Raymond Weber January 25, 2013 MSU – Payload

Dr. Gregory Guzik LSU HASP Program

Re: Monthly Status Report – January 2013

This month our team was excited to learn of our acceptance for participation in the 2013 HASP program. We have been developing our payload to incorporate the lessons learned in last year's flight to improve our hardware and software, and expand the capabilities of our system for next year's flight. Progress this month primarily consisted of software improvements to our system to allow for FPGA partial reconfiguration of redundant tiles (Fig 1), improving our telemetry robustness, as well as initial brainstorming designs for an improved enclosure (Fig 2).

Raymond Weber – Began enclosure drawings and worked on software development for the control FPGA. Defined and implemented much of the proposed communication protocol.

Justin Hogan – Worked on the FPGA multi-tile system and partial reconfiguration systems and built a simplified test enclosure for the payload.

Blaine Ferris – No assigned tasks

Issues encountered during payload design and development

• There were no significant issues encountered this month

Milestones Achieved

- Partially reconfigurable multi-tile FPGA system is now operational
- Initial design ideas for a new enclosure were developed

Current team members

| Name | Team Role | E-mail | Phone |
|-------------------|------------------------------|-------------------------------|----------------|
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