DAY 1 – Friday, 22 September 2017

Plenary Session – Assembly Hall

09:00 – 09:10
Welcome Remarks
Dr. Fang Liu, Secretary General, ICAO

09:10 – 10:10
Keynote Speeches
Mr. Stephen Creamer, Director, ICAO Air Navigation Bureau
Mr. Gilberto Lopez Meyer, Senior Vice President, Safety & Flight Operations, IATA
Mr. Brian Wynne, President and CEO, AUVSI
Mr. Timothy Reuter, Head of Civil Drones Project, World Economic Forum

10:10 – 10:30
ICAO’s strategy for addressing unmanned aviation – RPAS and UAS
Two approaches / two streams of work
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.
Ms. Leslie Cary, RPAS Programme Manager, ICAO Air Navigation Bureau

10:30 – 11:00
Coffee Break – Sponsored by: Exhibitions

11:00 – 12:45
UTM – A common framework with core boundaries for global harmonization
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.

Moderators: Mr. Aaron McCrorie, Director General, Aviation Safety Regulatory Framework, Transport Canada
Mr. Parimal Kopardekar, NASA Senior Technologist for Air Transportation, Autonomy Expert, NASA Ames Research Center

Presentations
Mr. Ben Tally, Co-founder and CIO, GeoNetwork
Dr. Kin Huat, Principal Investigator, Air Traffic Management Research Institute (ATMRI)
Mr. Alessandro Cardi, Deputy Director, Ente Nazionale per l’Aviazione Civile (ENAC)
Mr. Gur Kimchi, Vice President, Amazon Prime Air

Discussion
### DAY 1 – Friday, 22 September 2017

**Plenary Session - Assembly Hall**

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<tr>
<td>12:45 - 13:00</td>
<td>Thales – Lunch Sponsor</td>
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<td>13:00 - 14:30</td>
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#### UTM – A common framework with core boundaries for global harmonization – Continued

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.

**Moderators:** Mr. Aaron McCrorie, Director General, Aviation Safety Regulatory Framework, Transport Canada  
Mr. Parimal Kopardekar, NASA Senior Technologist for Air Transportation, Autonomy Expert, NASA Ames Research Center

**Presentations**
- Ms. Victoria Lu, xxxx, The Boeing Company  
- Mr. Christian Ramsey, Vice President of Business Development, uAvionix  
- Mr. Marcello Davide Mannino, Ingegneria Dei Sistemi (IDS)

**Discussion**

16:30 – 17:00  
Coffee Break – Sponsored by:  
Exhibitions

#### Background Presentations

17:00 – 17:45  
- **Presentations**
  - Mr. Parimal Kopardekar, Principle Technologist, NASA Ames Research Center, United States  
  - Mr. Nikolai Vassiliev, Chief, Terrestrial Services Department, International Telecommunication Union (ITU)

**Welcome Reception** – Hosted by:

### DAY 2 – Saturday, 23 September 2017

**End of Day 1**
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<th>Stream A</th>
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<tr>
<td>(Assembly Hall, 1)</td>
<td>(Assembly Hall, 2)</td>
<td>(Conference room 3, 1st floor)</td>
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<tr>
<td><strong>UTM – Registration, identification and tracking</strong></td>
<td><strong>UTM – Communications systems</strong></td>
<td><strong>UTM – Geofencing-like systems</strong></td>
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<tr>
<td>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.</td>
<td>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.</td>
<td>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.</td>
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<tr>
<td><strong>Moderator:</strong> Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic &amp; Radio Management Consortium (JUTM)</td>
<td><strong>Moderator:</strong> Captain Denis Guindon, Director General, Aviation Oversight and Transformation, Transport Canada</td>
<td><strong>Moderator:</strong> Ms. Tracy Lamb, Global RPAS Safety Manager SGS HART Aviation</td>
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<td><strong>Presentations</strong></td>
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<tr>
<td>Mr. Jon Resnick, Policy Lead, DJI</td>
<td>Ms. Laura Ponto, Head of Public Policy and Regulatory Affairs, Project Wing, Google X</td>
<td>Mr. Aaron Pierce, CEO, Pierce Aerospace</td>
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<tr>
<td>Mr. Jared Ablon, AirMap Chief Information Security Officer AirMap</td>
<td>Mr. Embention (Spain)</td>
<td>Mr. Jean-Guy Blete Products Policy and Technical Strategy Director, Thales Avionics</td>
</tr>
<tr>
<td>Mr. Ken Stewart, Principal Product Manager, AIROS</td>
<td>Mr. David Benavente, Founder/CEO, Embention</td>
<td>Ms. Kelly Hayhurst, Senior Research Scientist, NASA Langley Research Center</td>
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<tr>
<td>Mr. George Elmasry, Principal Engineer, Rockwell Collins</td>
<td>Mr. Craig Marcinkowski, Director, Strategy &amp; Business Development, Gryphon Sensors</td>
<td>Mr. Olivier Rea, ATM Business Line, France</td>
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<tr>
<td><strong>Discussion</strong></td>
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**09:00 – 10:30**

**Coffee Break – Sponsored by:**

**Exhibitions**
## UTM – Registration, identification and tracking

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.

**Moderator:** Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic & Radio Management Consortium (JUTM)

**Presentations**
- 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 Réa, ATM Business Line, France

**Discussion**

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## UTM – Communications systems

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.

**Moderator:** Captain Denis Guindon, Director General, Aviation Oversight and Transformation, Transport Canada

**Presentations**
- Mr. Jon Resnick, Policy Lead, DJI
- Mr. Evan Dill, NASA Langley Research Center
- Ms. Allison Ferguson, Director, Airspace Research, Precision Hawk
- Mr. Markus Klopf, Strategic Marketing Manager, FREQUENTIS AG

**Discussion**

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## UTM – Geofencing-like systems

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.

**Moderator:** Ms. Tracy Lamb, Global RPAS Safety Manager SGS HART Aviation

**Presentations**
- Mr. Sebastian Babiarz, Head of Strategic Business Development, AirMap
- Dr. Aaron McFadyen, Accelerate Research Fellow, Queensland University of Technology
- Mr. David Benavente, Founder/CEO, Embention
- Mr. George Elmasry, Principal Engineer, Rockwell Collins

**Discussion**

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### Lunch Sponsor

**Lunch – Sponsored by:**

*Exhibitions and Flight Demonstrations*

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### Plenary Session – Assembly Hall

**14:00 – 14:30**

ICAO Registration System
The ICAO registration system which is under development will be explained, its purpose, intended functionality and interaction with national registration systems.

Ms. Sam Brand, Chief, Revenue and Production, ICAO

<table>
<thead>
<tr>
<th>14:30 – 15:30</th>
<th><strong>Wrap up and Next steps</strong></th>
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<tbody>
<tr>
<td></td>
<td>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?</td>
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<td>AUVSI - TBC</td>
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<td></td>
<td>Mr. Yves Morier, Chairman, Joint Authorities on Rule-making for Unmanned Systems (JARUS)</td>
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<td></td>
<td>Mr. Doug Davis, Chairman of Unmanned Aircraft Systems Advisory Group (UAS-AG)</td>
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End of Symposium