivering the Digital European Sky



Who we are

The **SESAR JU** is a **public-private partnership** consisting of the EU, EUROCONTROL and **57** members representing the entire aviation community (airspace users, airports, air navigation service providers, manufacturers, research organisations, innovative air mobility).

Our mission

Establish Europe as the **most efficient and environmentally-friendly sky** to fly in the world.

Accelerate through **research and innovation** the delivery of an **air traffic management (ATM)** system that is inclusive, resilient and sustainable.

How we work

The **SESAR Digital European Sky programme** covers the entire **innovation pipeline** from exploratory research (low technology readiness level (TRL)) to Digital Sky Demonstrators (high TRL, ready for market uptake).

2025 EDITION

European ATM Master Plan

The European ATM Master Plan is the main **planning tool** for ATM modernisation across Europe. It provides the vision, development and deployment priorities, including their respective **roll-out, performance** ambitions and **cost/benefit** analysis.

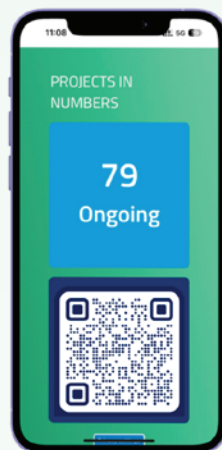
TAKE A LOOK AT THE MASTER PLAN WEB PORTAL!



Projects Portal

This portal serves as a comprehensive resource for all information related to the projects currently in progress under the **Digital European Sky research and innovation programme** (2021–2028).

Additionally, it provides detailed insights into the completed projects of SESAR 2020 (2017–2023).



Solutions Catalogue

The digital interface allows visitors to view more than **200 solutions** addressing key areas of the ATM value chain, notably airport operations, air traffic services, network operations and the enabling infrastructure.



Plenary III: CNS Service Provision—continued

Panelists



Fabrizio Fiori, Telecommunications Engineer, Techno Sky

Fabrizio Fiori, a telecommunications engineer, joined Techno Sky, an ENAV Group company, in 2008. He has worked on air traffic control (ATC) projects, first as a systems engineer and later as a project manager. His work has focused on implementing communication, navigation, and surveillance/air traffic management (CNS/ATM) systems and modernizing Techno Sky's maintenance model. Since 2017, he has led two strategic projects: introducing a new maintenance model based on the Technical Operations Center and implementing a logistics system using IBM Maximo EAM to improve maintenance efficiency, system availability, and ATSEP personnel skills. Fabrizio was appointed head of maintenance engineering in 2019 and systems and maintenance engineering in 2021. Since 2023, he has led Techno Sky's engineering department. He co-authored a patent on reply detection in secondary surveillance radars.



Pierre Lahourcade, Chief Strategy and Development Officer, ESSP

Pierre Lahourcade joined ESSP in 2019 as Chief Strategy and Development Officer to develop CNS based services for aviation. He started at Airbus Defense & Space as ATM program manager, has joined Egis to lead aviation business development and the French Civil Aviation University (ENAC) as international and development director. He has over 25 years of experience on international aviation markets, with several executive positions in different aviation stakeholders as system industry, consulting, institution, and operator. Those positions enabled him to develop a deep knowledge of ANSPs, airports, airlines, civil aviation authorities and space challenges. Pierre has a Master of Science in Software Engineering, a master's in strategy and innovation management, and Master of Business Administration in general management.



Manuel Rivas Vila, ATM Oversight Section Manager, EASA

Manuel Rivas Vila has been with EASA since 2013, where he manages the ATM Organization Approvals Section. Throughout his career, he has worked on ATM/ANS systems implementation, service provision, regulation, and oversight. Most recently, he has been deeply involved in developing the new EU ATM/ANS equipment conformity assessment framework and its implementation, as well as supporting the development of industry standards. He chairs the European ATM Standards Coordination Group. Before joining EASA, he worked for more than a decade at ENAIRE, the Spanish en route air navigation service provider. He holds a master's degree in aeronautical engineering.



Jon Standley, Director, Business Development, L3Harris Technologies

Jon Standley is director of business development for Enterprise ATM Solutions at L3Harris Technologies. In this role, Jon has overall responsibility for U.S. and international civil air traffic management new business initiatives supporting the mission networks sector of L3Harris. Previously, Jon served as a business development lead supporting civil and defense customers in domestic and expeditionary airborne surveillance and warning systems, as well as surveillance and information management solutions to support the integration of uncrewed aircraft systems into the U.S. National Airspace System. Before joining L3Harris, Jon served as a program manager at the U.S. Federal Aviation Administration focusing on ATM technology development and prototyping for the NextGen program, as well as leading investment analysis for ATM system modernization.



The purpose of the American Institute of Aeronautics and Astronautics Digital Avionics Technical Committee (DATC) is to provide a forum for the exchange of new knowledge in digital avionics among professionals and students in the fields of commercial, military and general aviation and space applications.



The DATC serves the needs and professional interests of AIAA members and promotes through progressive projects and meetings their contributions and achievements in the arts, sciences and technology of aeronautics and astronautics.

The AIAA Digital Avionics Technical Committee cosponsors two technical conferences, the Digital Avionics Systems Conference (DASC) and the Integrated Communication, Navigation and Surveillance (ICNS) Conference.

If you are interested in joining the AIAA DATC, we are always looking for new, motivated members. Please visit our website for contact information:

aiaadatc.org



The Institute of Electrical and Electronics Engineers (IEEE)

The IEEE is the world's largest technical society, bringing members access to the industry's most essential technical information, networking opportunities, career development tools, and many other exclusive benefits. Through its global membership, the IEEE is a leading authority on areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics among others.

To foster an interest in the engineering profession, the IEEE also serves student members in colleges and universities around the world. Other important constituencies include prospective members and organizations that purchase IEEE products and participate in conferences or other IEEE programs.

Aerospace & Electronics Systems Society (AESS)

AESS is one of 45 technical societies and councils within IEEE. Members of AESS are interested in the design, integration, test, and analysis of large, complex systems consisting of major subsystems that contain dissimilar electronic devices. Most of our members work on sensor systems (radar, sonar, optics, and navigation), communications systems, command and control centers, avionics, space systems, military systems, digital signal processing simulators, and software development. Some members work on robotics, energy, and transportation systems.

AESS is the only professional society addressing total integrated electronic systems and the enabling technologies. AESS pioneered large-scale integrated interoperable systems. AESS is the sponsor/cosponsor of 15 conferences a year including ICNS.

The AESS is proud to be a sponsor of the ICNS Conference with our partner the DATC. Besides the ICNS Conference, we also partner on the Digital Avionics Systems Conference (DASC) and look forward to the long-term growth of the ICNS Conference.

Plenary IV: Space-based CNS Services

This session brings together panelists from leading European and U.S. organizations to discuss cutting-edge and future space-based communication, navigation, and surveillance (CNS) solutions and key challenges in the field. The panel will be interactive, allowing the audience to ask questions and share input through dedicated polls.

Chair



Vojislav Milosavljević, CNS Expert, EUROCONTROL

As EUROCONTROL CNS Expert, Vojislav Milosavljević contributes to CNS program manager activities. His earlier experience includes engineering and operational validation of diverse Airbus cockpit systems and functions, coordination of EGNOS operations, leading deployment of EGNOS new releases, as well as managing a SESAR 3 project focused on CNS data service provision (CNS DSP). Milosavljević holds a Master of Science in air traffic and transport engineering from the University of Belgrade, Serbia, and a specialised master's degree in CNS applications by satellite from ENAC, Toulouse, France.

Panelists



Dr. Michael Garcia, Chief Innovation Scientist, Aireon

Dr. Michael Garcia is the chief innovation scientist at Aireon, LLC. Garcia has the overall responsibility for the company's strategy and execution for space-based ADS-B and VHF innovation, system architecture, and leadership in the industry's technical forums. His responsibilities also include engagement with air navigation service providers (ANSPs), standards and recommended practices (SARPs) groups, subcontractors, and investors. Some examples of international standards organizations that Garcia participates in are the following: Radio Technical Commission for Aeronautics (RTCA), EUROCAE, the International Telecommunication Union (ITU), and the National Academy of Sciences (NAS). Prior to joining Aireon, Garcia served as an associate principal engineer at ITT/Exelis (currently L3Harris) and worked predominantly on the Federal Aviation Administration's (FAA) Automatic Dependent Surveillance-Broadcast (ADS-B) and Wide Area Multilateration (WAM) programs.



Miguel Muñoz Martínez, Technical Director, ATM, Startical

Since 2021, Miguel Muñoz Martínez has been the technical director, ATM, at Startical, overseeing space-based VHF & ADS-B solutions. Previously, he spent over 15 years at INDRA, leading satellite-based CNS developments and roadmaps, managing SESAR2 020 activities, and actively contributing to EUROCAE, ICAO, and RTCA. With over 25 years of experience, he also played a key role in major aerospace projects, including the Airbus A380 and Nimrod MR4. He holds a Master of Science in aeronautical engineering, specializing in navigation systems from Universidad Politécnica de Madrid.

Plenary IV: Space-based CNS Services–continued

Panelists



Ghislain Nicolle, Vice President, Air Traffic Services, Viasat

As vice president for Air Traffic Services at Viasat, Ghislain Nicolle offers over 30 years of experience in the air transport industry. Ghislain's main area of focus is the delivery of the flight deck connectivity promise, which enables aircraft operators to realize operational savings and efficiency gains using Viasat's safety and operations connectivity services. Throughout his career, Ghislain held numerous responsibilities in the field of aircraft connectivity encompassing both VHF and SATCOM. He notably participated in the definition of the ICAO CNS/ATM concept and contributed to the initial establishment of FANS 1 routes over the South Pacific, which were further extended to other areas of the world, enabling a significant increase in air traffic capacity and savings for airlines. Ghislain holds a Master of Science in engineering, information, and communication technologies.



Davide Tomassini, Iris Project Implementation Manager, ESA

Davide has a telecommunication background and joined the ESA Iris team in 2018. Under his watch the Iris service has completed the certification process and has become fully operational in Europe with more than 5,000 flights and counting. Next objective is to expand Iris' adoption beyond Europe. The ESA Iris program supports a satcom-based communication system enabling airspace optimization to ease congestion and reduce delays and emissions for airlines. Iris delivers higher bandwidth, cost-effective communications for global ATM modernization. Iris contributes to the evolution and harmonisation of communications, navigation, and surveillance (CNS) across Europe. With the announcement of the Iris Global project, the program is expanding beyond Europe with global Aeronautical Telecommunication Network (ATN) standards ATN/OSI and ATN/IPS.

Evening Keynote:

“Beyond Earth: An Astronaut’s Perspective on Space, Innovation, and Exploration”

ESA astronaut Luca Parmitano will share insights from his space missions, highlighting advancements in space exploration, aerospace communication, and Europe’s role in shaping human spaceflight. His talk will cover cutting-edge research aboard the ISS, the role of communication, navigation, and surveillance (CNS) in astronaut operations, and the next steps for space missions.



Luca Parmitano, Lead Astronaut, EAC/JSC Liaison Officer, ESA

Luca Parmitano launched to the International Space Station (ISS) for his second mission, Beyond, on July 20, 2019—the 50th anniversary of the first human lunar landing—aboard the Russian Soyuz MS-13 spacecraft. He returned on Feb. 6, 2020, after a 201-day mission. During Beyond, Luca served as the commander of Expedition 61, becoming the third European and the first Italian to command the ISS. He conducted a series of complex spacewalks to repair the Alpha Magnetic Spectrometer (AMS-02), completing four spacewalks totaling 25 hours and 30 minutes. Across his career, he has performed six spacewalks, totaling 33 hours and 9 minutes. During Beyond, he supported more than 50 European experiments and 200 international experiments.

Luca was selected as a European Space Agency (ESA) astronaut in May 2009. In February 2011, he was assigned as a flight engineer to the Italian Space Agency’s (ASI) first long-duration ISS mission. He launched from Baikonur, Kazakhstan, on May 28, 2013, for the Volare mission, spending 166 days in space. He conducted over 20 experiments, participated in two spacewalks, and managed the docking of four spacecraft before landing on Nov. 11, 2013.

Luca began his military career in 2001 after completing undergraduate pilot training. He flew the AM-X aircraft with the 13th Group, 32nd Wing in Amendola, Italy, from 2001 to 2007, obtaining all aircraft qualifications. He served as chief of the Training Section and commander of the 76th Flight. In 2007, he was selected by the Italian Air Force to become a test pilot, training at EPNER in Istres, France. He was promoted to colonel ahead of his Beyond mission in 2019. Luca has logged more than 2,000 flight hours, is qualified on over 20 types of military airplanes and helicopters, and has flown more than 40 types of aircraft.

25 Years Celebration Reception

ICNS Champion Award

1930-2230

BELvue Museum

Host Welcome



Andreas Boschen, Executive Director, SESAR Joint Undertaking

Andreas Boschen has been executive director of the SESAR 3 Joint Undertaking since July 2022. Between 2014 and 2022, Boschen led the department for the Connecting Europe Facility at the Climate, Infrastructure and Environment Executive Agency (CINEA), where he managed European Union financial support to infrastructure projects in the areas of transport and energy. He started his professional career as a diplomat in Germany taking care of European Union affairs, joining the European Commission's Secretariat General in 1998 to manage relations between the European Commission, Parliament, Council, and other bodies. He then moved on to Directorate-General for Mobility and Transport (DG MOVE) where he held several notable positions, including policy officer for the Single European Sky (SES), policy officer for maritime safety, and assistant to the director-general of DG MOVE.

Opening Keynote:

“Harmonized CNS for the Future – Prerequisites”

How can we ensure a resilient global air navigation system as threats evolve? We'll explore the approach to PNT resilience and integrated CNS. We'll examine critical prerequisites for a secure, efficient system, addressing technology and spectrum challenges. Discover the ICAO International Aviation Trust Framework and integrated CNS strategies.



Pascal Luciani, Deputy Director ANB, ICAO

Pascal Luciani is an engineer with 25 years of experience in transport in the civil administration of France and international organizations, 15 years of which in civil aviation. Prior to joining the International Civil Aviation Organization (ICAO) as deputy director for air navigation and aviation safety, he served as deputy director for the French Safety Oversight Authority from 2018 to 2022. From 2014 to 2018 Pascal was the aviation counselor at the Permanent Representation for France with the European Union, covering all fields of aviation and was also responsible for shipping. In 2008 he was tasked with creating the Sustainable Aviation Department, DGAC, France, which he headed from 2008 to 2013. Pascal's experience in public service before joining the aviation sector includes road infrastructure and road safety (1997 – 2001) and port infrastructure and development (2001- 2005). He also served for two years as technical advisor for the Ministers of Environment and Transport (2005 – 2007). Pascal

also headed the modernization mission in charge of supervising the merging of the Ministries of Transport and Environment in France (2007-2008).

Plenary V: Cybersecurity and PNT Resilience

The plenary will address security threats to communication, navigation, and surveillance (CNS) services, such as cybersecurity in System Wide Information Management (SWIM) and GNSS interference. It will cover best practices from stakeholders to mitigate risks, improving civil-military collaboration, and enhancing positioning, navigation, and timing (PNT) resilience and robustness in the short and long term.

Chair



Paco Salabert, CNS and Spectrum Policy Officer, European Commission

Paco Salabert has been working in air traffic management and the use of space technologies in aviation for more than 30 years. Since March 2020 he has been working as a CNS and Spectrum policy officer at the European Commission within the Single European Sky Unit of DG MOVE. He has been responsible for coordinating the work of the CNS Advisory Group, the PBN regulation, and the coordination between MOVE and DEFIS regarding the use of GNSS and SATCOM technologies in ATM. In March 2007, he joined EUROCONTROL as head of the GNSS Policy Office. He was the EUROCONTROL member of the ICAO Navigation System Panel. He started his career working for Enaire as an ATM and EGNOS systems engineer. He moved from Spain to Brussels in 2000 where he worked on the use of EGNOS and Galileo in aviation at the European Commission, ESA, and the Galileo Joint Undertaking. He has a degree in telecommunications engineering.

Panelists



Per Andersen, SWIM and Cybersecurity Expert, SESAR Deployment Manager

Per Andersen has developed and maintained key airport systems, designed, and implemented multiple interface software solutions for flight management and coordination, technical architect for A-SMGCS and airport operational systems. He has managed compliance with aviation regulations (2096, 1035, 373). Oversight of change processes, flight safety arguments, and service specifications for CNS. He is lead for Pilot Common Projects and Common Projects 1 and implementation roadmaps and recommendations for Copenhagen Airports. He has held multiple leadership positions at Copenhagen Airports, including IT development, compliance, quality, and enterprise architecture. He also participates in AF5 – SWIM Coordinated SWIM governance, in cybersecurity regulations in the context of European Aviation Common PKI (EACP) and more.



Mathieu Hiale-Guilhamou, Business Manager, Airbus

Mathieu Hiale-Guilhamou has 20 years of experience in CNS avionics systems development, integration, and certification at Airbus. Since 2024, Mathieu has led a multifunctional internal team at Airbus to coordinate and manage company-wide initiatives addressing GNSS jamming and spoofing threats. His primary goal is to deliver short-term solutions for rapid deployment while preparing mid- and long-term strategies to enhance resilience across all Airbus aircraft programs. In 2021, he joined the Airbus Design Office as a business manager to support launch decisions for new technologies and functionalities during feasibility phases. He provided technical and business dossiers to Airbus aircraft programs, focusing on CNS systems. In surveillance systems, Mathieu completed ADS-B Out certifications of transponders to meet global mandates and represented Airbus at ICAO, RTCA, and EUROCAE for ADS-B.

Plenary V: Cybersecurity and PNT Resilience–continued

Panelists



Jorge Pereira, Head, Communications, Navigation, Surveillance and Security Unit, EUROCONTROL

Jorge Pereira has been with EUROCONTROL since June 2002, performing the role of Head of Civil-Military Communications, Navigation and Surveillance (CNS) and Security Unit within the Civil-Military Cooperation Division (CMC). Jorge PEREIRA leads a team of CNS engineers and security/cyber experts to boost the definition, validation, and implementation of civil-military interoperable solutions for a dual-use infrastructure capable to sustain military operations in Europe. The adequate infrastructure resilience and robustness levels are also addressed. His team delivers also direct specialized support to military aviation programs and operations while cooperating with the Network Manager to ensure the permanent monitoring of adequate infrastructure performance and safety.



Krishna Sampigethaya, Chair, Department of Cyber Intelligence and Security, Embry-Riddle Aeronautical University

Dr. Krishna Sampigethaya is the chair of the Department of Cyber Intelligence and Security at Embry-Riddle Aeronautical University, Prescott, Arizona, USA. He pioneered research in connected vehicle privacy and aviation cybersecurity, earning his doctorate from the University of Washington. Previously, he was Boeing's first associate technical fellow for aviation cyber-physical security and associate director for cybersecurity at UTC Research Center. He founded SAE's first aviation cybersecurity technical committee and has led cybersecurity tracks at SAE, AIAA, and IEEE conferences. An AIAA associate fellow, he has over 65 publications, over 24 patents, and multiple awards, including the 2025 AIAA Information Systems Award.

Plenary VI: CNS Evolution Impact on Human Role in ATM / Resources, Skills, and Training Needs for Future CNS Professionals

Key reasons to attend this plenary session include the following:

- Gaining a comprehensive overview of how advancements in communication, navigation, and surveillance (CNS) are reshaping the responsibilities of human operators in air traffic management (ATM) systems.
- Learning about the evolving skill sets required for future CNS professionals, air traffic controllers, and pilots, and how training approaches are adapting to meet these needs.
- Exploring resource management challenges and solutions for integrating advanced CNS technologies in the aviation industry.

Chair



Luna Babusci, Airspace Management Team Leader, Air Traffic Controller, SESAR Deployment Manager

Luna Babusci joined SESAR Deployment Manager in 2019 as airspace management and free route team leader and in charge of trajectory-based operations coordinator in the framework of the EU/US Deployment Coordination Committee, DCOM. In this position, she's responsible for the SESAR operational concept development, member of the operational team for both Digital Towers and Remote Tower Control Centre Deployment Project and Tower and Enroute ATC Systems Operational Requirements definition and deployment. Since 2024, she's been a member of the experts' team for extended arrival manager and arrival-departure manager integration. In 2011, she became an approach and enroute air traffic controller at the Rome Area Control Centre. She started her career as air traffic controller in 2006 in Milan Linate Tower, for ENAV, the Italian ANSP.

Plenary VI: CNS Evolution Impact on Human Role in ATM / Resources, Skills, and Training Needs for Future CNS Professionals–continued

Panelists



Carlos Sequeira, Airline Pilot and Human Factor Expert, Ryanair

Carlos Sequeira is a full-time airline pilot and a human performance instructor. Since 2020, he has been part of the expert team at SESAR Deployment Manager, supporting the implementation of new datalink technologies. His interest in human behavior and improving mental well-being in the aviation workforce has driven his work as a human factors expert. More recently, he has researched the psychology behind change management and the role of psychological resilience in building more adaptable workforces. He is also involved in training and coaching, focusing on how psychology can help individuals adapt to change and thrive. Carlos holds a bachelor's degree in psychology and a master's degree in human factors in aviation. He is registered with the British Psychological Society and is a member of the European Association of Aviation Psychology.



Konstantinos Simaiakis, CNS and Regulatory Expert, IFATSEA

Konstantinos Simaiakis is currently CNS and regulatory expert for IFATSEA. He has extensive experience in CNS including satellite communications, having served various positions within the Hellenic ANSP for many years. In addition, he was a member of different committees dealing with the specifications and acceptance tests for communication and radars systems for Hellenic ACC and Athens Airport. He was co-author of the work published in IEEE, "System and Method for Conveying Aeronautical Radio Voice and Signaling Over a Satellite IP Network," which was granted a U.S. patent. Moreover, he has been working for ten years as ATM/ANS auditor at Greek NSA, as well as one year for EASA as EASA qualified auditor, participating in ATM/ANS inspections of more than twenty European states.



Helena Sjöström Falk, President and CEO, IFATCA

Helena's involvement in IFATCA has included work on the federation's magazine, The Controller, and two years (2018-2019) as chair of IFATCA's Committee A during the annual conference. During the conference 2019 in Costa Rica, Helena was elected deputy president of IFATCA. In 2024, she was elected as the Federation's first female president and CEO. Sjöström's commitment extends beyond her operational duties, evidenced by her influential tenure as president of the Swedish Air Traffic Controllers' Association (SATCA) from 2006 to 2017. Her career started in Visby Tower on the Baltic Sea's Gotland Island, eventually leading to pivotal roles at Östgöta Kontrollcentral and finally a watch supervisor position at Stockholm Air Traffic Control Centre.



Roberta Zimmerman, Director, Air Traffic Data Analytics and Strategic Vision, United Airlines

With over 25 years of aviation experience, Roberta Zimmerman is the director of Air Traffic Data Analytics and Strategic Vision at United Airlines. She leads strategic initiatives to optimize air traffic operations and drive future growth, overseeing air traffic modernization efforts and improving airspace capacity and efficiency. Roberta's team plays a critical role in identifying operational opportunities and managing data, supporting key areas such as spectrum management, emergency operations, and modernization strategy. Before joining United, Roberta held key roles at The MITRE Corporation, where she supported the Department of Defense and the FAA in research, development, and systems engineering. A certified professional controller with the FAA, Roberta is also a commercial multi-engine instrument-rated pilot and a certificated flight instructor.

Technical Session Track Overview

Track 1. Air Traffic Management

Co-chairs:

Bernd Korn, German Aerospace Center (DLR)

Xavier Olive, Onera

In this track, sessions will address developments in the areas of airspace organization, management, and advanced concepts; ground movement and taxi operations; advanced concepts for arrival management and civil-military airspace usage; monitoring and communication, and environmental sustainability.

Track 2. Operations Efficiency and Special Topics

Co-chairs:

Billy Josefsson, AVTECH

Junzi Sun, Delft University of Technology

The sessions in this track will revolve around trajectory-based operations in terms of trajectory optimization, applications, and operational efficiencies; emerging CNS applications and enablers; safety implications of the integration of UAS; approaches to modelling and simulation; and regional challenges related to the deployment or operation of concepts.

Track 3. Artificial Intelligence/Machine Learning

Co-chairs:

Eduard Gringinger, Frequentis

Duc-Thinh Pham, Nanyang Technological University, Singapore (NTU)

This track will cover advancements in AI-driven optimization, support to decision-making for air transport operations, and air traffic efficiency and traffic management; developments on predictive analytics and traffic modelling; application of AI for communication and coordination in aviation networks; use of novel techniques for navigation and localization; and applications for the generation of data.

Track 4. Communications and Security

Co-chairs:

Krishna Sampigethaya, Embry-Riddle Aeronautical University (ERAU)

Martin Strohmeier, OpenSky Network (OSN)

Sessions in this track will address novel approaches to the assessment of cybersecurity risk in aviation infrastructure, developments in the areas of LDACS; future communication infrastructure architectures and techniques; advanced concepts on 5G and beyond techniques; interfaces between advanced air mobility and security; cybersecurity modelling, intrusion detection and resilience; GNSS spoofing and anomaly detection; and architecture, communications performance, future communications, and communication system implementation considerations.

Track 5. Navigation and Surveillance

Co-chairs:

Erik Theunissen, Netherlands Defence Academy (NLDA)

Paul Diffenderfer, MITRE

In this track, sessions will focus on advancements in multilateration; navigation and surveillance accuracy and integrity; applications of machine learning to estimate state and/or errors; enhancing trajectory estimation and alternative methods for determining aircraft position; multiple-input multiple-output architectures; and concept implementation and testing.

Track 6. Unmanned Aircraft Systems, UAS Traffic Management, and Advanced Air Mobility

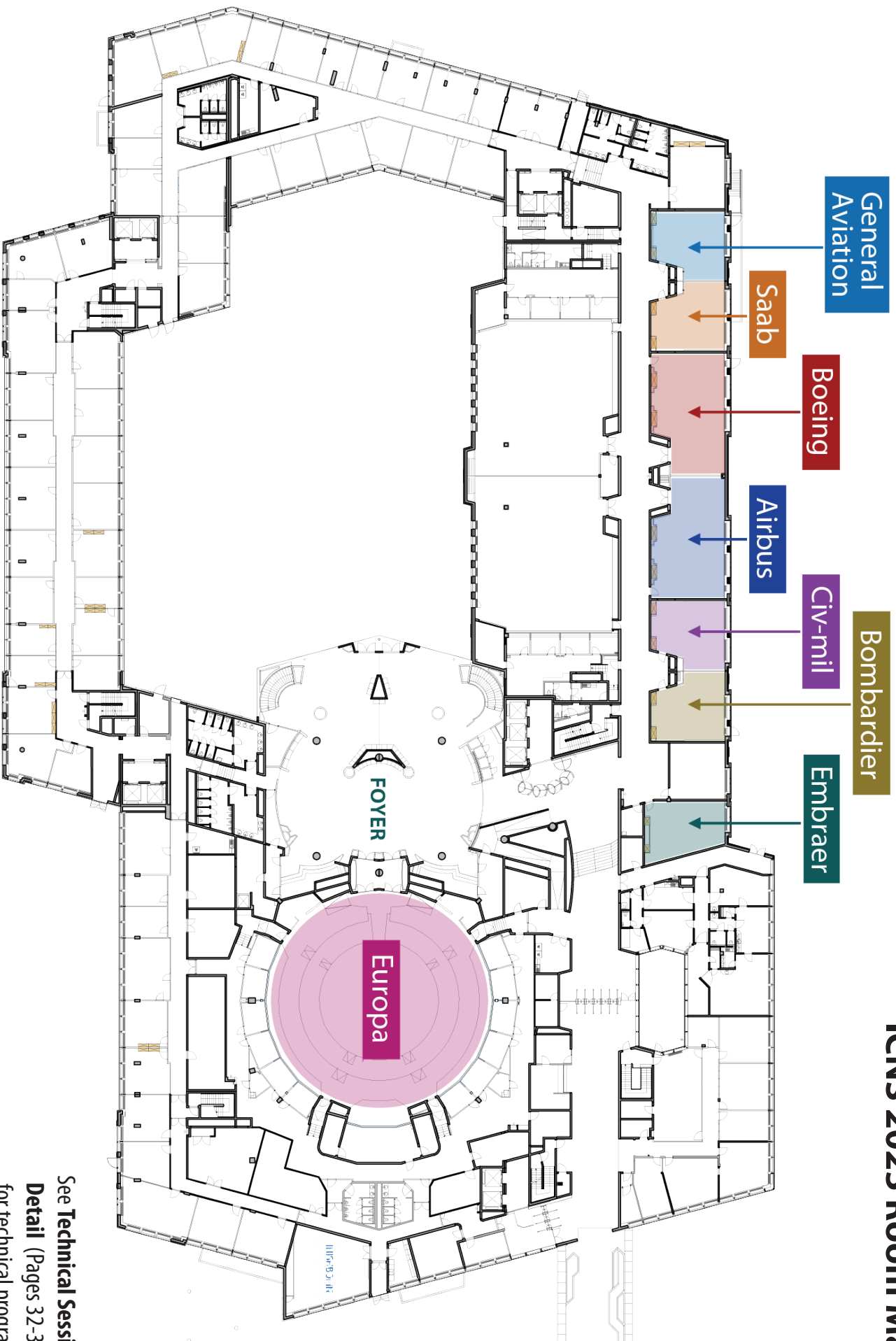
Co-chairs:

Rafael Apaza, NASA

Munish Khurana, EUROCONTROL









This track will focus on the developments and challenges of the management of unmanned aerial systems in terms of modelling, mission planning and fleet management, and associated airspace management; applications in security and safety; the use of artificial intelligence for advanced air mobility, and supporting CNS technologies and architectures.

ICNS 2025 Room Map


















See **Technical Session Detail** (Pages 32-36) for technical program room assignments.

ICNS 2025 Technical Program Detail • Tuesday, 8 April, 1330-1530

Time	Description	Track 1	Track 1	Track 2	Track 3	Track 4	Track 4	Track 5	Track 6
1330-1530	Track Name	ATM	ATM	OPS & Special Topics	AI/ML	COM & Cybersecurity	COM & Cybersecurity	Navigation & Surveillance	UAS/UTM/AAM
	Session Name	Communication	Advanced Concepts	Efficiencies in Trajectory Based Operations	AI-driven Optimization for Routing and Planning	GNSS Spoofing and Anomaly Investigations	New Developments in LDACS	Multilateration	UAM Modeling and Simulation
	Chair(s)	Biruk Abraham	Gabriele Enea & Erica Gallo	Magnus MOLBAEK & David RYTTER	Chan CAPTAIN	Nader ALAGHA	Dieter EIER	Enrico SPINIELLI	Olivier REA & Cecilia CLARAMUNT-PUCHOL
	Room	Civ-Mil	Bombardier	Saab	Embraer	Boeing	Europa	Airbus	General Aviation
1330	Paper Title	Taxiway Conformance Monitoring via ATC Voice Communications 	Hyperconnected ATM – Technical Concept and Early Proof of Concept	Advancing Operational Efficiency: Airspace Users' Perspective on Trajectory-Based Operations	Hierarchical Reinforcement Learning for Multi-Objective UAV Routing Considering Operational Complexities 			LDACS-Based Wide Area Multilateration for Surveillance: An Iterative Reweighted Least Square Method Using TDOA and FDOA Measurements	Development and Evaluation of an Air Taxi Shuttle Service within U-space for the City of Frankfurt Connecting Airport and Trade Fair Via Fast-Time Simulation
	Speaker(s)	Ronald Ankner, MIT Lincoln Laboratory, USA	Radek Zaruba, Honeywell, Czech Republic	Pablo Costas, Boeing, USA	Ruechuda Kallaka, Cranfield University, United Kingdom			Jiayi Geng, Beihang University, China	Fabian Morschke, German Aerospace Center (DLR), Germany
1400	Paper Title	Towards Enhanced Efficiency of Radiotelephony Communication – the Case of Native Speakers of English on the Frequency	Civil-Military Airspace Sharing: Tactical and Strategic Approaches to Optimizing Efficiency	Enhancing Airspace Operational Efficiency: GIS-Enabled Innovation in ALTRV Request Management	A Reinforcement Learning-Based Iterative Method for Capacitated Hub Location Problems in UAV Networks	Addressing GNSS Spoofing Threats with Honeywell GNSS Aided Inertial Systems	Compatibility Analysis Between LDACS and DME by Exploiting GNU-radio-based Simulation and Laboratory Test 	Satellite Wide Area Multilateration Solution, Applications, and Benefits	Realistic Trajectory Generation in Simulated Environments for U-space systems assessment 
	Speaker(s)	Anna Borowska, University of Warsaw, Poland	Justin Oberman, Airspace Data, USA	Dennis Rowe, Concept Solutions, LLC, USA	Zean Bao, Beihang University, China	Matej Kucera, Honeywell International, Czech Republic	Siqi Huang, Beihang University, China	John Dolan, Aireon, USA	Alex Sanchis, Universitat Politècnica de València, Spain
1430	Paper Title	A Noise-robust U2 Scheme for Automatic Speech Recognition of Air Traffic Voice Communication	Revisiting the Point Merge sequencing technique 	ANSPs' decision-making regarding investments in ATM/CNS systems	Dynamic non-binary prioritisation for UTM resource allocation	Observations of Trends in GPS Anomalies Affecting Aviation	The Next Iteration of LDACS: Operation of an LDACS Air Radio Demonstrator in an ANSP-integrated LDACS Ground Access Network	LEO Space-Based System for Aircraft Surveillance: A Study on Coverage and Dilution of Precision	Advancing Urban Traffic Monitoring in Smart Cities: A Field Experiment with UAV-Based System for Transport Planning and Intelligent Traffic Management
	Speaker(s)	Yutong Jiang, Beihang University, China	Aymeric Trzmiel, Eurocontrol, France	Vilma Deltuvaite, Eurocontrol, Belgium	Christopher Conrad, Cranfield University, United Kingdom	Michael Garcia, Aireon, USA	Daniel Mielke, German Aerospace Center DLR, Germany	Ludovico Mazzi, Politecnico di Milano, Italy	Christian Grasso, University of Catania, Italy
1500	Paper Title	Space-based ADS-B collision model analysis using beamforming techniques	Point Merge System Characterization: A Performance Analysis at Brazilian and European Airports	Changes in the Eastern European air transportation system caused by war in Ukraine 	Deep Reinforcement Learning for Routing and Scheduling Optimization in FANET-Assisted IoT Networks	Independent Estimation of Aircraft Positions Using Space-Based ADS-B Data for GNSS anomaly identification and investigation 	A Secure and Low-Latency Design for LDACS Ground Station Handover	ADS-B Positional Accuracy and Anomalies: A Comprehensive Analysis Using High-Resolution MLAT Data 	Strategic and RTTA-based pre-tactical trajectory planning for high density urban air mobility: simulation and application to use cases
	Speaker(s)	Almudena García Molina & Daniel Polo Álvarez, Indra, Spain	Jean Lima, Aeronautics Institute of Technology, Brazil	Ivan Ostroumov, National Aviation University of Ukraine, USA	Jin Zhang, Beihang University, China	Giuseppe Sirigu, Aireon, USA	Pengtao Liu, Beihang University, China	Matthias Schäfer, RheinMain University of Applied Sciences, Germany	Giancarmine Fasano, University of Naples Federico II, Italy
Networking Break 1530-1600									









See ICNS 2025 Room Map (Page 31) for room locations.

ICNS 2025 Technical Program Detail • Tuesday, 8 April, 1600-1800

1600-1800	Description	Track 1	Track 1	Track 2	Track 2	Track 3	Track 4	Track 5	Track 6
	Track Name	ATM	ATM	OPS & Special Topics	OPS & Special Topics	AI/ML	COM & Cybersecurity	Navigation & Surveillance	UAS/UTM/AAM
	Session Name	Environment, Sustainability, and Charges	Airspace Efficiency	Safety Implications and Challenges of UAS	Trajectory Optimisation and Applications	AI-Driven Prediction Models for Aviation Operations	5G and Beyond	Enhancing Trajectory Estimates	AAM CNS Technologies and Architectures
	Chair(s)	Xavier Olive	Rüdiger Ehrmanntraut	Laura BICKMEIER & Vilma DELTUVAITE	Enrico Spinielli & Max LI	Christoph SCHUETZ	Anna BOROWSKA	Jorge PEREIRA & Rafael DOMINGOS	Pablo HARO & Chris JANKE
	Room	Civ-Mil	Bombardier	Saab	Europa	Embraer	Boeing	Airbus	General Aviation
1600	Paper Title	Contrail Detection and Classification Using Computer Vision with Ground-Based Cameras 	Operational efficiency of special use airspace through highly-modular designs 	Small Multirotor Unmanned Aircraft Collision-Avoidance at Low Altitude with Remain Well Clear and Speed Control 	A Dantzig-Wolfe Reformulation for Automated Aircraft Arrival Routing and Scheduling: Reducing Computation Times for Solving the Optimization Problem 	Prediction of Actual Takeoff Weight Using Machine Learning Algorithms and Automatic Dependent Surveillance-Broadcast Data 	5G Integrated Communications, Navigation, and Surveillance: A Vision and Future Research Perspectives	OpenSky Report 2025: Improving Crowdsourced Flight Trajectories with ADS-C Data	Cooperative Navigation for Urban Air Mobility Utilizing Adhoc Communications – An Analysis of Feasibility and Algorithmic Characteristics Using the Example of DroneCAST
	Speaker(s)	Dimitri Croes & Rüdiger Ehrmanntraut, Eurocontrol, Netherlands	Martin Hawley, Airspace Unlimited LTD, United Kingdom	Maarten Kastelein, Ohio University, USA	Roghayeh Hajizadeh, Linköping University, Sweden	Rade Kačar, University of Belgrade, Serbia	Muhammad Asad Ullah, VTT Technical Research Centre of Finland Ltd, Finland	Junzi Sun, Delft University of Technology, Netherlands	Jan Patrick Gerhards, German Aerospace Center (DLR), Germany
1630	Paper Title	Aircraft Contrail Prediction for Commercial Flights	On the impact of wind conditions in short-range flight trajectories	Assessing UAV Saturation Limits in Reserved Airspace for Safe Coexistence with Crewed Aircraft	Fuel flow analysis for different flight phases based on a data-driven approach	Prediction of Arrival Aircraft Time Spent in TMA with Graph Neural Network	Sustainable 6G-NTN for Seamless Air Mobility: Exploring Channel Propagation Characteristics 	Using Artificial Intelligence to help military aircraft fly Performance-Based Navigation 	ACUTE project – facts and findings on UAS traffic in European cities 
	Speaker(s)	David Rytter, AVTECH Sweden AB, United Kingdom	Erica Gallo, Eurocontrol, Belgium	Michael Ullrich, University of North Dakota, USA	Lingling Ma, Civil Aviation University of China, China	Enes Özçelik, Eskişehir Technical University, Turkey	Al-Rubaye Saba, Cranfield University, United Kingdom	Ricardo Oliveira, Eurocontrol, Belgium	Cecilia Claramunt Puchol, Eurocontrol, France
1700	Paper Title	Approaches to charges modulation for operational efficiency and sustainable aviation	A comparison between air traffic network and performance in the Brazilian and Canadian airspace	Validation of e-Conspicuity and Conflict Detection and Resolution Services in GA-UAS Encounter 	Open Loop Aircraft Take-off Mass Estimation: An Optimal Trajectory Approach 	Predicting Aircraft Climb and Descent Times in Conflict Resolution Maneuvers Using Machine Learning Models 	Spectrum Sharing Design for L-band Aeronautical Communication and Navigation System 	Enhancing Civil Aviation Surveillance Through Multiple Hypothesis Tracking: A Case Study with TIS-B Traffic	Development of a Communication Channel Interface for Obstacle Detection and Avoidance System in UAM Operations
	Speaker(s)	Martin Hawley, Airspace Unlimited LTD, United Kingdom	Guilherme Trindade Tolentino Bernardo, Aeronautics Institute of Technology, Brazil	Muhammad Fazlur Rahman, Delft University of Technology, Netherlands	Aidana Tassanbi, Delft University of Technology, Netherlands	Mustafa Özdemir, Erzincan Binali Yıldırım University, Turkey	Zhixing Wang, Beihang University, China	Bin Deng, L3Harris, USA	Luigi Farina, University of Naples Parthenope, Italy
1730	Paper Title	Charging for cross border services in the Single European Sky		Italian Cluster's 2023 Demonstration Campaign: Driving Innovation in U-Space within SESAR U-elcome 	Automating Aeronautical Information Management: A Geospatial Big Data Approach in India 	A Sequential Experience Network Based Continual Learning for Air Crisis Event Recognition	Compatibility analysis between LDACS and GNSS L5/E5a/B2a signals		A Marketplace Approach for Service-Chain Deployment in a Multi-Layer FANET Edge-Computing Architecture 
	Speaker(s)	Regula Dettling-Ott, University of Bern, Switzerland		Giancarlo Ferrara, Eurocontrol, France	Arvind Lal, SatSure Analytics India Private Limited, India	Shengjie Zhang, Beihang University, China	Shiyaomiao Jiao, Beihang University, China		Christian Grasso, University of Catania, Italy











See ICNS 2025 Room Map (Page 31) for room locations.

ICNS 2025 Technical Program Detail • Wednesday, 9 April, 1300-1500

Time	Description	Track 1	Track 2	Track 3	Track4	Track 4	Track 5	Track 5	Track 6
1300-1500	Track Name	ATM	OPS & Special Topics	AI/ML	COM & Cybersecurity	COM & Cybersecurity	Navigation & Surveillance	Navigation & Surveillance	UAS/UTM/AAM
	Session Name	Decision Making Systems	CNS for Aviation	AI-Powered Decision Support for Air Traffic Management	Cybersecurity Risk in Aviation Infrastructure	Intrusion Detection and Resilience	Use of ML to Estimate State and/or Errors	Multiple-Input Multiple-Output	UAM Airspace Management
	Chair(s)	Biruk Abraham & Justin Oberman	Aidana TASSANBI & Laura BICKMEIER	Emilien ROBERT	Martin HAWLEY & Mike Olive	Matthias SCHAEFER & Anna BOROWSKA	David DE SMEDT	Okuary OSECHAS	Giancarlo FERRARA & Cecilia CLARAMUNT-PUCHOL
	Room	Civ-Mil	Saab	Embraer	Boeing	Europa	Airbus	Bombardier	General Aviation
1300	Paper Title	Lyapunov drift-plus-penalty Method for ATCO System Making Optimal Decisions	Robust Aeronautical Communications Enabled UAV Operation with LEO Satellites 	A Decision Support System for Conflict Resolution: Interfacing a Genetic Algorithm with an Air Traffic Control Simulator	On the role of SecRAM catalogues in ATM Cyber Risk Assessment and improvement opportunities 	Collaborative Cybersecurity Framework for CNS	A Machine Learning-Assisted Approach for the Reduction of Altitude Estimation Error in 3D Surveillance Radar Systems	Alternative surveillance technologies for innovative solutions in air traffic management: the ASTONISH project	Mission and Data Processing Center: A novel CNS System for U-space Airspace
	Speaker(s)	Evangelos Spyrou, Centre for Research and Technology Hellas, Greece	Al-Rubaye Saba, Cranfield University, United Kingdom	Mustafa Özdemir, Erzincan Binali Yildirim University, Turkey	Davide Martintoni & Gurjot Gaba, Collins Aerospace, Italy	Valerio Senni, Collins Aerospace, Italy	Telmo Subirá Rodríguez, Indra, Spain	Giancarmine Fasano, University of Naples Federico II, Italy	Alejandra González Valido, CATEC, Spain
1330	Paper Title	Towards conformance criteria for ensuring fairness among airspace users in collaborative optimization of flight lists in air traffic flow management 	SATCOM for Air Traffic Management: benefits and technological roadmap of the FOC Space Segment solution	Reinforcement Learning for Airport Slot Allocation: Incorporating Fairness Metrics and Trade-off Analysis	Modelling and analysing cascading effects of cyberattacks to ATM systems	Multilateration of Demodulated Radio Signals 	Synchronizing ADS-B Data of Multiple Aircraft with Bayesian Filters and Smoothers	Working Towards a European Independent ATM Surveillance Satellite Operational System	Optimal Air Corridor Design for Efficient Integration of AAM Vehicles into the NAS
	Speaker(s)	Tobias Harzfeld, Johannes Kepler University Linz, Austria	Stefano La Barbera, Theles Alenia Space S.p.A., Italy	Anh Nguyen-Duy, Nanyang Technological University, Singapore	Carlo Dambra, ZenaByte s.r.l., Italy	Dieter Eier, Frequentis AG, USA	Lukas Beller, Technical University of Munich, Germany	Nader Alagha, European Space Agency, Netherlands	Michael Ullrich, University of North Dakota, USA
1400	Paper Title	NAVAIDs system status indication and monitoring by ATCOs	The SatAuth Hardware Solution – meeting regulatory compliance whilst providing ROI opportunities for the Airline industry	A Multi-Agent Decision-Making Approach for Automated Inter-Airline Slot Swapping in Ground Delay Program with Airline Privacy Preservation 	Remote Attestation for High Assurance ATM Communications through Commercial Networks	Intrusion Detection for ARINC-429: A Hybrid FFT and Unsupervised Learning Approach	An Algorithm for Identifying Altimeter Setting Errors from ADS-B Data 	Optimizing Full-Duplex Multi-Hop UAV Networks: A Joint Approach for Positioning and Beamforming	Development of global regulations for Uncrewed Aircraft Systems – Europe and beyond A continued survey and evaluation of progress
	Speaker(s)	Ahmed Yahia, Saudi Air Navigation Services (SANS), Saudi Arabia	Paul Roux, Satellite Authorisation Systems, South Africa	Minh Le, Nanyang Technological University, Singapore	Davide Martintoni, Collins Aerospace, Italy	İsa Can Babir, ASELSAN Inc., Turkey	Nikolaos Mourousias, Emilien Robert & David De-Smedt, Eurocontrol, Belgium	Yang Zhang, Beihang University, China	Christian Janke, Embry-Riddle Aeronautical University, USA
1430	Paper Title	Mechanisms for Inter-Airline Collaborative Rescheduling under Disruptions	The SatAuth Solution – providing real-time information communication for the Safety of Global Air Travel	An Explainable and Fair Hierarchical RL-Based Recommendation Framework for Autonomous U-Plan Approval System	Towards Continuous Security Assessment: Integrating Model-Based Risk Assessment and LLMs	Hybrid Intrusion Detection for MIL-STD-1553: Integrating Deterministic and Deep Learning Approaches	Algorithms of reliability data processing for navigation systems 	Joint MIMO System Design of Integrated Communication and Radar for UAV Operation 	A Digital-Twin Based Airspace Corridor Design and Dynamic Configuration for High-density UAS Traffic Management
	Speaker(s)	Max Li, University of Michigan, USA	Janine Roux, Satellite Authorisation Systems (PTY) Ltd, South Africa	Seyed Erfan Seyed Roghani, Istanbul Technical University, Turkey	Mario Werthwein, University of Stuttgart, Germany	Mustafa Evcil, ASELSAN, Turkey	Maksym Zaliskyi, National Aviation University, UA	Zhixing Wang, Beihang University, China	Ning Zheng, Beihang University, China
Networking Break 1500-1530									

See ICNS 2025 Room Map (Page 31) for room locations.

ICNS 2025 Technical Program Detail • Wednesday, 9 April, 1530-1730

1530-1730	Description	Track 1	Track 2	Track 3	Track 4	Track 5	Track 5	Track 6	Track 6
	Track Name	ATM	OPS & Special Topics	AI/ML	COM & Cybersecurity	Navigation & Surveillance	Navigation & Surveillance	UAS/UTM/AAM	UAS/UTM/AAM
	Session Name	Performance Assessment	Future CNS Enablers	AI Solutions for Operation and Communication in Complex Environment	Future Communication Infrastructure	Alternative Methods for Determining Aircraft Position	Concept Implementation and Testing	UAM Mission Planning & Fleet Management	Security and Safety
	Chair(s)	Joonas LIEB	Max LI & Gurjot Singh	Quinten GOENS	Valerio Senni & Dieter EIER	Okuary OSECHAS	Rafael DOMINGOS	Andrew HATELY	Bruno RABILLER & Pablo HARO
	Room	Europa	Saab	Embraer	Boeing	Airbus	Bombardier	General Aviation	Civ-Mil
1530	Paper Title	Analysis Methodology of Weather-Driven Airspace Flow Programs	Satellite-Powered Solutions for a Safer, Greener Sky: The EURIALO Project	Agent-based Modeling Approach for Operational Risk Assessment Large-scale Low-altitude UAV Traffic 	Reducing CP1 goals implementation costs by providing a common NM B2B SWIM library	Surveillance frequency monitoring through radar-to-reply allocation	Array Signal Processing for Advanced Surveillance: An Experiment with a 12-Element Linear Array and SDR	Determination of Optimal Vertiports with Edge Devices using the Distributed Cuckoo Search Algorithm	Collision Risk Modeling in Support of Advanced Air Mobility Minimum Safe Separation
	Speaker(s)	Gabriele Enea, MIT Lincoln Laboratory, USA	Alvaro Morillo Holguin, ESSP SAS, Spain	Wenxuan Wang, Imperial College London, United Kingdom	Marko Hrastovec, SloveniaControl, Slovenia	Miklós Jásdi, Eurocontrol, Belgium	Junichi Naganawa, Electronic Navigation Research Institute, Japan	Evangelos Spyrou, Centre for Research and Technology Hellas, Greece	Laura Bickmeier, MIT Lincoln Laboratory, USA
1600	Paper Title	Stochastic dynamic agent-based modelling for evaluation of ACAS and DAA systems 	Satellite-based system for CNS of suborbital and hypersonic Flights	Positioning of Unmanned Aerial Vehicles (UAVs) in Urban Environments Using 5G Networks: A Hybrid Approach Based on Multilateration and Machine Learning	Getting closer to the ATM digitalization through the Future Digital Communication Infrastructure	A Way Forward for DME to Support RNP 	Evaluation of Code-Carrier Divergence Threat for DFMC GBAS in urban area	Evaluation of u-plan representation impact on U-Space capacity and computational needs	The Development of an Automated Technology for Unmanned Aircraft CNS/UTM in Compliance with Safety and Security Measures of the State
	Speaker(s)	Sybert Stroeve, Royal Netherlands Aerospace Centre, Netherlands	Alessia Nonni, Alessandro Brizzi & Cristian Iacurto, Thales Alenia Space Italia, Italy	Denis Andres Maigualmente-Quimbata, Universitat Politècnica de València, Spain	Simona Pierattelli, Leonardo, Italy	Okuary Osechas, ZHAW, Switzerland	Xuedong Huang, Beihang University, China	David Carramiñana, Universidad Politécnica de Madrid, Spain	Siriporn Yenpiem, King Mongkut's Institute of Technology Ladkrabang, Thailand
1630	Paper Title	The future of simulation exercises – Distributed/federated Real-Time Simulations in the context of aviation	Space-based VHF, a bridge to the future	Handover Optimization for Aeronautical Communications in LEO Satellite Networks: A Deep Reinforcement Approach 	Air Traffic Management and Communication over ATN/IPS for Future Datalink Communication 	Initial Positioning Results with Decoded Iridium NEXT Signals Using a TOA Approach	Flight Test Performance of an RFSoc Based Direct RF FMCW Radio Altimeter 	Proposal of UAS Strategic Conflict Detection concept with a centralised service in multi-USSP environment using an octree data structure 	Detection, tracking, and identification of drones: an overview on Counter-UAS techniques, and open challenges
	Speaker(s)	Teemu Joonas Lieb, German Aerospace Center (DLR), Germany	Asier Ahijón Hijosa, Startical, Spain	Mengsha Zong, Beihang University, China	Emre Aydoğan, Eskişehir Technical University, Turkey	Wissam Jallouli, École de technologie supérieure, Canada	Abdessamad Amrhar, École de Technologie Supérieure, Canada	Sandra Amarillo, Universitat Politècnica de València, Spain	Danilo Amendola, Joint Research Centre, European Commission, Belgium
1700	Paper Title		5G AeroMACS-Based Object Detection Method for Airport Scenarios 	Adaptive UAV Swarm Leader Selection Using a Fuzzy Logic Multi-Index Framework 	Flexible, rationalized and resilient multimode avionics depend on Software Defined Radio integrated solutions	Enhancing PBN Coverage with DME Optimization and Development	Flight test performances of SDR avionics on RFSoc 4x2 running with certifiable RTOS environment	Manned and Unmanned Flights in the Urban Air Mobility Era: Impacts and Future Perspectives	Multiple Cooperative UAS Mid-Air Collision Probability Assessment and Monte-Carlo Validation in Urban Air Mobility 
	Speaker(s)		Hongshuo Lyu, Beihang University, China	Simarjeet Singh, Amit Mathur & Kanishk Kumar, Bharat Electronics Limited, India	Jorge Pereira, Eurocontrol, Belgium	Turki Almogbil, Alaa Alturki & Sameer Qttlan, Saudi Air Navigation Services (SANS), Saudi Arabia	Mohamed Malek Mokaddem, École de technologie supérieure, Canada	Tamer Savas, Eskişehir Technical University, Turkey	Jinpeng Zhang, Beihang University, China

See ICNS 2025 Room Map (Page 31) for room locations.

ICNS 2025 Technical Program Detail • Thursday, 10 April, 1330-1530

Time	Description	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
1330-1530	Track Name	ATM	OPS & Special Topics	AI/ML	COM & Cybersecurity	Navigation & Surveillance	UAS/UTM/AAM
	Session Name	Ground Movements	Modelling, Simulations, and Demonstrators	AI-Enabled Data Generation and Processing	Advanced Air Mobility and Security	NAV/SUR Accuracy and Integrity	AI for AAM
	Chair(s)	Sybert Stroeve	Roghayeh HAJIZADEH & Vilma DELTUVAITE	Emilien ROBERT	Giancarmine FASANO & Mike Olive	David DE SMEDT	Thanham TRAN & Olivier REA
	Room	Civ-Mil	Saab	Europa	Boeing	Airbus	Bombardier
1330	Paper Title	Using flexible controller validation methods to advance the endorsement practices in a Remote Tower Centre A first survey	ESMA DSD project	Synthetic Flight Data Generation Using Generative Models	Performance Differences between H.264 and H.265 Video Compression Standards in the Context of a Remote Tower Optical System	Integrity Framework of Camera-based Navigation for Take-off and Landing at Vertiports	Distributed Simulation Evaluation of Digital Communications for Urban Air Mobility (UAM)
	Speaker(s)	Michael Finke, German Aerospace Center (DLR), Germany	Diego Herce, ESSP-SAS, Spain	Karim Aly, Delft University of Technology (TU Delft), Netherlands	Julia Schön, DLR, Germany	Chen Zhu, German Aerospace Center (DLR), Germany	Terence McClain, NASA Langley Research Center, USA
1400	Paper Title	Aircraft-Specific Vehicle Routing Profile for Taxi Route Finding	A Probabilistic Framework for Real-Time Processing of Aircraft Surface Movement Data in Digital Twins	Synthetic Aircraft Trajectory Generation Using Time-Based VQ-VAE	The Development of a Web-Based Questionnaire for Automatic Risk Assessment Analysis of Unmanned Aircrafts Operations	The emerging requirements for a Modern SDDS	Multimodal Data Fusion for Beam Selection in UAV Communications with Federated Learning
	Speaker(s)	Gijs Bekkers, Eurocontrol, Belgium	Thinh Pham, ATMRI-Nanyang Technological University, Singapore	Abdulmajid Murad, SINTEF Digital, Norway	Siriporn Yenpiem & Keito Yoneyama, King Mongkut's Institute of Technology Ladkrabang, Thailand	David Whitman, Sunhillo Corporation, USA	Xiuyuan Yang, BeiHang University, China
1430	Paper Title	Evaluating Input Modalities for Pilot-Centered Taxiway Navigation: Insights from a Wizard-of-Oz Simulation	Designing Airport Terminal New Facilities by Exploiting Parallel Intelligence and Level of Service Framework	Transforming NOTAMs to Digital NOTAMs: An AI-Powered Approach to Enhance Aeronautical Information Management	Towards Transparent and Privacy-Preserving Urban Airspace Management: A Blockchain-Based Scheme Under the Airspace-Resource-Centric Concept	Contrastive Multi-Modal Fusion for Enhanced Airport Surface Surveillance	A Dynamic Event-triggered Control Method for Unmanned Aircrafts Trajectory Tracking in Low-Altitude Airspace
	Speaker(s)	Chea Mean Chan, Nanyang Technological University, Singapore	Fahad Masood Siddiqui, Qatar Company for Airports Operation and Management, Qatar	Miruna Morarasu, Frequentis, Romania	Qianyu Liu, University of Zurich, Switzerland	Xu Chao, Beihang University, China	Zean Bao, Beihang University, China
1500	Paper Title			Particle Filter-Based Localization Using Visual Feature Synchronization in GNSS-denied Navigation			
	Speaker(s)			Abdulkali Sanlan & Emre Koyuncu, Istanbul Technical University, Turkey			

See ICNS 2025 Room Map (Page 31) for room locations.

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