Project Aether

MDSGC Symposium

07/28/2018

Capitol Technology University Sophia LoSchiavo <u>Marissa Jagarnath</u> **Christopher Murray** Sam Lawson Erik Schroen Pierce Smith Dean Zinetti



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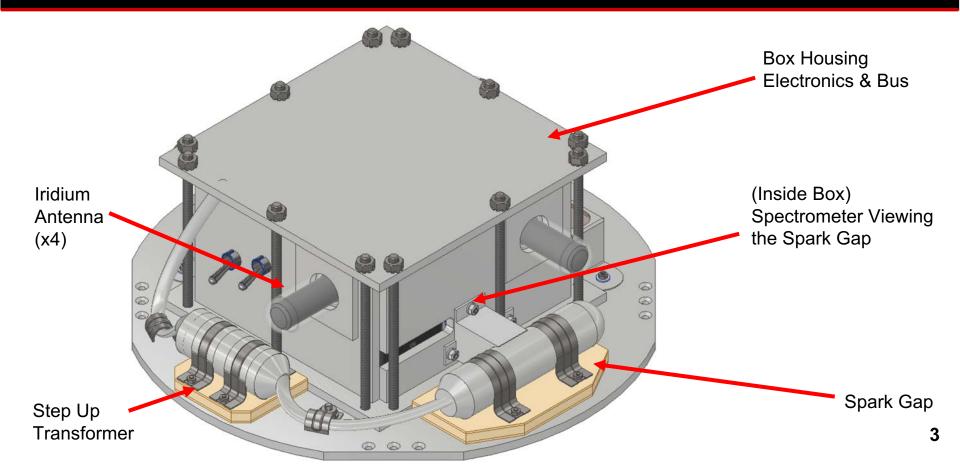
ERSITY

University of Maryland Baltimore County Dr. Carlos Romero-Talamas Noelle Rav Chelsie Marsh **David Barry** Mike Schwab Marcus Bailey Jackson Stefancik

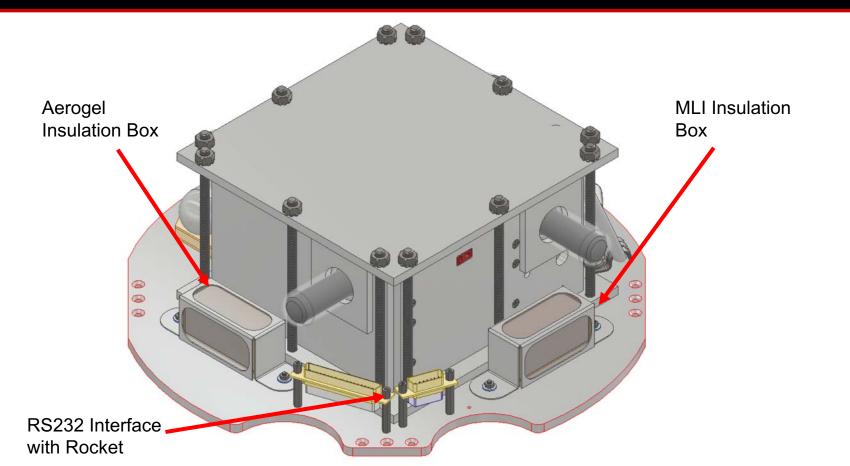
Goals

- We intend to look for sodium in the upper atmosphere of the Aurora Borealis
- We expect to explore the benefits of the modified Aerogel insulation compared to the limits of Multi Layer Insulation (MLI)
- We intend to compare the data relay performance of the Iridium network to the rocket's RS232 line

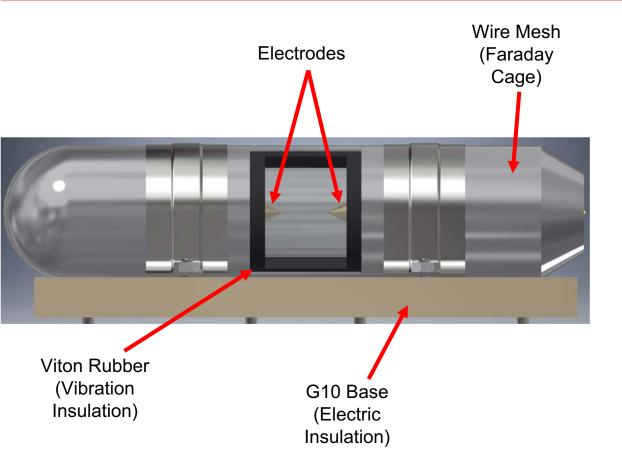
Design Overview - Iso Top Front Right



Design Overview - Iso Top Back Left



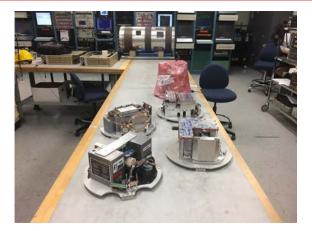
The Spark Gap





Flight Week August 2017

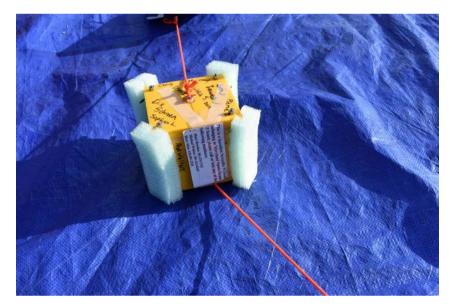






Balloon Launch April 2018

Our first balloon launch was completed on April 14, 2018 from Friendship, MD.







Challenges & Current Status

Challenges

- Funding
- The spark gap
- Time

Current Status

- Housing has been made
- Integration is underway
- Testing has begun

Acknowledgements

Thank you to the Maryland Space Grant Consortium for helping to fund this project along with:

- Comm Source Services
- Toyota (Steven S.)
- S & M Electric

Thank you to these people without whom this project would be impossible:

- Angela Walters
- Dr. Romero-Talamás
- Rishabh Maharaja
- Ryan Schrenk

Questions?

