

From: Ricky Liu

To: Nimesh Sangani

Date: August 02, 2019

Subject: Additional Information Request

Message:

Please see GA's answers and questions regarding the requested information.

1. What is the size of the proposed antenna(s)? Please submit antenna's pattern performances (see Section 25.209 of the commission rules)
 - a. GA Response – The proposed antenna has 27 inch (0.6858 m) diameter
 - b. GA Response – Can we submit predicted patterns for compliance with the experimental license or are measured patterns required?
2. Please submit a radiation hazard of the proposed antennas
 - a. GA Response – See attached radiation hazard assessment
3. Please provide Point of communication: e.i. Authorized GSO Ku-band (call sign Sxxxx) or NGSO Ku-band satellites (call sign Sxxxx) or both?
 - a. GA Response – Intelsat GALAXY 17 (S2715)
4. Does the operation of an airborne Ku-band antenna (ESAA) comply with ESAA's requirements set forth in Section 25.227 of the commission rules?
 - a. GA Response – The antenna design complies with ESAA 25.227 requirements. Testing to meet those requirements is on-going and scheduled to complete end of 2019.
5. If the proposed satellite is NGSO satellite, Please demonstrate or certify that your proposed operations in the 14366-14393.5 MHz band will meet the equivalent power Flux-density levels in the Section 25.208(k) of the Commission's rules and Table 22-2 of Article 22, Section II, of the ITU radio Regulations.
 - a. GA Response – Not applicable to GA
6. Please certify that your proposed operations and communication between earth stations and satellites are in compliance with all existing or future coordination agreements between the proposed satellite operators stated in the "point of communication" and other GSO and/or NGSO satellite operators with co-frequency operations.
 - a. GA Response – GA has long-standing relationships with many satellite operators. For each satellite intended to communicate with this earth station, GA develops a transmission plan with the corresponding operator. The satellite operators are provided with a GA-ASI POC who is available for contact 24x7 to cease any transmission or provide frequency deconfliction measures.
7. There are 106 authorized Ku-band earth stations (operating in the 14-14.5 GHz band) located within 265 miles of Yuma, AZ. Please reduce maximum altitude above ground to 1) 10,000 ft and obtain a written consent from HARRIS CORPORATION (E060354) or 2) to 11,000 ft and obtain written consent from earth station licensees (see below).
 - a. GA response – The SkyGuardian UAV will be flown at Yuma Proving Grounds and will not be flown outside of the restricted airspace. If GA provided certification that our proposed operations and communication between earth stations and satellites are in compliance with our satellite operator, will that be sufficient to waive the maximum altitude restrictions and requests for consent from the other earth station operators?