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LSU HASP Program

## **Re: Monthly Status Report – February 2013**

The MSU HASP teams work this month has as primarily been focused on the FPGA systems that will be used during this years flight. This included changes that will allow our team to log larger amounts of data during flight, perform more useful computations on our computing platform, and maximizing our systems performance. In addition we started work to quantify our computational performance and performance/watt statistics.

The second focus of work this month was in preparing our responses to the proposal reviewers and updating and the tables and figures requested in the comments.

Raymond Weber – Worked on the FPGA system. This work included developing applications for benchmarking and measuring FPGA power consumption. Also prepared the teams response to the proposal reviews.

Justin Hogan – Worked on Tiled FPGA and Control FPGA systems. Work included progress on readback scrubbing to detect and correct FPGA configuration errors and creating a function to write data to an SD Card.

Blaine Ferris – No assigned tasks.

## **Issued encountered during payload design and development**

- Some FPGA architectural changes were needed on the Control FPGA to allow for the integration of SD writes and readback scrubbing.
- Development on the Tile FPGA systems has been constantly changing to try and find the optimal tradeoff between resource utilization and area to permit maximum performance.

## **Milestones Achieved**

- Preliminary SD Card writes achieved for data logging
- Work towards being accurately measuring FPGA power while idle and under load
- Began to develop programs to run during flight to stress the Tile FPGA
- Submitted response to issues and question raised by the proposal reviewers

## Current Team Members

<b>Name</b>	<b>Team Role</b>	<b>E-mail</b>	<b>Phone</b>
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Blaine Ferris	Team Member		