

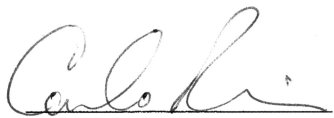
COORDINATION AGREEMENT

This Coordination Agreement serves to confirm the mutual understandings of the National Oceanic and Atmospheric Administration (NOAA) and Boston University for the concept of operations of the Cusp Plasma Imaging Detector (CuPID) satellite system and its successful coordination with NOAA RF systems.

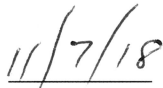
CuPID Concept of Operations for RF Communications

The CuPID satellite and Boston University Ground Station both operate at a frequency of 400.5MHz in a half-duplex configuration. Therefore, the same frequency is utilized for both the Uplink and the Downlink. The Uplink bandwidth is 13.44 kHz while the Downlink bandwidth is 53.76 kHz. The CuPID satellite does not transmit continuously while on orbit, but only when activated by the ground station during a "pass". Once the satellite enters the coverage area of the ground station, it sends commands to the satellite to initiate a communications session and recover science payload telemetry. The ground station AX.25 packet burst requests trigger downlink packet bursts in response. Once the satellite is outside the coverage footprint of the ground station and uplink commands cease, it stops transmitting.

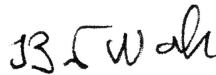
The ground station is located on the campus of Boston University in Boston, MA. The CuPID satellite will orbit at 500km altitude with an orbital period of roughly 90 minutes. This orbit provides up to three (3) passes over the ground station each day. Each pass enables a communication period with the satellite of three (3) to eight (8) minutes.



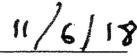
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Date

Mr. Carmelo Rivera
NOAA

Dr. Brian Walsh
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