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.

The satellite is using an Iridium 9603 modem to operate with the Iridium constellation composed of 66 satellites which orbit at 781 km.

Part A: Space to Space (Veery to Iridium) Data

Satellite Transmitter Data

Transmit Frequency: 1618.72500000-1626.50000000 MHZ		
Satellite Name: VEERY-RL1		
Data Field	**Data Answer**	**Description/Comments**
Polarization (XAP)	XAP = XAP01 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 = XAZ01 NB	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN_____5 db_____ BEAMWIDTH _____45 degrees_____ XAD = XAD01 05G045B	(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 Non-geostationary (Orbital Data)	INCLINATION ANGLE_____45.0_____, APOGEE IN KILOMETERS____550_____, PERIGEE IN KILOMETERS____550_____, ORBITAL PERIOD IN HOURS ___1___AND FRACTIONS OF HOURS IN DECIMAL___0.5833__, THE NUMBER OF SATELLITES IN THE SYSTEM_____1____, ORB = *ORB,45.0IN00550AP00550PE001.58H01NRT01 *ORB,86.4IN00781AP00781PE001.73H66NRR01 Note: The 'receive' satellites make up the 66-satellite Iridium Constellation.	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 .

Iridium Satellite Receiver Data

Satellite Name: Iridium Constellation		
Data Field	**Data Answer**	**Description/Comments**
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

Orientation (RAZ)	RAZ = RAZ01 NB	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (RAD)	ANTENNA GAIN_____23 db_____ BEAMWIDTH _____12 degrees_____ RAD = RAD01 23G012B	(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 Non-geostationary (Orbital Data)	INCLINATION ANGLE_____86.4_____, APOGEE IN KILOMETERS____781_____, PERIGEE IN KILOMETERS____781_____, ORBITAL PERIOD IN HOURS ___1___AND FRACTIONS OF HOURS IN DECIMAL___0.73__, THE NUMBER OF SATELLITES IN THE SYSTEM_____66____, ORB = *ORB,45.0IN00550AP00550PE001.58H01NRT01 *ORB,86.4IN00781AP00781PE001.73H66NRR01 Note: The 'receive' satellites make up the 66-satellite Iridium Constellation.	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,98.0IN00510AP00510PE 001.58H01NRT01, AND FOR SPACE-TO-SPACE COMMUNICATIONS WITH ANOTHER NONGEOSTATIONARY SATELLITE ADD AN ADDITIONAL *ORB FOR IT ENDING IN R01, EXAMPLE, REM05 *ORB,72.9IN03209AP00655PE 013.46H01NRR01

Part B: Space Stations (Iridium to Veery), Space to Space link data:

Space Station Transmitter Data (Iridium)

Transmit Frequency: 1618.72500000-1626.50000000 MHZ		
State (XSC)	XSC = SP	
City Name (XAL)	XAL = non	
Latitude (DDMMSS)	Lat = N/A	
Longitude (DDDMMSS)	Lon = N/A	
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_____23 db_____ BEAMWIDTH _____12 degrees_____ XAD = XAD01 23G012B	(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 Non-geostationary (Orbital Data)	INCLINATION ANGLE_____86.4_____, APOGEE IN KILOMETERS____781_____, PERIGEE IN KILOMETERS____781_____, ORBITAL PERIOD IN HOURS ___1___AND FRACTIONS OF HOURS IN DECIMAL___0.73__, THE NUMBER OF SATELLITES IN THE SYSTEM_____66____, ORB = * ORB,86.4IN00781AP00781PE001.73H66NRT01 *ORB,45.0IN00550AP00550PE001.58H01NRR01 Note: The full 66-satellite Iridium constellation may transmit to Veery.	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

Satellite Receive Specifications (Veery)		
Polarization (RAP)	RAP = RAP01 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
Azimuth (RAZ)	RAZ = NB	STATION RECEIVER ANTENNA AZIMUTH (XAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimension (RAD)	ANTENNA GAIN____5 db_____ BEAMWIDTH _____45 degrees_____ RAD = RAD01 05G045B	(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 Non-geostationary (Orbital Data)	INCLINATION ANGLE_____45.0_____, APOGEE IN KILOMETERS____550_____, PERIGEE IN KILOMETERS____550_____, ORBITAL PERIOD IN HOURS ___1___AND FRACTIONS OF HOURS IN DECIMAL___0.5833__, THE NUMBER OF SATELLITES IN THE SYSTEM_____1____, ORB = *ORB,45.0IN00550AP00550PE001.58H01NRR01 *ORB,86.4IN00781AP00781PE001.73H66NRT01 Note: The full 66-satellite Iridium constellation may transmit to Veery.	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