Aeronautical Regional Geospatial Observer System

ARGOS

The Problem
Earth changes whether we notice or not. Observation as events unfold is increasingly vital to humans and the ecosystem at large. High Altitude Long Endurance (HALE) UAVs allow active and passive instruments to observe the environment on land, at sea, in the atmosphere, and coming from space. Existing and developing platforms are expensive though. Payloads must generate on average $20k per day to achieve financial viability.

The Opportunity
ARGOS is a lightweight UAV designed to fly autonomously for up to a year at 20km altitude. ARGOS will open a new market for lightweight payloads (≤5kg) by dramatically reducing the cost for access to the stratosphere. We are conducting a feasibility study (Phase I) to deploy a fleet for the Air Force and DoD as well as commercial payloads (Phase II).

The Method
Above the clouds, sunlight is unobstructed and abundant. Collected energy will power flight during the day while storing excess for the night. We are building a low-cost prototype for a series of test flights from December 2021 to increasingly higher altitudes targeting June 2022 for the first HALE attempt.

The Foundation
ARGOS will include instrumentation embedded within the avionics to expand Automated Radiation Measurements for Aerospace Safety (ARMAS) operations. ARMAS started operations in 2012. Over the past decade we have designed, built, and flown a series of instruments to measure radiation. 780+ flights and counting.

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Team
We are engineers who thrive on technical challenges and SET has a demonstrated track record of success bringing products to market in both public and private sectors

Customer
Air Force, DoD, and commercial payloads