**Welcome Remarks**
Dr. Fang Liu, Secretary General, ICAO

**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

**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

**Coffee Break – Sponsored by:**
Exhibitions

**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. Low 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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:45 - 13:00</td>
<td>Thales – Lunch Sponsor</td>
</tr>
<tr>
<td>13:00 - 14:30</td>
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</tbody>
</table>

### 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**
- Mr. Lawrence Ley, Portfolio Manager, 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

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:**

### End of Day 1

**End of Day 1**
# DRONE ENABLE

**ICAO’s Unmanned Aircraft Systems (UAS) Industry Symposium**

ICAO Headquarters, Montréal, Canada

22 – 23 September 2017

<table>
<thead>
<tr>
<th>Stream A</th>
<th>Stream B</th>
<th>Stream C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Assembly Hall, 1)</strong></td>
<td><strong>(Assembly Hall, 2)</strong></td>
<td><strong>(Conference room 3, 1st floor)</strong></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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</table>

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.

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

**Presentations**
- Mr. Jon Resnick, Policy Lead, DJI
- Mr. Jared Ablon, Chief Information Security Officer, AirMap
- Mr. Ken Stewart, Principal Product Manager, AIROS
- Mr. George Elmasry, Principal Engineer, Rockwell Collins

**Discussion**

09:00 – 10:30

| **UTM – Communications systems** | **UTM – Geofencing-like 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**
- Ms. Laura Ponto, Head of Public Policy and Regulatory Affairs, Project Wing, Google X
- Mr. David Benavente, Founder/CEO, Embention
- Mr. Craig Marcinkowski, Director, Strategy & Business Development, Gryphon Sensors
- Mr. Terrence Martin, Associate Professor, Queensland University of Technology

**Discussion**

10:30 – 11:00

**Coffee Break – Sponsored by:**

**Exhibitions**
<table>
<thead>
<tr>
<th>11:00 – 12:30</th>
<th>UTM – Registration, identification and tracking</th>
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<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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<td><strong>Moderator:</strong> Ms. Tracy Lamb, Global RPAS Safety Manager SGS HART Aviation</td>
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<td>Mr. Jonathon Evans, President Global UTM Association (GUTMA)</td>
<td>Mr. Evan Dill, NASA Langley Research Center</td>
<td>Dr. Aaron McFadyen, Accelerate Research Fellow, Queensland University of Technology</td>
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<td>Mr. Christopher T. Kucera, Director, Air Operations, Analytical Graphics, Inc. (AGI)</td>
<td>Ms. Allison Ferguson, Director, Airspace Research, Precision Hawk</td>
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<td>Mr. Olivier Rea, Head of UTM Solutions (Thales) representing French Civil Drones Council</td>
<td>Mr. Markus Klopf, Strategic Marketing Manager, FREQUENTIS AG</td>
<td>Mr. George Elmasry, Principal Engineer, Rockwell Collins</td>
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<th>12:30 – 12:45</th>
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| 12:45 – 14:00 | | Exhibitions and Flight Demonstrations |

| 14:00 – 14:30 | ICAO Registration System |

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11:00 – 12:30

**UTM – Registration, identification and tracking**

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

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**Discussion**

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12:30 – 12:45

**Lunch Sponsor**

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12:45 – 14:00

**Exhibitions and Flight Demonstrations**

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14:00 – 14:30

**ICAO Registration System**
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<tr>
<td>14:30 – 15:30</td>
<td><strong>Wrap up and Next steps</strong></td>
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<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></td>
<td>Mr. Yves Morier, <em>Chairman, Joint Authorities on Rule-making for Unmanned Systems (JARUS)</em></td>
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<td></td>
<td>Mr. Doug Davis, <em>Chairman of Unmanned Aircraft Systems Advisory Group (UAS-AG)</em></td>
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*End of Symposium*