ASU - High Altitude Turbine Project (HATS)

Project Update : **March '12** Date: 3/30/12
Project Manager: Patrick McGarey Contact: aeropat@gmail.com // 602.300.5441

Summary:
This month, the HATS team was focused on subsystems. Individual subsystem leads were tasked with demonstrating the basic functionality of their sensory components. At this point we are continuing to develop sensory algorithms for each sensor with a focus on calibrated and understandable data. The HATS aluminum platform and electronics box were also constructed and will be used to test the effects of heat generated from the internal components as well as from external cooling. In April there will be a shift towards the system as a whole, as individual sensors are mounted and integrated into the HATS payload. Towards the end of April we are required by our design class to demonstrate HASP's collecting and data storage ability. With that in mind, we should be in good shape to spend the summer months debugging and testing the HATS payload before it is due for payload integration and thermal vacuum testing.

Key Accomplishments:

- Construction of aluminum platform (electrictronics box and propeller mount)
- Receival of most critical sensory and electrical components
- Testing and calibration of all received sensors
- Creation of system wide requirements and testing documents

Upcoming Tasks:

- Integrate sensors and mount to platform
- Receive and integrate HASP pvc plate.
- Develop algorithm for handling data transfer to HASP
- Testing of system power supply and battery backup
- Verify propeller designs and send for fabrication
- Schedule appropriate testing facilities (wind tunnel, vac chamber *if available, etc)

-Patrick McGarey // Project Manager