

High Altitude Student Platform

[PAYLOAD / MISSION NAME]

Science Payload Final Report

[Insert team logo or payload photo here]

Team Name	Click or tap here to enter text.
Institution	Click or tap here to enter text.
Faculty / Mentor Advisor	Click or tap here to enter text.
Student Lead	Click or tap here to enter text.
Flight Date	Click or tap here to enter text.
Report Date	Click or tap here to enter text.

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Revision History

Version	Date	Description of Changes	Author
1.0		Initial draft	

Executive Summary

Guidance: In 1–2 paragraphs, summarize the payload's purpose, key results, and overall mission success for a reader who will only read this page.

1. Flight Objectives

Guidance: State the primary science/engineering objectives and success criteria established before flight. Distinguish between primary (must-succeed) and secondary (nice-to-have) objectives.

1.1 Mission Goal

One or two sentences describing the overall purpose of the payload.

1.2 Mission Objectives

- Objective 1 — [description and measurable success criterion]
- Objective 2 — [description and measurable success criterion]

1.2 Success Criteria Summary

Guidance: Use a table to map each objective to a pass/fail result, filled in after flight.

#	Objective	Result (Met/Partial/Not Met)
1		
2		
3		

2. Payload Description

High-level description of the payload concept and how subsystems interact. Include a complete block diagram or several block diagrams detailing all major systems of your payload

2.1 Payload Principles of Operation

Briefly describe (less than 1 page) the basic operation of the payload and how it will accomplish your mission objectives.

2.2 As-Built vs. As-Designed Changes

Guidance: Discuss significant design changes that occurred during your design process and why. Examples would include descopes, lessons learned from research, and/or changes due to preflight testing.

3. Team Dynamics and Management

Guidance: Describe how the team was organized and managed, not just who was on it. Reviewers look for evidence of project management maturity.

3.1 Team Structure & Roles

Guidance: An org chart is required with a description of roles (Project Lead, Mechanical, Electrical, Software, Outreach, Safety, etc.).

3.2 Lessons in Team Process

What worked well and what the team would change about how it organized itself, communicated, or made decisions.

4. Payload Performance

Guidance: Present what actually happened, supported by data, plots, and photos.

4.1 Pre-Integration Testing Summary

Summary of functional, environmental (thermal/vacuum/vibration/etc), and initial bench testing results.

4.2 Integration Testing Summary

Summary of functional, environmental (thermal/vacuum/), and integration testing results from integration week at Palestine, Tx.

4.3 Flight Timeline / Operations Summary

Timeline of key in-flight events (power-on, deployment, data collection windows, landing/recovery).

4.4 Flight Data & Results

Present key data products, plots, and analysis. Reference figures/tables as needed (e.g., Figure 1: Sensor output vs. altitude).

4.5 Performance Against Objectives

Guidance: Revisit the success-criteria table from Section 1.2 and discuss the results for each objective in narrative form.

5. Failure Analysis (if applicable)

Guidance: For each anomaly, malfunction, or error that affected success criteria discuss the following. Remove or mark 'Not Applicable' if the flight was fully nominal.

5.1 Issue #1

5.1.1 Anomaly / Failure Description

What went wrong, when it was detected, and observed symptoms.

5.1.2 Root Cause Analysis

Investigation process and identified root cause(s). Include fault-tree or 5-whys analysis if used.

5.1.3 Impact Assessment

Which objectives or subsystems were affected and to what extent.

5.1.4 Corrective Actions & Recommendations

Actions taken or recommended to prevent recurrence in future flights/designs.

5.2 Issue #2 (continuing as needed)

5.1.1 Anomaly / Failure Description

What went wrong, when it was detected, and observed symptoms.

5.1.2 Root Cause Analysis

Investigation process and identified root cause(s). Include fault-tree or 5-whys analysis if used.

5.1.3 Impact Assessment

Which objectives or subsystems were affected and to what extent.

5.1.4 Corrective Actions & Recommendations

Actions taken or recommended to prevent recurrence in future flights/designs.

6. Communications & Public Engagement

Guidance: Describe outreach and communication efforts connecting the project to the research community, public, students, or sponsors. Please leave the tables blank or type n/a if a section is not applicable.

6.1 Journal Publications

Guidance: Please only list papers that have been published. Please do not remove the table or alter columns; add additional rows as required.

Date Published	Published Paper (APA format)

6.2 Conference Papers

*Guidance: Please only list papers that are included in conference proceeding. **Please do not remove the table; or alter columns, add additional rows as required.***

Conference Date	Conference Paper Topic (APA format)

6.3 Conference Presentations

*Guidance: Please list conference presentation. **Please do not remove the table; or alter columns, add additional rows as required.***

Conference Date	Conference Presentation Topic (APA format)

6.4 Conference Poster

*Guidance: Please list conference poster. **Please do not remove the table; or alter columns, add additional rows as required.***

Conference Date	Conference Poster Topic (APA format)

6.5 Other Publications

Guidance: Please only list papers that have been published. Please do not remove the table or alter columns; add additional rows as required.

Date	Explanations (APA format -Book, Newspaper Op-Ed, ...)

6.6 Talks / Presentations

*Guidance: Please include explanations, help us to learn about your accomplishments. **Please do not remove the table; or alter columns, add additional rows as required.***

Date	List talk or presentation (APA format if applicable)

6.7 Poster

*Guidance: Please include explanations, help us to learn about your accomplishments. **Please do not remove the table; or alter columns, add additional rows as required.***

Date	Poster Topic (APA format if applicable)

6.8 Events / Outreach Activity

*Guidance: Please include explanations, help us to learn about your accomplishments. **Please do not remove the table; or alter columns, add additional rows as required.***

Date	List event or outreach activity (APA format if applicable)

6.9 Website or Internet Site

*Guidance: List of new or updated Website(s) or other Internet site(s). **Please do not remove the table; or alter columns, add additional rows as required.***

URL	Short description of the purpose of site

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6.10 Technology / Technique

Guidance: **Please do not remove the table; or alter columns, add additional rows as required.**

Technology/Technique	List event or outreach activity (APA format if applicable)

6.11 Patents

Guidance: Please include Patent Number/Patent Title/ Patent Abstract (or link to it). **Please do not remove the table; or alter columns, add additional rows as required.**

Date	List event or outreach activity (APA format if applicable)

6.12 Inventions

Guidance: Please include Invention Title, List of Inventor(s) and Description. **Please do not remove the table; or alter columns, add additional rows as required.**

Date	List event or outreach activity (APA format if applicable)

6.13 Additional Engagements

Guidance: List Databases, Physical collections, Audio or video products, Software or NetWare, Models, Instruments or equipment, Data & Research Material (e.g., cell lines, DNA probes, animal models) related to your HASP Payload. **Please do not remove the table; or alter columns, add additional rows as required.**

Accomplishments Title	Short Description of accomplishments

7. Collaborators

Guidance: Please document any NASA Collaborators or Industry partners that provide guidance or assistance with the development of your payload. Please leave the tables blank or type n/a if you did not have any external collaborators.

7.1 NASA Collaborators

Guidance: NASA Collaborators. Please do not remove the table; or alter columns, add additional rows as required.

Name	Title	NASA Center	Nature of the Collaboration

7.2 Industry Collaborators

Guidance: Industry Collaborators. Please do not remove the table; or alter columns, add additional rows as required.

Name	Title	Industry / Company Name	Nature of the Collaboration

7.3 Other Collaborators

Guidance: Institutional Collaborators. Please do not remove the table; or alter columns, add additional rows as required.

Name	Title	University / College / Department	Nature of the Collaboration

8. Conclusion / Future Work

8.1 Summary of Outcomes

Concise recap of whether the mission met its objectives and the overall significance of the results.

8.2 Key Lessons Learned

- [Technical lesson learned]
- [Programmatic / team lesson learned]

8.3 Recommendations for Future Work

Design, process, or testing changes recommended for the next iteration or future teams.

8.4 Acknowledgments

Thank sponsors, mentors, faculty advisors, and program staff.

Appendices

Guidance: All appendix sections are optional. Please use these sections to include any additional information that is pertinent to your payload.

Appendix A: Detailed Schematics / CAD Drawings

Insert or reference supplementary technical drawings.

Appendix B: Programming Flow Charts

Insert raw or extended data sets not shown in the main body.

Appendix C: References

List references cited in the report. Use any commonly used citation format (APA, IEEE, APS, etc.)

Appendix D: Additional Data Product

You may insert any supplemental data products to highlight your conclusions.