North Carolina - UAS Airspace Integration Exercise

UAS Best Practices - Incident Response

Rules and Policies

Have pre-established and authorized Certificates of Authorization or FAA Part 107 Waivers and flight crews to support mission expectations and potential operations.

The local Incident Commander should identify an Air Boss for any incident requiring more than one aircraft

Aircraft must be separated both laterally and vertically and/or by time of entry an departure.

Use of a Visual Observer is recommended to confirm visual separation of all aircrafts.

For large incidents the Incident Commander should request a Temporary Flight Restriction (TFR) through the FAA.

Start outreach early in the decision making process to include public comment opportunities and participation.

Certifications

All pilots should obtain a FAA Part 107 Remote Pilot Certificate.

Pilots should be trained to North Carolina state and local UAS Policies and Procedures, including holding an NCDOT UAS Commercial or Government Operators Permit

Recommended Air Boss training includes: Part 107 Remote Pilot Certificate, NCDOT Permit, E0986 National Incident Management System (NIMS) Incident Command System (ICS) Air Support Group Supervisor, and Specific NC UAS Policies and Procedures.

Conduct Airspace Integration Exercises annually to validate procedures, update training documents, and verify performance objectives.

Planning Your Program

Evaluate business and procurement models for acquisition and staffing requirements thoroughly before starting a UAS program.

Develop a UAS Incident Response Pocket Guide.

Have local Temporary Flight Restrictions, Special Use Airspace, and process specifics mapped out and routinely updated to support the potential impacted mission areas within the agency's jurisdiction.

Have pre-vetted vendors, assets, and operators documented to ensure safety and adherence to rules and regulations.

Establish a "Volunteer Aircraft Policy" for the agency to address unofficial and not-authorized aircraft.

Agencies should educate the public about any UAS Program plans including aircraft capabilities, sensors, and the types of activities the UAS will perform, expected outcomes, and the risk mitigations implemented to ensure public safety. This education process should start early in the decision making process to include public comment opportunities and participation.

Run a time-sensitive Public Affairs campaign educating the public on safe operations and consequences of unauthorized interference with manned and unmanned aircraft PRIOR to events like hurricanes.

Communications

All Ground to Ground communications should be conducted via the 800 MHz VIPER Network.

All Air to Air, Ground to Air, or Air to Ground communications should be conducted via the Aircraft band.

Communications between the Incident Command Structure and the flight crews should be limited to the Incident Commander and the Air Boss.

Radio Communication range, potential interference threats, and limitations should be identified during mission planning.

Radio Frequencies should be assigned and documented during the preflight planning, including Primary, Alternate, and Contingency channels.

UAS lost link procedures should be documented, practiced, and quickly accessible during flight operations.

All Operational Aircraft shall be grounded if there is another aircraft in the airspace with whom communications cannot be established.

Data Management

There should be standards on data quality, projections, coordination, and file formats specified during mission planning.

Policies should be in place defining where the data is stored, how long it is to be kept, access permissions, etc.

Law Enforcement organizations must have procedures in place to address chain of custody requirements.