

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 Frequency: 435.6 MHz		
Satellite Name: SWAMPSAT-II		
Data Field	Data Answer	Description/Comments
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
Orientation (XAZ)	XAZ = XAZ01 NB	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN <u> 0 </u> BEAMWIDTH <u> 069 </u> XAD = XAD01 00G069B	(NTIA format (XAD), EXAMPLE, XAD01 16G030B)
Type of satellite (State = SP) (City = geo or non)	Type = NON	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- <u> 51.6 </u> , APOGEE IN KILOMETERS <u> 500 </u> , PERIGEE IN KILOMETERS <u> 500 </u> , ORBITAL PERIOD IN HOURS <u> 1 </u> AND FRACTIONS OF HOURS IN DECIMAL <u> 58 </u> , THE NUMBER OF SATELLITES IN THE SYSTEM <u> 1 </u> , ORB = 51.6IN00500AP00500PE001.58H01NRT01	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 = FL	
City Name (RAL)	RAL = GAINESVILLE	
Latitude (DDMMSS)	Lat = 293738	
Longitude (DDDMMSS)	Lon = 0822139	
Antenna 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
Antenna Azimuth (RAZ)	RAZ = RAZ01 V05	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN _____ 0 _____, BEAMWIDTH _____ 30 _____, AZIMUTHAL RANGE _____ 000 _____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _____ 00030 _____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS _____ 005 _____ RAD = 00G040B000-360A00030H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
FCC notes:		
<ol style="list-style-type: none"> 1. Use S-Note S945. 2. REM AGN, Cubesat, (insert name) 		

Transmit Frequency: 2400 MHz		
Satellite Name: SWAMPSAT-II		
Data Field	Data Answer	Description/Comments
Polarization (XAP)	XAP = XAP02 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
Orientation (XAZ)	XAZ = XAZ02 NB	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN ____ 8 ____ BEAMWIDTH ____ 28 ____ XAD = XAD02 08G027B	(NTIA format (XAD), EXAMPLE, XAD01 16G030B)
Type of satellite (State = SP) (City = geo or non)	Type = Non	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 ____ 51.6 ____ , 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 = 51.6IN00500AP00500PE001.58H01NRT01	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 = FL	
City Name (RAL)	RAL = GAINESVILLE	
Latitude (DDMMSS)	Lat = 293738	
Longitude (DDDMMSS)	Lon = 0822139	
Antenna Polarization (RAP)	RAP = RAP02 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 = RAZ02 15	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN _____ 32 _____, BEAMWIDTH _____ 3.75 _____, AZIMUTHAL RANGE _____ 360 _____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _____ 25 _____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS _____ 5 _____ RAD = RAD02 32G003.75B000-360A00025H006	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 Frequency: 145.6 MHz		
State (XSC)	XSC = FL	
City Name (XAL)	XAL = GAINESVILLE	
Latitude (DDMMSS)	Lat = 293738	
Longitude (DDDMMSS)	Lon = 0822139	
Antenna Polarization (XAP)	XAP = XAP03 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 = XAZ03 V05	THE EARTH STATION Transmitter ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, XAZ01 V00
Antenna Dimensions (XAD)	ANTENNA GAIN _____ 13 _____, BEAMWIDTH _____ 40 _____, AZIMUTHAL RANGE _____ 360 _____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _____ 00030 _____	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

	THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS _____005_____	
	XAD = 13G040B000-360A00030H005	
Satellite Receive Specifications		
Polarization (RAP)	RAP = RAP03 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 = RAZ03 V05	STATION RECEIVER ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Dimension (RAD)	ANTENNA GAIN__ 0 _____ BEAMWIDTH _____ 30 _____ RAD = RAD03 00G030B	(NTIA format (RAD), EXAMPLE, RAD01 16G030B)
Type of satellite (State = SP) City = G/No	Type = Non	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- _____ 51.6 _____, 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 _____, 51.6IN00500AP00500PE001.58H01NRT01	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