

Our Spectrum Coordination Branch requires the following additional information for satellite applications that are not STAs. 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).

**All AeroCubes are non-geostationary**

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

**ORB,57.0IN00700AP00350PE001.64H02NR**

2.) THE SATELLITE TRANSMITTER ANTENNA GAIN AND BEAMWIDTH (XAD), EXAMPLE, XAD01 16G030B

**XAD01 00G090B**

**XAD02 00G090B**

3.) THE SATELLITE TRANSMITTER ANTENNA AZIMUTH (XAZ), NARROWBEAM, NB, EARTH COVERAGE, EC, EXAMPLE, XAZ01 EC OR LEAVE BLANK FOR SPACE-TO-SPACE OPERATIONS.

**EC**

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

**This list of codes is for all four earth stations.**

**RAD01 31G005B000-360A00023H015**

**RAD02 23G015B000-360A00107H002**

**RAD03 23G015B000-360A00036H002**

**RAD04 23G015B000-360A00028H025**

**RAD05 23G015B000-360A01736H002**

5.) THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

**This list of codes is for all four earth stations.**

**RAZ01 V00**

**RAZ02 V00**

**RAZ03 V00**

**RAZ04 V00**

**RAZ05 V00**

6.) THE S NOTE (ASSUMING NONGEOSTATIONARY, USE S871--THIS ASSIGNMENT SUPPORTS OF THE NON-GEOSTATIONARY CUBESAT TEST BED (CSTB) SATELLITE).

**Not sure what is being asked here**

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.

**I assume this is for Earth stations. Our earth stations send and receive on same frequency so it uses same antenna, same polarity. This list of codes is for all five earth stations.**

**XAP01 R**

**XAP02 R**

**XAP03 R**

**XAP04 R**

**XAP05 R**

**RAP01 R**

**RAP02 R**

**RAP03 R**

**RAP04 R**

**RAP05 R**