AURA
NETWORK SYSTEMS

AURA Overview

For: NCTCOG UAS Safety & Integration Task Force

Lisa Peterson
VP, Business Development

July 19, 2023

Industry Challenge:
How will UAS/AAM operations fly safely in the NAS?

Answer:

Only with highly secure and reliable Command and Control (C2) Communications

Remote pilots will have a safety-critical C2 radio link for Control Non-Payload Communications (CNPC)

FCC-licensed spectrum for commercial UAV operations in the NAS

Purpose-built network to meet FAA's high requirements for safety

Dedicated, secure, reliable signal for C2 data, telemetry, surveillance/ADS-B, ATC voice, other critical safety information

Enables low latency data & ATC voice connectivity

Cost-effective service delivery

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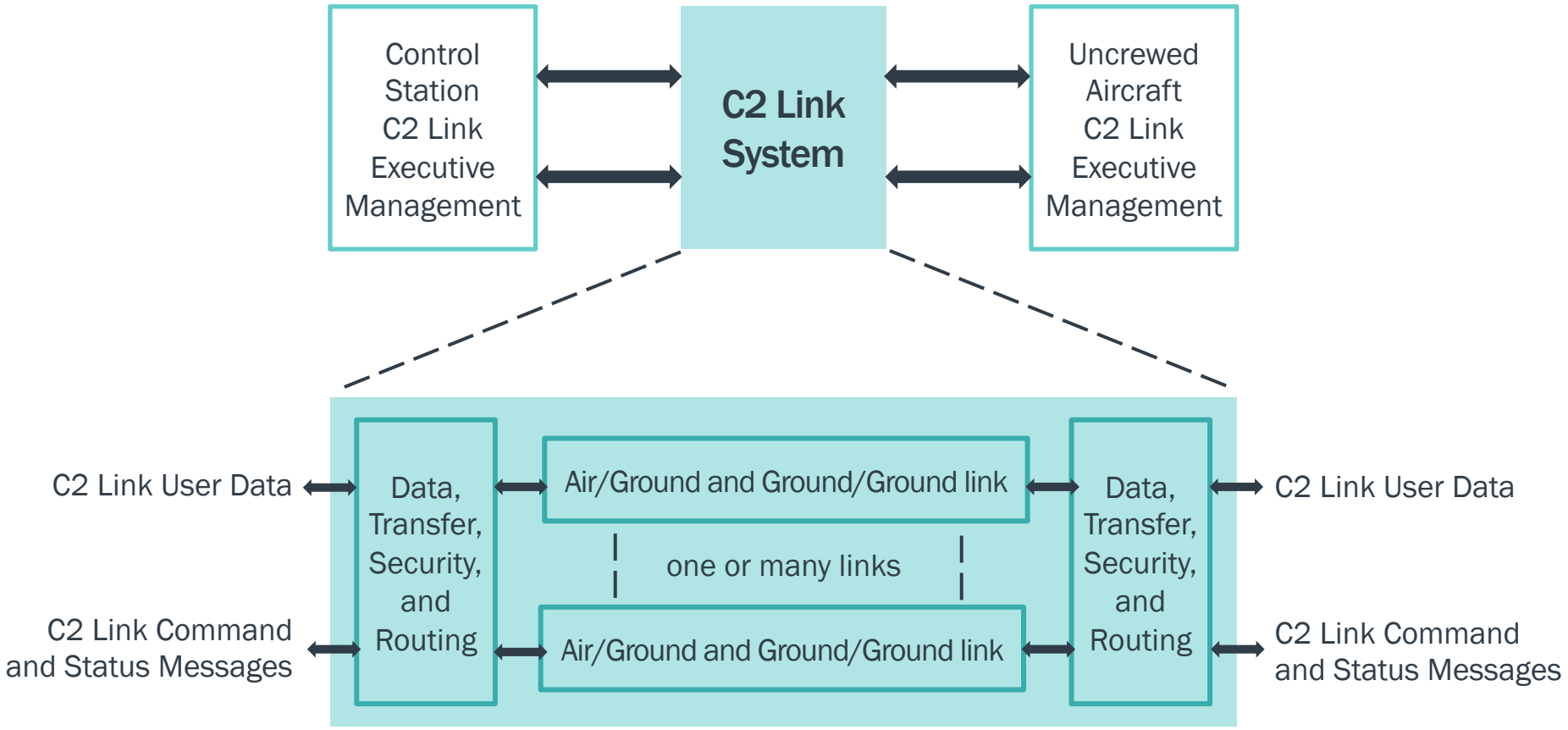
C2 Command & Control
ATC Air Traffic Control
BVLOS Beyond Visual Line Of Sight

Standards for Ground-to-Air / Air-to-Ground Control and Non-Payload Communications (CNPC) have been defined...

Conceptual Overview



DO-377 Covers All Key Operational Functions

Operational & Functional Requirements

Aviate

Must enable operations in all environments and comply with separation standards

Navigate

Enable remote pilot's control of UA through all phases of flight, including flight plans

Communicate

Must comply with ATC when operating in controlled airspace, including communicating by voice

Integrate

Enable remote pilot to ensure safe integration into the NAS

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DO-377 Addresses Minimum C2 Link Performance Standards

Performance Requirements (applied to each function)

Availability

Probability that comms between two end points are in service when needed

10^{-5} pfh
(Aviate, Navigate, Communicate)

Continuity

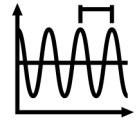
Probability the comms is available when transaction is initiated and will be completed before expiration time/time out

10^{-5} pfh
(Aviate, Navigate, Communicate)

Integrity

Acceptable probability of transactions completed without error

10^{-7} pfh
(Aviate and Navigate)



Latency

Time taken for information to pass, one-way over C2 link

<0.155 sec
(Communicate)

DO-377 Minimum Performance Standards Apply Across All Stages of Flight and Airspace Types

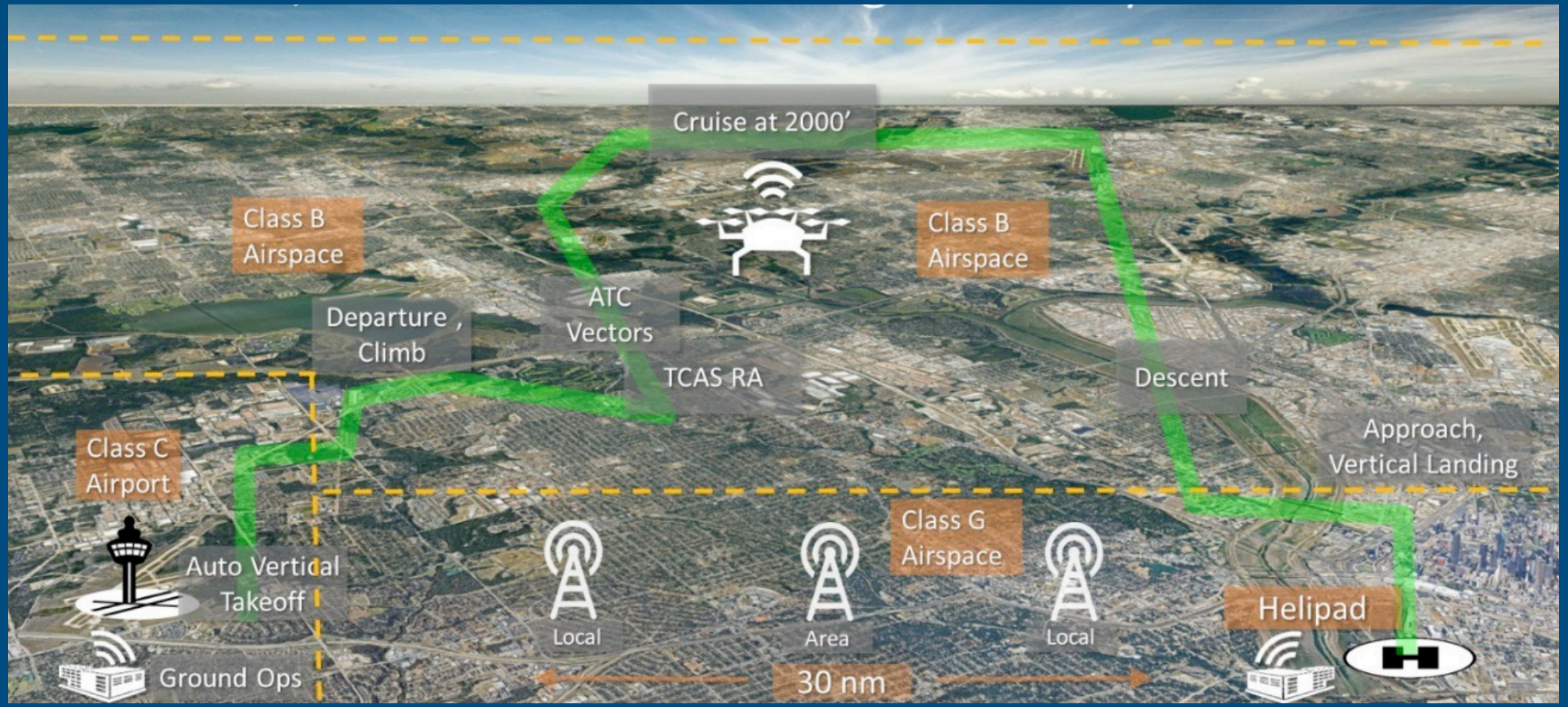
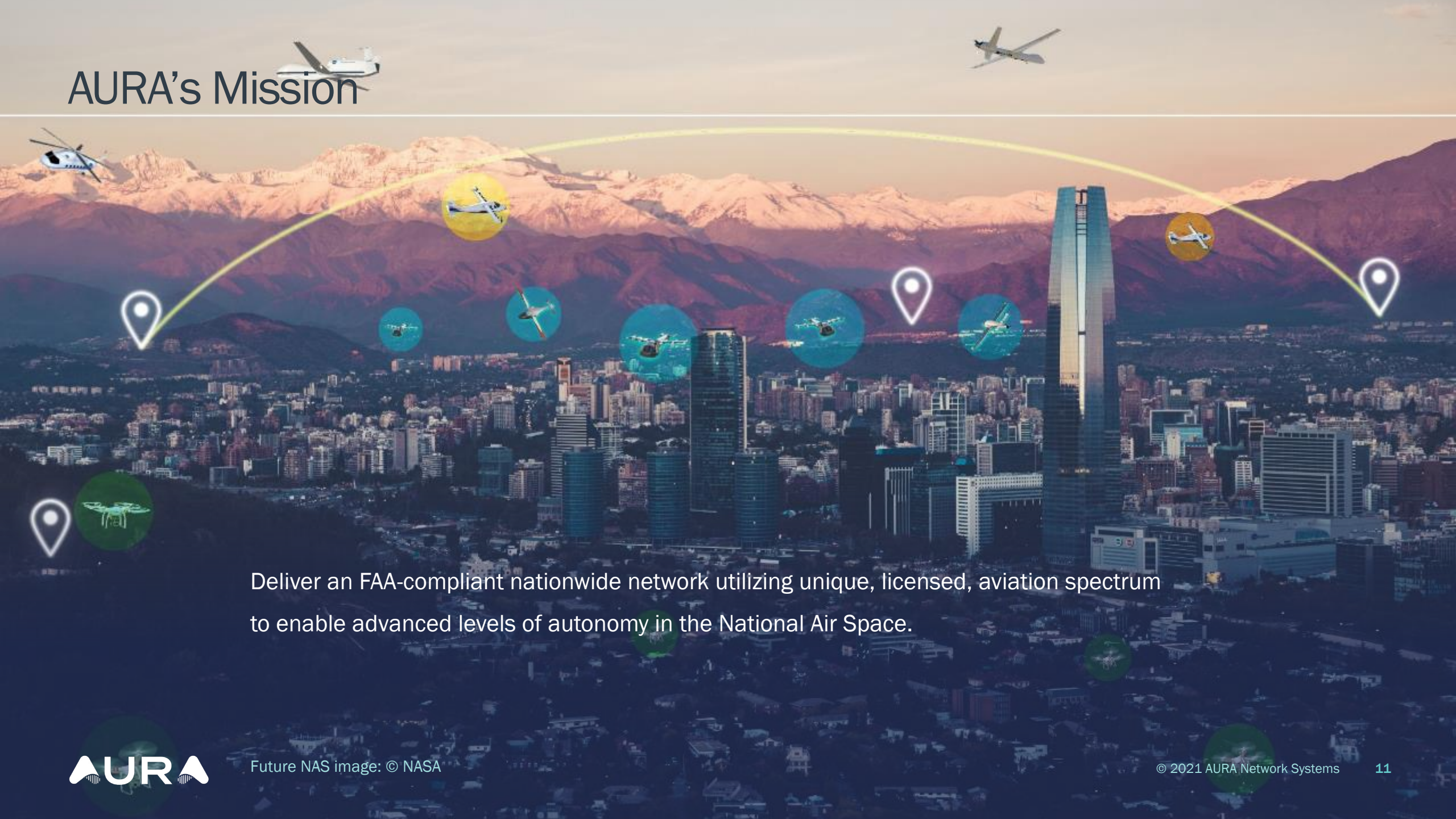


Image: ©RTCA

AURA's Mission



Deliver an FAA-compliant nationwide network utilizing unique, licensed, aviation spectrum to enable advanced levels of autonomy in the National Air Space.

Future NAS image: © NASA

About AURA

2019

ADVANCED
ULTRA
RELIABLE
AVIATION

FOUNDED BY A PROVEN TEAM OF AVIATION AND WIRELESS TELECOM EXECUTIVES

Backed by experienced investors:

MUDRICK CAPITAL

TRACKER CAPITAL MANAGEMENT, LLC

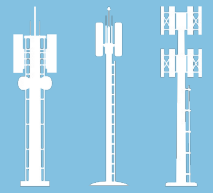
ACQUIRED

UNIQUE FCC-LICENSED 454/459MHz SPECTRUM

Only spectrum approved for uncrewed aviation in the NAS

Meets rigorous FAA performance and operational standards

BUILT



CURRENTLY

57

BASE STATIONS

Expansion continues based on customer commercial routes

Additional mobile sites to support partner certification flight tests

NETWORK

NATIONWIDE "MACRO CELL" GROUND STATION COVERAGE

No altitude restrictions

Authorized to provide service anywhere in US, including HI, AK, PR and all US territorial waters

DELIVERING

SAFETY-CRITICAL COMMAND & NON-PAYLOAD COMMUNICATIONS

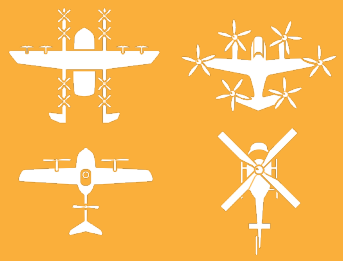
Command & Control Data

Telemetry Data

Airborne Detect & Avoid

ATC/Pilot Voice

CONOPS



SERVING REMOTELY PILOTED OPERATIONS IN THE NAS

Regional Air Cargo

Industrial Inspection

Urban Air Mobility

Disaster Response

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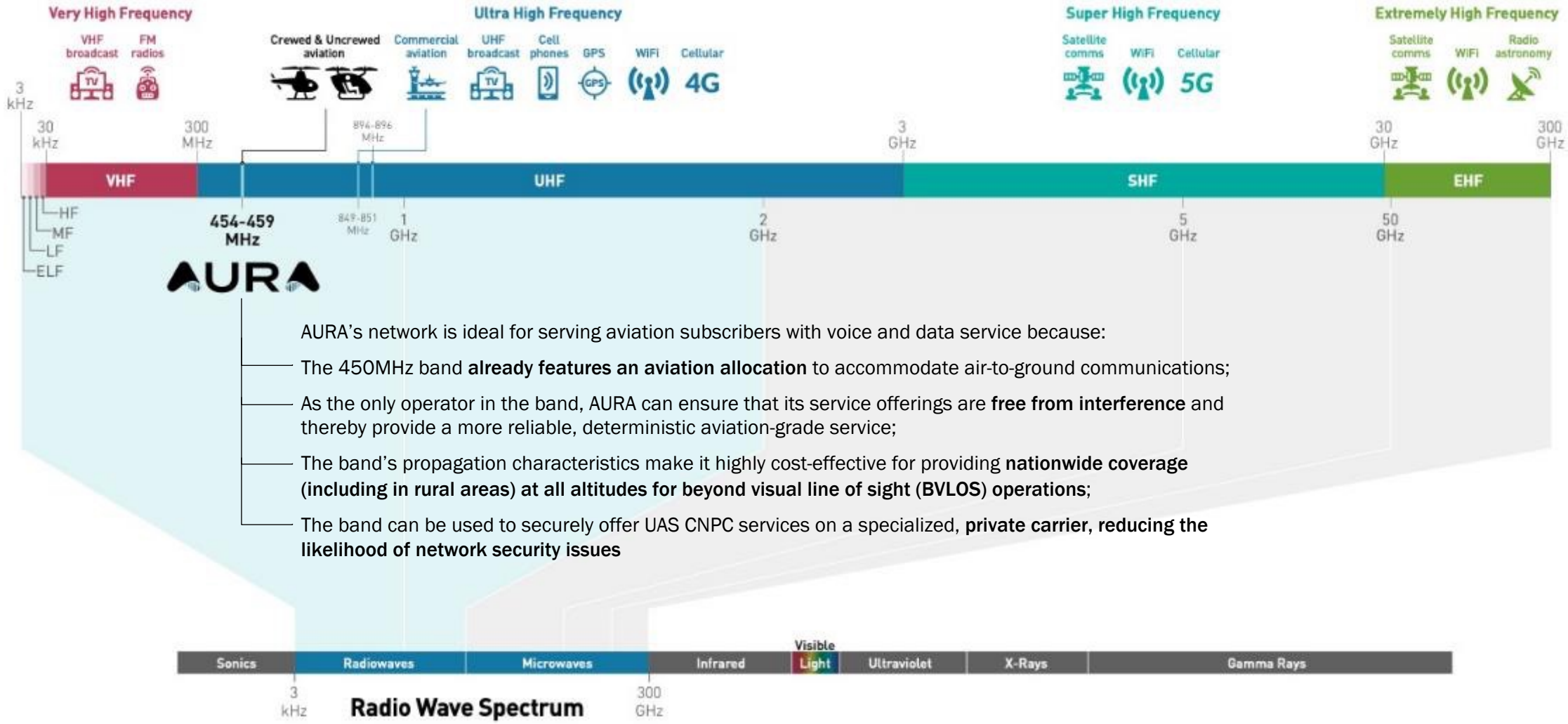
AURA's Spectrum's Unique Propagation Capabilities



AURA's Network Enables Business Operations Across Three Key Verticals

Regional Air Cargo

Air Cargo operators are seeking to **augment** their existing crewed delivery fleets by transporting goods long distances safely, efficiently, and more economically using UAVs.

Typical Large Air Cargo ConOps	
Aircraft size/type:	Cessna 208 Caravan
Altitude in the NAS:	5,000–25,000 ft
Environment:	Regional Corridors
Flight Distances:	~600 miles

Remote Inspection

Utility, Energy & Rail companies need to **replace** their expensive, weather-impacted, often dangerous helicopter operations with safe, efficient, economical remotely-piloted UAVs.

Typical Linear Inspection ConOps	
Aircraft size/type:	NavMar Teros
Altitude in the NAS:	>1,000 ft
Environment:	Highly Variable
Flight Distances:	~500 miles/day

Urban Air Mobility

Urban air taxi operators are creating a **new** market for safe, fast, environmentally-friendly passenger transportation using eVTOL UAVs.

Typical Urban Air Taxi ConOps	
Aircraft size/type:	2-6 Passengers
Altitude in the NAS:	2,000–3,000 ft
Environment:	Dense / Urban
Flight Distances:	~25-150 miles

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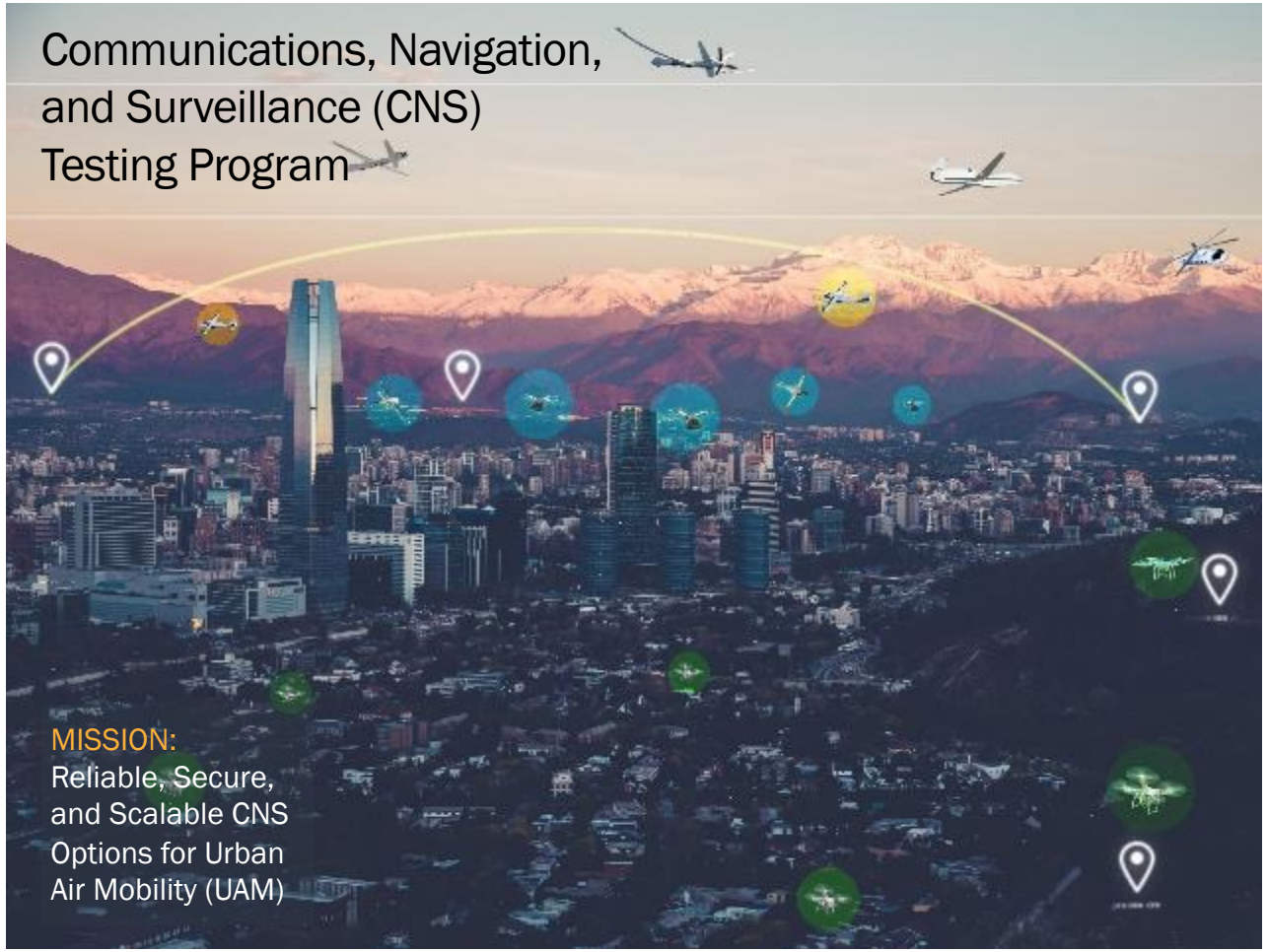
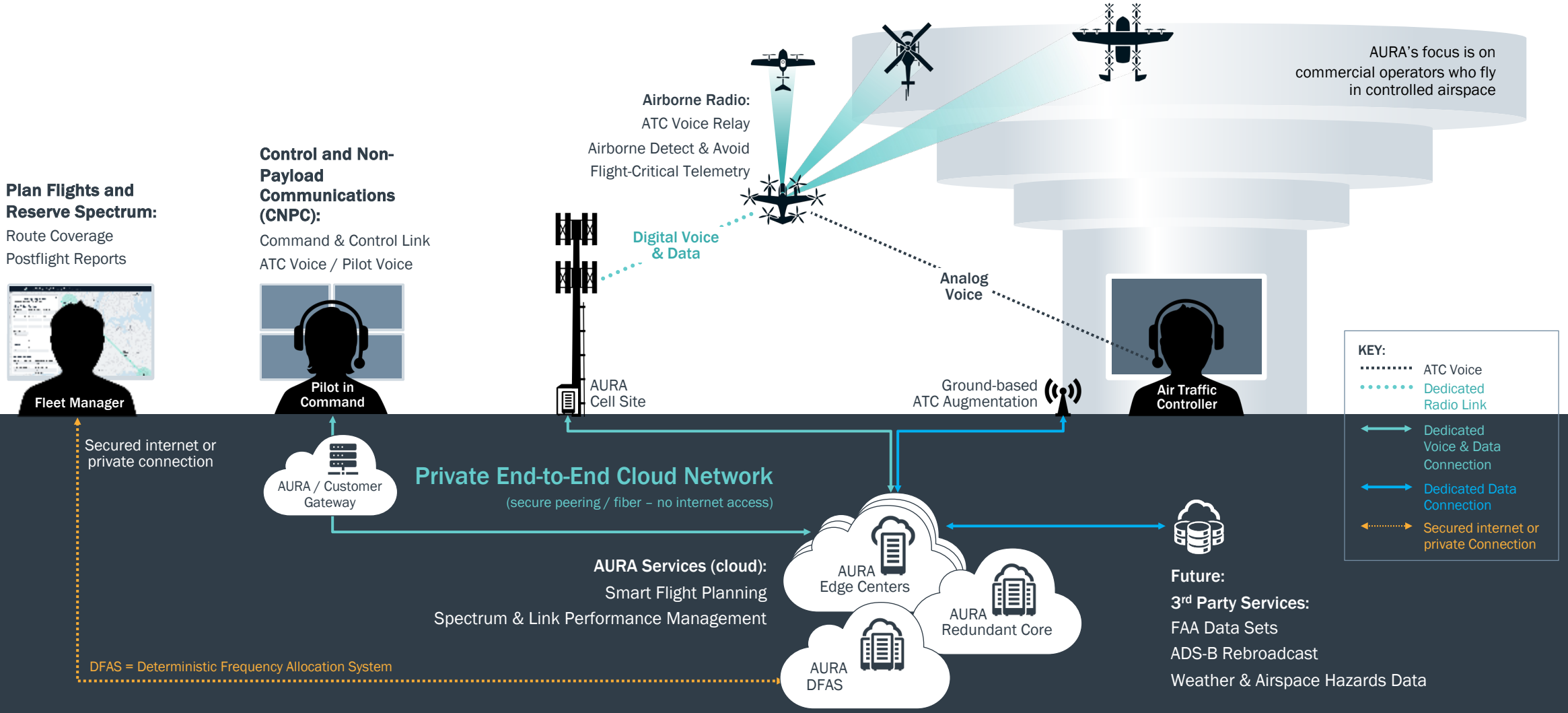
AURA Was Selected for Two NASA Programs



AURA's Private Terrestrial Aviation Network



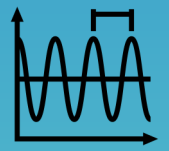
AURA's Dedicated Aviation-Grade Wireless Network – Key Attributes

450 MHz FCC Aviation-Licensed Spectrum

AURA's spectrum has the ideal propagation characteristics for aviation and has no altitude restrictions.

Ultra-Reliable Radio Link

Network radio link and spectrum management system enables continuous monitoring and control of UAV for flight operations.



Extremely Low Latency

Network architecture optimized for low latency communication.

Secure, Deterministic Signal

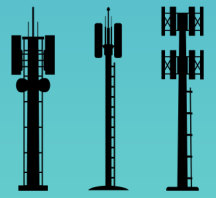
Unlike other service offerings, AURA's network provides point-to-point connectivity for air-to-ground C2 communications.

ATC Voice Relay

AURA's network will provide ATC voice solutions essential for UAVs and BVLOS flights in the NAS.

Privacy & Security

The private network avoids connections to the internet, preserving data privacy while securing UAV from hostile actors.



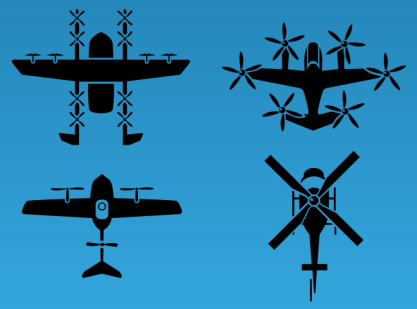
Customer-Led Buildout

Locations of our macro and small sites are driven by customer requirements. Micro sites ("AURA Go Kits") can provide supplemental coverage.

Regulatory Compliance

AURA's regulatory-compliant network will enable certification of next-generation aviation.

AURA



Thank you!

Lisa Peterson

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AURA

Flight Information Exchange Background

27 June 2023

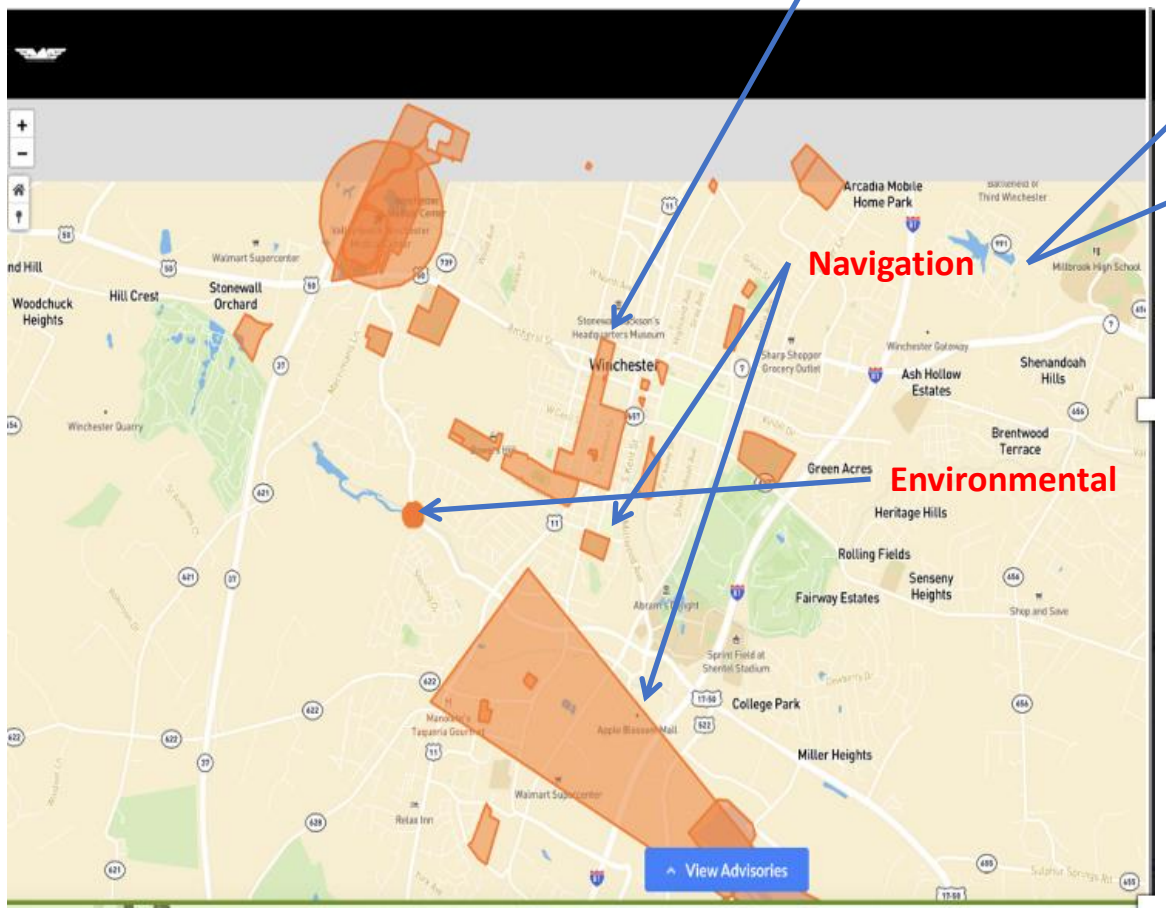
Bottom Line Up Front

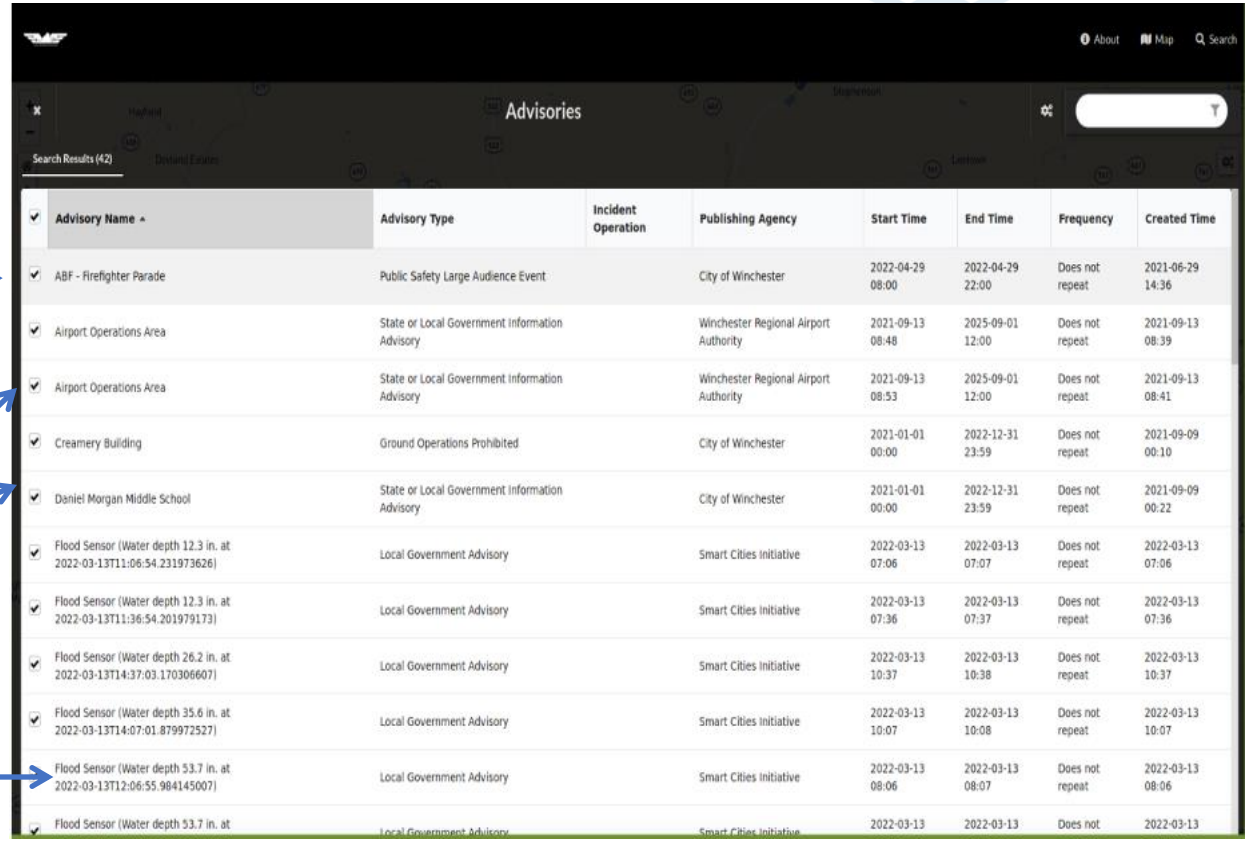
- Create a Flight Information Exchange (FIX) along the lines of VA-FIX, CC-FIX, and NEOFIX to facilitate open information sharing and public data for unmanned operations
  - Sharing occurs between local agencies, private operators, USSes, and the public to support a common baseline
- FIX will be a public Aeronautical Information Service (AIS) to fill in the gaps between manned aviation charts and street maps
  - Can also support other kinds of data sharing and syndication, such as sensors, or other transit or smart cities data
  - Can be used to support other initiatives through public data sharing
- Meant to be a basic capability to support public data sharing and publication to other agencies and industry
- Asset consumed by USS/PSU providers as part of base configuration data in their UTM/UAM configurations
  - Intent to demonstrate value of data integration with a local use case

What Is FIX?

- FIX allows State, Tribal, and Local government to publish key information to UAS Operators and Industry, giving everyone a clear, common picture – in the same way that charts do for manned aviation
- UAS Operators and Industry use FIX to understand the local environment before and during operations; public safety use FIX to coordinate operations and alert private operators
- FIX fills the gap between FAA information services for controlled airspace and the need for information to support the mostly local nature of UAS operations
- FIX is managed by a public entity and provides a central point of access for industry and a governance model for public information so industry doesn't have to deal with a patchwork of conflicting regulations – improving safety and economic growth

What Is FIX?

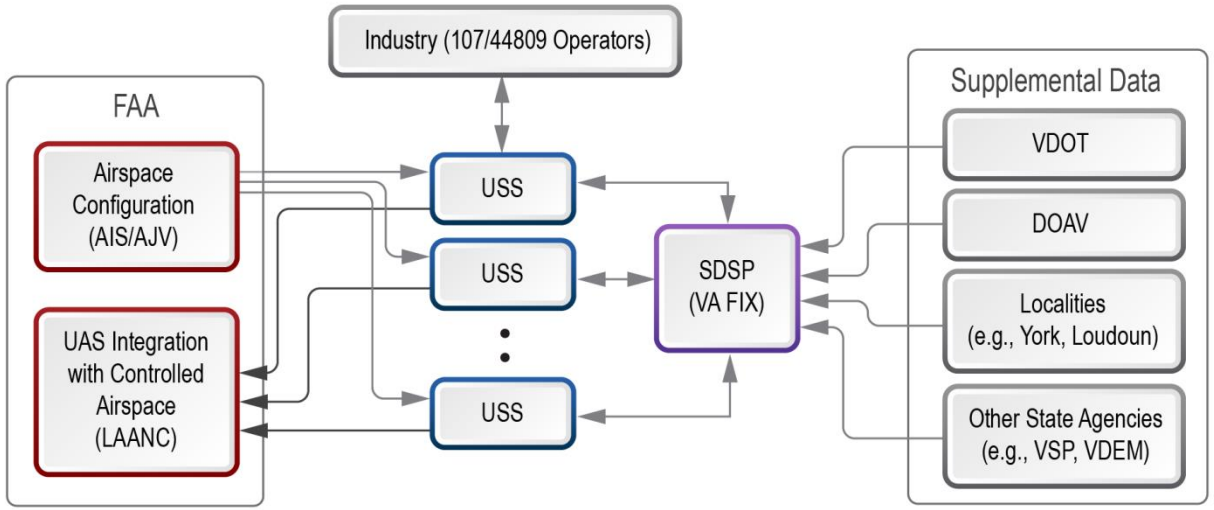




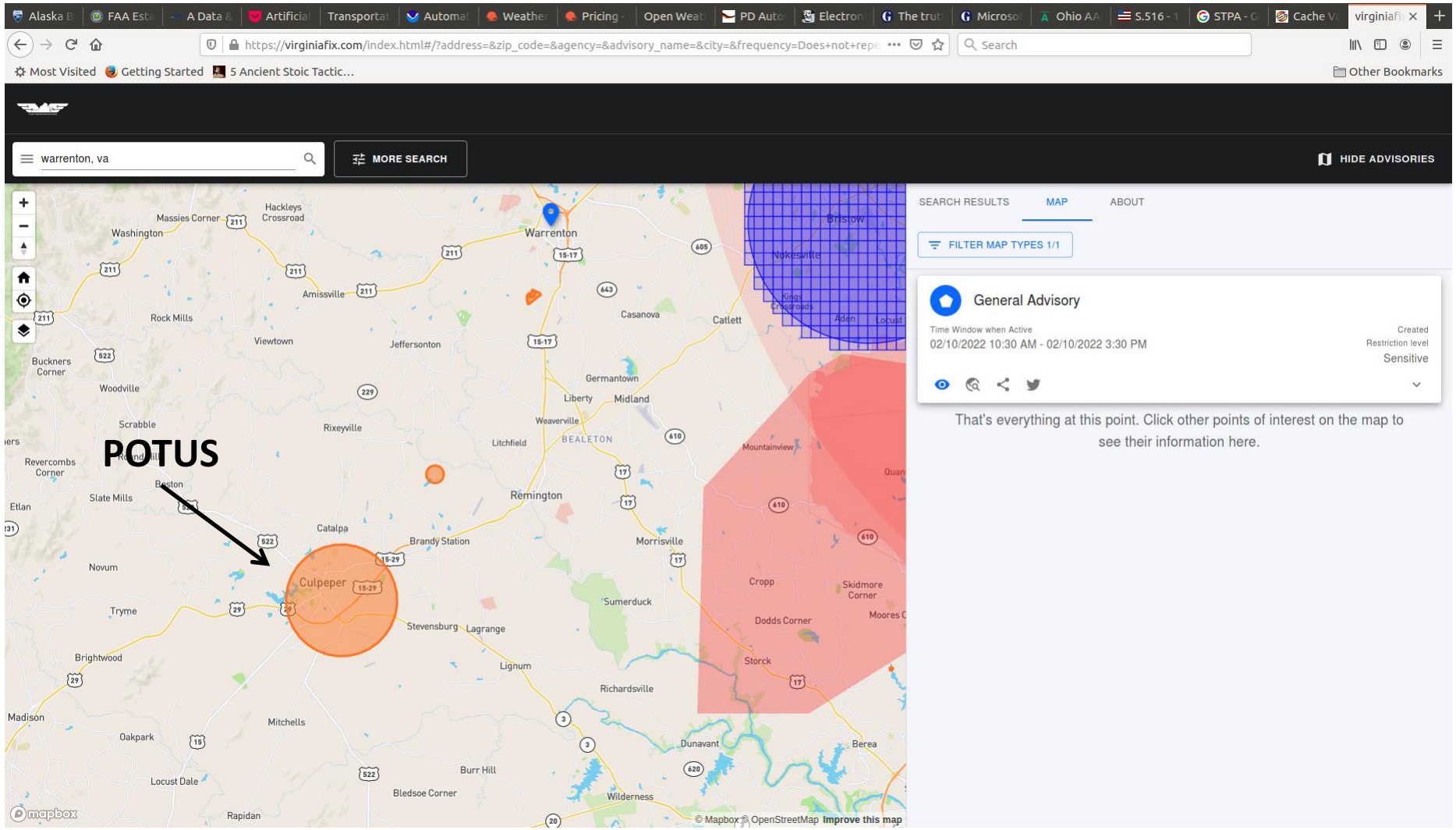
Advisory Name	Advisory Type	Incident Operation	Publishing Agency	Start Time	End Time	Frequency	Created Time
ABF - Firefighter Parade	Public Safety Large Audience Event		City of Winchester	2022-04-29 08:00	2022-04-29 22:00	Does not repeat	2021-06-29 14:36
Airport Operations Area	State or Local Government Information Advisory		Winchester Regional Airport Authority	2021-09-13 08:48	2025-09-01 12:00	Does not repeat	2021-09-13 08:39
Airport Operations Area	State or Local Government Information Advisory		Winchester Regional Airport Authority	2021-09-13 08:53	2025-09-01 12:00	Does not repeat	2021-09-13 08:41
Creamery Building	Ground Operations Prohibited		City of Winchester	2021-01-01 00:00	2022-12-31 23:59	Does not repeat	2021-09-09 00:10
Daniel Morgan Middle School	State or Local Government Information Advisory		City of Winchester	2021-01-01 00:00	2022-12-31 23:59	Does not repeat	2021-09-09 00:22
Flood Sensor (Water depth 12.3 in. at 2022-03-13T11:06:54.231973626)	Local Government Advisory		Smart Cities Initiative	2022-03-13 07:06	2022-03-13 07:07	Does not repeat	2022-03-13 07:06
Flood Sensor (Water depth 12.3 in. at 2022-03-13T11:36:54.201979173)	Local Government Advisory		Smart Cities Initiative	2022-03-13 07:36	2022-03-13 07:37	Does not repeat	2022-03-13 07:36
Flood Sensor (Water depth 26.2 in. at 2022-03-13T14:37:03.170306607)	Local Government Advisory		Smart Cities Initiative	2022-03-13 10:37	2022-03-13 10:38	Does not repeat	2022-03-13 10:37
Flood Sensor (Water depth 35.6 in. at 2022-03-13T14:07:01.879972527)	Local Government Advisory		Smart Cities Initiative	2022-03-13 10:07	2022-03-13 10:08	Does not repeat	2022-03-13 10:07
Flood Sensor (Water depth 53.7 in. at 2022-03-13T12:06:55.984145007)	Local Government Advisory		Smart Cities Initiative	2022-03-13 08:06	2022-03-13 08:07	Does not repeat	2022-03-13 08:06
Flood Sensor (Water depth 53.7 in. at	Local Government Advisory		Smart Cities Initiative	2022-03-13	2022-03-13	Does not	2022-03-13

Where Does FIX Fit in the FAA Vision?

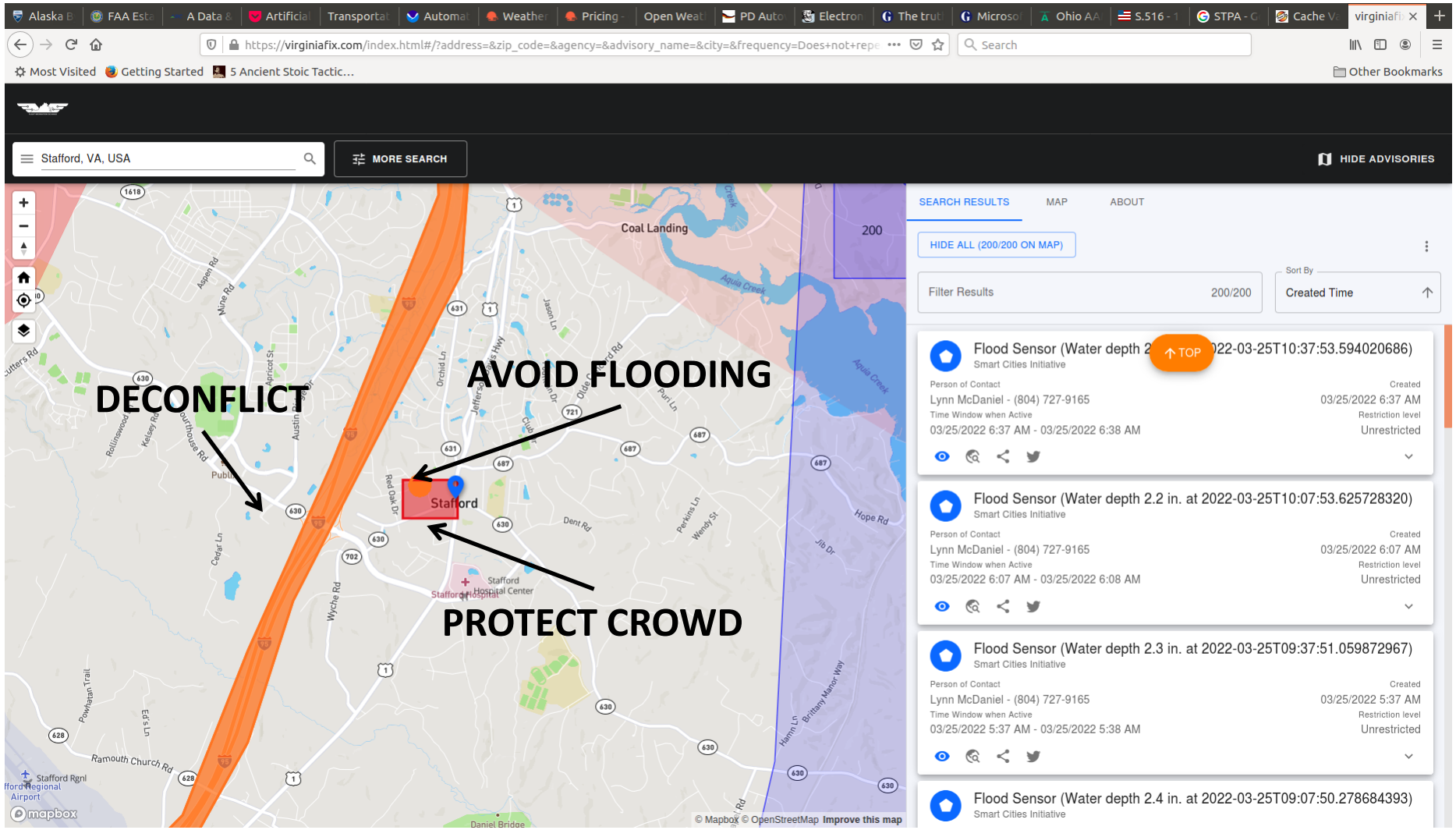
- FAA already has infrastructure and programs in place to build UTM/UAM infrastructure
- FAA has already created concepts of UAS Service Suppliers (USSes) and Supplemental Data Service Providers (SDSPs) integrating into UTM
- State and Local Governments are the logical authoritative source for governance and provision of SDSP information (since UAS operations are highly local)
- FIX provides a central clearing house for aeronautical information from local government – data is a public asset



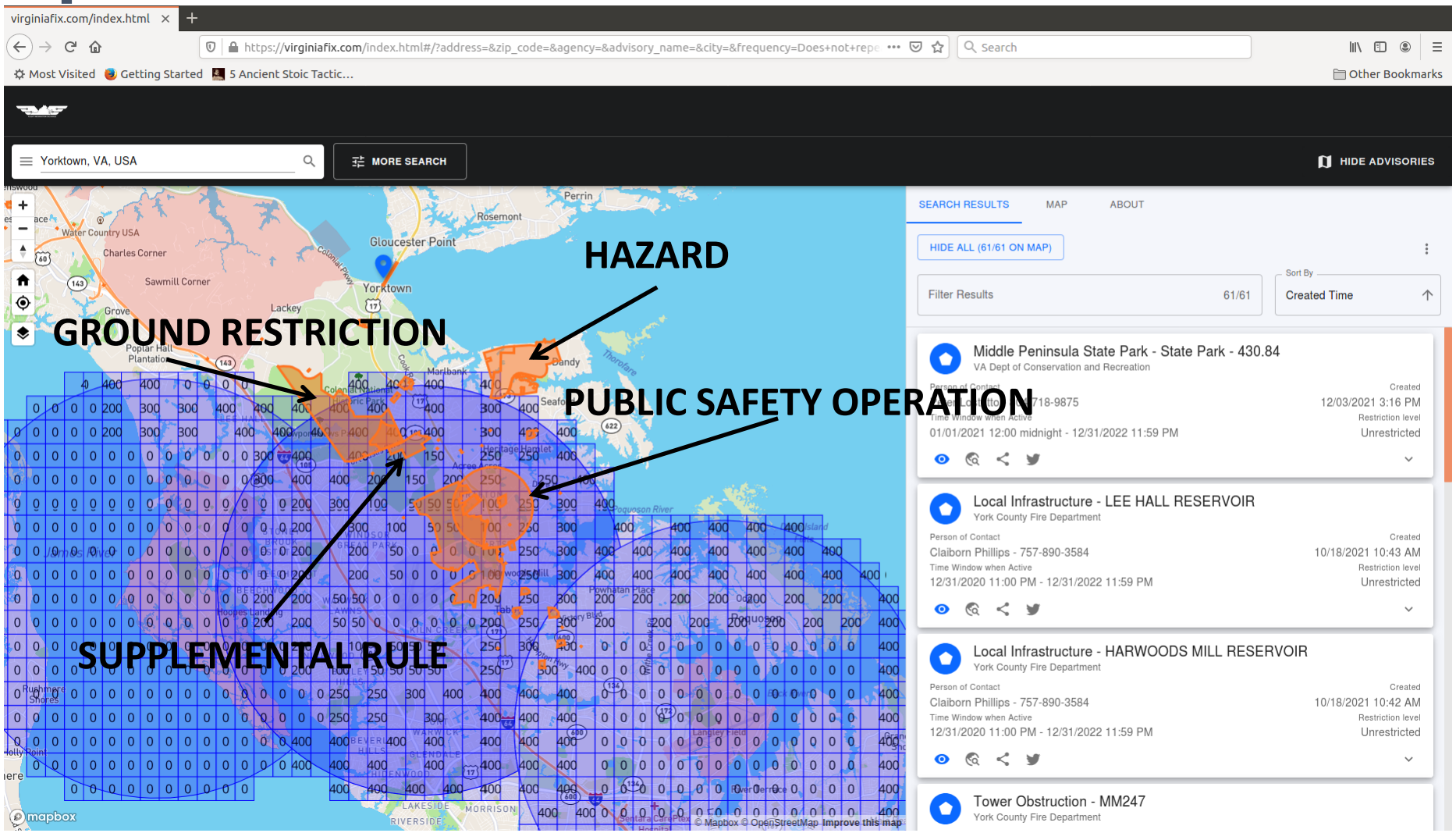
Example - Culpeper



Example - Stafford



Example - York



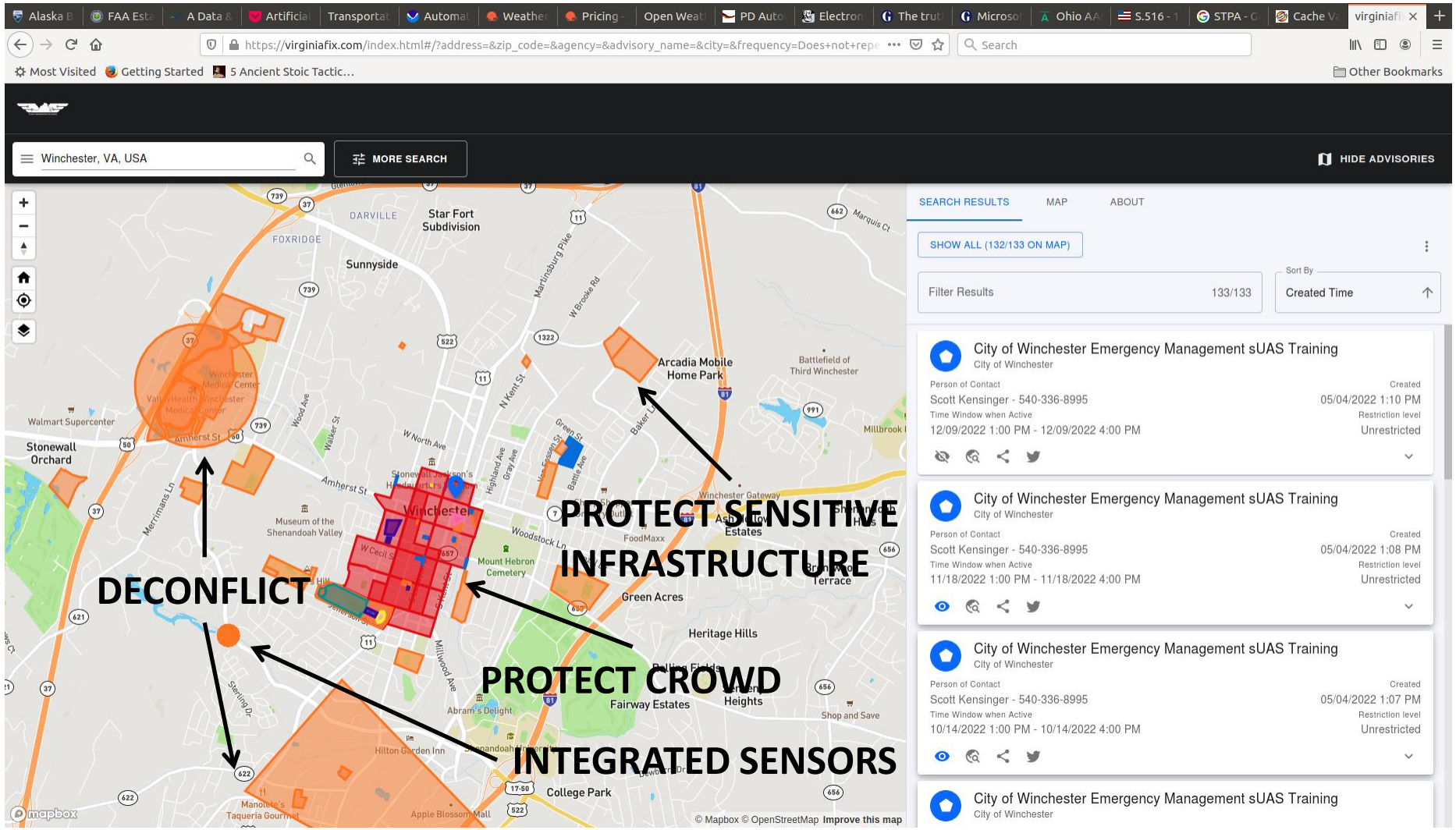
Lessons Learned – Industry Data Needs

- Information components support the balance between operational safety, community integration, and industry efficiency and growth
- What types of data assets and integration can support community readiness?
  - Groundspace configuration data such as hazards, obstacles, and obstructions
  - Public safety data such as operations and public safety sensitive or restricted areas
  - Take-off and landing area rules (preferred, notification required, permission required, and prohibited)
  - Sensitive infrastructure (cell towers / power lines) to assist with safe flight operations and compliance with regulations
  - Hazardous ground conditions such as chemical and oil plants and storage facilities
  - Sensor data to provide situational awareness of environmental conditions, including weather
  - Awareness information describing objects in the air, including crewed and uncrewed vehicles, and other relevant information, to assist USS/UTM providers managing airspace operations
- Identifying and adding assets to VA-FIX has naturally led to a conversation of readiness

Virginia: A Model for FIX

- Virginia is seeing the fast growth benefits of FIX
  - 50+ state and local agencies collaborating, over 150 users
  - Created over 28,000 NAVAIDS
  - 800+ active advisories today
  - 6 of the FAA's 16 approved "USS" providers onboarded (AirSpaceLink, Aloft, ATA, DroneUp, Skygrid, Wing)
  - New resident services such as package and medical delivery being created

Example - Winchester



Example: Shenandoah Apple Blossom Fly In

- Goal: Demonstrate information sharing between participants (Common Operating Picture) as a means to support safe, effective operations and take steps towards federated UTM
- Operations occurred 4/30/22; concurrent with Shenandoah Apple Blossom Festival
  - 1 commercial delivery corridor under plain vanilla Part 107 with 2 pilots
  - 4 public safety team sites operating under Part 107, with 9 pilots
  - Recreational/hobbyist 44809 sites operating through AMA/AUVSI with 5 pilots
  - 107 media ops conducted with 1 pilot
- 17 pilots in 7 teams flying 7 TOLA sites over 4 hours conducted 40+ operations with no incidents in an area < 1 sq mi
- Clear configuration on the ground and Common Operating Picture created effective, successful procedural deconfliction
- Integrated Common Operating Picture through VA-FIX and USS providers
  - Ground Configuration
  - Flight Plans
  - Crewed Traffic
  - Uncrewed Traffic
  - Environmental and Weather Sensors

90 day Rollout

Engage Stakeholders

- DOT/Dept of Aviation
- Key Agencies: Emergency Management, Police, Zoning and Planning, Transit and Port Authorities, Schools
- Key "Thought Leaders" in local government: law enforcement, fire, planning and zoning, emergency management
- USS/UTM providers
- Critical Infrastructure Providers (CIPs)
- Universities and research centers
- Other relevant stakeholders

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Establish Governance

- Initialize and configure AirDEX Governance for Owner
- Establish User Group to advise on types of advisories, rules, and configure in AirDEX governance
- Invite stakeholders who opt in to User Group – agencies, USS/UTM providers
- Establish rules for information sharing and restriction to protect sensitive information

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Onboard and Deploy

- Establish user accounts and privileges for state and local agencies, CIPs
- Provision API access for USS/UTEM providers
- Load background data and advisories, as appropriate

90

The Full Stack Data Science Company

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Thank you!

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MISSION GO
UNCREWED SYSTEMS

Large scale sUAS operations | *The next step industry maturation*

North Texas UAS Safety & Integration Task Force Meeting
6/27/23 CST

North Central Texas Council of Governments

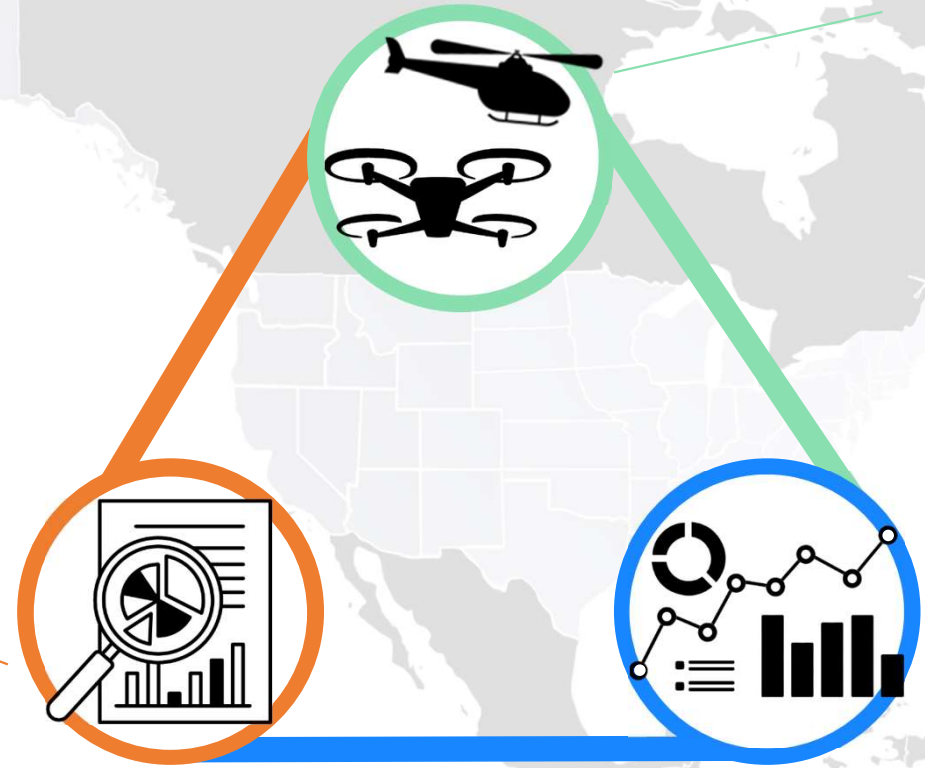
Nate Ernst
Director of Business Development
nernst@MissionGO.io

10 years experience, Aviation for Critical Infrastructure

- 17,500+ missions
  - Mission Commander |Category 1,2, & 3 Ops
  - Mission Commander | Rotorcraft & Fixed Wing Ops
- Experience with electric utility
- Proof of Concept > Routine Operations
- Contractor of choice, largest EUs in USA
- FAA Type Certification Experience (Category 3 UAS)
- Empowering customers with the ability to obtain solutions through safer and effective methods


Inspection Services
MISSION GO
UNMANNED AIRCRAFT OPERATOR
Cargo Delivery
MISSION GO
MISSION GO
Data Analytics
MISSION GO
UAS Training

MissionGO Inspection Solution Set



Flight Operations & Data Collection

Data Analysis & Reporting

Data Aggregation & Processing

Drivers of Industry Growth

1. Regulation
   - Operational Waivers
   - Beyond Visual Line-of-Sight (BVLOS)
   - Type Certification

2. Technology Advancement
   - Aircraft types (FW VTOL)
   - Fuel cell technology
   - Subsystem (Detect-and-Avoid)

3. Operational Need
   - Augment/replace existing methods
   - Large scale needs
   - Novelty to Commodity

Challenges with Growth

1. Repercussions of first-movers

- "Drones are changing the world" – yeah, but not like we thought
- Race to the bottom (commodity pricing)
- Excitement overrode realism – we are getting there, just be patient

2. Legal/Political

•Pace of regulatory evolution

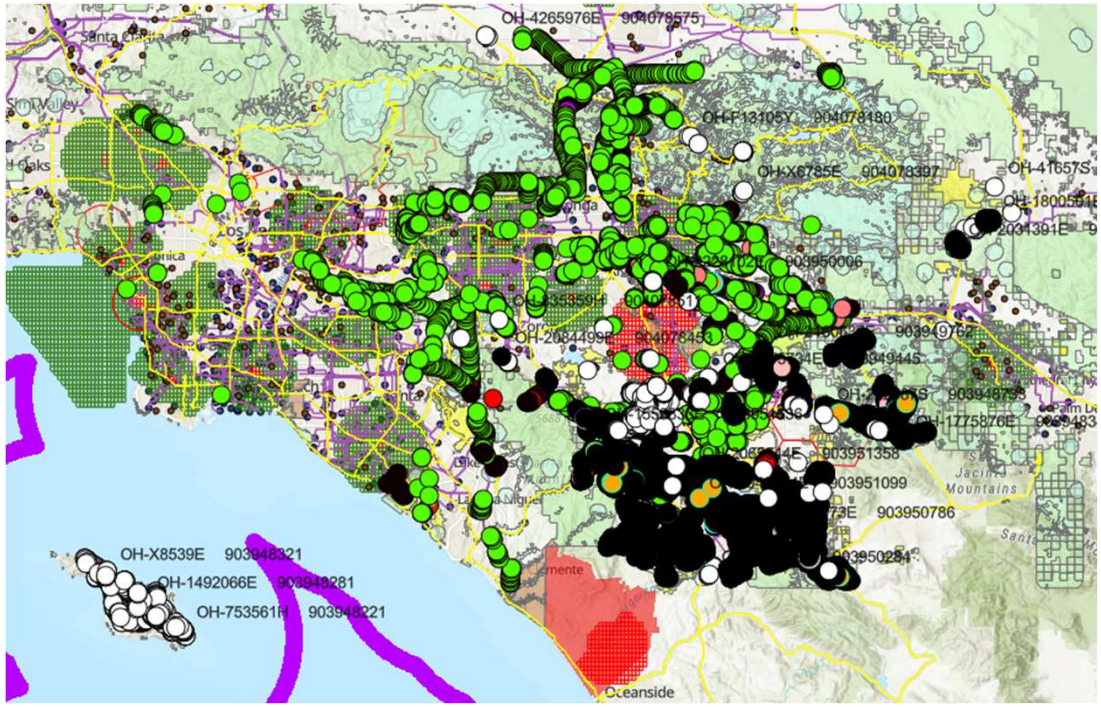
•Aircraft/system/subsystem sourcing (friendly/unfriendly countries)

•Insurance and associated

3.Customer Expectations

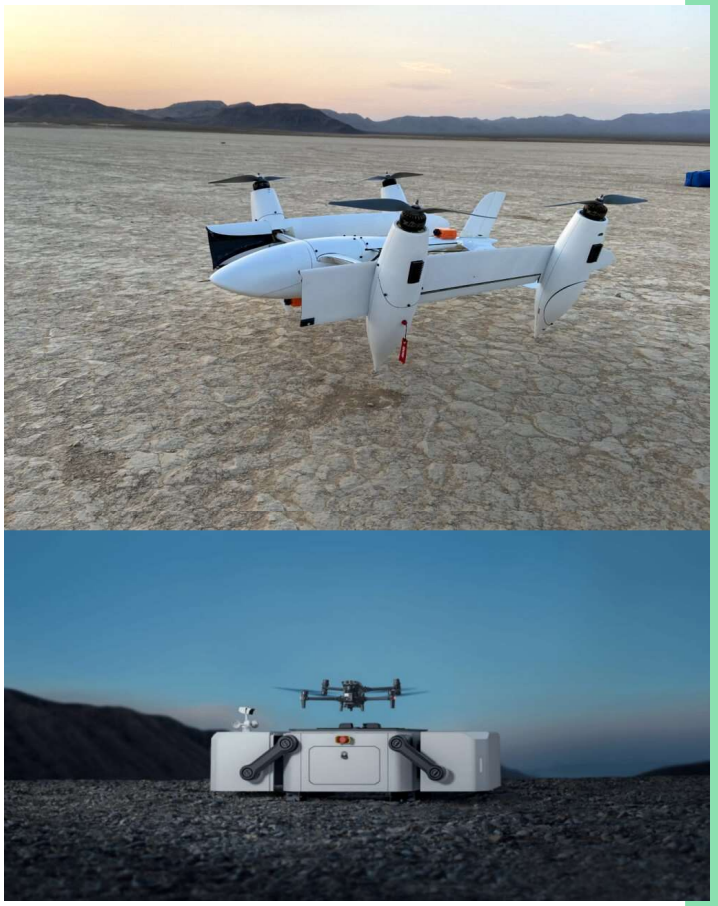
•Price to bottom

•What is scalable?



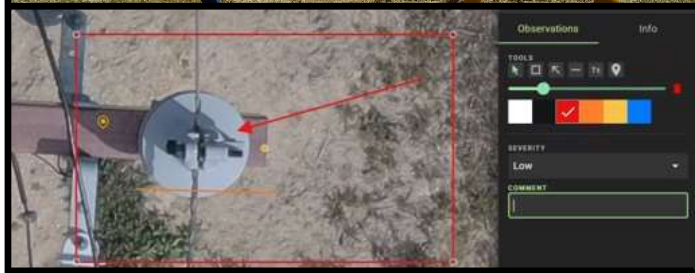
Solution: Claim your position.

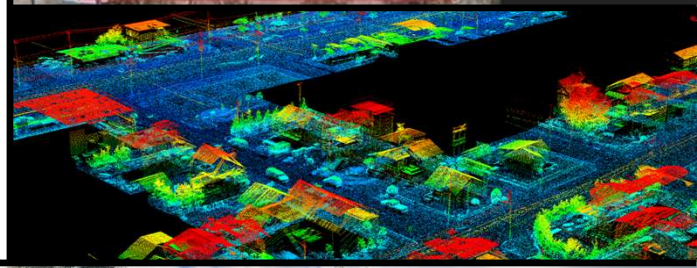
1. Ask where the industry is right now.
   - Regulatory advances (BVLOS, DiB, Waivers, Type Certification)
   - Hardware/software capability
     - Blue/Green UAS vs. Non-Blue/Green
     - Copter, VTOL, Fixed-Wing
     - Machine Learning/Artificial Intelligence
2. Be transparent.
   - The best do not become the best, without struggle.
   - Mistakes are learning lessons.
   - Justify business model, despite industry pressures to compromise.
   - Good work isn't cheap, cheap work isn't good.
3. Watch out for…
   - Smoke and mirrors
   - What's possible now vs. tomorrow
   - Company performance
4. Develop your plan.
5. Be ready and able to pivot.



MissionGO in Texas

1. MG Business Model – change the way the industry thinks of drone contractors
   - ~~Big contractor house with 100s of farmed-out pilots~~
   - Organically-built organization with room for growth and stability.
2. Large opportunity for critical infrastructure applications. Looking to connect with
   - Energy companies (primarily electric and wind)
   - Linear infrastructure operators
3. **Actively hiring**
   - rPICs (Pilots)
   - VOs (Visual Observers)
   - Program Managers
   - Flight Operations Managers





We are ALL learning.
THANK YOU

If you have questions or would like a copy of this deck,
please reach out to nernst@missiongo.io

MISSION GO

UNCREWED SYSTEMS

// MISSIONGO.IO

Presented By

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What We Do

Scientel Solutions works to Coach, Design, Implement, and Support advanced solutions to complex network challenges.

scientel SOLUTIONS
THE UNIVERSAL INTEGRATOR

NETWORKING

- Switching/Routing
- PTP/Microwave
- WiFi/Private LTE
- PON (Fibre to the Home)
- IoT
- Cloud Services

SECURITY

- Drone Defense
- IP Video/ CCTV
- Access Control
- Situational Awareness
- LPR / Facial Recognition

LIFECYCLE MANAGEMENT

- Remote Monitoring
- Break/Fix
- Warranty & Upgrades
- Network Operations Center
- Support & Maintenance

Our Office Locations

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★ Global Headquarters
● Service Area
● Regional Office
● Field Office

The Challenge

- Drones are a $67.3 billion industry which is growing every year

- Our goal is to keep restricted airspace safe and free of Legal and Illegal Drones and provide useful information for the investigation and enforcement of laws

Drone Monitoring Products

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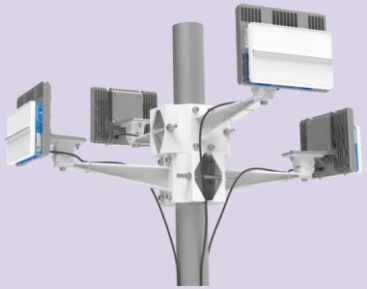
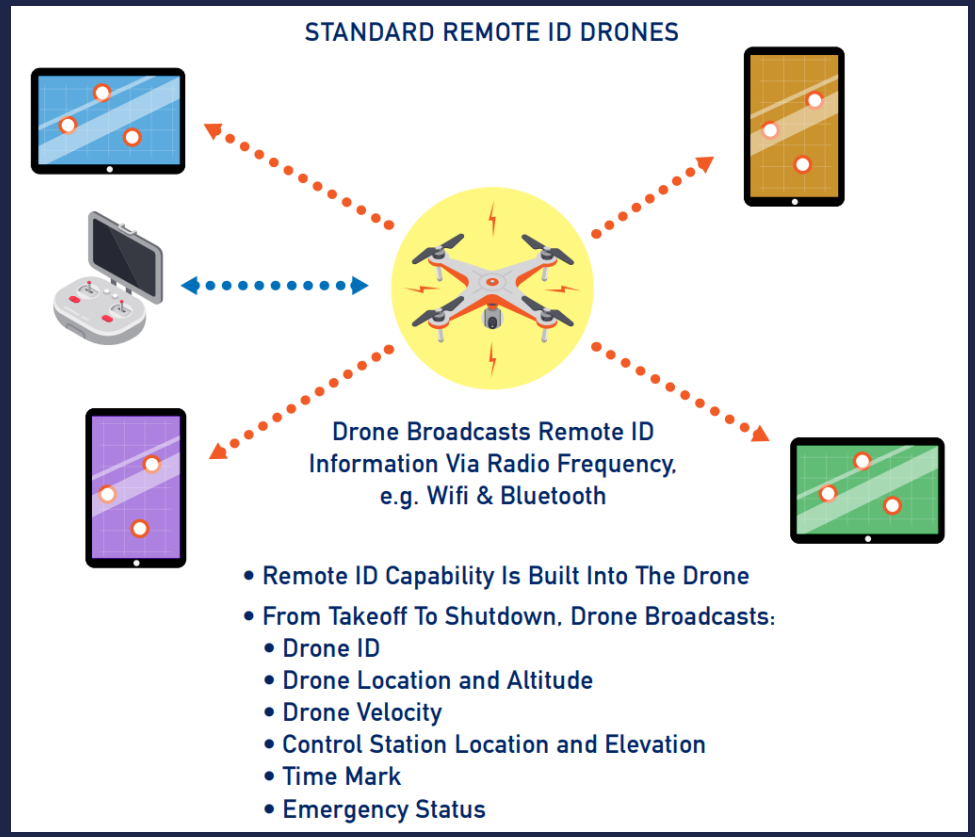
	Aeroscope	AeroSentry	AeroEye	AeroSense
Product				
Type of Drone	DJI Drone Only	Multi-rotor (commercial with no modifications)	Multi-rotor (commercial with no modifications) Fixed wing (commercial with no modifications)	Multi-rotor (commercial with some modifications) Fixed wing (commercial with some modifications)
Technical ability	Passive RF Scanning System – DJI only	Passive RF Scanning System – All Commercial Drones	Utilizes Video AI to Detect Drones	Utilizes Radar to Detect Drones
Control Method Used	Real time command and video no autonomous flight exclusively reliant on ISM frequencies using DJI protocols	Real time command and video no autonomous flight exclusively reliant on ISM frequencies.	Real time command and video no autonomous flight exclusively reliant on ISM frequencies.	Real time command and video with GPS assisted autonomous flight mostly using ISM frequencies.
Range	5km	2-3km	1km	1km

Remote ID Compliance

- Provides information about drones in flight
  - Drone Identity
  - Location & Altitude
  - Velocity
  - Control Station location & Elevation
  - Time Stamp
  - Emergency Status



AeroPing

Retrofit a drone to support Remote ID

- Lightweight, weighs 40g
- Information fed directly into AeroTracker
- Two-hour battery life, USB chargeable
- Has sensors for position, altitude, temperature, pressure, speed and direction

Tracking Software

Simplicity of a flight tracking app with the utility of a drone detection system fuses all open-source airspace information for multi-layered drone detection

The platform allows for:

- Real Time Tracking
- Customized Alerting System
- Record Keeping
- Pilot Locator
- Flight Analysis

Fully integrates into the existing security management systems providing alerts and alarms on demand

Aerotracker Tracking Software

- BACKWARDS COMPATIBLE WITH EXISTING:
  - DJI Aeroscope Installations
  - Echodyne Radar Installations
  - VMS of the Skies
- Automatic Dependent Surveillance – Broadcast (ADS-B) Supported in:
  - United Kingdom
  - United States
  - Coming Soon - Canada
- Camera System Integration
- KEEP ALL OF YOUR DATA IN THE US OR CANADA!

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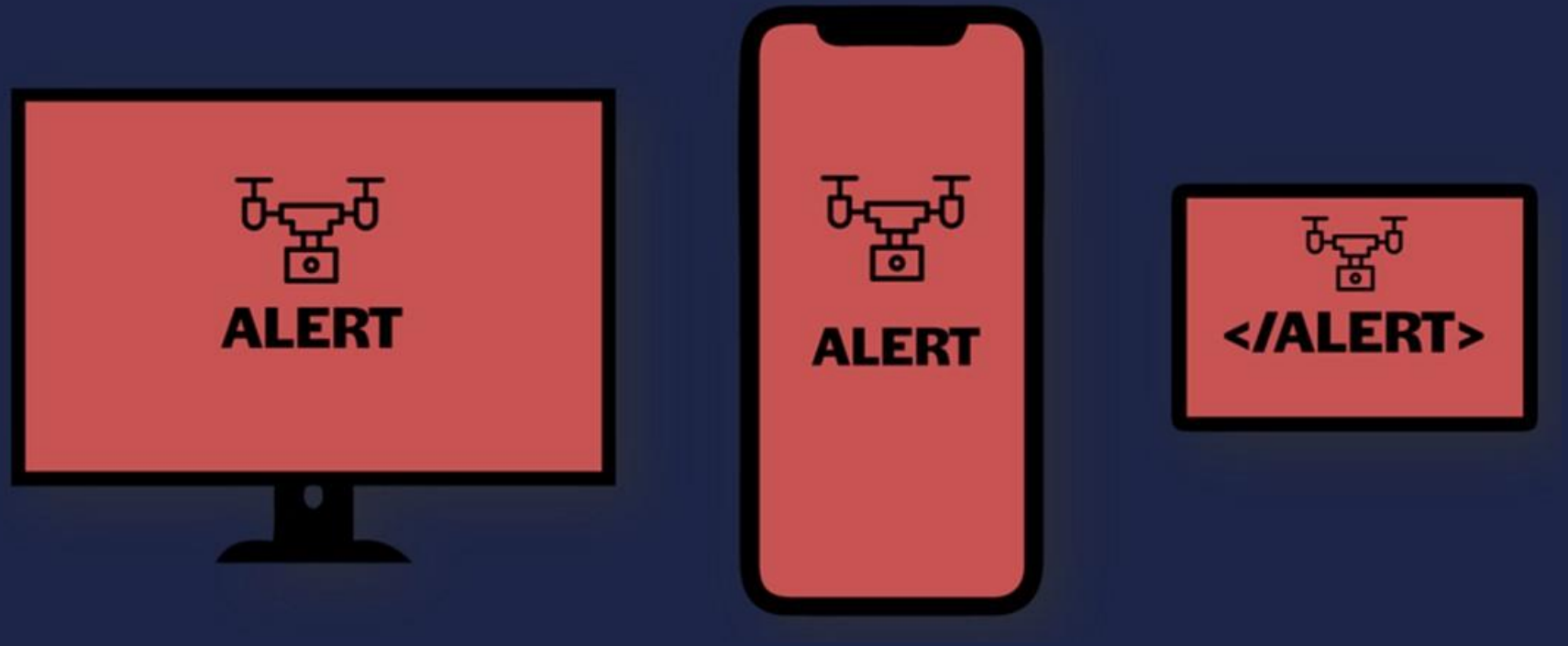
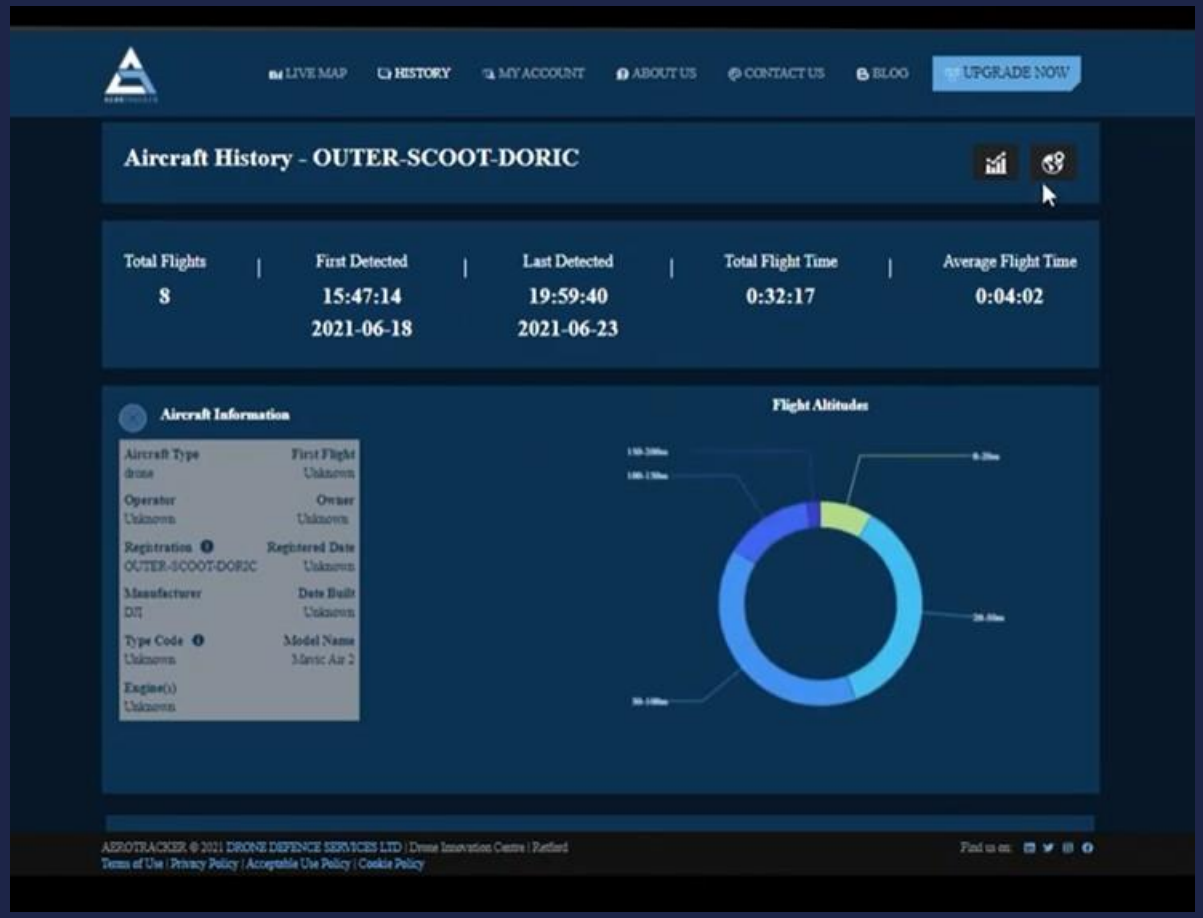
Alert Security Teams



Warnings and alerts are triggered automatically and can be sent to a monitoring platform, mobile phone or any API-compatible system

Record Keeping



LOCATE
Direction-finding technology locates the positions of drones and their originating location

PROVIDE EVIDENCE
Alerts, flight paths, and video footage of drone threats are automatically recorded, catalogued and can easily be shared with law enforcement

Live View with Zone

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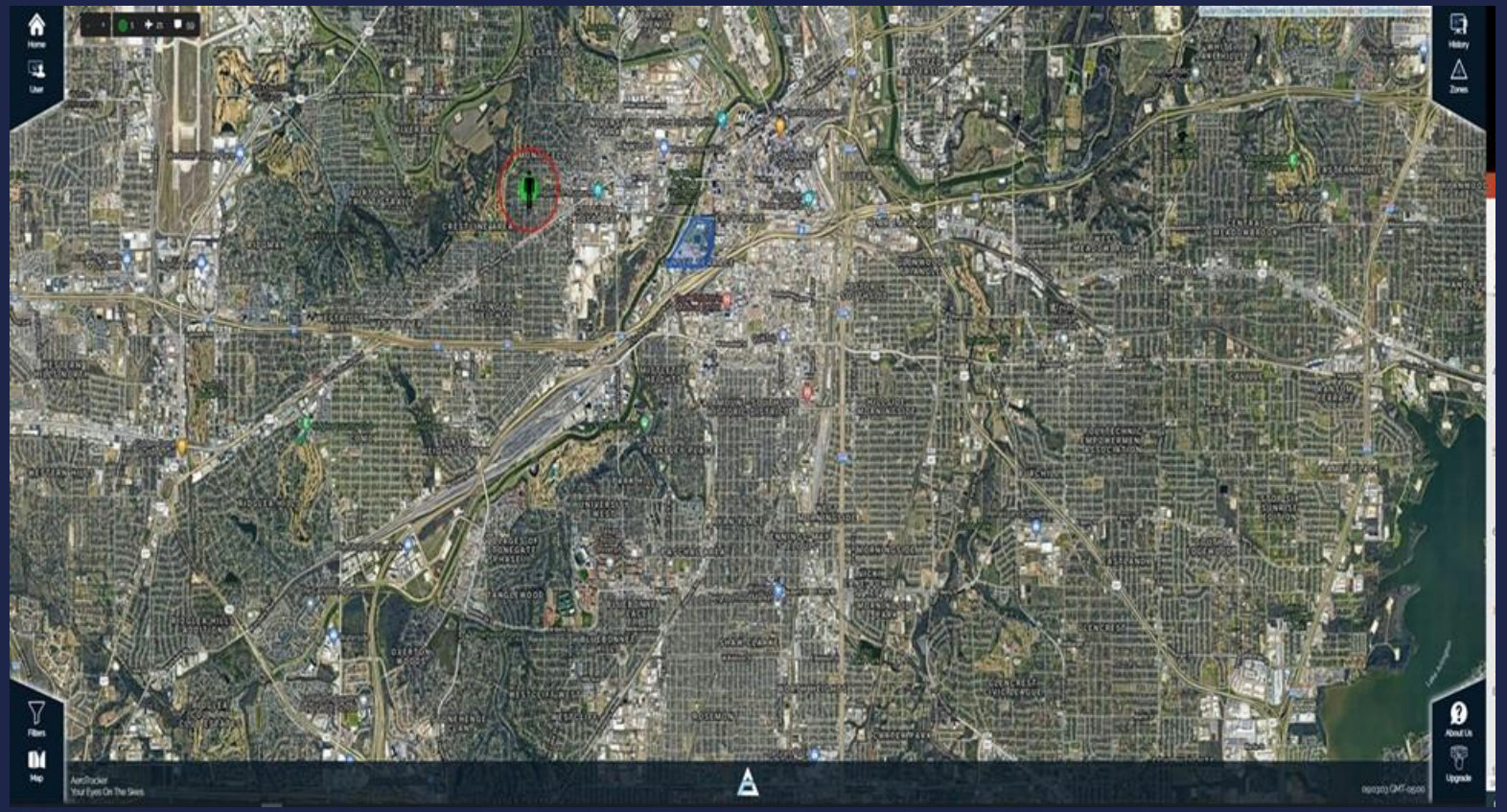
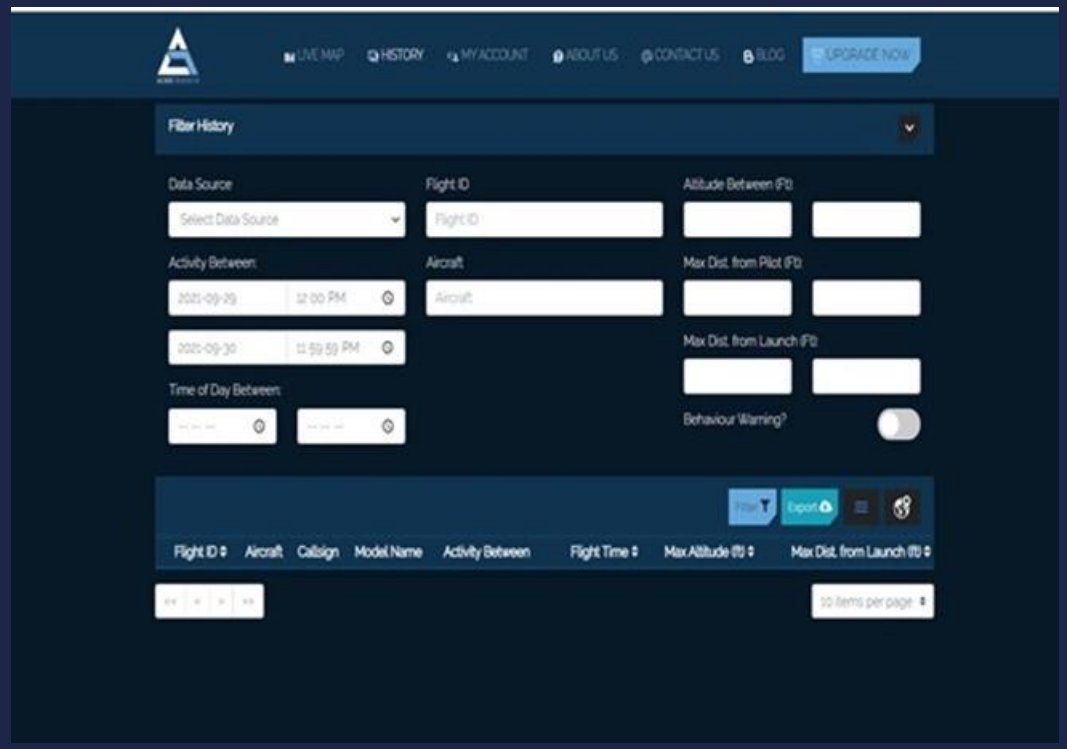
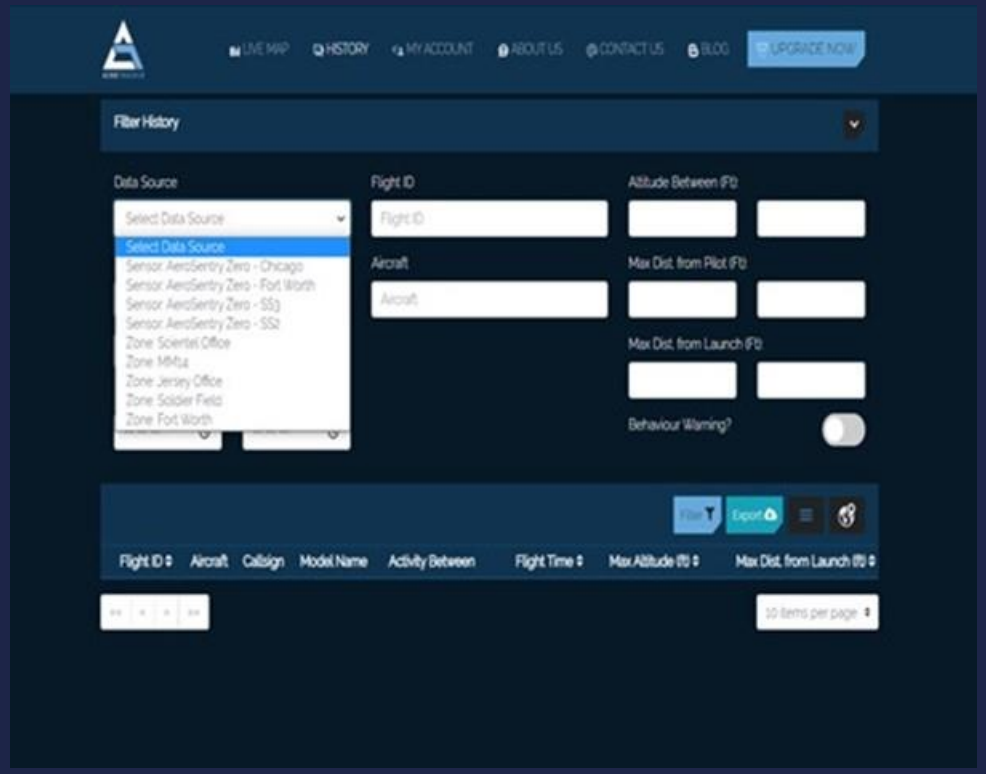
- Unlimited number of zones with the Enterprise License
- ***Shows the position of not only the drone but also the controller.***
- All drones are colored based on their activity.
- Safe and Watch List can be programmed.

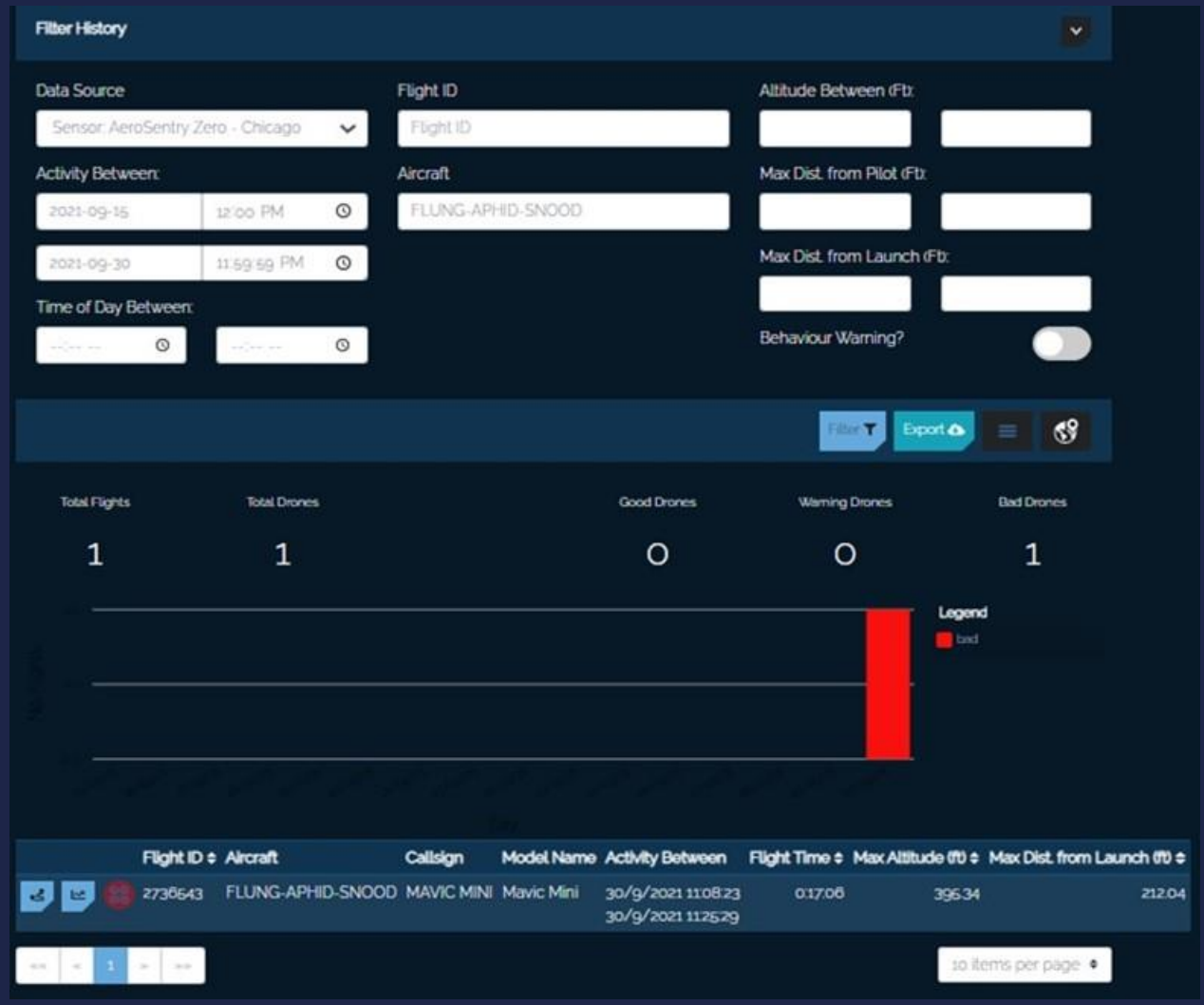


History Page

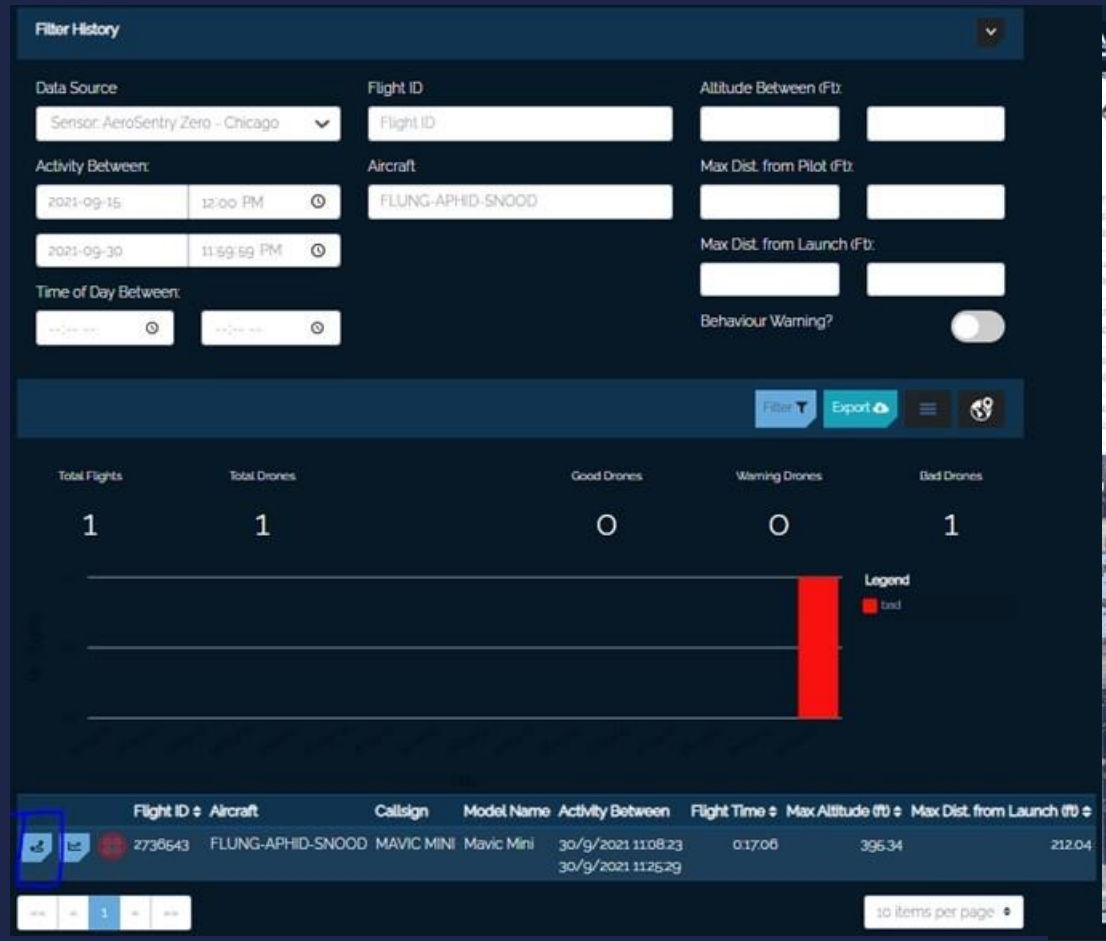


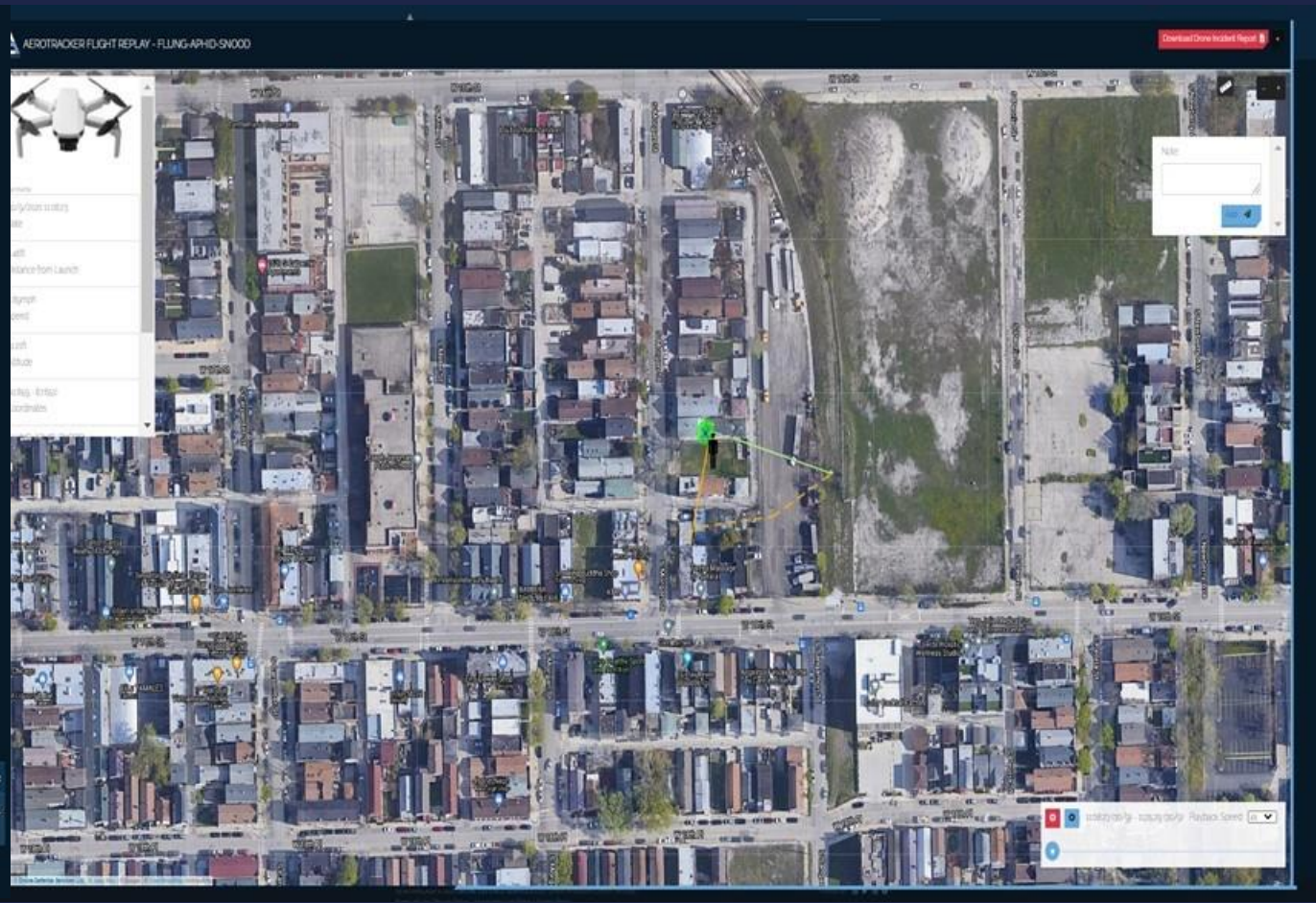


History Page Filtered



Sample of Flight Data





History Map Feature

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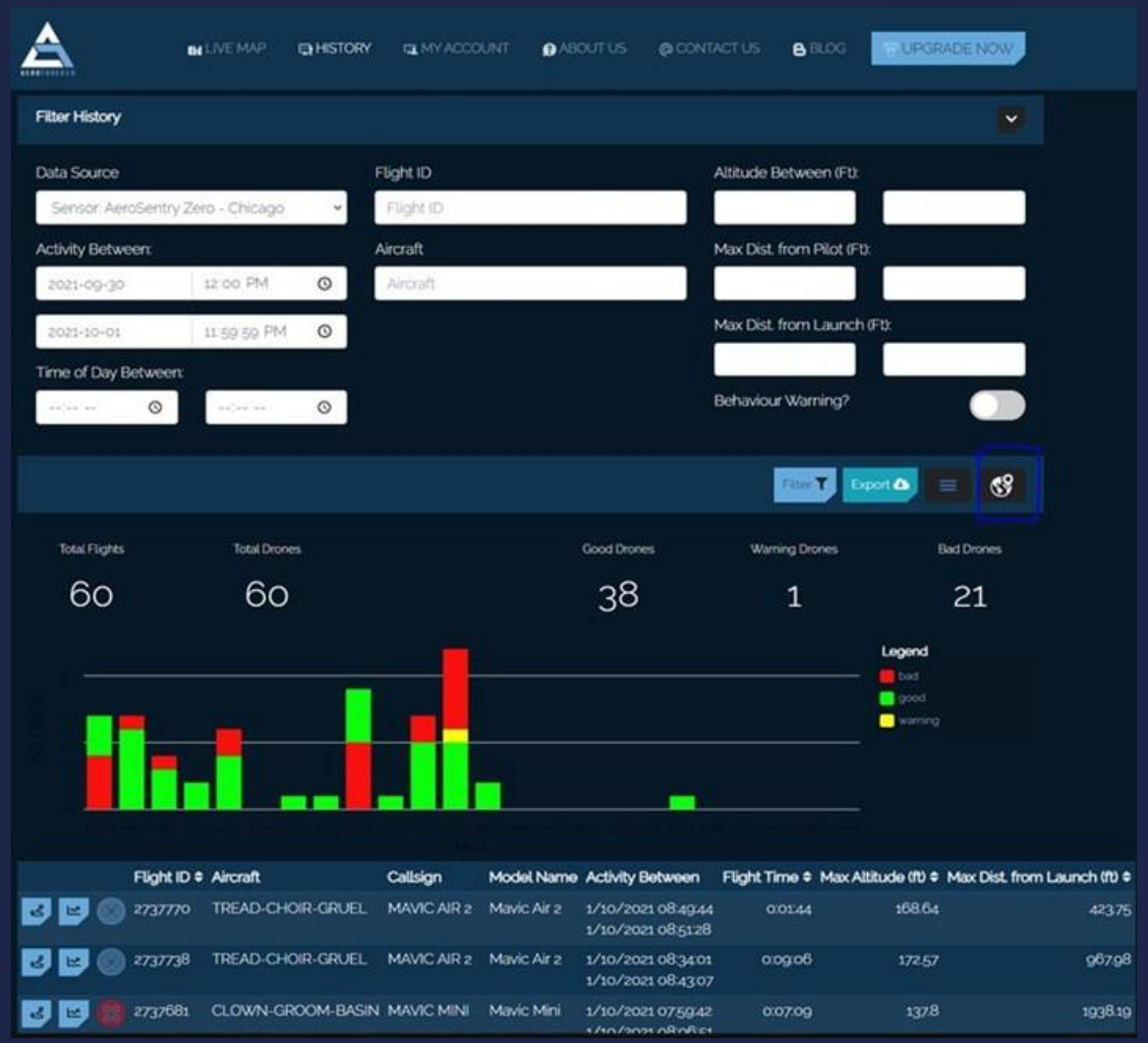
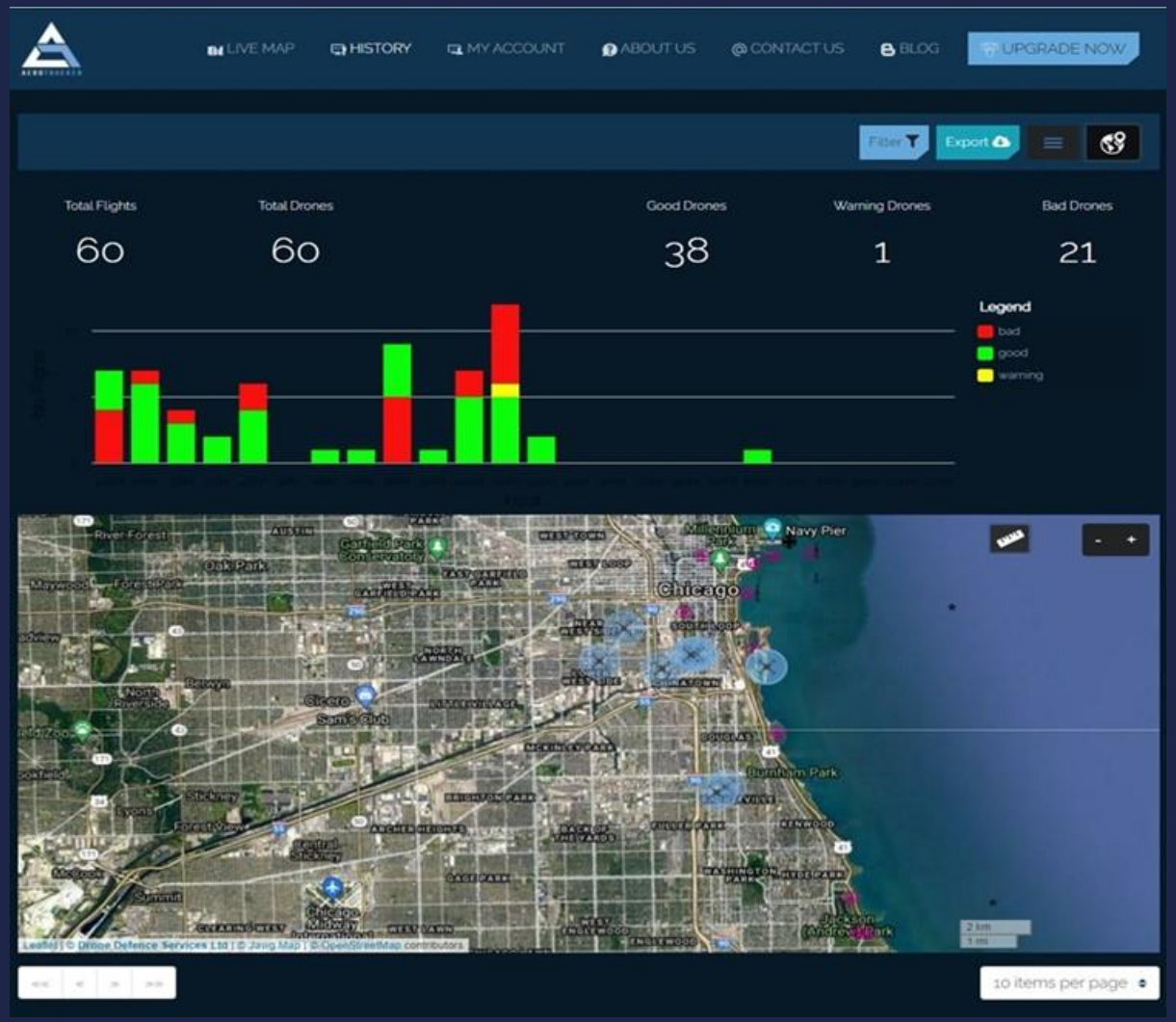
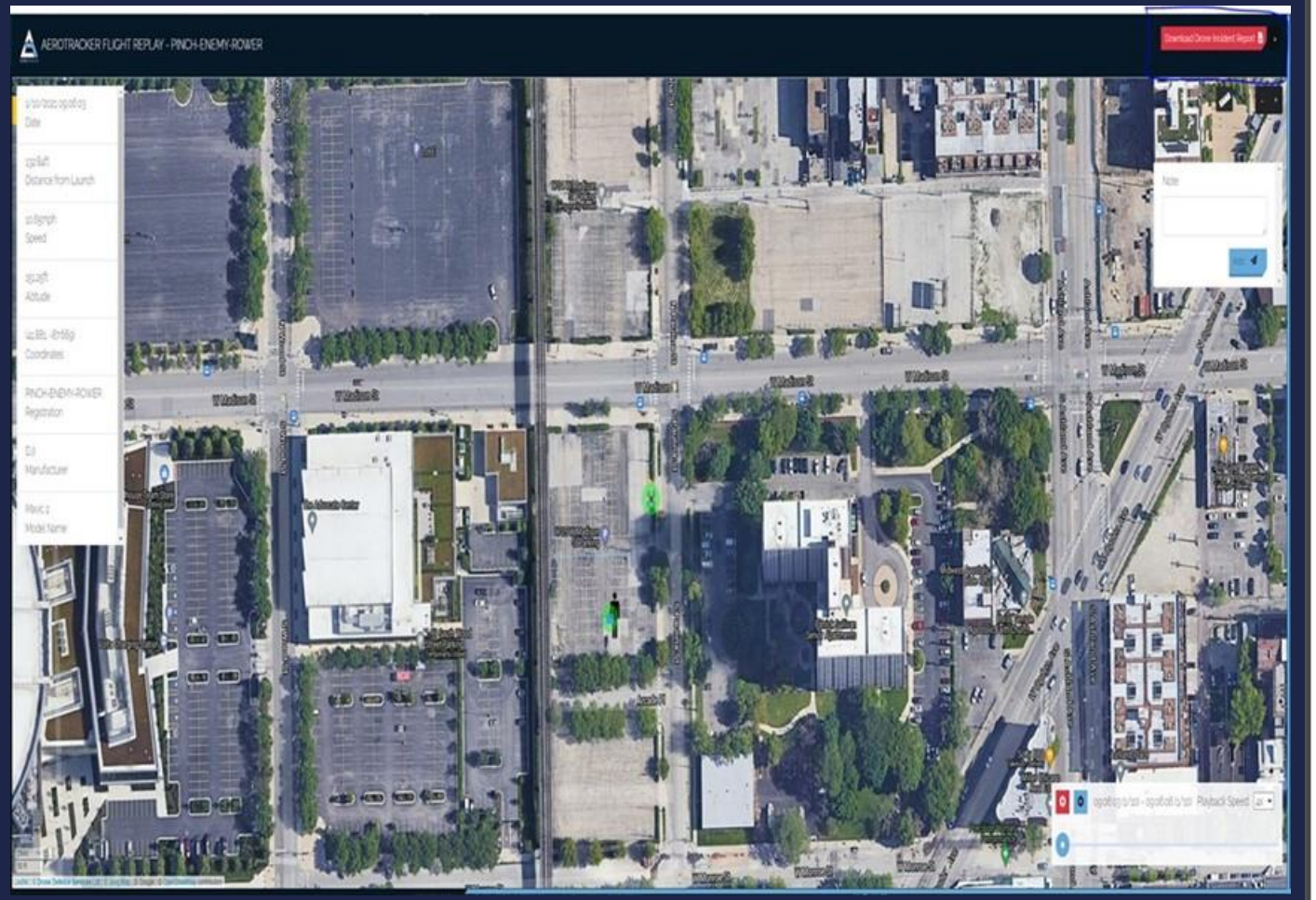




Export to PDF

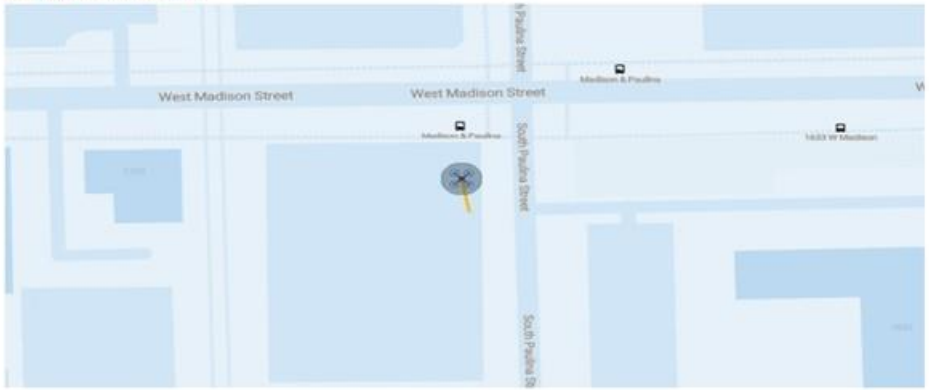


DRONEDEFENCE

Drone Incident Report - 2737801

Date	2021-10-01 14:06:03	**Drone ID**	PINCH-ENEMY-ROWER
Start Time	14:06:03	**End Time**	14:06:06
Flight Durations (secs)	3	**Min Altitude (m)**	46.1
Max Distance from Launch (m)	48.07	**Max Altitude (m)**	46.1
Location Co-ordinates	Not Available	**Location**	Not Available

Map of Drone Flight



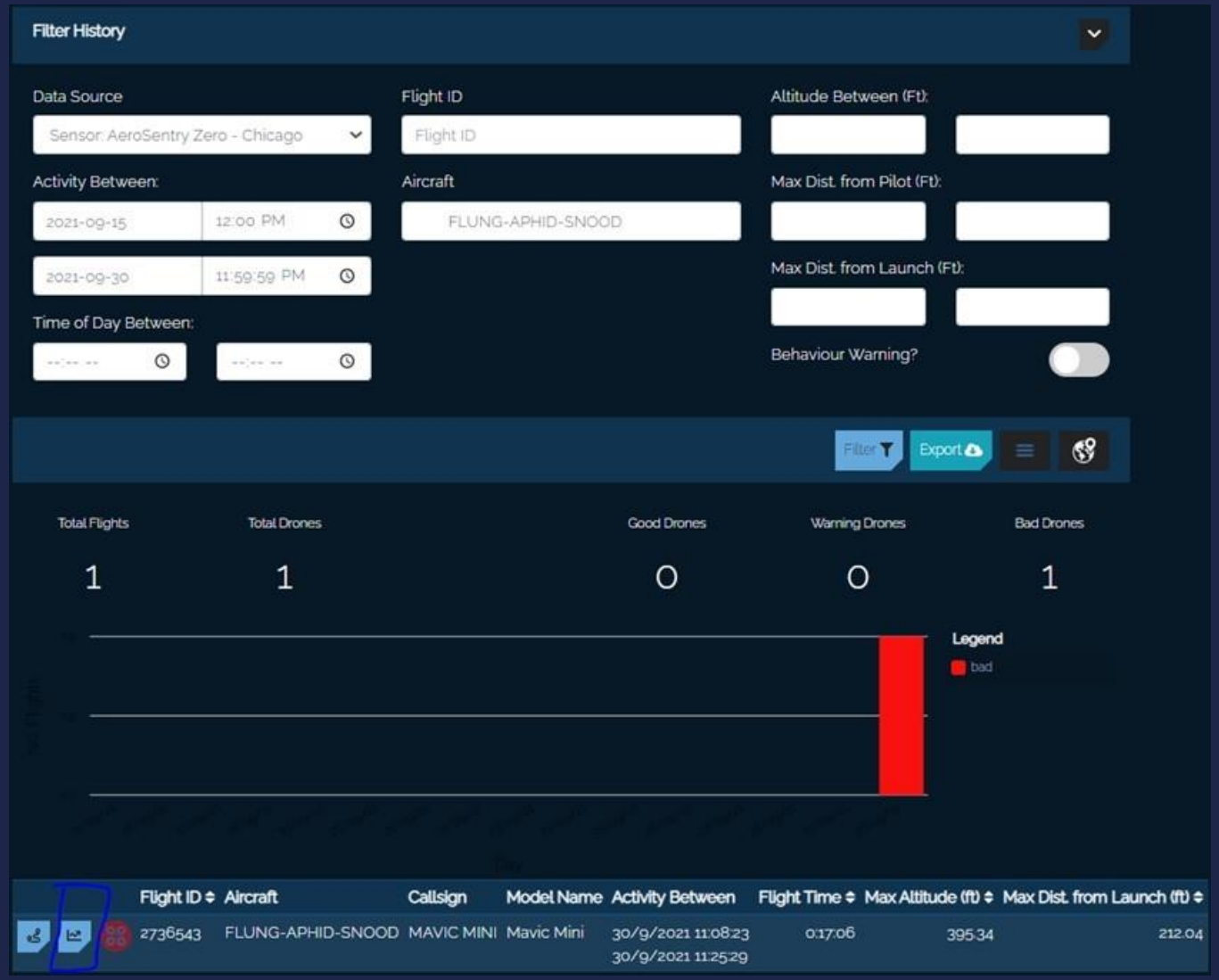
Drone Details (if available)

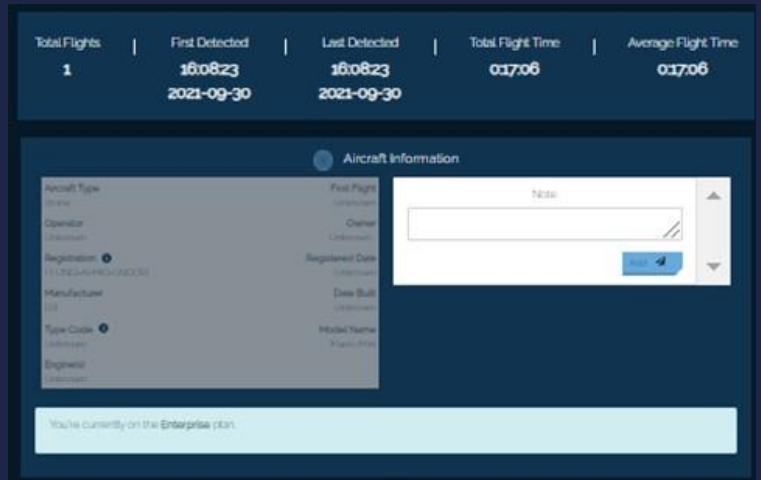
Manufacturer	DJI	**Model**	Mavic 2
Rotors		**Control Range**	
Top Speed		**Camera**	
Price		**Weight**	
Flight Time		**Year**	
Popularity		**Payload**	

These flight details were captured using Drone Defence's www.AeroTracker.io drone detection system. To get this data in real-time visit www.AeroTracker.io

www.DroneDefence.co.uk Email: info@dronedefence.co.uk Tel: +44 (0) 843 289 2805

Flight Data


Filter History
Data Source
Sensor: AeroSentry Zero - Chicago
Flight ID
Flight ID
Altitude Between (Ft):
Activity Between:
2021-09-15
12:00 PM
2021-09-30
11:59:59 PM
Aircraft
FLUNG-APHID-SNOOD
Max Dist. from Pilot (Ft):
Max Dist. from Launch (Ft):
Time of Day Between:
Behaviour Warning?
Filter
Export
Total Flights
Total Drones
Good Drones
Warning Drones
Bad Drones
1
1
0
0
1
Legend
bad
Flight ID
Aircraft
Callsign
Model Name
Activity Between
Flight Time
Max Altitude (ft)
Max Dist. from Launch (ft)
2736543
FLUNG-APHID-SNOOD
MAVIC MINI
Mavic Mini
30/9/2021 11:08:23
30/9/2021 11:25:29
0:17:06
395.34
212.04

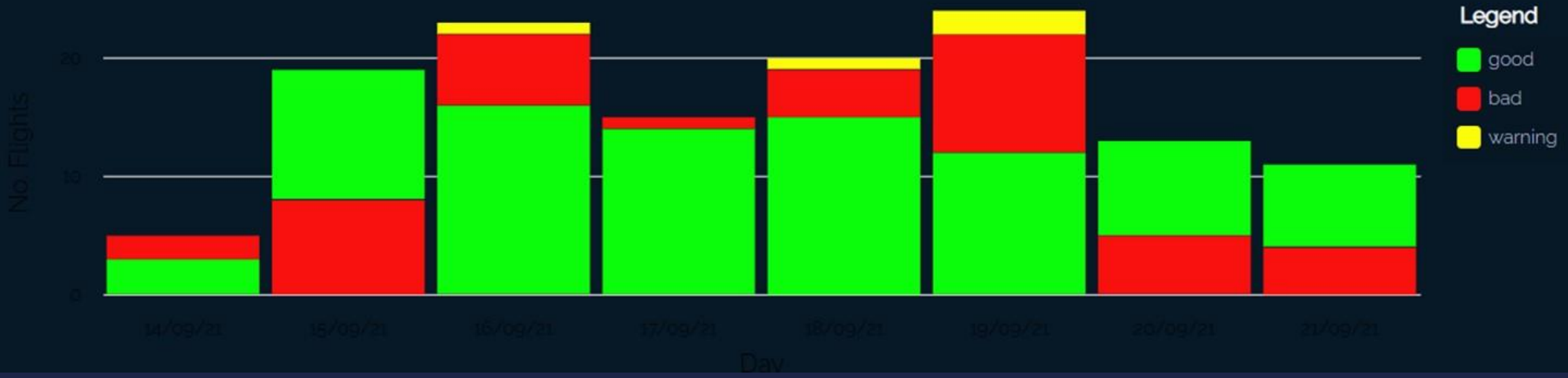

Total Flights
1
First Detected
16:08:23
2021-09-30
Last Detected
16:08:23
2021-09-30
Total Flight Time
0:17:06
Average Flight Time
0:17:06
Aircraft Information


Flight Altitudes

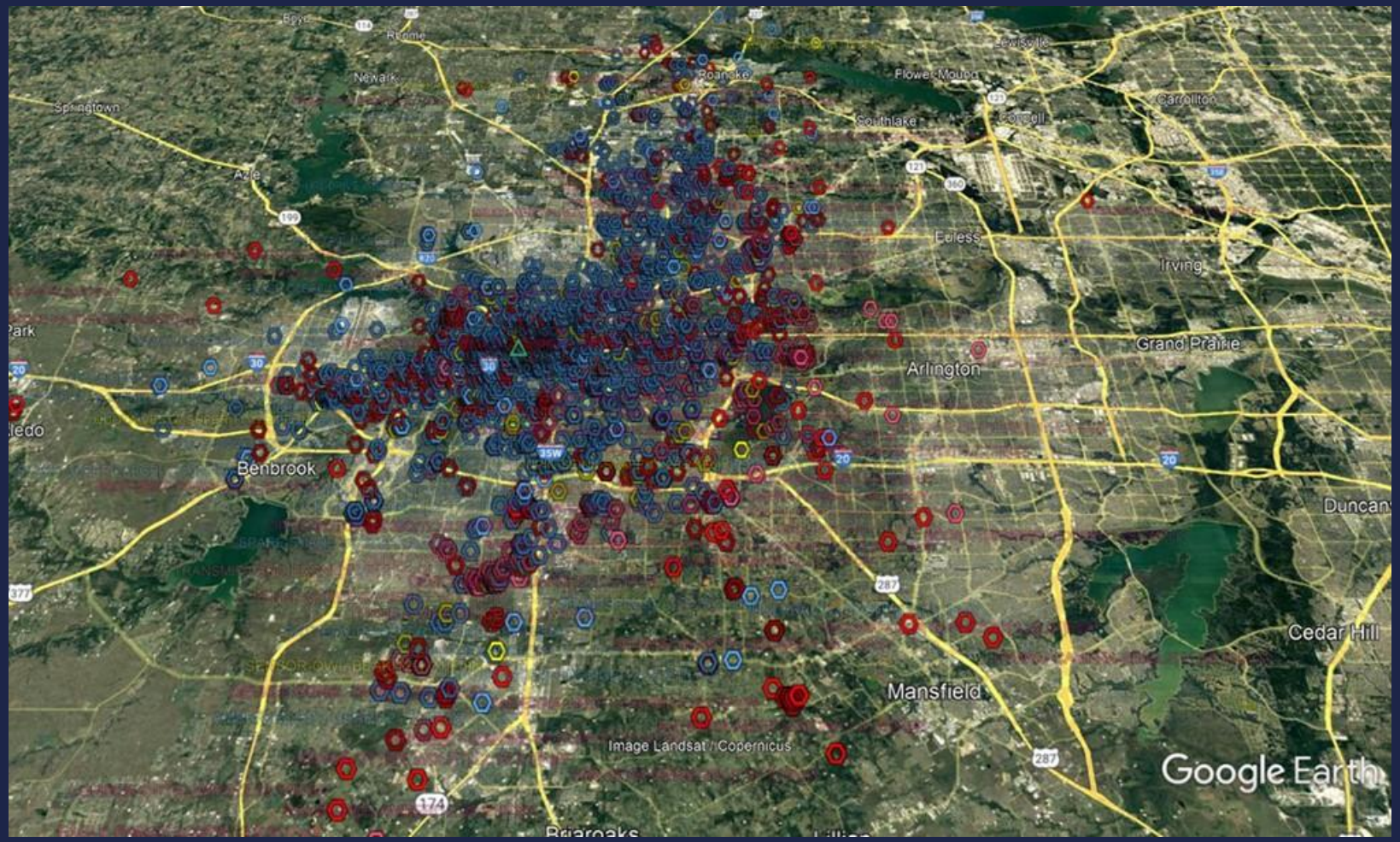

Flight Counts by Hour
Flight Counts by Day

A Sample Week in Fort Worth

Total Flights	Total Drones	Good Drones	Warning Drones	Bad Drones
130	130	86	4	40

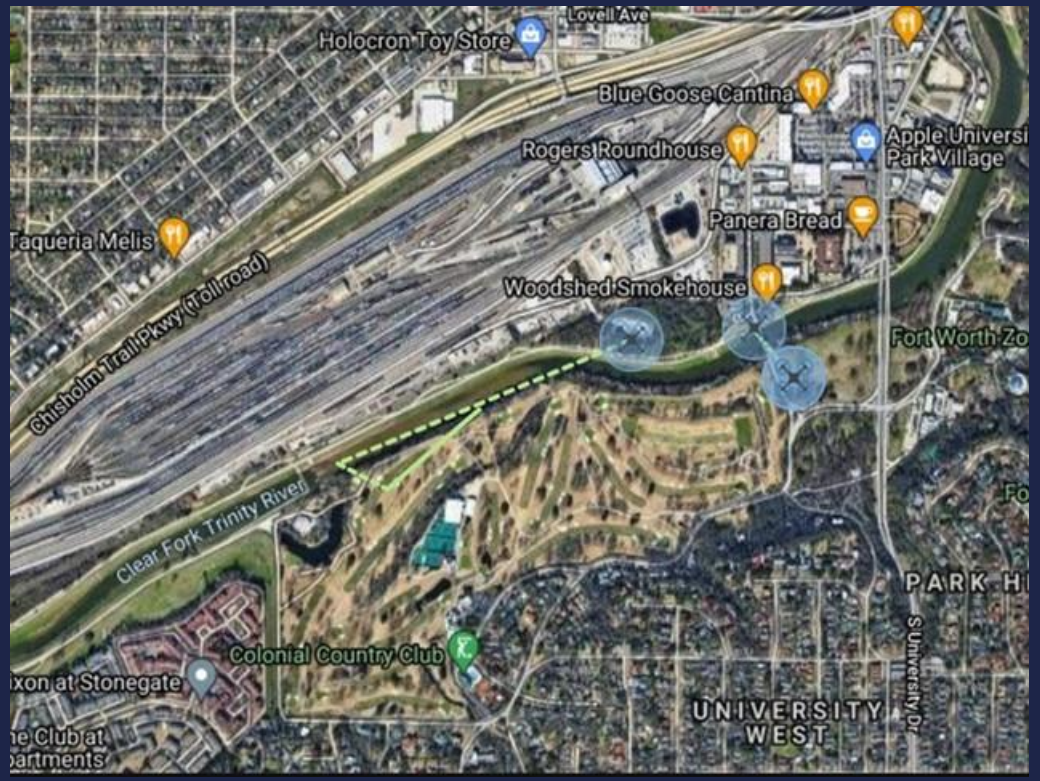


Fort Worth Detailed Violations

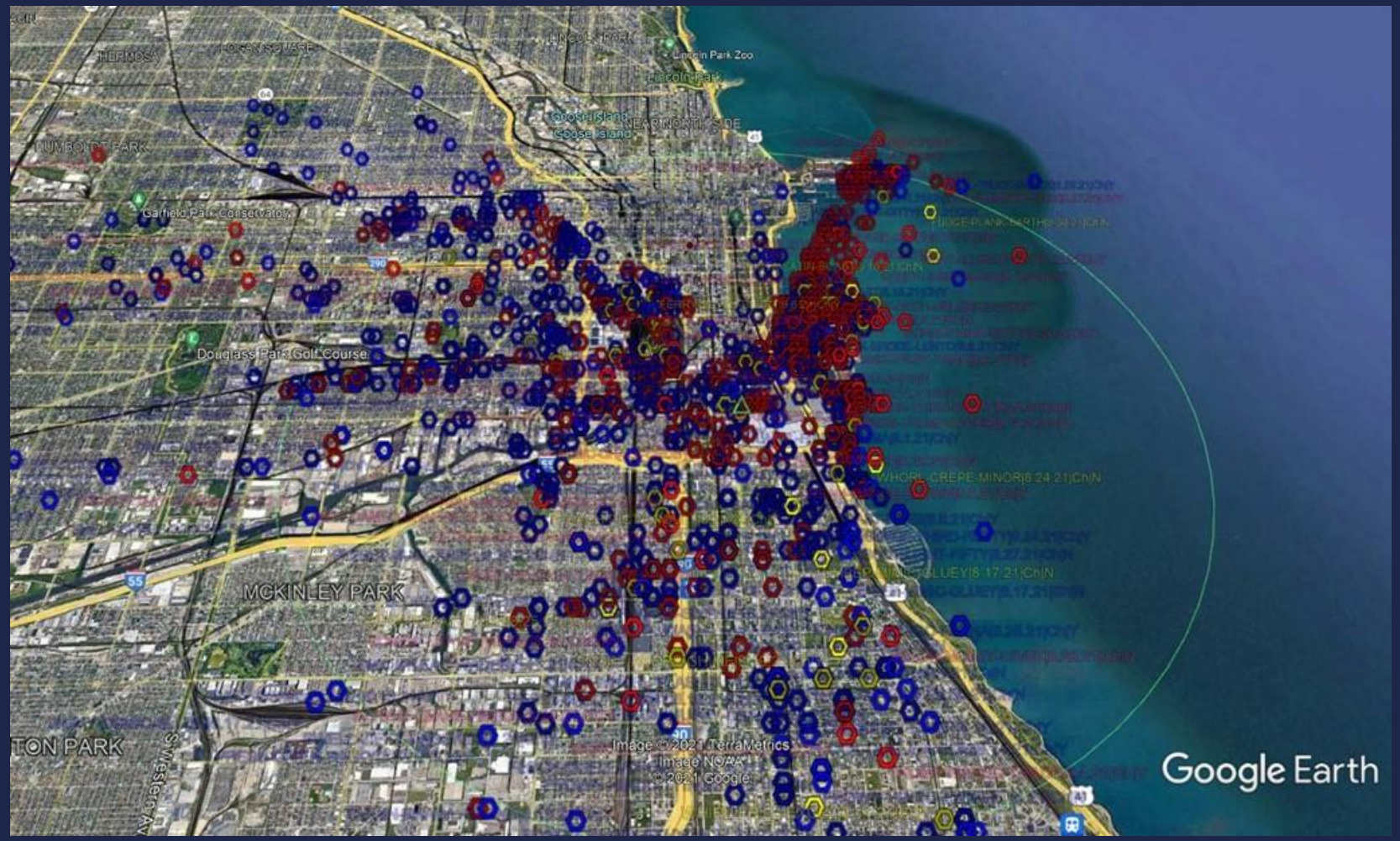


- Red – Flights exceed 400 ft or Controller was more than 500m from Drone
- Yellow – Within 10%
- Blue – No, FAA violations but still could be violating local regulations

Fort Worth Detailed Violations



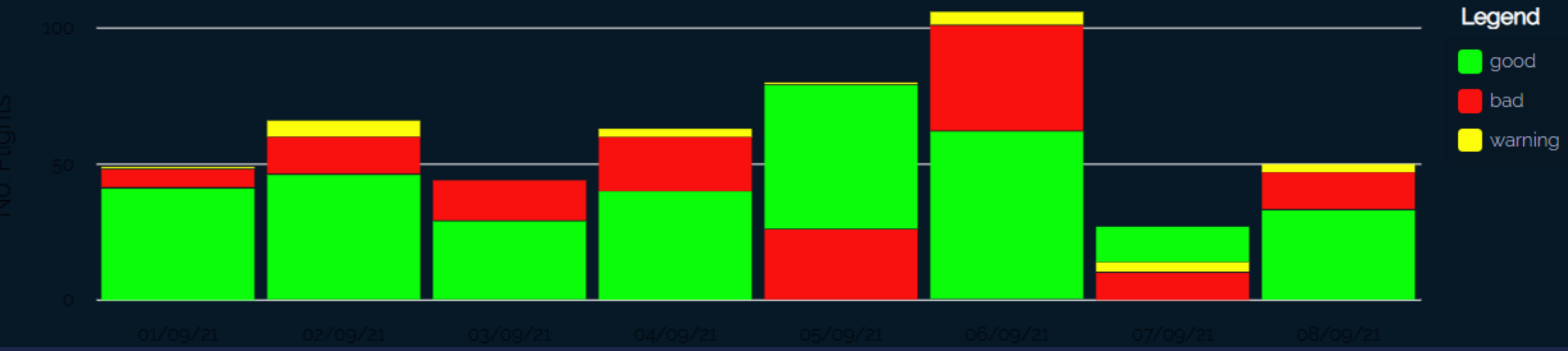
Chicago Detailed Violations



- Red – Flights exceed 400 ft or Controller was more than 500m from Drone
- Yellow – Within 10%
- Blue – No, FAA violations but still could be violating local regulations

A Sample Week in Chicago

Total Flights	Total Drones	Good Drones	Warning Drones	Bad Drones
485	485	317	23	145



Drone Monitoring Use Case
Chicago Suburb

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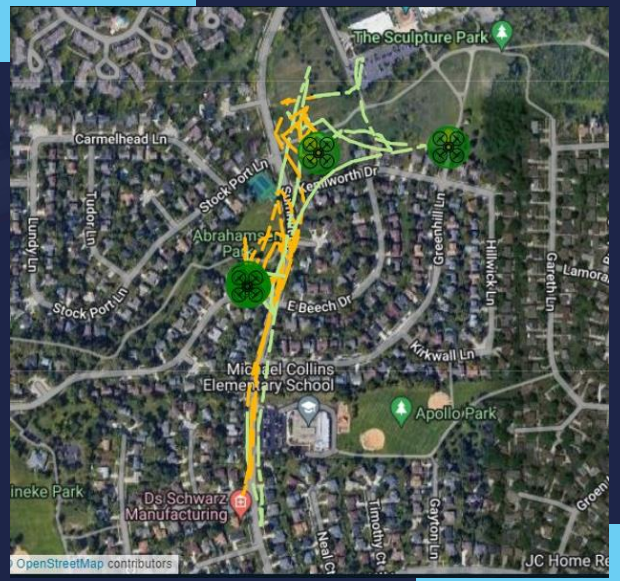
- Providing comprehensive sky security through monitoring and detection solutions. Designing solutions for Airports, Stadiums, Event Venues, Prisons, Critical Infrastructure and more.

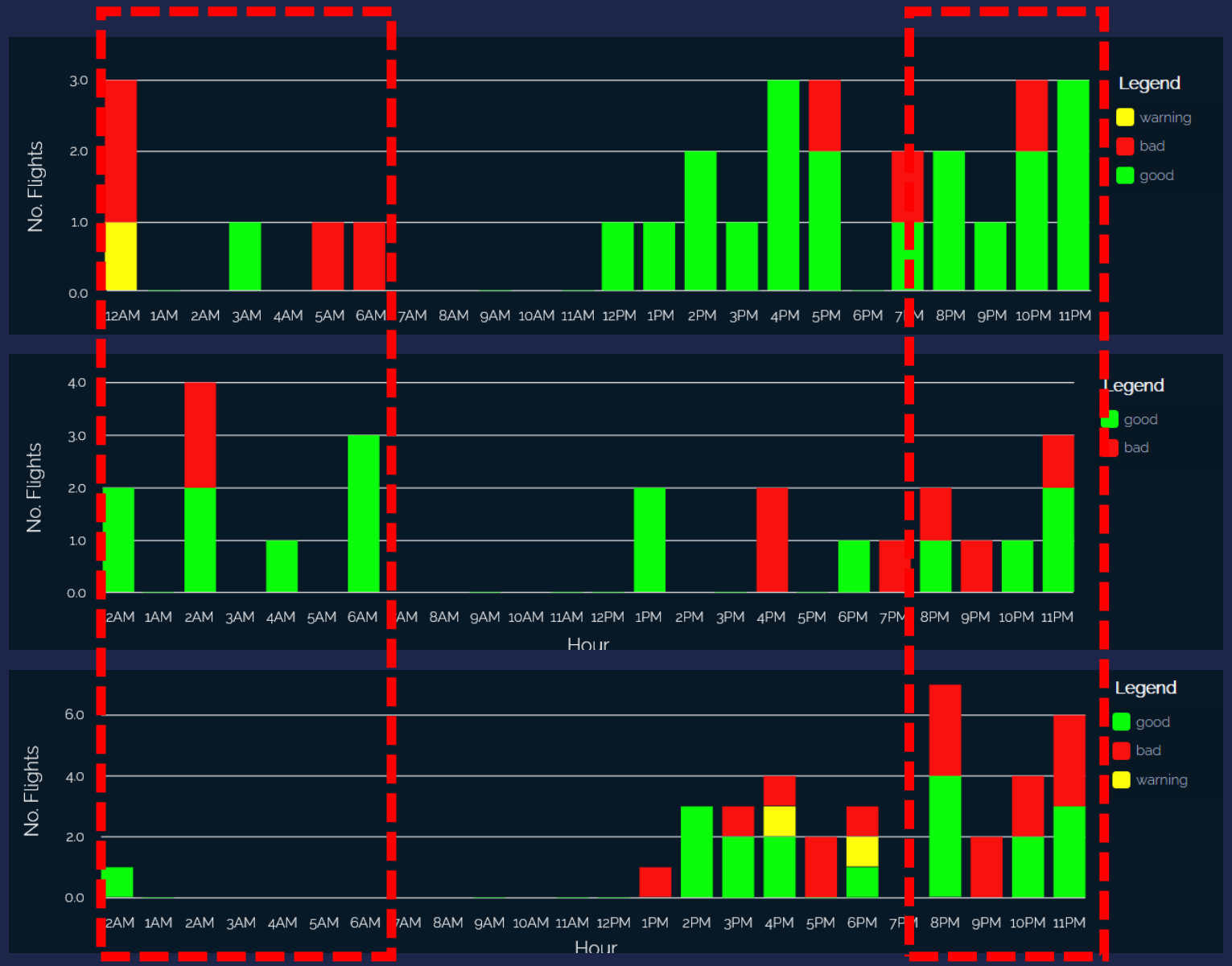
- Sample data from a local Municipal Labor Day Festival and Parade:
  - 87 Total Flights
  - 36% of Flights Flagged over 3 Day Period



Multiple Flights Detected Mapping Parade Route

Municipal Weekend Flight Report Summary

Daily Hourly Report of Drone Activity



Sept 3rd

28 Total Flights observed

6 Before 6am

9 after 8pm

Sept 4th

23 Total Flights observed

10 Before 6am

7 after 8pm

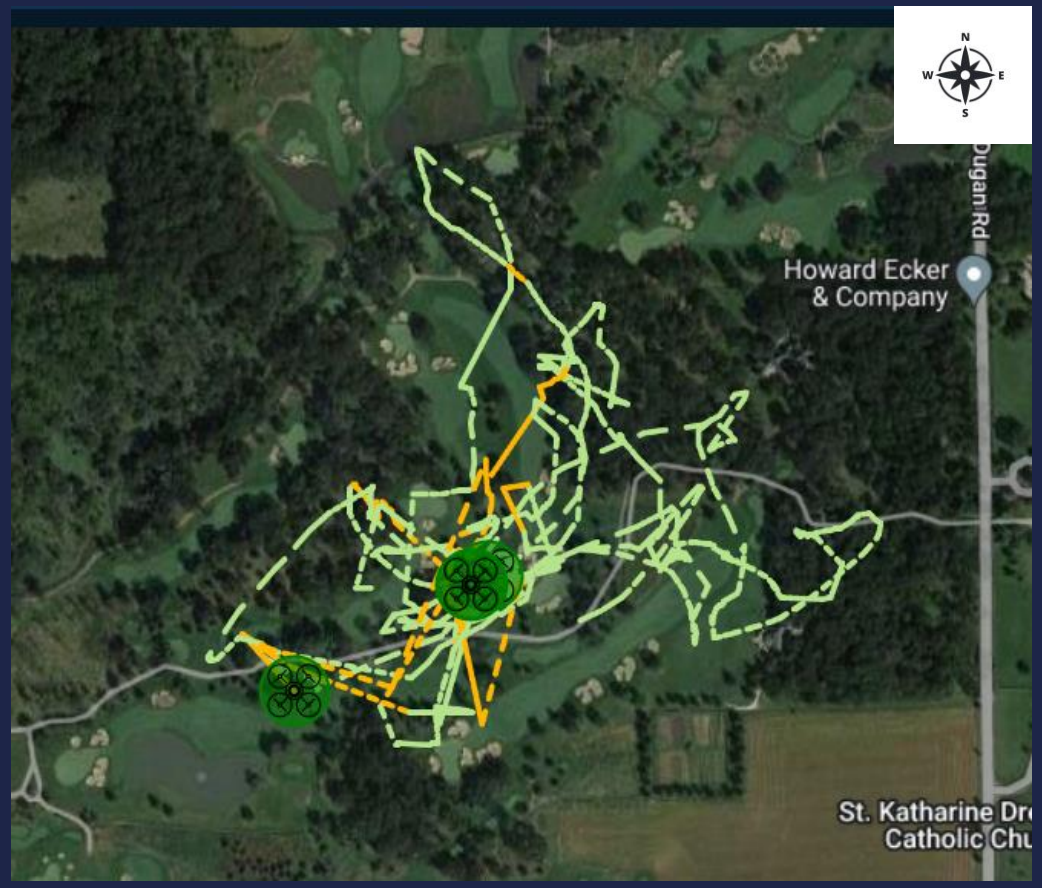
Sept 5th

36 Total Flights observed

1 Before 6am

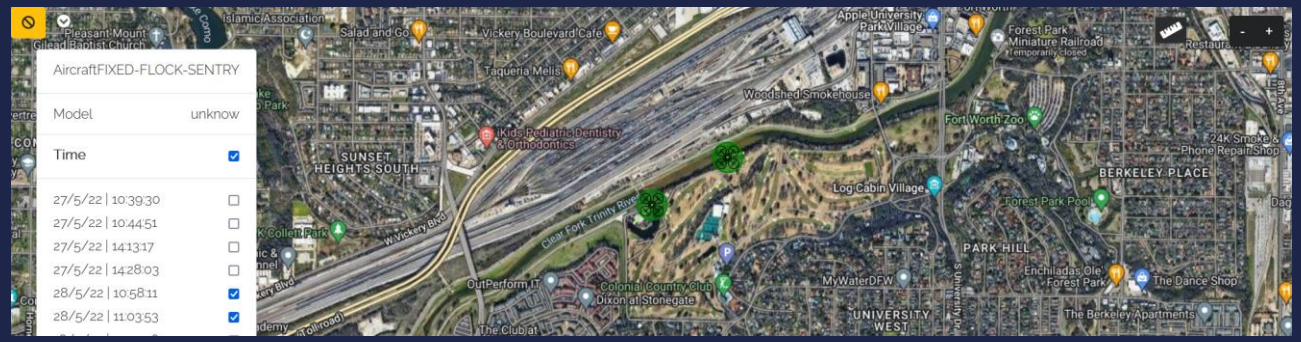
19 after 8pm

Interesting Flights – Flight History over Golf Courses



- This is most likely a drone affiliate with the one of the LIV crews.

- The same drone was recorded flying over both the Colonial Golf Course in Fort Worth on May 28th 2022during the Charles Schwab Challenge and Rich Harvest Farms golf club in Sugar Grove IL for the LIV Golf event there Sept 16-18th 2022



Demonstration Videos

- AeroSense: AeroSense Demo - YouTube
- Software UI Highlight Reel: Eyes In The Sky - YouTube
- E1000 Training Video: E1000 Training - YouTube

Prevent Entry

Electronic countermeasures are needed to prevent drones from flying into restricted areas

Skyfence is scalable, automatic, and installs along existing perimeter fence creating an electronic ‘wall’ extending into the sky so that drones are unable to fly through this invisible barrier

Stops more than 98% of commercial drones with no effect on communications systems

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Neutralize and Defeat

Active intervention technology that is portable and lightweight

Interrupts the command, video, and navigation signals included on most commercial drones within a 1 km radius

Blocks the drone's GPS and control system, so that the operator no longer has control over the drone, forcing it to land safely or return to the operator

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Thank You

Joe Mayer
Chief Operating Officer

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jmayer@scientelsolutions.com