

Nimesh Sangani

From: Michael Miller <mlmiller@sterk.space>
Sent: Friday, August 13, 2021 5:21 PM
To: Nimesh Sangani
Subject: [EXTERNAL]: RFI WVSAT 0553-EX-CN-2021 ref 63469
Attachments: WVSAT ODAR Final Aug 12_Signed.pdf; ActivityLog.pdf

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Hi Nimesh,

Thank you for sending these points. Here is the resolution on each:

1) What is the operational lifespan of the CubeSat(s)?

Answer: The nominal lifetimes vary, from about 7 years for the 1U Cubesats, to 12.2 and 12.9 years for the ThinSats.

2) What is the scientific purpose of the CubeSat(s)?

Answer: The purpose of the mission is to

2.1) Science: Fly the following scientific instruments and collect data in LEO:

Plasma Probe: Better characterize the plasma density and electron temperature of the atmosphere, leading to a deeper understanding of the sun-earth connection.

Particle Detector: Used to observe energetic particle radiation counts and dosage flux through the satellite avionics.

Temperature: Provides information on the heat dissipation and heat flow within the internal subsystems of the spacecraft.

2.2) demonstrate deploy of small satellites with two distinct form factors (ThinSat and Cubesat) from the same deployer:

2.3) to demonstrate ground station radar tracking of the ThinSats over a range of altitudes. This will also "ground truth" the TLE orbit data, derived from onboard GPS data, that the satellites will transmit back to Earth via the Globalstar network.

2.4) demonstrate rapid turnaround and deployment of these satellites from start time to deploy time.

End of Answer for Item 2

3) Provide the exact application of each frequency request.

Answer:

3.1) The application requests use of the frequency 1616.25 MHz to transmit telemetry from the satellites to the Globalstar constellation.

3.2) The application identifies the uplink from the NSL ground station in Upland, Indiana, 2456 -2478 MHz, which is provided to send a stop transmitting command. This is separately licensed in a modification to the existing ground station license.

4) Are you providing commercial service under this experimental license?

Answer: No, this is a demonstration of technology and performance. It is a necessary demonstration that lays the groundwork for potential future commercial application, flying customer payloads, which would be licensed under part 25.

5) ODAR is still missing.

Answer: The ODAR and appendix are attached, and have been uploaded as an exhibit to the application.

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From: <oetech@fcc.gov>
Date: Thu, Jul 22, 2021 at 10:35 AM
Subject: Additional Information Request
To: <mlmiller@sterk.space>



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Office of Engineering and Technology



To: Michael Miller, Near Space Launch Inc.
mlmiller@sterk.space

From: Nimesh Sangani
Nimesh.Sangani@fcc.gov

Applicant: Near Space Launch Inc.
File Number: 0553-EX-CN-2021
Correspondence Reference Number: 63469
Date of Original Email: 07/22/2021

1) What is the operational lifespan of the CubeSat(s)? 2) What is the scientific purpose of the CubeSat(s)? 3) Provide the exact application of each frequency request. 4) Are you providing commercial service under this experimental license? 5) ODAR is still missing.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of 07/22/2021 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

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