

DOORWAY BRIEF: WE WANT TO DEVELOP A DRONE FACILITY

Why You Might Be Here

Your community may be interested in supporting the development of a drone facility to support public safety operations, infrastructure inspection, utility services, agriculture, logistics, cargo transportation, emergency response, research activities, or other uncrewed aircraft operations.

Unlike airports, heliports, and vertiports, drone facilities remain an evolving area of aviation infrastructure. While the term "droneport," is not uncommon, there is currently no widely adopted FAA design standard or formal FAA facility classification specifically for droneports. As a result, communities often need to apply established aviation planning principles to a new and rapidly evolving operational environment.

This doorway is intended to help communities understand the basic process, key decisions, and relevant toolkit resources.

Start with the FAA

One of the first steps in developing a drone facility is engaging with the Federal Aviation Administration (FAA).

Federal regulations require advance notice before constructing, activating, altering, or changing the status of aircraft landing and takeoff areas. Depending on the proposed operation, FAA notification, airspace review, and operational approvals may be required.

Because drone facilities remain an evolving area of aviation infrastructure, early FAA coordination can be particularly valuable. The FAA can help communities understand airspace considerations, operational assumptions, facility characteristics, and emerging guidance that may influence future development.

Communities should not assume that the absence of a specific drone facility standard means future standards will never emerge. Facilities designed using sound aviation planning principles are often better positioned to adapt as regulations, technologies, and operational requirements continue to evolve.

Understand the Mission

Before discussing facility design, communities should understand what the facility is intended to support.

Examples may include:

- Public safety operations
- Infrastructure inspection
- Utility operations
- Agricultural operations
- Emergency response
- Medical logistics
- Package delivery
- Cargo transportation
- Research and testing
- Workforce development

The mission should drive facility design, infrastructure needs, operational requirements, and community expectations. A facility supporting a small public safety drone may look very different from a facility supporting large cargo aircraft operating beyond visual line of sight. Understanding the aircraft and mission profile is often as important as selecting a facility type.

Applying Aviation Planning Principles

While formal standards continue to evolve, many of the reasons aviation facilities are designed the way they are remain relevant.

Questions communities may wish to consider include:

- Where will aircraft take off and land?
- What happens during abnormal operations?
- What area should remain protected?
- How will obstacles be managed?
- How will responders access the site?
- How will operations be monitored?
- What safety areas may be appropriate?

The absence of formal standards does not eliminate the underlying operational, safety, and planning considerations that standards are intended to address.

Weather and Environmental Conditions

Weather can be especially important for drone operations.

Many UAS aircraft operate at relatively low altitudes where localized weather conditions may differ significantly from information reported at a nearby airport. In fact, much of our aviation weather infrastructure was built for fidelity above 5,000 feet. Low altitude weather data is typically only captured at airports or heliports, where aircraft operate frequently below 5,000 feet. Because drones are more susceptible to winds, it's also important to recognize that winds

at the ground level, where most sensors are located, may be measuring winds that are different just a hundred feet higher. This difference can mean the difference between an aircraft capable of making a safe flight, and catastrophe.

Potential considerations may include:

- Wind (at ground level, and operating altitudes)
- Gusts
- Urban wind effects
- Visibility
- Temperature
- Precipitation
- Terrain effects
- Localized weather conditions

Some operations may benefit from weather monitoring equipment that provides more site-specific information than regional weather reporting systems.

Infrastructure and Site Considerations

Depending on the operation, communities may wish to evaluate:

- Launch and recovery areas
- Charging infrastructure
- Communications systems
- Data connectivity
- Utility service
- Security
- Emergency access
- Storage facilities
- Weather monitoring equipment
- Maintenance areas

The infrastructure required for a public safety drone program may be substantially different from that required for cargo or logistics operations.

Building a Strong Foundation

Communities do not need a development proposal in hand to begin preparing.

Potential early efforts may include:

- Reviewing local aviation definitions and terminology
- Understanding existing UAS activity

- Identifying potential operating locations
- Reviewing emergency response procedures
- Understanding communications and utility requirements
- Coordinating with public safety agencies
- Reviewing existing policies and ordinances

These activities can improve readiness regardless of how drone operations evolve in the future.

Looking Ahead

Drone facilities represent one of the fastest-evolving areas of aviation infrastructure.

Technologies, operational concepts, aircraft capabilities, and regulatory frameworks continue to develop. Communities that focus on sound planning principles, operational needs, safety considerations, and future adaptability are often better positioned to evaluate opportunities as they emerge.

The objective is not to predict future regulations. The objective is to create facilities and policies that can accommodate change while supporting community goals.

Recommended Next Steps

If your community is considering a drone facility, consider reviewing:

Infrastructure, Land Use, and Place

To better understand facility planning, compatibility considerations, infrastructure needs, and aviation-related development considerations.

Governance, Roles, Authority, and Coordination

To understand the responsibilities of local governments, operators, state agencies, federal agencies, and other stakeholders.

Public Safety and Emergency Preparedness Guide

To evaluate emergency response planning, operational coordination, facility access, training, and preparedness considerations.

Economic Development and Readiness

To explore how drone operations may support logistics, public safety, workforce development, infrastructure inspection, business growth, or other community objectives.

Environmental and Noise Mitigation Strategies

To understand compatibility planning, community expectations, and operational considerations associated with emerging aviation activity.

Questions to Consider

- What mission will the facility support?
- What aircraft are expected to operate there?
- Has the FAA been contacted?
- What airspace considerations may apply?
- What communications infrastructure is required?
- How will emergency response be coordinated?
- Are neighboring land uses compatible?
- What weather information is needed to support operations?
- How could future changes in technology or regulations affect the facility?
- Which sections of this toolkit are most relevant to the community's goals?

Drone facilities represent an emerging area of aviation infrastructure. Communities that understand the mission, operational requirements, planning considerations, and future adaptability of these facilities are often better positioned to evaluate opportunities and make informed decisions.