



DRONE ENABLE

ICAO's Unmanned Aircraft Systems (UAS) Industry Symposium

ICAO Headquarters, Montréal, Canada

22 – 23 September 2017

DAY 1 – Friday, 22 September 2017

Plenary Session – Assembly Hall

09:00 – 09:10	<p>Welcome Remarks <i>Dr. Fang Liu, Secretary General, ICAO</i></p>
09:10 – 10:10	<p>Keynote Speeches <i>Mr. Stephen Creamer, Director, ICAO Air Navigation Bureau</i> <i>Mr. Gilberto Lopez Meyer, Senior Vice President, Safety & Flight Operations, IATA</i> <i>Mr. Brian Wynne, President and CEO, AUVSI</i> <i>Mr. Timothy Reuter, Head of Civil Drones Project, World Economic Forum</i></p>
10:10 – 10:30	<p>ICAO's strategy for addressing unmanned aviation – RPAS and UAS Two approaches / two streams of work</p> <p>This session will provide an overview of the work underway at ICAO on a full regulatory framework for RPAS and the new approach to support global harmonization of UAS provisions in a domestic environment.</p> <p><i>Ms. Leslie Cary, RPAS Programme Manager, ICAO Air Navigation Bureau</i></p>
10:30 – 11:00	<p><i>Coffee Break – Sponsored by:</i> Exhibitions and Flight Demonstrations</p>
11:00 – 12:45	<p>UTM – A common framework with core boundaries for global harmonization</p> <p>This session will provide an opportunity to showcase several submissions from experts that describe a common framework for UTM that could be implemented by all States. The objective is to create a structure that will focus research and development activities going forward.</p> <p>Moderators: <i>Mr. Aaron McCrorie, Director General, Aviation Safety Regulatory Framework, Transport Canada</i> <i>Mr. Parimal Kopardekar, NASA Senior Technologist for Air Transportation, Autonomy Expert, NASA Ames Research Center</i></p> <p>Presentations <i>Mr. Ben Tally, Co-founder and CIO, GeoNetwork</i> <i>Dr. Kin Huat, Principal Investigator, Air Traffic Management Research Institute (ATMRI)</i> <i>Mr. Alessandro Cardi, Deputy Director, Ente Nazionale per l'Aviazione Civile (ENAC)</i> <i>Mr. Gur Kimchi, Vice President, Amazon Prime Air</i></p> <p>Discussion</p>
12:45 - 13:00	<p>Lunch Sponsor</p>



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13:00 - 14:30	<p style="text-align: center;"><i>Lunch – Sponsored by:</i></p> <p style="text-align: center;"><i>Exhibitions and Flight Demonstrations</i></p>
DAY 1 – Friday, 22 September 2017	
Plenary Session - Assembly Hall	
14:30 – 16:30	<p>UTM – A common framework with core boundaries for global harmonization – Continued</p> <p>This session will provide an opportunity to showcase several submissions from experts that describe a common framework for UTM that could be implemented by all States. The objective is to create a structure that will focus research and development activities going forward.</p> <p>Moderators: <i>Mr. Aaron McCrorie, Director General, Aviation Safety Regulatory Framework, Transport Canada</i> <i>Mr. Parimal Kopardekar, NASA Senior Technologist for Air Transportation, Autonomy Expert, NASA Ames Research Center</i></p> <p>Presentations <i>Ms. Victoria Lu, xxxx, The Boeing Company</i> <i>Mr. Christian Ramsey, Vice President of Business Development, uAvionix</i> <i>Mr. Marcello Davide Mannino, Ingegneria Dei Sistemi (IDS)</i></p> <p>Discussion</p>
16:30 – 17:00	<p style="text-align: center;"><i>Coffee Break – Sponsored by:</i></p> <p style="text-align: center;"><i>Exhibitions and Flight Demonstrations</i></p>
Plenary Session - Assembly Hall	
17:00 – 17:45	<p>Background</p> <p>Presentations <i>Mr. Parimal Kopardekar, Principle Technologist, NASA Ames Research Center, United States</i> <i>Mr. Nikolai Vassiliev, Chief, Terrestrial Services Department, International Telecommunication Union (ITU)</i></p>
17:45 – 19:00	<p style="text-align: center;"><i>Welcome Reception – Hosted by:</i></p>
End of Day 1	



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DAY 2 – Saturday, 23 September 2017

	Stream A (Assembly Hall, 1)	Stream B (Assembly Hall, 2)	Stream C (Conference room 3, 1st floor)
09:00 – 10:30	<p>UTM – Registration, identification and tracking</p> <p>UTM relies on data about the aircraft operating within its system. The data is obtained through a registration system and permits real-time identification and tracking of aircraft.</p> <p>Moderator: Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic & Radio Management Consortium (JUTM)</p> <p>Presentations Mr. Jon Resnick, Policy Lead, DJI Mr. Sebastian Babiarz, Head of Strategic Business Development, AirMap Mr. Ken Stewart, Principal Product Manager, AIROS Mr. George Elmasry, Principal Engineer, Rockwell Collins Discussion</p>	<p>UTM – Communications systems</p> <p>UTM requires communications systems for the exchange of data, including for control purposes and broadcasting of position. This session will showcase potential solutions for communications system(s) that may have global applicability.</p> <p>Moderator: Captain Denis Guindon, Director General, Aviation Oversight and Transformation, Transport Canada</p> <p>Presentations Ms. Laura Ponto, Head of Public Policy and Regulatory Affairs, Project Wing, Google X Mr. Joaquin Moreno Molina, Business Development Officer, Embention Mr. Craig Marcinkowski, Director, Strategy & Business Development, Gryphon Sensors Mr. Terrence Martin, Associate Professor, Queensland University of Technology Discussion</p>	<p>UTM – Geofencing-like systems</p> <p>Geofencing is one potential solution for keeping UA from entering danger, restricted or sensitive airspace. This session will showcase potential geofencing-like systems that may have global applicability.</p> <p>Moderator: TBC</p> <p>Presentations Mr. Aaron Pierce, CEO, Pierce Aerospace Mr. Jean-Guy Blete, Products Policy and Technical Strategy Director, Thales Avionics Ms. Kelly Hayhurst, Senior Research Scientist, NASA Langley Research Center Mr. Olivier Rea, ATM Business Line, France Discussion</p>
10:30 – 11:00	<p>Coffee Break – Sponsored by:</p> <p>Exhibitions and Flight Demonstrations</p>		



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<p>11:00 – 12:30</p>	<p>UTM – Registration, identification and tracking</p> <p>UTM relies on data about the aircraft operating within its system. The data is obtained through a registration system and permits real-time identification and tracking of aircraft. This session will showcase potential registration systems that may have global applicability.</p> <p>Moderator: Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic & Radio Management Consortium (JUTM)</p> <p><u>Presentations</u> Mr. Amit Ganjoo, CEO, ANRA Technologies Mr. Jonathon Evans, President Global UTM Association (GUTMA) Mr. Christopher T. Kucera, Director, Air Operations, Analytical Graphics, Inc. (AGI) Mr. Olivier Rea, ATM Business Line, France</p> <p><u>Discussion</u></p>	<p>UTM – Communications systems</p> <p>UTM requires communications systems for the exchange of data, including for control purposes and broadcasting of position. This session will showcase potential solutions for communications system(s) that may have global applicability.</p> <p>Moderator: Captain Denis Guindon, Director General, Aviation Oversight and Transformation, Transport Canada</p> <p><u>Presentations</u> Mr. Jon Resnick, Policy Lead, DJI Mr. Evan Dill, NASA Langley Research Center Ms. Allison Ferguson, Director, Airspace Research, Precision Hawk Mr. Markus Klopff, Strategic Marketing Manager, FREQUENTIS AG</p> <p><u>Discussion</u></p>	<p>UTM – Geofencing-like systems</p> <p>Geofencing is one potential solution for keeping UA from entering danger, restricted or sensitive airspace. This session will showcase potential geofencing-like systems that may have global applicability.</p> <p>Moderator: TBC</p> <p><u>Presentations</u> Mr. Sebastian Babiarz, Head of Strategic Business Development, AirMap Dr. Aaron McFadyen, Accelerate Research Fellow, Queensland University of Technology Mr. Joaquin Moreno Molina, Business Development Officer, Embention Mr. George Elmasry, Principal Engineer, Rockwell Collins</p> <p><u>Discussion</u></p>
<p>12:30 – 12:45</p>	<p>Lunch Sponsor</p>		
<p>12:45 – 14:00</p>	<p>Lunch – Sponsored by:</p> <p>Exhibitions and Flight Demonstrations</p>		
<p>Plenary Session – Assembly Hall</p>			
<p>14:00 – 14:30</p>	<p>ICAO Registration System</p>		



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	<p>The ICAO registration system which is under development will be explained, its purpose, intended functionality and interaction with national registration systems.</p> <p>Ms. Sam Brand, <i>Chief, Revenue and Production, ICAO</i></p>
<p>14:30 – 15:30</p>	<p>Wrap up and Next steps</p> <p>Looking back at the many presentations and related discussions, what are the key points that garnered support? Can we begin to define the general framework for UTM? How do we take the information we have received and translate it into the first steps of a global implementation plan?</p> <p>Moderator: Stephen P. Creamer, <i>Director, ICAO Air Navigation Bureau</i></p> <p>Panel discussion</p> <p>Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic & Radio Management Consortium (JUTM)</p> <p>Captain Denis Guindon, Director General, Aviation Oversight and Transformation, Transport Canada TBC AUVSI - TBC</p> <p>Mr. Yves Morier, <i>Chairman, Joint Authorities on Rule-making for Unmanned Systems (JARUS)</i></p> <p>Mr. Doug Davis, <i>Chairman of Unmanned Aircraft Systems Advisory Group (UAS-AG)</i></p>
<p>End of Symposium</p>	