



Second Global  
**Remotely Piloted Aircraft Systems  
Symposium (RPAS2017)**

Licensing, training and operator responsibilities

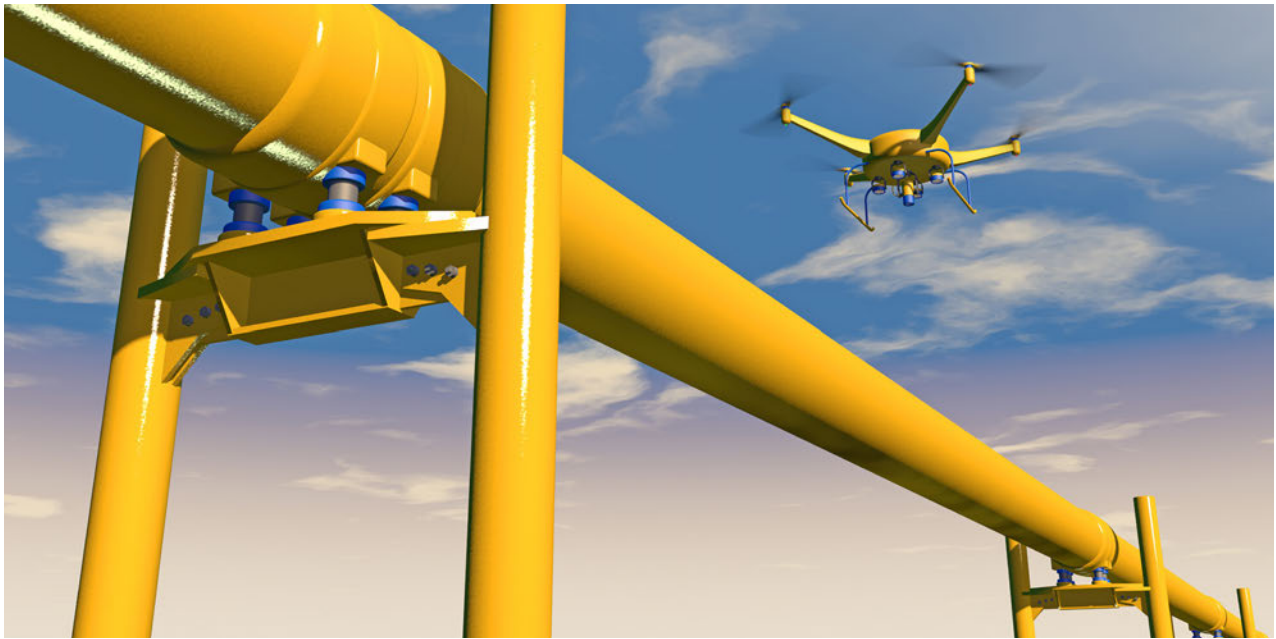
ICAO Headquarters, Montréal, Canada, 19 - 21 September 2017



ICAO

SAFETY

Event Guide & Directory



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## DAY 1 – Tuesday, 19 September 2017

### 09:30 – 09:50 Welcome Remarks

**Dr. Olumuyiwa Benard Aliu**, *President of the Council of ICAO*

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### 09:50 – 10:45 Keynote Speeches

**Mr. Alessandro Cardi**, *Deputy Director General, Ente Nazionale per l'Aviazione Civile (ENAC)*

**Mr. Earl Lawrence**, *Director, UAS Integration Office, FAA, United States*

**Mr. Tan Kah Han**, *Senior Director for Safety Regulation, Civil Aviation Authority of Singapore*

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### 10:45 – 11:15 Coffee Break Sponsored by Aerovironment



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CERTAINTY

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### 11:15 – 12:15 Collaborating to enable safe operations

**Moderator:**

**Mr. Mike Gadd**, *Business and Technical Lead UAS and Cyber Programmes, United Kingdom CAA*

**Panel discussion:**

**Mr. Brian Wynne**, *President and CEO, Association for Unmanned Vehicle Systems International (AUVSI)*

**Mr. Gilberto Lopez Meyer**, *Senior Vice President, Safety & Flight Operations, IATA*

**Mr. Jeff Poole**, *Senior Vice President, Safety & Flight Operations, IATA*

**Mr. David Gamper**, *Director Safety, Technical and Legal Affairs, ACI*

**Mr. Jan Pie**, *Chairman, ICCAIA & Secretary General, AeroSpace and Defense Industries Association of Europe (ASD)*

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### 12:15 – 14:15 Presentation and Lunch Sponsored by ESRI



## DAY 1 – Tuesday, 19 September 2017

### 14:00 – 15:30 **Setting the scene**

Showcasing a diverse set of current and near-term operations and training experience from around the world that highlight the need for a comprehensive and harmonized regulatory framework to support growth and development.

**Moderator:**

**Mr. Catalin Cotrut**, *Director IATA Audit Programs*

**Presentations:**

**Mr. Zdravko Kolev**, *Research Officer, Frontex, European Border Coast Guard Agency*

**Mr. Chuck Johnson**, *Senior Advisor for UAS Integration UAS-NAS Project, NASA*

**Mr. Ovais Ahmed**, *Chief, Aviation Safety Section, United Nations*

**Mr. Brandon Suarez**, *Senior Staff Engineer, General Atomics Aeronautical Systems Inc.*

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### 15:30 – 16:00 **Coffee Break**

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### 16:00 – 17:30 **Status of the regulatory framework**

**Moderator:**

**Mr. Vladimir Zubkov**, *Secretary General, The International Air Cargo Association (TIACA)*

**Presentations:**

**Ms. Leslie Cary**, *RPAS Programme Manager, ICAO*

**Mr. Michael W. Brown**, *Aviation Safety Analyst, FAA, United States*

**Mr. Yves Morier**, *Director for Civil Aviation and UAS, EASA*

**Mr. Mike Lissone**, *Secretary General, Joint Authorities on Rule-making for Unmanned Systems (JARUS)*

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**End of Day 1**

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## DAY 2 – Wednesday, 20 September 2017

09:00 – 09:10 **Opening remarks**

**Ms Leslie Cary**, *RPAS Programme Manager, ICAO Air Navigation Bureau*

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09:10 – 10:30 **Competency-based training and assessment – What is it and why?**

Moderator:

**Mr. Farid Zizi**, *Scientific Advisor International Affairs, DGAC France*

Presentations:

**Ms. Nicole Barrette-Sabourin**, *ICAO (retired)*

**Ms. Ashley Laurysen**, *Senior Training Expert, EUROCONTROL*

**Dr. Brent Terwillinger**, *Masters of Science, Unmanned Systems Program Chair, Embry-Riddle Aeronautical University*

**Mr. Timothy Schoenauer**, *Global MPL Leader, CAE Ab Initio Training, Civil Division*

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10:30 – 11:00 **Coffee Break**

Sponsored by IATA



11:00 – 12:15 **What will competency-based training look like?**

Moderator:

**Mr. Farid Zizi**, *Scientific Advisor International Affairs, DGAC France*

Presentations:

**Mr. David Hansell**, *Aviation Policy, Facebook*

**Mr. Edwin Kimzey**, *Pilot, Test Operations, General Atomics Aeronautical Systems Inc.*

**Mr. Stuart McGlynn**, *Regulatory Policy and Flight Permissions, Cyberhawk Innovations Ltd.*

**Ms. Nicole Barrette-Sabourin**, *ICAO (retired)*

**Ms. Ashley Laurysen**, *Senior Training Expert, EUROCONTROL*

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12:15 – 14:00 **Presentation and Lunch**

Sponsored by Thales



## DAY 2 – Wednesday, 20 September 2017

### 14:00 – 15:30 Licensing Authority – What does competency-based assessment mean to the licensing authority inspectors?

Moderator:

**Jim Dow**, *ICCAIA Air Transport Representative to ICAO*

Presentations:

**Mr. Henry Defalque**, *Technical Officer, ICAO*

**Mr. Farid Zizi**, *Scientific Advisor International Affairs, DGAC France*

**Mr. Jim Coyne**, *Technical Director, UAS International*

**Ms. Wimen Fong**, *Legal Advisor, ACSA/COCESNA*

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### 15:30 – 16:00 Coffee Break

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### 16:00 – 17:30 RPAS operator responsibilities: Ensuring that staff are trained/competent; and safe planning of operations from start to finish

Moderator:

**Mr. Jim Coyne**, *Technical Director, UAS International*

Presentations:

**Mr. Zia Meer**, *Flight Operations Inspector, South Africa CAA*

**Mr. Robert Hannaford**, *Technical Director, UAV & Drone Solutions Ltd.*

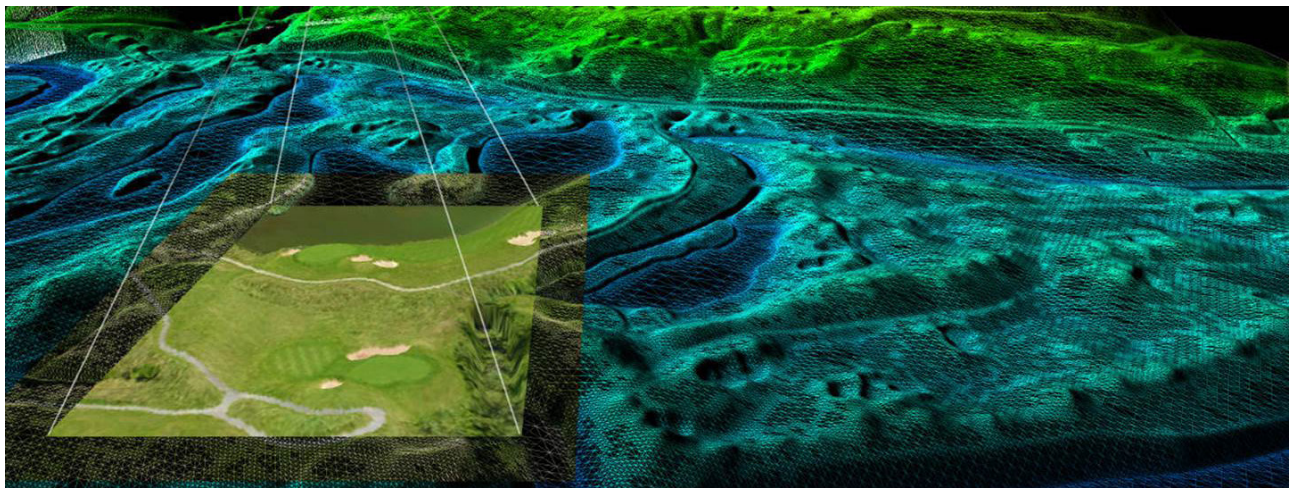
**Mr. Mike Gadd**, *Business and Technical Lead UAS and Cyber Programmes, United Kingdom CAA*

**Mr. Nick Rogers**, *CRTO/Co-founder, Sky-Futures*

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**End of Day 2**

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## DAY 3 – Thursday, 21 September 2017

### 09:00 – 09:10 Welcome Remarks

Ms Leslie Cary, *RPAS Programme Manager, ICAO Air Navigation Bureau*

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### 09:10 – 10:30 ATM – What does the introduction of RPAS mean to the ATM environment?

Moderator:

Mr. Chris Dalton, *Chief of Airspace Management & Optimization Section, ICAO*

Presentations:

Mr. Mike Lissone, *UAS ATM Integration Manager, EUROCONTROL*

Mr. Robert Stallard, *IFATCA*

Mr. Rob Eagles, *Director Infrastructure, IATA*

Captain Jim Pala, *IFALPA*

Mr. Doug Davis, *CANSO*

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### 10:45 – 11:15 Coffee Break

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### 11:15 – 12:15 How do RPAS affect the aviation system as a whole?

Moderator:

Mr. Miguel Marin, *Acting Chief, Operational Safety Section, ICAO*

Presentations:

Mr. Randy Willis, *Manager, Emerging Technologies Office, FAA United States*

Ms. Muriel Preux, *Directrice de Project Drones, DGAC France*

Mr. Pierre Fossier, *Vice President, Chief Technical Officer, Thales*

Mr. Lawrence Ley, *Portfolio Manager, The Boeing Company*

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### 12:15 – 14:15 Lunch

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### 14:00 – 15:00 Upcoming events

ICAO – Drone Enable preview

China - Preview ICAO China RPAS Symposium

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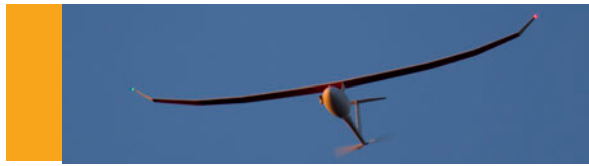
### 15:00 – 15:30 Summary and Next Steps

Mr. Stephen Creamer, *Director, ICAO Air Navigation Bureau*

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**End of Symposium**

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# RPAS2017

## Exhibitor Index

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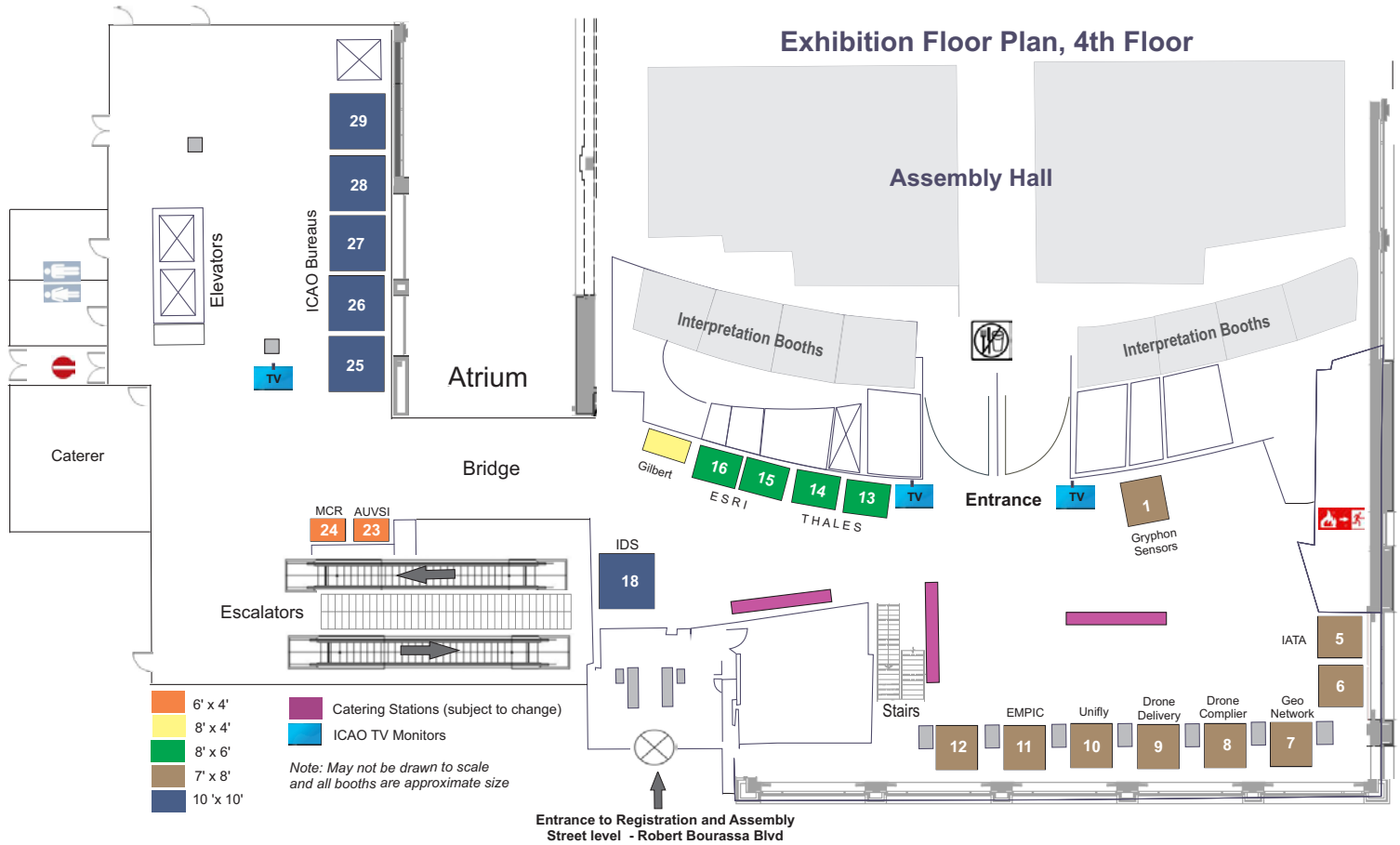
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# Exhibitor Floor Plans

## 4th Floor





Esri applies The Science of Where™ to unlock data's full potential in every organization. We continue to pioneer real-world problem solving using geographic information systems (GIS). As the world leader in GIS technology for drones, Esri empowers your aviation organization's modernization efforts by adding new functionality to your operations. Esri's ArcGIS allows you to map in 2D and 3D real-time, and produce aeronautical charting that supports aviation standards worldwide. Esri provides an interoperable platform scalable to enterprise via servers, mobile, apps, accessible with your own public or on premise cloud. Learn how the USA FAA is using ArcGIS: <http://go.esri.com/FAA>.

[www.esri.com](http://www.esri.com)

Lunch Tuesday



**Mr. Steve Snow**  
Environmental System  
Research Institute (ESRI)  
[ssnow@esri.com](mailto:ssnow@esri.com)



Thales combines 80+ years in development and deployment, 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 is trusted by key ATM decision makers across more than 170 nations, and helps key decision makers master complexity and make timely decisions for better outcomes. With engagement in all major ATM modernisation initiatives, ICAO ASBUs, SESAR and NextGen, Thales focuses on international harmonisation. Our strong involvement in these initiatives, and the alignment of our product roadmaps, ensures that our solutions have been extensively tested, certified and validated.

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Lunch Wednesday

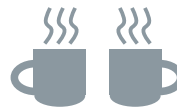


**Mr. Frank Matus**  
Thales  
[Frank.matus@us.thalesgroup.com](mailto:Frank.matus@us.thalesgroup.com)



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Coffee Break  
Tuesday AM



Based in California, AeroVironment is a global leader in unmanned aircraft systems, tactical missile systems and electric vehicle charging and test systems, and serves militaries, government agencies, businesses and consumers. We empower troops, growers, engineers, electric vehicle drivers and more with the actionable intelligence they need to proceed with certainty.

**Mr. Andy Thurling**  
AeroVironment Inc.  
thurling@avinc.com

[www.avinc.com](http://www.avinc.com)

## BOOTH # 5



Coffee Break  
Tuesday AM



“IATA’s mission is to represent, lead and serve the airline industry. Its members comprise some 275 airlines - the world’s leading passenger and cargo airlines among them - representing 84% of total air traffic. IATA seeks to improve understanding of the industry among decision makers and increase awareness of the benefits that aviation brings to national and global economies. Safety, security and the environment are IATA’s top priorities. IATA’s aim is to simplify processes and increase passenger convenience while reducing costs and improving efficiency. It provides essential professional support to all industry stakeholders with a wide range of products and expert services such as publications, training and consulting.”

**Mr. Michael Comber**  
International Air Transport  
Association - IATA  
comberm@iata.org

[www.iata.org](http://www.iata.org)



General Atomics Aeronautical Systems, Inc. (GA-ASI), an affiliate of General Atomics, is a leading designer and manufacturer of proven, reliable Remotely Piloted Aircraft (RPA) systems, radars, and electro-optic and related mission systems, including the Predator® RPA series and the Lynx® Multi-mode Radar. Celebrating over 25 years of aviation innovation, GA-ASI provides long-endurance, mission-capable aircraft with integrated sensor and data link systems required to deliver persistent flight that enables situational awareness and rapid strike. The company also produces a variety of ground control stations and sensor control/image analysis software, offers pilot training and support services, and develops meta-material antennas. For more information, visit [www.ga-asi.com](http://www.ga-asi.com).

**Ms. Kimberly Kasitz**  
General Atomics Aeronautical  
Systems, Inc.  
[Kimberly.kastiz@ga-asi.com](mailto:Kimberly.kastiz@ga-asi.com)

[www.ga-asi.com](http://www.ga-asi.com)

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## DRONE COMPLIER

Founded in 2013 and headquartered in Oregon, Drone Complier is a leader in drone operations, consulting, and operations management software for commercial and government users. Its software solutions help operators plan their missions, manage their platforms, comply with government regulations, and extract meaningful insights from their operations. Built from the ground up by professional pilots, Drone Complier enables customers to easily scale operations without scaling support or administrative infrastructure.

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[www.dronecomplier.com](http://www.dronecomplier.com)



EXHIBITOR

### Booth #8

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**Mr. Andrew Saxton**  
Drone Complier  
[asaxton@dronecomplier.com](mailto:asaxton@dronecomplier.com)



Drone Delivery Canada, is a pioneering technology firm based out of Vaughan, Ontario Canada with a focus on designing, developing and implementing a commercially viable drone delivery system within the Canadian geography. We utilize state of the art technology and materials to develop this next generation logistics platform.

Drone Delivery Canada is developing a drone delivery platform to provide next generation logistic services for Canadian retailers, service providers and government agencies.

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[www.dronedeliverycanada.com](http://www.dronedeliverycanada.com)



EXHIBITOR

### Booth #9

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**Mr. Tony Di Benedetto**  
Drone Delivery Canada  
[tony@dronedeliverycanada.com](mailto:tony@dronedeliverycanada.com)



Since 1999 EMPIC have been working with a collaborative group of NAAs (numbering 27 globally) to develop a suite of software tools to support regulatory oversight. Thirty-plus modules cover all areas of the aviation regulator's remit grouped under Personnel Licensing, Organisation Approval, Technical Areas (type certification, aircraft registry etc.), plus Central Modules managing security, reporting, interfaces, contact management and a Surveillance Layer for regulations, audits, findings etc. The most recent extension covers Risk and Performance Based Oversight. EMPIC-EAP® interfaces to archiving, document management, examination and ERP-systems, the ECCAIRS occurrence tool, and provides self service access to stakeholders via a web client.

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[www.empic.aero](http://www.empic.aero)



## Booth #11

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**Mr. Jörg Kottenbrink**  
EMPIC GmbH  
[Joerg.Kottenbrink@empic.aero](mailto:Joerg.Kottenbrink@empic.aero)



GeoNetwork provides vital solutions to a world where drones, robots and autonomous devices are increasingly immersed in the fabric of everyday life. We enable all society (governments, businesses, individuals) to express rules of behavior expected from these smart devices as they transit our spaces—and a means for these devices to comply.

Using GeoNetwork's unique SmartFence™ solution, geofences are created for any 3D geometry—air, sea, and land—along with associated rules, and published to edge caches around the world ready for smart device consumption. Our ID & Monitoring solution is suitable for even small autonomous air and ground vehicles.

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[www.geo.network](http://www.geo.network)



## Booth #7

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**Mr. Mike Bridge**  
GeoNetwork  
[Mike.bridge@geo.network](mailto:Mike.bridge@geo.network)

# GRYPHON SENSORS™

— an SRC company —

Gryphon Sensors is a world-leading provider of commercial sensors and systems that detect, track and identify small unmanned aircraft systems (UAS). Leveraging six decades of proven expertise in radar and electronic surveillance sensor research and development from our parent company, SRC, Inc., Gryphon Sensors provides innovative multi-spectrum solutions in the drone security and UAS integration markets. Gryphon Sensors provides affordable, best-in-class products and services to the drone security and UAS integration markets.

The company is involved in the Federal Aviation Administration's (FAA) BSNF Pathfinder, FAA Drone Detection Pathfinder, and Project UAS Secure Autonomous Flight Environment (U-SAFE) and NASA's UAS Traffic Management (UTM) program. For more information, visit [www.gryphonsensors.com](http://www.gryphonsensors.com).

[www.gryphonsensors.com](http://www.gryphonsensors.com)



## Booth #1

**Mr. Craig Marcinkowski**  
Gryphon Sensors  
[cmarcinkowski@gryphonsensors.com](mailto:cmarcinkowski@gryphonsensors.com)

# IDS

NORTH AMERICA

an IDS Ingegneria Dei Sistemi company

A world technology leader, IDSNA delivers air navigation solutions and services to ANSPs and CAAs throughout the world. These solutions include: ICAO recognized flight procedure design, airspace design, land use assessment, Air Traffic Flow Management, Performance Based Navigation, AIM data management, AMHS, aeronautical billing, and aviation carbon offset MRV systems.

IDS also conceives, designs, and develops innovative UAS and unmanned ground systems for civil and defense applications.

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## Booth #18

**Mr. Joe McNally**  
IDS North America Ltd  
[jmcnally@idscorporation.ca](mailto:jmcnally@idscorporation.ca)



## Booth #10

**Mr. JP De Muyt**  
Unifly NV  
jp.demuyt@unifly.aero

Unifly's Unmanned Traffic Management (UTM) platform connects official entities with operators to integrate drones into the air space safely and securely.

Authorities can visualize and manage drone flights and declare no-fly zones. Drone operators can plan, track and validate their drones and their flights in line with international and local regulation.

Unifly supports SWIM standards, the standard protocol that all stakeholders in aviation use, to communicate with operators and drones through real-time messaging, using reliable data from worldwide sources for global data coverage including meteo, NOTAM, obstacles and no-fly zones. Hyper local accurate aeronautical navigation data provides reliable and trustworthy data for your location.

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