

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 – CiRIS Satellite

Transmit Frequency: 468.000 MHz		
Satellite Name: CiRIS		
Data Field	Data Answer	Description/Comments
Polarization (XAP)	XAP = 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 = EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN <u> 3 </u> BEAMWIDTH <u> 60 </u> XAD = XAD01 03G060B	(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 <u> 51.6 </u> , APOGEE IN KILOMETERS <u> 400 </u> , PERIGEE IN KILOMETERS <u> 400 </u> , ORBITAL PERIOD IN HOURS <u> 1 </u> AND FRACTIONS OF HOURS IN DECIMAL <u> .54 </u> , THE NUMBER OF SATELLITES IN THE SYSTEM <u> 1 </u> , ORB = ORB,51.6IN0040AP0040PE001.54H01NRT01	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) Logan, UT Ground Station (Added)		
State (RSC)	RSC = Utah	
City Name (RAL)	RAL = Logan	
Latitude (DDMMSS)	Lat = 414543 North	
Longitude (DDDMMSS)	Lon = 111 49 18 West	
Antenna Polarization (RAP)	RAP = 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)	0 degrees min RAZ = RAZ01 V00	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN ___16_____, BEAMWIDTH ___40_____, AZIMUTHAL RANGE ___000-360____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _1389_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS ___10_____ RAD = RAD01 36G003B000-360A00034H010	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
FCC notes: 1. Use S-Note S945. 2. REM AGN, Cubesat, CiRIS		

Earth Station Data (Receiver) Temperanceville, VA Ground Station Original		
State (RSC)	RSC = Virginia	
City Name (RAL)	RAL = Temperanceville	
Latitude (DDMMSS)	Lat = 375121 North	
Longitude (DDDMMSS)	Lon = 0753043 West	
Antenna Polarization (RAP)	RAP = 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)	0 degrees min RAZ = RAZ01 V00	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

<p>Antenna Dimensions (RAD)</p>	<p>ANTENNA GAIN ___36_____, BEAMWIDTH ___3_____, AZIMUTHAL RANGE ___000-360____, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS ___34_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS ___10_____</p> <p>RAD = RAD01 36G003B000-360A00034H010</p>	<p>EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006</p>
<p>FCC notes:</p> <ul style="list-style-type: none"> 3. Use S-Note S945. 4. REM AGN, Cubesat, CiRIS 		

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

Earth Station Transmitter Data **Logan UT (Added)**

Transmit Frequency: 450.200 MHz		
State (XSC)	XSC = UT	
City Name (XAL)	XAL = Logan	
Latitude (DDMMSS)	Lat = 414543 N	
Longitude (DDDMMSS)	Lon = 1114918 W	
Antenna Polarization (XAP)	XAP = 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 V00	THE EARTH STATION Transmitter ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, XAZ01 V00
Antenna Dimensions (XAD)	ANTENNA GAIN__16_____ BEAMWIDTH__40_____ AZIMUTHAL RANGE__000-360, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _1389_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS __10_____ XAD = 36G003B000-360A00034H010	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006
Satellite Receive Specifications		
Polarization (RAP)	RAP = J	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 = EC	NB= NARROWBEAM EC = EARTH COVERAGE
Dimension (RAD)	ANTENNA GAIN__3_____ BEAMWIDTH__060_____ RAD = RAD01 03G060B	(NTIA format (RAD), EXAMPLE, RAD01 16G030B)
Type of satellite (State = SP) City = G/No	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__51.6_____, APOGEE IN KILOMETERS_400_____, PERIGEE IN KILOMETERS_400_____, ORBITAL PERIOD IN HOURS_1__AND FRACTIONS OF HOURS IN DECIMAL_.54, THE NUMBER OF SATELLITES IN THE SYSTEM_____1_____, ORB = ORB,51.6IN00400AP00400PE001.54H01NRR01	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 Transmitter Data **Temperanceville VA (Original)**

Transmit Frequency: 450.200 MHz		
State (XSC)	XSC = Virginia	
City Name (XAL)	XAL = Temperanceville	
Latitude (DDMMSS)	Lat = 375121 N	
Longitude (DDDMMSS)	Lon = 0753043 W	
Antenna Polarization (XAP)	XAP = 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 V00	THE EARTH STATION Transmitter ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, XAZ01 V00
Antenna Dimensions (XAD)	ANTENNA GAIN__36_____, BEAMWIDTH__3_____, AZIMUTHAL RANGE___000-360, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS_34_____ THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS___10_____	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

	XAD = 36G003B000-360A00034H010	
Satellite Receive Specifications		
Polarization (RAP)	RAP =	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 = J	NB= NARROWBEAM EC = EARTH COVERAGE
Dimension (RAD)	ANTENNA GAIN <u> 3 </u> BEAMWIDTH <u> 060 </u> RAD = RAD01 03G060B	(NTIA format (RAD), EXAMPLE, RAD01 16G030B)
Type of satellite (State = SP) City = G/No	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).
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