



# HASP 2018 Monthly Status Report

**Report Month:** January 2018  
**Submitted by:** Erica Dao  
**Submit Date:** 01 / 31 / 2018  
**Institution:** McMaster University  
**Payload Number:** 2018-TBA  
**Payload Name:** Stratospheric Measurements of Charged & Neutral Radiation

## I) Activities During Previous Month:

### Management

- Compiling proposal revisions and additions for response to reviewer's comments
- Recruiting more members for subteams lacking resources

### Mechanical

- Finalizing mass values using previous HASP instrument and estimates for new components
- Creating updated mechanical drawings to include in the response to comments to our proposal
- Significant research into possible connects for our high voltage connections – we are currently leaning towards Teledyne Reynolds as our supplier

### Instrument

- Research into optimal pre-amplifier for our TEPC data processing
- Began amalgamation of our two previous data acquisition boards
- Working on incorporating MicroBlaze processing into our software
- Development of a GUI for parsing and displaying live flight data

### Power

- Creating a more detailed power budget and a block diagram for the response to comments to our proposal

### Communications

- Researching requirements for onboard transceiver – eg. Licensing
- Working on a clearly defined packet structure for our data

## II) Issues Encountered:

N/A

## III) Milestones Achieved:

N/A

## IV) Plans for Coming Month:

### Management

- Complete and submit the revised proposal and response to reviewer's comments

### Mechanical

- Complete all mechanical drawings and finalize mechanical design for integration of all components

**Instrument**

- Finalize design of amalgamated data acquisition module (DAQ)
- Further development of software and GUI

**Power**

- Finalize power budget
- Design PCB that meets the new power requirements of the added components

**Communications**

- Research licensing or documentation for the onboard transceiver
- Contact CSBF for required documentation and form lists

**V) Other Comments:**

N/A

**VI) Team Composition and Organization:**

Fill in text as necessary plus update table below.

<b>Name</b>	<b>Start Date</b>	<b>End Date</b>	<b>Role</b>	<b>Student Status</b>	<b>Race</b>	<b>Ethnicity</b>	<b>Gender</b>	<b>Disabled</b>
Erica Dao	12/01/17	Present	Student Team Lead	Grad Student	Asian	Non-Hispanic	Female	No
Ryan Scott	12/01/17	Present	Mechanical Team	Undergrad	Caucasian	Non-Hispanic	Male	No
Farazdak Bohra	12/01/17	Present	TEPC Team	Grad Student	Asian	Non-Hispanic	Male	No
Luis Lopera	12/01/17	Present	TEPC Team	Undergrad	Caucasian	Hispanic	Male	No
Jordan Cowan	12/01/17	Present	DAQ Team	Graduated	Caucasian	Non-Hispanic	Female	No
Eric Dyer	12/01/17	Present	DAQ Team	Grad Student	Caucasian/Asian	Non-Hispanic	Male	No
Bhavesh Kakwani	12/01/17	Present	DAQ Team	Graduated	Asian	Non-Hispanic	Male	No
Chelsea Urquico	12/01/17	Present	DAQ Team	Graduated	Asian	Non-Hispanic	Female	No
Alex Melnichuk	12/01/17	Present	ACD Team	Undergrad	Caucasian	Non-Hispanic	Male	No
James Warburton	12/01/17	Present	Power Team	Undergrad	Caucasian	Non-Hispanic	Male	No
Kyle Jackson	12/01/17	Present	GUI Development	Undergrad	Caucasian	Non-Hispanic	Male	No
Aaron Pitcher	12/01/17	Present	Communications Team	Grad Student	Caucasian	Non-Hispanic	Male	No
Jimmy Nguyen	12/01/17	Present	Communications Team	Graduated	Asian	Non-Hispanic	Male	No