



ICAO

# AIR NAVIGATION WORLD 2023

Shaping the Skies of Tomorrow

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28 - 31 August 2023 | Montréal, Canada



Programme and Directory

# AIR NAVIGATION WORLD 2023

## Shaping the Skies of Tomorrow

28 - 31 August 2023 | Montréal, Canada

### DAY 1 – Monday, 28 August 2023

	Assembly Hall	CR 3
14:00 – 14:15	<b>Opening of ANW by Mr. Salvatore Sciacchitano, President of the ICAO Council</b>	
14:15 – 15:30	<b>Setting the Scene – Long Term Global Aspirational Goal</b> The aim of this session is to exchange views and identify key initiatives needed to advance air navigation planning and implementation in an ever-changing aviation environment. The specific focus will be on performance improvement in the context of constrained resources, aviation's global environmental challenges, and the rapid evolution in aviation operations and technologies, including those that can contribute to helping States achieve the long-term aspirational goal for international aviation of net zero emissions by 2050.  <i>Moderator: Michele MERKLE, Director ANB, ICAO</i>  <i>Panelists:</i> <i>Anne GITAU, Director Air Navigation Services, Civil Aviation Authority, Kenya</i> <i>Mark STEINBICKER, Acting Director Flight Standards Service, Office of Safety Standards, FAA, United States</i> <i>Thomas MICKLER, Head of International Cooperation, EASA</i> <i>Luis Felipe DE OLIVEIRA, Director General, ACI World</i> <i>Anna von GROOTE, Director General, EUROCAE</i> <i>Mike MUELLER, Vice Chairman of ICCAIA and President and CEO of AIAC, ICCAIA</i>	
15:30 – 16:00	<b>Coffee Break</b>	
16:00 – 17:30	<b>Modern Approaches to Safety - Complex Socio-Technical Systems</b> Aviation is an example of an evolving modern socio-technical system that is seeing higher levels of automation being introduced and as a result, increasingly complex human system interactions are taking place and there are new challenges to manage. This session aims to improve visibility and awareness of different approaches to manage safety risk that can address such complexities.  <i>Moderator: Stéphane DE WOLF, ISBAO Program Operations Specialist, IBAC</i>  <i>Speakers:</i> <i>Dorte NYGAARD Senior Director, Safety Management Services, ACI</i> <i>Carina Carla SILVA, Requirements Engineer, STAMP Lead, Embraer</i> <i>Nora JONES, CEO, Jeli</i> <i>Kim WASSON, Autonomy Certification Lead, Joby Aviation</i>	
17:45 – 19:15	<b>ICAO COUNCIL PRESIDENT'S Reception</b>	

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### DAY 2 – Tuesday, 29 August 2023

08:00 –  
09:00

Early Networking coffee break sponsored by Dubai Airports

مطارات دبي  
DUBAI AIRPORTS

AH 1

AH 2

CR 3

08:00 –  
09:00

#### FAA, AeroThai, CAAS and JCAB: “Multi-Regional Trajectory-Based Operations (TBO) Demonstration”

Speakers:

**Amornat JIRATTIGALACHOTE**, AeroThai;  
**Sherry YANG**, Boeing;  
**Vincent HWA**, CAAS;  
**Diana LIANG**, FAA;  
**Yasushi IWASAWA**, JCAB.

09:00 –  
10:30

#### Electronic Certificates and Documents

With the emergence of new digital technologies, the global aviation community is moving towards electronic documents and certificates. This session will discuss the benefits of electronic documents and certificates as well as challenges associated with them.

*Moderator: **Ismael PACHECO SERRANO**,  
Air Navigation Commissioner, ICAO*

Speakers:

**Mohammad AL ZAROUNI**, Principal  
Airworthiness Inspector, GCAA, UAE  
**Stuart FOX**, Director Flight & Technical  
Operations Safety & Security, IATA  
**Ian KNOWLES**, Secretary of the Flight  
Operations Panel, ICAO  
**Nicolas BARATON**, Flight Operations  
Engineering & Support eXpert, Airbus  
Helicopters  
**Dario PIERANDREI**, Head of Flight OPS &  
Standards, Lufthansa Systems FlightNav  
AG

#### Modern Approaches to Safety - Learning from what goes well

Aviation is an example of an evolving modern socio-technical system that is seeing higher levels of automation being introduced and as a result, increasingly complex human system interactions taking place and new challenges to manage. This session aims to improve awareness of approaches which aim to “build in safety” into the design of systems, technology, equipment and procedures supporting day to day operations.

*Moderator: **Tzvetomir BLAJEV**, Director,  
Europe and Global Operational Safety,  
Flight Safety Foundation*

Speakers:

**Immanuel BARSHI**, Research Scientist,  
Human Systems Integration Division,  
NASA  
**David SCHOENE**, Chair, Accident Analysis  
& Prevention Committee, IFALPA  
**Brian TESKE**, Project Pilot – Learning, all  
operations Delta (LAUD), Delta Air Lines  
**Lok LEE**, Flight Operations Safety and Risk  
Manager, Cathay Pacific  
**Laure BALTZINGER**, Safety Authority,  
Thales

#### Future of the Air Navigation System: Information Revolution - Put data to work and support operations

Information, connectivity and service delivery are key to the future of the air navigation system as stated in the Global Air Navigation Plan (GANP). The goal of the Future Air Navigation stream, composed of eight sessions, is to understand how States, industry and the research and development community are tackling these three cornerstones as we start the development of the next major update of the GANP, the Eighth edition.

This first session focuses on understanding how data and information, using techniques such as machine learning or artificial intelligence, will support operations.

*Moderator: **David BATCHELOR**, Chief External  
Affairs & Communication at the SESAR 3 Joint  
Undertaking (SJU)*

Speakers:

**John GULDING**, Manager for the System Product  
and Development Group within the FAA/ATO  
Office of Performance Analysis  
**Carol TEO**, Head, Data Science, Civil Aviation  
Authority of Singapore (CAAS)  
**Zhenglin XIONG**, CEO at Aeroport AI  
**Stephane VILLENEUVE**, Vice-President, Americas  
and Europe for SITA For Aircraft

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10:30 – 11:00	<p style="text-align: center;"><i>Coffee Break sponsored by Aireon</i></p> 		
	<b>AH 1</b>	<b>AH 2</b>	<b>CR 3</b>
11:00 – 12:30	<p><b>Cross-Border Transferability (XBT)</b></p> <p>The rapid evolution of global aircraft leasing operations has made the transfer of aircraft from one State to the other more frequent and highlighted certain inefficiencies in a global system that was developed when leasing arrangements were not common. This session will discuss issues associated with the cross-border transferability as well as exchange ideas on how to address them.</p> <p><i>Moderator: Kim MILLER, CEO, International Aviation Safety Foundation</i></p> <p><i>Speakers:</i>  <b>Iftekhar AHMED</b>, Senior Standards Officer, CASA, Australia  <b>Wayne TYRRELL</b>, Senior Legal and Compliance Officer, CAA, Ireland  <b>Jeffrey WOOL</b>, Secretary General, AWG  <b>Miguel MARIN</b>, Chief, Operational Safety Section, ICAO</p>	<p><b>Aerodrome Planning</b></p> <p>Discussing the expected operational and infrastructure changes related to the integration of new generation of aircraft into the airports with a focus on new fuels (hydrogen, electric), AAM, RPAS, etc.</p> <p><i>Moderator: Nina BROOKS, Vice President and Permanent Representative to ICAO, ICCAIA</i></p> <p><i>Speakers:</i>  <b>Steven DEBBAN</b>, National Resource Expert for Airport Design, FAA  <b>Claudio CAMELIER</b>, Head of Marketing, Heart Aerospace  <b>Thomas ROMIG</b>, Vice President Safety, Security &amp; Operations, ACI  <b>Marco PELLEGRINO</b>, Head of Airside Operations and First Aid, Aeroporti di Roma  <b>Jean Francois TESSIER</b>, Head of commercial, Universal Hydrogen</p>	<p><b>Future of Air Navigation System: Information Revolution - Infrastructure to support big data analytics</b></p> <p>This second session focuses on understanding what are the infrastructure needs, for instance in terms of storage or processing, to support data analytics.</p> <p><i>Moderator: David BATCHELOR, Chief External Affairs &amp; Communication at the SESAR 3 Joint Undertaking (SJU)</i></p> <p><i>Speakers:</i>  <b>Steven BRADFORD</b>, Chief Scientific and Technical Advisor for Architecture and Next Generation Air Transportation System (NextGen) Development, FAA  <b>Marco MERENS</b>, Chief, Integrated Aviation Analysis Section, ICAO  <b>Chris DEVLIN</b>, Director of Product Management, Aireon  <b>Don KAUFFMAN</b>, Senior Technology Manager at Honeywell</p>
	<p>12:30 – 12:40 <b>Lunch Sponsor Talk by</b></p> <p>Mr. Eissa Abdulrahman ALMEABID, Qatar CAA</p>		<p>12:30 – 12:50 <b>SkyTalks Presentation by La Isla: “ANSELMO: The CNS Digital Twin”</b></p> <p><i>Speakers: Angel MARTINEZ, CEO, La Isla, and Andrés PORTILLO, CEO, ATTICCA Realities</i></p>
12:30 – 14:20	<p style="text-align: center;"><i>Lunch Break, sponsored by Qatar CAA</i></p> 		
	<p>13:40 – 14:00 <b>SkyTalks Presentation by Aireon: Trusted Data and the Transition to Real-Time Safety Assurance</b></p> <p><i>Speaker: Chris DEVLIN, Product Management Director</i></p>		

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	<p>14:00 – 14:20 <b>SkyTalks</b>  <b>Presentation by Thales: “System Qualification challenges in Air Traffic Management domain and way forward”</b>  <i>Speaker: Laure BALTZINGER, Safety Authority</i></p>		
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	AH 1	AH 2	CR 3
<p>14:20 – 15:50</p>	<p><b>Higher Airspace Operations: Concepts and Social and Economic Benefits</b>                      Industry will showcase the technical aspects of the Higher Airspace Operations and how they deliver on the needs of the communities that they intend to serve.   <i>Moderator: Crystal KIM, Secretary ATMRPP, ICAO</i>   <i>Speakers:</i>  <b>Chris CASARRUBIAS</b>, Vice President Regulatory Affairs, AALTO – Zephyr  <b>Dex HALPIN</b>, Director HAPS - Flight Test, Airworthiness and Safety, AeroVironment  <b>Sanjay NEKKANTI</b>, CEO, Dhruva  <b>Mikkel VESTERGAARD</b>, CEO, Sceye  <b>Richard DEAKIN</b>, CEO, Stratospheric Platforms</p>	<p><b>Aerodrome Capacity and Resilience</b>                      This session looks across the entire airport system on how it can meet future demand, including airport performance management, best use of available system capacity, need for adaptation of operational measures, and possibly infrastructures, preparedness to respond to major natural events.   <i>Moderator: Thomas ROMIG, Vice President Safety, Security &amp; Operations, ACI</i>   <i>Speakers:</i>  <b>Kent DUFFY</b>, Operation Research Analyst, FAA  <b>Marie-Pier BERMAN</b>, Vice President &amp; Chief of Operations, Nav Canada  <b>Jennifer DESHARNAIS</b>, Director Sustainability, ACI  <b>Ismail POLAT</b>, Chief Planning Officer, IGA Havalimani Isletmesi A.S.  <b>Peta WOLMARANS</b>, Director Planning, Vancouver Airport Authority</p>	<p><b>Future of Air Navigation System: Information Revolution - Responsible use of data for a sustainable future</b>                      This third session focuses on the ethical and legal aspects of the use of data and information.   <i>Moderator: David BATCHELOR, Chief External Affairs &amp; Communication at the SESAR 3 Joint Undertaking (SJU)</i>   <i>Speakers:</i>  <b>Stephane DUBET</b>, Head of International Coordination and Programs within AIS France at DSNA  <b>Parimal H. KOPARDEKAR</b>, Director of NASA Aeronautics Research Institute and a senior leader of the Aeronautics Research Mission Directorate  <b>Chrystelle DAMAR</b>, Strategic Planning and Regional Coordination Officer at ICAO  <b>LIU Hao</b>, Professor, Acting Chair of the School of Global Governance, Beijing Institute of Technology (BIT)</p>
<p>15:50 – 16:20</p>	<p><b>Coffee Break</b></p>		
<p>16:20 – 17:50</p>	<p><b>Higher Airspace Operations: Enabling ICAO’s role</b>                      Regulators and service providers will discuss the way forward for the global community to enable these operations and the critical supporting role for ICAO.   <i>Moderator: Ruby SAYYED, Global Head, Air traffic Management, IATA</i>   <i>Speakers:</i></p>	<p><b>Upcoming Aerodrome Standards and future needs</b>                      Industry perspective on proposed regulations, their advantages, and the responsibilities of various stake holders in implementing them.   <i>Moderator: Andrew BADHAM, Policy Principal, UK CAA</i></p>	<p><b>NOTAM Replacement</b>                      The current NOTAM system needs to evolve to meet the needs of the diversity of users of the future air navigation system. The aeronautical information world is undergoing a digital and service-oriented transformation enabled by SWIM. Therefore, there is an opportunity to introduce a new model for the establishment of an effective and modern information service that serves as a replacement of the information currently provided by NOTAM.</p>



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	<p><b>Steven BRADFORD</b>, Chief Scientific and Technical Advisor for Architecture and Next Generation Air Transportation System (NextGen) Development, FAA</p> <p><b>Hannah BROWNE</b>, Co-chair for the Space Ops task force, CANSO</p> <p><b>Nathalie LE CAM</b>, Executive Directorate – ATM Department, EASA</p> <p><b>Dragos TONEA</b>, Head of iNEO, Integration of New Entrants into European ATM Network Operations, Eurocontrol</p>	<p><b>Speakers:</b></p> <p><b>John SYNNOTT</b>, Senior Manager Flight Operations Information Technology, IATA</p> <p><b>Cyril FABRE</b>, Head of Airfield Pavement, AIRBUS, ICAO Subject Matter Expert (SME-Aerodrome), ICCAIA</p> <p><b>Karl BROCHU</b>, Senior Director, Aeroports de Montreal</p> <p><b>ONG Chew Sze</b>, Associate General Manager Master Planning &amp; Development, Changi Airport Group (Singapore) Pte Ltd</p> <p><b>David ANDERSON</b>, Global Head of QHSE, Swissport</p>	<p><b>Moderator:</b></p> <p><b>Caroline DOUCET</b>, Manager, Standards and Procedures, AIM and IFP Design, Nav Canada</p> <p><b>Speakers:</b></p> <p><b>Markus LUGINBUEHL</b>, Policy and Rulemaking Air Navigation Services, Swiss CAA</p> <p><b>Brian MURPHY</b>, Manager, Data Systems Team, FAA</p> <p><b>Lauri SOINI</b>, A320 Captain, Finnish Pilots Association Safety and Security Committee Chairman, IFALPA</p>
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### DAY 3 – Wednesday, 30 August 2023

	AH 1	AH 2	CR 3
<p>08:00 – 09:00</p>			<p><b>SkyTalks Presentation by ICAO Capacity Development and Implementation Bureau: Predicting and Addressing States' Implementation Challenges</b></p> <p>Join us for a lively brainstorming session, where we will discuss strategies for better Integrating ICAO's Standards Making and Implementation Support Activities. Audience members are invited to share their thoughts on how best to identify potential implementation challenges, with a particular focus on improving communications between ICAO and the stakeholder community.</p>
<p>09:00 – 10:30</p>	<p><b>Helicopter Safety</b></p> <p>This session aims to identify the key areas of work to reduce the global helicopter accident rate.</p> <p><b>Moderator: James VIOLA</b>, President/CEO of Helicopter Association International</p> <p><b>Speakers:</b></p> <p><b>Jorge CASTILLO</b>, Manager General Aviation (Airplanes, Rotorcraft, &amp; Emerging Aircraft) with AIR's Technical Policy Branch of the Policy and Standards Division, FAA</p> <p><b>Clement AUDARD</b>, Safety Coordinator – Rotorcraft and VTOL, EASA</p> <p><b>Gang HE</b>, Senior Fellow, Advanced and Applied Technology, Honeywell Aerospace</p>	<p><b>Age Limitations</b></p> <p>This session will discuss the factors to consider when determining age limitations for aviation license-holders in international civil aviation operations.</p> <p><b>Moderator: Christoph AMMANN</b>, CMD B777, TRI/TRE, Swissair</p> <p><b>Speakers:</b></p> <p><b>Claude PREITNER</b>, Acting Principal Medical Officer, New Zealand CAA</p> <p><b>Stuart FOX</b>, Director Flight &amp; Technical Operations, IATA</p> <p><b>Antti TUORI</b>, Vice Chairman Human Performance Committee, IFALPA</p> <p><b>Ries SIMONS</b>, Consultant Aerospace Medicine, ESAM</p>	<p><b>Future of the Air Navigation System: Full Connectivity - Ubiquitous connectivity for seamless operations</b></p> <p>This fourth session focuses on understanding how to fully accommodate airspace users with different operational capabilities and needs in an environment with different connectivity solutions.</p> <p><b>Moderator: Bob LEE</b>, GXA Consulting LLC</p> <p><b>Speakers:</b></p> <p><b>Steven BRADFORD</b>, Chief Scientific and Technical Advisor for Architecture and Next Generation Air Transportation System (NextGen) Development, FAA</p>

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**Tim ROLFE**, CEO, HeliOffshore  
**Stefan BECKER**, Head of Corporate Development, Swiss Air-Rescue Rega

**Stuart MITCHELL**, Group Medical Director, Qatar Airways

**Nathalie LE CAM**, Executive Directorate – ATM Department, EASA  
**Mary LOMBARDO**, Vice President, Applied Research & Technology at Collins Aerospace  
**Jerry HANCOCK**, Director Aviation Safety Solutions and Cybersecurity, Inmarsat Aviation

10:30 –  
11:00

*Coffee Break*

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	AH 1	AH 2	CR 3
11:00 – 12:30	<p><b>Performance Based Aerodrome Operating Minima (PBAOM) -Operators</b></p> <p>In this session the implications of PBAOM on flight operations are considered, including the potential benefits in terms of efficiency and possible barriers to effective implementation of the concept.</p> <p><i>Moderator:</i> <b>Christian SCHLEIFER-HEINGÄRTNER</b>, Representative of Austria on the Council of ICAO, ABIS Group</p> <p><i>Speakers:</i> <b>Adam EVANSCHWARTZ</b>, Director of Product and Advanced Technology Strategy, Collins <b>Todd LAESSIG</b>, 757 Assistant Chief Pilot, FedEx <b>Thea FEYEREISEN</b>, Senior Technical Fellow, Honeywell</p>	<p><b>Mental Health</b></p> <p>This session on psychological Wellbeing and Mental Health in aviation discusses balancing personal health and aviation safety with specific focus on the role of building trust; training and peer support initiatives.</p> <p><i>Moderator:</i> <b>Anthony WAGSTAFF</b>, Principal Advisor in Aerospace Medicine to the Norwegian Armed Forces, and Professor of Occupational and Aviation Medicine, University of Oslo, EASA</p> <p><i>Speakers:</i> <b>Punita MASRANI</b>, Aviation Medicine Specialist &amp; Senior Aviation Medicine Examiner, India <b>Susan NORTHRUP</b>, Federal Air Surgeon, FAA <b>Dave FIELDING</b>, Subject Matter Expert, BALPA <b>Andrew, LEBOVIDGE</b>, Executive Vice President, National Air Traffic Controllers Association, IFATCA <b>Quay SNYDER</b>, President &amp; CEO Aviation Medicine Advisory Service, AsMA</p>	<p><b>Future of the Air Navigation System: Full Connectivity - Open architecture for a cost-effective infrastructure</b></p> <p>This fifth session focuses on understanding how the aviation community is taking advantage of available commodities, such as widely available access to broadband Internet that is faster and a better value for money, and more devices with built-in connection capabilities and sensors enter the market.</p> <p><i>Moderator:</i> <b>Bob LEE</b>, GXA Consulting LLC</p> <p><i>Speakers:</i> <b>Ruby SAYYED</b>, Global Head, Air traffic Management, IATA; <b>Charles “Chuck” COOK</b>, Director or Communications, Navigation, Surveillance and Technical Programs, JetBlue Airways <b>Steve GILES</b>, Architect for Affordability and Investment Analysis, MITRE <b>Juan José CORNEJO</b>, Director of Business Development and International Relations, Startical</p>
	<p>12:30-12:50 <b>SkyTalks by Indra “Transforming Skies Together”</b></p> <p>Speaker: <b>Marina MARTÍN ORTIGOSA</b>, ATM Solutions Sales Manager</p>	<p>12:30 – 12:40 <b>Sponsor Talks by Indra</b></p> <p>Speaker: Mr. Enrique Castillo, Business Development Director</p>	
12:30 – 14:20	<p><b>Lunch Break sponsored by Indra</b></p> 		
		<p>13:40– 14:00 <b>SkyTalks by Nav Canada: “Moving to True North”</b></p> <p><i>Speaker:</i> <b>Anthony MACKAY</b>, Vice President and Chief Safety and Quality Officer, Nav Canada</p> <p>14:00– 14:20 <b>SkyTalks by Indra/Startical: Satellite-based VHF Communications</b></p> <p><i>Speaker:</i> <b>Juan Jose Cornejo</b>, Director of Business Development</p>	



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	AH 1	AH 2	CR 3
14:20 – 15:50	<p><b>Performance Based Aerodrome Operating Minima (PBOAM) -Air Traffic Management</b></p> <p>In this session the implications of PBAOM on air traffic management are considered, including the impact of mixed basic and advanced aircraft operations on flow management and sequency, as well as information requirements for controller regarding aircraft capabilities.</p> <p><i>Moderator:</i> <b>Andreas LIPP</b>, Senior Navigation Expert, Eurocontrol</p> <p><i>Speakers:</i> <b>Steve BRADFORD</b>, Chief Scientific and Technical Advisor for Architecture and Next Generation Air Transportation System (NextGen) Development, FAA <b>Ahmed IBRAHIM AL JALLAF</b>, Assistant Director General - Air Navigation Services, UAE CAA <b>Piyawut TANTIMEKABUT</b>, Air Traffic Management Network Manager, Aeronautical Radio of Thailand Ltd (AEROTHAI)</p>	<p><b>Evolution of Medical Certificates</b></p> <p>This session will discuss the existing or proposed new national medical certification practices for general aviation pilots and its implications in aviation safety.</p> <p><i>Moderator:</i> <b>Declan MAHER</b>, President ISAM &amp; Medical Assessor, ESAM</p> <p><i>Speakers:</i> <b>Kate MANDERSON</b>, Principal Medical Officer, CASA, Australia <b>CHONG Chun Hon</b>, Chairman, Civil Aviation Medical Board, Singapore CAA <b>Turan KAYAGIL</b>, Medical Officer, NTSB, United States <b>Cristian PANAIT</b>, Medical Expert, EASA <b>Jim COON</b>, Secretary General, IAOPA</p>	<p><b>Future of the Air Navigation System: Full Connectivity - Resilience for a sustainable future</b></p> <p>As a result of this globally rich information sharing environment, it is also essential to move towards a global approach to information security. This sixth session focuses on understanding how the aviation community is addressing information security.</p> <p><i>Moderator:</i> <b>Bob LEE</b>, GXA Consulting LLC</p> <p><i>Speakers:</i> <b>Luci HOLEMANS</b>, Cybersecurity leader in aviation, managing risk through innovative strategies and global collaboration, FAA <b>Nathalie LE CAM</b>, Executive Directorate – ATM Department, EASA <b>Manon GAUDET</b>, Assistant Director Aviation Cyber Security, Operations, Safety and Security division, IATA <b>Patrick PATTERSON</b>, Chief PKI Architect, Carillon Information Security Inc.</p>
15:50 – 16:20	<b>Coffee Break</b>		
16:20 – 17:50	<p><b>Performance Based Aerodrome Operating Minima (PBAOM) -Aerodromes</b></p> <p>In this session the implications of PBAOM on the aerodrome design and operation are considered, including the challenges of operating in very low visibility and the need to consider how to accommodate advanced aircraft operating at the aerodrome.</p> <p><i>Moderator:</i> <b>Thomas ROMIG</b>, Vice President Safety, Security &amp; Operations, ACI</p> <p><i>Speakers:</i> <b>Paul KENNEDY</b>, Manager ANSD, IAA, Ireland <b>Vasilieos STEFANIOROS</b>, Aerodrome Regulations Officer, EASA</p>	<p><b>Medical Science, Patient Transport and Air Ambulance Operations</b></p> <p>This session discusses advances in technology to provide patient care on board aircraft, including commercial aviation, emergency response and specialized air ambulance services with focus on operational challenges and harmonization of procedures.</p> <p><i>Moderator:</i> <b>Ian HOSEGOOD</b>, Medical Director, Qantas</p> <p><i>Speakers:</i> <b>Khalil AL KHALIL</b>, Head of Aviation Medicine Department, Jordan CAA <b>Andy MEYER</b>, Director ICAO Liaison, IBAC</p>	<p><b>Use of New Technologies in Aviation Personnel Training</b></p> <p>This session will explore use cases in all aviation professions' training of extended reality (XR - including VR, AR and MR) and provide examples of experience feedback and identify the way forward.</p> <p><i>Moderator:</i> <b>Dr. Julian ABICH</b>, Senior Human Factors Engineer, Quantum Improvements Consulting</p> <p><i>Speakers:</i> <b>Marshall TETTERTON</b>, Professor of Aviation Maintenance Science, Embry-Riddle Aeronautical University <b>Raghoonundun "Birdy" GUNPUTH</b>, Senior Manager Safety Training, Lufthansa Aviation Training GmbH <b>Fabian RIESEN</b>, CEO, Loft Dynamics</p>

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	<p><b>Adam EVANSCHWARTZ</b>, Director of Product and Advanced Technology Strategy, Collins</p> <p><b>Thea FEYEREISEN</b>, Sr. Technical Fellow, Human Factors, Honeywell</p>	<p><b>Clive GILLARD</b>, Director of Medical and Security Assistance Air Transport Services, International SOS</p> <p><b>Paolo ALVES</b>, Global Director Aviation Health, Medaïre</p> <p><b>Daniel LANDERT</b>, Head of Jet Operation, Rega</p>	
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### DAY 4 – Thursday, 31 August 2023

	Assembly Hall (AH 1 and AH 2 combined)	CR 3
<p><b>09:00 – 10:30</b></p>	<p><b>Future of the Air Navigation System: Service Delivery - Agile systems for flexible operations</b></p> <p>This seventh session focuses on raising awareness among the aviation community to shift to and enable the operator to manage the flight trajectory, while ANSPs focus on managing constraints and air navigation resources.</p> <p><i>Moderator: Carlos CIRILO, CANSO's permanent representative to ICAO and Head of Montreal office</i></p> <p><i>Speakers:</i></p> <p><b>Diana LIANG</b>, NextGen Enterprise Portfolio Manager, FAA</p> <p><b>Henk HOF</b>, Head of ICAO and Concept, Strategy Division, EUROCONTROL</p> <p><b>Amornrat JIRATTIGALACHOTE</b>, PhD Policy and Strategy Management Bureau Aeronautical Radio of Thailand Ltd.;</p> <p><b>Adrian V. SOLOMON</b>, Thales ATC and Digital Aviation Solutions – Americas</p>	<p><b>Evolution of harmonized and quantitative meteorological information services</b></p> <p>Information session on global trends towards the provision of advanced meteorological information and foreseen scientific advancements in the field of aeronautical meteorology, including:</p> <p>Future integration of MET information into ATM decision making,</p> <p>Provisions of quantitative and harmonized meteorological information (e.g. next generation WAFS product, Quantitative Volcanic Ash forecast information (QVA), Space Weather Information Service, Hazardous Weather Information Services (HWIS)),</p> <p>Migration into meteorological information service under SWIM (MET-SWIM),</p> <p>long-term goal and foreseen developments in aeronautical meteorology.</p> <p><i>Moderators: Rebecca KOTTEN, Meteorologist, U.S. Member to ICAO METP (WG-MIE Rapporteur), FAA; William MAYNARD, Meteorologist, Acting Chair of ICAO METP, Transport Canada</i></p> <p><i>Speakers:</i></p> <p><b>Dov BENSIMON</b>, VAAC Montréal Manager, Environment and Climate Change Canada</p> <p><b>Jean-Francois GROUT</b>, Assistant Director ICAO Relations, Advisor to IATA nominated Member to ICAO METP, IATA</p> <p><b>Lauri SOINI</b>, A320 Captain, IFALPA</p> <p><b>Stéphanie WIGNIOLLE</b>, Scientific Officer, Services for Aviation Division, WMO</p> <p><b>Foeke KUIK</b>, Business Development Director EMEA, Campbel Scientific</p> <p><b>Don BERCHOFF</b>, CEO, Truweather Solution</p>
<p><b>10:30 – 11:00</b></p>	<p><b>Coffee Break</b></p>	

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	Assembly Hall (AH 1 and AH 2 combined)	CR 3
11:00 – 12:30	<p><b>Future of the Air Navigation System: Service Delivery - Sustainability impact of System of systems</b></p> <p>This eighth session focusses on the definition of new approaches to achieve the optimum decision-making scenario ensuring access and equity. The simple rules of rationing air traffic flow management and time-based scheduling, implemented in the past, need to be replaced through a gradual introduction of “market rules” with regulations adapted to the needs and possibilities of the market to self-regulate, as long as the performance of the overall network is not negatively impacted, and access and equity are preserved so as to accommodate all demand.</p> <p><i>Moderator: Carlos CIRILO, CANSO's permanent representative to ICAO and Head of Montreal office</i></p> <p><i>Speakers:</i>  <b>Markus KLOPF</b>, Head of ATM Portfolio and International Affairs - Air Traffic Management at Frequentis  <b>Parimal H. KOPARDEKAR</b>, Director of NASA Aeronautics Research Institute and a senior leader of the Aeronautics Research Mission Directorate  <b>Peter C KUZMINSKI</b>, Principal Staff at The MITRE Corporation  <b>Remzi SEKER</b>, Ph.D. Vice President for Research and Innovation Western Michigan University</p>	<p><b>Delivery, use and integration of future meteorological information</b></p> <p>Information session on global requirements for the provision of advanced meteorological information including:            Current and foreseen user requirements of advanced meteorological information services,            Enhancement of meteorological observation and forecast solutions,            Integrated use of quantitative meteorological information into ATM operational decision making and risk assessment.</p> <p><i>Moderators: Rebecca KOTTEN, Meteorologist, U.S. Member to ICAO METP (WG-MIE Rapporteur), FAA; William MAYNARD, Meteorologist, Acting Chair of ICAO METP, Transport Canada</i></p> <p><i>Speakers:</i>  <b>Dov BENSIMON</b>, VAAC Montréal Manager, Environment and Climate Change Canada  <b>Jean-Francois GROUT</b>, Assistant Director ICAO Relations, Advisor to IATA nominated Member to ICAO METP, IATA  <b>Lauri SOINI</b>, A320 Captain, IFALPA  <b>Stéphanie WIGNOLLE</b>, Scientific Officer, Services for Aviation Division, WMO  <b>Foeke KUIK</b>, Business Development Director EMEA, Campbel Scientific  <b>Don BERCHOFF</b>, CEO, Truweather Solution</p>
12:30 – 13:45	<p><b>Lunch Break sponsored by NAV CANADA</b></p> 	
	12:30 – 12:40 Lunch Sponsor Talk	
13:45 – 15:15	<p><b>Moderator recap</b></p> <p>The moderators of each session will provide an overview and summary of topics discussed, focusing on potential action items and the way forward.</p>	
15:15 – 15:45	<p><b>Closing Remarks</b></p>	

# AIR NAVIGATION WORLD 2023

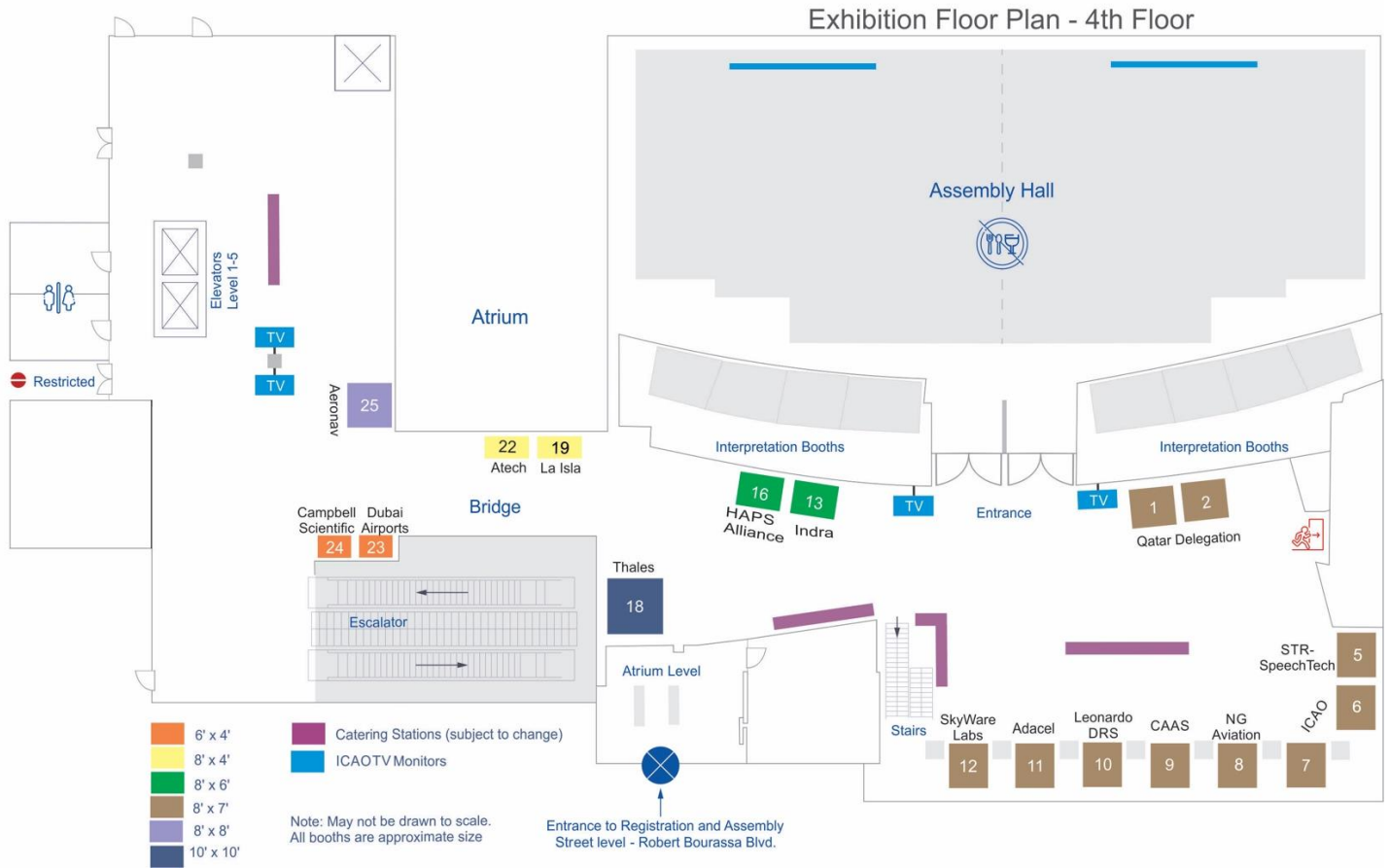
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ICAO

### ICAO AIR NAVIGATION WORLD 2023 - MONTREAL



# تطلعات طموحة | AMBITIOUS ASPIRATIONS لمستقبل واعد | FOR A PROMISING FUTURE



معايير بيئية عالمية

Global Environment standards

الاستثمار في الإنسان

Investing in Human Resources

تطوير المجتمع

Community Development

الحفاظ على الأرواح والممتلكات

Preserving Lives and Property

تحقيق التنمية المستدامة

Achieving Sustainable Development

مسارات جوية آمنة

Safe Routes



الهيئة العامة للطيران المدني  
CIVIL AVIATION AUTHORITY

قطر QATAR



caaqatar



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44557333

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Booth #1-2



## Qatar Civil Aviation Authority (QCAA)

### Company description

The Qatar Civil Aviation Authority (QCAA) is a governmental institution which participates in setting policies related to civil aviation at the regional and international levels, through its internal departments, organizations, and federations to which it belongs externally. Its vision is to maintain and enhance a safe, secure, efficient, and sustainable civil aviation system. In recent times, Qatar has invested heavily in airspace re-organization and the modernization of its Air Traffic Management Systems to cater for present and future demands, including airspace capacity enhancement and the management of its Flight Information Region.

### Contact information:

Qatar Civil Aviation Authority  
+9744455 7333

### Website:

[www.caa.gov.qa](http://www.caa.gov.qa)





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and skies, making everything work.  
We partner with our clients,  
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**indra**

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Booth #13



# indra

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## Indra

### Company description

Indra is a leading supplier of air traffic management systems with more than 6,000 installations deployed in 180 countries and is at the forefront of the digital transformation of the sector. Indra is the technology partner of iTEC SkyNex -working towards the digital European sky-, and it's digitalizing the integrated Network Manager (iNM) of Eurocontrol. Indra was also one of the first companies in the world to commission remote virtual control tower systems and develop solutions based on AI, big data and digitized IP communications.

### Contact information:

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[ecastillos@indra.es](mailto:ecastillos@indra.es)

### Website:

[www.indracompany.com](http://www.indracompany.com)





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## Keeping Canada's skies safe

As Canada's air navigation service provider, we play a unique and critical role managing the 18 million square kilometres of Canadian civil airspace and the North Atlantic oceanic airspace under Canada's control.

With 25 years of innovation and achievement underpinned by a world-leading safety record, we are looking ahead to new horizons as we shape the future of air navigation services.



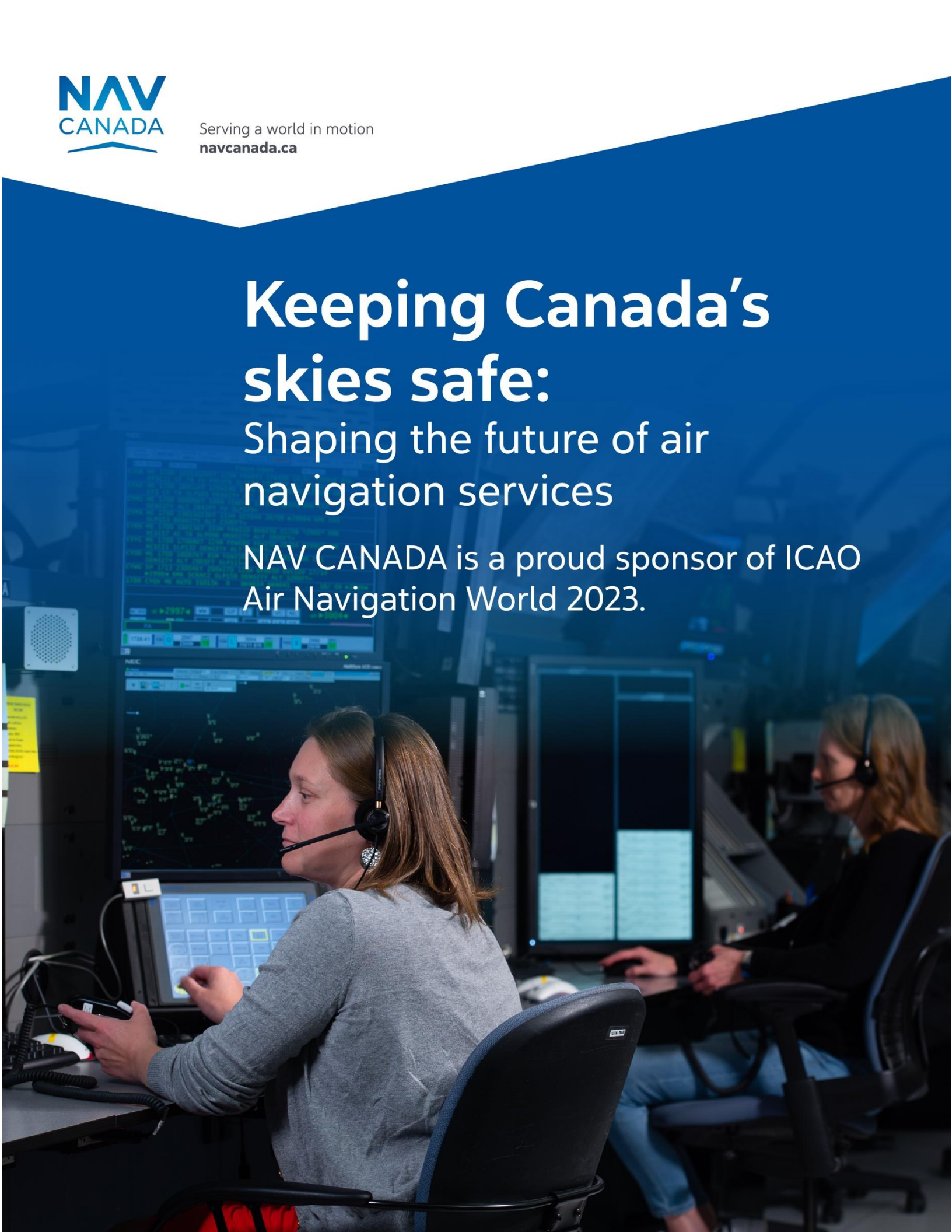


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Shaping the future of air  
navigation services

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## NAV CANADA

### Company description

NAV CANADA plays a unique and critical role managing 18 million square kilometres of Canadian and North Atlantic airspace. Formed in 1996, we are a not-for-profit corporation — the first fully privatized air navigation service provider in the world. Our sophisticated network of area control centres, air traffic control towers, flight service stations, maintenance centres, flight information centres and navigation aids supports our purpose to keep Canada's skies safe and shape the future of air navigation services.

### Contact information:

Jeff Dawson, Assistant Vice President, Operational Support  
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### Website:

[www.navcanada.ca](http://www.navcanada.ca)





# Advancing Aviation™

Aireon is harnessing next-generation aviation surveillance technologies to bring new data capabilities to the entire aviation industry.

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## Aireon

### Company description

Company Description: Aireon has deployed a global, space-based air traffic surveillance system for Automatic Dependent Surveillance-Broadcast (ADS-B) equipped aircraft, harnessing next-generation aviation surveillance technologies to improve efficiency, enhance safety and reduce emissions. In partnership with leading ANSPs, Aireon is providing a global, real-time air traffic surveillance system, available to all aviation stakeholders.

### Contact information:

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### Website:

[www.aireon.com](http://www.aireon.com)

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★ EARLY NETWORKING

Booth #23

مطارات دبي  
**DUBAI AIRPORTS**

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## Dubai Airports

### Company description

Dubai Airports owns and manages the operation and development of both of Dubai's airports - Dubai International (DXB) and Dubai World Central (DWC). It is the world's busiest airport by international passenger traffic.

We deliver a world-class experience to our customers by providing safe, secure and environmentally responsible airports. We work in partnership with airlines and our stakeholders to drive the growth of Dubai.

### Website:

<https://www.dubaairports.ae/corporate/>

Booth #11



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## Adacel

### Company description

Adacel plays a significant role in global air space safety. The company applies cutting-edge technologies to develop advanced air traffic control simulation and training systems and state-of-the-art air traffic management solutions. More than 21% of the world's airspace is managed with Adacel's Aurora ATM software. MaxSim Tower Simulator and Training systems lead the industry with the highest number of installations worldwide. Adacel's latest flagship system, REVAL, a digital Air Traffic Service (ATS) tower solution delivers a wide spectrum of digital tower operational solutions, from consulting services to system design, development, deployment, and support.

### Contact information:

**James Adams**

Director, ATC Simulation and Strategic Programs

[jadams@adacel.com](mailto:jadams@adacel.com)

### Website:

[www.adacel.com](http://www.adacel.com)



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## Aeronav

### Company description

Aeronav specializes in Integrated Air Traffic Control (ATC) Systems, Prefabricated Control Tower Cabin, Mobile Control Towers, Ground-based Radio Navigation Aids (NavAids), Airfield Lighting Systems, Power Supply Systems and Control Tower Design. Aeronav services range from design, integration, installation, training and maintenance services to global turn-key solutions for Air Navigation Service Providers (ANSP), Aviation Organizations and Airport Authorities worldwide. All systems are commissioned in compliance with ICAO recommendations.

Aeronav est spécialisé dans les domaines du contrôle du trafic aérien (ATC), des cabines de tour de contrôle préfabriquées, des tours de contrôle mobiles, des systèmes d'aide à la radionavigation aérienne, du balisage lumineux de piste, des systèmes d'alimentation électrique et de conception de tour de contrôle. La gamme de services d'Aeronav comprend la conception, l'intégration, l'installation, la formation et l'entretien. Nous proposons ainsi des solutions clés en main pour les fournisseurs de service de la navigation aérienne (ANSP), les organismes d'aviation civile et les autorités aéroportuaires dans le monde entier. Tous les systèmes sont installés et mis en service selon les recommandations de l'OACI.

### Contact information:

To come

### Website:

[www.aeronavgroup.com](http://www.aeronavgroup.com)

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Booth #19



G R U P O   E M B R A E R

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## Atech – Embraer Group

### Company description

Atech is the Brazilian leader in solutions for complex mission-critical systems. As the main contractor for design, supply, evolution, modernization and support of the ATM systems in Brazil, Atech has vast experience and proven capability on research and development of innovative solutions also used at multiple Integrated Air Traffic Control and Air Defense Operations Centers in many countries.

Currently as part of Embraer Group, Atech also has recently deployed advanced Air Traffic Flow Management systems in Brazil and India, fully customized for the specific needs from the air navigation service providers of these countries.

### Contact information:

Mr. Edson Fagundes  
[egomes@atech.com.br](mailto:egomes@atech.com.br)

### Website:

[atech.com.br](http://atech.com.br)

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Booth #9



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## Civil Aviation Authority of Singapore

### Company description

The mission of the Civil Aviation Authority of Singapore is to grow a safe, vibrant air hub and civil aviation system, making a key contribution to Singapore's success. CAAS' roles are to oversee and promote safety in the aviation industry, develop the air hub and aviation industry, provide air navigation services, provide aviation training for human resource development, and contribute to the development of international civil aviation. For more information, visit [www.caas.gov.sg](http://www.caas.gov.sg).

### Contact information:

Ms. Michelle Hoo

[michelle\\_hoo@caas.gov.sg](mailto:michelle_hoo@caas.gov.sg)

### Website:

[www.caas.gov.sg](http://www.caas.gov.sg)





## Campbell Scientific

### Company description

Campbell Scientific has provided measurement solutions to benefit the world since 1974. With over 1,200 installations, Campbell Scientific's aviation weather systems operate on every continent and in every environment. Our ICAO/WMO-compliant Campbell Intercept™ AWOS solution using Customer-in-Control Technologies™ (CCT) provides an unrivalled level of flexibility and insight, while our hardware, based upon Campbell Scientific components, has been proven to operate reliably in the harshest of environments for decades. Driven by industry experts, our project delivery expertise promises to bring you a unique end-to-end solution to ensure you can prioritize passenger safety, optimize operations, and increase capacity.

### Contact information:

Sara Van Klooster  
Aviation Weather Market Development Manager  
[svanklooster@campbellsci.com](mailto:svanklooster@campbellsci.com)  
435-227-9878

### Website:

[campbellsci.ca](http://campbellsci.ca)

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Booth #16

## **HAPS Alliance**

HIGH ALTITUDE PLATFORM STATION

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### **HAPS Alliance**

#### **Company description**

The HAPS Alliance is an industry association of High Altitude Platform Station (HAPS) industry leaders that include telecommunications, technology, aviation and aerospace companies, as well as public and educational institutions. United by a vision to address diverse social issues and create new value through the utilization of high-altitude vehicles in the stratosphere, the Alliance is working to accelerate the development and commercial adoption of HAPS technology by promoting and building industry-wide standards, interoperability guidelines and regulatory policies in both the telecommunication and aviation industries.

#### **Contact information:**

[membership@hpsalliance.org](mailto:membership@hpsalliance.org)

#### **Website:**

[hpsalliance.org](https://hpsalliance.org)



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## La Isla Ingeniería y Sistemas

### Company description

La Isla Ingeniería y Sistemas, SL is a company founded in 1992 with the purpose of providing innovative and tailored solutions to user needs with a customer centric perspective in the Air Navigation and Airports domains.

We focus on providing consulting, training services around the world to Air Navigation and Industry organisations and developing innovative products responding to niche CNS needs. Team experience and technical capability is complemented by a constant investigation of the system latest trends, technologies, and innovations to solve our client's needs.

### Contact information:

Ángel Martínez Castro, CEO

[angel.martinez@la-isla.es](mailto:angel.martinez@la-isla.es)

### Website:

[www.la-isla.es](http://www.la-isla.es)

# AIR NAVIGATION WORLD 2023

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Booth #10



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## Leonardo DRS

### Company description

Leonardo DRS in Canada (DRS Canada) is a wholly owned subsidiary of Leonardo DRS, a leading international supplier of integrated products, services, and support to aircraft OEMs, integrators and operators. The company is a wholly owned subsidiary of Leonardo SpA.

DRS Canada designs, manufactures and supports a broad range of aviation automatic deployable emergency locator transmitters and automatic deployable flight recorders. The company is a Transport Canada (TC), Federal Aviation Authority (FAA), and European Aviation Safety Agency (EASA) certified manufacturer of cockpit voice recorders, flight data recorders, and emergency locator beacons for fixed and rotary wing aircraft.

DRS Canada is currently focusing its product development to meet recent ICAO SARPS related to Autonomous Distress Tracking, Post-Flight Localisation of a Downed Aircraft and Flight Recorder Data Recovery.

### Contact information:

Mr. Blake van den Heuvel

[bheuvel@drs.ca](mailto:bheuvel@drs.ca)

### Website:

[LeonardoDRS.com](http://LeonardoDRS.com)

Booth #8

NG AVIATION

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## NG AVIATION

### Company description

NG Aviation specializes in provision of advanced digital AIM solutions and tools for further digital aeronautical data use. Working with native AIXM5.x NG Aviation supports comprehensive data management and exchange among aviation stakeholders in a common language and common data format while supporting SSoT & SWIM principles.

Reflecting on the international requirements, NG Aviation increases the value of aeronautical information by guaranteeing data quality and its reliability and pushes the boundaries of current data use practices while uncovering new horizons and capabilities fuelled by digital aeronautical data. NG Aviation provides tangible benefits to real operations of all aviation stakeholders.

### Contact information:

Mr. Marek Franko

[marek.franko@ngaviation.eu](mailto:marek.franko@ngaviation.eu)

### Website:

[www.ngaviation.eu](http://www.ngaviation.eu)

# AIR NAVIGATION WORLD 2023

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Booth #12



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## Skyware

### Company description

SkyWare is a cloud services solution provider entirely focused on the digitalization of business operations in both the ANSP and Airport environments. SkyWare's cloud-based solutions include ABX: for Air Navigation and Aviation Billing & Invoicing, and RWX: for Aerodrome Inspection & Reporting (GRF & Part 139).

SkyWare was founded in Ottawa, Canada by a group of aviation professionals with extensive experience in the design and implementation of all types of ground-based aeronautical systems. SkyWare now services a global and diverse customer-base who trust our solutions and our expertise to make their digital transformations a success.

SkyWare is on a global mission to digitalize both ANSP and Airport operations to enhance performance, reduce costs and improve safety.

### Contact information:

Adam Paquette

Sales Manager

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### Website:

[www.skywarelabs.com](http://www.skywarelabs.com)



Booth #5



**STR-SpeechTech Ltd.**  
Quality that speaks for itself

## STR-SpeechTech

### Company description

STR-SpeechTech Ltd. (STR) is a leading Canadian supplier of text-to-speech systems for mission-critical broadcasting applications. STR has produced quality speech and signal processing products for over 30 years that adhere to ICAO and WMO standards. Our StarCaster D-ATIS and D-VOLMET systems are deployed at ATC Towers and Flight Service Stations, where the ability to generate clear and consistent aviation information broadcasts is key for operational efficiency and safety.

STR is proud to have deployed nearly 300 StarCaster systems internationally in all regions of ICAO, including in North America at facilities managed by the FAA, US Air Force, US Army, US Coast Guard and NAV CANADA. In addition, our growing international presence now consists of installations with ANSPs in over 30 countries.

### Contact information:

Joe McNally

CEO

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### Website:

[www.speechtech.com](http://www.speechtech.com)

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Booth #18



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## Thales

### Company description

Thales is the world leader in air mobility solutions. An impressive 2 out of every 3 planes around the world land and take-off with the help of Thales.

We combine half a century's experience in development and deployment with an unrivalled worldwide installed base, advanced technology and ground-breaking innovations to deliver solutions that are continually adapted to the ever-changing aviation system's needs.

Our mission? To connect people and territories in a sustainable way by ensuring safe, secure and fair mobility for all airspace users.

### Contact information:

Mr. Benjamin Binet

VP Strategy and Public Affairs

[Benjamin.binet@thalesgroup.com](mailto:Benjamin.binet@thalesgroup.com)

### Website:

[www.thalesgroup.com](http://www.thalesgroup.com)