



Interested Party Testimony- House Aviation and Aerospace Committee

HB 149 —Establish Requirements Related To The Use Of Unmanned Aerial Vehicle By Law Enforcement

April 23, 2024

Chairman Holmes, Vice Chair Willis, Ranking Member Baker, and members of the committee.

Thank you for the opportunity to appear before you again and to provide testimony on House Bill 149.

My name is Dr. Stuart Mendel, Affiliate Professor at Baldwin Wallace University and Project Director for the Northeast Ohio Flight Information Exchange also known as the NEOFIX. As I mentioned during my last visit, the University serves as the focal point for this applied research and community engagement program to fulfill its visioned role as a leading regional comprehensive university impacting learners, businesses, and communities throughout the Great Lakes region.

NEOFIX allows state and local government to publish key information to UAS Operators and Industry, giving everyone engaged in Public, Commercial and Civilian Advanced Air Mobility a clear, common picture – in the same way charts do for traditional aviation.

To refresh your memory, for years, the drone market was in a nascent phase and had yet to break into the mainstream. Then, in 2016, drone industry growth took flight when the Federal Aviation Administration (FAA) granted hundreds of new exemptions for companies to operate drones in the U.S. through FAA Part 107.

These exemptions included several new use cases in multiple private industries, such as insurance, construction, and agriculture as well for public safety uses such as drone as a first responder — each of which demonstrates the broad range of beneficial drone applications, which have implications for public safety, emergency management and emergency response, and enforcement.

Communities with drone ready infrastructure offer strong incentives for public sector applications including safety and response, but also manufacturing and testing, business operations, technology development, and workforce training and education. Further, communities with drone ready infrastructure are more likely to comply with the spirit of this bill, which is to encourage the use of drones for legitimate public and commercial purpose, and to discourage their use for spurious purposes or in an unsafe manner.

Among the states, Ohio is primed in the leading cohort of early adopters of drone operations. Rest assured it will be this first group of early adopter states that will engage with the FAA to develop the policies, regulations, and procedures for the whole country. I am pleased to report the NEOFIX as emerging critical infrastructure is digital infrastructure that will accelerate use of drones for public safety (Drone as a First Responder) while lowering the costs of these operations. This is exactly the type of safe, beneficial use envisioned by this bill.

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House Bill 149, along with the earlier legislation for operation of unmanned aerial vehicles in Ohio (HB 77), if implemented effectively, can support the safe growth and development of this market in Ohio for both public safety and emergency response uses, and commercial and civilian uses. The key is to emphasize the use of drones for surveillance or enforcement purposes must be conducted in a manner consistent with existing laws for these purposes, while also recognizing drone as a first responder. capabilities, which use drones as an extension of dispatch to collect information for emergency purpose, has the potential to both reduce public safety costs and save lives.

Drone as a First Responder is a transformational policing method which has demonstrated the ability to increase officer and community safety, reduce overall police response times, and reduce waste. DFR allows a trained incident commander to “virtually” arrive on scene first before officers are in harm’s way. The drone has a powerful on-board camera which streams HD video back to the department’s real-time operations center where a trained critical incident manager (teleoperator) not only controls the drone remotely but communicates with the units in the field to provide information and tactical intelligence. The system can also stream the video feed to the cell phones of the first responders, supervisors, and command staff, so they can see exactly what the drone is seeing. The Chula Vista Police Department has become the nation’s model for police departments using drones. According to data from the Chula Vista Police Department, it has sent drones to almost 19,000 calls with an average response time from call of 3-5 minutes. For reference, average response times using officers exceeded 20 minutes in 14 of 15 other departments.

Drone as a First Responder allows police and fire to better understand an emerging incident, to dispatch appropriate resources and equipment, and to prepare responders for what they will find on the scene. Drone as a First Responder leads to more effective public safety response, reduced waste and cost, and saves the lives of responders and the public through better preparation and de-escalation. These types of uses appear to be envisioned in the proposed Section 4561.63 (B) – where I might propose adding language states “such as assisting in improving appropriate dispatch of resources to an emerging incident through better situational awareness.”

During stage one of its development throughout 2023, the NEOFIX began integrating public data to support a common operating picture public safety can leverage – both to support public safety operations AND to identify potential bad actors for counter-UAS (unmanned aircraft system). Phase 2, comprising the work of 2024 and forward, enables UAS operators and industry to use the NEOFIX data to understand the local environment before and during operations. Public safety uses NEOFIX to coordinate operations and alert private operators State, and Local government use NEOFIX to manage the interaction of UAS for local communities.

In our region, presentations on the data availability, geocoded operations flight charts and flight advisories are perceived as highly valuable for public use-cases for municipalities and their resident county safety and emergency management practices. Further, as envisioned by this bill, they create a shared, authoritative public record of the flight operations described in the bill.

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As to the subject matter of the bill, at a gathering of Northeast Ohio public safety unmanned response team public safety officials and staff in late January of this year, uses and applications HB 149 will impact including operations such as:

- State police, department of emergency management, and local police and fire using FIX to notify private pilots of public safety activities to avoid (fire, hazmat, police response, disasters)
- Planning and coordination between public safety in the event of emergencies (e.g., unruly protests, tornados)
- Providing warning and official notice of critical and sensitive infrastructure, including police barracks, corrections facilities, parks, and radio and cellular masts/towers;
- Use of drones in emergency or law enforcement situations.

In developing the NEOFIX, our work has been designed to serve as a regional template adaptable to each of Ohio's 88 counties. Organizing and standing up the NEOFIX as a functioning model aligning with the state's DriveOhio July 2022 AAM Framework Report, (specifically section 8 AAM Strategic Framework). By curtailing inappropriate use, but encouraging use for life-saving and better response in Section 4561.63, we align Ohio to successful existing programs in other states such as Virginia, Oklahoma, and California and in the work we are conducting under the NEOFIX program in Northeast Ohio. We have talked to the Director of the Ohio UAS Center and are excited and ready to share our public data with the UAS Center so it can be included in the statewide registry. We are excited to be supporting public safety and first responders in Northeast Ohio in the development of a regional public network that supports exactly the kind of legitimate, beneficial purposes of drones as envisioned in Section 4561.63 of this bill.

I will reiterate our goals including the design and implementation of the NEOFIX: to protect critical infrastructure, make sure local rules are clear, consistent, and available, and make these available as a clear, clean easy to use state asset. The next stage of our work is engagement processes with the localities and municipalities. This is a way we can include and publish information on no-go areas, to ensure localities can create thoughtful rules and share consistent data.

We now have substantial experience with this process in Northeast Ohio and are excited to support the UAS Center and the State of Ohio by bringing our expertise to anywhere in the state where it is needed.

Thank you for your time and the opportunity.

I will now take any questions you may have.

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