ICAO
DRONE ENABLE
SYMPOSIUM

EVENT DIRECTORY

CONTENT

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PARTICIPANT GUIDE

REGISTRATION & ACCESS

01. The virtual ICAO Drone Enable Symposium **requires registration.**

02. Click here to register online. Should you have any issue registering, please contact registration@icao.int.

03. This event can host a limited number of participants; therefore, registration is on a **first-come, first-served basis.**

04. Each participant will receive a **unique Zoom link or Cvent link,** which is not to be transferable.

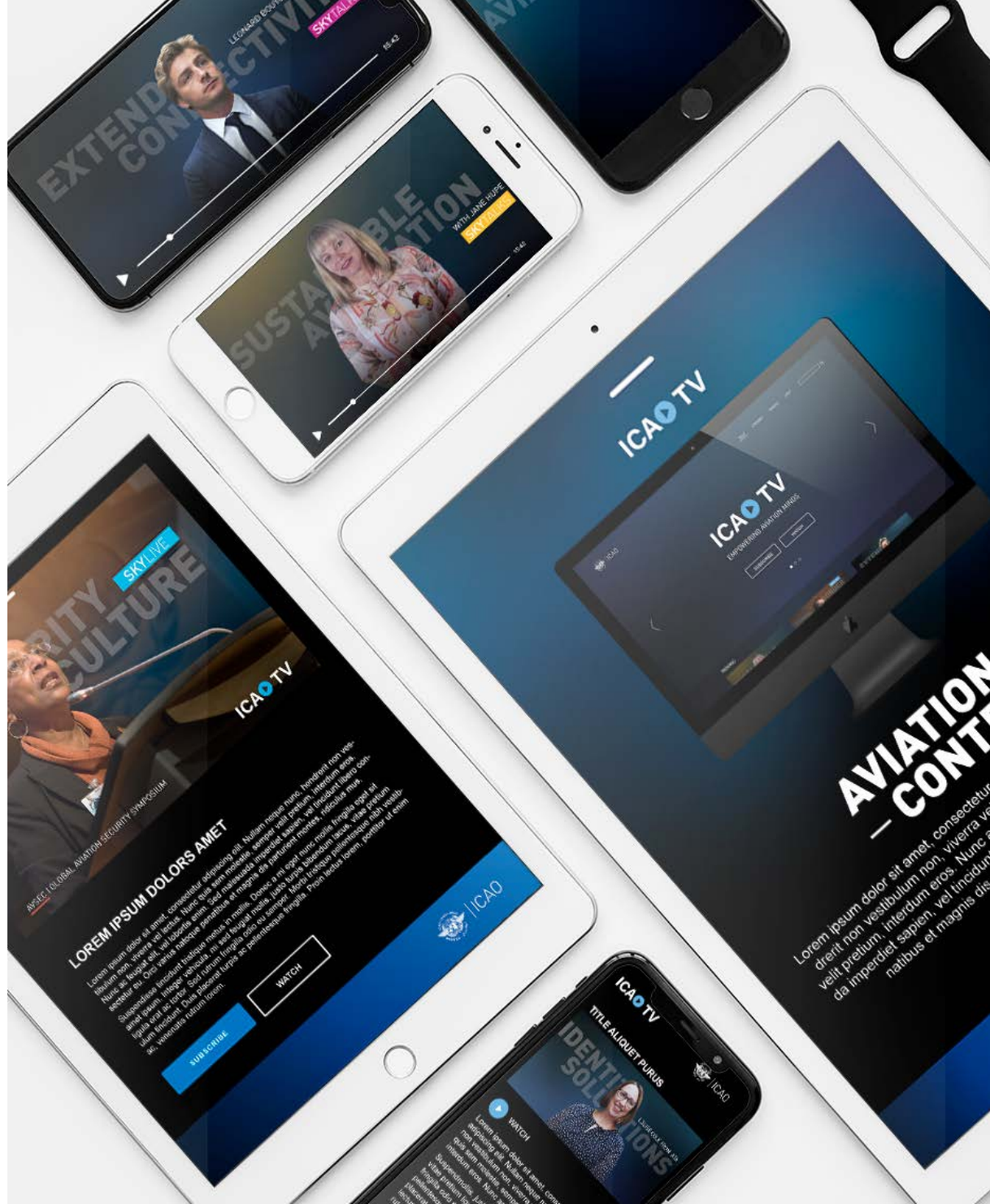
05. The connection details to join the Virtual Symposium will be provided by email from RPASEvents@icao.int closer to the start of the event.

06. A free Zoom account is required to join the Symposium. Please visit www.zoom.us/signup to create an account.

ICAO TV

After the event, you can rewatch your favorite sessions and panels from anywhere and on any device from ICAO TV.

CLICK HERE



02

AGENDA

DAY 1

TUESDAY, 13 APRIL 2021

8:50-9:00 EDT 12:50-13:00 UTC	**OPENING SPOTLIGHT** Sponored by ANRA Technologies
9:00-9:10 EDT 13:00-13:10 UTC	**WELCOME REMARKS**
9:10-9:25 EDT 13:10-13:25 UTC	**OPENING ADDRESS** **Dr. Fang LIU**, Secretary General, ICAO
9:25-9:45 EDT 13:25-13:45 UTC	**KEYNOTE ADDRESS** **Dr. Young Tae Kim,** Secretary-General, International Transport Forum, Organisation for Economic Co-operation and Development (OECD)
9:55-10:30 EDT 13:55-14:30 UTC	**ICAO UPDATES** **RPAS PANEL** This session will provide an overview of the work being undertaken by ICAO and the progress being made with RPAS regulatory materials. **Mr. Frederic Malaud**, Technical Officer, Remotely Piloted Aircraft Systems Section, ICAO – RPAS Panel Secretary

9:55-10:30 EDT 13:55-14:30 UTC	**UAS ADVISORY GROUP (UAS-AG)** This update will summarize the work of the ICAO UAS Advisory Group, including the most recent updates to the UTM Framework based on the information derived from DRONE ENABLE/3, updates to the ICAO UAS Toolkit and the results of the DRONE ENABLE 2021 RFI Process. **Mr. Mark Wuennenberg**, Technical Officer, Remotely Piloted Aircraft Systems Section, ICAO – UAS Advisory Group (UAS-AG) Secretary **ICAO MODEL UAS REGULATIONS** This session will provide an overview of the ICAO UAS Model Regulations developed to support UAS regulatory harmonization. The companion supporting guidance material will also be discussed **Ms. JC Shine**, Technical Officer, Remotely Piloted Aircraft Systems Section, ICAO **ICAO AIRCRAFT REGISTRATION NETWORK UPDATE/DEMO** While developing the Aircraft Registration Network, a critical element was identified which impacts global harmonization of aircraft registries. That being, in many States "free text" is used to capture "the manufacturer" and "manufacturer's designation" of the aircraft. As even subtle differences in this data complicate registry reconciliations, this poses a challenge. As a result, ICAO worked with the Korean Ministry of Land, Infrastructure and Transport on an application that will allow aircraft registry and other applications to interact with the Commercial Aviation Safety Team (CAST)/ICAO Aircraft Taxonomy. A prototype of the application will be presented that will demonstrate how such a system can be integrated using open source code and API calls. The system allows consulting the CAST/ICAO taxonomy in real-time to request new aircraft codes when one is not available. **Mr. Miguel Marin,** Chief, Operational Safety Section, ICAO
10:30-10:45 EDT 14:30-14:45 UTC	**ICAO UPDATE - Q&A SESSION**
10:45-10:55 EDT 14:45-14:55 UTC	**BREAK** Sponsored by Velary Providing a better today - Not only a safer tomorrow

10:55-11:45 EDT 14:55-15:45 UTC	**PANEL SESSION – INTERACTION WITH KEY AVIATION AND NON-AVIATION STAKEHOLDERS** This panel will discuss viewpoints from various stakeholders, who may not traditionally be part of the UTM discussions, regarding what they are looking for, expecting, needing, concerned about, etc., when it comes to the development and deployment UTM capabilities. **MODERATOR:** **Mr. Koen De Vos** **PRESENTATIONS** > **Mr. Erwin Verstraelen,** Chief Digital Inform. & Innovation Officer, Antwerp Port Authority > **Mr. Vendelin Clicques,** President, International Emergency Drones Organization (IEDO) > **Mr. Andreas Richter,** Head of Department "Innovation and Cluster", Ministry of Economy and Innovation, City of Hamburg > **Dr. Scott Burgess,** UAS Special Advisor, Helicopter Association International (HAI) > **Mr. Christopher Cooper,** Senior Director, Regulatory Affairs, International Aircraft Owners and Pilots Association (IAOPA)
11:45-12:00 EDT 15:45-16:00 UTC	**PANEL Q&A SESSION**
12:00-12:10 EDT 16:00-16:10 UTC	**DAY 1 CLOSE OUT AND PREVIEW FOR DAY 2**
	END OF DAY 1 - SKYTALK Presented by THALES
12:30-14:00 EDT 16:30-18:00 UTC	**DAY 1 ROUND TABLE** Facilitator led open discussion on the use of UAS/UTM during COVID. Open invitation for anyone wishing to explore this topic further

DAY 2

WEDNESDAY, 14 APRIL 2021

9:00-9:10 EDT 13:00-13:10 UTC	WELCOME REMARKS
9:10-9:25 EDT 13:10-13:25 UTC	KEYNOTE ADDRESS **Mr. Ali Bahrami,** Associate Administrator for Aviation Safety, Federal Aviation Administration (FAA)
9:25-9:35 EDT 13:25-13:35 UTC	INTRO RFI SESSION 1 – PART 1 MODERATOR: **Ms. Ruby Sayyed,** Head ATM Advocacy, International Air Transport Association (IATA)
9:35-10:35 EDT 13:35-14:35 UTC	RFI SESSION 1 – PART 1 UA Performance Requirements in a UTM Environment SPEAKERS > **Mr. Andy Thurling,** Chief Technology Officer, Northeast UAS Airspace Integration Research Alliance (NUAIR) > **Mr. Marcello Coura,** Drone Operations Coordinator, OMNI Táxi Aéreo > **Mr. Steven Van Den Berghe,** Chief Technical Officer, EuroUSC > **Mr. Michael Hardt,** Boeing Associate Technical Fellow, Autonomy, Boeing Research & Technology
10:35-10:45 EDT 14:35-14:45 UTC	BREAK

10:45-11:45 EDT 14:45-15:45 UTC	**RFI SESSION 1 – PART 2** UA Performance Requirements in a UTM Environment **SPEAKERS** > **Dr. Terrence "Terry" Martin,** Professor, Queensland University of Technology (Cofounder Revolution Aerospace) > **Mr. André Arruda & Lucas Florêncio,** Co-Founders, AL Drones > **Dr. Kin Huat Low,** Principal Investigator of UAS Programme, Air Traffic Management Research Institute (ATMRI) > **Mr. Reinaldo Negron,** Head of UTM, Wing
11:45-12:05 EDT 15:45-16:05 UTC	**RFI SESSION – Q&A SESSION**
12:05-12:15 EDT 16:05-16:15 UTC	**DAY 2 CLOSE OUT AND PREVIEW FOR DAY 3**
	END OF DAY 2
12:45-14:00 EDT 16:45-18:00 UTC	**DAY 2 ROUND TABLE** Facilitator led open discussion on UA Performance Requirements in a UTM Environment. Open invitation for anyone wishing to explore this topic further.

DAY 3

THURSDAY, 15 APRIL 2021

9:00-9:10 EDT 13:00-13:10 UTC	WELCOME REMARKS
9:10-9:25 EDT 13:10-13:25 UTC	KEYNOTE ADDRESS **Mr. Patrick Ky,** Executive Director, European Union Aviation Safety Agency (EASA)
9:25-9:35 EDT 13:25-13:35 UTC	INTRO RFI SESSION 2 – PART 1 MODERATOR: **Mr. Jay Merkle,** Executive Director, Office of UAS Integration, Federal Aviation Administration (FAA)
9:35-10:15 EDT 13:35-14:15 UTC	RFI SESSION 2 – PART 1 UTM System Certification Requirements SPEAKERS > **Mr. Ted Lester,** former Chief Technologist, AiRXOS part of GE Aviation > **Mr. Benoît Curdy,** Digital Transformation Architect, Innovation and Digitalization Unit, Swiss Federal Office of Civil Aviation (FOCA) > **Mr. Robert Champagne,** Principal Software Engineer, Amazon Prime Air
10:15-10:25 EDT 14:15-14:25 UTC	BREAK Sponsored by Velary

10:25-11:00 EDT 14:25-15:00 UTC	**RFI SESSION 2 – PART 2** UTM System Certification Requirements **SPEAKERS** > **Mr. Andrew Carter,** Chief Technology Officer, ResilenX > **Dr. Scot Campbell,** Head of UTM System Design, Airbus UTM > **Mr. Michael Maes,** Managing Director, EuroUSC
11:00-11:20 EDT 15:00-15:20 UTC	**RFI SESSION – Q&A SESSION**
11:20-11:30 EDT 15:20-15:30 UTC	**BREAK**
11:30-12:10 EDT 15:30-16:10 UTC	**UTM DEVELOPMENT AND DEPLOYMENT LESSONS LEARNED** This session will have experts from various sectors of UTM, including service providers, regulators and research organizations, discussing their lessons learned and how these can facilitate global harmonization and assist other States or organization moving forward with the development and deployment of UTM systems. **MODERATOR:** **Mr. Michael Gadd,** Head of Airworthiness, Blue Bear Systems Research

11:30-12:10 EDT 15:30-16:10 UTC	**PRESENTATIONS** > **Mr. Steve Bradford,** Chief Scientist-Architecture & NextGen Development, Federal Aviation Administration (FAA) > **Professor LIU Hao,** Vice-Chair of Joint Authorities for Rulemaking of Unmanned Systems (JARUS)/ Deputy Director of National Research Center of ATM Law and Standard, China > **Mr. Robin Garrity,** Senior External Affairs Officer, Single European Sky ATM Research Joint Undertaking (SESAR JU) > **Mr. Gary Newman,** Aviation Safety Inspector - Airspace, General Civil Aviation Authority (GCAA), United Arab Emirates (UAE) > **Dr. Daisuke Kubo,** Associate Senior Researcher, Next Generation Aeronautical Innovation Hub Center, Japan Aerospace Exploration Agency (JAXA) > **Mr. Koen Meuleman,** Co-founder Regulatory Affairs, Unifly
12:10-12:25 EDT 16:10-16:25 UTC	**PANEL Q&A SESSION**
12:25-12:35 EDT 16:25-16:35 UTC	**DAY 3 CLOSE OUT AND PREVIEW FOR DAY 4**
	END OF DAY 3
13:00-14:30 EDT 17:00-18:30 UTC	**DAY 3 ROUND TABLE** Facilitator led open discussion on UTM System Certification Requirements. Open invitation for anyone wishing to explore this topic further.

DAY 4

TUESDAY, 20 APRIL 2021

9:00-9:10 EDT 13:00-13:10 UTC	WELCOME REMARKS
9:10-9:25 EDT 13:10-13:25 UTC	KEYNOTE ADDRESS **Mr. Luis Felipe de Oliveira,** Director General, Airports Council International (ACI)
9:25-9:35 EDT 13:25-13:35 UTC	INTRO RFI SESSION 3 – PART 1 MODERATOR: **Mr. Thomas Romig,** Vice President Safety & Operations, Airports Council International (ACI)
9:35-10:35 EDT 13:35-14:35 UTC	RFI SESSION 3 – PART 1 UTM Integration into Aerodrome Environments/Activities SPEAKERS > **Mr. Mateusz Kotlinski / Mr. Maciej Włodarczyk**, U-space Program Manager / Head of UAS Operations Department, Polish Air Navigation Services Agency (PANSA) > **Mr. Frank Matus,** Director, Digital Aviation Market Development – Americas, Thales > **Ms. Patricia Hervais,** Head of UTM Systems Engineering, Indra Sistemas > **Mr. Philip Binks,** Head of Air Traffic Management, Altitude Angel
10:35-10:45 EDT 14:35-14:45 UTC	BREAK

10:45-11:30 EDT 14:45-15:30 UTC	**RFI SESSION 3 – PART 2** UTM Integration into Aerodrome Environments/Activities **SPEAKERS** > **Ms. Julia Sanchez,** ATM UAS Specialist, European Organisation for the Safety of Air Navigation (EUROCONTROL) > **Mr. Jose Airton Patricio,** Systems Engineering, Atech > **Mr. Luigi Brucculeri,** Senior Technical Project Manager, Techno Sky, ENAV
11:30-11:50 EDT 15:30-15:50 UTC	**RFI SESSION – Q&A SESSION**
11:50-12:00 EDT 15:50-16:00 UTC	**DAY 4 CLOSE OUT AND PREVIEW FOR DAY 5**
	END OF DAY 4
12:30-13:45 EDT 16:30-17:45 UTC	**DAY 4 ROUND TABLE** Facilitator led open discussion on UTM Integration into Aerodrome Environments/Activities. Open invitation for anyone wishing to explore this topic further.

DAY 5

WEDNESDAY, 21 APRIL 2021

9:00-9:05 EDT 13:00-13:05 UTC	**WELCOME REMARKS**
9:05-9:20 EDT 13:05-13:20 UTC	**KEYNOTE ADDRESS** **Mr. Benedict Eijbergen,** Practice Manager for East Africa, World Bank Group
9:20-10:05 EDT 13:20-14:05 UTC	**PANEL SESSION – CYBER RESILIENCE** This panel will discuss the evolution of the aviation system considering its needs for secure and resilient connections for exchange of safety critical messages and how an international aviation trust framework can help new entrants to be safely integrated in a non-segregated airspace considering possible cyber threats. The panel will discuss the potential threats in a digitally connected environment and the need for global regulations to guarantee acceptable levels of safety in UAS and UTM operations. MODERATOR: **Mr. Saulo Da Silva,** Chief, Global Interoperable Systems, ICAO PRESENTATIONS > **Mr. Roberto Gallo,** Chief Executive Officer, Kryptus EED S.A. > **Mr. Dan Diessner,** Senior Research Scientist, Embry Riddle Aeronautical University > **Mr. Rob Segers,** Information System Security Architect, Federal Aviation Administration (FAA) > **Mr. Patrick Mana,** Cyber-Security Cell Manager, European Organization for the Safety of Air Navigation (EUROCONTROL) > **Mr. Andy Thurling,** Chief Technology Officer, Northeast UAS Airspace Integration Research Alliance (NUAIR)

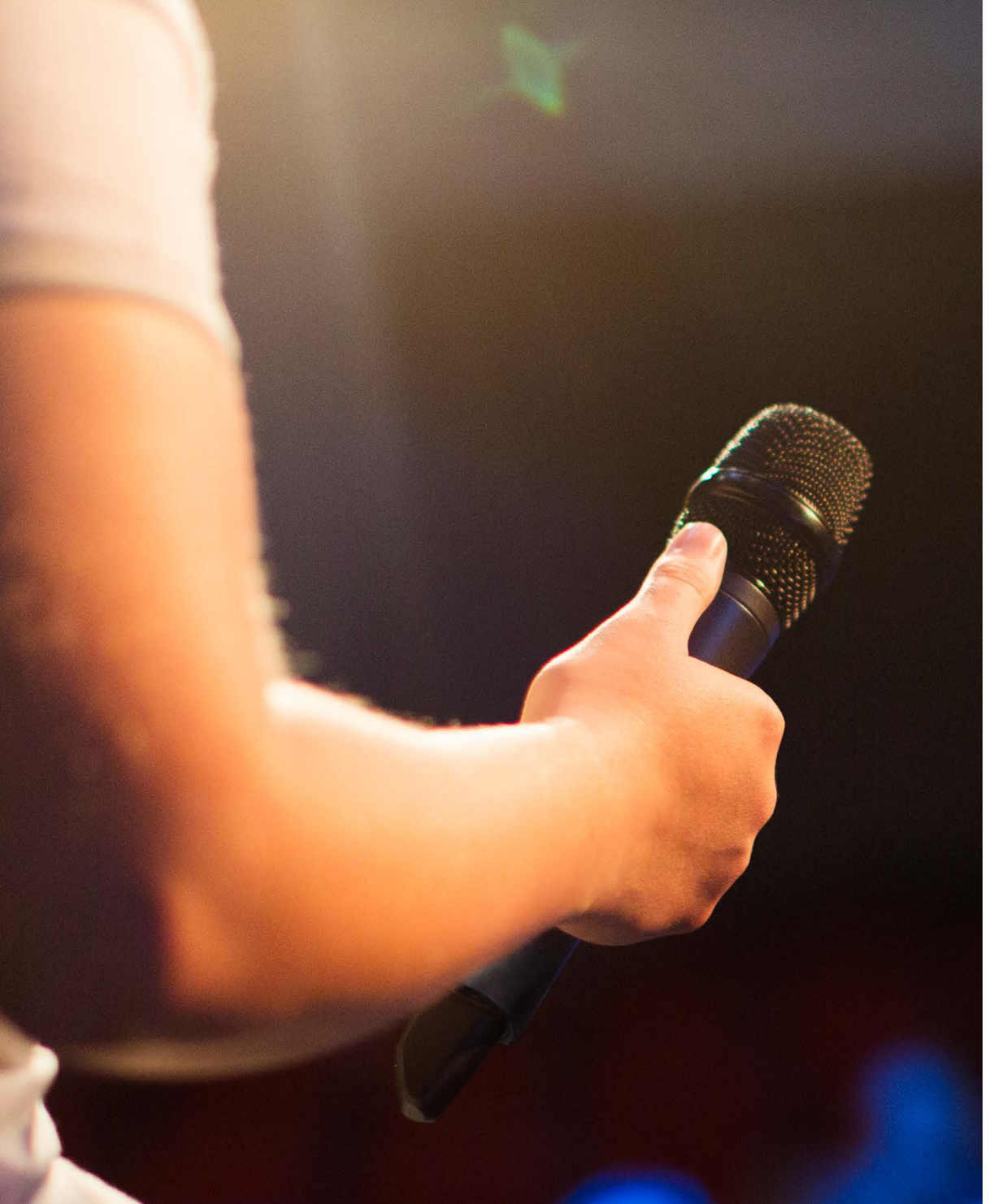
10:05-10:20 EDT 14:05-14:20 UTC	**PANEL Q&A SESSION**
10:20-10:30 EDT 14:20-14:30 UTC	**BREAK**
10:30-11:10 EDT 14:30-15:10 UTC	**PANEL SESSION – BRAZILIAN FOCUS** This panel will highlight the entire process related to UAS operations in Brazil and will involve all the key stakeholders, including operators and Brazilian Authorities. Attendees will be provided with an understanding of the main goals and the challenges during the various processes. In addition, based on their various points of view, the panellists will discuss the necessity of implementing a viable UAS Traffic Management system as a key enabler for UAS scalability. MODERATOR: **Ms. Daniele Lins,** Department of Aerospace Control (DECEA), Brazil PRESENTATIONS > **Mr. André Arruda and Mr. Lucas Florêncio Queiróz de Oliveira**, Co-Founder, AL Drones, Brazil > **Mr. Ailton José de Oliveira Jr.**, Coordinator Drones and New Technologies Group, National Civil Aviation Agency (ANAC), Brazil and **Mr. Roberto Honorato,** Head of Airworthiness Department, National Civil Aviation Agency (ANAC), Brazil > **Mr. Jorge Alexandre de Almeida Regis,** Air Traffic Controller, Head of Military Operations Subdivision, Department of Aerospace Control (DECEA), Brazil > **Mr. Giovani Amianti,** Chief Executive Officer, XMobots, Brazil

11:10-11:25 EDT 15:10-15:25 UTC	**PANEL Q&A SESSION**
11:25-11:35 EDT 15:25-15:35 UTC	**BREAK** Sponsored by Velary Providing a better today - Not only a safer tomorrow
11:35-12:15 EDT 15:35-16:15 UTC	**PANEL SESSION – ADVANCED/URBAN AIR MOBILITY** This panel will have leaders in the field of advanced/urban air mobility discuss their recent advancements, the regulatory/technical challenges that remain and what is needed to see this capability deploy safely. **MODERATOR:** **Mr. Graham Warwick,** Managing Editor, Technology, Aviation Week **PRESENTATIONS** > **Mr. Edward Xu,** Chief Strategy Officer, EHang Holdings > **Mr. John Illson,** Commercial Certification Lead, Joby Aviation > **Mr. David Rottblatt,** Vice President, Business Development, Eve Urban Air Mobility > **Mr. Dan Dalton,** Vice President, Global Partnerships, Wisk > **Mr. David Oord,** Head of Regulatory Affairs Americas, Lilium > **Mr. Mike Whitaker,** Global Head of Policy, Urban Air Mobility Division of Hyundai Motor Group
12:15-12:30 EDT 16:15-16:30 UTC	**PANEL Q&A SESSION**

12:30-13:00 EDT 16:30-17:00 UTC	**PANEL SESSION – FLIGHT RULES IN AN EVOLVING ENVIRONMENT** Future regulatory provisions must include relevant flight rules that acknowledge the change in the role of the human with higher levels of automation. Given the time it takes to formulate, assess, and implement new provisions in the aviation system, it is critical to consider the new use cases for unmanned aircraft and advanced/urban air mobility aircraft and the provisions that would be required to ensure safe operations. How will the role of the human-in-the-loop affect the definition and implementation of flight rules and airspace management – for new entrants and for conventional aviation? Do we need to define a new set of flight rules or can we revise or expand the existing visual and instrument flight rules to encompass these new aircraft and operations? In this final session of DRONE ENABLE, you will hear from two key individuals with unique insight into the pending evolution of the aviation. MODERATOR: **Mr. Chris Dalton,** Chief, Air Traffic Management Section, ICAO PANELISTS > **Mr. Stephen P. Creamer,** Director, Air Navigation Bureau, ICAO > **Mr. Carlos Cirilo,** Director, ATM Infrastructure, International Air Transport Association (IATA)
13:00-13:15 EDT 17:00-17:15 UTC	**SYMPOSIUM CLOSE-OUT** **Mr. Stephen P. Creamer**, Director, Air Navigation Bureau, ICAO
	END OF DAY 5

03

SPEAKERS PROFILES



Click to download the full speakers list and bios

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04

SPONSORS & EXHIBITORS

Opening Spotlight Sponsor

ANRA TECHNOLOGIES

www.anratechnologies.com

ANRA Technologies was founded in 2015 and is a provider of end-to-end drone operations and traffic management software solutions for unmanned aircraft operators and airspace managers. ANRA offers intelligent and modular software capabilities as part of our SmartSkies™ family of solutions, enabling the creation of unmanned ecosystem for compliant, UAS Traffic Management (UTM) and Urban Air Mobility (UAM) and multi-modal operations. For organizations that need an enterprise-class drone operations solution we offer SmartSkies™ Mission Manager and for delivery solutions we offer SmartSkies™ DELIVERY.

Exhibitor

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Inmarsat is the world leader in global, mobile satellite communications. It owns and operates the world's most diverse global portfolio of mobile telecommunications satellite networks, and holds a multi-layered, global spectrum portfolio, covering L-band, Ka-band and S-band, enabling unparalleled breadth and diversity in the solutions it provides. Inmarsat's long-established global distribution network includes not only the world's leading channel partners but also its own strong direct retail capabilities, enabling end to end customer service assurance.

The company has an unrivalled track record of operating the world's most reliable global mobile satellite telecommunications networks, sustaining business and mission critical safety & operational applications for more than 40 years. It is also a major driving force behind technological innovation in mobile satellite communications, sustaining its leadership through a substantial investment and a powerful network of technology and manufacturing partners.

Inmarsat operates across a diversified portfolio of sectors with the financial resources to fund its business strategy and holds leading positions in the Maritime, Government, Aviation and Enterprise satcoms markets, operating consistently as a trusted, responsive and high-quality partner to its customers across the globe.

Exhibitor

NEDO

www.nedo.go.jp

New Energy and Industrial Technology Development Organization (NEDO), plays an important role in Japan›s economic and industrial policies as one of the largest public research and development management organizations. It has the two basic missions of addressing energy and global environmental problems and enhancing industrial technology. NEDO aims to encourage the development of drones and robots that can be used in sectors and fields such as logistics, infrastructure inspection, and disaster coping, while also running test flights and establishing systems in preparation for utilization of them in the society.

Exhibitor

ONESKY

www.onesky.xyz

OneSky is a global UTM company developing airspace assessment, operations and traffic management solutions for the aviation industry. Our goal is to harmonize our sky - ensuring safe, efficient, and scalable access to all airspace users. We take a robust and long-term approach to UTM, envisioning the challenges ahead as traffic management is unified for all operators. By working with all stakeholders - drone operators, drone manufacturers, and airspace authorities - we understand the unique challenges of this ecosystem and serve the critical needs of the community.

Skytalks sponsor

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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.
Thales offers integrated gate-to-gate solutions, from pre-flight to landing, ensuring airport safety, efficient traffic handling operations, data sharing on aircraft and seamless handover operations between territories.

Thales is trusted by key ATM decision makers across 180 nations, and helps key decision makers master complexity and make timely decisions for better outcomes.

Thales delivers efficient and innovative products and services, for better decisions and better results.

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VELARY
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"BORN OUT OF PASSION IT BECAME OUR MISSION"
VELARY is the next-generation aviation technology and engineering company established to solve today's most challenging problems and anticipate the needs of tomorrow.
Our hybrid-powered UAV and piloted VTOL solutions are designed for the most demanding environments.

"MAKING AN INCREASINGLY COMPLEX WORLD A BETTER AND A SAFER PLACE"
Meeting today's challenges with innovative technology is at the core of what we do. With our leading-edge UAV platforms, VELARY will transform how the world addresses some of the most pressing problems—from terrestrial and marine resource management to the future of passenger flight. We are creating smarter, safer, more sustainable solutions across public sector, commercial and consumer markets.

"SERVICES FROM THE SKY"
VELARY delivers innovative and sustainable solutions that will improve people's lives. Transforming the world with all levels of autonomous and pilot-augmented Public Safety, Industrial and Passenger services in sectors including:

- Forestry
- Emergency
- Industrial
- Marine
- Private
- Agricultural
- Wildlife Management
- Recreation

Our concepts and designs will revolutionise emergency services, protect shared resources and will measurably benefit our environment. We will transform the world by introducing environmentally friendly platforms with Artificial Intelligence technology-based solutions at an unparalleled scale across critical sectors... and with an unrivalled payload capacity.

"MAKING THE UNBELIEVABLE, BELIEVABLE"
Our journey began when the founders decided it was time to make flying a safer, more accessible and enjoyable way of travelling – why stop at travelling! when VELARY technology has the capacity to make the World safer.

"WE LIFT WHAT YOU NEED – WHEN YOU NEED IT"
Our platforms lift from 10kg to 1000Kg (22lbs to 2200lbs).
In a class of its own, VELARY allows as much time aloft as the mission requires without landing to charge batteries, refuel, or download data.
Depending on payload, our platforms can fly for up to 8 hours and offer unrivalled lift capacity.

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"LIKE NO ONE, BUT FOR EVERYONE"
Accessibility is essential. The only thing you need is the passion and willingness to take to the skies... VELARY takes care of the rest.

UPCOMING EVENTS

*Dates are subject to change

25 - 28 MAY 2021

ICAO Traveller Identification Programme Symposium 2021 (TRIP2021) and First Joint ICAO/INTERPOL Passenger Data Exchange Forum

31 AUGUST - 3 SEPTEMBER 2021

2021 ICAO Stocktaking on aviation in-sector CO_2 emissions reductions

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