

March 29, 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

New team members continuing to familiarize themselves with Flight Code and MPC reprogramming procedures. The initial focus was on data-logging software. General power supply set-up was examined. Familiarization with circuit hook-ups (GPS port/pin connections, flight computer connections, detector board connections, etc).

Began 2 structure designs to use either a 10cm by 10cm footprint or a 15cm by 15cm footprint.

Made contact with members of the physics department to explore the possibility of using lab space and sources for detector calibration.

Started a connection manual in order to make the assembling of the system more efficient and easier to understand the connections.

2. Issues Encountered

There was a glitch with the 2012 flight data-logging software that caused small bits of data to be misprinted and/or cut out. The solution was a simple modification in the flight code that eliminated the need for a dynamically indexed logging structure.

Securing lab space and sources to calibrate detector more cumbersome than anticipated.

Students are not proficient in coding in C, thus progress on learning flight code has been slow.

Undergraduate student was not accepted to graduate school, thus a new prospect for team leadership must be found and cultivated.

3. Milestones Achieved

New recruits gained a better understanding of the overall system, including reprogramming procedures, flight software, and circuit set-up.

Purchased components to populate the power and flight computer printed circuit board currently under development.

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