Unmanned Aircraft Systems Program Update

NCDOL Safety and Health Advisory Committee

November 2018

Presented by: Lee Peacock
District Supervisor
Chief Pilot

Why Drones?

Source: NCDOL Photo Library Insp.#310742531

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Source: Burke County Emergency Services- provided to NCDOL for Insp.# 309847127
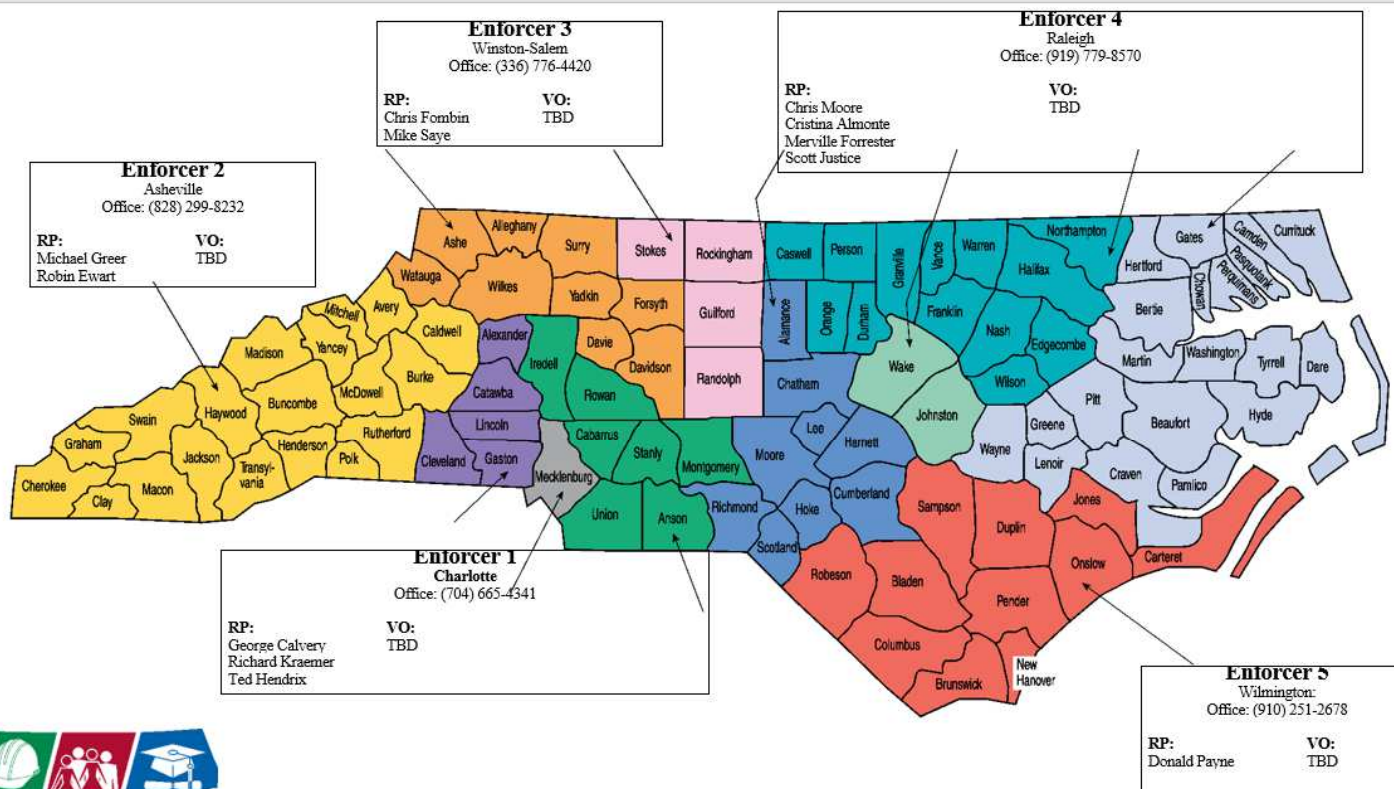
UAS Program Purpose:

- Enhance our investigative process w/o Staff Exposure

- Build upon core hazard recognition, knowledge and training competencies

- Increase hazard awareness and public outreach opportunities

- Incident Command & ERHS Incidents

- Additional uses with increased flight time

NCDOL UAS Fleet:

- **8 DJI Mavic Pros**
  Compliance- 3 West, 2 East
  ETTA- 1
  Elevator- 2

- **Portable, Foldable, Compact**
- **27 min flight time**
- **Camera- 12 MP ; single shot, burst**
- **Video- 1080, Ultra HD, 4K**
- **Height- 16404 feet**
- **Object Avoidance Sensors**

NCDOL UAS Pilots:

- Team Establishment

  - 2 during flight operations (1 pilot, 1 spotter)

  - Preference to staff with aeronautical background (pilot's license)

  -Tenured staff ($150 for FAA certification-Biannual)

  - 1 per district or 2 per office (Asheville, Wilmington, ETTA)

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NCDOL
UAS FLIGHT TEAM

CHIEF PILOT:
Lee Peacock
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RP:　　　　VO:
Cory Dunphy　TBD
James Washington
Morgan Brown

Elevator 1
Raleigh
Office:

RP:　　　　VO:
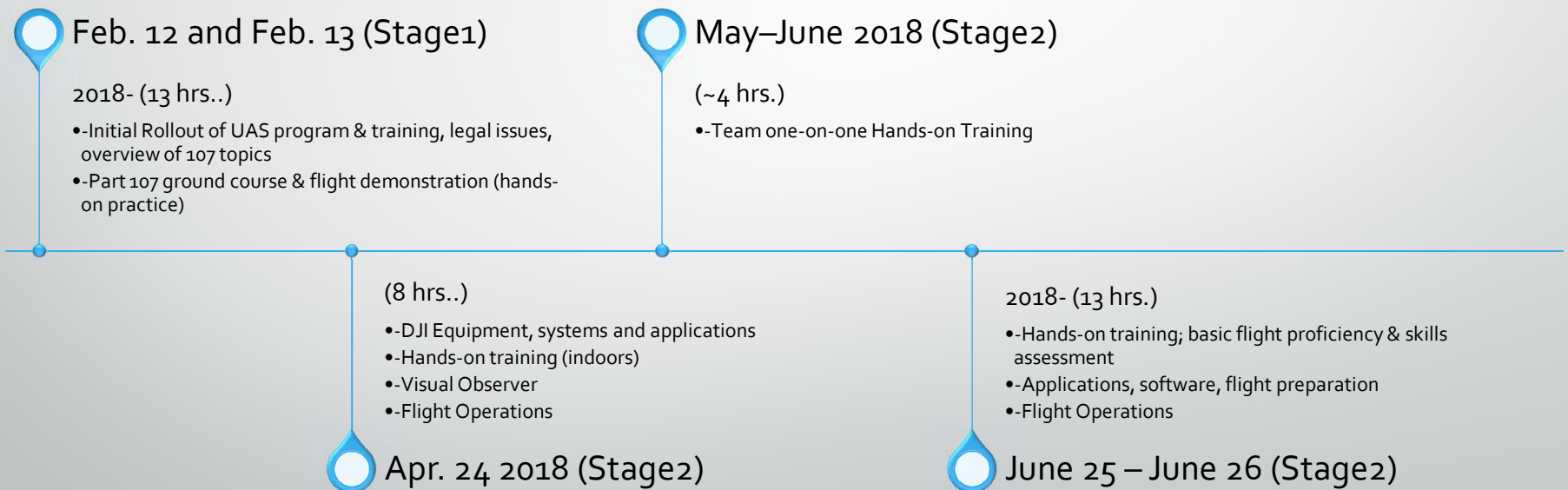Eric White　TBD

Elevator 2
Raleigh
Office:

RP:　　　　VO:
Joey Hazelrigg　TBD
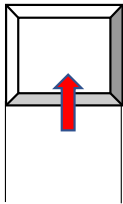
Program Development: Government Operations:

- Compliance with FAA and state regulations

  -FAA Registration

- Pilot Training (Part 107 or under COA if allowed by FAA)

  - Establish training course (initially and biannual requirement)

  - Successful completion and issuance of FAA Operator's License

  - Successful completion and issuance of State Operator's Permit

- Operation in National Airspace (Class G no restrictions)

  -Submission of FAA Waivers (due to 5 NM of Airport)

- Develop SOPs (when to use, who can use, limitations)
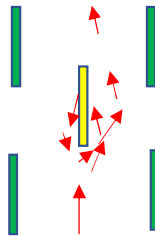
Stage 1&2 Training

Feb. 12 and Feb. 13 (Stage1)

2018- (13 hrs..)

- •-Initial Rollout of UAS program & training, legal issues, overview of 107 topics
- •-Part 107 ground course & flight demonstration (hands-on practice)

May–June 2018 (Stage2)

(~4 hrs.)

- •-Team one-on-one Hands-on Training

(8 hrs..)

- •-DJI Equipment, systems and applications
- •-Hands-on training (indoors)
- •-Visual Observer
- •-Flight Operations

Apr. 24 2018 (Stage2)

2018- (13 hrs.)

- •-Hands-on training; basic flight proficiency & skills assessment
- •-Applications, software, flight preparation
- •-Flight Operations

June 25 – June 26 (Stage2)

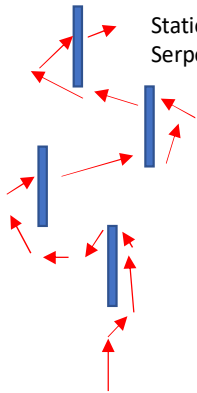# NCDOL-UAS Flight Skills Stations June 2018
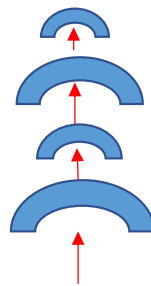
Station 1-
Picture Box
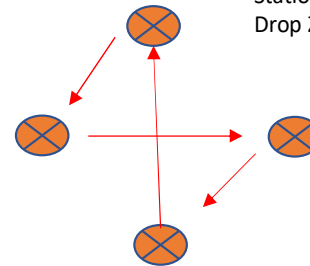
Station 2-
Round-a-bout

Station 3-
Spray-n-wash
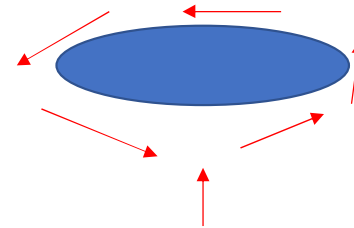
Station 4-
Serpentine
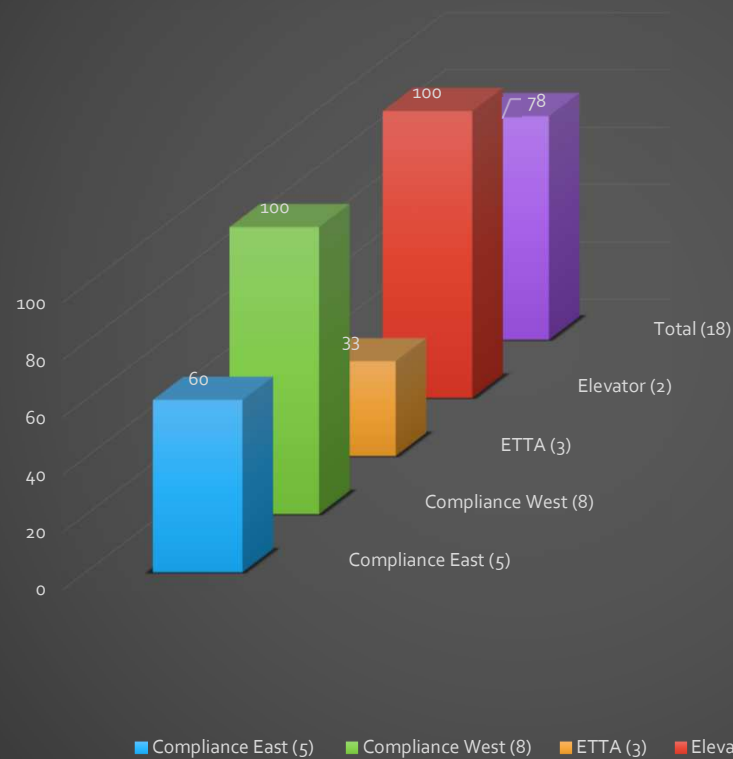
Station 5- Over
& Under

Station 6-
Drop Zone

Status of Stage 1 & 2 Training:
78% completed

% RP Licensure (Sept 2018)

Implementation Plan and Steps Taken:

The UAS Remote Pilot Training Course will be designed with three main segments:

- Stage 1- basic aeronautical knowledge, federal and state regulations, operating in the National Air Space, meteorology and objectives to pass the FAA Remote Pilot's Examination and NC DOT UAS Knowledge Test.

- Stage 2- 'hands-on' skills and actual operation of the drone. In addition, information specific to the equipment, technology, maintenance, internal standard operating procedures, planning and execution of flight operations will be taught.

- Stage 3- long-term flight proficiency. Upon completing Stage 2, the pilots will be required to conduct independent flights and build flight hours to maintain proficiency and further skills development; will include:

    *Bimonthly flight hour requirements

    *First 2 years- quarterly training (including scenario driven missions)

    *Annual Program Review (internal & external partners)

    *Enhanced Training

    *Biannual RP Recertification

Questions: