

**PENNSYLVANIA AVIATION ADVISORY COMMITTEE**

**Fish and Boat Commission Building, Harrisburg, Pennsylvania**

**November 14, 2019 – AGENDA**

**10:00am – noon**

**A. Introductions**

**B. Approval of December 17, 2018 Minutes**

**C. Call for Additional Agenda Items**

**D. Election of Officers for Vice-Chair and Secretary**

**E. Finalize By-Laws**

**F. Identify Committee Focus Areas**

**G. PennDOT UAS Presentation – John Melville**

**H. Adjournment – Next Meeting Finalization**

# PA Aviation Advisory Committee Meeting Notes

December 17, 2018

## Attendance today:

Robert Shaffer, Anthony McCloskey (for Secretary Richards), Carl Beardsley, David Eberly, John Mininger, Steve Keefer Sr., Stan Little, Thomas Bonin, Gary Hudson, Brian Phillips, William Adkins, BJ Teichman, Denise Remillard (for Secretary Davin)

Need 17 for 2/3 Majority (only have 13)

## BYLAW review:

How to handle alternates? Permanent or meeting by meeting? How far in advance should the member notify the board that their alternate will be filling in? This will be discussed more at the next meeting.

Title of Secretary and Chairman should be capitalized

Expenses – remove per diem

25 members- Currently have 3 open spots on the board

1. Public Representative
2. Airport System Representative
3. Planning Organization

Send any name suggestions to Tony or Bob

## Future Committee items of focus:

- How to Increase Aviation Restricted Account (PennDOT)?
- Protect Act 52/Keep competition with adjacent states
- Economic Impact Study/Impact to Act 52
- Ways to market economic development around airport
- Ways to provide aviation outreach to schools/community
- Assist in the implementation of Real ID
- Add another classification in Unified Construction Code (UCC) for specifically small, unheated hangars less than 12,000 SF
- How to grow and retain aviation labor force including pilots and mechanics in PA?

- Develop plan for Essential Air Service airports to assist with winter time operations.
- Develop inland container freight stations and custom ports for inbound clearances
  - Bring containers inland away from busy airports (like JFK); not foreign trade zone
- Allow airports to utilize UAS technology

Next meeting will try to narrow it down to top two of most importance.

Next Meeting early April 2019 in Harrisburg at the Keystone Building.

Timing when sworn-in; notarization; look at time frame; who has been sworn-in

PENNDOT UAS PROGRAM

### PennDOT Unmanned Aircraft Systems (UAS) Program



John G. Melville  
PennDOT Bureau of Aviation



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PENNDOT OVERVIEW

PennDOT directly responsible for over:





**PENNDOT CREWS PREPARE ROADS**

40,000 miles of State Highways



25,000 State-owned Bridges



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PENNDOT OVERVIEW



650 Airports and Heliports



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**PENNDOT OVERVIEW**

11 District Offices

The map displays the state of Pennsylvania divided into 11 numbered districts. Districts 1 through 11 are color-coded in shades of blue and green. The districts are: 1 (Northwest), 2 (North Central), 3 (North), 4 (Northeast), 5 (East), 6 (South), 7 (South Central), 8 (Southwest), 9 (West), 10 (West Central), and 11 (Northwest). The text '11 District Offices' is positioned to the left of the map. The slide includes the Pennsylvania Department of Transportation logo and a small graphic of four colored squares (blue, green, yellow, blue) in the bottom right corner.

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**POTENTIAL DRONE APPLICATIONS**

A photograph showing a person in an orange safety vest operating a drone. The drone is flying over a stone wall. A laptop is open on a table in the foreground. The slide includes the Pennsylvania Department of Transportation logo and a small graphic of four colored squares (blue, green, yellow, blue) in the bottom right corner.

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**POTENTIAL DRONE APPLICATIONS**

Roadway Inspections & Surveying

A photograph showing two workers in high-visibility vests walking on a road. A drone is flying overhead. The slide includes the Pennsylvania Department of Transportation logo and a small graphic of four colored squares (blue, green, yellow, blue) in the bottom right corner.

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POTENTIAL DRONE APPLICATIONS

Roadway Subsidence Assessments



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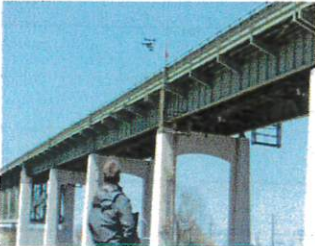
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POTENTIAL DRONE APPLICATIONS

Bridge Inspections



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POTENTIAL DRONE APPLICATIONS

High Mast Inspections



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POTENTIAL DRONE APPLICATIONS

Roadway Incident Management



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POTENTIAL DRONE APPLICATIONS

Disaster Assessment & Search and Rescue



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VOLUMETRIC COMPUTATIONS USING UAS



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**UAS STRUCTURAL INSPECTIONS**

Structural Inspections



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**PENNDOT'S CURRENT DRONE PROGRAM**




**DRAGON FLYER X-4**



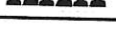

**DJI PHANTOM 4 PRO**



**PennDOT 'Certified' Pilots**



**Third Party**



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**UAS REGULATORY GUIDANCE**

**Federal Regulations and Expectations**

CFR Part 107 - Small Unmanned Aircraft Systems

- Comply with operational parameters
- Achieve acceptable level of competency



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**CFR PART 107 UNMANNED AIRCRAFT SYSTEMS**

**FAA Operational Limitations**

- Cannot operate over people or moving vehicles.
- Within line of sight at all times.
- Daytime operations only.
- Less than 100 mph.
- Max 400 feet above ground level (or structure).
- Must remain outside controlled airspace unless FAA Air Traffic Control approval.


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**PENNDOT UAS POLICY**



**PennDOT's  
3 'C's  
For Drone  
Deployment**

- **Compliance**
  - Federal
  - State
  - Local
- **Coordination**
  - Private Property Owners
  - Airports / Heliports
  - Law Enforcement
- **Control**
  - PennDOT Flight Ops
  - Third Party Flight Ops


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**PENNDOT OPERATIONAL CONSIDERATIONS**

**Operational Considerations**

- Standardization of Operations and Training.
- Comprehensive Risk Management.
- Overflight of Private Property.
- Roadway Distraction.
- Videography of Private Property.
- Imagery Storage and Security.


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### FLIGHT REQUEST FORM AND RISK MANAGEMENT

Form AV-14

Risk Likelihood	Value	Risk Severity				
		Catastrophic (A)	Major (B)	Minor (C)	Minor (D)	Insignificant (E)
Extreme	5	25	15	10	5	2
High	4	20	12	8	4	2
Medium	3	15	9	6	3	1
Low	2	10	6	4	2	1
Extremely Low	1	5	3	2	1	0.5

**Mission Approving Authority**

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### PENNDOT UAS POLICY

#### PennDOT UAS Operator Certification

**Knowledge**

**Proficiency**

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### PENNDOT UAS TRAINING

**NIST** National Institute of Standards and Technology  
U.S. Department of Commerce

#### Operator Training

- Lane Marker
- Launch/Land Platform
- Omni Bucket Leveling Stand
- Spiral Bucket Leveling Post

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**PENNDOT UAS TRAINING**

Operator Training



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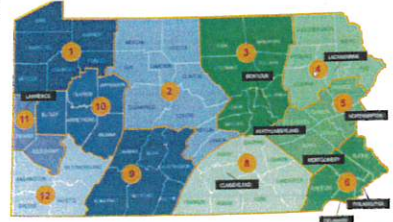
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**PENNDOT UAS - WAY AHEAD**

Way Ahead  
11 District Offices



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**STIC INNOVATION GRANT**

**STIC** 

**2019 - 2020 Program**

- Additional UAS Equipment
- UAS Drone Fleet Management Software



 **Kittyhawk**

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PENNDOT UAS - WAY AHEAD



### State UAS Management Center ?

Joint State Government Commission  
Report to PA Senate – January 2017



**Recommendation:** ...develop State UAS Management Center...  
...under PennDOT Bureau of Aviation...

-to "establish and oversee standards and training for all agencies..."



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AGENCY UAS MUTUAL AID

Mutual Aid for Emergency Management Support



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CHANGE TO FAA ADVISORY CIRCULAR

Airports in Uncontrolled Airspace



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**Questions/Feedback**



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