

To: Brian Gunter
E-Mail: brian.gunter@aerospace.gatech.edu
From: Doug Young
Date: October 11, 2016

Subject: Request for Info - File #0311-EX-PL-2016

Message:

Submit a response to the issues the FCC's International Bureau has identified below:

1) With respect to the in-house built laser ranging system (or inter-satellite laser), we would like to know the frequency or frequency range this laser operates. (This question was asked previously, but no response was provided.)

Review of the SpaceCap API and Form 442 files:

2) On the UPLINK page, the max peak power boxes C8a1/C8b1 has a value of 17 dBW which is approximately 50 Watts, yet in Form 442 the max power is listed as 100 Watts (20 dBW). Please verify the max peak power and ensure that both documents are consistent with respect to the max power value and update the correct power value to either or both documents as appropriate.

PLEASE NOTE: if the max power value changes so will the power spectral density in boxes C8a2/C8b2 and C8c3 values will change. To calculate the power spectral density value, use the following equation:
$$PSD = \text{Power (dBW)} - 10 \cdot \log_{10}(\text{emission bandwidth in Hertz, i.e., } 20 \text{ kHz} = 20000 \text{ Hz.})$$

3) On the DOWNLINK pages, associated earth station, box C10d6 "Noise temp." there is a value of 1000 yet on the UPLINK page box C5a "Noise temperature" the value is 290. Please confirm the noise value temperature and update the SpaceCap file as appropriate. This noise temperature value is for the same earth station so they both should be the same.

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 October 11, 2016 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

DO NOT Reply to this email by using the 'Reply' button. In order for your response to be processed expeditiously, you must upload your response via the Internet at <https://apps.fcc.gov/oetcf/els/index.cfm> by clicking on the "Reply to Correspondence" hyperlink.

Responses to this correspondence must contain the Reference number : 34244