



UAH CubeSat

Problem Statement

- The technology problem being addressed is in the area of Modeling, Simulation, Information Technology and Processing. This experiment will provide modeling and simulation experience to the developing workforce.
- This flight opportunity will provide a way to validate our models and simulations.
- NASA, Department of Defense, commercial companies

Technology

Development Team

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- ASGC, NASA

Proposed Flight Experiment

Experiment Readiness:

- The experiment will be ready for flight by July 15, 2012

Test Vehicles:

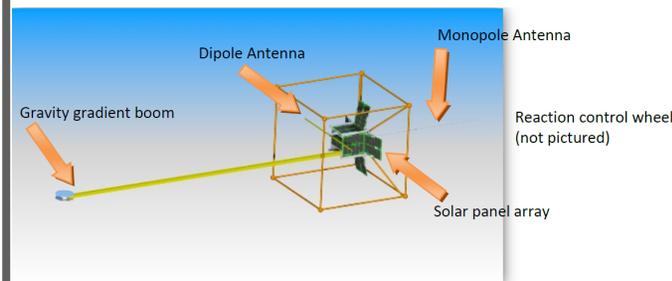
- Parabolic aircraft

Test Environment:

- This experiment has not been flown in a microgravity experiment before

Test Apparatus Description:

- System overview – Each deployable (labeled items) will be triggered and the inertial reactions measured and used to validate models and simulations



Technology Maturation

- To achieve the next TRL, level 6, for the deployment and stabilization subsystem, we will fly the system prototype on a parabolic flight
- We will finish the prototype and have it ready for testing by July 15, 2012
- We have an orbital launch some time in 2013-2014 for the fully operational CubeSat

Objective of Proposed Experiment

- To verify our models and simulation data and to verify deployment mechanisms
- We will obtain data from our inertial sensors and video analysis and use both to validate our models

List the applicable Technology Areas addressed by your technology: www.nasa.gov/offices/oct/home/roadmaps