

To: James Lloyd  
E-Mail: james.lloyd@cornell.edu  
From: Anthony Serafini  
Date: June 14, 2013

Subject:

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Message:

Please provide the following information.

1. A copy of any coordination with the IARU
2. Upload an exhibit with listing the following parameters

Our Spectrum Coordination Branch requires the following additional information for satellite applications. Please review the information below and submit an exhibit that contains the data. Reference to the specific data descriptions can be found by Googling the NTIA Red Book under Chapter 9.

PLEASE SUBMIT THE FOLLOWING INFORMATION:

- 1.) THE TYPE OF SATELLITE, GEOSTATIONARY OR NONGEOSTATIONARY, (XAL AND/OR RAL).
  - A.) IF ANY SATELLITES ARE GEOSTATIONARY, REPORT ITS LATITUDE AS 000000N (XLA AND/OR RLA) AND REPORT ITS LONGITUDE (XLG AND/OR RLG).
  - B.) IF ANY SATELLITES ARE NONGEOSTATIONARY, REPORT ITS INCLINATION ANGLE, APOGEE IN KILOMETERS, PERIGEE IN KILOMETERS, ORBITAL PERIOD IN HOURS AND FRACTIONS OF HOURS IN DECIMAL, THE NUMBER OF SATELLITES IN THE SYSTEM, THEN T01, EXAMPLE, REM04 \*ORB,98.0IN00510AP00510PE001.58H01NRT01, AND FOR SPACE-TO-SPACE COMMUNICATIONS WITH ANOTHER NONGEOSTATIONARY SATELLITE ADD AN ADDITIONAL \*ORB FOR IT ENDING IN R01, EXAMPLE, REM05 \*ORB,72.9IN03209AP00655PE013.46H01NRR01
- 2.) THE SATELLITE TRANSMITTER ANTENNA GAIN AND BEAMWIDTH (XAD), EXAMPLE, XAD01 16G030B
- 3.) THE SATELLITE TRANSMITTER ANTENNA AZIMUTH (XAZ), NARROWBEAM, NB, EARTH COVERAGE, EC, EXAMPLE, XAZ01 EC OR LEAVE BLANK FOR SPACE-TO-SPACE OPERATIONS.
- 4.) THE EARTH STATION RECEIVER ANTENNA GAIN, BEAMWIDTH, AZIMUTHAL RANGE, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS AND THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS (RAD), EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
- 5.) THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
- 6.) THE S NOTE (ASSUMING NONGEOSTATIONARY, USE S871--THIS ASSIGNMENT SUPPORTS OF THE NON-GEOSTATIONARY CUBESAT TEST BED (CSTB) SATELLITE).
- 7.) THE TRANSMITTER ANTENNA ORIENTATION (XAP), EXAMPLE XAP01 J , AND THE RECEIVER ANTENNA ORIENTATION (RAP), EXAMPLE RAP01 J , WHERE J REPRESENTS LINEAR POLARIZATION. OTHER POLARIZATIONS INCLUDE H FOR HORIZONTAL, V FOR VERTICAL, S FOR HORIZONTAL AND VERTICAL, L FOR LEFT HAND CIRCULAR, R FOR RIGHT HAND CIRCULAR, T FOR RIGHT AND LEFT HAND CIRCULAR, E FOR ELLIPTICAL AND O FOR OBLIQUE ANGLED CROSSED.

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 June 14, 2013 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 : 20551

