OLite 2 Progress Report

May 29, 2011

Team Activities

This summer there are approximately 10 students working on O2. These students have the responsibility of completing and testing the O2 system prior to integration and flight.

The communications hardware was integrated into the CubeSat simulator this past week and demonstrated basic RX and TX functionality. The TX circuitry meets all design specifications. Regulation hardware will be integrated in the next week. Following hardware integration, the CDH system will develop the interface software necessary. Solar panel boards were ordered this past week along with a revised GPS board that addresses basic hardware problems in rev 1 although interfaces were still verified on the rev 1 board.

System Testing:

The CSS regulation board (flight spare) passed a long duration burn in test, running for 72 hours under maximum rated load. The same testing will be performed on the flight board prior to integration this month.

Two CDH board has been running for the last two weeks without hardware problems.

Design/Development Issues

We are exploring options to fly O2 in place of OLite on HASP 2010 as well as on HASP 2011. Many lessons from OLite have been rolled into O2, so flying O2 twice will better serve to advance the system TRL.

I will be posting further information about our communication system on the HASP forums. We have currently (as noted in the Preliminary PSIP) been over designing the system as a result of feedback from HASP 2010 integration last year to assure robust radio compatibility with the CSBF system.

How much time would we have to access the payload on the ground prior to flight? We are considering continuing software development on the flight spare after integration. The image would take ~10 minutes of access time to commit and verify on the flight line.

Milestones

N/A

Current Leaders

Project Management	Allen Kummer
Mechanical	Andre Coleman
Power Subsystem	Ian Morrow
Command and Data Handling Subsystem	Daniel Gilbert, Tucker Connors
Guidance Navigation and Control	Scott Teal
Communications	Steve Devore
Ground Station	Josh Miller
Thermal	Andre Coleman

*Full list of participating students available on request

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