

To: Austin Williams
E-Mail: Austin@Tyvak.com
From: Leann Nguyen
Date: August 23, 2016

Subject: Request for Info - File # 0399-EX-PL-2016

Message:

Below is International Bureau (IB) statement and they address the issues on your file. Please response all IB requests as soon as you can

IB has reviewed the exhibit document, Form 442 and SpaceCap file for Tyvak Cicero CubeSat and we found a few items that needs clarification.

On the SpaceCap file for the uplink and downlink, the cubesat antenna gain is shown as 0 dBi; however, in the exhibit is shows as Max 2.0 dBi and on the NanoAce Cubesat it was set at 1.5 dBi; please verify the CubeSat antenna gain and if the value is not correct please update all the documents accordingly.

On the uplink page for both SpaceCap, Form 442 and exhibit document, we notice that the uplink transmit power giving by form 442 and exhibit document (pg 11) indicates a 180 Watts (which is approximately 22.6 dBW).

The SpaceCap file has the uplink transmit power at 3 dBW which may not be the correct value. Please confirm the uplink transmit power and update the appropriate file accordingly. Also if the transmit power changes in the SpaceCap file, please make sure to adjust the values in Box C8a2/C8b2 "Max. pwr dens."; also double check the values in box C8c3 "Min. pwr dens." Our calculation shows a -41.7 dBW/Hz.

On Form 442 for the uplink, the ERP value is giving at 7161.4 Watts but when calculating this value (Ant = 16.2 dBi + Pwr = 22.6 dBW = EIRP of 38.8 dBW) we get an ERP = 36.7 dBW, then converting this value to Watts we get 4677.4 Watts. Please verify our calculation above and if it is correct, please update the appropriate documents showing the ERP to 7161 Watts (Exhibit Table 2, pg 11 and Form 442).

Lastly, on the SpaceCap file, earth station, "Tyvak Irvine FAC", box C10d6 "Noise temp" has a value of 175 yet on a different document it shows as 303. Please review the Noise Temperature value and make any necessary changes."

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 August 23, 2016 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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Responses to this correspondence must contain the Reference number : 33646