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.

Polylingual Experimental Terminal (PExT) is a non-geostationary satellite that will be in LEO conducting a flight demonstration of inter-satellite relay capabilities with existing satellites in LEO, MEO, and GEO. Due to the nature of the experiment there are no Space-to-Earth and Earth-to-Space links that can be defined. Instead, PExT's transmitter will be defined for Space-to-Space link as Part C. The transmitters at the other end of the links are existing equipment for separate fixed-satellite systems that are coordinated to support this experiment, therefore will not be defined in this data form. TT&C link for the satellite will be submitted separately.

Part A: Space to Earth Downlink Data:

N/A

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

N/A

Part C: Space to Space link data:

Satellite Transmitter Data		
Transmit Frequency:		
Satellite Name:		
Data Field	**Data Answer**	**Description/Comments**
Polarization (SAP)	SAP = T	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 = NB	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN = 44.2 dBW BEAMWIDTH = 1.1˚ (3-dB beamwidth) XAD = XAD01 44G001B	(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 = N/A	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 = 97.5, APOGEE IN KILOMETERS = 515, PERIGEE IN KILOMETERS = 515, ORBITAL PERIOD IN HOURS = 1 AND FRACTIONS OF HOURS IN DECIMAL = 0.40, THE NUMBER OF SATELLITES IN THE SYSTEM = 1, ORB = 97.5IN00515AP00515PE001.40H01NRT01 ORB = 97.5IN00515AP00515PE001.40H01NRR01	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
Space Station Data (Receiver)		
Polarization (SAP)	SAP = T	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 = Various	THE EARTH STATION Transmitter ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, XAZ01 V00
Dimensions (RAD)	ANTENNA GAIN = 44.2 dBW BEAMWIDTH = 1.1˚ (3-dB beamwidth) XAD = XAD01 44G001B	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Type of satellite (State = SP) City = G/No	Type = Nongeostationary	Choose either: Geostationary or Nongeostationary
For Geostationary	Longitude = N/A	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 = 97.5, APOGEE IN KILOMETERS = 515, PERIGEE IN KILOMETERS = 515, ORBITAL PERIOD IN HOURS = 1 AND FRACTIONS OF HOURS IN DECIMAL = 0.40, THE NUMBER OF SATELLITES IN THE SYSTEM = 1, ORB = 97.5IN00515AP00515PE001.40H01NRT01 ORB = 97.5IN00515AP00515PE001.40H01NRR01	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
FCC notes: 1. Use S-Note S575.		