

#UC2OREMOTE

Unmanned Systems
Systèmes Télécommandés
CANADA

UNMANNED CANADA.20
PROGRAM

NOVEMBER 3 - 6, 2020

All times Central Standard Time Zone (UTC - 6)

November 3rd - The Next 5 Years in RPAS - Day 1			
8:30 AM	Visit Tradeshow		
9:00 AM	Conference Opening - Conference Chair - Jordan Cicoria, Treasurer, USC-STC Opening Welcome - Michael H. Cohen, Chairman, USC-STC		
9:30 AM	Conference Opening Keynote: Michael Huerta, Former Administrator Federal Aviation Administration		
10:00 AM	Keynote: Dr. Roger Scott-Douglas, President National Research Council "NRC's role in developing the autonomous systems sector"		
10:30 AM 11:00 AM 11:30 AM	"Drone Delivery and Disaster Response – Connecting the Disconnected for Social Good" Panel Moderator: Harrison Wolf, Lead Aerospace and Drones, World Economic Forum Edward Anderson, Science Technology and Development, World Bank Denise Williams, CEO First Nations Technology Council Conor French, General Counsel, Zipline Faine Greenwood, Drone consultant to WEF and WB		
12:00 PM 12:30 PM 1:00 PM	Blue Ribbon Panel - The Next Big Things in RPAS Moderator: Michael Cohen, Chairman Unmanned Systems Canada Panelists TBA		
1:30 PM	Visit Tradeshow		
	Peraton / SkySensus Showcase	Advanced Air Mobility	Public Safety and Security
2:00 PM	Join the members of Project SkySensus highlighting the objectives and showcasing their advancements in Big Data, Analytics, DAA and Airworthiness. The team will provide valuable insights, tackle your questions and present opinions on the future of BVLOS operations in Canada. Panelists: John Molberg, Canadian UAVS Jordan Cicoria, AERIUM Analytics Chris Brosinsky, UXS Consulting Doug Hanna, Foremost Test Range Blair Boyd, Peraton Corp.	Charles Vidal National Research Council Overview of the Integrated Aerial Mobility (IAM) Program at NRC	Brad Robson WaVv Opportunity in the Arctic begins with building strong, sustainable and secure communities
2:30 PM		Nathan Davidson-Pilon Coulson Aviation Drones are good enough, why retailers and last mile delivery matter most	Pano Skrivanos / Jasmin Winter Inlailawatash Limited Partnership Launching the First Nations Technology Council's Drone Stewardship Program: Fostering Indigenous Innovation in Aerial Territories
3:00 PM		James Sease University of Victoria Centre for Aerospace Research Multi Agent UAS Onboard Coordination and Flight Formation Planning	Charles Werner Droneresponders The State of Public Safety Drones
3:30 PM 4:00 PM 4:30 PM	Panel: Emerging Aviation Technologies for Smart Cities Moderator: Diana Cooper, Head US Policy, Hyundai UAM JR Hammond, CEO Canadian Air Mobility Niklas Kviselius, Manager New Mobility Translink Danny Sitnam, President and CEO Helijet International Joanna Clark, Citywide Transportation Planner, City of Vancouver		
5:00 PM	Visit Tradeshow		

November 4 - Safety and Integration - Day 2

8:30 AM	Visit Tradeshow		
9:00 AM	Keynote: The Honorable Marc Garneau, Minister of Transport		
9:30 AM	Keynote: Global Path for UAS: Leslie Carey, Program Manager RPAS, ICAO		
10:00 AM 10:30 AM 11:00 AM	Transport Canada RPAS Task Force Regulatory Update Moderator: Felix Meunier, Head RPAS Task Force		
11:30 AM 12:00 PM 12:30 PM	RPAS Traffic Management NAVCanada and Transport Canada Alan Chapman, RTM Lead NAVCanada		
1:00 PM	Workshop	Student Paper Finalists	BVLOS
1:30 PM 2:00 PM	WORKSHOP - ORA/AC903 Review Co--chairs Paul McKay, Transport Canada, RPAS Engineering Chris Healy, President, InFlight Data Group	M Braga / M May University of Manitoba Auto-link UAV to CAD: A Software Tool that Bridges the Gap Between UAV Design Optimization and CAD	Laurent Huenaeerts Unifly National deployment of RTM services in Canada
	Observations on SORA and its effect on BVLOS approvals to-date AC 903 Sec. 10 DAA discussion AC 903 Sec. 9 Containment Calculating Operational Volumes and the role of the OEM	Daniel Justino University of Victoria Centre for Aerospace Research LIDAR and Camera Sensor Fusion for Air-to-Air Detection and Tracking of Airborne Intruders	Dennis Nazarenko / Brian Forbes ClearSky Connect Inc. Leveraging Mobile Networks to Enable and Scale Beyond Line of Sight RPAS Operations in Canada
	Update on Strategic Mitigations to reduce SAIL values SORA automation tools	Zifei Jiang / Alan Lynch University of Alberta Quadrotor Flight Control Using Deep Reinforcement Learning	Alex Harmsen Iris Automation Obtaining True BVLOS Permissions from Regulators in Canada and the U.S.
2:30 PM	Visit Tradeshow		
3:00 PM	Public Safety and Security	RPAS Control Systems and Autonomy	Regulations
3:30 PM 4:00 PM	M Gouda / K El-Basyouny University of Alberta Automated Computer Vision Analysis of Public Space Redesign to Improve Compliance to Social Distancing amid the COVID-19 Pandemic	Omar Al-Buraiki University of Ottawa Specialized Agents Allocation in Autonomous Multi-Agent Unmanned Systems	S Luxion ASSURE Executive Director ASSURE Regulatory Research Update
	Brian Fentiman BlueForce UAV Consulting Video Livestreaming Fundamentals for Public Safety & Industry RPAS Operations	Amir Moeini / Alan Lynch University of Alberta Disturbance Observer-Based Integral Backstepping Control for UAV	Brendan Schulman DJI Vice-President RPAS Regulation: The First Year, and the Path Forward
	Brett Kanda FLIR Systems Inc. How airborne thermal imaging is saving lives and livelihood	Gaku Minorikawa Urban air mobility laboratory, Hosei University, Japan Trends of urban air mobility in Japan	Charles Vidal, NRC Carlos Ruella, Transport Canada Update on RPAS research activities supporting regulatory framework development
4:30 PM	Visit Tradeshow		

November 5 - Markets and Applications - Day 3

8:30 AM	Keynote: Kevin Hagan. Account Executive, Unmanned Systems, Peraton "The Next 5 Years in RPAS"		
9:00 AM 9:30 AM 10:00 AM	Defence Panel Karim Elsharnouby, Peraton Canada, Business Development Manager Dr. Tony Collins, UK MoD, Innovation Partner - International, Defence and Security Accelerator Commander Chris Tait, RCN, Director Naval Requirements 2 L.Col. Jason Furlong, RCAF, Dir Air Reqts - RPAS Project Director		
10:30 AM	Visit Tradeshow		
11:00 AM 11:30 AM 12:00 PM	Jammers & Jail - Closing the Gap Between Hype, Policy and the Law C-UAS Panel Moderator Trevor Bergmann, Aerovision Martin Jobin, RCMP Head C-UAS Program/Mathieu Carle, RCMP Technical Lead C-UAS Program Jared Giesbrecht, Defence Research and Development Canada, Suffield AB Mark Espenant, R&D Project Manager (C-UAS), DRDC Centre for Security Sciences Duane Barry, Vice President Business Development, Qinetiq Canada		
12:30 PM	Visit Tradeshow		
1:00 PM	RPAS Control Systems / Autonomy	RPAS Operations and Training	RPAS Design and Manufacture
	Hélder Cristóvão Instituto Superior Técnico / University of Victorian Onboard Real-Time Kinodynamic Path Planning for UAVs	Paul St Onge Aero Concept Systems Securing nations from pandemics; design, testing and training	Sean Bazzocchi University of Victoria Centre for Aerospace Research In-flight identification of sparse nonlinear dynamics for RPAS adaptive control
1:30 PM	Neil Guerin Hexagon Autonomy and Positioning - Assured	Hannah Zhao University of Alberta Property level wildfire risk assessment using machine learning methods to identify hazardous trees using consumer-grade UAVs	Luca Gianoli / Abdo Shabah Humanitas Solutions Combining Cloud Computing, Videogames and Simulation to boost a new UAV innovation wave with the Formal-Virtual-Teleoperated (FVT) development paradigm
2:00 PM	Mike Meakin Quantifying Turing: A Systems Approach to Quantitatively Assessing the Degree of Autonomy of Any System	Richard Fortin / Maurice Coyle Geological Survey of Canada, Natural Resources Canada Concept of Operations for application of RPAS to airborne geophysics	Yulia Druzhnikova FIXAR Patented fixed angle rotor VTOL enables seamless transitions, with closed-source software for data security
2:30 PM	Visit Tradeshow		
	Utilities Applications	RPAS Operations and Training	RPAS Design and Manufacture
3:00 PM	Nikita Iliushkin / Courtland Penk Skygauge Robotics Reinventing the drone for contact inspection	Niall McCallum SkyX Developing a Data-Focused Concept of Operations (CONOPS)	Randy Martel Martel Canada Inc. Developing the future generation of unmanned water, air and space
3:30 PM	Francis Doumet Metaspectral Enabling Persistent Hypertemporal Intelligence, Surveillance, and	David Cooke International Test Pilot School A System for Testing UAVs in National Airspace, BVLOS	Rob Walker Volatus Aerospace Group BVLOS Unmanned Aerial Vehicles- Made in Canada
4:00 PM	Kenro Tanaka Blue Innovation Company Ltd. Energy Applications with Focus on Oil and Gas	Nicola Toniuzzi Leonardo S.p.a. An exciting journey to integrate RPAS in the Civil Airspace	Yulia Druzhnikova FIXAR Patented fixed angle rotor VTOL enables seamless transitions, with closed-source software for data security
4:30 PM	Visit Tradeshow		

November 6 - Markets and Applications - Day 4

8:30 AM	Visit Tradeshow		
9:00 AM 9:30 AM 10:00 AM	Integrating RPAS and Airports Moderator: Jordan Cicoria, Aerium Analytics Steve Maybee, VP Operations, Edmonton International Airport Mark Anderson, Manager Edmonton TWR Whitehorse TWR and FIC, NAVCanada Justin Jedlinski, Chief Aviation Security, Transport Canada Paul Woods, Manager – Training Standards, Systems, and Compliance, Greater Toronto Airports Authority (GTAA)		
10:30 AM 11:00 AM 11:30 PM	Panel: 100 Pilots and Counting - Government of Alberta Moderator: Brian Gale; Senior Policy Advisor, Alberta Transportation Dan Juhlin; RPAS Operations Coordinator, Government of Alberta RPAS Program, Environment and Parks Nick Grimshaw; Executive Director, Environmental Enforcement Branch, Environment and Parks Sam Pidwerbeski; District Fish and Wildlife Officer, Fish and Wildlife Enforcement Branch, Justice and Solicitor General Gary Neilson Senior Advisor – Crown Liaison, Major Investigations Team, Compliance and Liability Management Branch, Alberta Energy Regulator Aaron Poirier Sr. Project Officer, Jobs Economy and Innovation		
12:00 PM	USC-STC Awards. Mark Cuss Scholarship, Pip Rudkin Award, Organizational Award, Student Awards		
12:30 PM	Visit Tradeshow		
1:00 PM 1:30 PM 2:00 PM	Disruption in Mining Panel Moderator: Kathryn McCulloch, Dentons Canada LLP, Partner, Drones and Aviation Denis Laviolette, Goldspot Discoveries Inc., President and CEO Matt MacKinnon, Unmanned Aerial Services Inc., President and CEO Iain McKillip, Glencore, Manager Mine Technical Operations		
	GIS/Mapping	Counter-UAS	Public Safety and Security
2:30 PM	Pierre Bilodeau / Bryan Ladds ESRI Canada New end-to-end ArcGIS Drone Collections from ESRI	Michael Venables KWESST International The Design, Development and Testing of the Next Generation Counter-Drone System	Wade Hawkins Southern Alberta Institute of Technology Utilizing RPAS Operating BVLOS to Deliver Medical Supplies and PPE to Indigenous Communities during the COVID-19 Pandemic
3:00 PM	Colin Myers Comtech Systems Inc. COMET-Over the Horizon, Secure, High Data Rate Communications for Space Denied Environment	Antonio Ramalho Instituto Superior Técnico A real-time trajectory optimization approach towards a TCAS for autonomous UAS	
3:30 PM 4:00 PM	Visit Tradeshow		