

Balloon/Kite Aerial Photography and Drones and How They Enhance Our Understanding of Science and the Environment

Providing mid-altitude aerial perspectives on landscapes and habitats, with emerging relevance to GLOBE observations and protocols.

AREN Project

- NASA Science Mission Directorate Science Education
- Cooperative Agreement Notice (CAN)
- Solicitation: NNH15ZDA0044C
- Award Number: NNX16AB95A
- Principal Investigator: David Bydlowski, Wayne RESA, Wayne, MI

AEROKATS

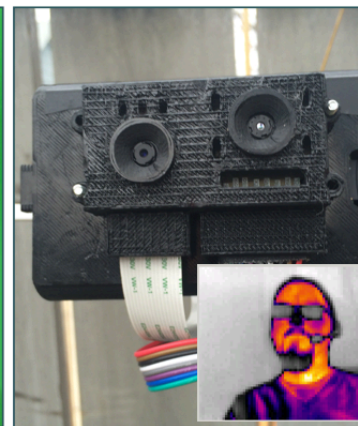
- Advancing Earth Research Observations with Kites and Atmospheric/Terrestrial Sensors
- The NASA Goddard Space Flight Center's Wallops Flight Facility is a major collaborative partner with the AREN Project. NASA engineer Geoff Bland, creator of the AEROKATS program, designs low altitude custom remote sensing platforms, called Aeropods, for agricultural and environmental research purposes. Geoff and NASA technician Ted Miles have worked closely with Wayne RESA to adapt their program to the needs of middle and high school teachers for STEM education.

Aerial Imaging

- If you are a ["cadet" kite flyer](#), you are ready to do aerial imaging. Using an Aeropod and an AREN kite system, the goal of aerial imaging is to get quality aerial images of the school, [atmosphere](#) and [hydrology](#) GLOBE study sites. In order to do the Aerial Imaging, a Monocam Aeropod kit will be used.

Aeropods

- MonoCam HD and TwinCam HD
- New Air-Column Profiler (w/ Kestrel)
- New Arduino based Air-Column Profiler
- HoboPod - Using Hobo Data Loggers
- ThermoPod-TC
- Aerosol Sampler



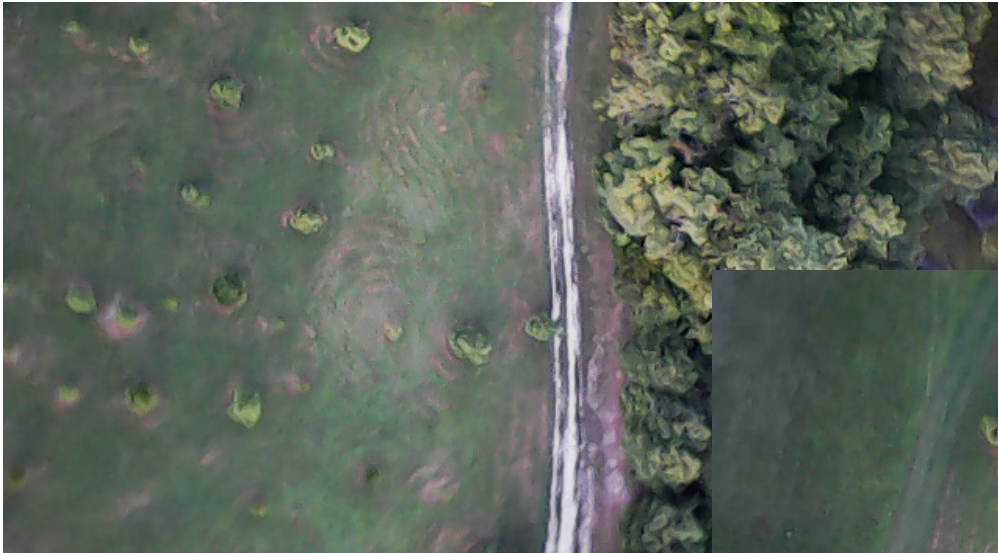
Kites



Aerial Images – Montana State University



Aerial Images – Goddard Space Flight Center



Aerial Images – University of South Florida

