

# HASP Monthly Status Report - April 2016

North Carolina Infrasound

April 29, 2016

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*Outside Advisor:* Daniel C. Bowman (phone: 1-575-418-8555, email: danny.c.bowman@gmail.com)

## 1 Synopsis

- Kayla is now Team Leader
- Preliminary PSIP submitted
- Flight ladder box and gondola payload being developed

## 2 Activity Summary

We discussed our plan for the flight ladder with mechanical engineers at CSBF. They have decided to work with us to construct the attachment system in Palestine to ensure it can survive the flight. Thus, we will integrate our sensors into the box but will not construct the attachment system until we arrive for the Thermal/Vacuum test. Development of instrumentation continues, and we expect to begin adding it to the flight ladder box in May. Construction of the sensor array on the small payload plate will commence next week.

The preliminary PSIP was submitted today. During drafting, Kayla and Ethan gained expertise in Computer Aided Design. They drew diagrams for the flight ladder payload, while Daniel developed the power system diagram and the payload plate attachment system diagrams. Kayla and Ethan also contributed major portions of the PSIP text.

As Daniel is graduating in May, he will become an outside advisor to the project. Kayla will become the team leader, responsible for all continued communication with the HASP team, appropriate documentation, and payload development. Ethan will continue to assist her.

## 3 Issues Encountered

The flight ladder box attachment system is beyond the capability of our laboratory at UNC. Thus, we will work directly with CSBF to ensure it is built correctly.

## 4 Milestones Achieved

Submission of the preliminary PSIP and leadership transition.

## 5 Team

The student team consists of Daniel C. Bowman, Kayla Seiffert, and Ethan Dinwiddie (University of North Carolina at Chapel Hill) and Jacob F. Anderson (Boise State University). Jonathan M. Lees (UNC Chapel Hill) serves as Faculty Advisor. Daniel C. Bowman (UNC Chapel Hill/Sandia National Laboratory) serves as Outside Advisor.