

# What Will the Skies of the Future Look Like?

- Moderator:
  - **Heather Hasper**, Senior Aviation Planner, DHJ Alaska
- Speakers:
  - **Bobby Walston**, Director of Aviation, North Carolina Department of Transportation
  - **Matt Metcalfe**, Managing Director, Deloitte



## **NORTH CAROLINA** Department of Transportation



# **What Will the Skies of the Future Look Like**

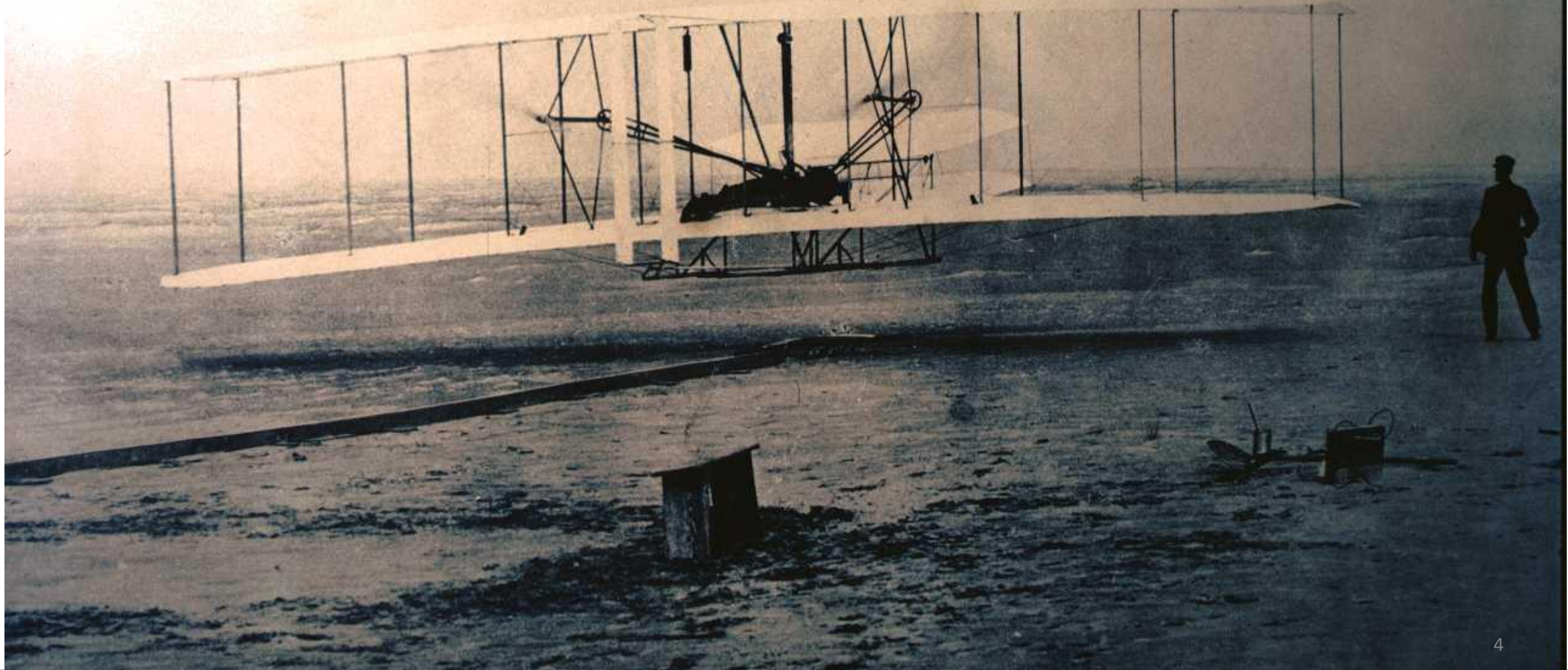
**National Governor's Association Transportation Technology Workshop  
Washington, D.C.**

**Bobby Walston, P.E.,** Aviation Director, North Carolina Department of Transportation  
June 4, 2019



# Kitty Hawk, N.C., December, 17, 1903

Wilbur and Orville Wright complete the first sustained powered flight in a heavier-than-air machine.



# NCDOT UAS Program Goals



**UAS Innovation** – Creating knowledge and integration of UAS technologies for public and private use and benefit.



**UAS Safety** – Providing the nation's safest environment for drone operations.



**UAS Government Integration** – Maximizing state and local agency use of UAS technology to improve public services and operations.



**UAS Economic Development** – Developing a world-leading UAS economy.

# UAS Knowledge Test & Permitting

Operating a UAS / drone in N.C.  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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Division of Aviation » Unmanned Aircraft Systems » Knowledge Test & Operator Permitting

## UAS Account Creation & Login

Issues with your account? Have questions about UAS operator permitting? [Contact us](#) today!

**Do you know the requirements to fly a drone in North Carolina?**  
Create an account to take the UAS Knowledge Test and apply for an Operator Permit.

[Create Account](#)

[Download Study Guide](#)

### Account Login

Email Address

Birthdate

Driver's License Number

[Login](#)

BEFORE YOU BEGIN

### Requirements for Operator Permitting in North Carolina

Commercial	Government	Recreational
<ul style="list-style-type: none"><li>Operator must have a valid <a href="#">Airman Certificate</a>.</li><li>Operator must be at least 16 years old.</li><li>Operator must pass the <a href="#">NCDOT UAS Knowledge Test</a>.</li></ul> <p>Commercial operators have to register their UAS through the <a href="#">FAA's UAS website</a>.</p> <p><a href="#">More Information</a></p>	<ul style="list-style-type: none"><li>Operator must have a valid <a href="#">Airman Certificate</a>.</li><li>Operator must be at least 16 years old.</li><li>Operator must pass the <a href="#">NCDOT UAS Knowledge Test</a>.</li></ul> <p>Government operators have to register their UAS through the <a href="#">FAA's UAS website</a>.</p> <p><a href="#">More Information</a></p>	<ul style="list-style-type: none"><li>Recreational UAS/drone operators do not need an <a href="#">Operator Permit</a>.</li><li>Recreational operators have to register their UAS through the <a href="#">FAA's UAS website</a>.</li></ul> <p><a href="#">More Information</a></p>

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- First and only state to have a UAS commercial and government permitting program
- Required by NC General Statute
- Must pass Knowledge Test to obtain permit
- Entire process online

# FAA UAS Integration Pilot Program

One of 10 U.S. teams selected to pilot UAS use cases



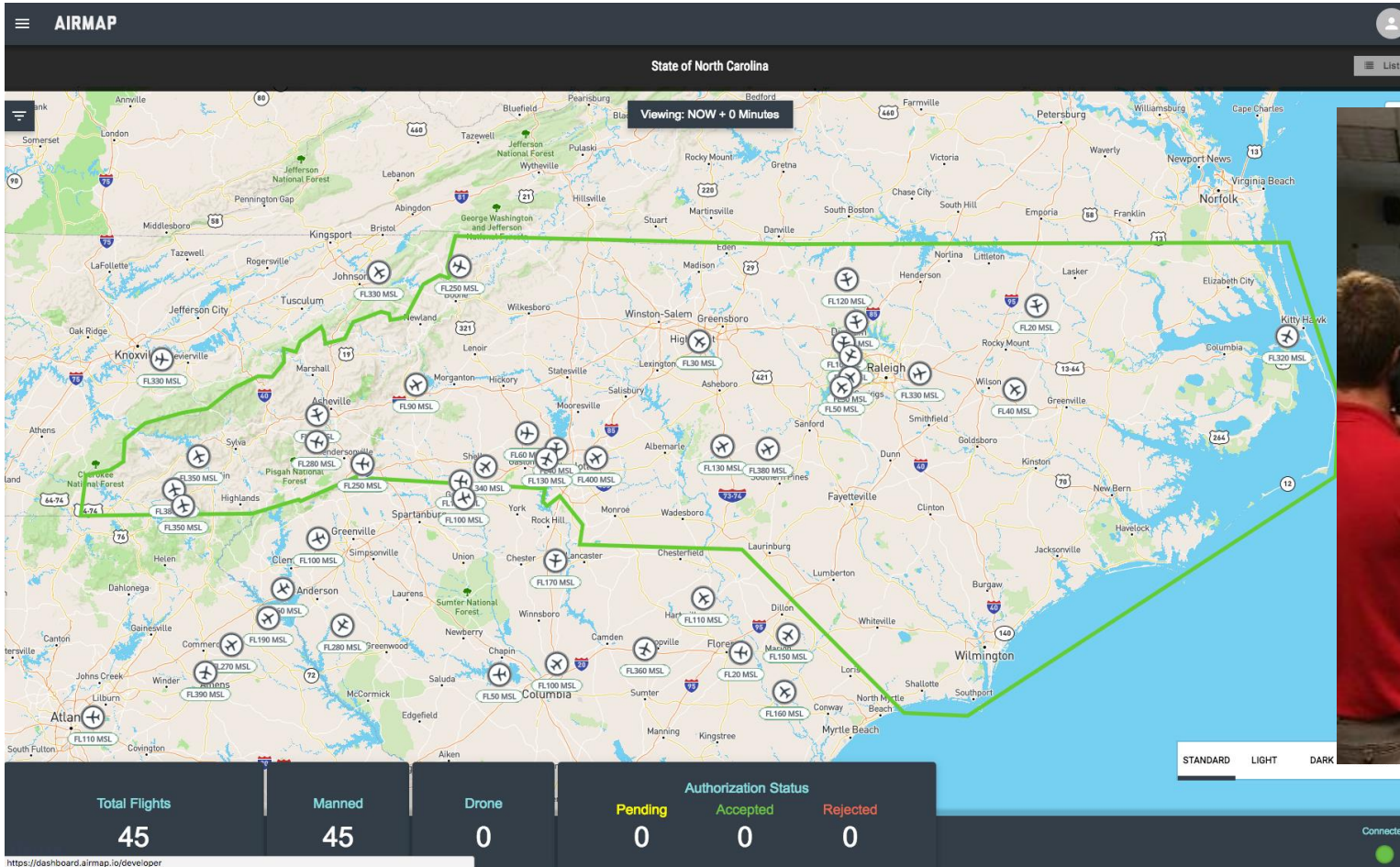
# NCDOT UAS Integration Pilot Program



- **FIRST:** Medical package delivery over people (August 2018)
- **FIRST:** Routine commercial medical package delivery over people (March 2019)
- **FIRST:** Routine food package delivery (Coming Summer 2019)
- **FAA ADDED:** Transportation infrastructure inspection (Fall 2018)



# North Carolina's First Coordinated Drone Support of Disaster Emergency Response

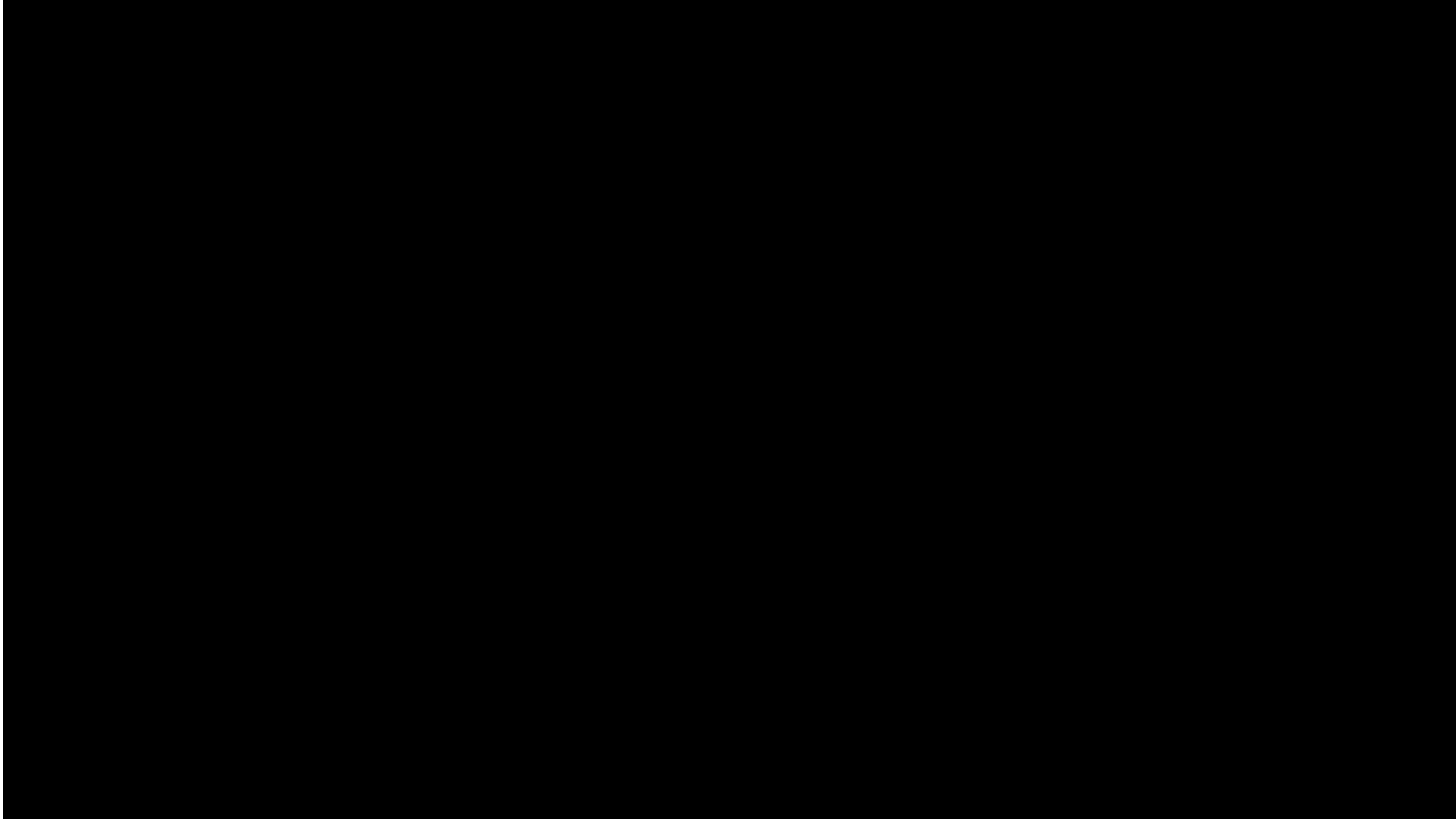


# Disaster Response Results



- **Missions**
  - 15 drone teams
  - 260+ missions
  - 8,000+ videos and images
  - Live streaming of real-time data to emergency responders
  - 7 supported agencies (NCDOT, NCDPS, NCDEQ, N.C. National Guard, U.S. Coast Guard, FEMA, and FAA)
- **Recognition**
  - Major national/international media coverage and government/industry presentations
  - 2019 AUVSI XCELLENCE Humanitarian Award

# Post Hurricane Drone Video



# NCDOT Integration



Vision: NCDOT maximizes the use of UAS or drones to improve project delivery and operations while enhancing safety and saving tax dollars.

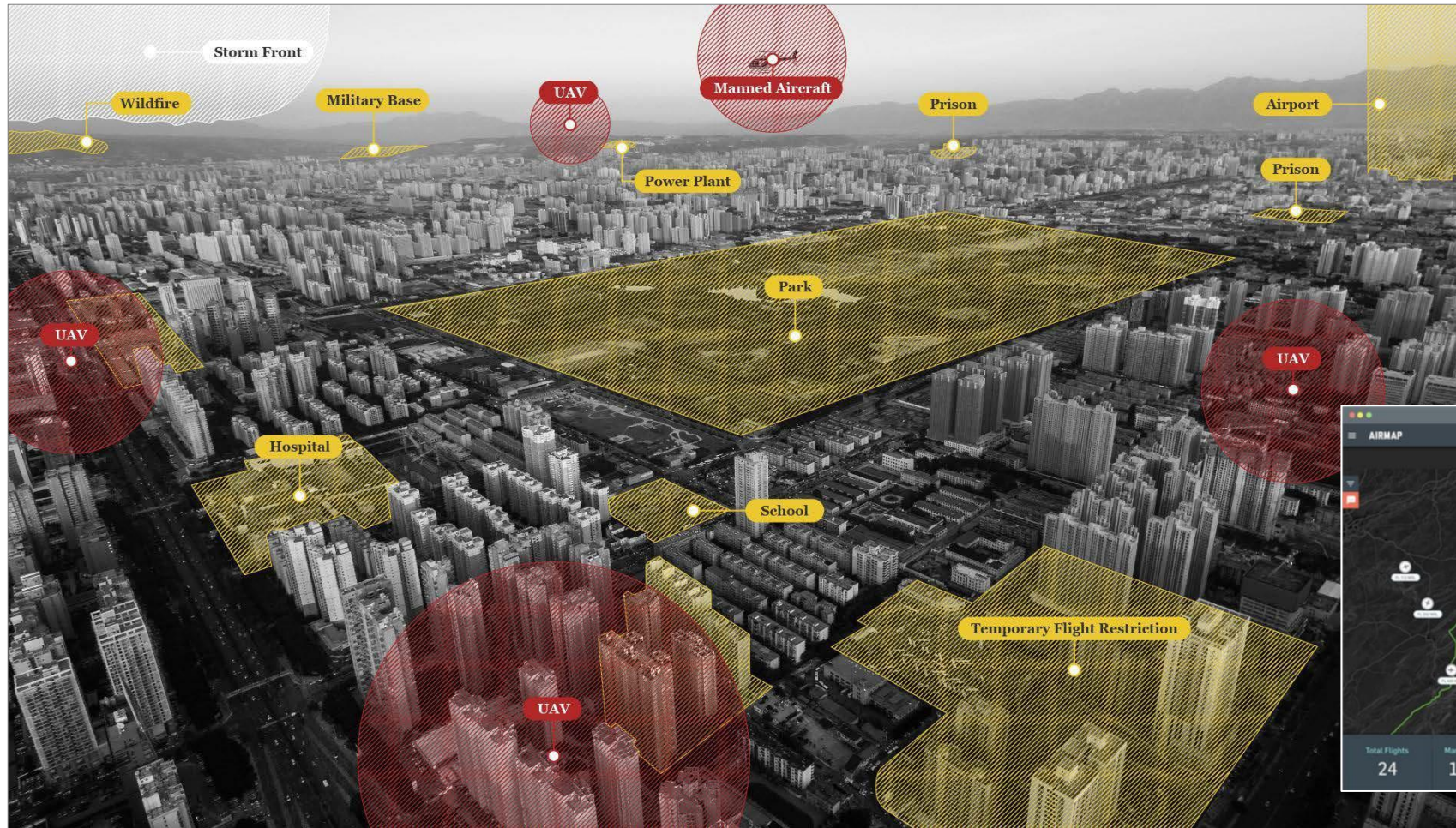
# NCDOT Integration Components



- Policy
- Promoting and supporting drone use across NCDOT
- Providing operator training and certification
- Advising procurement
- Providing fleet management

# NEXT STEPS

## Unmanned Traffic Management



# Urban Air Mobility/NASA Grand Challenge



## Urban Air Mobility (UAM)

- **Infrastructure Inspection**
- **Routine Medical Package Delivery**
- **Routine Food/Parcel Package Delivery**
- **Unmanned Traffic Management**
- Autonomous Ambulatory Services
- Single Pilot Cargo Aircraft
- Unmanned Cargo Aircraft

You're Invited!

# North Carolina Drone Summit & Expo



- Inaugural Summit in 2018
  - 400+ attendees
  - Industry and government leaders presented
  - Flight demos and exhibitors
- 2019 Summit: Aug. 11-13
  - Defense industry focus
  - Grandover Resort and Conference Center, Greensboro, N.C.

[www.ncdronesummit.com](http://www.ncdronesummit.com)



# *North Carolina: Forever First in Flight*



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