

To: Daniel Smith
E-Mail: dsmith@planetiq.com
From: Doug Young
Date: December 16, 2021

Subject: Request for Info - File # 0734-EX-CN-2021

Message:

Address the following comments from the FCC's International Bureau/Satellite Division:

Please provide the stationkeeping tolerances of the spacecraft, both altitude and inclination +/-.
Please redo the large object collision risk calculations using the correct durations for the 650 km case where postmission disposal fails. The duration should be 3 years with stationkeeping turned on. Setting the duration to 25 years with no stationkeeping ignores the 3 years of the operational mission.
Additionally, please recheck the start times associated with your calculations. For everything except the initial 1.5 year checkout phase at 525 km, the start time should be at least 1.5 years greater than the initial deployment of the satellite. This will affect the total orbital lifetime of the spacecraft and this number will need to be updated and provided, as well.
Depending on the new orbital lifetime numbers, please provide the probability of postmission disposal failure due to impacts with small objects.

NTIA data form appears to lack any specifics about the transmissions themselves: power, bandwidth, etc. Also, it only shows the X-Band downlink, not the S-Band uplink.

We are unable to cross-validate the spacecap file with the GIMS file. The spacecap runs through the first step of validation, but it will not allow us to even select a file for cross-validation.

Please confirm the orbit altitude parameters: Their operational altitude is 650 x 650 km, 98 inclination. They'll be deployed somewhere between 500-600 km and perform checkout for 1.5 years before transitioning to the higher orbit, however. In the orbital information section, they state:

Apogee - 650

Perigee - 500

Min Altitude - 500

Also, they set all the exponents to 3 which may be incorrect.

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 December 16, 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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Responses to this correspondence must contain the Reference number : 66452