



7th quarterly report on the Northeast
Ohio Information Exchange: Digital
Infrastructure for Drone Services in
Cuyahoga County project

Period thru September 30, 2024

Stuart C. Mendel
Project Director





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Website content hyperlinks

Here is a short link for this report if needed: tinyurl.com/neofix-q7report

<https://bw-centers-tech-partnerships.org/neofix/>
<https://bw-centers-tech-partnerships.org/members-supporters/>
<https://bw-centers-tech-partnerships.org/resources/>
www.OH-FIX.com

Questions directed to Stuart C Mendel, Affiliate Professor and NEOFIX Project Director
smendel@bw.edu



October 15, 2024

County's address for notification is:
Cuyahoga County Office of the Council
2079 East 9th Street
Cleveland, Ohio 44115
Attention: Cynthia Mason, Research and Policy Analyst

With a copy to:
Cuyahoga County Department of Law
2079 East 9th Street
Cleveland, Ohio 44115
Attention: Director of Law

Dear Ms. Mason,

This document and attachments comprise the *seventh quarterly* report on the Northeast Ohio Information Exchange: Digital Infrastructure for Drone Services in Cuyahoga County, abbreviated hereafter as the NEOFIX project.

The format narrative of this document is drawn from the reporting items listed in section 4 of the agreement between Cuyahoga County and Baldwin Wallace University for funding the NEOFIX, cut and pasted as:

Recipient shall submit quarterly reports to the Clerk of the Cuyahoga County Council. Reports shall be submitted no later than thirty (30) days after the end of each calendar quarter. In each report, recipient shall provide the following:

1. An itemized list of all expenditures made during the preceding quarter (**see Table I below**).
2. An itemized list of project goals achieved during the preceding quarter; (**see Table II below**).
3. An itemized list of project goals in progress as of the end of the preceding quarter (**see Table II below**).
4. An itemized list of project goals to be completed during the current quarter and an itemized list of project goals to be completed in the next quarter (**see Table III below**).

A handwritten signature in blue ink that reads 'Stuart C Mendel'.

Stuart C Mendel, Ph.D.
Affiliate Professor and
NEOFIX Project Director



Summary

Briefly, the NEOFIX is a public private partnership, where public sector first-in resources will be amplified well beyond a dollar-for-dollar return for an emerging \$10B private industry benefiting residents of the County and the state of Ohio. NEOFIX will provide public safety in Cuyahoga County with a *Common Operating Picture* of drone operations, supporting safe operations and counter-UAS. The NEOFIX puts the County and its airspace within the leading the communities in the nation, applicable as a model program for the state of Ohio.

This seventh quarter report on the progress of the NEOFIX depicts uninterrupted work described in the original proposal to the Cuyahoga County District 2 and County Council in Fall 2022.

The period covered by this report is June 30, 2024, through September 30, 2024.

In addition to the two-year funding provided to Baldwin Wallace University for the NEOFIX project in the amount of \$450,000, the organization Manufacturing Works and the firms CriticalOps, and ATA, LLC and its successor ATA Aviation have contributed in-kind staff time and essential expertise of approximately \$350,000.

This past quarter we received – in-hand - \$500,000 from the state of Ohio’s One Time Strategic Community Investment Fund (OTSCIF) for the continued development of the NEOFIX data sensor network, which leverages funds for drone infrastructure outputs provided by Cuyahoga County.

This past quarter, the NEOFIX was also awarded \$125,000 from the Cuyahoga County office of Emergency Management for a demonstration project in Cuyahoga County for a “drone as first responder” (DFR) infrastructure project. These funds further leverage the original Cuyahoga County ARPA sourced funds and the OCSCIF funding from the state of Ohio. The additional funds allow for the deployment of sensors in the Cuyahoga County region stretching along the Lake Erie shoreline and points inland. This work is initiated now and ramping up in Fourth Quarter 2024 and First Quarter 2025 for sensors deployment an coordination with regional public safety dispatch functions.

We are awaiting a decision on our US DOT Smart Grant Application.

As noted in previous quarterly reports, the work of this past *seventh* quarter continues the strategy to align and leverage Cuyahoga County’s investment in drone ready critical infrastructure and we are actively working to synchronize the public infrastructure with a drone industry supply chain, centered in the region. This would comprise a new Northeastern Ohio industry and we are developing project work with partners for specific workforce development application of the concepts previously articulated.

This *seventh quarter* report can be accessed by visiting: <https://oh-fix.com/index.html> clicking “About,” and then Government sub-tab of the pull-down menu.



Quarterly Narrative on Performance

The *seventh quarter* of the NEOFIX project involved the period July 1, 2024, through September 30, 2024.

The operational goals for 2024 (year 2 of the NEOFIX project) are:

- 2024 Goal 1 To establish the NEOFIX and its stakeholders as an authoritative asset and model recognized in the state of Ohio’s Fly Ohio programming.
- 2024 Goal 2 To add data drawn from dedicated Cuyahoga County-placed ground-sensors and reporting purchased by the NEOFIX for charts and made available via the world wide web for public and private local, regional, and Ohio drone stakeholders.
- 2024 Goal 3 To obtain further funding to advance the NEOFIX as public infrastructure in Cuyahoga County, Northeastern Ohio, throughout the state of Ohio and in cooperating states beyond Ohio.

Past performance – 7TH quarter

The work of this past quarter sets in motion a strategy to port the NEOFIX to other Counties in Ohio. We are doing this for two reasons:

- To align and leverage Cuyahoga County’s investment in this critical infrastructure with the those coalescing in the state of Ohio and regionally.
- To acknowledge that drone operational friendliness requires the infrastructure be connected uninterruptedly beyond Cuyahoga County.

In the period July 1, 2024 through September 30, 2024, we have continued the process of adding content, scope and engagement with drone stakeholders. We cast this maturation process as a continuing “ripening” and “deepening” of the NEOFIX instrument.

To advance the support of the NEOFIX as critical infrastructure for the Cuyahoga County and beyond, a series of presentations by NEOFIX were made for the purposes of “drone as first responders” (DFR) use cases for broad adoption. See list below:

- July 9, 2024 US DOT SMART Grant program panning for drone as a first responder for project stakeholders and regional airports including Burke, Akron Fulton, CAK and Portage County airports, NEOMED, University Hospitals Portage County and Middleburg Heights.
- July 11, 2024 Regular, biweekly meetings with TEAMNEO including JobsOhio for regional aeronautics and aerospace.



- July 17, 2024 Project development with Lorain Community College for the purpose of Ohio Technet/NEOFIX collaboration for business and workforce development.
- July 30, 2024 Meeting with Manufacturing Works to develop the relationship and project work with the NEOFIX for the purposes of coalescing the Advanced Air Mobility (AAM) operations and industry in Cuyahoga County.
- August 6, 2024 Meet to discuss Space Act agreement with NASA Glenn Research Center.
- August 7, 2024 Meet with Ohio Department of Development to discuss support for NEOFIX and economic development mutuality.
- August 8, 2024 National “FIX” collaboration between states
- August 9, 2024 TEAM NEO meeting with Jack Blackhurst for state of Ohio NSF grant submission around AAM.
- August 22, 2024 Meet with Cuyahoga County Emergency Management for program development
- August 26, 2024 NASA Space Act agreement development, follow up.
- September 6, 2024 Meet with congressional legislator about the US DOT Smart grant application (“Regional Essential Air Logistics for Healthcare or “REAL-CARE” medical delivery project).
- September 13, 2024 Meet with Aerozone Alliance regarding NEOFIX, the district and the projects to be developed.
- September 26, 2024 Sensor deployment logistics meeting at Burke Lakefront Airport. Operations policy discussion.
- September 27, 2024 Uncrewed Aerial System (UAS) Operators and Industry Stakeholder Engagement [HERE](#) is the link to the meeting minutes, program briefing slides, event gallery, and Crain's Cleveland Business media coverage. <https://bw-centers-tech-partnerships.org/events/>
- September 27, 2024 Meet with congressional representatives staff for letter of support for the US DOT Smart grant proposal, “Regional Essential Air Logistics for Healthcare or “REAL-CARE” medical delivery project.



September 27, 2024 Sensor deployment logistics meeting at Garfield Heights Fire station.
Operations policy discussion.

2024 Goal 1 progress

Seventh quarter work continued prior work throughout 2023 with engaged participants from three working groups (Data, design and configuration, sensors integration and planning; and public policy) to deepen the NEOFIX data instrumentation and data collection.

The latest version of NEO-FIX will be deployed tomorrow, 9/26/2024, between 1000-1600 EDT. We do not anticipate any major downtime. Updates include:

- Advisory migration/transfer actions
- Advisory draft retention
- User Admin improvements
- Agency Admin improvements
- API updates
- Various bug fixes

Equipment deployment at Burke Lakefront Airport was approved, located and installation arranged. Anticipate working data sensor by the end of October 2024.

The agreement, tentatively, with Cuyahoga County Emergency Management for the phased deployment of sensors will include sensors deployed at or near the Rocky River Metroparks police station and Rocky River terminus in Lake Erie. Coverage may then include the Edgewater Park Metroparks region heading east to Burke Lakefront Airport, then south and southeast to Garfield Heights Fire station, University Circle environs, Acacia Metroparks and Beachwood should funding permit sufficient sensor coverage.

Briefing meetings were arranged with congressional representative staff for Districts 7, 11 and 13 for letters of support to the NEOFIX US DOT Smart grant application for the “Regional Essential Air Logistics for Healthcare or “REAL-CARE” medical delivery project.

- Briefings were held with both Ohio U.S. Senators and Congressional Reps for concept familiarity, making the case that the NEOFIX as critical public infrastructure will touch every resident and business of Cuyahoga County and letters of support for the US DOT Smart grant application.

2024 Goal 2 progress

Seventh quarter work continued prior work throughout 2023 NEOFIX.



- Met with Cuyahoga County Emergency Management and senior leadership to propose a “Drone as First Responder” (DFR) demonstration “proof-of-concept” project for Garfield Heights and vicinity.
- Organized a second application to the US DOTSMART grant program, submission deadline for July 12, 2024. This is the last grant opportunity for a phase one grant for this program. Partners include University Hospitals, CAK Airport and regional airports and Akron and Ravenna.

2024 Goal 3 progress

Seventh quarter work continued prior work throughout 2023. Our overarching goal for 2024 is to receive funding from the grant applications to enable NEOFIX to obtain Cuyahoga County dedicated ground-based sensors.

- With our partner organization Manufacturing Works, we participate in Bi-weekly meetings convened by TEAMNEO to develop funding from JobsOhio and the Ohio department of Economic Development to position the NEOFIX as critical infrastructure leading business development in AAM jobs centered on the Aerozone District of Cuyahoga County.

The NEOFIX will also seek infrastructure project support from multiple State of Ohio (departments of Economic Development and Homeland Security for example) during quarters *six, seven and eight.*

Table I Budgeted and Expense items Seventh Quarter thru 09/30/2024

FY23 Outside Contractor Expenses	\$99,050.00
FY24 Outside Contractor Expenses	\$116,500.63
FY25 Outside Contractor Expenses	\$3,540.00
Total Outside Contractor Expenses	\$219,090.63

4/30/2023 2-41956 4/30/2023 BW Printing Services \$284.00

5899 Misc. Operating

FY23 Other Operating Expenses	\$284.00
FY24 Other Operating Expenses	0
Total Other Operating Expenses	\$284.00

FY23 Grant Expenses:	\$147,271.75
FY24 Grant Expenses	\$201,975.84
FY25 Grant Expenses:	\$25,331.22

Total Expenses to date:	\$374,578.81		
Grant Revenue	\$450,000.00	Expenses	\$374,578.81
Remaining Balance	\$75,421.19		



Budget narrative

2024 expense allocations for the *seventh* quarter include continuing program development and a transition to the second and third phases of the projects. New grant dollars enabled a leverage of the Cuyahoga County ARPA allocation.

Grant funds received for a complimentary project from the state of Ohio’s Onetime Strategic Community Investment Fund (OSCIF) allowed for a pause in the draw of County ARPA Funds for compensation at the budgeted rate of allocation originally proposed, with the non-expended allocation listed above at \$75,421.19. These funds will be expended in the 8th Quarter and into 2025 for salary but also sensor equipment and the work necessary to deploy the sensors in locations currently being determined in consultation with the Cuyahoga County Emergency Management.

The full allocation for subscription to the “Airdex” software necessary to produce the NEOFIX charting and advisories in real time will be paid in quarter one, 2025

Rollover funding from year 2023 is allocated for the purchase of two NEOFIX dedicated sensors. One of these two pieces of equipment will be installed at Burke Lakefront Airport and the second shifted to a location in at the Garfield Heights main Fire station. Plans to place a sensor on or near the campus of Baldwin Wallace University or the adjacent Cuyahoga County Fairgrounds property are subordinated to take place sometime during calendar year 2025.

Table II. An itemized list of project goals to be completed during the *Seventh* quarter.

Seventh Quarter	
Monthly	Monthly User Group Meeting Ongoing Onboarding of USS/UTM Partners Ongoing onboarding of BW partner agency systems Continued collection, mapping, and loading of data assets. Review, extend, updated and maintain data mappings and supplemental language. Funded projects development State of Ohio advocacy to secure infrastructure endorsement and funding
Quarterly Thereafter	Operations System Maintenance and Ongoing Security Compliance Minimum quarterly release of updated application and new features State of Ohio advocacy to secure infrastructure endorsement and funding



TABLE III. Next Quarter goals and activities

Eighth Quarter	
8th Quarterly and Thereafter October 1 – December 31, 2024)	Sensor integration Regional Multi-state AAM collaborative System Maintenance and Ongoing Security Compliance Minimum quarterly release of updated application and new features

**GRANT AGREEMENT BETWEEN
THE OFFICE OF BUDGET AND MANAGEMENT AND**

This Grant Agreement (“Agreement”) is made and entered into by and between the State of Ohio (the “State”), through the Ohio Office of Budget and Management (“OBM”), acting by and through its Director, and located at 30 East Broad Street, 34th Floor, Columbus, Ohio 43215, and the (the “Recipient” or “Grantee”), acting by and through its authorized representative, and located at (each individually a “Party” or collectively the “Parties”).

WHEREAS, pursuant to Section 200.20 of Substitute House Bill 2 (the “Act”), the 135th General Assembly of the State of Ohio has appropriated funds in the amount of \$717,800,000 to OBM in appropriation item 042509, One Time Strategic Community Investments;

WHEREAS, pursuant to Section 200.30 of the Act, OBM shall use the One Time Strategic Community Investments to provide grants for the projects listed in that section in the amounts listed;

WHEREAS, pursuant to Section 200.30 of the Act, OBM, prior to disbursing a grant to a Recipient, shall enter into this Agreement with the Recipient;

WHEREAS, pursuant to Section 200.30 of the Act, the Recipient, as part of this Agreement, shall agree to complete a final report, in a form and manner prescribed by OBM, detailing how the Recipient used the grant and submit the report to OBM; and

WHEREAS, pursuant to Section 200.30 of the Act, the Grantee was appropriated for the project titled (the “Project”).

NOW, THEREFORE, for the purposes of providing these grant funds to the Grantee in accordance with the Act, the Parties hereby covenant and agree as follows:

1. **Funding Amount and Purpose.** OBM agrees to provide the Grantee via electronic funds transfer to be used by the Grantee for the purposes of funding the Project. In no event shall the State or OBM’s financial commitment to the Grantee exceed as provided for in this Section. Any funds provided under this Agreement that are not spent in conformity with the intent and purpose of the appropriation designated in Section 200.30 of the Act or in violation of other federal, state, or local laws, rules, regulations, or Executive Orders shall be returned in full to the State. Nothing in this Agreement shall constitute, or be deemed to constitute, an obligation of future appropriations of the General Assembly.
2. **Certification of Funds.** It is expressly understood and agreed by the Parties that none of the rights, duties, and obligations of the Parties under this Agreement shall be binding on either Party until all statutory provisions of the Ohio Revised Code (“R.C.”) including, without limitation, R.C. 126.07, have been complied with, and until such time as all funds have been made available.
3. **Bonded and Insured Employees and Agents.** The Grantee hereby certifies to OBM that: (i) all individuals or agents of the Grantee who are responsible for maintaining or disbursing funds acquired through this Agreement are or will be fully bonded or insured against the loss of such

funds; (ii) the bonding agent or insurer shall be licensed to do business in Ohio; and (iii) no part of the funds acquired by the Grantee through this Agreement shall be spent to obtain that bonding or insurance.

4. **Performance Period; Report of Expenditures.**

- a. **Initial Period.** The Grantee acknowledges the performance period for this Agreement runs through June 30, 2026. The Grantee will make a good faith effort to complete the Project on or before June 30, 2026. No later than July 31, 2026, the Grantee agrees to submit a final report to OBM detailing the use of funds and confirming the expenditures were made in accordance with the purposes enumerated in Section 1 of this Agreement. Notwithstanding Section 8 of this Agreement, any funds not expended shall be returned in full to the State within fourteen (14) days following the submission of the final report to OBM.
- b. **Extension.** If the Grantee has not expended all funds for the Project by June 30, 2026, the Parties, by mutual consent, may extend this Agreement. In lieu of a final report as provided in Section 4(a) of this Agreement, the Grantee agrees to submit an interim report to OBM detailing the use of funds and the expected completion date of the Project. The interim report shall be submitted to OBM no later than July 31, 2026. As permitted by the extension, no later than thirty (30) days following completion of the Project or the expenditure of all funds, whichever is sooner, the Grantee agrees to submit a final report to OBM detailing the use of funds and confirming the expenditures were made in accordance with the purposes enumerated in Section 1 of this Agreement. Notwithstanding Section 8 of this Agreement, any funds not expended shall be returned in full to the State within fourteen (14) days following the submission of the final report to OBM.
- c. **Project Incompletion.** To the extent applicable, should the Grantee decide not to complete the Project as provided in this Agreement, the Grantee will provide OBM with a final report detailing why the Grantee has chosen not to proceed with the Project. The final report shall be submitted to OBM no later than the last agreed upon date for completion of the Project. Notwithstanding Section 8 of this Agreement, any funds not expended shall be returned in full to the State within fourteen (14) days following the submission of the final report to OBM.

5. **Relationship of the Parties.** It is fully understood and agreed to by the Grantee that neither the Grantee nor its officers, employees, agents, representatives, contractors, or other personnel shall at any time, or for any purpose, be considered agents, servants, or employees of the State or OBM.

6. **Term of Agreement.**

- a. **Effective Date.** This Agreement shall commence and be binding on the Parties upon the completion of: (i) the signature of the Grantee's authorized representative below; and (ii) the Grantee's receipt of funds.
- b. **Expiration.** This Agreement will, unless otherwise earlier terminated herein, expire two (2) years following the date of the Grantee's submission of its final report to OBM pursuant to Section 4 of this Agreement.

Provisions of this Agreement have no force upon expiration unless its context provides otherwise.

- c. **Termination for Cause.** OBM reserves the right to terminate this Agreement upon written notice to the Grantee and to recover any funds distributed to the Grantee, or by the Grantee to contractors or other payees, in violation of the terms of this Agreement.
 - d. **Breach; Opportunity to Cure.** OBM, in its sole discretion, may permit the Grantee to cure a breach in this Agreement. Such cure period shall be no longer than twenty-one (21) calendar days. Notwithstanding OBM permitting a period of time to cure the breach or the Grantee's cure of the breach, nothing in this Agreement shall prohibit the State or OBM from exercising any other rights or remedies available to it under federal or state law.
7. **Notice.** Notices required by the Agreement shall be in writing and delivered via mail (postage prepaid), commercial courier, personal delivery, or sent by facsimile or other electronic means (email). Any notice delivered or sent shall be effective on the date of delivery. All notices and other written communications under the Agreement shall be, unless otherwise modified by subsequent written notice, directed to the OBM contact listed on the funding opportunity. The authorized representative on the grant agreement will serve as the main point of contact for this funding whereas additional contacts listed on the funding request form, as applicable, will serve as grant contacts for administrative purposes.
8. **Remittances.** If for any reason funds acquired through this Agreement are required to be paid, repaid, or remitted to the State, they shall be remitted in full by the Grantee to OBM within forty-five (45) days of demand. Any such remittance shall include a copy of this Agreement.
9. **Reports and Records.** During the term of this Agreement and for two (2) years following the date of the Grantee's submission of its final report to OBM, the Grantee shall keep and make all reports and records associated with the grant under this Agreement available to the State, OBM, the Ohio Auditor of State, or other authorized representatives or agents of the foregoing as necessary upon request.
10. **Liability; Waiver of Liability.** The Grantee shall be solely liable for any and all claims, demands, or causes of action arising from its obligations under this Agreement. Each Party to this Agreement must seek its own legal representative and bear its own costs, attorney fees, and expenses, in any litigation that may arise from the performance of this Agreement. It is specifically understood and agreed that OBM does not indemnify the Grantee. Nothing in this Agreement shall be construed to be a waiver of the sovereign immunity of the State of Ohio or the immunity of any of its employees or agents for any purpose. Nothing in this Agreement shall be construed to be a waiver of any immunity of the Grantee granted by statute or the immunity of any of its employees or agents for any purpose. In no event shall OBM be liable for indirect, consequential, incidental, special, liquidated, or punitive damages, or lost profits. On and after the date of this Agreement, the Grantee agrees not to seek any determination of liability against OBM or any department, agency, or official of the State in the case of claim or suit arising from the funds provided to the Grantee under this Agreement. The Grantee forever releases and waives any and all claims, demands, and causes of action it may ever possess or assert against OBM and its employees, agents, officials, and attorneys arising from, or relating to, this Agreement.

11. **Public Funds Compliance.** The Grantee will assure compliance with all applicable federal, state, and local laws and regulations pertaining to handling, management, and accountability in relation to public funds. All funds received by the Grantee under this Agreement shall be deposited in one or more financial institutions that fully insure, secure, or otherwise protect the funds from loss through federal deposit insurance and/or other deposit and/or collateralization strategies that protect the funds against loss. Funds granted to the Grantee shall be held in compliance with Chapter 135 of the Revised Code, as applicable.
12. **Ohio Ethics Law.** The Grantee certifies that it is in compliance with and will continue to adhere to the requirements of the Ohio ethics and conflict of interest laws as found in Chapter 102 of the Revised Code and R.C. 2921.42 and 2921.43. The Grantee understands that failure to comply with Ohio's ethics and conflict of interest laws is, in itself, grounds for termination of this Agreement and may result in the loss of other contracts or grants with the State.
13. **Drug-free Workplace.** The Grantee agrees to comply with all applicable state and federal laws regarding a drug-free workplace and shall make a good faith effort to ensure that none of its employees or permitted contractors purchase, transfer, use, or possess illegal drugs or alcohol, or abuse prescription drugs in any way.
14. **No Findings for Recovery.** The Grantee represents and warrants to the State that no officer, employee, or agent is subject to a finding for recovery under R.C. 9.24, or that it has taken appropriate remedial steps required under R.C. 9.24 or otherwise qualifies under that Section. The Grantee agrees that if this representation or warranty is determined by OBM to be false, the Agreement shall be void ab initio as between the Parties to this Agreement, and any funds paid by the State hereunder immediately shall be repaid in full to the State, or an action for recovery immediately may be commenced by the State for recovery of said funds.
15. **Employment Nondiscrimination.** Pursuant to R.C. 125.111, the Grantee agrees that Grantee and any contractor or subcontractor will not discriminate against any citizen of this state in the employment of a person qualified and available to perform work related to the Project on the basis of race, color, religion, sex, age, disability or military status as defined in R.C. 4112.01, national origin, or ancestry. In addition, the Grantee further agrees that Grantee and any contractor, subcontractor, or person acting on behalf of any contractor or subcontractor, will not discriminate against, intimidate, or retaliate against any employee hired for the performance of work related to the Project on the basis of race, color, religion, sex, age, disability or military status as defined in R.C. 4112.01, national origin, or ancestry. To the extent applicable, the Grantee represents that the contractor(s) from whom the Grantee makes purchases has a written affirmative action program for the employment and effective utilization of economically disadvantaged persons, and has filed a description of the affirmative action program and a progress report on its implementation with the Ohio Department of Development.
16. **Prevailing Wage.** To the extent applicable, the Grantee shall comply with the prevailing wage requirements of Chapter 4115 of the Revised Code extending from this Agreement.
17. **Competitive Selection.** The Grantee shall comply with all applicable state requirements relating to the competitive selection of contractors and comply with its own competitive selection policies and procedures. If competitive selection for the Project is not required by law, to the extent reasonably possible as determined by the Grantee, the Grantee shall employ an open and competitive process in the selection of its contractors.


18. **Campaign Contributions.** The Grantee hereby certifies that neither it nor any of its officers nor the spouse of any such person, has made contributions to the Governor of Ohio in excess of the limitations specified in R.C. 3517.13.
19. **Compliance with Laws.** The Grantee shall comply with Section 200.30 of the Act and all applicable federal, state, or local laws, rules, regulations, or Executive Orders in the performance of the Grantee's obligations under this Agreement.
20. **Indemnification.** Unless the Grantee is otherwise prohibited from indemnifying the State or OBM under state or federal law, the Grantee agrees to indemnify and to hold the State and OBM harmless and immune from any claims or causes of action arising from, or related to, implementing the Project, including any acts or omissions of the Grantee or its officers, employees, agents, representatives, contractors, or other personnel. Neither the State nor OBM shall be considered a party to and shall not be held liable under any contract entered into by the Grantee in carrying out its activities pursuant to this Agreement.
21. **Miscellaneous Provisions.**
- a. **Controlling Law.** This Agreement and the rights of the Parties hereunder shall be governed, construed, and interpreted in accordance with the laws of the State of Ohio. The Grantee consents to jurisdiction in a court of proper jurisdiction in Franklin County, Ohio.
 - b. **Days.** When this Agreement refers to days, it means calendar days, unless it expressly provides otherwise.
 - c. **Waiver.** A waiver by any Party of any breach or default by the other Party under this Agreement shall not constitute a continuing waiver by such Party of any subsequent act in breach of or in default hereunder.
 - d. **Successors and Assigns.** Neither this Agreement nor any rights, duties, or obligations hereunder may be assigned or transferred in whole or in part by the Grantee, without the prior written consent of OBM.
 - e. **Headings.** The headings in this Agreement have been inserted for convenient reference only and shall not be considered in any questions of interpretation or construction of this Agreement.
 - f. **Severability.** The provisions of this Agreement are severable and independent, and if any such provision shall be determined to be unenforceable in whole or in part, the remaining provisions and any partially-enforceable provision shall, to the extent enforceable in any jurisdiction, nevertheless be binding and enforceable.
 - g. **Entire Agreement.** This Agreement contains the entire agreement between the Parties and shall not be modified, amended, or supplemented, or any rights herein waived, unless specifically agreed upon in writing by the Parties. This Agreement supersedes any and all previous agreements, whether written or oral, between the Parties.
 - h. **Amendment.** This Agreement may be modified or amended at any time during its term by mutual consent of the Parties, expressed in writing, and officially signed by both Parties.

- i. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.
- j. **Electronic Signatures.** Any party hereto may deliver a copy of its counterpart signature page to this Agreement via fax or e-mail. Each Party hereto shall be entitled to rely upon an electronic signature of any other Party delivered in such a manner as if such signature were an original.


(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, this Agreement is signed by the duly authorized representatives of OBM and the Grantee and shall be effective in accordance with Section 6(a) of this Agreement.

As to the Grantee, the Authorized Representative:

By:  Date: _____

As to the Ohio Office of Budget and Management:

By:  Date: July 25, 2024

Kimberly A. Murnieks
Director



Cuyahoga County Drone as a First Responder Pilot

We are proposing a Drone as a First Responder (DFR) pilot in Cuyahoga County in partnership between the County Public Safety and Justice Services and the NEOFIX program office at Baldwin Wallace. The DFR pilot period is 12 months to introduce and evaluate state-of-the-art concepts in the use of drones for Public Safety as a pilot for roll-out regionally across Cuyahoga County. The goals of this pilot are to demonstrate and collect data on efficacy to support the broader state and federal funding case as well as demonstrate specific value to Cuyahoga County residents. The benefits of this pilot may include more effective public safety dispatch and response, faster overall service response, better support for operations such as search and rescue, reductions in unnecessary or inappropriate dispatch, de-escalation, critical infrastructure protection and counter-UAS detection capability and cost savings through the development of a coordinated regional program.

What is Drone as a First Responder?

Drone as a First Responder (DFR) is a concept piloted in Chula Vista, CA and Campbell, CA that integrates drones with the incident response and dispatch process. It involves co-locating a drone Remote Pilot in Command (RPIC) with a dispatcher in the Emergency Communications Center (ECC) and dispatching a drone for those incidents where rapid and early situational intelligence will change outcomes – this includes dispatching appropriate equipment, advising officers en-route to support de-escalation or more effective response, and avoiding unnecessary dispatch, among others.

The DFR program in Chula Vista, CA is the most mature, and maintains an online program dashboard¹ that provides real time information on the program. Since Chula Vista started their DFR program in October of 2018, they have responded to 19,000+ incidents, have avoided unnecessary dispatch 21.8% of the time, and have average response times of under two minutes and first on scene times of 90 seconds. Anecdotally, the program has assisted in more appropriate response to domestic violence and violent crime, and has directly contributed to a number of de-escalations.

Building on Chula Vista's success, the City of Pearland, TX was able to receive the first Federal Aviation Administration (FAA) waiver for Beyond Visual Line of Sight (BVLOS) operations. BVLOS operations mean that, unlike Chula Vista, Pearland does not need to tie up valuable staff and officers as "visual observers" on rooftops throughout the city. Visual observers warn the RPIC if there is a potential conflict with another aircraft – Pearland developed a concept with the FAA called a "virtual observer" that relies on safety procedures, remote sensing, and the integration of systems. This allows for more missions with leaner resources at the same or higher degree of safety.

Why Conduct a DFR BVLOS Pilot in Cuyahoga County?

The value of DFR programs, and the force multiplier effect of BVLOS operations, are already established as a public safety asset. The value of DFR BVLOS is especially enhanced in Cuyahoga County because of

¹ <https://www.chulavistaca.gov/departments/police-department/programs/uas-drone-program>



two existing investments: i) the Cuyahoga County in NEOFIX a regional public data services provide of navigation and airspace data and ii) a regional consortium acquisition of DroneSense, a tool for integrated drone mission and flight operations as well as shared video streaming. These investments allow Cuyahoga County to support a regional, integrated DFR system where costs of sensors and software can be amortized over a wide area. Further, by investing in the sensors required to obtain a regional FAA DFR BVLOS waiver, a regional program can allow the County and its communities to share data and assets, supporting lower overall program costs.

What are the Benefits to the Community?

The identified service areas for the DFR pilot will provide and allow us to measure specific public benefits for the County:

- Ability to support dispatch with drone as a first responder capability, providing real-time incident intelligence that will improve response, reduce unnecessary dispatch, and de-escalate incidents;
- Ability to specifically support protection of critical infrastructure in particular through the detection component of counter-UAS;
- Ability to specifically support public safety search and rescue operations especially in water hazards or over large areas; and
- Ability provide additional awareness for Burke Lakefront and Cleveland Hopkins related to potential drone incursions.

What is the Proposed Pilot and What are the Objectives?

We will acquire, deploy and integrate the sensors and equipment necessary for DFR and to support submission of an FAA DFR BVLOS waiver in Cuyahoga County. These sensors will be integrated into the Cuyahoga County common, public airspace picture in NEOFIX and the full data feed will be integrated for automatic display and use by County Emergency Services and participating partner agencies.

The sensors, integrated with drone operators through NEOFIX, will support an overall service area of approximately 50 square miles. This is made possible by combining the Cuyahoga County DFR pilot with state funding received by the NEOFIX Program Office through the Ohio One Time Strategic Community Investment Fund (OTSCIF). The combined NEOFIX infrastructure covers a set of high-benefit areas including the Cleveland Lakefront and Burke Lakefront airport, the Rocky River Reservation adjacent to Hopkins Airport, the planned Cleveland Clinic Medical Delivery service area, and adjacent “connector” spaces in Lakewood, University Circle, and Garfield Heights. This is a “ring” of service areas that can be connected up over time to provide a complete service area for the bulk of Cuyahoga County’s population, maximizing public benefit and value of the infrastructure. Each service area brings unique, specific benefits to the County, as described below.

The key to the NEOFIX infrastructure pilot is to overlay “Tiers” of sensors to provide the right level of fidelity and currency relative to the combined operational / ground profile. A System Design Document will provide specific geospatial volumes for service enablement that represent the synthesis of

operational goals, ground topography and assessment, and risk mitigations and tolerances. The model assumes three Tiers of Performance Based Information provided by the sensor network:

- Tier 1 (Green) provides position and awareness for certain aircraft and environmental services at the lowest Performance level, for a combination of lower risk, lower density service volumes and operations
- Tier 2 (Yellow) provides position, awareness including non-participating aircraft and environmental services at a mid-Tier Performance level, for medium level risk, medium density service volumes and operations or for areas where a medium or high-risk operation occurs in a low risk service volume
- Tier 3 (Red) provides position, awareness at the highest detection level, and environmental services at a high-performance level, commensurate with current General Aviation services, intended to support medium or low risk operations in a high-risk volume, such as adjacent to a General Aviation airport or over an urban core where the risk of injury is greater

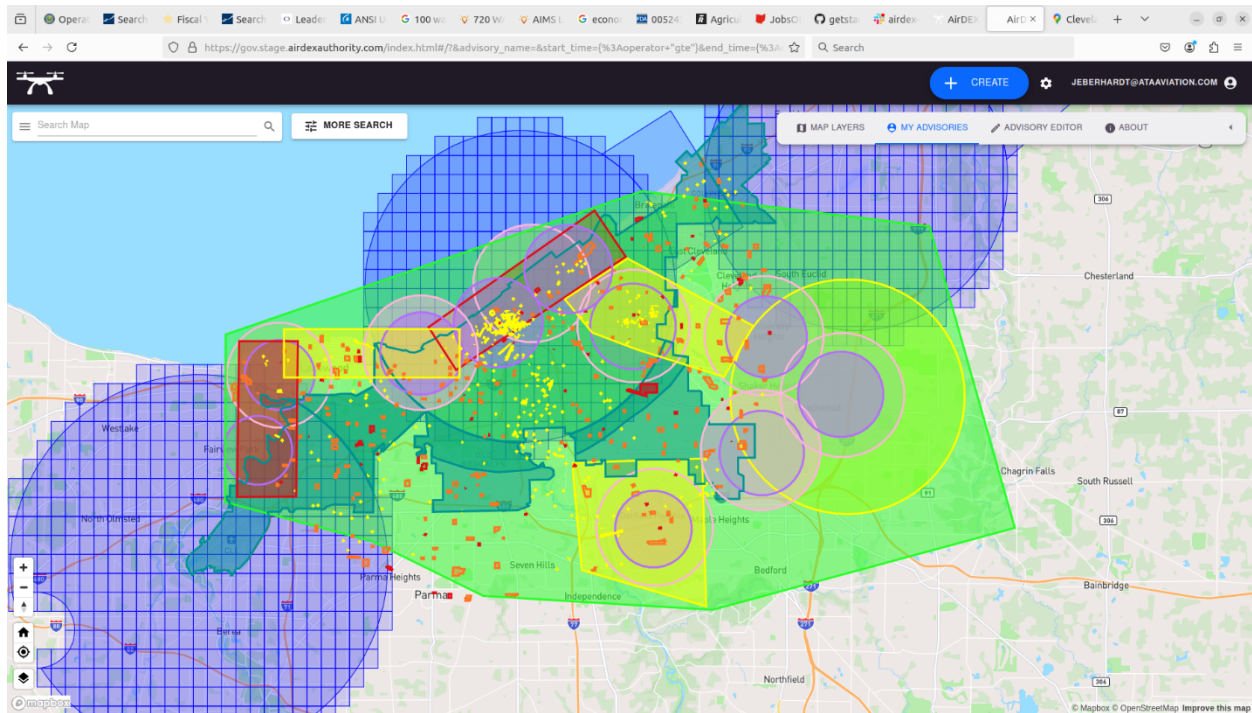


Figure 1: Proposed NEOFIX Infrastructure Pilot – Initial Planning for Service Volumes

The Cuyahoga County DFR Pilot, while benefiting from the entire service coverage areas for agencies that wish to deploy DFR capabilities, is specifically focused on “Service Volumes” 1, 2, and 6.

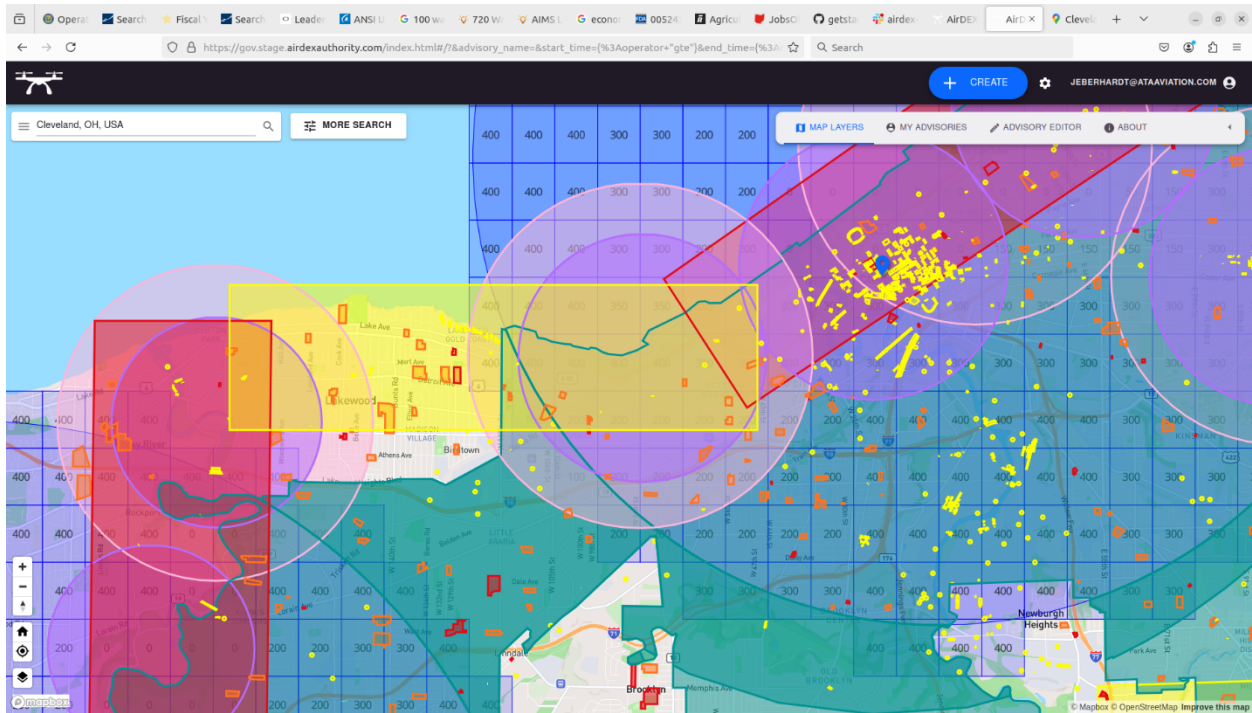


Figure 2: NEOFIX EASSE Initial Planning Service Volumes 1 (Red, on Right), 2 (Red, on Left) and 6 (Yellow)

Each Service Volume identifies a specific physical volume for service enablement. The current volumes described above are initial estimates, once sensor placement and performance characterization are finalized, we will formally publish the service boundaries of the sensor coverage areas. Each volume may be bounded by i) topographical features, iii) desired area of service, iii) risk boundaries, or iv) a combination of the above. The basic proposed service areas for the Cuyahoga County DFR Pilot are listed below, each with specific risk and benefit characteristics:

- Service Volume 1: The Tier 3 service volume servicing the Cleveland Lakefront, including Burke Lakefront Airport, Lakefront Access, Browns Stadium, the Port of Cleveland, the Rock and Roll Hall of Fame, and multiple high density / high structures and obstructions. The service volume consists of a 5 x 2 mile area of approximately 10 square miles and will allow us to demonstrate Drone as a First Responder capabilities for general Public Safety response, search and rescue, large audience / crowd events as well as critical infrastructure protection and counter-UAS detection.
- Service Volume 2: The Tier 3 area encompassing the Rocky River Reservation, including the Metropark reservation, Metroparks police headquarters, Lakefront access at the Cuyahoga River, critical infrastructure at the Lakewood Sewage plant, and adjacent to Cleveland Hopkins airspace. Service Volume 2 is a 4 x 2 mile area of approximately 8 square miles, encompassing medium population density, adjacency to a towered primary airport, complex weather patterns, tall bridges and medium height structures, a deep ravine in the Metropark, and critical infrastructure. Service Volume 2 will allow us to demonstrate Drone as a First Responder



capabilities for general Public Safety response, search and rescue, large audience / crowd events as well as critical infrastructure protection and counter-UAS detection.

- Service Volume 6: A Tier 2 area that bridges from the Lakefront Service Volume 1 to the Rocky River Service Volume 2 encompassing Lakewood and several Metroparks. Service Volume 6 is a 4 x 2 mile area of approximately 8 square miles, encompassing medium population density, complex weather patterns, medium height structures, and Lakefront access. Service Volume 6 will allow us to demonstrate Drone as a First Responder capabilities for general Public Safety response and search and rescue, as well as counter-UAS detection.

The proposed pilot period is one year, during which time, we will integrate the required sensor data with NEOFIX, Garfield Heights dispatch, the regional DroneSense system, and conduct the ConOps and training development required to submit a compliant waiver package to the FAA and conduct DFR BVLOS operations. During the pilot period, we will collect specific data on:

- Number of DFR responses;
- Number of dispatches avoided;
- First on scene response time;
- Reduction in harm due to DFR capabilities;
- Number of incidents in which DFR contributed to de-escalation;
- Safety performance; and
- Cost and operations profile.

This data will support the development of further DFR BVLOS throughout Cuyahoga County as well as provide the hard data needed for future federal and state funding and sustainment requests.

What is Required for a DFR BVLOS Pilot?

To implement a BVLOS DFR program, several components are required:

- Qualified pilots: FAA Part 107 certified pilots to operate UAS as RPICs **(already existing in Cuyahoga County)**;
- Aircraft: FAA-defined small UAS aircraft (<55 lbs) with appropriate sensor payloads and integrations with DroneSense **(already existing in Cuyahoga County)**;
- Standard Operating Procedures (SOPs): Defined program SOPs that support the FAA waiver safety case, program outcomes, and data collection **(will need additional development)**;
- USS Tool: the DroneSense tool to support mission planning, flight planning, operations, and sharing of video and UAS sensor feeds **(already existing in Cuyahoga County)**;
- Airspace Awareness: airspace awareness sensors that provide the “virtual observer” function through the county NEOFIX system and support the FAA safety case **(will be deployed in the pilot)**;
- FAA DFR BVLOS Waiver: Leveraging the pilots, aircraft, SOPs, USS tool, and airspace awareness sensors to submit a DFR BVLOS waiver request to the FAA **(will need additional development)**;



- Integration with ECC: Integration with dispatch to support rapid drone dispatch and relaying communications between the dispatcher, RPIC, and responding unit (**will be deployed in the pilot**);
- Training: Training of dispatchers and pilots on how to coordinate DFR responses and the relaying of intelligence (**will be deployed in the pilot**); and
- Program Support and Data Collection: Overall assistance with program setup, materials development, systems integration, and data collection and reporting (**will be deployed in the pilot**).

Cuyahoga County DFR Pilot Budget

Leveraging the experience of Chula Vista, Campbell, and Pearland, existing Cuyahoga County and Regional investments, and deployment experience in Virginia, we developed a budget for the pilot.

Item	Budget 1	Budget 2	Discussion
Program / Project Management	\$15,000.00	\$18,750	Program support provided by Baldwin Wallace to support community engagement and policy materials, data collection, and reporting for the pilot at the Federal de minimis rate (15%).
Sensor Deployment and Installation Costs	\$20,000	\$23,250	Costs of acquisition, deployment, and integration costs for physically acquiring and installing the sensors. Adding an additional radar under this budget results in a slight increase for installation hardware, etc. but labor is similar as it will be collocated.
RemotelyID Sensors	\$5,000 (5 Sensors)	\$3,000 (3 Sensors)	Fixed RemotelyID sensor networked through NEOFIX; AirSentinel, DroneTag, Pierce or equivalent. In the large budget, we can move some of the RID boxes to the OTSCIF budget to make room for the radar.
ADS-B Sensors	Covered under NEOFIX	Covered under NEOFIX	ADS-B coverage already being integrated into NEOFIX.
Optical Sensors	\$60,000 (4 units)	\$60,000 (4 units)	These are the four IRIS CASIA optical detectors (cameras) that would be deployed in the DFR focused service volumes. They are the only reasonably priced, commercially available unit.
Radar Panels	Covered Under NEOFIX	\$20,000 (1 panel)	With additional budget, we can acquire an additional radar panel to extend radar coverage in the Rocky River area.
Total Cost	\$100,000	\$125,000	



FIX Public Safety Working Group - Discussion

Protecting and Prioritizing Public Safety Operations in UTM

7 Aug 2024



Framing Realities/Assumptions



- Most commercial sUAS will participate in UTM in high density urban and suburban environments
- Commercial may/may not participate in UTM in low density/rural areas
- Many UAS operators will be non-participating
- Some will be RemoteID compliant, some won't // many aircraft are ADS-B compliant, many aren't
- We will focus on areas with integrated UTM/Surveillance because we can drive the conversation
- We will focus on things we can do NOW and problems we can solve NOW
- Technical isn't the problem



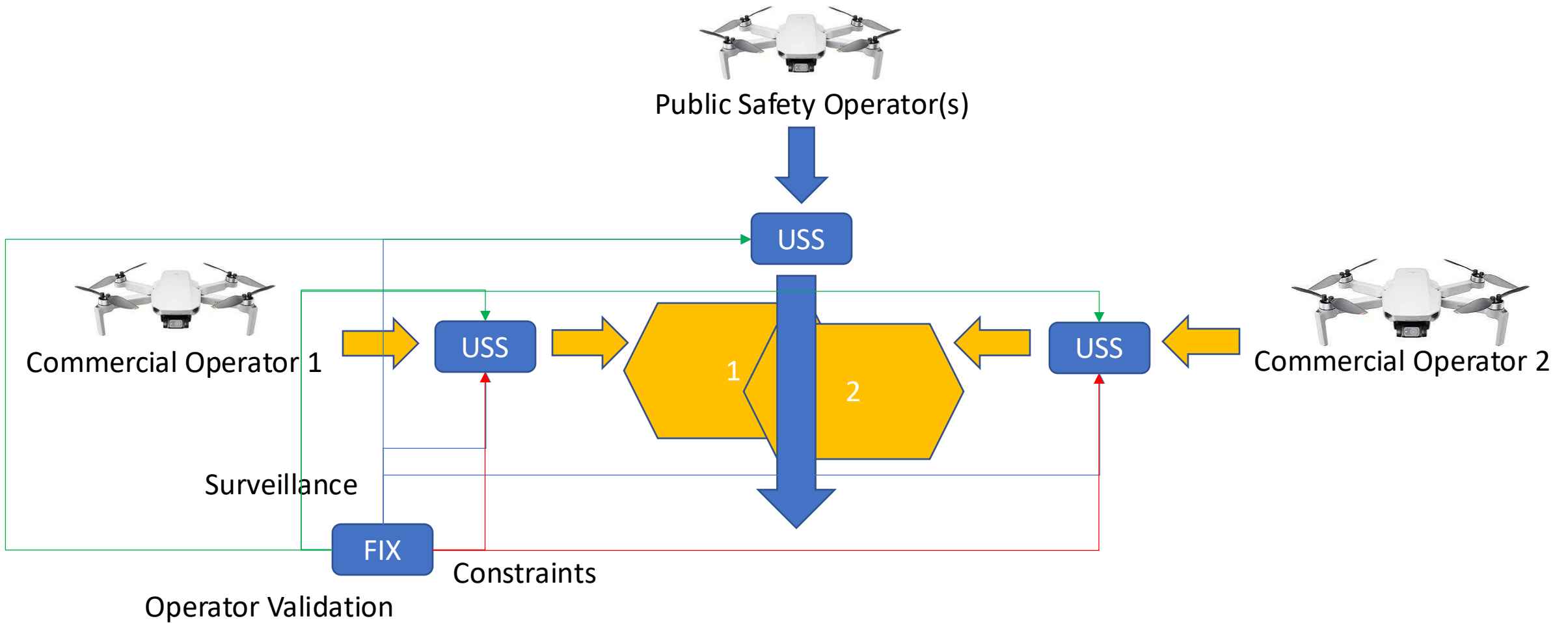
Framing Scope



- We can collect data from emitting aircraft
- We can identify position on non-emitting aircraft using active/passive methods
- We are focused on protecting public safety response and critical infrastructure and prioritizing public safety operations in the UTM context at this stage
- UTM providers will work with us to clear the airspace
- Non-participating operators have to be an accepted reality for now
- Out of scope: cUAS mitigation, non-participating UAS and conventional aircraft, Vehicle-2-Vehicle methods, non-cooperatives



Simplified UTM Diagram



Protect and Prioritize in UTM



- Constraints that “block” the airspace
 - Critical Infrastructure
 - Operations
 - Events
- Priority Operational Deconfliction
 - Non-participating: surveillance supports DAA for Public Safety
 - Provide “validated” operations through FIX
 - This can include a “validated” operator provided through FIX that the USS can use to mark an operation as priority; OR
 - Public Safety can provide operations directly from flight planning / GCS to the FIX and those are published as a type of constraint; AND
 - Participating USSes divert UTM-based operations





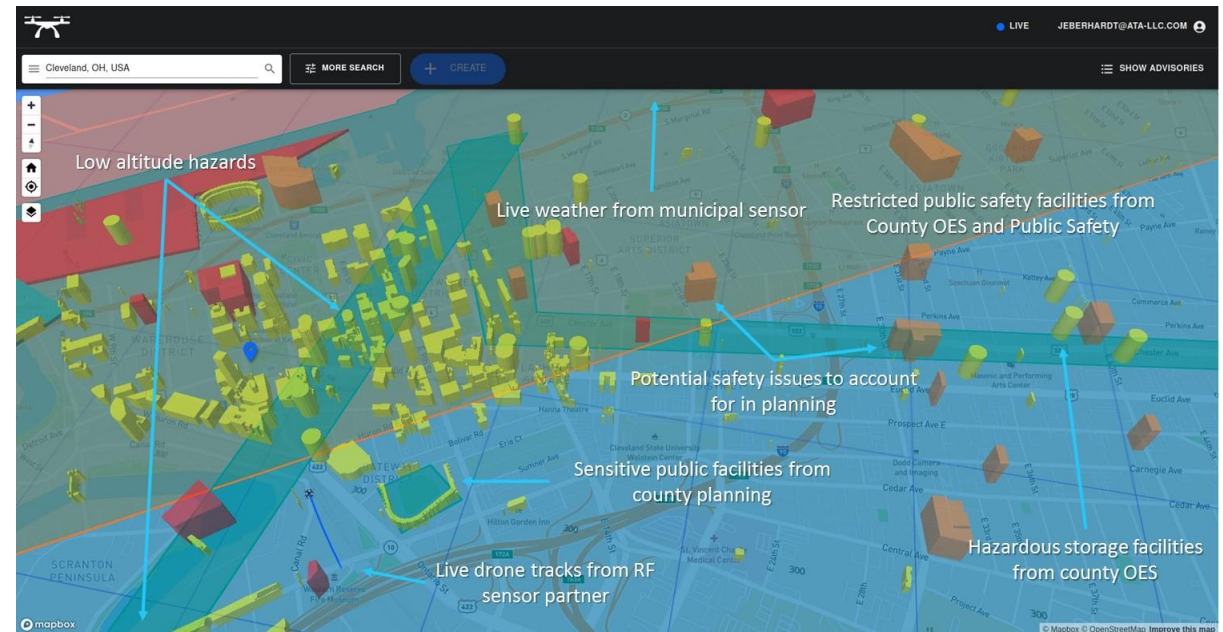
BACKUP



Drone as a First Responder



- Shared Public Network that Support DFR BVLOS Waivers
 - Shared Infrastructure lowers costs for all departments
- Example projects in process: Virginia SWW, Cleveland NEOFIX, Johnstown Aerium
 - Sensor modes: Optical (IRIS), RemoteID, ADS-B, RF Demodulation (DeDrone), limited radar, audio and RF detection
 - Cost/Sq Mi: \$5,000 - \$30,000 per square mile of coverage, depending on density and risk
- What is actually needed to support standard DFR BVLOS exemptions? (standardize across all projects – Pearland example)



Critical Infrastructure Protection



- Publication to reduce careless / clueless and provide basis of notice
- Public Safety Incidents leverage non-interference laws
- Mechanisms
 - Operations Over People rule (MOC/Open Air Assembly)
 - FAA Safety Requirements for 107 and 44809 awareness (operator awareness)
 - State and Local infrastructure / surveillance protection ordinances
- Critical Infrastructure vs. Safety vs. Airspace Rights
- Support “detect” function of cUAS
- Work with FAA on 2209



Safety/CIP Examples



- Hazards
 - Potential Flight Obstruction due to tower structure. Remote pilots are advised to account for this potential hazard in planning flight operations. Further, Commonwealth and Local Law Enforcement may take security actions pertaining to UAS operations near this structure if those operations are deemed to pose a credible threat to public safety.
 - Potentially hazardous ground conditions for take-off, landing, or ditching. Remote pilots are advised to account for this potential hazard in planning flight operations. Further, UAS operations over this area that may pose security risks are not advisable.
 - This is a tank storage facility location, and as such is potentially hazardous ground conditions for take-off, landing, or ditching. Flying your drone near tank storage facilities poses significant risks and may result in serious consequences. Remote pilots are advised to account for these potential hazards in planning flight operations and to check local regulations and be aware of your surroundings. Local Law Enforcement may take security actions pertaining to UAS operations near this structure if those operations are deemed to pose a credible threat to public safety.
- Ground Operations Prohibited
 - Local infrastructure without public access. Take-off and landing prohibited on site. Further, Commonwealth and Local Law Enforcement may take security actions pertaining to UAS operations near this site if those operations are deemed to pose a credible threat to public safety.
 - Public Safety facility without public access and no ability to retrieve vehicle. Further, UAS operations over this area that may pose security risks are not advisable.
- Operations Over People
 - This constitutes notice of an "open air assembly" as referenced in FAA Rule RIN 2120–AK85 "Operation of Small Unmanned Aircraft Systems Over People" within the referenced grid. Shenandoah Apple Blossom Fly In Air Operations have established designated Take Off and Landing operations areas. To use one of these areas, please contact the Operations Center at 540-533-1668
- Public Safety Response
 - Reference state/local non-interference statute



Mutual Aid



- Publish ground configurations and define operating areas
- Direct private 107 and 44809 operators to designated ground areas
- Provide notice of public safety incident with reference to non-interference laws

The screenshot shows the VirginiaFix website interface. The main map displays Winchester, VA, with several orange and red ground configuration areas overlaid. The right sidebar shows search results for 'City of Winchester Emergency Management sUAS Training'. The results list three entries, each with contact information for Scott Kensinger (540-336-8995) and specific time windows and restriction levels.

City of Winchester Emergency Management sUAS Training	Created	Restriction level
Person of Contact: Scott Kensinger - 540-336-8995 Time Window when Active: 12/09/2022 1:00 PM - 12/09/2022 4:00 PM	05/04/2022 1:10 PM	Unrestricted
Person of Contact: Scott Kensinger - 540-336-8995 Time Window when Active: 11/18/2022 1:00 PM - 11/18/2022 4:00 PM	05/04/2022 1:08 PM	Unrestricted
Person of Contact: Scott Kensinger - 540-336-8995 Time Window when Active: 10/14/2022 1:00 PM - 10/14/2022 4:00 PM	05/04/2022 1:07 PM	Unrestricted



No.: _____

Date: _____
Division of Accounts only

**LICENSE AGREEMENT
FOR USE OF CITY PROPERTY**

This License Agreement (the “License” or the “Agreement”) is entered into as of the Effective Date (as defined below), by and between **THE CITY OF CLEVELAND, OHIO** (“City”) a municipal corporation duly organized and validly existing under the Constitution and laws of the State of Ohio, acting by and through its Director of Port Control, under the authority of Section 183.16 of the Codified Ordinances of the City of Cleveland (Exhibit “A”) , and **Baldwin Wallace University** , a nonprofit 501 (c)3 organized and existing under the laws of the State of Ohio and authorized to conduct business in the State of Ohio as a foreign corporation (“Licensee”).

RECITALS

A. The Department of Port Control of the City is responsible for the operation of Burke Lakefront Airport (“Airport”);

B. Section 183.16 of the Codified Ordinances of Cleveland, Ohio, 1976 authorizes the Director of Port Control (“Director”) to issue a license to enter, inspect, test, or perform limited activities, on City-owned real property under the jurisdiction of the Director.

C. City has agreed to grant Licensee a License to enter and install a 10-foot length, 1-in diameter steel or aluminum pole to the side of the ARFF building at the Airport with u-brackets and antenna(the “Events”), as more fully described in Exhibit “B” (the “Property”), in order to provide passenger air travel and support operations.

D. City and Licensee desire to enter into the following agreement for the use of the Property in connection with the Events, in accordance with the terms set forth herein;

E. The City hereby grants to Licensee a License to use the Property to provide facilities in aid of advancing air commerce and navigation at the Airport during the Term.

F. City desires to grant to Licensee a License to enter upon and utilize the Property for limited construction purposes in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, the City, for and in consideration described below, and other good and valuable consideration, grants and conveys to Licensee, a nonexclusive license to enter upon and utilize the Property for the purposes described below, subject the following terms:

1. Recitals: The above Recitals are true and accurate and are made a part of this License.
2. Term: The Term of this Agreement shall commence upon **September 27, 2024**, and expire upon the sooner of 30 days’ written notice of termination by either party to the other or upon the Parties entering a lease for the Property. Otherwise, this Agreement shall expire twelve (12) months from the Effective Date.
3. Purpose: Licensee shall have the permission to enter upon the Property for the

non-exclusive right to operate and maintain for use only by Lessee and any authorized assigns and/or Affiliate(s), for use to position sensors and antenna for purpose of monitor Airport aircraft traffic and ground operations..

4. License Fee: **\$1.00**

Fees are subject to annual rates and charges adjustment. Licensee shall post a letter of credit or performance bond in the amount equal to the license fee as a security deposit. The security deposit shall be returned at termination of the License provided that Licensee is current on all obligations under this License at that time.

5. Payment: Licensee shall pay all license fees and other fees and charges required by this License to: Treasurer of the City of Cleveland, c/o Bank of New York Mellon Trust, Lock Box 70275, Cleveland, and Ohio 44190-0275.

6. Compliance with Applicable Laws and Conditions: Licensee shall possess, or contract only with those parties that possess, the necessary qualifications and certifications required by law, ordinance, or regulation to perform all activities related to the purposes of this License, as described in Section 3 above, and shall perform all activities in compliance with applicable laws, ordinances, and regulations. Licensee must comply with all environmental laws relating to the Licensed Property.

7. Qualifications of Contractors: Licensee must require that any and all contractors performing activities permitted under this Agreement be qualified, licensed, and bonded by the appropriate regulatory agencies and in accordance with the laws and regulations of the City of Cleveland and the State of Ohio.

8. Security: Lessee acknowledges and agrees that the City shall not provide, nor be responsible for providing security under this License.

9. Indemnification: Licensee must defend, indemnify, and hold harmless the City, its officers, agents, employees, successors and assigns from any and all claims, losses, costs, damages, expenses, and liabilities, including attorneys' fees, for or from loss of life or damage or injury to any person or property of any person or entity, including, without limitation, the agents, officers, employees, invitees, and licensees of the City, arising out of Licensee's use of, construction on, or maintenance of the Property during the term of this Agreement by Licensee, its employees, agents, contractors, and subcontractors, licensees, or invitees or the exercise by Licensee of any of its rights or the performance by Licensee of any of its obligations under this Agreement. Licensee may not interfere with or damage existing utility facilities on, off, under, or near the Property, and must indemnify and reimburse the City for any damages, costs, expenses, or liabilities resulting from Licensee's damage or interference. In addition, Licensee shall indemnify and hold harmless the City, its officers, agents, employees, successors, and assigns from any liabilities, fines, charges, assessments, claims, penalties, losses, and damages arising out of Licensee's failure to comply with all applicable laws, ordinances, and regulations and all conditions and requirements in this License. The indemnity obligations in this Section will survive the expiration or earlier termination of this Agreement.

Licensee shall in accordance with its indemnity obligations hereunder, at its own expense, defend the City in all litigation, pay all attorneys' fees, damages, court cost, and other expenses incurred and arising out of such litigation or claims; and shall, at its own expense, satisfy and cause to be discharged all judgments that may be obtained against the City, its officers, agents, or employees, arising out of

such litigation. None of the foregoing shall require Licensee to indemnify the City against the negligence or willful misconduct of the City, or of its officers, agents, employees, successors and assigns.

Licensee must take out and maintain at its own expense during the term of this Agreement, Comprehensive General Liability insurance, naming the City as an additional insured, to the extent of Licensee's indemnity obligations under this Agreement as will protect itself, the City, and any entity performing work covered by this Agreement from claims for damage for personal injury, disease, illness, or death, including accidental death, as well as from claims for property damages that may arise from operations under this Agreement, whether the operations be by itself or by any entity or by anyone directly or indirectly employed by either of them. The Comprehensive General Liability insurance policy must have limits of liability of not less than One Million Dollars (\$1,000,000.00) applicable to the liability assumed by Licensee under this Section. Licensee must provide the Director of Law with a Certificate of Insurance for the coverage upon signing of this Agreement.

10. Modification: This Agreement and any particular rights granted by it may only be amended by the written agreement of the City and Licensee.
11. Safety Measures: Licensee must fence, barricade, or take such other measures as are necessary or appropriate to protect the general public from any danger in connection with Licensee's activities under this Agreement.
12. Taxes, Utilities and Other Charges: Licensee must timely pay all taxes, utilities and any other charges or expenses attributable to Licensee's activities.
13. Restoration of Property: Upon the expiration of this License, Licensee shall restore the Property to the same condition as when received by Licensee, or in a condition satisfactory to the Director of Port Control.
14. City's Right of Entry: The City, its officers and employees, may enter the Property at any time for all reasonable purposes, including, without limitation, inspection of Licensee's activities under this Agreement.
15. Copies of Test Results. If the Licensee performs any tests or inspections of the Property, Licensee shall deliver a copy of the results of any such tests or inspections to the Department of Port Control.
16. City and Licensee Not Partners. Nothing contained in this License shall be deemed to constitute the City and Licensee as partners in a partnership or joint venture for any purpose whatsoever.
17. Severability. If any term or provision of this License is held invalid, illegal, or unenforceable by any court of competent jurisdiction, the invalidity, illegality, or unenforceability shall not affect any other term or provision of this License. This License shall be interpreted and construed as if such term or provision, to the extent it has been held invalid, illegal, or unenforceable, has never been contained in this License.
18. Entirety. This License constitutes the entire agreement between its parties as of the Effective Date. Any provision of prior licenses, agreements, or documents that conflict in any manner with the provisions of this License is void and has no effect.
19. Power and Authority: City represents that City owns the Property and has the right

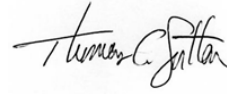
IN WITNESS WHEREOF, the Director has caused this License to be executed as of the date below.

The City of Cleveland

Bryant L. Francis, CM., Director
Department of Port Control

Date: _____

Baldwin Wallace University



Dr. Thomas C. Sutton, PhD
Acting President & Provost
Baldwin Wallace University
Email: tsutton@bw.edu

Date:

08/30/2024

The legal form and correctness of this instrument is approved.

Mark Griffin
Director of Law

Jonathan Stone McGory
Assistant Director of Law

Date: _____

Exhibit “A”

§ 183.16 Licenses for use of City Property



The director of a department having charge of City real estate, facilities, equipment or other City property may, upon satisfaction of the conditions stated below, issue to any person or entity a license to enter upon, inspect, test, or perform limited construction or maintenance upon, any City property under the jurisdiction of said director:

- (a) The license may not exceed one (1) year in duration or the length of the project for which it is issued, whichever first occurs;
- (b) The license shall specify the licensee’s permitted activities and require the licensee to be qualified to perform such activities, shall provide appropriate indemnification of the City, and shall require restoration of any damaged property;
- (c) The licensee shall be charged a licensing fee determined by the director.

(Ord. No. 1356-92. Passed 11-23-92, eff. 11-30-92)

Exhibit “B”

Property

Burke Passive Sensor Installation Specifications

16 January 2024

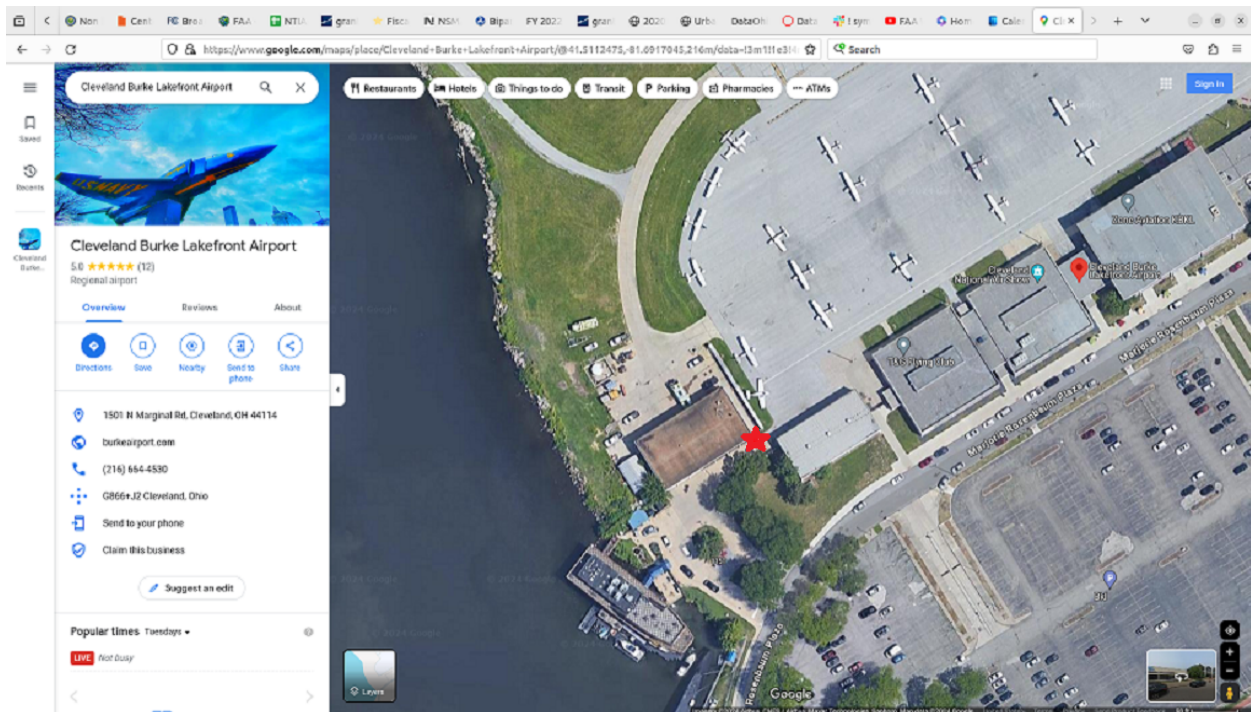
1. Passive Sensors being Installed

Two passive (no RF emission for detection purposes) aircraft detection sensors will be mounted on the Fire Station / Rescue Building. These are the sensors that will be mounted:

1. Airport Monitoring Systems ADS-B monitoring box (conventional aircraft), consisting of a passive antenna, a box containing data processors, power source, and data connectivity, and the requirements to connect the box to 110-120V AC power and a CAT6 ethernet jack with data routing access to the public internet; and
2. AirSentinal AMS RemoteID monitoring box (UAS) consisting of a self-contained box including antennas, computing hardware, cellular connection, power source and the requirements to connect the box to 110-120V AC power.

2. Location

The boxes / antennas will be installed at the Fire Fighting / Rescue Station and the power and data cables will be routed to the rack-mounted data routers in the utility closet in the southeast (rear) corner of the building, as identified below in red, at GPS coordinates: 41.511072,-81.691203.



Mounting of the Airport Monitoring Systems antenna and the AirSentinal AMS self-contained box will be on a pole (see requirements below) at the back of the building, as shown below in red.



3. Mounting Requirements

In order to properly mount the equipment, a 10-foot length, 1-in diameter steel or aluminum pole needs to be mounted to the side of building with u-brackets and ingress into the building needs to be identified for the Airport Monitoring Systems antenna cable the and the AirSentinel power cable. The pole should be mounted with four-feet of length below the roofline and six feet of length above the roofline. Supplies needed:

- 10 foot long, 1-in diameter steel pole (standard electrical conduit should suffice)
- Two u-brackets for mounting the pole to the side of the building
- Wiring soffit and/or grommet for running antenna and power cables into building

Pole Mounting

The Airport Monitoring Systems antenna and self-contained AirSentinel unit will both be mounted on the pole. The Airport Monitoring Systems included antenna and included u-bracket should be fixed to the top of pole such that the Airport Monitoring Systems antenna is 5-7 above the roof cornice of the building.

The self-contained AirSentinel unit will be mounted directly on the pole using the included u-bracket. **ENSURE THAT THE AIRSENTINEL POWER CABLE IS INSTALLED AND LIVE IN ORDER TO ACTIVATE THE BOX PRIOR TO FINAL MOUNTING. MAKE SURE TO FOLLOW THE AIRSENTINEL ACTIVATION INSTRUCTIONS AND CONFIRM FUNCTION PRIOR TO MOUNTING.** The unit should be mounted approximately 3 feet above the roof cornice of the building. Direction of mounting is not significant as antennas are omnidirectional.

Since all antennas are passive, they can be mounted near one another, however should **NOT BE MOUNTED WITHIN 15 FEET OF OTHER ANTENNAS.**

Route the Airport Monitoring Systems antenna cable, and the AirSentinel power cable, through the soffit/grommet into the utility/server closet.

Utility/Server Closet Mounting

The Airport Monitoring Box (approximately 12x18 inches) needs to be affixed to a wall, rack or other mount. It can be mounted with standard screws through the mounting holes in the enclosure.

Power cables for the AirSentinel unit and the Airport Monitoring Systems unit should be plugged into a persistent 110-120VAC power source. The ethernet cable supplied with the Airport Monitoring systems box should be plugged into the switch and County IT can open a port to the internet for the Airport Monitoring Systems sensor.

4. Power Requirements

Both units will require persistent 110-120VAC power in the data rack in the utility closet.

5. Data Requirements

The AirSentinel box is a self-contained unit with built in cellular modem and does not require its own data connection. The Airport Monitoring Systems box requires a CAT6 ethernet connection with an open port routed through the firewall to support a VPN connection over the public internet.

6. Sensor Specifications / RF Emissions

Both sensors are passive units, so the antennas operate only in receive mode and do not emit any RF energy. The AirSentinel box uses a 5G cellular data modem, emitting low energy cellular data traffic on the 450Mhz to 6Ghz and 24.25Ghz to 52.6Ghz frequency spectra reserved for 5G cellular.

Exhibit “C”

EQUAL OPPORTUNITY CLAUSE (Section 187.22 (b) of the Codified Ordinances)

1. During the performance of this contract, the contractor agrees as follows:

The contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity or expression, national origin, age, disability, ethnic group or Vietnam-era or disabled veteran status. The contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to race, religion, color, sex, sexual orientation, gender identity or expression, national origin, age, disability, ethnic group or Vietnam-era or disabled veteran status. As used herein, “treated” means and includes without limitation the following: recruited, whether by advertising or other means, compensated, whether in the form of rates of pay or other forms of compensation; selected for training, including apprenticeship, promoted, upgraded, demoted, downgraded, transferred, laid off and terminated. The contractor agrees to and shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the hiring representatives of the contractor setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.
3. The contractor shall send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or worker’s representative of the contractor’s commitments under the equal opportunity clause, and shall post copies of the notice in conspicuous places available to the employees and applicants for employment.
4. It is the policy of the City that local businesses, minority-owned businesses and female-owned businesses shall have every practicable opportunity to participate in the performance of contracts awarded by the City subject to the applicable provisions of the Cleveland area Business Code.
5. The contractor shall permit access by the Director or his designated representative to any relevant and pertinent reports and documents to verify compliance with the Cleveland Area Business Code, and with the regulations. All such materials provided to the Director or his designated representative by the contractor shall be considered confidential.
6. The contractor will not obstruct or hinder the Director or his designated representative in the fulfillment of the duties and responsibilities imposed by the Cleveland Area Business Code.
7. The contractor agrees that such subcontractor will include his Equal Opportunity Clause, and the contractor will notify each subcontractor, material supplier and supplier that the subcontractor must agree to comply with and be subject to all applicable provisions of the Cleveland Area Business Code. The contractor shall take any appropriate action with respect to any subcontractor as a means of enforcing the provisions of the Code.

Effective: December 9, 2009

Exhibit “D”



FEDERAL AVIATION ADMINISTRATION MANDATORY PROVISIONS

“Contractor” shall mean “Lessee”, “Offeror” or “Applicant”; “Owner” shall mean the City; “Contract” shall mean this Agreement; “Solicitation” or “Proposal” shall mean the offer from the City to enter into this Agreement.

Contractor is required to insert the following terms and conditions in each lower tier contract, subcontract, sub-agreement, etc. Contractor is required to incorporate the applicable requirements of these provisions by reference for work done under any purchase orders, rental agreements, and other agreements for supplies or services. Contractor is responsible for compliance with these provisions by any subcontractor, lower-tier subcontractor or service provider.

Contractor itself is required to meet all of the terms and conditions set out below. Should Contractor fail to do so, this Agreement shall be subject to cancellation by the City.

GENERAL CIVIL RIGHTS PROVISIONS

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964. If the Contractor transfers its obligation to another, the transferee is obligated in the same manner as the Contractor.

The above provision obligates the Contractor for the period during which the property is owned, used or possessed by the Contractor and the airport remains obligated to the Federal Aviation Administration.

TITLE VI SOLICITATION NOTICE:

The **City of Cleveland**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, [select businesses, or disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

COMPLIANCE WITH NONDISCRIMINATION REQUIREMENTS:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE AIRPORT IMPROVEMENT PROGRAM

- A. The Licensee for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that:
 1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this License for a purpose for which a Federal

Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the Licensee will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Title VI List of Pertinent Nondiscrimination Acts and Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, the City of Cleveland will have the right to terminate the License and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the License had never been made or issued.

TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, *et seq.*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title

VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE) SOLICITATION CLAUSE

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.



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