AREA**I**

where ideas take flight

Products

ALTIUS (Air Launched, Tube-Integrated Unmanned System)

Area-I has developed and is currently flight testing the Air-Launched, Tube-Integrated, Unmanned System (ALTIUS) under Air-Force and Navy programs to expand the capabilities of the warfighter. Variants of this high-endurance UAS launch from the currently fielded Common Launch Tube and Sonobuoy Launch Canister.

PTERA (Prototype Technology Evaluation Research Aircraft)

This research aircraft provides a bridge between wind tunnel testing and manned flight by providing a low-risk, low-cost platform to flight test high-risk technologies such as advanced aerodynamic treatments, GNC systems, acoustic research, sensor and health management systems, etc. The 200 lb aircraft has a 50 lb payload capacity and recently completed a series of NASA-funded flight tests.

AI.MAESTRO

The AI.MAESTRO flight computer is a small, light-weight (0.2 oz), flight computer designed to interface with commercial autopilots. In addition to the ability to augment autopilots, the flight computer can be used as a flight recorder for flight testing, as an image processing unit, and for other applications.

ReMAP (Resource Allocation for Multi-Agent Planning)

ReMAP is a mission planning and guidance system for single- and multi-agent unmanned systems designed to reduce user workload for operators managing multiple unmanned airborne platforms. The system operates by providing a level of aircraft autonomy that allows the user to focus on mission management such as defining mission goals/priorities and evaluating incoming data.

Services

The Area-I team has extensive experience with advanced GNC systems, aircraft design and analysis, UAS fabrication and operations, and is also available for consulting and technology development. Services that Area-I provides are:

Flight Test Support

- ‣ Fully instrumented, autonomous, fixed and rotary-wing airframes available for experimentation and payload evaluation
- ‣ FAA Certificate of Authorization (COA) preparation and flight safety and readiness support
- ‣ Airframe preparation and payload integration with commercial autopilots
- ‣ 26' air-conditioned flight-test trailer

Aircraft Design and Aerodynamic Analysis

- ‣ Aircraft performance & stability analysis
- ‣ Propulsion system design and optimization
- ‣ High-fidelity, 6-DoF flight simulation

Custom Avionics and Sensor Systems

- ‣ Onboard flight computers that interface with and augment the capabilities of commercial autopilots
- ‣ In-flight data acquisition systems and ground control interfaces
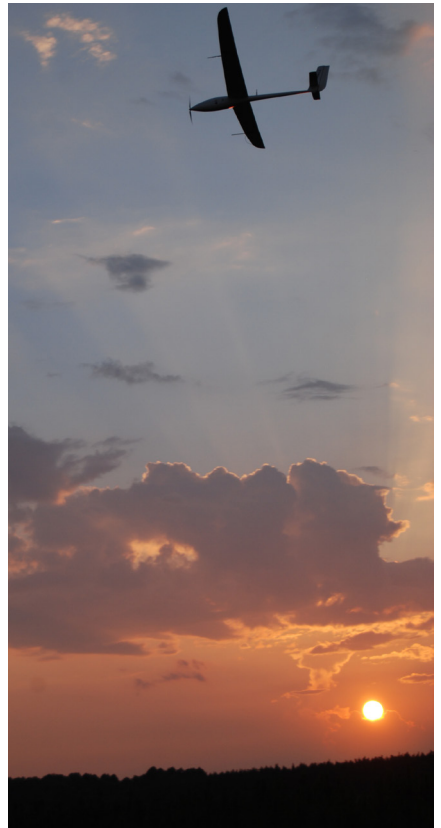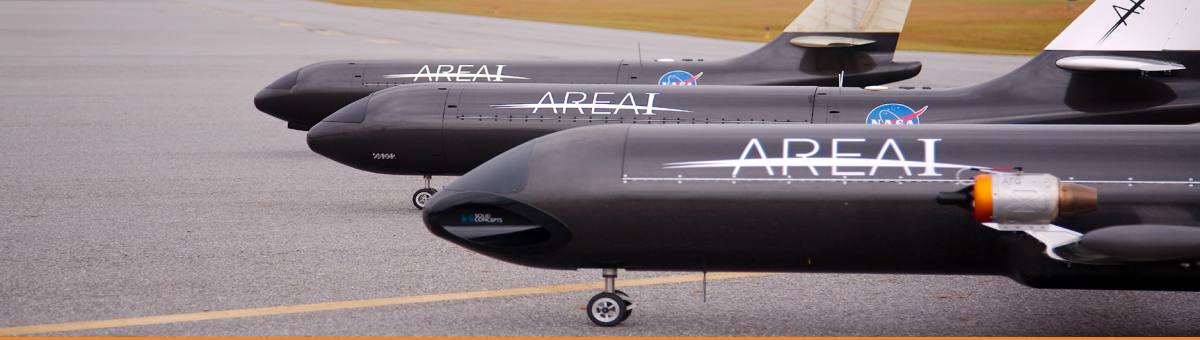
Core Competencies

▸ Advanced Aerodynamics

▸ Airframe and Propulsion System Design & Optimization

▸ Guidance Systems

▸ Simulation

▸ Tooling & Fabrication

▸ Flight Testing

Markets & Customers

Area-I is actively engaged in the small UAS market and is currently involved in research programs with NASA, the US Army, ONR, and AFRL.

Profile

Co-founded in 2008 by its CEO, Dr. Nicholas Alley, Area-I is primarily focused on UAS research & development. Area-I's technical team has a vast amount of experience (spanning 16 years and over 27 flight test programs) in a full spectrum of autonomous aircraft development activities, from conception through flight-testing of advanced GNC systems, airframes, sensor suites, flight control hardware/software, and ground station systems.

Area-I personnel have been involved in the design and construction of fifteen UAS and one manned aircraft. This significant experience in unmanned aircraft design and operation is augmented by an extensive background in flight mechanics, flight simulation, and the development of tools that quickly and accurately predict the performance of aircraft.

Core Advantages

Area-I offers a unique combination of analytical and practical experience with an emphasis in unmanned aerial systems. Area-I develops low-cost flight test platforms, UAS GNC systems, and highly capable flight computing and data acquisition systems. The company maintains a shop and laboratory space that is used for electronics development, hardware-in-loop simulation and testing, and has composite fabrication and machining capabilities.

Contact

P: (678) 594-5227
info@areai.aero
www.areai.aero

Area-I

1590 N. Roberts Rd.,
Suite 102
Kennesaw, GA 30144