AIRAVAT

TECHNOLOGY SOLUTIONS

Trusted Growth Partner for Aerospace,
Defense, and National Security Innovators

Why Choose Airavat

Your Mission, Our Focus

Aligned for Impact

We've been on the ground and in decision rooms, tackling high- stakes challenges.

Partnerships That Deliver

We don't just advise; we embed ourselves within your team.

Who We Serve

AIRAVAT partners with emerging tech firms, mid-sized government contractors, and mission focused innovators operating in:

- Aerospace & Airspace Systems
- Uncrewed Aerial Systems (UAS) & Advanced Air Mobility (AAM)
- Cyber & AI for Defense
- National Security & Critical Infrastructure
- Dual-Use Commercial-Government Technologies

What We Deliver

- ✅ Commercialization Strategy for Emerging Technologies
- ✅ Contract & Acquisition Expertise
- ✅ Funding Success
- ✅ Technical Compliance & Acceleration
- ✅ Embedded Partnership Model

Why Airavat

Mission-Aligned: We speak defense and innovation translating tech capabilities into operational outcomes.

Strategically Positioned: At the intersection of government, emerging tech, and funding ecosystems.

Proven Playbooks: We build scalable, repeatable success frameworks to help you compete and win in the federal market.

Let’s Win Together

Contact: Darshan “Dash” Divakaran
Website: www.airavatsolutions.com
Email: info@airavatsolutions.com
Phone: 919-987-4333
LinkedIn: https://www.linkedin.com/company/airavatllc

APPLYING NEW TECHNOLOGIES

Empowering U.S. Communities for AAM Adoption Through Digital Simulations

Fernando Bertezzolo – Software Engineer, ANT Automation

adapt evolve

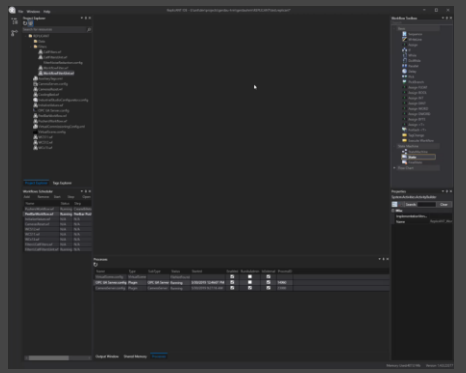
CONFIDENTIAL

Who We Are

- 17+ years innovating through digital tools
- Pioneers in serious games 3D simulation for manufacturing
- Virtual commissioning to reduce startup times
- Immersive visualization to support training, safety, and decision-making

From Tool to Platform

- Operators trained before the factory was built
- Safety experts identified risks early
- Managers visualized progress for stakeholders
- A technical bridge between people, l tool became systems, and insight



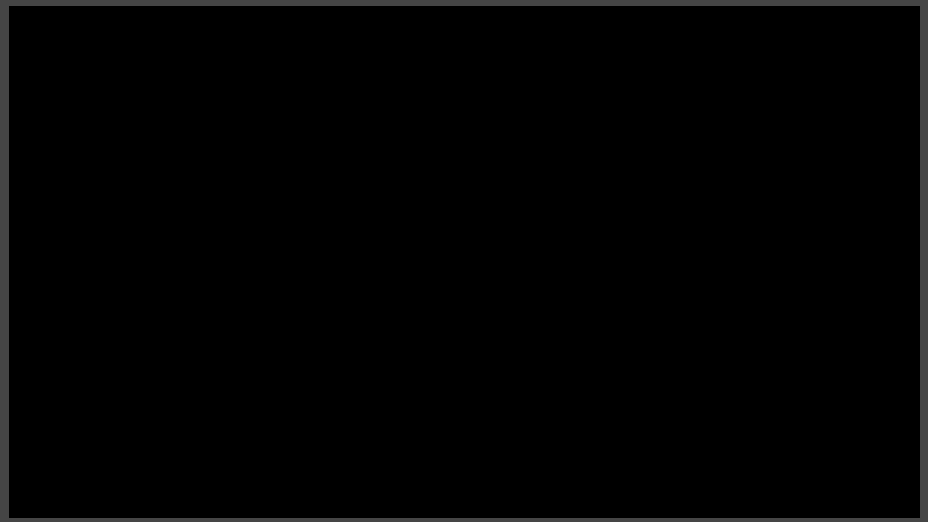
Designed for Presence

- Platform built for interaction and immersion
- Early adoption of Oculus SDK 1
- Real-time 3D environments enhance comprehension and decision-making

Real-time within the Virtual Environment

Real-time within the Virtual Environment

Real-time within the Virtual Environment



Scaling Innovation

- Trusted by companies and institutions
- Infrared + AI to predict failures in molten metal containers
- Efficient, low-cost real-time data systems
- Next-gen tool: SCADA + Generative Language Models

REPLICANT
SYNTHETIC ENVIRONMENT
BY ANT-AUTOMATION

CIRA ALL IN ONE
HOT SPOT DETECTION
BY ANT-AUTOMATION

Q-IND-STUDIO
QUANTUM INDUSTRIAL STUDIO

ANTHILL XR

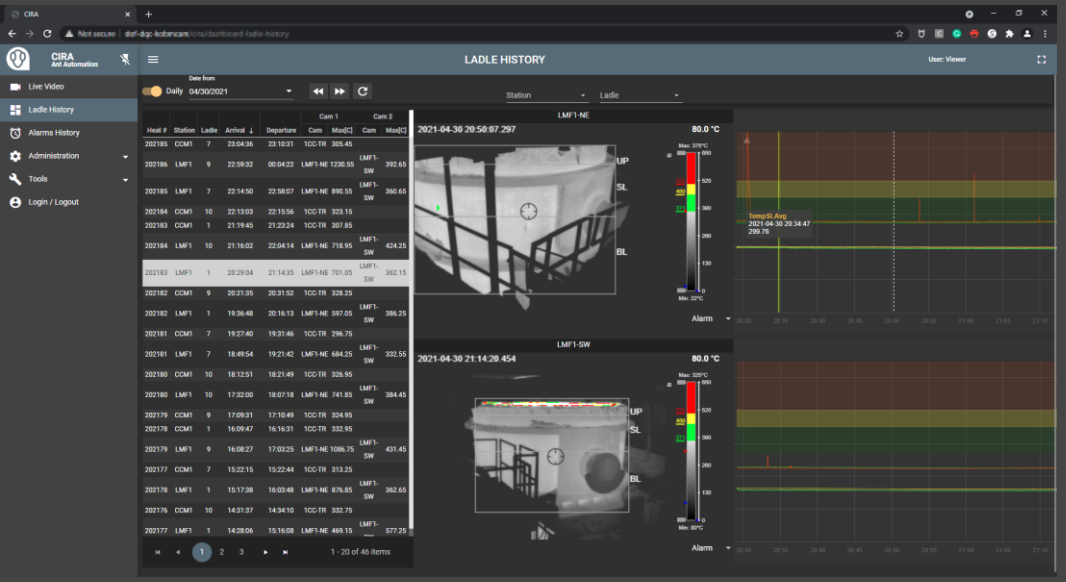
LIMS
LABORATORY INFORMATION MANAGEMENT SYSTEM
BY ANT-AUTOMATION

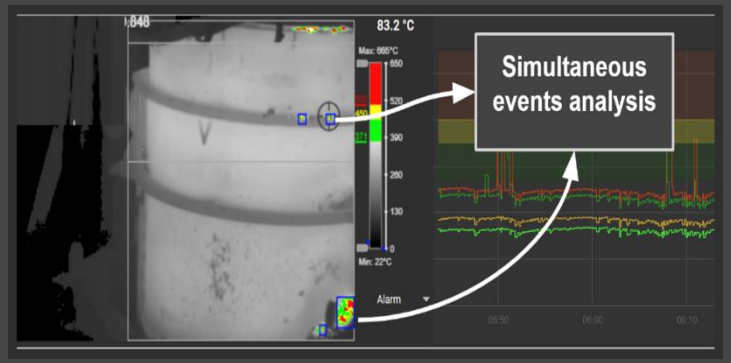
ANTCITY
PAAS FOR AAM & URBAN PLANNING
BY ANT-AUTOMATION

Customers – Industries

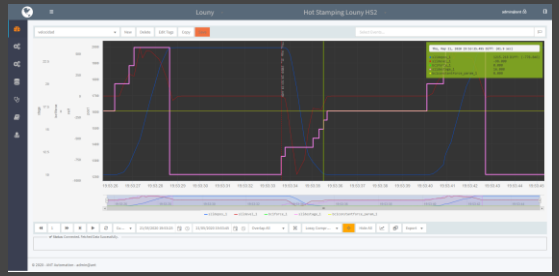
Clients in North America, Europe, and South America to provide tailor-made solutions for numerous industries globally.

Scaling Innovation

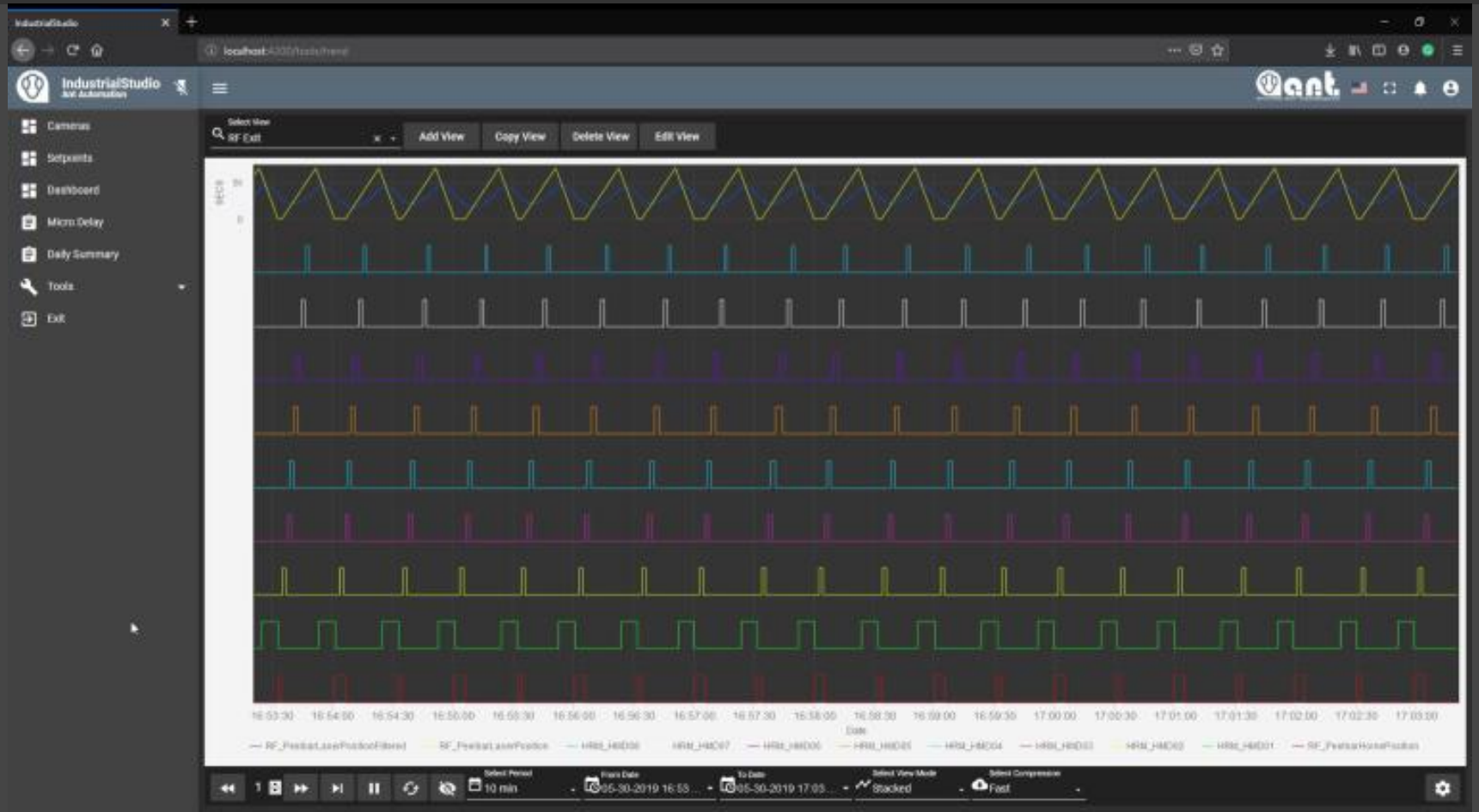




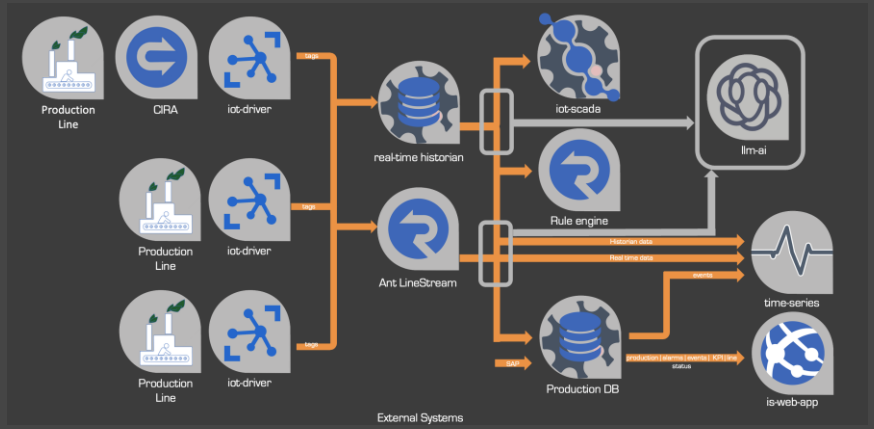
Scaling Innovation

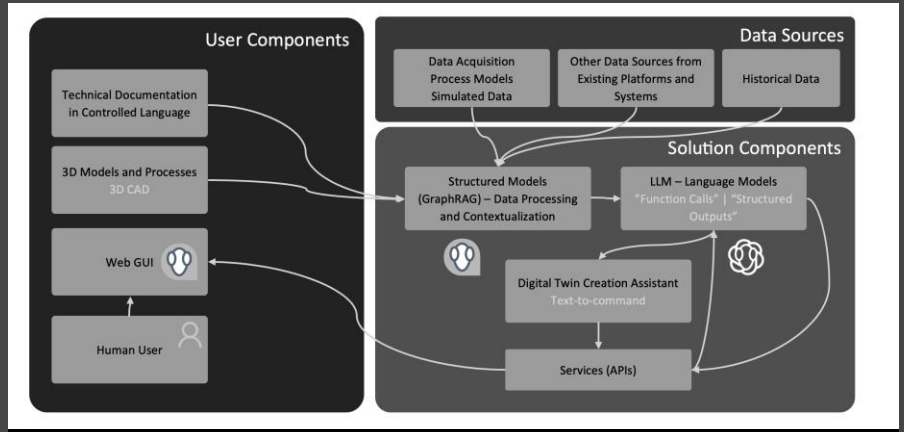


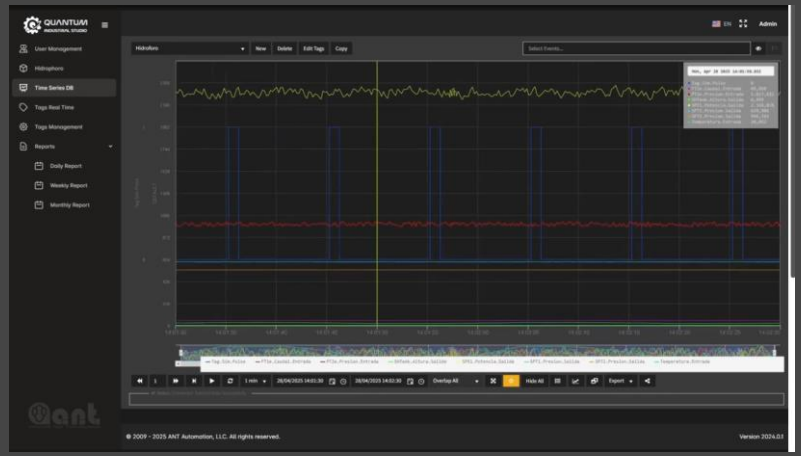
Scaling Innovation



Scaling Innovation





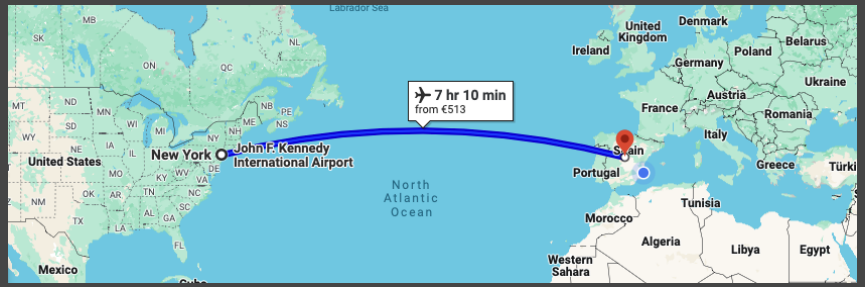


QUANTUM
INDUSTRIAL STUDIO

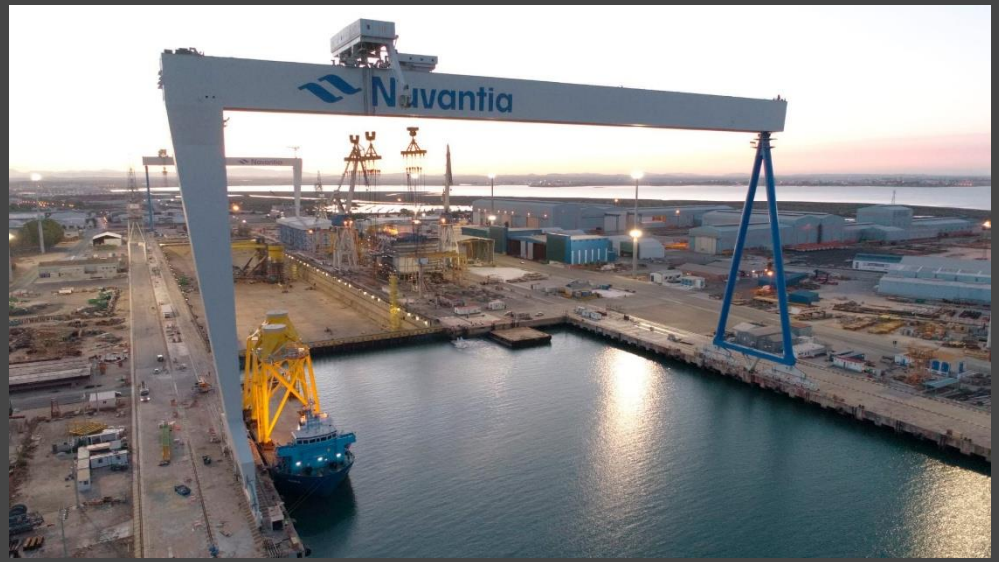
Engineered by ant
APPLYING NEW TECHNOLOGIES

Exporting Innovation

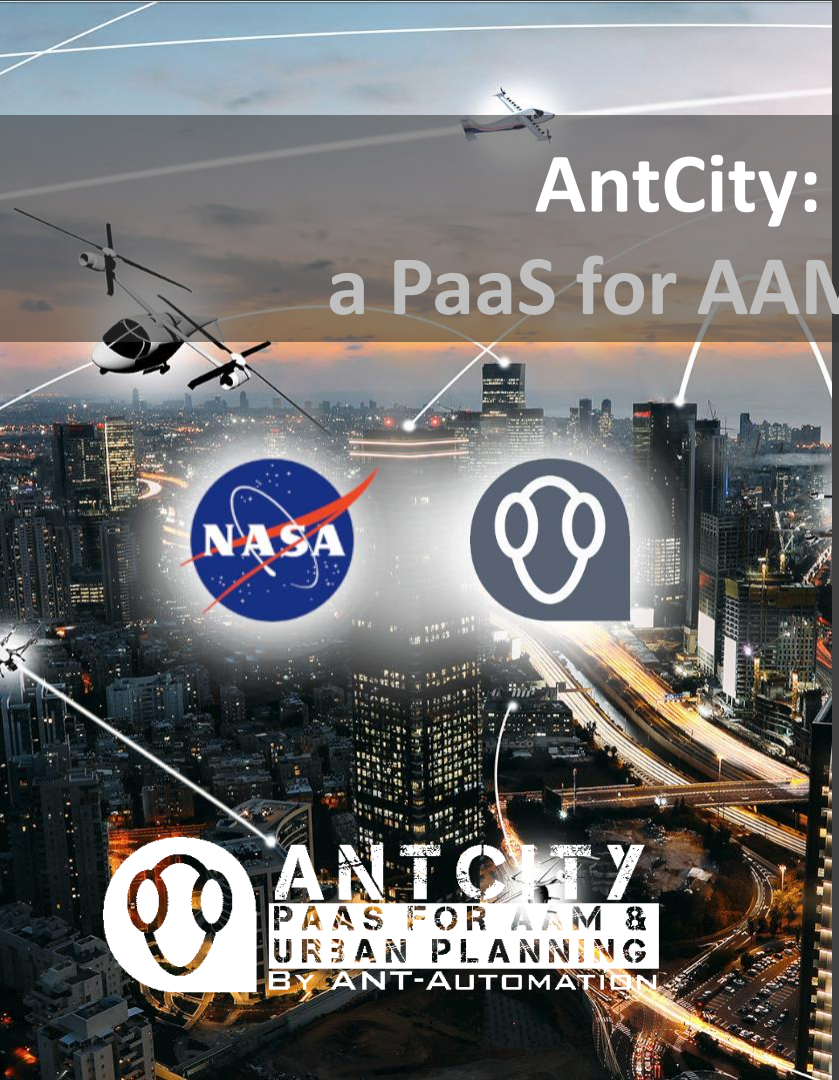
- Simulation of F110 Frigate Systems (Navantia, Europe)
- SCADA, VR, AI Integration
- Industry 4.0: robotic welding, computer vision, cybersecurity
- Making complexity accessible and immersive



Exporting Innovation



Credits: https://www.navantia.es



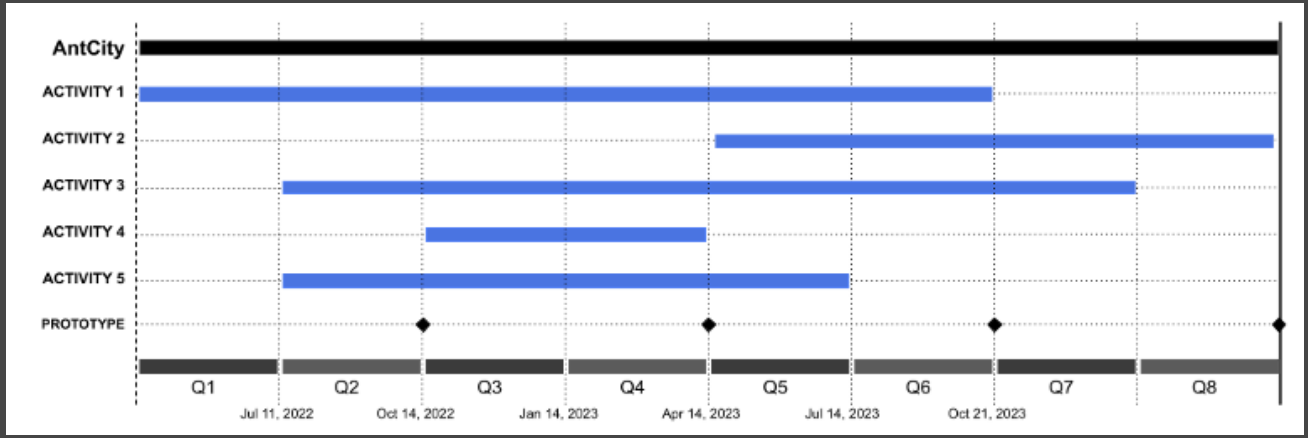
AntCity: Thinking Bigger
a PaaS for AAM and Urban Planning

- What if we could simulate a city?
- Flexible platform for people, traffic, weather, public systems
- Supported by NASA
- Designed to visualize AAM adoption and its urban impact

AntCity: Thinking Bigger

Listening to Communities

- SBIR Phase 1 & 2 supported prototype
- Case of Amazon UAV in College Station, TX
- Noise described as a “swarm of bees”
- Need to consider location, barriers, and soundscape preservation



Listening to Communities

Real Use Case in Florida

AIRPORTS

Ferrovial Teams with eVTOL Operator UrbanLink To Develop Florida Vertiports

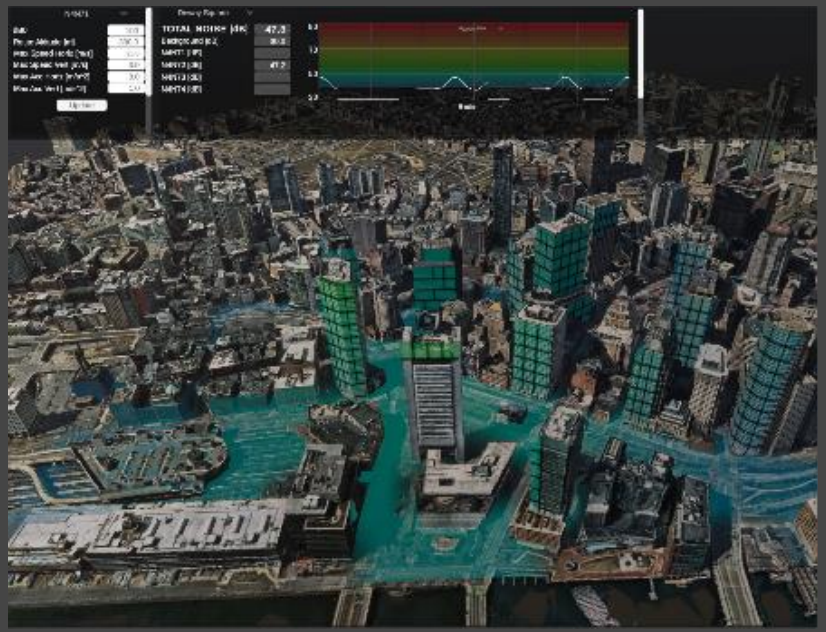
The infrastructure group will make the facilities available for multiple eVTOL air services

Ferrovial is developing vertiports for eVTOL aircraft operators such as UrbanLink, which will launch services in South Florida in 2026.

- Ferrovial Vertiports: building near suburban area
- Concerned about soundscape disruption
- Planned proactive acoustic studies and barriers
- Technology as a tool for empathy ad foresight

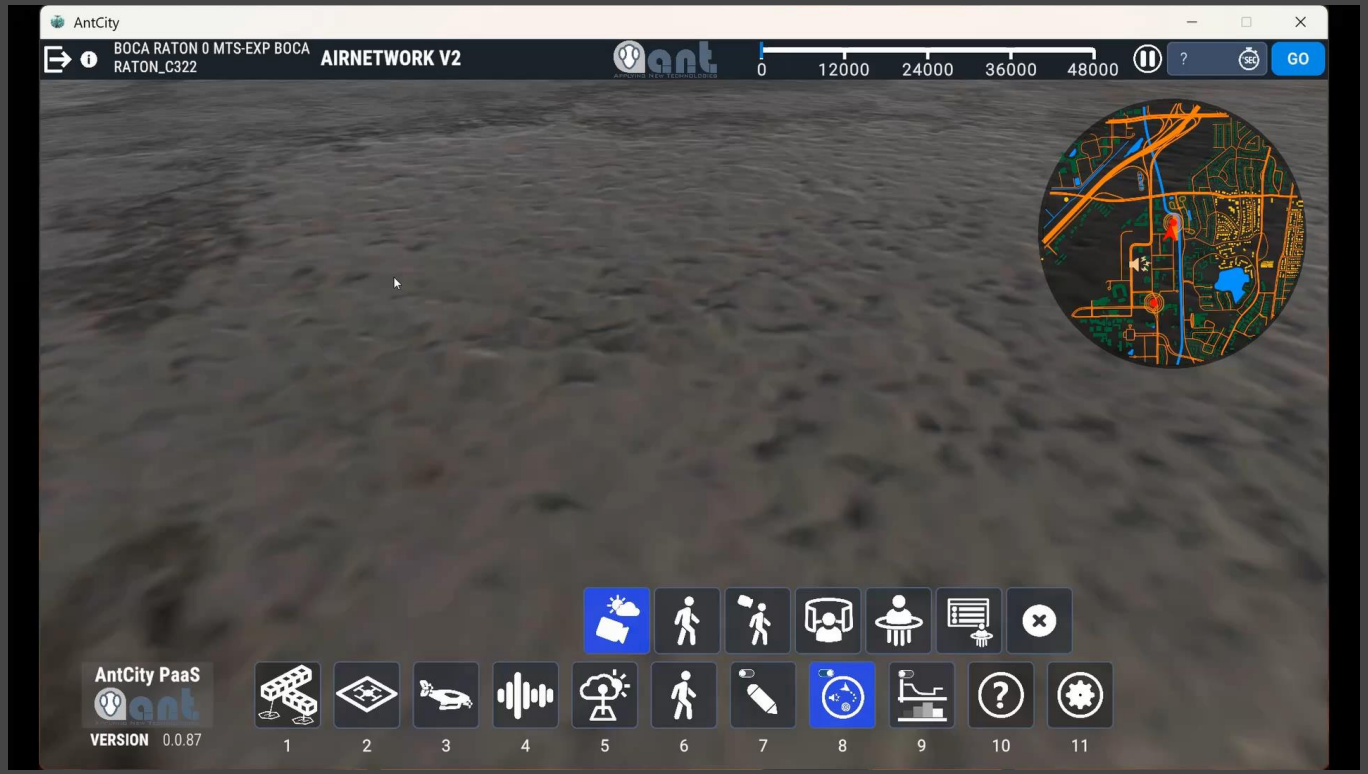
Real Use Case in Florida

Our Contribution

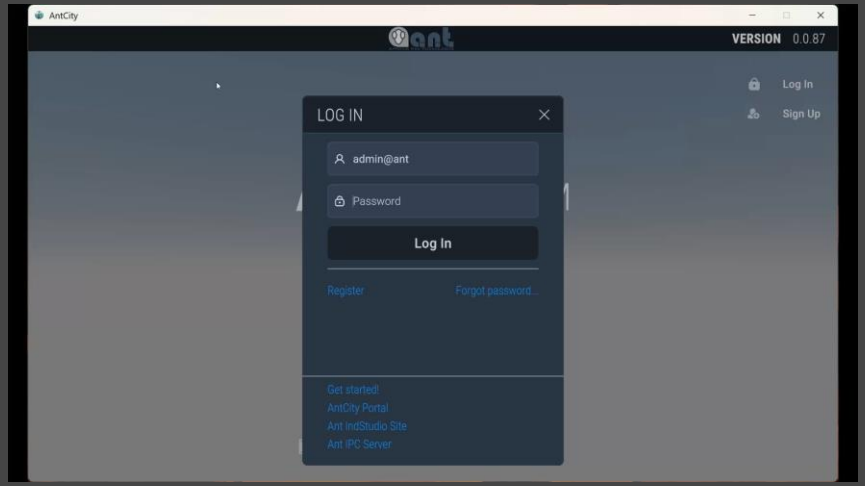


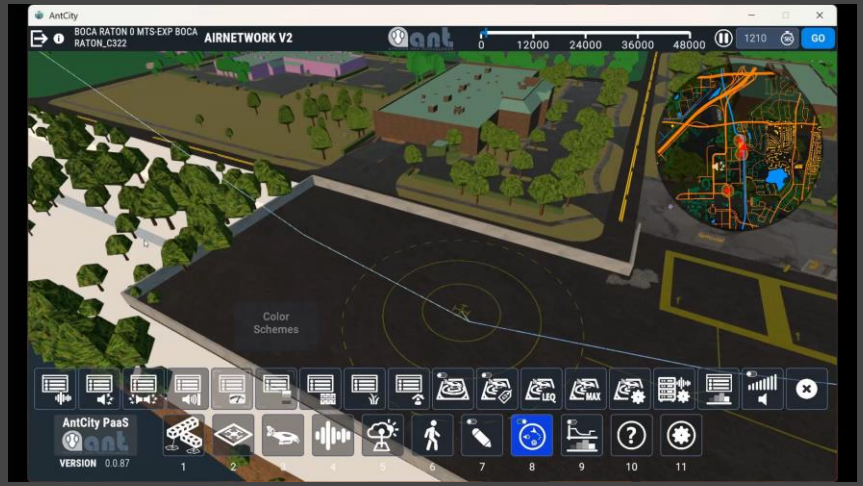
- Selected acoustic propagation model
- Adapted Ferrovial's 3D model for visualization + computation
- Developed noise mapping system
- Deployed within AntCity: interactive editing, barriers, flight paths, eVTOL types and frecuencies

Our Contribution



Our Contribution





Our Contribution

Innovation with Purpose

- Technology that listens and respects
- From factories to cities, from tools to trust
- ANT Automation builds tech to improve lives
- The most powerful systems are those that know when to listen

AntCity: Live Demo

Let’s explore AntCity in action

Credit: NASA AAM

Thank You!

- Questions? Let's chat!
- Connect: ant.city@ant-automation.com
- Let's build better cities, together

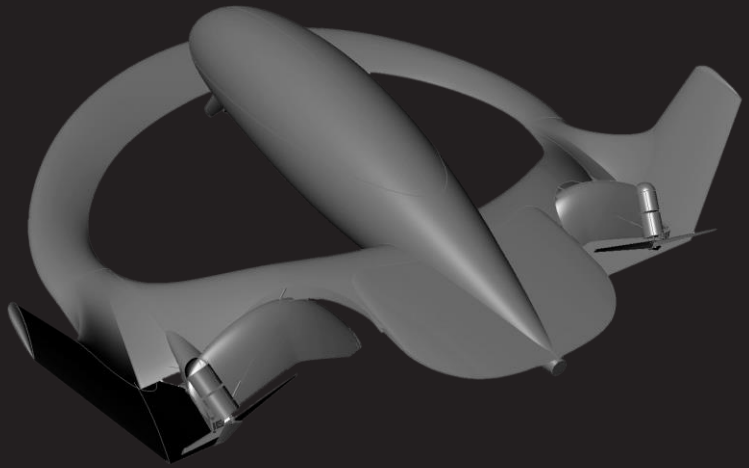
adapt  evolve

www.ant-automation.com

LinkedIn: @ant-automation

EIVIE

Next-gen VTOL



Damjan Zabovnik

3 World Records

FireFighting Drones Problems

Low Speed

Short Flight Time & Range

Low Carrying Capacity

Problem

Wildfires in the last 10 years caused $300B damage cost in North America alone.

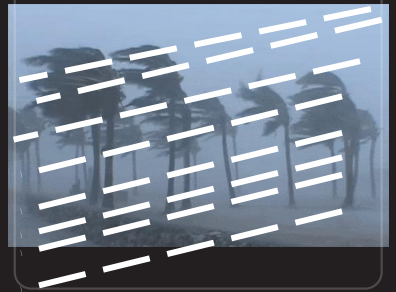
Wildfire Fighting Problems (Palisades Fire)

Lack Of Early Detection

Poor Visibility

Lack of Range and Speed

Unable to monitor in Extreme Wind Conditions



Integration in Wildfire Management

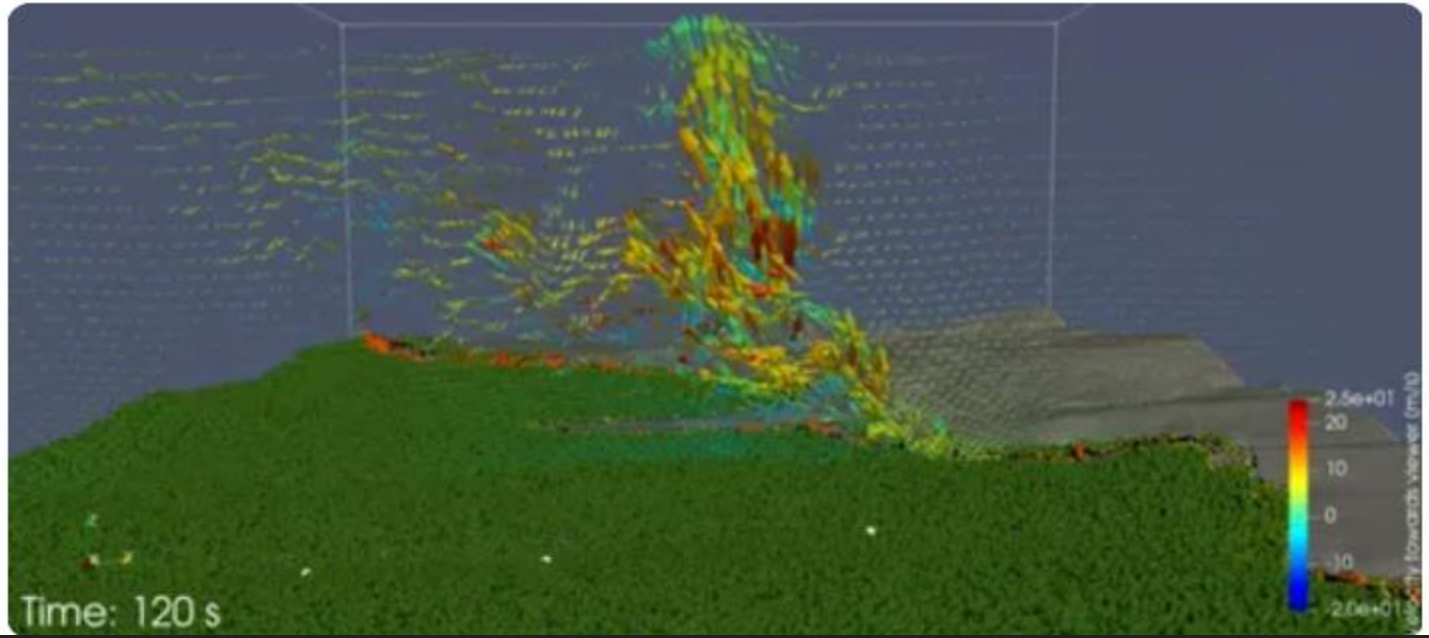
Integration in wildfire management involves combining various strategies and technologies to enhance prediction, monitoring, and response efforts.

Augmented Reality in Wildfires

Augmented reality (AR) is being explored for its potential to enhance wildfire management and emergency response. AR can provide firefighters with real-time information and situational awareness, such as the location of team members and the spread of the fire, through devices like helmets with thermal cameras and computer vision-aided displays.

screenshot of an model that simulates the wind direction and speed during a wildfire.

usgs.gov



NASA Airborne Sensor's Wildfire Data Helps Firefighters Take Action

nasa.gov

Coaxial Helicopter Payload Ratio

Ultralight coaxial helicopters, offer a superior weight-to-power ratio due to their innovative design and advanced materials. This results in enhanced performance metrics like speed, range, and endurance, as well as improved maneuverability and versatility due to their compact size.

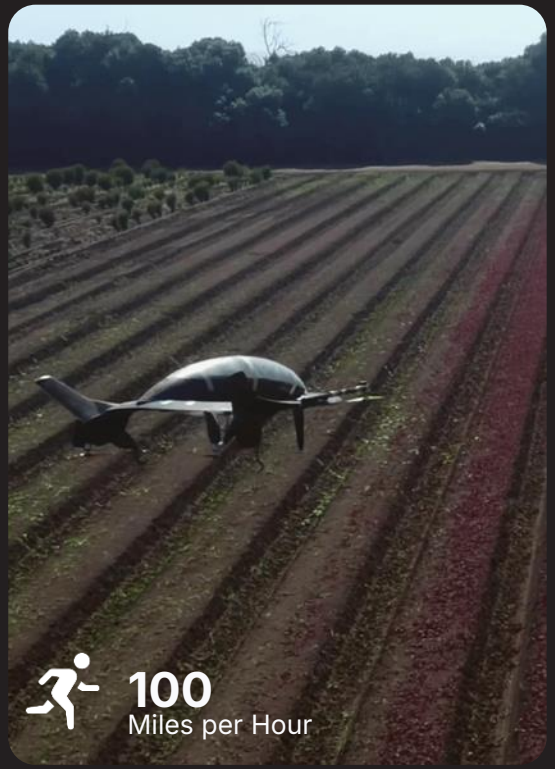
Fixed Wing Efficiency

Fixed-wing aircraft are generally more efficient than rotary-wing aircraft due to differences in how they generate lift and thrust. Fixed-wing aircraft use their engines to provide forward thrust, while the wings generate lift, allowing for a more efficient use of energy compared to rotary-wing aircraft

Heavy Wing Load and Wind Resistance

In terms of wind resistance, a higher wing loading can make it easier to penetrate headwinds because the aircraft can maintain a higher speed, which helps overcome the wind's force.

Solution


100
Miles per Hour


1000
Miles Range per Flight


High
Payload Capacity

Solution

- Constant monitoring for wildfires
- Autonomy
- Earliest detection
- Sensors Before and During
- Network from Air
- Flies in extreme weather conditions

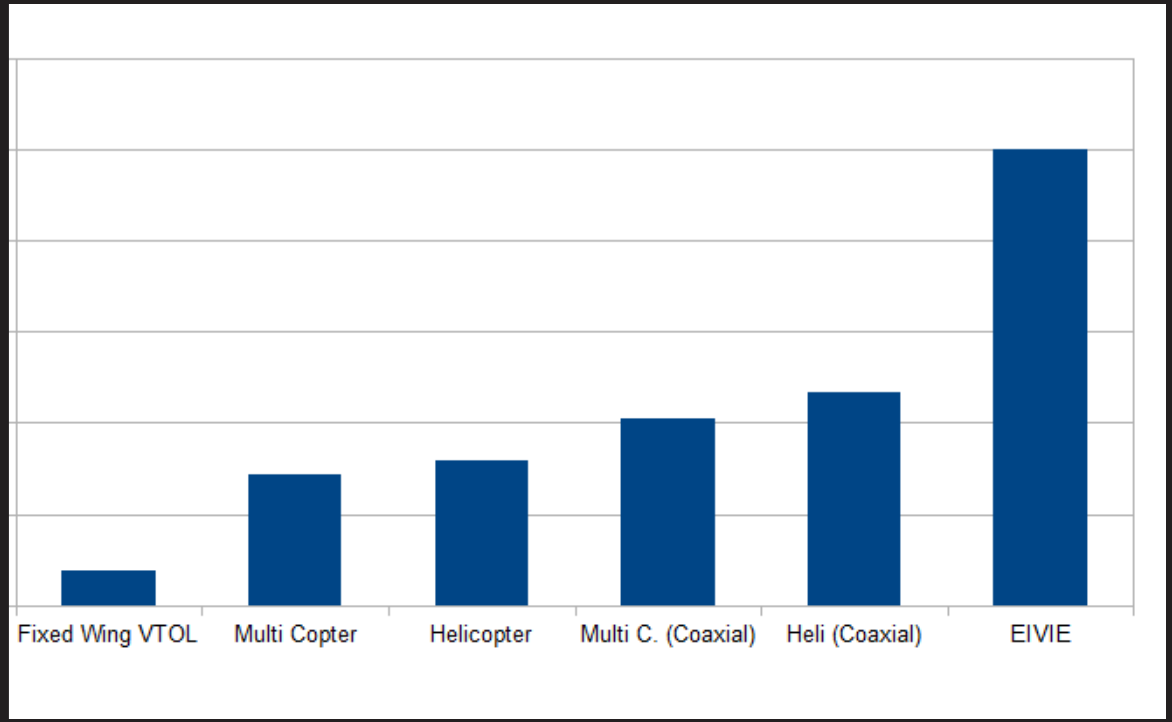
REDUCING DAMAGE COST SIGNIFICANTLY => SUSTAINABILITY

Competitive Landscape

	Multi Copter	Multi Copter (Coaxial)	Helicopter	Helicopter (Coaxial)	Fixed Wing VTOL	
Cost	✓✓	✓✓	✗	✗	✓	✓
Velocity	✗	✗	✓	✓	✓	✓✓
Carry Capac.	✓	✓✓	✓	✓✓	✗	✓✓
Wind Resistance	✓✓	✓✓	✓	✓	✗	✓✓

Usefulness Index

Velocity x Carrying Capacity / Cost



6 letters of interest:

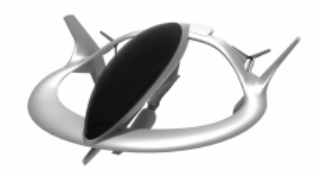
- SkyTL
- TruWeather Solutions
- DroneResponders.org
- OceanSynchro.io
- Parker Aerial Solutions
- Western Semiconductors

We are raising to

- Advance our Technology
- Conclude Pilot Testing
- Supporting Sustainability

EIVIE

Engineered to protect lives and ecosystems, EIVIE combines advanced fire detection technology with onboard firefighting capabilities, setting a new standard in wildfire management.



Revolutionizing wildfire management with EIVIE's advanced autonomous VTOL drone—designed to detect and respond to fires faster than ever.

EIVIE: Pioneering the future of robotics and aviation to protect lives and preserve nature.

We are preparing to launch our StartEngine campaign — join us in revolutionizing wildfire management and be part of the change.

Damjan Zabovnik

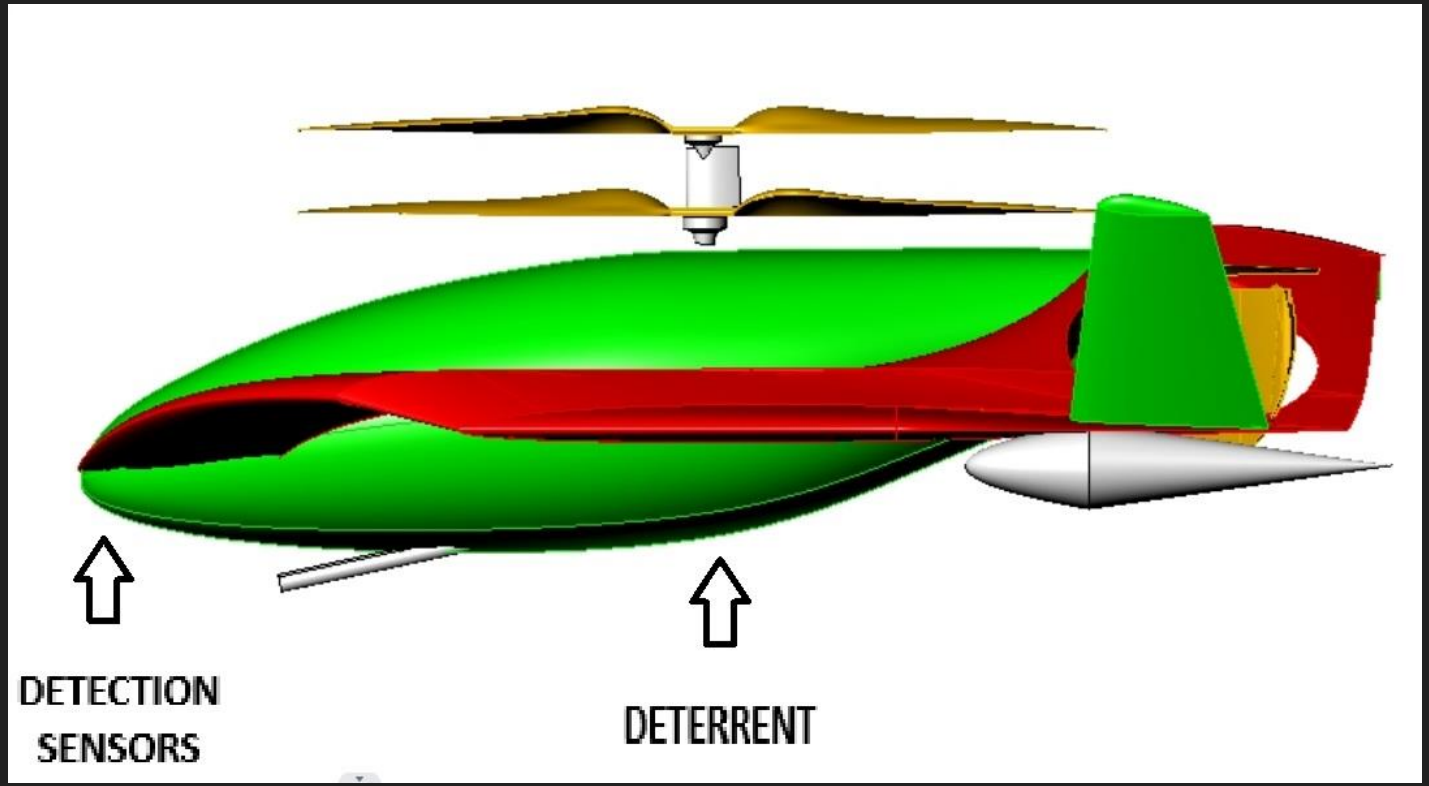
Founder & CEO

dz@eivie.us

eivie.us

Find me on LinkedIn:

EIVIE FireFighting Drone



Fort Worth Intelligent Micro-Weather Network

N. Texas UAS Safety and Integration Task Force

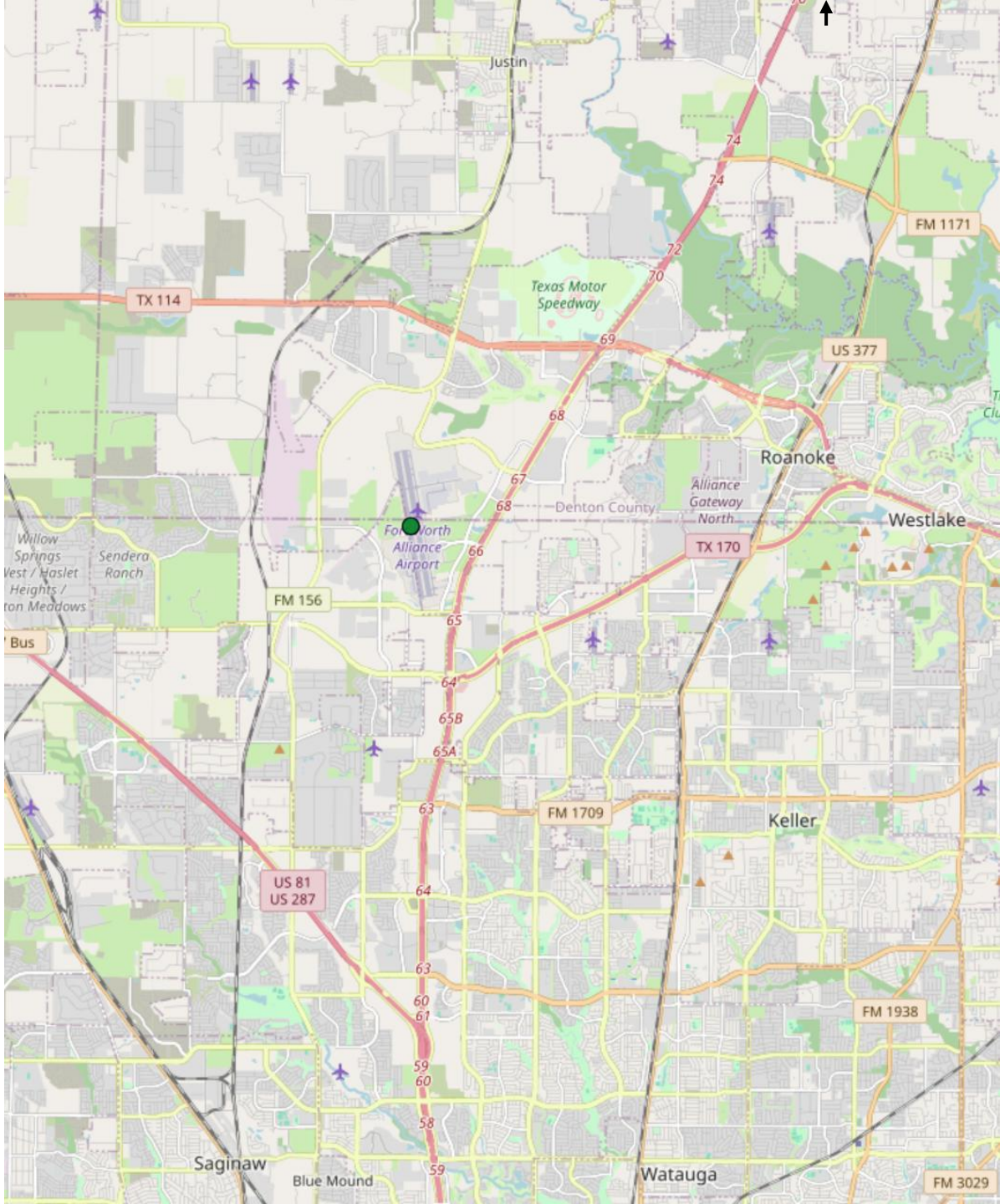
Don Berchoff
Founder and CEO
TruWeather Solutions
27 May 2025

Aviation Weather Sensors (Current)

- ASOS

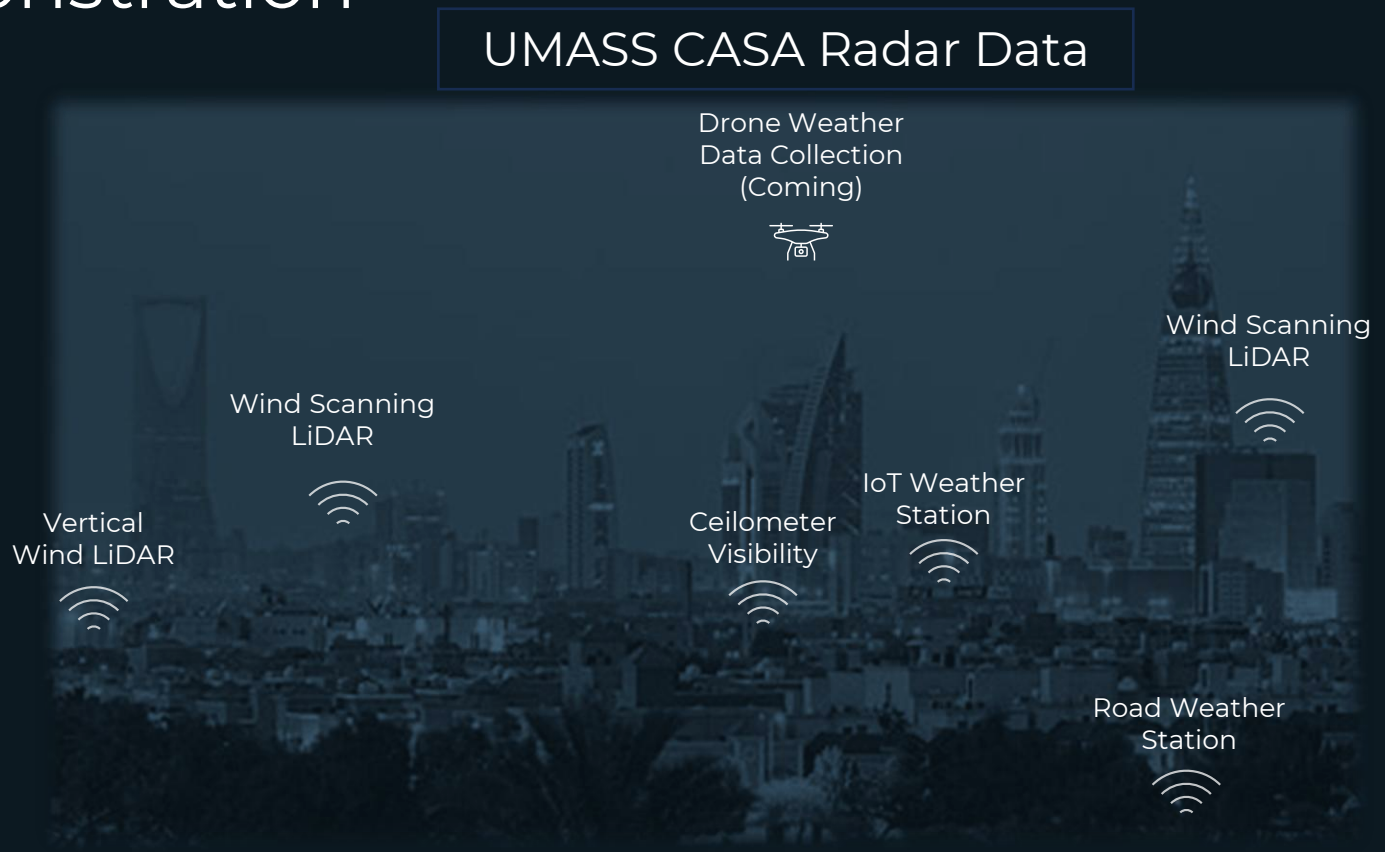
National Weather Service Weather radar Coverage

UMASS CASA Weather Radar Coverage



Northern Ft. Worth Demonstration

WISE
Weather Intelligence Sensor Ecosystem™



A network of weather infrastructure that produces automated, uninterrupted flow of data for a diversity of applications...winds aloft, visibility, cloud height and road ice gap filling technology

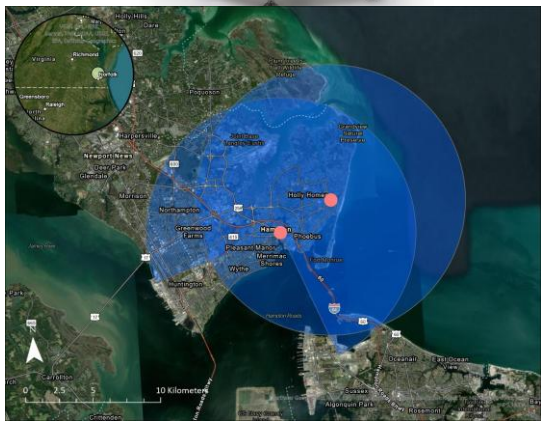
TruWeather Solutions

Project Weather Sensors

Frost Solutions Road Sensors

MetroWeather Wind Scanning LiDAR

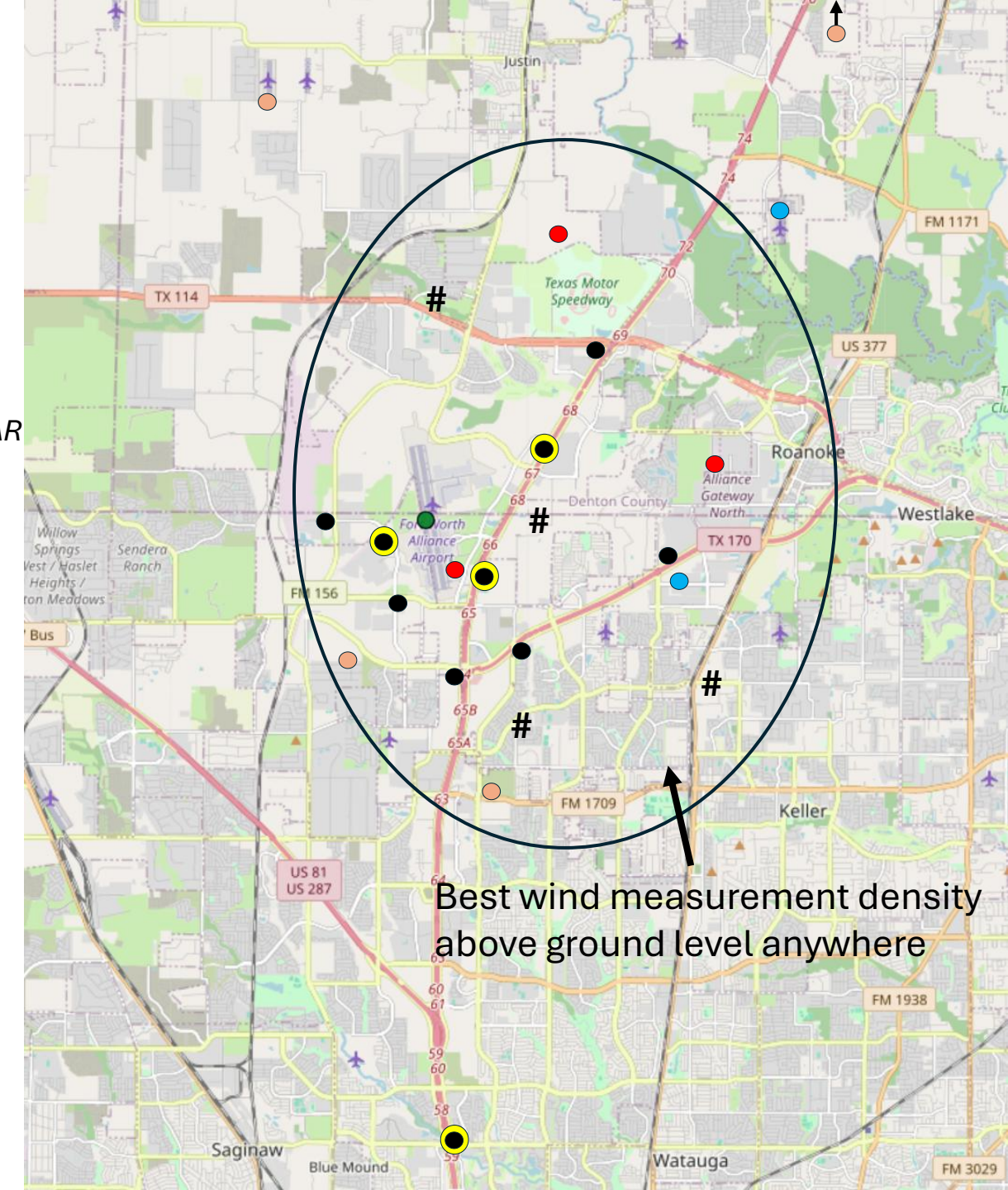
Tempest One Weather Stations



NRG Wind LiDAR

Intellisense Weather Station
With Visibility and Cloud Height

Barani Weather Stations



Project Weather Sensors by Funding Entity

US DOT SMART Grant (City of Fort Worth)

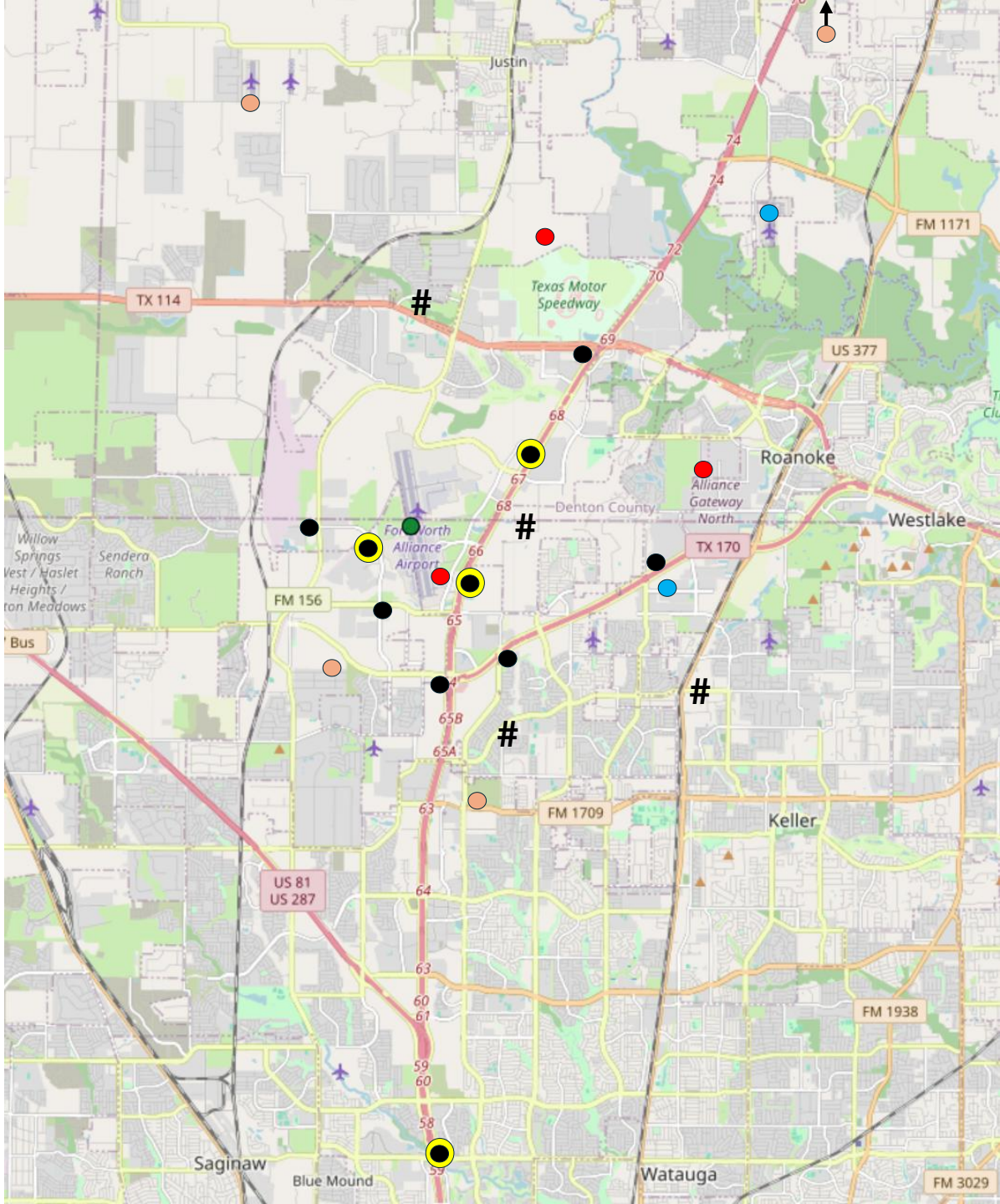
- MetroWeather Wind Scanning LiDAR (1)
- Intellisense Weather Stations w/Ceilometers (2)
- Tempest Weather Stations (co-located with road sensor) (4)
- Frost Solutions Road Sensors (10)

NASA SBIR (TruWeather)

- MetroWeather Wind Scanning LiDARs (2)
- Barani Weather Stations (4)

MetroWeather (TruWeather Partner)

- # NRG Vertical Wind LiDARs + Anemometers on Cell Towers (4)



Data Flow Schedule

- Weather Stations and CASA radar data is flowing now into TruWeather V360 and is being validated. Goal: Begin sharing with stakeholders in early July.

- LiDARs and Cell Tower Anemometers: data flow expected to start in July for validation. Goal: Begin sharing with stakeholders in August.

Aviation Weather Standard

ASTM F3673-23

This standard provides a framework for Civil Aviation Authorities (e.g., FAA) to consider rule-making for the streamlined qualification of “trusted, secure and reliable” 3rd Party Weather Information Providers (WIP) to the aviation weather system.

Discuss how we can do an FAA Near Term Approval Process submission with champion operators to seek making the Ft Worth Testbed data “trusted” and “approved” under NTAP until Part 108 and Part 146 are published.

TruWeather Solutions

Call-Out for Stakeholders to Participate in DOT SMART Grant

- ✓ **Objective 1:** Conduct study to identify optimal locations to deploy low-altitude aviation and road weather sensors
- ✓ **Objective 2:** Select suite of sensors, choose road weather sensor/model partner, and choose city-approved partners as needed
- ✓ **Objective 3:** Deploy non-invasive road and aviation weather sensors
- ✓ **Objective 4:** Integrate real-time data from CASA weather radars, road weather sensors, and low-altitude aviation weather sensors into a single platform and make it and products derived from it available through industry standard protocols
- ✓ **Objective 5:** Integrate micro-scale wind and weather model and road weather model outputs into a single platform in a fashion that facilitates intermodal transportation planning

Objective 6: Conduct test cases to validate the integration of aviation and road weather data, models, and decision tools

Objective 7: Facilitate stakeholder access to data and products via integration of APIs and web interfaces (July – August)

Objective 8: Work with stakeholders to develop measures of effectiveness, evaluate performance under operational scenarios, quantify the benefits to intermodal transportation ops, and collect metrics over a variety of scenarios (August – November)

If you or your organization would like to participate starting on July 7, or if you know a company or government office that could benefit from this program, send email to **support@truweathersolutions.com** and identify whether you would like access via a web interface or via API. You will receive information about how to gain access to the data and provide feedback, and you will be invited to attend a virtual meeting in July at which participants will receive training demonstrations and have a chance to ask questions.