

From: Jeff Dailey

To: Leann Nguyen

Date: March 13, 2013

Subject: FCC File# 0135-EX-ST-2013

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Message:

Please submit the following information:

- Is the satellite geostationary or non-geostationary?

1) NON-Geostationary

. If satellite is geostationary, please submit its latitude and longitude.

- If satellite is nongeostationary, please submit inclination angle, apogee (km)/perigee (km), orbit period(hours), fractions of hours in decimal and number of satellites in the system.

2) Inclination angle: 57 Degree

3) Apogee: 325km

4) Perigee: 325km

5) Orbital Period: 90.79 Min.

- Description of the satellite and how it will operate.

6) The primary mission of TSAT is to demonstrate 1)a global cubesat link, 2) innovative undergraduate ABET Capstone education, and 3) new in situ ionospheric plasma density measurements for operation in the Extremely Low-Earth Orbit (ELEO) region of space. Understanding the Sun Earth connection below 250km is critical to our understanding of the upper atmosphere and validation of ionospheric models. The student sensor bay on TSAT includes distinct instrumentation to measure fields and particles in the relatively unexplored ELEO region.

The primary function of the GlobalStar STX2 Transmitter is to transmit data at rate of once per minute allowing us to have global coverage.

- An analysis transmitting between satellites to satellite.

7) We are working with GlobalStar on the modeling of the signal levels and number of satellites in view per orbit, as of today it looks like a minimum of two in view per orbit.

- An analysis transmitting between satellites to ground stations

8) We are not transmitting from satellite to ground.

- The orbital debris mitigation plan or replan, uplink/downlink and beacon frequencies.

9) NASA is working on the ODR for our Satellite and will get the info to us as soon as possible, I will send it to you as soon as I get it.

- Information of satellite transmitter antenna including gain, beamwidth, azimuthal range.

10) The antenna information was submitted with the applicant if more is needed let us know.

- Information of earth station receiver antenna including gain, beamwidth, azimuthal range, elevation above mean sea level (m), minimum angle of elevation and antenna height above terrain (m).

11) There are no earth stations used as we are transmitting to the GlobalStar satellite network.

- Stop Buzzer information including name and telephone number of person who will terminate the system if having interference occurs.

12) If this application is permitted we will start another application for the Duplex link satellite to satellite on the same frequency with command and control to terminate the transmit function in case interference occurs, the thinking has to get the transmit only approved first.

If you need more info let me know.

Thank you

Jeff Dailey

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