Spacecraft

blair3sat
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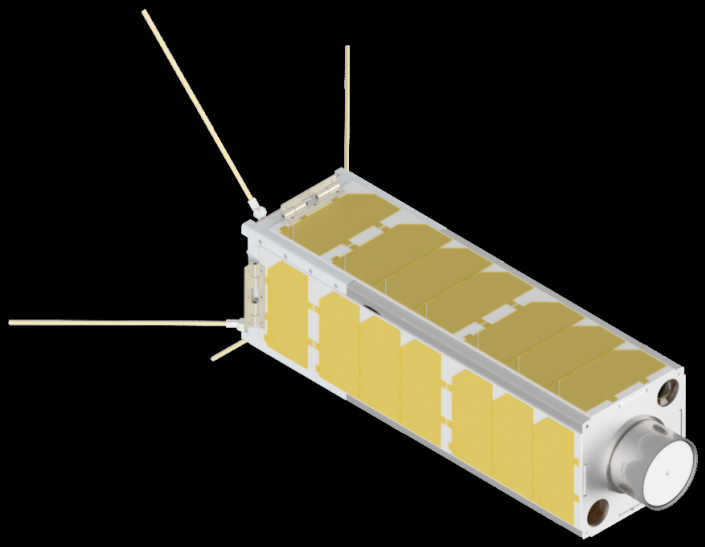
Overview

SIRVLAS is intended to deploy on blair3sat, a 3U CubeSat currently being developed by Maryland high school students.



Orbital Plan

blair3sat plans to launch from the ISS at an initial launch altitude of 408 km. Currently, blair3sat plans to fly in nadirpointing orientation and is expected to weight between 4 and 5 kg and stay in orbit for 9 months to 1 year. From this altitude, SIRVLAS will primarily observe the F2 region of the ionosphere.

Communication Systems

Link	*Band*	*Data Rate*	*Modulation*
Command Uplink	UHF	55 Kbps	GMSK
Spacecraft Status Downlink	UHF	55 Kbps	GMSK
Data Downlink	S-Band	6.6 Mbps	BPSK

Duty Cycle Estimate

Mode 1	*15 minutes/orbit*
Mode 2	7 minutes/orbit
Mode 3	3 minutes/orbit

Hardware

In terms of hardware, we are still in the process of looking. The instrument housing is roughly 1U, meaning we at the least require a 3U bus. We are currently interested in electrical components, as this could allow us to start developing on the real hardware, but we would still gladly take any hardware we can receive. The hardest things for us to pay for are: solar panels, an ADCS, and the chassis.

If you can provide us with any hardware or are interested in helping us raise the bar for high school cube satellite teams in any other way, please reach out to us at:

contact@blair3sat.com or +1(240)-444-0097