



EBC Innovative Technology Program Update on Drone Regulations, Capabilities, Data Processing and More

Friday, February 9, 2018

UMass Dartmouth Center for Innovation & Entrepreneurship | Fall River, Massachusetts

AGENDA

- 8:00 a.m. **Welcome: Jackson Bailey**, Communications & Marketing Coordinator, EBC
- 8:10 a.m. **Introduction and Program Overview**
- Jon Budreski, Program Chair and Moderator
Director of Business Development, American Rail Engineers dba AirShark
- 8:20 a.m. **UAS in the Transportation & Energy Markets**
- Jon Budreski, Program Chair and Moderator
Director of Business Development, American Rail Engineers dba AirShark
- 8:40 a.m. **UAS Photogrammetry & SFM for Monitoring Coastal Processes**
- Peter Traykovski , Associate Scientist, Applied Ocean Physics & Engineering Department, Woods Hole Oceanographic Institution
- 9:00 a.m. **UAS Case Study: Groundwater/Surface Water Interface Mapping**
- Martin A. Briggs, Research Hydrologist, U.S. Geological Survey
- 9:20 a.m. **UAS Program Development: Commonwealth Drone Pilot Program**
- Jeff DeCarlo, Aeronautics Division Administrator, MassDOT
- 9:50 a.m. **Networking Break**
- 10:30 a.m. **Panel Discussion**
- Panel Moderators:** Jon Budreski & Jennifer Johnson
- Panel Members:**
- Martin Briggs, U.S. Geological Survey
 - Jeff DeCarlo, Mass DOT
 - Peter Traykovski, Woods Hole Oceanographic Institution
- 11:30 a.m. **Adjourn**

PROGRAM CHAIR

Jon Budreski, Director of Business Development
American Rail Engineers dba AirShark
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Jon leads business development efforts at ARE / AirShark. An FAA licensed pilot, Jon has been part of the success of two solar startups during the last decade. Before that, Jon was entrenched in both water quality technical instrumentation sales and water research with the federal government. A graduate of Colorado State University and Enterprise Airline Academy, Jon's technical sales skills, aviation background and energy experience have come full circle in helping AirShark become a reality.

SPEAKERS

Jeff DeCarlo, Ed.D., PMP, ATP, Administrator, Aeronautics Division
Massachusetts Department of Transportation (MassDOT)
10 Park Plaza, Suite 4160, Boston, MA 02116
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Dr. Jeffrey DeCarlo is the MassDOT Aeronautics Division Administrator tasked with providing statutory and regulatory oversight for all aviation matters in the Commonwealth, including airport development and aviation safety and security.

Jeff has more than 30 years of aviation experience with the military, industry, academia and government. A former U.S. Air Force and airline pilot with over 10,000 hours in fighter and commercial aircraft, he is a graduate of Fighter Weapons School.

As a principal investigator for NASA and U.S. Department of Education sponsored air traffic control and airport operations projects, he has supported airworthiness and acquisition activities with total life cycle costs of more than \$1B.

Jeff retired from the military as a Lt. Colonel following nearly 25 years of USAF active duty, Air National Guard and Reserve service. He sits on the Board of Directors of the Northeast UAS Airspace Integration Research Alliance (NUAIR), AUVSI New England, the National Association of State Aviation Officials (NASAO), and is the Chair of the NASAO Center for Research and Education.

Martin A. Briggs, USGS Research Hydrologist; Adjunct Faculty, UConn CEE
U.S. Geological Survey, Earth System Processes Division, Hydrogeophysics Branch
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Marty obtained his MS in Hydrology from the Colorado School of Mines in 2009 and PhD in Hydrogeology from Syracuse University in 2012. He has been working with the US Geological Survey, Hydrogeophysics Branch ever since. The Branch supports various federal, state, and academic research projects when hydrogeophysical tools are required. Marty's primary activities in addition to research are training and methods development, so he travels around the country giving workshops and field testing new methodology. Martin has specifically contributed advancements in the application of heat tracing methodology to the study of hydrologic exchange at the groundwater/surface water interface.

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Peter Traykovski, Associate Scientist

Applied Ocean Physics & Engineering Department

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Peter Traykovski received his B.Se. degree in mechanical Engineering from Duke University, Durham, NC in 1988; the M.S. & Ocean Engineer degree from the Massachusetts Institute of Technology & Woods Hole Oceanographic Institution Joint Program (MIT&WHOI), Cambridge and Woods Hole, MA in 1994 and the Ph.D. in Applied Oceans Sciences and Engineering from the MIT&WHOI Joint program in 1998.

He was a post-doctoral investigator at WHOI from 1998 to 2000 and has been employed there as a scientist since 2000. He currently holds the position of Associate Scientist with Tenure in the department of Applied Ocean Physics and Engineering. His research interests include Sediment Transport, Coastal Processes, and Acoustical Oceanography. In sediment transport, his research has focused on measurements and modeling of time dependent bedform morphology and the dynamics of high concentration fine sediment (fluid mud) flows in the wave boundary layer. One of his most important contributions was the discovery of wave supported turbidity flows of fluid mud on relatively flat continental shelves in the late 1990's. In addition to his scientific interests, he has also focused on developing technology for measuring sediment transport processes and coastal morphology. This has included adapting high frequency imaging sonars for autonomous use in the ocean and development of pulse-coherent Doppler profilers for measuring turbulent flows. More recently he has been active in developing low cost autonomous surface vessels (ASVs) for coastal oceanographic and bathymetric survey. Combining measurements from ASVs with topography generated with unmanned aerial system (UAS) photogrammetric techniques allows high resolution and rapid repeat interval surveying of coastal systems.

Dr. Traykovski is a member of the Acoustical Society of America, American Geophysical Union and Institute of Electrical and Electronics Engineers.

Upcoming EBC Programs

FEBRUARY 2018

February 13 – Adaptation and Resiliency Programs in Rhode Island

February 15 – Climate Change Program Series: Adaptation and Resiliency Programs of Electric Utilities

February 15 – EBC & BBA Briefing from Newly Appointed EPA Regional Administrator Alexandra Dunn

February 21 – Ascending Professionals Charity Networking Night

February 27 – Site Redevelopment and Remediation Program: Evaluation and Closure of NAPL Sites

MARCH 2018

March 1 – Solid Waste Program: Talking Trash in Southern New England

March 2 – Rhode Island Program: Legislative Briefing on Energy and Environmental Initiatives

March 2 – MS4 Update: MassDEP and NHDES Primacy

March 7 – Ascending Professionals Introductory Program Series: Navigating Chapter 91

March 8 – New Hampshire Energy Program: Utility Scale Solar and Storage

March 14 – Evening Program with MassDEP Commissioner Martin Suuberg

March 15 – Climate Change Program Series: Adaptation and Resiliency Programs for Natural Resources

March 21 – EBC/NECA/YPE Site Visit to the Schneider Electric Research & Development Headquarters

March 28 – Noise Program: Update on Massachusetts Noise Regulations

March 31 – Business Development Opportunities in the Energy & Environmental Industry

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