

Virginia Flight Information Exchange (VA- FIX): Concept of Operations Summary

What is VA FIX?

The VA- FIX is a platform for state and local public safety and other government agencies to publish and share safety and community advisory information with each other, with USSes, unmanned system operators, and the public to promote transparency and safety. The publicly available interface provides state and local public safety and government information, while a secure government operations platform gives government agencies the ability to publish advisory, operational, and emergency notifications. VA- FIX supports open, authoritative information sharing throughout Virginia as an authoritative SDSP. VA- FIX prepares Virginia for today and for the future, integrating with USSes and UTM solution providers that will manage unmanned systems traffic in Virginia.

The Business Need.

Virginia State and Local Government have been aggressive early adopters of UAS. As a result, they have already seen some of the challenges of UAS operations. VA- FIX was created in direct response to these needs identified at the State and Local Government level through dialogue and working groups. VA- FIX is part of Virginia's approach to address key policy and safety concerns at the state and local level while also maintaining a **UAS airspace that is one of the most free and open in the nation.**

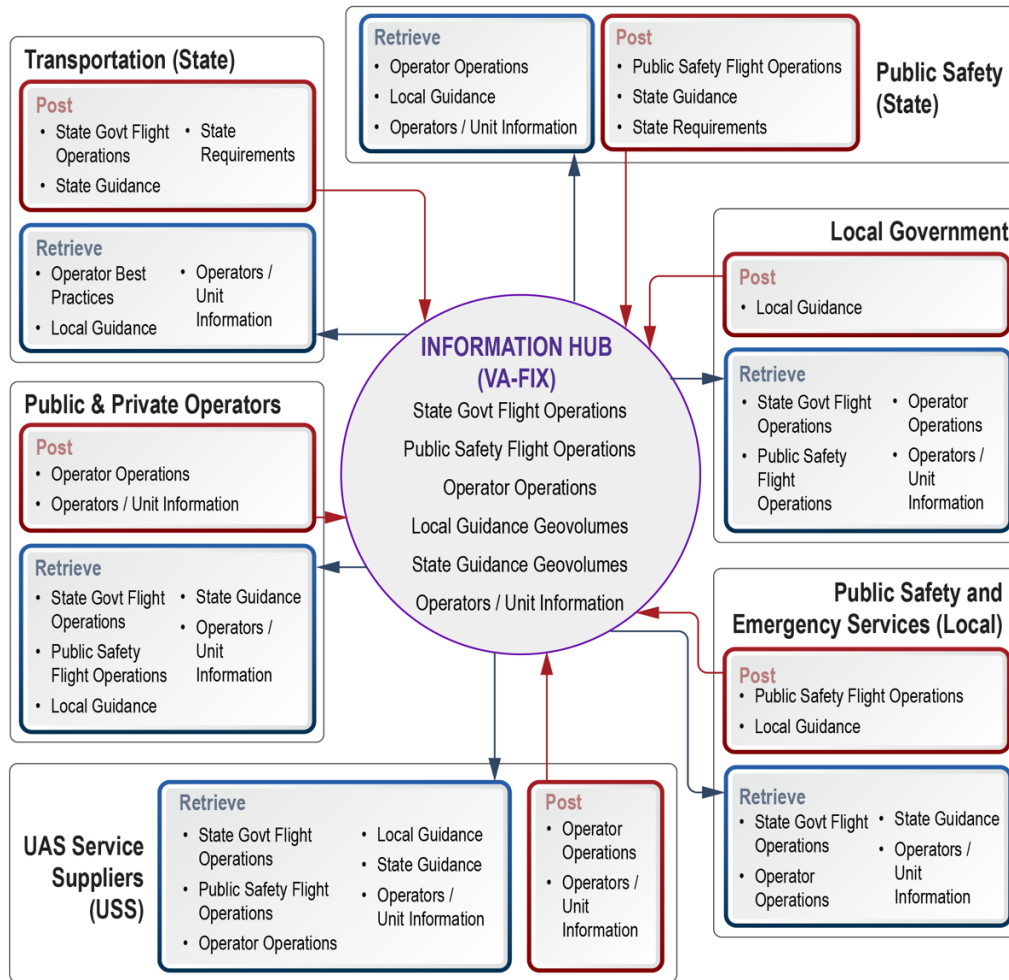
VA- FIX Is Not	VA- FIX Is
<ul style="list-style-type: none">• A UAS Traffic Management (UTM) solution. Industry and the FAA are already working on this. VA- FIX is an effort to create an additional data source for integration into a UTM.• A new regulation. There are already existing authorities, laws, and models for regulation. VA- FIX is an experiment in publishing and sharing information in a way that agencies and UAS operators can understand and use.• A flight planning or fleet management solution. VA- FIX is intended to provide a means and a source for sharing data, while allowing state and local government to interface with VA- FIX through any tool that can send and receive geospatial data in an open manner.	<ul style="list-style-type: none">• An experiment in the value, opportunity, and challenges of information sharing by, and between, state and local agencies, industry, and the public.• An open and public asset, owned by the Commonwealth of Virginia, with no licensing or intellectual property restrictions and open interfaces (combined with an authentication mechanism) to allow agencies and industry to share information through preferred tools and vendors.• A SDSP as described in the FAA UTM ConOps providing value-added information to industry participants in support of safety and efficiency that fosters the DOAV mandate to manage the governance of authoritative supplemental data throughout the Commonwealth.• A catalyst for collaboration among state and local agencies and industry by creating an open, public information hub that everyone can use—provide focused initial use cases and then allow others to create their own demonstration projects leveraging the VA- FIX infrastructure.

VA FIX Pilot Use Cases.

- **Local Government Advisory:** Provide local government a voice for local preferences (e.g., safety in operations over people, privacy, environmental concerns) while providing guidance to industry in a consistent, harmonized manner managed through DOAV.
- **State or Local Agency Site Data Collection:** Make the public and UAS operators aware of operations so that we can reduce operational interference which improves safety while also reducing public concerns about the use of the UAS through transparency.
- **Public Safety Large Audience Events:** Provide needed data to UAS operators and USS providers to assist in compliance with Federal Rules about operations over people.
- **Public Safety Hazmat:** Inform operators and the public about an area of personal hazard or aircraft contamination risk— manage flight in the air and deconfliction on the ground.
- **Public Safety Emergency Incident and Disaster Management (e.g., Fire, Police Operations, Wildfire, Hurricane):** Inform operators and the public about an area of personal hazard, aircraft contamination risk, or risk of catastrophic damage to UAS— manage flight in the air, deconfliction on the ground, and help with creating a temporary flight restriction (TFR).

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VA FIX Overall Concept for Information Sharing.



How is VA- FIX Being Implemented for the Pilot?

- Leverage existing state and local UAS programs, operational needs, and existing geospatial data to operationalize the existing wealth of authoritative source data that the Commonwealth already has;
- Leverage open-source technology and an unlimited grant of existing intellectual property by an existing USS capability developer in Virginia (provided by ATA) to support the base capability quickly and inexpensively;
- Leverage existing data and information standards promulgated by the FAA for sharing geospatial information in the context of UAS as a SDSP; and
- Open the pilot to USSes and agency software providers to connect to the VA- FIX interfaces to share data and extend the capability by partnering with existing providers.

What Are Doing and When Are We Doing It?

Virginia FIX is going live in Summer 2020, starting with provision of the publishing interfaces to State and Local agencies, followed by a public web interface, and programmatic integration with USS and UTM providers.

Who do I contact?

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