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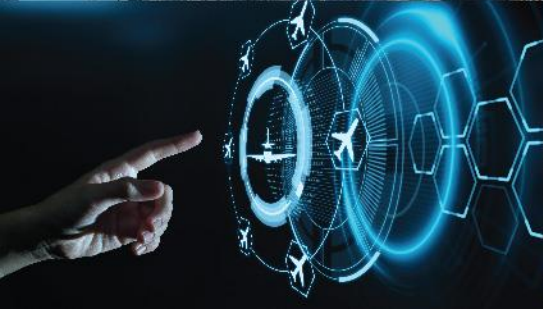
GLOBAL SYMPOSIUM ON THE IMPLEMENTATION OF **INNOVATION** **IN AVIATION**

08 - 11 DECEMBER 2020



ONLINE

Programme timing shown in Bangkok local time





01. PROGRAMME



Day 1 – Tuesday, 08 December 2020 (UTC +07:00 - APAC)

09:00 – 09:30

Welcome Remarks

Mr. Salvatore Sciacchitano,
President of the ICAO Council

Mr. François Legault,
Premier of Quebec

Dr. Fang Liu,
Secretary General of ICAO

09:30 – 10:00 // BREAK

10:00 – 11:30

Panel 1: “Green Innovation”

Building upon the success of the ICAO Stocktaking Seminar on aviation in-sector CO₂ emissions reductions, this panel will outline Innovations in Aviation that are driving environmental sustainability of the sector. The speakers from various areas will demonstrate ambitious projects and achievements, sharing their experience of paving the way for the implementation of innovations to decarbonize aviation. The panelists will discuss the latest innovations for Co2 emission s reduction in technology, operations and fuels, and the developments leading to a greener flying future.

Moderator:

Neil Dickson, Chief, Environmental Standards, ICAO

Presenters:

Alejandro Rios G, Khalifa University

Geoff Hounsell, VP Flight Operations Support Services and ATM, Emirates Airlines

James Wong, Professor and Director of eVTOL Research & Innovation Centre, NTU, Singapore

Jane Hupe, Deputy Director Environment, ICAO

Jeff Engler, Wright Electric

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Naveed Hussain, Vice President & General Manager, Boeing Research & Technology

Sam Bruce, Associate Director, CSIRO

11:30 – 12:00 // BREAK

12:00 – 13:30

Panel 2: “Training”

As standards setters, we must nurture innovation in all its forms. It is therefore key to identify new and emerging technological trends that will allow us to rapidly provide optimal aviation training solutions that meet the demands of our continuously evolving industry. This panel will identify popular emerging technologies influencing the way we train aviation professionals. From augmented, virtual and mixed reality, to simulation-based scenarios, virtual classrooms, and beyond, this panel will explore how the evolving technological landscape is impacting the way we train in today’s era of digitalization.

Moderator:

Wajahat Beg, Head of Overflights, Loon

Presenters:

Eun Byul Kim, Associate Professor, Incheon International Aviation Academy (IIAA)

Jason Radel, Chief Scientis, Imagine 4D

Ju Eun Lee, Digital Learning Design and Development Officer, ICAO

Melissa Rusanganwa, Regulatory Affairs & Aviation System Integration, Zipline

Rodney Subramany, Senior Manager Learning Development, ATNS

13:30 – 16:00 // BREAK

16:00 – 17:30

Panel 3: “Passenger Differentiation”

Interception of passengers with nefarious intent is fundamental in the field of aviation security. Practitioners need information, tools and capabilities to apply different security measures to passengers presenting variable levels of risk of engaging in an act of unlawful interference. Practitioners in the domain of facilitation are interested in similar capabilities, given that those passengers presenting little or no risk, both in the context

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of aviation security and border management, may be expedited through security and border checks. Differentiation of passengers, both from security and immigration risk perspectives, is thus a theme of common interest in aviation security and facilitation.

Passenger differentiation in this context increasingly involves application of new technologies for screening and identification and implementation of novel processes to stream passengers into different categories of interest. In this panel, speakers from industry will introduce some of the new technologies and tools that they have developed to support these efforts while practitioners will explain how they have implemented new approaches to passenger differentiation that are positively impacting both aviation security and facilitation.

Moderator:

Sonia Hifdi, AVSEC implementation and guidelines, Head of Unit, Direction Generale de l'Aviation Civile

Presenters:

Andy Smith, Global Lead, Government & Industry Relations Border Management & Government Services, SITA

Billy Shallow, Director of Innovation and Technology, ACI

Eugene Kramer, Head of Cybersecurity for Passenger, AVSEC and Borders, Heathrow Airport

Keri Phoenix, Manager of Innovative Travel Solutions, Vancouver Airport

Lynette DuJohn, Vice President, Innovation and Chief Technology Officer, Vancouver Airport

Raoul Cooper, VP Product, Zamna

Richard Dempers, Lead Design for IT and Technology, Heathrow Airport

Peter Sutcliffe, Strategy and Portfolio Director, SITA

Scott Dullard, Head of Aviation Operations, Security and Emergency, Melbourne Airport

17:30 – 18:00

Closing video

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End of day 1

Day 2 – Wednesday, 09 December 2020 (UTC +07:00 - APAC)

10:00 – 11:30

Panel 4: “Regional Panel on Digitization”

These panel sessions will discuss the various instances where States have adopted innovative solutions to enhance their aviation regulatory processes and governance. The panel will also discuss lessons learned from flexible work and meeting arrangements, and accelerated digitalization.

Moderator:

Blair Cowles, IATA Asia Pacific, Regional Director - Safety and Flight Operations

Presenters:

Mr. Zhang GuangFu, Director of the division of Legal Affairs, Department of Policy, Law and Regulations

Mr. Glot Sanalaksna, Manager of Personnel Licensing Department

Mr Dalen Tan, Director (Safety Policy & Planning)

Mr Owen Lange, Manager Design & Delivery
Manager International Relations

11:30 – 12:00// BREAK

12:00 – 12:30

**“SkyTalk presented by ACI World and IATA:
Discussing the impacts of COVID-19 on the NEXTT
vision”**



As a joint initiative of ACI and IATA, NEXTT (New Experience Travel Technologies) creates a shared vision for the future of travel. The COVID-19 pandemic and its impacts on travel, passenger confidence and airport operations further confirmed the validity of and the need for the concepts of NEXTT. The three emerging themes remain highly

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relevant and demonstrated an even greater focus on the need for flexibility, efficiency and resilience.

This SkyTalk looks at how NEXTT addresses the challenges brought by the COVID-19 crisis, and how some of the technologies and process changes contribute to the mitigation of health risks. Our speakers discuss the importance of remote and off-airport activities, touchless processing, design flexibility and many other essential areas in the immediate future of travel.

12:30 – 13:30// BREAK

13:30 – 14:00	“SkyTalk presented by Thales: How an Efficient ATFM System Can Support Aviation Recovery”	THALES
	<p>Anaëlle Le Mentec, Digital Aviation Strategy Manager illustrates why Cloud technology is very well suited to answer the brutal slowdown of aviation which has changed the challenges faced by ANSPs.</p>	

14:00 – 14:30// BREAK

14:30 – 15:30	<p>COVID SESSION # 1: “Current Innovations”</p> <p>The COVID-19 pandemic has had enormous negative impacts on the aviation industry. The number of seats offered by commercial airlines has halved through 2020 compared to previous years while gross operating revenues for airlines are anticipated to have fallen almost 400M USD by the end of the year. While survival has been the fundamental objective for many in the industry, the community has also identified the current circumstance as an opportunity for positive change. In these times of flux, new operational models or approaches can be more easily trialed. While some innovations might seek to deal directly with COVID-related challenges, others entail examination of more general improvements. For individual parties, innovation can provide for competitive differentiation. For the community as a whole, meanwhile, innovation as a means to build back better should provide for more sustainable growth of the aviation industry as the pandemic subsides.</p> <p>In two sessions convened across the Symposium, we will hear from industry, academia and innovation leaders in States who have taken the opportunity presented to seek innovative change as a means to facilitate travel. In the first session, the focus will be on those innovations already implemented as direct responses to the challenges of COVID. Speakers in the second session will consider work that, albeit motivated or stimulated by the pandemic, intends to have lasting positive impacts on aviation going</p>
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forward. Throughout, the importance of innovation as a means to respond to the inevitable challenges of a volatile and unpredictable world will be very clear.

Moderator:

Dr. Med Christian Panait, Medical Expert Aircrew & Medical Department European Union Aviation Safety Agency

Presenters:

Shashank Nigam, Simplifying/Travisory

Klaus Wagner, Deutsches Zentrum für Luft- und Raumfahrt (DLR) e.V

Matthew Pedler, Assistant Secretary, Aviation Security

15:30– 16:00 // BREAK



16:00 – 17:30

Panel 6: “Artificial Intelligence in Aviation”

This panel will showcase various advancements related to the use of Artificial Intelligence in aviation. The panel will focus on the maturity of the concepts and the ability for them to address current short comings

Moderator:

Christian Schleifer, Secretary General at EUROCAE Association and CEO at EUROCAE Communication

Presenters:

Beatrice Pesquet-Popescu, Research and Innovation Director, Thales

Edward Xu, Chief Strategy Officer, EHang

Jean Marc Cluzeau, Principal Advisor to the Executive Director, EASA

Paul Bosman, Head of ATM Infrastructure Division, Eurocontrol

Romarc Redon, Artificial Intelligence and computing roadmap leader, Airbus

17:30 – 20:00 // BREAK



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20:00 – 21:30

Panel 7: “Higher Airspace Operations”

This panel will further the discussion around operations that are taking place well above most of the traditional traffic.

Moderator:

Silas Udahemuka, Director General of Rwanda

Presenters:

David Hansell, Global Head of Aviation Regulation and Policy, Loon

Dragos Tonea, Chariman of the ICAO ATM Operations Panel, Eurocontrol

Henk Hof, Head of ICAO and Concept Unit, Eurocontrol

Marc Vales, Senior VP Space Programs, Dassault

Paulo Vila, Civil Aviation Inspector, DGAC Peru

Steve Bradford, Chief Scientist for Architecture and NextGen Development, FAA

End of day 2

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Day 3 – Thursday, 10 December 2020 (UTC +07:00 - APAC)

10:00 – 11:30

Panel 5: “Economic Aspects of Innovation in Aviation”

How are new technologies and solutions affecting the sensitive economy of the aviation industry? Is there a direct link between resources available and the ability to innovate? What is the ROI of innovation in different fields of aviation and how can it be measured? When assessing the value of innovation for aviation, how can we account for short- and/or long-term business and commercial potential as well as associated risks?

Join us in this panel entitled “Economic aspects of Innovation in Aviation” to hear aviation professionals discuss and share experiences of introducing innovation into their respective fields of expertise.

Moderator:

Julie Zabrodska, Associate Aviation Officer, Economic Development, ICAO

Presenters:

Susan Roberts, Chief Executive Officer, The 1182 Group

Jay Merkle, Executive Director, UAS Integration Office, FAA

Mark Hansen, Professor, UC Berkeley

Sanjeev Gadhia, Chief Executive Officer, Astral Air / Vice Chairman, TIACA

Todd Siena, Chief Executive Officer, Block Aero Technologies

Shinji Nakadai, Principal Researcher, NEC Corporations

11:30 – 12:00 // BREAK

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12:00 – 13:30

Panel 8: “Planning for Innovation”

The powerful socio-economic driver represented by the aviation industry is facing a variety of challenges. The COVID-19 pandemic highlighted the need for innovation as a vector to improve the resilience of the aviation system. Furthermore, new demands, emerging technologies, innovative ways of doing business and the shifting human role are bringing not only challenges but also opportunities that call for an urgent

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transformation of the global air navigation system so that aviation can continue to boost social well-being worldwide.

Moderator:

Steve Bradford, Chief Scientist for Architecture and NextGen Development, FAA

Presenters:

Amornrat Jirattigalachote, Strategic Planning Manager, Aeronautical Radio of Thailand Ltd

Chin Lin, Chief ATC Specialist, Civil Aviation Authority of Singapore

Swaminathan Subramanian, General Manager Air Traffic Services, Airports Authority of India

Tai Feng, Air navigation commissioner, ICAO

Prashant Sanglikar, Assistant Director, Safety and Flight Operations, IATA

Mike Haines, Managing Director, Mike Haines Aviation

Riley Downing, FAA Representative for Southeast Asia

13:30 - 14:30 // BREAK

14:30 – 15:30 COVID SESSION # 2: “Future Possibilities”

The COVID-19 pandemic has had enormous negative impacts on the aviation industry. The number of seats offered by commercial airlines has halved through 2020 compared to previous years while gross operating revenues for airlines are anticipated to have fallen almost 400M USD by the end of the year. While survival has been the fundamental objective for many in the industry, the community has also identified the current circumstance as an opportunity for positive change. In these times of flux, new operational models or approaches can be more easily trialed. While some innovations might seek to deal directly with COVID-related challenges, others entail examination of more general improvements. For individual parties, innovation can provide for competitive differentiation. For the community as a whole, meanwhile, innovation as a means to build back better should provide for more sustainable growth of the aviation industry as the pandemic subsides.

In two sessions convened across the Symposium, we will hear from industry, academia and innovation leaders in States who have taken the opportunity presented to seek

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innovative change as a means to facilitate travel. In the first session, the focus will be on those innovations already implemented as direct responses to the challenges of COVID. Speakers in the second session will consider work that, albeit motivated or stimulated by the pandemic, intends to have lasting positive impacts on aviation going forward. Throughout, the importance of innovation as a means to respond to the inevitable challenges of a volatile and unpredictable world will be very clear.

Moderator:

Dr. Med Christian Panait, Medical Expert, Aircrew & Medical Department, European Union Aviation Safety Agency

Presenters:

Natalia Bayona, Director of Innovation, Education and Investments, UN World Tourism Organization

Christoph Wolff, Head of Mobility Industries and System Initiative, World Economic Forum

Jennifer Zhu Scott, Executive Chairman, The Commons Project

Uwe Seidel, Chairperson, ICAO New Technologies Working Group

15:30– 16:00 // BREAK



16:00 – 17:30

Panel 9: “New Digital Era of Aviation: The Path Forward for Airspace and Traffic Management”

The aerospace industry is moving incredibly quickly with innovations in aircraft types, sizes, and flight capabilities. The introduction of these new vehicles is no longer a question of if they will arrive, but when. In order to support this growth and innovation in respect to emerging aviation sectors, a modernized and scalable approach to air traffic management is needed. It will be a phased journey, which requires coordination with all stakeholders.

Airbus and Boeing have a longstanding role at the heart of driving progress in international aviation. With the underlying commitment to safety, they share a common vision: a future airspace where new and existing users safely operate within a single airspace system. This system will enable the secure and efficient delivery of new

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aviation services to the entire community, while ensuring long term sustainable growth in the air transportation sector.

Please join ICCAIA in this panel discussion on the new digital era of aviation: The Path Forward for Airspace and Traffic management.

Moderator:

Mitchell Fox, Senior Director, ICCAIA

Presenters:

Arnaud Coville, Chief Technical Officer, Volocopter GmbH

Bob Lee, Principal Aviation Engineer at LS Technologies, LLC

Carlos Cirilo, Director ATM Infrastructure, IATA

Claude Pichavant, Executive Expert Communication, Navigation, Surveillance at Airbus

Isabel del Pozo, VP Head of UTM, Airbus

Jörn Jaeger, Airspace Integration (ATM/UTM) and Infrastructure, Volocopter GmbH

Laurent Renou, Head of Air Transport Innovation, EUROCONTROL

Mildred Troegeler, Director Global Regulatory Strategy, Boeing

Munish Khurana, Senior Manager - ATM/UTM Business Development, EUROCONTROL

Parimal Kopardekar, Director of NASA Aeronautics Research Institute (NARI)

Reinaldo Negrón, Head of UTM, Wing

Simon Hocquard, Director General, CANSO

End of day 3

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Day 4 – Friday, 11 December 2020 (UTC +07:00 - APAC)

Panel 10: “Regional Panel on Innovation” (APAC)

These panel sessions will discuss regional aspects of the implementation of innovations.

Moderator:

SL Wong, ACI Asia-Pacific, Head - Technical Affairs, Safety, Capacity and ATM

Presenters:

10:00 – 11:30

Ong Chun Yang, Deputy Director, CAA Singapore

Kyung Shin, Deputy Director for Advanced Aviation Division, ROK / KOCA

Sharon Cooke, CEO, Airways NZ

Chapman Fong, Airport Authority Hong Kong General Manager, Airfield

Futri Stella Arisafitri, Head of License and Rating of Air Navigation Personnel section, Directorate of Air Navigation

11:30 – 16:00 // BREAK

16:00 – 17:30

CLOSING HIGH LEVEL DISCUSSION

Discussion at the end of the proceedings of the Global Symposium on the Implementation of Innovation in Aviation that will focus on two areas: What role ICAO can play to help implementation of innovation in aviation and what innovations hold the most promise for aviation.

Moderator:

Arun Mishra, APAC Regional Director, ICAO

Presenters:

Captain Chester Voo, CEO CAA Malaysia

Air Vice Marshal Mr. Mafidur Rahman, Chairman CAAB

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Mr. Tinnagorn Choowong, Aerothai Executive Vice President (Operations)

17:30 – 18:30 // BREAK

18:30 – 20:00 Panel 11: “iPacks”

ICAO’s Implementation Packages (iPacks) are a bundle of standardized guidance material, training, tools and expert support. They have been introduced to facilitate and guide the implementation of ICAO provisions for State entities, aviation service providers, supply chain stakeholders and their personnel.

Join us in this interactive session to learn more about available iPacks, their components as well as their benefits. Participants will have the opportunity to engage in an “iPACK Builder” exercise to understand how iPacks are built in order to fulfil the immediate and longer term needs of the aviation industry.

Presenters:

Mekki Lahlou, iPack Project Team Member, Technical Cooperation Bureau, ICAO

Dunia Abboud, Associate Analysis Officer, Air Navigation Bureau, ICAO

Marco Merens, Acting Chief Programmes Coordination and Implementation, ICAO

End of day 4

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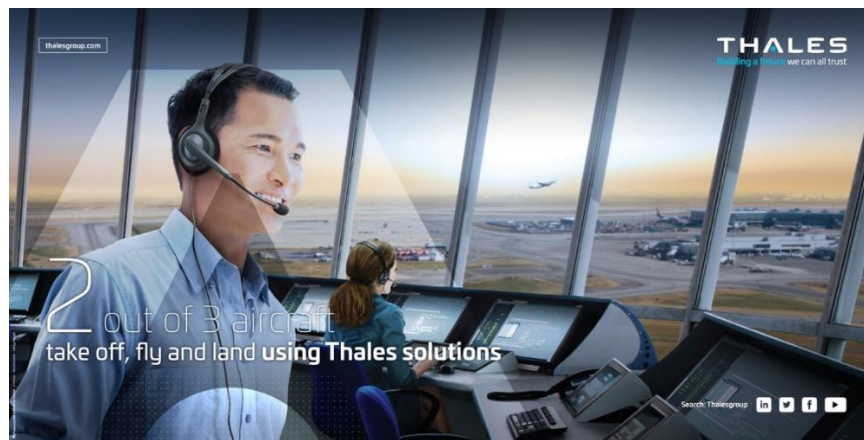
2 out of 3 aircraft
take off, fly and land using **Thales** solutions

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Thales is the world leader in air traffic management 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 170 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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Mrs. Karina Groux
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Aerial Delivery and Safe Skies.

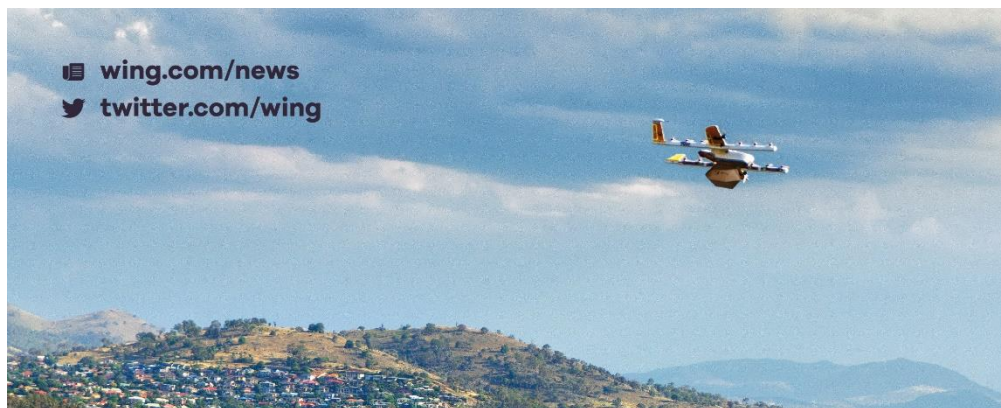
Wing, a subsidiary of Alphabet, has built a fleet of highly-autonomous, lightweight delivery drones that can transport small packages directly to homes in minutes. To further those efforts, Wing has also developed services for Unmanned Traffic Management (UTM); a map of the sky so drones can fly safely with each other and manned aircraft. Wing has conducted tens of thousands of deliveries to customer's homes across three continents. We believe drone delivery will improve the way our cities open for local businesses.



→ To stay informed, please visit blog.wing.com



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Wing Aviation LLC
wing.com



Mrs. Nichole Schone
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The International Coordinating Council of Aerospace Industries Associations (ICCAIA)

ICCAIA is the international organization representing the aerospace manufacturing community. It brings together the individual national and regional associations of the USA (AIA), Europe (ASD), Canada (AIAC), Brazil (AIAB), Japan (SJAC) and the Russian Federation (UAI) under one umbrella, representing manufacturers at ICAO and on the international stage. Our members represent companies at the leading edge of all aspects of global aerospace technology; technology that continues to bring not only substantial reductions in CO₂ and engine emissions but also in noise levels and who's products ensure the safe transportation of millions of people and thousands of tonnes of cargo daily.



ICCAIA
www.iccaia.org



Mr. Daniel Carnelly
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Adacel

Established in 1987, Adacel is a publicly traded company that plays a significant role in global air space safety. A world-leader in its industry, Adacel applies cutting-edge technologies to develop advanced air traffic control simulation and training systems and state-of-the-art air traffic management solutions. Approximately 80% of the world's non-radar-controlled airspace - or about 21% of the total global airspace - is managed with Adacel's Aurora ATM software. On the ATC side, with its MaxSim ATC simulation and training system, the company has deployed more air traffic control tower simulators in more locations around the world than any other ATC simulator provider.



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Ms. Aliona Groh
agroh@adacel.com



Nuctech Company Limited

Nuctech Company Limited, derived from Tsinghua University and founded in 1997, is an advanced security & inspection solution and service supplier in the world. Relying on independent innovation and following the customers' demands, Nuctech provides the most advanced technology, superb products and integrated solutions in the security inspection industry to our customers from more than 150 countries and areas in the globe.

Covering Civil Aviation, Customs, Railway, Highway, Urban Railway, Logistics, Judiciary, Big Events and other security areas, Nuctech helps our customers in keeping homeland security and people safe, which earns us great reputation.



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Mrs. Amy Huang
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control training,
simulation, and
management
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Adacel is the company of choice for Air Navigation Service Providers (ANSPs) worldwide with oceanic, en route, approach and tower airspace environments. More than 21% of the world's airspace is controlled with Adacel's Aurora air traffic management technology.

Adacel's ATC solution incorporates MaxSim – an industry-leading air traffic control training and simulation system used for controller training around the globe. In fact, Adacel has deployed more air traffic control tower simulators in more locations around the world than any other ATC simulator provider.

We look forward to welcoming you to our Adacel family.

**Contact us to learn more:
info@adacel.com**