



**EBC Innovative Technology Program
Unmanned Aircraft Use in the Environmental and Energy Industry**

Tuesday, March 24, 2015

**McLane Law Firm
300 TradeCenter - Suite 7000
Woburn, Massachusetts**

(for GPS purposes only, use 100 Sylvan Road)

Now established as a critical military technology, unmanned aircraft have emerged as a useful technology for commercial applications. Rapid advancements in “drone” technology have made this tool easily accessible for commercial use, particularly in the environmental and energy sectors. Surprisingly, nearly everyone who provides commercial unmanned aircraft services is doing it illegally, and most of them don't know it. This EBC program will provide a review of the Federal Aviation Administration regulatory status and an introductory look at ways this technology can be implemented in the environmental and energy industry.

The possible applications for unmanned aircraft/”drones” are limitless. Some examples:

- Water resource mapping
- Environmental Incident response
- Erosion control monitoring
- Solid waste management
- Landfill monitoring
- Air quality monitoring
- Pipeline infrastructure monitoring
- Photogrammetry and 3D modeling
- Geologic resource evaluation, including cut/fill volume estimation
- Land use monitoring
- Thermography and building envelope evaluation
- Agrochemical fate and transport

DRAFT AGENDA

- 7:30 a.m. Registration, Networking, and Continental Breakfast**
- 8:00 a.m. Welcome: Daniel K. Moon, President & Executive Director, EBC**
- 8:10 a.m. Introduction and Overview: James R. Gaynor, GIS Manager, Terracon**
- 8:15 a.m. UAS Applications in Energy and Environmental Sectors**
- James Gaynor, GIS Manager, Terracon
- 8:45 a.m. Unmanned Aircraft Systems – Terms, Definitions, and Aircraft Categories**
- Jason Wise, GIS Technical Lead, Terracon
- 9:00 a.m. Regulatory Status and Notice of Proposed Rulemaking**

- Jason Wise, GIS Technical Lead, Terracon
- Chris Poreda, FAA Regional Counsel, New England Region

9:30 a.m. Safety and Training

Know Before You Fly

- Frank Serna, President, AUVSI New England

Massachusetts UAS Test Center at Joint Base Cape Cod

- Frank Serna, Northeast UAS Airspace Integration Research Alliance (NUAIR) Alliance

10:00 a.m. Networking Break

10:15 a.m. Innovative Commercial Unmanned Aerial Systems

- Kristen Helsel, Vice President for Commercial Systems, CyPhyWorks

10:45 a.m. Legal Framework and Considerations

- Cameron Shilling, Director & Chair of the Privacy and Data Security Group, McLane Law Firm

11:00 a.m. Questions and Panel Discussion

12:00 p.m. Adjourn

PROGRAM CHAIR

James R. Gaynor, PG, GISP, GIS Manager

Terracon

77 Sundial Avenue, Suite 401W, Manchester, NH 03103

(603) 206-1190 // Cell: (603) 828-6689 // jrgaynor@terracon.com

SPEAKERS

Kristen Helsel, Vice President for Commercial Systems

CyPhy Works

kristen.helsel@cyphyworks.com

Christopher Poreda, FAA Regional Counsel, New England Region

chris.poreda@faa.gov

Frank Serna, President, New England Chapter

Association for Unmanned Vehicle Systems International (AUVSI)

and Board Member, Northeast UAS Airspace Integration Research Alliance (NUAIR)

fserna@draper.com

Cameron Shilling, Director & Chair of the Privacy and Data Security Group

McLane Law Firm

cameron.shilling@mclane.com

Jason Wise, GIS Technical Lead

Terracon

77 Sundial Avenue, Suite 401W, Manchester, NH 03103

jason.wise@terracon.com