

From: Simeon Kanis

To: Doug Young
Date: March 12, 2014

Subject: Request for Info - STA File #0178-EX-ST-2014

Message:

Hello Doug,

Here I have included my explanation for the questions you asked us about Lambdasat.

1. You have listed Santa Clara, CA as the only antenna location. Aren't you requesting licensing for the satellite? The location of the satellite should be described in the mobile area of operations field. Also, the location at Santa Clara is listed as "Fixed" with a radius of 500 km. What does this mean?

Answer: We have updated the FCC application and now it has the correct information. We have added another antenna for the ground station (fixed) and a mobile for the satellite. The radius for the ground station is approximately 250km of operations. Is the range to receive signals the antenna.

2. Are you also asking for licensing of a ground station? If you do have a ground station that will be transmitting, and it isn't already licensed, you will need to add it as an antenna location on the form. You do list ground station information in an exhibit, but it has different coordinates than the Santa Clara location in the form data.

Answer: Yes, we are going to have a ground station for uplink. We added an additional antenna for this purpose in the online FCC application. In the beginning we were going to use a ground station in Santa Clara, but late we decided to use another one. This new ground station is the one we have in the attachment with all the technical information. I updated also the FCC application (online) and replaced the ground station with the correct information.

3. Is the 431-478 MHz frequency request something separate from the 437.46225 MHz that was coordinated with IARU? Explain.

Answer: The 431-478 MHz frequency is separate from the 437.46225 MHz. The 437.46225 frequency has been provided to us from the IARU and is going to be used for the downlink. We need also, one frequency for the uplink and our hardware is programable to accept a frequency. We did program the device for 434 MHz. We have requested this frequency from the IARU and we are waiting for their response. So, the frequency for the uplink will be 434 MHz hopefully.

4. Your frequency request of 1616-1625.5 MHz is a band that is 9.5 MHz wide, but your necessary bandwidth is 41.7 MHz, which is wider than the requested frequency band. This does not make sense. Explain.

Answer: I believe here there is a mistake from our side. Thank you Don for this explanation. The Iridium modem works in 2 channels (1616 and 1625.5 MHz). The channels are spaced at 41.666 kHz and each channel occupies a bandwidth of 31.5 kHz; this allows space for Doppler shifts Does it make sense? If no, please let me know to provide better information.

Thank you Don for your comments. I hope to get soon the frequency letter from the IARU for the uplink (434 MHz). Please, let me know if you need more information from our side.

Regards,
Simon Kanis