

# HASP Monthly Status Report - March 2016

North Carolina Infrasound

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## 1 Synopsis

- Flight ladder box has been received
- HASP undergraduate team is developing a plan to securely mount equipment inside box
- Sensors, data logger, and cameras for the payload plate are being developed

## 2 Activity Summary

This month Ethan and Kayla continued to look at collected data. However, the main focus of the month was placed on the box that is to be attached to the flight ladder that will house the data logger and microphones. We met with environmental engineers to discuss the possibility of building our own box, but finally decided to buy a box we will modify. While waiting for the box to arrive, we were certified to use the university workshop and power tools so we can modify the box ourselves. After the box was delivered, we began to brainstorm how to orientate the equipment within the box and how to modify the outside of the box in order to attach it to the flight ladder. This will be our main focus in the coming week.

Daniel continues to assign Ethan and Kayla weekly tasks with the goal of the HASP payload being ready for ground testing by the end of April. He is designing the equipment to be placed on the payload plate as well as programming two Raspberry Pi cameras for a solar hot air balloon flight in the coming weeks. Provided the cameras survive the trip, they will be used for ground imaging on the HASP.

## 3 Issues Encountered

We have still not received a definitive answer from Mark Cobble regarding our flight ladder array. His initial assessment was cautiously optimistic, but since he is likely working long hours preparing for the superpressure flight out of Wanaka, he has probably not had the time to review our plan in detail. The balloon is scheduled to be flight ready by April 1 so we will try contacting him again after that time.

## 4 Milestones Achieved

Flight ladder payload is coming together nicely.

## 5 Team

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