



EBC Connecticut Innovative Technology Program Increasing Use of Drones in the Environmental and Energy Industry

Tuesday, November 3, 2015
Eversource Energy, Berlin, Connecticut

AGENDA

- 8:00 a.m. **Welcome: John Figurelli**, Chair, EBC Connecticut Chapter
 Team Leader, Weston & Sampson
- Ruthanne F. Calabrese**, Manager
 Compliance, Permitting and Performance, Eversource Energy
- 8:10 a.m. **Introduction and Overview: James Gaynor**, Program Chair & Moderator
 GIS Manager, Terracon
- 8:30 a.m. **Unmanned Aircraft Systems – Terms, Definitions, and Aircraft Categories**
- Jason Wise, GIS Technical Lead, Terracon
- 8:50 a.m. **Regulatory Update and Requirements**
- Chris Poreda, Former Regional Counsel, FAA New England Region
- 9:10 a.m. **Know Before You Fly Campaign**
- Frank Serna, Board Member and Former President, Association of Unmanned Vehicles International – New England Chapter
- Test Sites (NY/MA) – Perspectives from NUAIR**
- Frank Serna, Board Member, Northeast UAS Airspace Integration Research Alliance (NUAIR)
- 9:30 a.m. **Networking Break**
- 10:15 a.m. **Structure of a Section 333 Petition for Exemption**
- William Wise, Senior Counsel, Holland and Knight, LLP
- 10:35 a.m. **Practical UAS Applications**
- Carl Tyburski, Supervisor – Transmission Lines and Field Contracts, Eversource Energy
 - Dr. Alfred Gates, Professor, Central Connecticut State University

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11:00 a.m. Questions and Panel Discussion

Moderator: **James Gaynor**, Terracon

Panel Members:

- **Dr. Alfred Gates**, Central Connecticut State University
- **Chris Poreda**, FAA New England Region
- **Frank Serna**, Association of Unmanned Vehicles International
- **Carl Tyburski**, Eversource Energy
- **Jason Wise**, Terracon
- **William Wise**, Holland and Knight, LLP

12:00 p.m. Adjourn

PROGRAM CHAIR

James R. Gaynor, PG, GISP, GIS Manager

Terracon

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James Gaynor is the GIS Manager for Terracon Consultants, a consulting engineering firm specializing in environmental consulting, facilities, and geotechnical engineering. Mr. Gaynor is a professional geologist with a diverse background working to implement geospatial technologies in support the environmental consulting and engineering industry. He received his Bachelor of Science degree in Geology from the University of Puget Sound and his Masters of Science degree in Geology from the University of New Hampshire.

SPEAKERS

Dr. Alfred Gates, Professor of Engineering

Central Connecticut State University

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Dr. Gates is the cofounder of Pinnacel X an FAA approved UAS Inspection Company that provides inspection services of high tension power lines, structures, towers, buildings and bridges. Pinnacel X also manufactures UAS and provides UAS inspection training. Dr. Gates has inspected over 130 transmission line structures, in CT and MA, using multirotor aircraft. Dr. Gates is a professor in the college of engineering at Central Connecticut State University. He has been involved with Small Unmanned Aircraft Systems research since 2006. Some of his research includes the development of a fully autonomous pneumatic rifle launched fixed wing UAS funded by NASA, GPS based multirotor collision avoidance testing funded by the Air Force. He was funded by the ARMY for the engineering design and shock testing of a fixed wing mortar launched micro UAS. Currently he is

performing research in the areas of structural inspection using small multirotor and fixed wing UAS funded by Eversource and adaptive autonomous flight recovery software testing funded by NASA. Dr. Gates has been involved with remote control aircraft for over 20 years and he is a commercial helicopter pilot and a fixed wing pilot.

Christopher Poreda, Former Regional Council
FAA New England Region
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Chris has recently retired from his position as Regional Counsel for the FAA's New England Region, a position he has held since August of 2002. Prior to assuming that managerial role he served as a senior staff attorney in that office and principal legal advisor to the FAA's Engine & Propeller Directorate, an engineering office responsible for regulatory oversight of engine and propeller designs installed on aircraft world-wide. Mr. Poreda graduated from Northeastern University School of Law and was admitted to the Bar in the Commonwealth of Massachusetts in 1985. Following law school he clerked for the Massachusetts Appeals Court and then worked at the Boston office of Bingham, Dana & Gould, before joining the FAA. Before attending law school he served in the U.S. Air Force as a pilot in F-4 Phantom II fighter aircraft and as a primary flight instructor in the Air Force pilot training program. As Regional Counsel, Mr. Poreda manages the FAA's field legal office in New England and oversees legal issues from regulatory enforcement to rulemaking to airport sponsor obligations under the FAA's Airport Improvement Program. Mr. Poreda is also a regular speaker and commentator at aviation law conferences and pilot safety seminars.

Frank Serna, Board Member and Former President, New England Chapter
Association for Unmanned Vehicle Systems International (AUVSI)
and Board Member, Northeast UAS Airspace Integration Research Alliance (NUAIR)
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Mr Serna leads initiatives at Draper Laboratory to identify new and emerging challenges for Draper capabilities. Previously he was Director of Systems Engineering at Draper. He serves on the National Academies Panel on Ballistics Science and Engineering. He is Chair of the Systems Engineering division of the National Defense Industrial Association (NDIA), President of the New England Chapter of Association of Unmanned Vehicle Systems International (AUVSI). He is a board member of NUAIR, the entity that manages the New York/Massachusetts Unmanned Air Systems test sites. Finally, Mr. Serna has been a guest lecturer at the MIT Engineering Systems Division, summer course on systems engineering. Mr. Serna holds degrees from Yale University and Northeastern University.

Carl Tyburski, Supervisor – Transmission Lines and Field Contracts
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Carl J. Tyburski is a supervisor in the Eversource Energy Transmission Lines department with over thirty years of experience in T&D line construction and maintenance. During this time, Carl has

overseen imploding connector projects, live line structure replacement and use of helicopters for maintenance and construction, while keeping worker safety first and always.

William Wise, Senior Counsel
Holland and Knight, LLP
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William Wise is a senior counsel in Holland & Knight's Boston office. Mr. Wise's practice focuses on review and implementation of compliance and ethics programs, including but not limited to, code of conduct training and evaluation of a company's risk assessment process. Mr. Wise counsels government contractors on statutory and regulatory framework regarding business activities. Mr. Wise serves as legal counsel to the New England chapter of AUVSI

Jason Wise, GIS Technical Lead
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Jason earned a master's degree in groundwater hydrology before getting distracted by geographic information systems, aviation, and writing software. He's a certified GIS Professional, private pilot, and ground instructor. By day he tackles data analysis challenges with Terracon, and after work he volunteers with the Civil Air Patrol as an airborne photographer and ground instructor.

Upcoming EBC Programs

- November 4: RI Chapter – Critical Importance of Stormwater Management
- November 5: Dam Management & Climate Change – The Role of Dams in Flood Control
- November 6: Forecasting Business Development Opportunities in the Industry
- November 10: Evening Program with MassDOT Secretary Pollack
- November 12: Reflections on the Successes & Challenges of the MA Organic Waste Ban
- November 17: Program Series with MassDEP Regional Offices – Western Region Leadership
- **December 3: Annual Winter Garden Party – Boston**