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).
- 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 TO1, EXAMPLE, REMO4 *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.) For Cubesat or Nanosat satellites use S945. The reference name shall be added in the circuit remarks

 THE S NOTE (ASSUMING NONGEOSTATIONARY, USE S945--THIS ASSIGNMENT SUPPORTS

 OF THE NON-GEOSTATIONARY CUBESAT TEST BED (CSTB) SATELLITE).
- 7.) THE TRANSMITTER ANTENNA ORIENTATION (XAP), EXAMPLE XAPO1 J , AND THE RECEIVER ANTENNA ORIENTATION (RAP), EXAMPLE RAPO1 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.

REM01 *ORB,51.6IN00410AP00400PE001.50H01NRT01

XAD01 01G091B

XAZ01 EC

RAD01 17G030B000-360A00280H006

RAZ01 V00

*AGN, Cubesat, KickSat-2

XAP01 J

RAP01 R