

## Unmanned Aircraft Systems (UAS) Integration in the National Airspace System (NAS) Project **Systems Integration and Operationalization (SIO) Demonstration Activity**

The goal of SIO is to work toward commercial UAS operations in the NAS. In order to accomplish that goal, NASA has partnered with American Aerospace Technology Incorporated (AATI), Bell, and General Atomics Aeronautical Systems (GA-ASI), Inc. to conduct flight demonstrations in the NAS that emulate commercial missions and begin working toward Federal Aviation Administration (FAA) type certification.

The SIO demonstration activity will take the form of flight demonstrations using various-sized unmanned aircraft built by each of the three companies. The flight demonstrations will highlight commercial UAS missions that have the potential to provide economic and public benefit. Integrated detect and avoid (DAA) and command and control (C2) systems will provide the ability to safely conduct the demonstrations in the NAS. The flight demonstration is expected to increase public awareness and acceptance of UAS operations and exercise FAA safety and risk mitigation processes.

Concurrently, the SIO Partners are working toward FAA type certification. While some of the type certification efforts are expected to extend beyond the SIO activity, progress toward certification will exercise FAA UAS certification policy. As part of the SIO activity, NASA plans to document lessons learned to provide the UAS community with generalized information from the Partners' concepts of operations and operational risk assessments.

### **American Aerospace Technology Incorporated**

**Mission:** Infrastructure inspection at altitudes below 10,000 feet

**Vehicle:** Resolute Eagle

**SIO Demonstration Location:** Central California

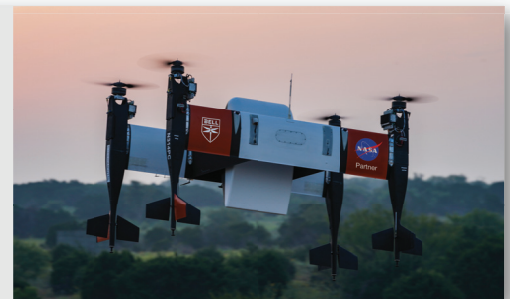


### **Bell**

**Mission:** Critical medical transport in urban areas

**Vehicle:** Autonomous Pod Transport 70 (APT 70)

**SIO Demonstration Location:** North Texas



### **General Atomics Aeronautical Systems, Inc.**

**Mission:** Infrastructure inspection at altitudes above 10,000 feet

**Vehicle:** SkyGuardian

**SIO Demonstration Location:** Southern California



For more information please visit <https://www.nasa.gov/aeroresearch/programs/iasp/uas>