



Port Clinton, Ohio

Advanced Air Mobility

Concept of Operations (ConOps)

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Executive Summary

This Concept of Operations describes the envisioned operational environment supporting AAM's expected growth within the Northwest Ohio community of Ottawa County, Port Clinton and its surrounding areas. While AAM supports a wide range of passenger, cargo, and other operational use cases in urban and rural environments with a range of future state possibilities, this ConOps focuses on use cases attainable in the near to mid-term “contemporary operating environment” (0 to 10 years) to meet specific mission sets envisioned by the adopter community. This is not to preclude future operational concepts as maturity levels in the AAM sector advance but rather lay the foundation and groundwork that postures the adopter community of Port Clinton, Ohio, and surrounding areas to integrate future, more complex use cases and serve as the first evolutionary build up in the “crawl-walk-run” approach to AAM integration.

This document describes the capability needed to meet current gaps that AAM may fill for Ottawa County and the area surrounding Port Clinton, Ohio. It describes the operations and associated support description, mission set parameters, referenced policies, assumptions, constraints, and opportunities for the surrounding area. It also identifies key stakeholders and considers the broad collaborative support needed across this diverse group of stakeholders necessary to integrate AAM into the adopter community. To produce an effective ConOps that articulates the Port Clinton area vision for AAM, close stakeholder engagement is prioritized and considered continuous through iterative improvements to the ConOps as their vision and guiding principles are refined. As the AAM ecosystem of actors grows and orients on the challenge space, this ConOps will provide the foundation for an AAM Reference Framework from which system requirements and architectures will be developed and validated.

The envisioned use of AAM is depicted using 3 scenario-driven operational vignettes that describe a day in the life of the AAM operation. The use cases were developed through close interaction with the adopter community to meet specific functional capabilities gaps identified in the existing, current-day operations. The three current operational concepts are:

1. Public Good Mission: UAS Package Delivery to island communities on Lake Erie.
2. Public Good Mission: UAS Courier Service connecting 4 Regional Hospitals
3. Regional Air Mobility that connects Port Clinton to a network of AAM routes

This ConOps takes an evolutionary approach to build up toward future, more advanced operational AAM concepts. It will describe stakeholder engagement at all levels of government (local, state, and federal), NASA, Other Government Agencies, Industry, and Academia. As the effort grows and matures additional engagement from a broader community of AAM stakeholders will foment and develop cooperation through Private, Public, Partnerships (PPPs) that will usher in increased AAM capability.