

April 25, 2013

To: Dr. T. Gregory Guzik - HASP Project Director
From: Patrick Doyle - U of MN High Altitude X-Ray Detector Testbed Team Lead
RE: HASP Monthly Status Report

1. Activities

Most of the focus was on code for the flight computer; the main goal is to figure out a new way to store data from all sensors to reduce minor data losses.

Several ideas for a buffer rewrite were examined. Preliminary code was written that will need refinement. Testing and possible implementation will follow.

Work done on design for 3-U CubeSat configuration. Most of exterior structure design complete.

Began looking at different internal hardware configuration options.

Completed preliminary PSIP.

Spoke with physics department regarding construction of MCA.

Starting looking into thermal resistance heaters and began development of thermal protection and monitoring plan.

2. Issues Encountered

Ran into issues with programming flight computer due to lack of proper documentation.

Enabling the flight code in order to allow for continuous data logging may require rewriting of previously successful code.

The preliminary PSIP was submitted several days late because team lead forgot to submit it upon completion.

3. Milestones Achieved

Decided on 3-U CubeSat configuration.

Completed documentation for programming flight computer.

Found a future grad student to take over as project lead after integration.

4. Current Student Team

Name	Gender	Ethnicity	Race	Student Status	Responsibilities
Patrick Doyle	M	Non-hispanic	Caucasian	Graduate 2 nd year	Current team lead, new member training, avionics
Curtis Albrecht	M	Non-hispanic	Caucasian	Graduate 2 nd year	Flight computer and power systems lead, new member training
Mark Abotossaway	M	Non-hispanic	Native American	Undergraduate Senior	Detector testing and shielding development, new member training
Micael Menendez	M	Hispanic	White-Latino	Undergraduate Junior	Thermal monitoring and protection, flight computer and software
Andrew Mahon	M	Non-hispanic	Caucasian	Undergraduate Sophomore	Leadership, avionics, flight software
Haley Rorvick	F	Non-hispanic	Caucasian	Undergraduate Sophomore	Structure design and hardware configuration
Josiah DeLange	M	Non-hispanic	Caucasian	Undergraduate Sophomore	Flight computer and power systems, flight software
Alec Forsman	M	Non-hispanic	Caucasian	Undergraduate Sophomore	Thermal monitoring and protection, flight computer and software
Michael Joseph	M	Non-hispanic	Caucasian	Undergraduate Sophomore	Detector testing and shielding development
Seth Merrifield	M	Non-hispanic	Caucasian	Undergraduate Sophomore	Thermal monitoring and protection.