

NTIA Space record data form

NTIA requires the following data for space related experiments using government shared spectrum. For each transmit frequency, please provide the data for both ends of the transmit-receive link. Use Part A to describe the satellite to ground information. Part B is for all ground to space transmit links.

Part A: Space to Earth Downlink Data

Satellite Transmitter Data

Transmit Frequencies: 2180.0-2185.0 MHz; 2245.0-2250.0 MHz; 2262.6-2267.6 MHz		
Satellite Name: HSAT-1		
Data Field	Data Answer	Description/Comments
Polarization (XAP)	XAP = XAP01 L	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL, S = HORIZONTAL AND VERTICAL, L = LEFT HAND CIRCULAR, R = RIGHT HAND CIRCULAR, T = RIGHT AND LEFT HAND CIRCULAR, J = LINEAR POLARIZATION
Orientation (XAZ)	XAZ = XAZ01 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN__5.2 dBi_____ BEAMWIDTH __70°_____ XAD =XAD01 05G070B	(NTIA format (XAD), EXAMPLE, XAD01 16G030B)
Type of satellite (State = SP) (City = geo or non)	Type = NONGEOSTATIONARY	Choose either: Geostationary or Nongeostationary
For Geostationary	Longitude =	IF ANY SATELLITES ARE GEOSTATIONARY, REPORT ITS LATITUDE AS 000000N (XLA AND/OR RLA) AND REPORT ITS LONGITUDE (XLG AND/OR RLG).
For Nongeostationary (Orbital Data)	INCLINATION ANGLE__97.4°_____, APOGEE IN KILOMETERS__500_____, PERIGEE IN KILOMETERS__500_____, ORBITAL PERIOD IN HOURS __1__AND FRACTIONS OF HOURS IN DECIMAL___.58_____, THE NUMBER OF SATELLITES IN THE SYSTEM __1_____, ORB = REM01 *ORB97.4IN00500AP00500PE001.58H01 NRT01	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

Earth Station Data (Receiver)		
State (RSC)	RSC = RSC01 FL	
City Name (RAL)	RAL = RAL01 PALM BAY	
Latitude (DDMMSS)	Lat =280135	
Longitude (DDDMMSS)	Lon =803618	
Antenna Polarization (RAP)	RAP = RAP01 L	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL, S = HORIZONTAL AND VERTICAL, L = LEFT HAND CIRCULAR, R = RIGHT HAND CIRCULAR, T = RIGHT AND LEFT HAND CIRCULAR, J = LINEAR POLARIZATION
Antenna Azimuth (RAZ)	RAZ = RAZ01 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN__35.1 dB_____, BEAMWIDTH__2.9°_____, AZIMUTHAL RANGE__0-360°_____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS __6_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS ____18_____ RAD = RAD01 35G003B000-360A00006H018	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
FCC notes: 1. Use S-Note S945. 2. REM AGN, Cubesat, (insert name)		

Part B: Ground Stations, Earth to Space link data:

Earth Station Transmitter Data

Transmit Frequencies: 2005.000-2006.250 MHz; 2095.875-2097.125 MHz; 2097.875-2099.125 MHz		
State (XSC)	XSC = XSC01 FL	
City Name (XAL)	XAL = XAL01 PALM BAY	
Latitude (DDMMSS)	Lat =280135	
Longitude (DDDMMSS)	Lon =803618	
Antenna Polarization (XAP)	XAP = XAP01 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL, S = HORIZONTAL AND VERTICAL, L = LEFT HAND CIRCULAR, R = RIGHT HAND CIRCULAR, T = RIGHT AND LEFT HAND CIRCULAR, J = LINEAR POLARIZATION
Antenna Azimuth (XAZ)	XAZ = XAZ01 V10	THE EARTH STATION Transmitter ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, XAZ01 V00
Antenna Dimensions (XAD)	ANTENNA GAIN__ 35.1 dB_____, BEAMWIDTH__ 2.9°_____, AZIMUTHAL RANGE__ 0-360°_____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS __ 6_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS __ 18_____ XAD = XAD01 35G003B000-360A00006H018	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006
Satellite Receive Specifications		
Polarization (RAP)	RAP = RAP01 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL, S = HORIZONTAL AND VERTICAL, L = LEFT HAND CIRCULAR, R = RIGHT HAND CIRCULAR, T = RIGHT AND LEFT HAND CIRCULAR, J = LINEAR POLARIZATION
Azimuth (RAZ)	RAZ = RAZ01 EC	STATION RECEIVER ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Dimension (RAD)	ANTENNA GAIN__ 5.2 dBi_____ BEAMWIDTH__ 70°_____ RAD = RAD01 05G070B	(NTIA format (RAD), EXAMPLE, RAD01 16G030B)
Type of satellite (State = SP)	Type = NONGEOSTATIONARY	Choose either: Geostationary or Nongeostationary

City = G/No		
For Geostationary	Longitude =	IF ANY SATELLITES ARE GEOSTATIONARY, REPORT ITS LATITUDE AS 000000N (XLA AND/OR RLA) AND REPORT ITS LONGITUDE (XLG AND/OR RLG).
For Nongeostationary (Orbital Data)	<p>INCLINATION ANGLE__97.4°_____,</p> <p>APOGEE IN KILOMETERS__500_____,</p> <p>PERIGEE IN KILOMETERS__500_____,</p> <p>ORBITAL PERIOD IN HOURS _1_ AND FRACTIONS OF HOURS IN DECIMAL_.58____,</p> <p>THE NUMBER OF SATELLITES IN THE SYSTEM__1_____,</p> <p>ORB = REM01</p> <p>*ORB97.4IN00500AP00500PE001.58H01NRT01</p>	<p>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</p> <p>*ORB,98.0IN00510AP00510PE001.58H01NRT01,</p> <p>AND FOR SPACE-TO-SPACE COMMUNICATIONS WITH ANOTHER NONGEOSTATIONARY SATELLITE ADD AN ADDITIONAL</p> <p>*ORB FOR IT ENDING IN R01, EXAMPLE, REM05</p> <p>*ORB,72.9IN03209AP00655PE013.46H01NRR01</p>