NEOFIX Working Launch

21 June 2023

Agenda

- Virtual Workgroup Updates (15 minutes)

- NEOFIX Demonstration -- http://www.oh-fix.com/ -- (5 minutes)

- Data Sharing, Design, and Sensor Integration Working Discussion (40 Mins)

- Next Steps (15 minutes)

- Provision User Accounts (45 Mins)

Data Sharing

- Obtaining Critical Infrastructure Hazards data from First Energy, FirstComm, Crown Castle

- Commitment for integration from Strongsville CAD dispatch in fall (Sep-Oct)

- Key Data Sets from County Planning
  - LIDAR topography / elevation data
  - Metroparks (geography to match policy)
  - Cleveland UAS Ordinance (ground rules)
  - Assistance with towers and schools (OH) and highway right of way (OH)

- OH State Assets – schools, highway lighting, highway rights of way

- Key Data Sets from County Emergency Management
  - Ground hazards (critical infrastructure, power lines and above ground substations and facilities, chemical and fuel storage)
  - Restricted public safety facilities (police, fire, prisons, etc.)

- Industry integration: Aloft (flight plans); Zipline (onboard sensors)

- Industry integration: sensors (DeDrone, etc)

Design

- Area 1: 10-mile radius around Cleveland Clinic Administrative Campus

  - VLOS, EVLOS moving to BVLOS

  - Medical Delivery, DFR, Infrastructure Inspections

  - Assume Group 1-2 (Under 55 Lbs) in the near term

  - Hazards and critical infrastructure; ditch sites; TOLAs

- Area 2: Cleveland Lakefront – 5 x 2 mile strip encompassing Burke Lakefront Airport

  - VLOS, EVLOS moving to BVLOS

  - Medical Delivery, DFR, Infrastructure Inspections

  - Assume Group 1-2 (Under 55 Lbs) in the near term

  - Much more hazardous / challenging area than Area 1: commercial airport, tall structures, more restricted areas

Sensor Integration

- Existing Sensor Inventory: Burke Airport, deployed public safety sensors for mutual aid and planning

- Weather Sensors: low-cost sensor deployment, including crown towers and anemometers
  - Determine rooftop accessible locations and tower distribution

- Crown Castle: access to cellular-on-wheels (COW)
  - Understanding of full coverage area, operational goals, and local constraints

- Iridium: coordinate with partners for sensor locations and available connectivity options (internet, power)

- Iris Automation: minimal power requirement, LTE modems used for connectivity, approximately 3km coverage per sensor
  - System consists of power brick, camera node (vision-based detection), ADS-B receiver
  - Ideal placement on tallest structures clear of obstructions (10 degrees down to 33 degrees up from horizon)

- Cellular data ingestion and integration into UTM for analysis

Policy

- FAA Reauthorization Act of 2023

- Use Cases: public "needs" stimulating private sector support

- Funding based on system maturation

- Existing Ohio and Cleveland UTM policies

- Enhance natural discussions integrating drone use and policies

- Ohio House of Representatives: Aviation and Aerospace Committee

Working Agenda

- Status on Data Sharing and Next Steps

- Design Around Areas 1 and 2 – Service Volumes and Configuration

- Sensor Integration – Planning and Budgeting

- Policy

NEOFIX

Northeast Ohio Flight Information Exchange

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