

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

Transmit Frequency: 400.4MHz		
Satellite Name: GE1 (Transmitter 1)		
Transmit Power (PWR)	PWR = 0.562 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
RF Emissions	Emissions Designator 13K0F1D Necessary Bandwidth 13.0 kHz -3 dB Bandwidth 4.64 kHz -20 dB Bandwidth 12.1 kHz -40 dB Bandwidth 14.3 kHz -60 dB Bandwidth 43.1 kHz Modulation Type Binary GFSK Data Rate 9.60 kbps Forward Error Correction None Coding Total Symbol Rate 9.60 ksym/s	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL. -3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK. DATA RATE: INFORMATION DATA RATE TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR.
Does transmitter have a beacon mode?	Yes	BEACON MODE IS NORMALLY CONSIDERED A REGULAR AND PERIODIC SHORT DURATION TRANSMISSION THAT IS OFTEN USED TO ASSIST WITH TRACKING, DOPPLER COMPENSATION, OR SMALL

		SATELLITE IDENTIFICATION WHOSE TRANSMISSIONS ARE NOT LIMITED TO DURATIONS WHEN SUPPORTING GROUND
If transmitter has a beacon mode, can the beacon be commanded off?	Yes	
Polarization (XAP)	XAP = XAP01 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
Orientation (XAZ)	XAZ = XAZ01 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN(dBi) 2.1 dBi BEAMWIDTH@ ½ Power 110.0 degrees XAD = XAD01 02G110B	(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)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1 INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5	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 FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1 REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01	
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)
Number of Satellite Contacts Supported Per Day	At 500km x 500km: If needed, backup only. At 10000km x 10000km: If needed, backup only.	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE SPACE TO EARTH DIRECTION (DOWNLINKS) EACH DAY Note: This number specifies total contacts per day for this transmitter, which will be distributed across the receivers listed in this section.
Expected Duration of Each Contact	At 500km x 500km: If needed, backup only. At 10000km x 10000km: If needed, backup only.	AVERAGE DURATION OF EACH CONTACT

Earth Station Data – AnySignal Selfoss Iceland (Receiver 1)		
State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Selfoss	
Latitude (DDMMSS)	Lat = 640304 N	
Longitude (DDDMMSS)	Lon = 0202518 W	
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 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 125.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD01 16G030B000-360A00125H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Colorado Springs Colorado (Receiver 2)		
State (RSC)	RSC = Colorado	
City Name (RAL)	RAL = Colorado Springs	
Latitude (DDMMSS)	Lat = 385638 N	
Longitude (DDMMSS)	Lon = 1044446 W	
Antenna Polarization (RAP)	RAP = RAP02 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 = RAZ02 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 2076.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD02 16G030B000-360A02076H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pitea Sweden (Receiver 3)

State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Pitea	
Latitude (DDMMSS)	Lat = 652016 N	
Longitude (DDMMSS)	Lon = 0212531 E	
Antenna 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
Antenna Azimuth (RAZ)	RAZ = RAZ03 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD03 16G030B000-360A00009H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pretoria South Africa (Receiver 4)

State (RSC)	RSC = South Africa	
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City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282714 E	
Antenna Polarization (RAP)	RAP = RAP04 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 = RAZ04 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1393.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD04 16G030B000-360A01394H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Torrance California (Receiver 5)

State (RSC)	RSC = California	
City Name (RAL)	RAL = Torrance	
Latitude (DDMMSS)	Lat = 334827 N	
Longitude (DDMMSS)	Lon = 1182100 W	
	RAP = RAP05 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ05 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD05 16G030B000-360A00025H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Umea Sweden (Receiver 6)

State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Umea	
Latitude (DDMMSS)	Lat = 635114 N	
Longitude (DDDMMSS)	Lon = 0201229 E	
Antenna Polarization (RAP)	RAP = RAP06 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 = RAZ06 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 30.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD06 16G030B000-360A00031H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Awarua New Zealand (Receiver 7)		
State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463144 S	
Longitude (DDMMSS)	Lon = 1682251 E	
Antenna Polarization (RAP)	RAP = RAP07 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 = RAZ07 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.8 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD07 16G030B000-360A00011H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Punta Arenas Chile (Receiver 8)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530703 S	
Longitude (DDMMSS)	Lon = 0705339 W	
Antenna Polarization (RAP)	RAP = RAP08 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 = RAZ08 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 29.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD08 16G030B000-360A00029H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal North Pole Alaska (Receiver 9)	
State (RSC)	RSC = Alaska

City Name (RAL)	RAL = North Pole	
Latitude (DDMMSS)	Lat = 644549 N	
Longitude (DDMMSS)	Lon = 1472213 W	
Antenna Polarization (RAP)	RAP = RAP09 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 = RAZ09 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 16.2 dBi BEAMWIDTH@ ½ Power 30.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 148.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD09 16G030B000-360A00149H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.15 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Transmit Frequency: 2222MHz		
Satellite Name: GE1 (Transmitter 2)		
Transmit Power (PWR)	PWR = 0.568 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
RF Emissions	Emissions Designator 130KG1D Necessary Bandwidth 130 kHz	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST

-3 dB Bandwidth	80.3 kHz
-20 dB Bandwidth	125 kHz
-40 dB Bandwidth	223 kHz
-60 dB Bandwidth	1.33 MHz
Modulation Type	QPSK
Data Rate	84.2 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	193 ksym/s

Emissions Designator	185KG1D
Necessary Bandwidth	185 kHz
-3 dB Bandwidth	122 kHz
-20 dB Bandwidth	175 kHz
-40 dB Bandwidth	307 kHz
-60 dB Bandwidth	1.70 MHz
Modulation Type	QPSK
Data Rate	120 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	274 ksym/s

Emissions Designator	22K0G1D
Necessary Bandwidth	22.0 kHz
-3 dB Bandwidth	15.5 kHz
-20 dB Bandwidth	21.3 kHz
-40 dB Bandwidth	29.3 kHz
-60 dB Bandwidth	752 kHz
Modulation Type	QPSK
Data Rate	14.3 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	32.6 ksym/s

Emissions Designator	2M00G1D
Necessary Bandwidth	2.00 MHz
-3 dB Bandwidth	1.45 MHz
-20 dB Bandwidth	1.75 MHz
-40 dB Bandwidth	2.38 MHz
-60 dB Bandwidth	7.48 MHz
Modulation Type	QPSK
Data Rate	1.30 Mbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	2.96 Msym/s

Emissions Designator	40K0G1D
Necessary Bandwidth	40.0 kHz

SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL.

-3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES

MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK.

DATA RATE: INFORMATION DATA RATE

TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR.

-3 dB Bandwidth	28.6 kHz
-20 dB Bandwidth	39.8 kHz
-40 dB Bandwidth	56.3 kHz
-60 dB Bandwidth	898 kHz
Modulation Type	QPSK
Data Rate	25.9 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	59.2 ksym/s
Emissions Designator	550KG1D
Necessary Bandwidth	550 kHz
-3 dB Bandwidth	401 kHz
-20 dB Bandwidth	484 kHz
-40 dB Bandwidth	950 kHz
-60 dB Bandwidth	2.62 MHz
Modulation Type	QPSK
Data Rate	356 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	815 ksym/s
Emissions Designator	750KG1D
Necessary Bandwidth	750 kHz
-3 dB Bandwidth	542 kHz
-20 dB Bandwidth	660 kHz
-40 dB Bandwidth	1.24 MHz
-60 dB Bandwidth	2.92 MHz
Modulation Type	QPSK
Data Rate	486 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	1.11 Msym/s
Emissions Designator	80K0G1D
Necessary Bandwidth	80.0 kHz
-3 dB Bandwidth	52.2 kHz
-20 dB Bandwidth	78.3 kHz
-40 dB Bandwidth	142 kHz
-60 dB Bandwidth	1.21 MHz
Modulation Type	QPSK
Data Rate	51.8 kbps
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)
Total Symbol Rate	119 ksym/s
Emissions Designator	86K0G1D
Necessary Bandwidth	86.0 kHz

	-3 dB Bandwidth 53.8 kHz -20 dB Bandwidth 84.9 kHz -40 dB Bandwidth 151 kHz -60 dB Bandwidth 1.34 MHz Modulation Type QPSK Data Rate 55.7 kbps Forward Error Correction Coding Convolutional 1/2 + RS (255,223) Total Symbol Rate 127 ksym/s Emissions Designator 90K0G1D Necessary Bandwidth 90.0 kHz -3 dB Bandwidth 55.9 kHz -20 dB Bandwidth 96.4 kHz -40 dB Bandwidth 151 kHz -60 dB Bandwidth 1.31 MHz Modulation Type QPSK Data Rate 58.3 kbps Forward Error Correction Coding Convolutional 1/2 + RS (255,223) Total Symbol Rate 133 ksym/s	
Does transmitter have a beacon mode?	No	BEACON MODE IS NORMALLY CONSIDERED A REGULAR AND PERIODIC SHORT DURATION TRANSMISSION THAT IS OFTEN USED TO ASSIST WITH TRACKING, DOPPLER COMPENSATION, OR SMALL SATELLITE IDENTIFICATION WHOSE TRANSMISSIONS ARE NOT LIMITED TO DURATIONS WHEN SUPPORTING GROUND
If transmitter has a beacon mode, can the beacon be commanded off?	N/A	
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 EC	NB= NARROWBEAM EC = EARTH COVERAGE

Antenna Dimension (XAD)	ANTENNA GAIN(dBi) 6.56 dBi BEAMWIDTH@ ½ Power 111.0 degrees XAD = XAD02 07G111B	(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)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1 INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5 AND FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1 REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01	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
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)
Number of Satellite Contacts Supported Per Day	At 500km x 500km: 55 contacts per day across all receivers. At 10000km x 10000km: 18 contacts per day across all receivers.	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE SPACE TO EARTH DIRECTION (DOWNLINKS) EACH DAY Note: This number specifies total contacts per day for this transmitter, which will be

		distributed across the receivers listed in this section.
Expected Duration of Each Contact	At 500km x 500km: 6 minutes per contact At 10000km x 10000km: 56 minutes per contact	AVERAGE DURATION OF EACH CONTACT

Earth Station Data – Leaf Peterborough Southern Australia (Receiver 10)		
State (RSC)	RSC = Southern Australia	
City Name (RAL)	RAL = Peterborough	
Latitude (DDMMSS)	Lat = 325743 S	
Longitude (DDMMSS)	Lon = 1385058 E	
Antenna Polarization (RAP)	RAP = RAP10 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 = RAZ10 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 539.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD10 35G002B000-360A00539H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nangetty Western Australia (Receiver 11)	
State (RSC)	RSC = Western Australia

City Name (RAL)	RAL = Nangetty	
Latitude (DDMMSS)	Lat = 290037 S	
Longitude (DDMMSS)	Lon = 1152032 E	
Antenna Polarization (RAP)	RAP = RAP11 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 = RAZ11 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 270.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD11 35G002B000-360A00270H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nangetty Western Australia (Receiver 12)

State (RSC)	RSC = Western Australia	
City Name (RAL)	RAL = Nangetty	
Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDMMSS)	Lon = 1152033 E	
	RAP = RAP12 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ12 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 272.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD12 35G002B000-360A00272H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Absheron Azerbaijan (Receiver 13)

State (RSC)	RSC = Azerbaijan	
City Name (RAL)	RAL = Absheron	
Latitude (DDMMSS)	Lat = 402759 N	
Longitude (DDDMMSS)	Lon = 0492910 E	
Antenna Polarization (RAP)	RAP = RAP13 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 = RAZ13 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD13 35G002B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Absheron Azerbaijan (Receiver 14)		
State (RSC)	RSC = Azerbaijan	
City Name (RAL)	RAL = Absheron	
Latitude (DDMMSS)	Lat = 402758 N	
Longitude (DDMMSS)	Lon = 0492911 E	
Antenna Polarization (RAP)	RAP = RAP14 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 = RAZ14 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD14 35G002B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 15)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDDMMSS)	Lon = 0705049 W	
Antenna Polarization (RAP)	RAP = RAP15 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 = RAZ15 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD15 35G002B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 16)	
State (RSC)	RSC = Chile

City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530231 S	
Longitude (DDMMSS)	Lon = 0705046 W	
Antenna Polarization (RAP)	RAP = RAP16 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 = RAZ16 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD16 35G002B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 17)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705048 W	
	RAP = RAP17 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ17 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 36.8 dBi BEAMWIDTH@ ½ Power 2.55 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD17 37G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 18)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDDMMSS)	Lon = 0705045 W	
Antenna Polarization (RAP)	RAP = RAP18 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 = RAZ18 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD18 35G002B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 19)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530229 S	
Longitude (DDMMSS)	Lon = 0705047 W	
Antenna Polarization (RAP)	RAP = RAP19 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 = RAZ19 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD19 35G002B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 20)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDDMMSS)	Lon = 0704620 W	
Antenna Polarization (RAP)	RAP = RAP20 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 = RAZ20 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD20 35G002B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 21)	
State (RSC)	RSC = Chile

City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDMMSS)	Lon = 0704621 W	
Antenna Polarization (RAP)	RAP = RAP21 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 = RAZ21 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD21 35G002B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 22)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332154 S	
Longitude (DDMMSS)	Lon = 0704622 W	
	RAP = RAP22 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ22 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD22 35G002B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 23)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDDMMSS)	Lon = 0201442 W	
Antenna Polarization (RAP)	RAP = RAP23 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 = RAZ23 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD23 35G002B000-360A00053H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 24)		
State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDMMSS)	Lon = 0201441 W	
Antenna Polarization (RAP)	RAP = RAP24 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 = RAZ24 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 2.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD24 38G002B000-360A00053H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 25)		
State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201421 W	
Antenna Polarization (RAP)	RAP = RAP25 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 = RAZ25 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 2.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD25 38G002B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 26)	
State (RSC)	RSC = Iceland

City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDMMSS)	Lon = 0201421 W	
Antenna Polarization (RAP)	RAP = RAP26 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 = RAZ26 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD26 35G002B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 27)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201419 W	
	RAP = RAP27 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ27 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD27 35G002B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Kandy Sri Lanka (Receiver 28)

State (RSC)	RSC = Sri Lanka	
City Name (RAL)	RAL = Kandy	
Latitude (DDMMSS)	Lat = 071627 N	
Longitude (DDDMMSS)	Lon = 0804329 E	
Antenna Polarization (RAP)	RAP = RAP28 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 = RAZ28 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 456.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD28 35G002B000-360A00456H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Mon Loisir Mauritius (Receiver 29)		
State (RSC)	RSC = Mauritius	
City Name (RAL)	RAL = Mon Loisir	
Latitude (DDMMSS)	Lat = 200822 S	
Longitude (DDMMSS)	Lon = 0574113 E	
Antenna Polarization (RAP)	RAP = RAP29 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 = RAZ29 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 2.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 96.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD29 38G002B000-360A00096H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf La Paz Mexico (Receiver 30)		
State (RSC)	RSC = Mexico	
City Name (RAL)	RAL = La Paz	
Latitude (DDMMSS)	Lat = 240559 N	
Longitude (DDDMMSS)	Lon = 1102311 W	
Antenna Polarization (RAP)	RAP = RAP30 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 = RAZ30 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 35.22 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD30 35G003B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf La Paz Mexico (Receiver 31)	
State (RSC)	RSC = Mexico

City Name (RAL)	RAL = La Paz	
Latitude (DDMMSS)	Lat = 240600 N	
Longitude (DDMMSS)	Lon = 1102311 W	
Antenna Polarization (RAP)	RAP = RAP31 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 = RAZ31 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD31 35G002B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 32)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463141 S	
Longitude (DDMMSS)	Lon = 1682245 E	
	RAP = RAP32 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ32 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD32 35G002B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 33)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDDMMSS)	Lon = 1682304 E	
Antenna Polarization (RAP)	RAP = RAP33 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 = RAZ33 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD33 35G002B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 34)		
State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDMMSS)	Lon = 1682303 E	
Antenna Polarization (RAP)	RAP = RAP34 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 = RAZ34 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 36.8 dBi BEAMWIDTH@ ½ Power 2.55 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD34 37G003B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 35)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463155 S	
Longitude (DDDMMSS)	Lon = 1682303 E	
Antenna Polarization (RAP)	RAP = RAP35 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 = RAZ35 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD35 35G002B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santa Maria Azores (Receiver 36)

State (RSC)	RSC = Azores	
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City Name (RAL)	RAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365951 N	
Longitude (DDMMSS)	Lon = 0250814 W	
Antenna Polarization (RAP)	RAP = RAP36 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 = RAZ36 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 194.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD36 35G002B000-360A00194H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santa Maria Azores (Receiver 37)

State (RSC)	RSC = Azores	
City Name (RAL)	RAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365950 N	
Longitude (DDMMSS)	Lon = 0250814 W	
	RAP = RAP37 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ37 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 195.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD37 35G002B000-360A00195H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Pretoria South Africa (Receiver 38)

State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDDMMSS)	Lon = 0282713 E	
Antenna Polarization (RAP)	RAP = RAP38 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 = RAZ38 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD38 35G002B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Pretoria South Africa (Receiver 39)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282712 E	
Antenna Polarization (RAP)	RAP = RAP39 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 = RAZ39 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD39 35G002B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nova Scotia Canada (Receiver 40)		
State (RSC)	RSC = Canada	
City Name (RAL)	RAL = Nova Scotia	
Latitude (DDMMSS)	Lat = 451904 N	
Longitude (DDDMMSS)	Lon = 0610209 W	
Antenna Polarization (RAP)	RAP = RAP40 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 = RAZ40 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.6 dBi BEAMWIDTH@ ½ Power 2.4 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD40 35G002B000-360A00025H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Al Ain United Arab Emirates (Receiver 41)	
State (RSC)	RSC = United Arab Emirates

City Name (RAL)	RAL = Al Ain	
Latitude (DDMMSS)	Lat = 241156 N	
Longitude (DDMMSS)	Lon = 0554100 E	
Antenna Polarization (RAP)	RAP = RAP41 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 = RAZ41 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 36.4 dBi BEAMWIDTH@ ½ Power 2.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 247.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD41 36G003B000-360A00247H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Al Ain United Arab Emirates (Receiver 42)

State (RSC)	RSC = United Arab Emirates	
City Name (RAL)	RAL = Al Ain	
Latitude (DDMMSS)	Lat = 241155 N	
Longitude (DDMMSS)	Lon = 0554100 E	
	RAP = RAP42 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ42 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 36.4 dBi BEAMWIDTH@ ½ Power 2.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 248.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD42 36G003B000-360A00248H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Selfoss Iceland (Receiver 43)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Selfoss	
Latitude (DDMMSS)	Lat = 640304 N	
Longitude (DDDMMSS)	Lon = 0202518 W	
Antenna Polarization (RAP)	RAP = RAP43 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 = RAZ43 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 31.2 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 125.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD43 31G003B000-360A00125H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pitea Sweden (Receiver 44)		
State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Pitea	
Latitude (DDMMSS)	Lat = 652016 N	
Longitude (DDMMSS)	Lon = 0212531 E	
Antenna Polarization (RAP)	RAP = RAP44 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 = RAZ44 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 31.2 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD44 31G003B000-360A00009H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pretoria South Africa (Receiver 45)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDDMMSS)	Lon = 0282714 E	
Antenna Polarization (RAP)	RAP = RAP45 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 = RAZ45 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 31.2 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1393.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD45 31G003B000-360A01394H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Awarua New Zealand (Receiver 46)	
State (RSC)	RSC = New Zealand

City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463144 S	
Longitude (DDMMSS)	Lon = 1682251 E	
Antenna Polarization (RAP)	RAP = RAP46 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 = RAZ46 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 31.2 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.8 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD46 31G003B000-360A00011H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Punta Arenas Chile (Receiver 47)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530703 S	
Longitude (DDMMSS)	Lon = 0705339 W	
	RAP = RAP47 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ47 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 31.2 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 29.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD47 31G003B000-360A00029H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Vodno Bulgaria (Receiver 48)

State (RSC)	RSC = Bulgaria	
City Name (RAL)	RAL = Vodno	
Latitude (DDMMSS)	Lat = 435141 N	
Longitude (DDDMMSS)	Lon = 0270903 E	
Antenna Polarization (RAP)	RAP = RAP48 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 = RAZ48 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 32.6 dBi BEAMWIDTH@ ½ Power 5.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 219.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD48 33G005B000-360A00219H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Neu Poserin Germany (Receiver 49)		
State (RSC)	RSC = Germany	
City Name (RAL)	RAL = Neu Poserin	
Latitude (DDMMSS)	Lat = 533315 N	
Longitude (DDMMSS)	Lon = 0121327 E	
Antenna Polarization (RAP)	RAP = RAP49 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 = RAZ49 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 32.6 dBi BEAMWIDTH@ ½ Power 5.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 54.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD49 33G005B000-360A00054H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Rio Gallegos Argentina (Receiver 50)		
State (RSC)	RSC = Argentina	
City Name (RAL)	RAL = Rio Gallegos	
Latitude (DDMMSS)	Lat = 514003 S	
Longitude (DDDMMSS)	Lon = 0691551 W	
Antenna Polarization (RAP)	RAP = RAP50 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 = RAZ50 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 32.6 dBi BEAMWIDTH@ ½ Power 5.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 21.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD50 33G005B000-360A00021H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Athens Greece (Receiver 51)	
State (RSC)	RSC = Greece

City Name (RAL)	RAL = Athens	
Latitude (DDMMSS)	Lat = 375043 N	
Longitude (DDMMSS)	Lon = 0223726 E	
Antenna Polarization (RAP)	RAP = RAP51 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 = RAZ51 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 281.6 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD51 35G003B000-360A00282H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 52)

State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDMMSS)	Lon = 1261901 E	
	RAP = RAP52 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ52 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 240.497 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD52 35G003B000-360A00240H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 53)

State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDDMMSS)	Lon = 1261904 E	
Antenna Polarization (RAP)	RAP = RAP53 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 = RAZ53 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 239.946 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD53 35G003B000-360A00240H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 54)		
State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332315 N	
Longitude (DDMMSS)	Lon = 1261902 E	
Antenna Polarization (RAP)	RAP = RAP54 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 = RAZ54 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 238.992 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD54 35G003B000-360A00239H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Bel Ombre Mauritius (Receiver 55)		
State (RSC)	RSC = Mauritius	
City Name (RAL)	RAL = Bel Ombre	
Latitude (DDMMSS)	Lat = 203002 S	
Longitude (DDDMMSS)	Lon = 0572703 E	
Antenna Polarization (RAP)	RAP = RAP55 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 = RAZ55 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 26.221 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD55 35G003B000-360A00026H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 56)	
State (RSC)	RSC = Australia

City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDMMSS)	Lon = 1152029 E	
Antenna Polarization (RAP)	RAP = RAP56 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 = RAZ56 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 265.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD56 35G003B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 57)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152030 E	
	RAP = RAP57 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ57 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 266.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD57 35G003B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 58)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDDMMSS)	Lon = 1152032 E	
Antenna Polarization (RAP)	RAP = RAP58 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 = RAZ58 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 266.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD58 35G003B000-360A00267H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 59)		
State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152033 E	
Antenna Polarization (RAP)	RAP = RAP59 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 = RAZ59 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 267.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD59 35G003B000-360A00267H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 60)		
State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463142 S	
Longitude (DDMMSS)	Lon = 1682244 E	
Antenna Polarization (RAP)	RAP = RAP60 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 = RAZ60 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.559 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD60 35G003B000-360A00013H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 61)	
State (RSC)	RSC = New Zealand

City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463146 S	
Longitude (DDMMSS)	Lon = 1682250 E	
Antenna Polarization (RAP)	RAP = RAP61 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 = RAZ61 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.294 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD61 35G003B000-360A00012H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 62)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463156 S	
Longitude (DDMMSS)	Lon = 1682304 E	
	RAP = RAP62 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ62 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.244 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD62 35G003B000-360A00009H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 63)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463157 S	
Longitude (DDDMMSS)	Lon = 1682302 E	
Antenna Polarization (RAP)	RAP = RAP63 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 = RAZ63 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 35.24 dBi BEAMWIDTH@ ½ Power 2.12 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.226 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD63 35G002B000-360A00009H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 64)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDMMSS)	Lon = 0705224 W	
Antenna Polarization (RAP)	RAP = RAP64 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 = RAZ64 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.096 meters RAD = RAD64 35G003B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 65)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDDMMSS)	Lon = 0705225 W	
Antenna Polarization (RAP)	RAP = RAP65 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 = RAZ65 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.129 meters RAD = RAD65 35G003B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 66)	
State (RSC)	RSC = Chile

City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525603 S	
Longitude (DDMMSS)	Lon = 0705224 W	
Antenna Polarization (RAP)	RAP = RAP66 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 = RAZ66 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 35.24 dBi BEAMWIDTH@ ½ Power 2.12 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD66 35G002B000-360A00025H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puertollano Spain (Receiver 67)

State (RSC)	RSC = Spain	
City Name (RAL)	RAL = Puertollano	
Latitude (DDMMSS)	Lat = 384020 N	
Longitude (DDMMSS)	Lon = 0040946 W	
	RAP = RAP67 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ67 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 685.841 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD67 35G003B000-360A00686H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puertollano Spain (Receiver 68)

State (RSC)	RSC = Spain	
City Name (RAL)	RAL = Puertollano	
Latitude (DDMMSS)	Lat = 384019 N	
Longitude (DDDMMSS)	Lon = 0040946 W	
Antenna Polarization (RAP)	RAP = RAP68 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 = RAZ68 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 684.597 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD68 35G003B000-360A00685H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Hartebeesthoek South Africa (Receiver 69)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255310 S	
Longitude (DDMMSS)	Lon = 0274222 E	
Antenna Polarization (RAP)	RAP = RAP69 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 = RAZ69 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1564.73 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD69 35G003B000-360A01565H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Hartebeesthoek South Africa (Receiver 70)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255312 S	
Longitude (DDMMSS)	Lon = 0274222 E	
Antenna Polarization (RAP)	RAP = RAP70 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 = RAZ70 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 34.66 dBi BEAMWIDTH@ ½ Power 2.5 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1568.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD70 35G003B000-360A01569H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Tromso Norway (Receiver 71)	
State (RSC)	RSC = Norway

City Name (RAL)	RAL = Tromso	
Latitude (DDMMSS)	Lat = 693944 N	
Longitude (DDMMSS)	Lon = 0185629 E	
Antenna Polarization (RAP)	RAP = RAP71 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 = RAZ71 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 33.08 dBi BEAMWIDTH@ ½ Power 3.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 135.4527 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD71 33G003B000-360A00135H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.0 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Dublin Ireland (Receiver 72)

State (RSC)	RSC = Ireland	
City Name (RAL)	RAL = Dublin	
Latitude (DDMMSS)	Lat = 532424 N	
Longitude (DDMMSS)	Lon = 0061328 W	
	RAP = RAP72 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ72 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 84.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD72 38G002B000-360A00084H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 73)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525632 S	
Longitude (DDDMMSS)	Lon = 0705059 W	
Antenna Polarization (RAP)	RAP = RAP73 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 = RAZ73 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD73 38G002B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Singapore Singapore (Receiver 74)		
State (RSC)	RSC = Singapore	
City Name (RAL)	RAL = Singapore	
Latitude (DDMMSS)	Lat = 011859 N	
Longitude (DDMMSS)	Lon = 1034203 E	
Antenna Polarization (RAP)	RAP = RAP74 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 = RAZ74 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 82.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD74 38G002B000-360A00082H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	

Information (For Parabolic Antennas)		
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Stockholm Sweden (Receiver 75)		
State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Stockholm	
Latitude (DDMMSS)	Lat = 593857 N	
Longitude (DDDMMSS)	Lon = 0163505 E	
Antenna Polarization (RAP)	RAP = RAP75 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 = RAZ75 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 39.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD75 38G002B000-360A00039H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Sydney Australia (Receiver 76)	
State (RSC)	RSC = Australia

City Name (RAL)	RAL = Sydney	
Latitude (DDMMSS)	Lat = 321031 S	
Longitude (DDMMSS)	Lon = 1483656 E	
Antenna Polarization (RAP)	RAP = RAP76 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 = RAZ76 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 284.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD76 38G002B000-360A00284H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Cape Town South Africa (Receiver 77)

State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Cape Town	
Latitude (DDMMSS)	Lat = 340139 S	
Longitude (DDMMSS)	Lon = 0184307 E	
	RAP = RAP77 R	POLARIZATIONS INCLUDE : H = HORIZONTAL, V = VERTICAL,

Antenna Polarization (RAP)		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 = RAZ77 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 38.4 dBi BEAMWIDTH@ ½ Power 1.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD77 38G002B000-360A00010H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Transmit Frequency: 8480MHz		
Satellite Name: GE1 (Transmitter 3)		
Transmit Power (PWR)	PWR = 1.578 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
RF Emissions	Emissions Designator 10M0G1D Necessary Bandwidth 10.0 MHz -3 dB Bandwidth 6.68 MHz -20 dB Bandwidth 9.50 MHz -40 dB Bandwidth 24.2 MHz -60 dB Bandwidth 52.9 MHz Modulation Type QPSK (DVB-S2 MODCOD 3) Data Rate 5.85 Mbps Forward Error Correction Coding LDPC 2/5 + BCH Total Symbol Rate 14.8 Msym/s	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL. -3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE

Emissions Designator2M50G1D Necessary Bandwidth2.50 MHz -3 dB Bandwidth1.78 MHz -20 dB Bandwidth2.38 MHz -40 dB Bandwidth6.05 MHz -60 dB Bandwidth13.2 MHz Modulation TypeQPSK (DVB-S2 MODCOD 2) Data Rate1.22 Mbps Forward Error Correction CodingLDPC 1/3 + BCH Total Symbol Rate3.70 Msym/s		DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK. DATA RATE: INFORMATION DATA RATE TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR.
Emissions Designator4M00G1D Necessary Bandwidth4.00 MHz -3 dB Bandwidth2.89 MHz -20 dB Bandwidth3.82 MHz -40 dB Bandwidth9.68 MHz -60 dB Bandwidth21.2 MHz Modulation TypeQPSK (DVB-S2 MODCOD 2) Data Rate1.95 Mbps Forward Error Correction CodingLDPC 1/3 + BCH Total Symbol Rate5.93 Msym/s		
Emissions Designator4M40G1D Necessary Bandwidth4.40 MHz -3 dB Bandwidth3.05 MHz -20 dB Bandwidth4.20 MHz -40 dB Bandwidth10.6 MHz -60 dB Bandwidth23.2 MHz Modulation TypeQPSK (DVB-S2 MODCOD 2) Data Rate2.14 Mbps Forward Error Correction CodingLDPC 1/3 + BCH Total Symbol Rate6.52 Msym/s		
Emissions Designator9M30G1D Necessary Bandwidth9.30 MHz -3 dB Bandwidth6.31 MHz -20 dB Bandwidth8.83 MHz -40 dB Bandwidth22.5 MHz -60 dB Bandwidth49.2 MHz Modulation TypeQPSK (DVB-S2 MODCOD 2) Data Rate4.52 Mbps Forward Error Correction CodingLDPC 1/3 + BCH Total Symbol Rate13.8 Msym/s		

Does transmitter have a beacon mode?	No	BEACON MODE IS NORMALLY CONSIDERED A REGULAR AND PERIODIC SHORT DURATION TRANSMISSION THAT IS OFTEN USED TO ASSIST WITH TRACKING, DOPPLER COMPENSATION, OR SMALL SATELLITE IDENTIFICATION WHOSE TRANSMISSIONS ARE NOT LIMITED TO DURATIONS WHEN SUPPORTING GROUND
If transmitter has a beacon mode, can the beacon be commanded off?	N/A	
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
Orientation (XAZ)	XAZ = XAZ03 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN(dBi) 8.12 dBi BEAMWIDTH@ ½ Power 84.0 degrees XAD = XAD03 08G084B	(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)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1	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,

	AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1 INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5 AND FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1 REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01	REM04 *ORB, 98.0IN00510AP00510PE001.58H01NRT01
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)
Number of Satellite Contacts Supported Per Day	At 500km x 500km: 55 contacts per day across all receivers. At 10000km x 10000km: 18 contacts per day across all receivers.	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE SPACE TO EARTH DIRECTION (DOWNLINKS) EACH DAY Note: This number specifies total contacts per day for this transmitter, which will be distributed across the receivers listed in this section.
Expected Duration of Each Contact	At 500km x 500km: 6 minutes per contact At 10000km x 10000km: 56 minutes per contact	AVERAGE DURATION OF EACH CONTACT

Earth Station Data – Leaf Peterborough Southern Australia (Receiver 78)		
State (RSC)	RSC = Southern Australia	
City Name (RAL)	RAL = Peterborough	
Latitude (DDMMSS)	Lat = 325743 S	
Longitude (DDDMMSS)	Lon = 1385058 E	
Antenna Polarization (RAP)	RAP = RAP78 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 = RAZ78 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 539.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD78 47G001B000-360A00539H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nangetty Western Australia (Receiver 79)

State (RSC)	RSC = Western Australia	
City Name (RAL)	RAL = Nangetty	
Latitude (DDMMSS)	Lat = 290037 S	
Longitude (DDMMSS)	Lon = 1152032 E	
Antenna Polarization (RAP)	RAP = RAP79 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 = RAZ79 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 270.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD79 47G001B000-360A00270H002	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nangetty Western Australia (Receiver 80)		
State (RSC)	RSC = Western Australia	
City Name (RAL)	RAL = Nangetty	
Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDMMSS)	Lon = 1152033 E	
Antenna Polarization (RAP)	RAP = RAP80 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 = RAZ80 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 272.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD80 47G001B000-360A00272H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Absheron Azerbaijan (Receiver 81)

State (RSC)	RSC = Azerbaijan	
City Name (RAL)	RAL = Absheron	
Latitude (DDMMSS)	Lat = 402759 N	
Longitude (DDMMSS)	Lon = 0492910 E	
Antenna Polarization (RAP)	RAP = RAP81 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 = RAZ81 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD81 47G001B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Absheron Azerbaijan (Receiver 82)

State (RSC)	RSC = Azerbaijan	
City Name (RAL)	RAL = Absheron	

Latitude (DDMMSS)	Lat = 402758 N	
Longitude (DDMMSS)	Lon = 0492911 E	
Antenna Polarization (RAP)	RAP = RAP82 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 = RAZ82 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD82 47G001B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 83)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705049 W	
Antenna Polarization (RAP)	RAP = RAP83 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 = RAZ83 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD83 47G001B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 84)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530231 S	
Longitude (DDMMSS)	Lon = 0705046 W	
Antenna Polarization (RAP)	RAP = RAP84 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 = RAZ84 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD84 47G001B000-360A00036H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 85)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705048 W	
Antenna Polarization (RAP)	RAP = RAP85 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 = RAZ85 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.9 dBi BEAMWIDTH@ ½ Power 0.7 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD85 48G001B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Punta Arenas Chile (Receiver 86)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705045 W	
Antenna Polarization (RAP)	RAP = RAP86 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 = RAZ86 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD86 47G001B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Punta Arenas Chile (Receiver 87)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	

Latitude (DDMMSS)	Lat = 530229 S	
Longitude (DDMMSS)	Lon = 0705047 W	
Antenna Polarization (RAP)	RAP = RAP87 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 = RAZ87 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD87 47G001B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 88)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDMMSS)	Lon = 0704620 W	
Antenna Polarization (RAP)	RAP = RAP88 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 = RAZ88 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD88 47G001B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 89)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDMMSS)	Lon = 0704621 W	
Antenna Polarization (RAP)	RAP = RAP89 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 = RAZ89 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD89 47G001B000-360A00464H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santiago Chile (Receiver 90)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Santiago	
Latitude (DDMMSS)	Lat = 332154 S	
Longitude (DDMMSS)	Lon = 0704622 W	
Antenna Polarization (RAP)	RAP = RAP90 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 = RAZ90 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD90 47G001B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Blonduos Iceland (Receiver 91)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201442 W	
Antenna Polarization (RAP)	RAP = RAP91 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 = RAZ91 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD91 47G001B000-360A00053H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 92)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	

Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDMMSS)	Lon = 0201441 W	
Antenna Polarization (RAP)	RAP = RAP92 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 = RAZ92 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 49.47 dBi BEAMWIDTH@ ½ Power 0.576 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD92 49G001B000-360A00053H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 93)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201421 W	
Antenna Polarization (RAP)	RAP = RAP93 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 = RAZ93 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 49.7 dBi BEAMWIDTH@ ½ Power 0.576 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD93 50G001B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 94)

State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDMMSS)	Lon = 0201421 W	
Antenna Polarization (RAP)	RAP = RAP94 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 = RAZ94 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD94 47G001B000-360A00055H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Blonduos Iceland (Receiver 95)		
State (RSC)	RSC = Iceland	
City Name (RAL)	RAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201419 W	
Antenna Polarization (RAP)	RAP = RAP95 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 = RAZ95 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD95 47G001B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Kandy Sri Lanka (Receiver 96)

State (RSC)	RSC = Sri Lanka	
City Name (RAL)	RAL = Kandy	
Latitude (DDMMSS)	Lat = 071627 N	
Longitude (DDMMSS)	Lon = 0804329 E	
Antenna Polarization (RAP)	RAP = RAP96 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 = RAZ96 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 456.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD96 47G001B000-360A00456H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Mon Loisir Mauritius (Receiver 97)

State (RSC)	RSC = Mauritius	
City Name (RAL)	RAL = Mon Loisir	

Latitude (DDMMSS)	Lat = 200822 S	
Longitude (DDMMSS)	Lon = 0574113 E	
Antenna Polarization (RAP)	RAP = RAP97 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 = RAZ97 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 49.47 dBi BEAMWIDTH@ ½ Power 0.576 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 96.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD97 49G001B000-360A00096H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf La Paz Mexico (Receiver 98)		
State (RSC)	RSC = Mexico	
City Name (RAL)	RAL = La Paz	
Latitude (DDMMSS)	Lat = 240559 N	
Longitude (DDMMSS)	Lon = 1102311 W	
Antenna Polarization (RAP)	RAP = RAP98 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 = RAZ98 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.7 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD98 48G001B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf La Paz Mexico (Receiver 99)

State (RSC)	RSC = Mexico	
City Name (RAL)	RAL = La Paz	
Latitude (DDMMSS)	Lat = 240600 N	
Longitude (DDMMSS)	Lon = 1102311 W	
Antenna Polarization (RAP)	RAP = RAP99 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 = RAZ99 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters RAD = RAD99 47G001B000-360A00004H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 100)		
State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463141 S	
Longitude (DDMMSS)	Lon = 1682245 E	
Antenna Polarization (RAP)	RAP = RAP100 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 = RAZ100 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD100 47G001B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Awarua New Zealand (Receiver 101)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDMMSS)	Lon = 1682304 E	
Antenna Polarization (RAP)	RAP = RAP101 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 = RAZ101 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD101 47G001B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 102)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	

Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDMMSS)	Lon = 1682303 E	
Antenna Polarization (RAP)	RAP = RAP102 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 = RAZ102 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.9 dBi BEAMWIDTH@ ½ Power 0.7 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD102 48G001B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Awarua New Zealand (Receiver 103)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463155 S	
Longitude (DDMMSS)	Lon = 1682303 E	
Antenna Polarization (RAP)	RAP = RAP103 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 = RAZ103 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD103 47G001B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santa Maria Azores (Receiver 104)

State (RSC)	RSC = Azores	
City Name (RAL)	RAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365951 N	
Longitude (DDMMSS)	Lon = 0250814 W	
Antenna Polarization (RAP)	RAP = RAP104 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 = RAZ104 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 194.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD104 47G001B000-360A00194H002	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Santa Maria Azores (Receiver 105)		
State (RSC)	RSC = Azores	
City Name (RAL)	RAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365950 N	
Longitude (DDMMSS)	Lon = 0250814 W	
Antenna Polarization (RAP)	RAP = RAP105 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 = RAZ105 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 195.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD105 47G001B000-360A00195H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Talkeetna Alaska (Receiver 106)

State (RSC)	RSC = Alaska	
City Name (RAL)	RAL = Talkeetna	
Latitude (DDMMSS)	Lat = 621955 N	
Longitude (DDMMSS)	Lon = 1500157 W	
Antenna Polarization (RAP)	RAP = RAP106 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 = RAZ106 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 143.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.5 meters RAD = RAD106 47G001B000-360A00143H004	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Pretoria South Africa (Receiver 107)

State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	

Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282713 E	
Antenna Polarization (RAP)	RAP = RAP107 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 = RAZ107 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD107 47G001B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Pretoria South Africa (Receiver 108)

State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282712 E	
Antenna Polarization (RAP)	RAP = RAP108 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 = RAZ108 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters RAD = RAD108 47G001B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Nova Scotia Canada (Receiver 109)

State (RSC)	RSC = Canada	
City Name (RAL)	RAL = Nova Scotia	
Latitude (DDMMSS)	Lat = 451904 N	
Longitude (DDMMSS)	Lon = 0610209 W	
Antenna Polarization (RAP)	RAP = RAP109 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 = RAZ109 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.0 dBi BEAMWIDTH@ ½ Power 0.6 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD109 47G001B000-360A00025H002	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Leaf Al Ain United Arab Emirates (Receiver 110)		
State (RSC)	RSC = United Arab Emirates	
City Name (RAL)	RAL = Al Ain	
Latitude (DDMMSS)	Lat = 241156 N	
Longitude (DDMMSS)	Lon = 0554100 E	
Antenna Polarization (RAP)	RAP = RAP110 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 = RAZ110 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 46.7 dBi BEAMWIDTH@ ½ Power 0.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 247.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD110 47G001B000-360A00247H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Leaf Al Ain United Arab Emirates (Receiver 111)		
State (RSC)	RSC = United Arab Emirates	
City Name (RAL)	RAL = Al Ain	
Latitude (DDMMSS)	Lat = 241155 N	
Longitude (DDMMSS)	Lon = 0554100 E	
Antenna Polarization (RAP)	RAP = RAP111 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 = RAZ111 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 46.7 dBi BEAMWIDTH@ ½ Power 0.74 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 248.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters RAD = RAD111 47G001B000-360A00248H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Selfoss Iceland (Receiver 112)	
State (RSC)	RSC = Iceland
City Name (RAL)	RAL = Selfoss

Latitude (DDMMSS)	Lat = 640304 N	
Longitude (DDMMSS)	Lon = 0202518 W	
Antenna Polarization (RAP)	RAP = RAP112 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 = RAZ112 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 125.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD112 44G001B000-360A00125H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Colorado Springs Colorado (Receiver 113)

State (RSC)	RSC = Colorado	
City Name (RAL)	RAL = Colorado Springs	
Latitude (DDMMSS)	Lat = 385638 N	
Longitude (DDMMSS)	Lon = 1044446 W	
Antenna Polarization (RAP)	RAP = RAP113 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 = RAZ113 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 2076.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD113 44G001B000-360A02076H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pitea Sweden (Receiver 114)

State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Pitea	
Latitude (DDMMSS)	Lat = 652016 N	
Longitude (DDMMSS)	Lon = 0212531 E	
Antenna Polarization (RAP)	RAP = RAP114 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 = RAZ114 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 9.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD114 44G001B000-360A00009H002	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Pretoria South Africa (Receiver 115)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282714 E	
Antenna Polarization (RAP)	RAP = RAP115 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 = RAZ115 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1393.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD115 44G001B000-360A01394H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – AnySignal Torrance California (Receiver 116)

State (RSC)	RSC = California	
City Name (RAL)	RAL = Torrance	
Latitude (DDMMSS)	Lat = 334827 N	
Longitude (DDMMSS)	Lon = 1182100 W	
Antenna Polarization (RAP)	RAP = RAP116 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 = RAZ116 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD116 44G001B000-360A00025H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Awarua New Zealand (Receiver 117)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	

Latitude (DDMMSS)	Lat = 463144 S	
Longitude (DDMMSS)	Lon = 1682251 E	
Antenna Polarization (RAP)	RAP = RAP117 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 = RAZ117 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.8 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD117 44G001B000-360A00011H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal Punta Arenas Chile (Receiver 118)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530703 S	
Longitude (DDMMSS)	Lon = 0705339 W	
Antenna Polarization (RAP)	RAP = RAP118 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 = RAZ118 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 29.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD118 44G001B000-360A00029H002	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – AnySignal North Pole Alaska (Receiver 119)

State (RSC)	RSC = Alaska	
City Name (RAL)	RAL = North Pole	
Latitude (DDMMSS)	Lat = 644549 N	
Longitude (DDMMSS)	Lon = 1472213 W	
Antenna Polarization (RAP)	RAP = RAP119 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 = RAZ119 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 43.7 dBi BEAMWIDTH@ ½ Power 0.85 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 148.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters RAD = RAD119 44G001B000-360A00149H002	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Bismarck North Dakota (Receiver 120)		
State (RSC)	RSC = North Dakota	
City Name (RAL)	RAL = Bismarck	
Latitude (DDMMSS)	Lat = 465256 N	
Longitude (DDMMSS)	Lon = 1004817 W	
Antenna Polarization (RAP)	RAP = RAP120 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 = RAZ120 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 591.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD120 40G001B000-360A00591H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – Northwood Loring Maine (Receiver 121)

State (RSC)	RSC = Maine	
City Name (RAL)	RAL = Loring	
Latitude (DDMMSS)	Lat = 465601 N	
Longitude (DDMMSS)	Lon = 0675434 W	
Antenna Polarization (RAP)	RAP = RAP121 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 = RAZ121 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 207.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD121 40G001B000-360A00207H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Kihei Hawaii (Receiver 122)

State (RSC)	RSC = Hawaii	
City Name (RAL)	RAL = Kihei	

Latitude (DDMMSS)	Lat = 204444 N	
Longitude (DDMMSS)	Lon = 1562613 W	
Antenna Polarization (RAP)	RAP = RAP122 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 = RAZ122 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 59.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD122 40G001B000-360A00059H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Vodno Bulgaria (Receiver 123)

State (RSC)	RSC = Bulgaria	
City Name (RAL)	RAL = Vodno	
Latitude (DDMMSS)	Lat = 435141 N	
Longitude (DDMMSS)	Lon = 0270903 E	
Antenna Polarization (RAP)	RAP = RAP123 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 = RAZ123 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 219.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD123 40G001B000-360A00219H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Neu Poserin Germany (Receiver 124)

State (RSC)	RSC = Germany	
City Name (RAL)	RAL = Neu Poserin	
Latitude (DDMMSS)	Lat = 533315 N	
Longitude (DDMMSS)	Lon = 0121327 E	
Antenna Polarization (RAP)	RAP = RAP124 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 = RAZ124 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 54.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD124 40G001B000-360A00054H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – Northwood Rio Gallegos Argentina (Receiver 125)		
State (RSC)	RSC = Argentina	
City Name (RAL)	RAL = Rio Gallegos	
Latitude (DDMMSS)	Lat = 514003 S	
Longitude (DDMMSS)	Lon = 0691551 W	
Antenna Polarization (RAP)	RAP = RAP125 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 = RAZ125 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 40.0 dBi BEAMWIDTH@ ½ Power 1.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 21.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters RAD = RAD125 40G001B000-360A00021H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 2.4 m ANTENNA EFFICIENCY 65.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Athens Greece (Receiver 126)

State (RSC)	RSC = Greece	
City Name (RAL)	RAL = Athens	
Latitude (DDMMSS)	Lat = 375043 N	
Longitude (DDMMSS)	Lon = 0223726 E	
Antenna Polarization (RAP)	RAP = RAP126 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 = RAZ126 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 281.6 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD126 48G001B000-360A00282H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Fairbanks Alaska (Receiver 127)

State (RSC)	RSC = Alaska	
City Name (RAL)	RAL = Fairbanks	

Latitude (DDMMSS)	Lat = 644904 N	
Longitude (DDMMSS)	Lon = 1474330 W	
Antenna Polarization (RAP)	RAP = RAP127 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 = RAZ127 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.2 dBi BEAMWIDTH@ ½ Power 0.58 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 135.484 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD127 47G001B000-360A00135H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 128)

State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDMMSS)	Lon = 1261901 E	
Antenna Polarization (RAP)	RAP = RAP128 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 = RAZ128 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 240.497 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD128 48G001B000-360A00240H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 129)

State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDMMSS)	Lon = 1261904 E	
Antenna Polarization (RAP)	RAP = RAP129 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 = RAZ129 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 239.946 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD129 48G001B000-360A00240H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Jeju South Korea (Receiver 130)		
State (RSC)	RSC = South Korea	
City Name (RAL)	RAL = Jeju	
Latitude (DDMMSS)	Lat = 332315 N	
Longitude (DDMMSS)	Lon = 1261902 E	
Antenna Polarization (RAP)	RAP = RAP130 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 = RAZ130 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 238.992 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD130 48G001B000-360A00239H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Bel Ombre Mauritius (Receiver 131)

State (RSC)	RSC = Mauritius	
City Name (RAL)	RAL = Bel Ombre	
Latitude (DDMMSS)	Lat = 203002 S	
Longitude (DDMMSS)	Lon = 0572703 E	
Antenna Polarization (RAP)	RAP = RAP131 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 = RAZ131 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 26.221 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD131 48G001B000-360A00026H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 132)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	

Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDMMSS)	Lon = 1152029 E	
Antenna Polarization (RAP)	RAP = RAP132 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 = RAZ132 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 265.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD132 48G001B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 133)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152030 E	
Antenna Polarization (RAP)	RAP = RAP133 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 = RAZ133 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 266.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD133 48G001B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 134)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152032 E	
Antenna Polarization (RAP)	RAP = RAP134 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 = RAZ134 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 266.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD134 48G001B000-360A00267H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Mingenew Australia (Receiver 135)		
State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152033 E	
Antenna Polarization (RAP)	RAP = RAP135 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 = RAZ135 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 267.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD135 48G001B000-360A00267H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Awarua New Zealand (Receiver 136)		
State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463142 S	
Longitude (DDMMSS)	Lon = 1682244 E	
Antenna Polarization (RAP)	RAP = RAP136 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 = RAZ136 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.559 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD136 48G001B000-360A00013H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 137)	
State (RSC)	RSC = New Zealand
City Name (RAL)	RAL = Awarua

Latitude (DDMMSS)	Lat = 463146 S	
Longitude (DDMMSS)	Lon = 1682250 E	
Antenna Polarization (RAP)	RAP = RAP137 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 = RAZ137 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.294 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD137 48G001B000-360A00012H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 138)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463156 S	
Longitude (DDMMSS)	Lon = 1682304 E	
Antenna Polarization (RAP)	RAP = RAP138 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 = RAZ138 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.244 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD138 48G001B000-360A00009H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Awarua New Zealand (Receiver 139)

State (RSC)	RSC = New Zealand	
City Name (RAL)	RAL = Awarua	
Latitude (DDMMSS)	Lat = 463157 S	
Longitude (DDMMSS)	Lon = 1682302 E	
Antenna Polarization (RAP)	RAP = RAP139 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 = RAZ139 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.2 dBi BEAMWIDTH@ ½ Power 0.58 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 9.226 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD139 47G001B000-360A00009H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 140)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDMMSS)	Lon = 0705224 W	
Antenna Polarization (RAP)	RAP = RAP140 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 = RAZ140 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.096 meters RAD = RAD140 48G001B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Punta Arenas Chile (Receiver 141)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDMMSS)	Lon = 0705225 W	
Antenna Polarization (RAP)	RAP = RAP141 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 = RAZ141 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.129 meters RAD = RAD141 48G001B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 142)

State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	

Latitude (DDMMSS)	Lat = 525603 S	
Longitude (DDDMMSS)	Lon = 0705224 W	
Antenna Polarization (RAP)	RAP = RAP142 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 = RAZ142 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.2 dBi BEAMWIDTH@ ½ Power 0.58 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD142 47G001B000-360A00025H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.9 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puertollano Spain (Receiver 143)

State (RSC)	RSC = Spain	
City Name (RAL)	RAL = Puertollano	
Latitude (DDMMSS)	Lat = 384020 N	
Longitude (DDDMMSS)	Lon = 0040946 W	
Antenna Polarization (RAP)	RAP = RAP143 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 = RAZ143 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 685.841 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD143 48G001B000-360A00686H005	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puertollano Spain (Receiver 144)

State (RSC)	RSC = Spain	
City Name (RAL)	RAL = Puertollano	
Latitude (DDMMSS)	Lat = 384019 N	
Longitude (DDMMSS)	Lon = 0040946 W	
Antenna Polarization (RAP)	RAP = RAP144 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 = RAZ144 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 684.597 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters RAD = RAD144 48G001B000-360A00685H005	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Hartebeesthoek South Africa (Receiver 145)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255310 S	
Longitude (DDMMSS)	Lon = 0274222 E	
Antenna Polarization (RAP)	RAP = RAP145 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 = RAZ145 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1564.73 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD145 48G001B000-360A01565H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Hartebeesthoek South Africa (Receiver 146)

State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255312 S	
Longitude (DDMMSS)	Lon = 0274222 E	
Antenna Polarization (RAP)	RAP = RAP146 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 = RAZ146 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1568.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD146 48G001B000-360A01569H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puunene Hawaii (Receiver 147)

State (RSC)	RSC = Hawaii	
City Name (RAL)	RAL = Puunene	

Latitude (DDMMSS)	Lat = 204902 N	
Longitude (DDMMSS)	Lon = 1562717 W	
Antenna Polarization (RAP)	RAP = RAP147 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 = RAZ147 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 43.46 meters ANTENNA HEIGHT ABOVE TERRAIN 5.66 meters RAD = RAD147 48G001B000-360A00043H006	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puunene Hawaii (Receiver 148)		
State (RSC)	RSC = Hawaii	
City Name (RAL)	RAL = Puunene	
Latitude (DDMMSS)	Lat = 204901 N	
Longitude (DDMMSS)	Lon = 1562716 W	
Antenna Polarization (RAP)	RAP = RAP148 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 = RAZ148 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 43.46 meters ANTENNA HEIGHT ABOVE TERRAIN 5.66 meters RAD = RAD148 48G001B000-360A00043H006	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Puunene Hawaii (Receiver 149)

State (RSC)	RSC = Hawaii	
City Name (RAL)	RAL = Puunene	
Latitude (DDMMSS)	Lat = 204903 N	
Longitude (DDMMSS)	Lon = 1562716 W	
Antenna Polarization (RAP)	RAP = RAP149 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 = RAZ149 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 47.6 dBi BEAMWIDTH@ ½ Power 0.66 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 43.33 meters ANTENNA HEIGHT ABOVE TERRAIN 5.23 meters RAD = RAD149 48G001B000-360A00043H005	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.7 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Tromso Norway (Receiver 150)		
State (RSC)	RSC = Norway	
City Name (RAL)	RAL = Tromso	
Latitude (DDMMSS)	Lat = 693944 N	
Longitude (DDMMSS)	Lon = 0185629 E	
Antenna Polarization (RAP)	RAP = RAP150 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 = RAZ150 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 46.0 dBi BEAMWIDTH@ ½ Power 0.8 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 135.4527 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD150 46G001B000-360A00135H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 3.0 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Dublin Ireland (Receiver 151)

State (RSC)	RSC = Ireland	
City Name (RAL)	RAL = Dublin	
Latitude (DDMMSS)	Lat = 532424 N	
Longitude (DDMMSS)	Lon = 0061328 W	
Antenna Polarization (RAP)	RAP = RAP151 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 = RAZ151 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 84.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD151 51G001B000-360A00084H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Columbus Ohio (Receiver 152)

State (RSC)	RSC = Ohio	
City Name (RAL)	RAL = Columbus	

Latitude (DDMMSS)	Lat = 400603 N	
Longitude (DDMMSS)	Lon = 0831151 W	
Antenna Polarization (RAP)	RAP = RAP152 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 = RAZ152 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 282.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD152 51G001B000-360A00282H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Boardman Oregon (Receiver 153)

State (RSC)	RSC = Oregon	
City Name (RAL)	RAL = Boardman	
Latitude (DDMMSS)	Lat = 455116 N	
Longitude (DDMMSS)	Lon = 1193755 W	
Antenna Polarization (RAP)	RAP = RAP153 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 = RAZ153 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 101.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD153 51G001B000-360A00101H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Kapolei Hawaii (Receiver 154)

State (RSC)	RSC = Hawaii	
City Name (RAL)	RAL = Kapolei	
Latitude (DDMMSS)	Lat = 212012 N	
Longitude (DDMMSS)	Lon = 1580524 W	
Antenna Polarization (RAP)	RAP = RAP154 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 = RAZ154 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 52.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD154 51G001B000-360A00052H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Punta Arenas Chile (Receiver 155)		
State (RSC)	RSC = Chile	
City Name (RAL)	RAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525632 S	
Longitude (DDMMSS)	Lon = 0705059 W	
Antenna Polarization (RAP)	RAP = RAP155 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 = RAZ155 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD155 51G001B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Earth Station Data – KSAT Deadhorse Alaska (Receiver 156)

State (RSC)	RSC = Alaska	
City Name (RAL)	RAL = Deadhorse	
Latitude (DDMMSS)	Lat = 701214 N	
Longitude (DDMMSS)	Lon = 1482824 W	
Antenna Polarization (RAP)	RAP = RAP156 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 = RAZ156 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 5.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD156 51G001B000-360A00005H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Singapore Singapore (Receiver 157)

State (RSC)	RSC = Singapore	
City Name (RAL)	RAL = Singapore	

Latitude (DDMMSS)	Lat = 011859 N	
Longitude (DDMMSS)	Lon = 1034203 E	
Antenna Polarization (RAP)	RAP = RAP157 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 = RAZ157 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 82.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD157 51G001B000-360A00082H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Stockholm Sweden (Receiver 158)

State (RSC)	RSC = Sweden	
City Name (RAL)	RAL = Stockholm	
Latitude (DDMMSS)	Lat = 593857 N	
Longitude (DDMMSS)	Lon = 0163505 E	
Antenna Polarization (RAP)	RAP = RAP158 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 = RAZ158 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 39.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD158 51G001B000-360A00039H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Sydney Australia (Receiver 159)

State (RSC)	RSC = Australia	
City Name (RAL)	RAL = Sydney	
Latitude (DDMMSS)	Lat = 321031 S	
Longitude (DDMMSS)	Lon = 1483656 E	
Antenna Polarization (RAP)	RAP = RAP159 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 = RAZ159 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 284.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD159 51G001B000-360A00284H003	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	
Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – KSAT Cape Town South Africa (Receiver 160)		
State (RSC)	RSC = South Africa	
City Name (RAL)	RAL = Cape Town	
Latitude (DDMMSS)	Lat = 340139 S	
Longitude (DDMMSS)	Lon = 0184307 E	
Antenna Polarization (RAP)	RAP = RAP160 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 = RAZ160 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 51.1 dBi BEAMWIDTH@ ½ Power 0.49 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters RAD = RAD160 51G001B000-360A00010H003	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 5.4 m ANTENNA EFFICIENCY 60.0%	

Supported Operations	Satellite Health and Status Data ☒ Mission Payload Data ☒	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA
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Transmit Frequency: 750MHz		
Satellite Name: GE1 (Transmitter 4)		
Transmit Power (PWR)	PWR = 1.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
RF Emissions	Emissions Designator 0H00N0N Necessary Bandwidth 5.00 kHz -3 dB Bandwidth 5.00 kHz -20 dB Bandwidth 5.00 kHz -40 dB Bandwidth 5.00 kHz -60 dB Bandwidth 10.0 kHz Modulation Type CW Data Rate 0.00 bps Forward Error Correction N/A Coding Total Symbol Rate 0.00 sym/s	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL. -3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK. DATA RATE: INFORMATION DATA RATE TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR.
Does transmitter have a beacon mode?	No	BEACON MODE IS NORMALLY CONSIDERED A REGULAR AND PERIODIC SHORT DURATION TRANSMISSION THAT IS OFTEN USED TO ASSIST WITH TRACKING, DOPPLER COMPENSATION, OR SMALL SATELLITE IDENTIFICATION WHOSE TRANSMISSIONS ARE NOT LIMITED TO DURATIONS WHEN SUPPORTING GROUND

If transmitter has a beacon mode, can the beacon be commanded off?	N/A	
Polarization (XAP)	XAP = XAP04 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
Orientation (XAZ)	XAZ = XAZ04 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN(dBi) 15.0 dBi BEAMWIDTH@ ½ Power 30.0 degrees XAD = XAD04 15G030B	(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)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1 INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5 AND FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1	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

	REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01	
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)
Number of Satellite Contacts Supported Per Day	At 500km x 500km: 3 contacts per day for first 3 months only At 10000km x 10000km: None	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE SPACE TO EARTH DIRECTION (DOWNLINKS) EACH DAY Note: This number specifies total contacts per day for this transmitter, which will be distributed across the receivers listed in this section.
Expected Duration of Each Contact	At 500km x 500km: 8 minutes per contact At 10000km x 10000km: None	AVERAGE DURATION OF EACH CONTACT

Earth Station Data – NGC Rolling Meadows Illinois (Receiver 161)		
State (RSC)	RSC = Illinois	
City Name (RAL)	RAL = Rolling Meadows	
Latitude (DDMMSS)	Lat = 420610 N	
Longitude (DDMMSS)	Lon = 0880147 W	
Antenna Polarization (RAP)	RAP = RAP161 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
Antenna Azimuth (RAZ)	RAZ = RAZ161 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 4.0 dBi BEAMWIDTH@ ½ Power 120.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 224.0 meters	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	ANTENNA HEIGHT ABOVE TERRAIN 16.0 meters RAD = RAD161 04G120B000-360A00224H016	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 0.6 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☐ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Transmit Frequency: 1100MHz		
Satellite Name: GE1 (Transmitter 5)		
Transmit Power (PWR)	PWR = 1.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
RF Emissions	Emissions Designator 0H00N0N Necessary Bandwidth 5.00 kHz -3 dB Bandwidth 5.00 kHz -20 dB Bandwidth 5.00 kHz -40 dB Bandwidth 5.00 kHz -60 dB Bandwidth 10.0 kHz Modulation Type CW Data Rate 0.00 bps Forward Error Correction Coding N/A Total Symbol Rate 0.00 sym/s	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL. -3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK. DATA RATE: INFORMATION DATA RATE TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR.

Does transmitter have a beacon mode?	No	BEACON MODE IS NORMALLY CONSIDERED A REGULAR AND PERIODIC SHORT DURATION TRANSMISSION THAT IS OFTEN USED TO ASSIST WITH TRACKING, DOPPLER COMPENSATION, OR SMALL SATELLITE IDENTIFICATION WHOSE TRANSMISSIONS ARE NOT LIMITED TO DURATIONS WHEN SUPPORTING GROUND
If transmitter has a beacon mode, can the beacon be commanded off?	N/A	
Polarization (XAP)	XAP = XAP05 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
Orientation (XAZ)	XAZ = XAZ05 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (XAD)	ANTENNA GAIN(dBi) 19.0 dBi BEAMWIDTH@ ½ Power 20.0 degrees XAD = XAD05 19G020B	(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)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1	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,

	AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1 INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5 AND FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1 REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01	REM04 *ORB, 98.0IN00510AP00510PE001.58H01NRT01
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)
Number of Satellite Contacts Supported Per Day	At 500km x 500km: 3 contacts per day for first 3 months only At 10000km x 10000km: None	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE SPACE TO EARTH DIRECTION (DOWNLINKS) EACH DAY Note: This number specifies total contacts per day for this transmitter, which will be distributed across the receivers listed in this section.
Expected Duration of Each Contact	At 500km x 500km: 8 minutes per contact At 10000km x 10000km: None	AVERAGE DURATION OF EACH CONTACT

Earth Station Data – NGC Aurora Colorado (Receiver 162)		
State (RSC)	RSC = Colorado	
City Name (RAL)	RAL = Aurora	
Latitude (DDMMSS)	Lat = 393334 N	
Longitude (DDDMMSS)	Lon = 1044939 W	
Antenna Polarization (RAP)	RAP = RAP162 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
Antenna Azimuth (RAZ)	RAZ = RAZ162 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 21.0 dBi BEAMWIDTH@ ½ Power 16.0 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1785.0 meters ANTENNA HEIGHT ABOVE TERRAIN 10.0 meters RAD = RAD162 21G016B000-360A01785H010	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 1.2 m ANTENNA EFFICIENCY 70.0%	
Supported Operations	Satellite Health and Status Data ☐ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Earth Station Data – NGC Rolling Meadows Illinois (Receiver 163)

State (RSC)	RSC = Illinois	
City Name (RAL)	RAL = Rolling Meadows	
Latitude (DDMMSS)	Lat = 420610 N	
Longitude (DDMMSS)	Lon = 0880147 W	
Antenna Polarization (RAP)	RAP = RAP163 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
Antenna Azimuth (RAZ)	RAZ = RAZ163 V10	THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00
Antenna Dimensions (RAD)	ANTENNA GAIN(dBi) 2.5 dBi BEAMWIDTH@ ½ Power 145.0 degrees AZIMUTHAL RANGE 0-360 degrees	EXAMPLE ASSUMING NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

	SITE ELEVATION ABOVE MSL 224.0 meters ANTENNA HEIGHT ABOVE TERRAIN 16.0 meters RAD = RAD163 03G145B000-360A00224H016	
Receive Antenna Additional Information (For Parabolic Antennas)	ANTENNA DIAMETER 0.6 m ANTENNA EFFICIENCY 90.0%	
Supported Operations	Satellite Health and Status Data ☐ Mission Payload Data ☐	SATELLITE HEALTH AND STATUS TELEMETRY AND/OR MISSION PAYLOAD DATA

Part B: Earth to Space Uplink Data

Transmit Frequency: 2040MHz		
Satellite Name: GE1 (Receiver 1)		
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 EC	NB= NARROWBEAM EC = EARTH COVERAGE
Antenna Dimension (RAD)	ANTENNA GAIN(dBi) 6.56 dBi BEAMWIDTH@ ½ Power 111.0 degrees RAD = RAD01 07G111B	(NTIA format, EXAMPLE, RAD01 16G030B)
Type of satellite (State = SP) (City = geo or non)	Type = Nongeostationary	Choose either: Geostationary or Nongeostationary
For Nongeostationary (Orbital Data)	The single spacecraft will operate at multiple orbits described below: INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 500 km PERIGEE IN KILOMETERS 500 km ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 59 NUMBER OF SATELLITES IN THE SYSTEM 1	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

	INCLINATION ANGLE 50.0 degrees APOGEE IN KILOMETERS 10000 km PERIGEE IN KILOMETERS 10000 km ORBITAL PERIOD IN HOURS 5 AND FRACTIONS OF HOURS IN DECIMAL 79 NUMBER OF SATELLITES IN THE SYSTEM 1 REM01 *ORB,50.0IN00500AP00500PE001.59H01NRT01 REM02 *ORB,50.0IN10000AP10000PE005.79H01NRT01																																	
For SunSynchronous Nongeostationary Orbits	Mean Local Time of Ascending Node (MLTAN) =	MLTAN IS THE ANGLE BETWEEN AN ORBIT'S ASCENDING NODE AND THE MEAN SUN, OFTEN EXPRESSED AS UNIT OF TIME (HH:MM)																																
Number of Satellite Contacts Supported Per Day	At 500km x 500km: 55 contacts per day across all transmitters. At 10000km x 10000km: 18 contacts per day across all receivers.	NUMBER OF TIMES THE SATELLITE WILL COMMUNICATE WITH THE EARTH STATION IN THE EARTH TO SPACE DIRECTION (UPLINKS) EACH DAY Note: This number specifies total contacts per day for this receiver, which will be distributed across the transmitters listed in this section.																																
Expected Duration of Each Contact	At 500km x 500km: 6 minutes per contact At 10000km x 10000km: 56 minutes per contact	AVERAGE DURATION OF EACH CONTACT																																
RF Emissions	<table><tr><td>Emissions Designator</td><td>100KG1D</td></tr><tr><td>Necessary Bandwidth</td><td>100 kHz</td></tr><tr><td>-3 dB Bandwidth</td><td>100 kHz</td></tr><tr><td>-20 dB Bandwidth</td><td>—</td></tr><tr><td>-40 dB Bandwidth</td><td>—</td></tr><tr><td>-60 dB Bandwidth</td><td>—</td></tr><tr><td>Modulation Type</td><td>QPSK</td></tr><tr><td>Data Rate</td><td>64.8 kbps</td></tr><tr><td>Forward Error Correction Coding</td><td>Convolutional 1/2 + RS (255,223)</td></tr><tr><td>Total Symbol Rate</td><td>148 ksym/s</td></tr></table> <table><tr><td>Emissions Designator</td><td>2M00G1D</td></tr><tr><td>Necessary Bandwidth</td><td>2.00 MHz</td></tr><tr><td>-3 dB Bandwidth</td><td>2.00 MHz</td></tr><tr><td>-20 dB Bandwidth</td><td>—</td></tr><tr><td>-40 dB Bandwidth</td><td>—</td></tr><tr><td>-60 dB Bandwidth</td><td>—</td></tr></table>	Emissions Designator	100KG1D	Necessary Bandwidth	100 kHz	-3 dB Bandwidth	100 kHz	-20 dB Bandwidth	—	-40 dB Bandwidth	—	-60 dB Bandwidth	—	Modulation Type	QPSK	Data Rate	64.8 kbps	Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)	Total Symbol Rate	148 ksym/s	Emissions Designator	2M00G1D	Necessary Bandwidth	2.00 MHz	-3 dB Bandwidth	2.00 MHz	-20 dB Bandwidth	—	-40 dB Bandwidth	—	-60 dB Bandwidth	—	NECESSARY BANDWIDTH: THE WIDTH OF FREQUENCY BAND WHICH IS JUST SUFFICIENT TO SUCCESSFULLY TRANSFER DATA. FORMULAS CAN BE FOUND IN ANNEX J OF THE NTIA MANUAL. -3 / -20 / -40 / -60 dB BANDWIDTHS: 2-SIDED EMISSION BANDWIDTH VALUES MODULATION TYPE: THE METHOD USED TO SUPERIMPOSE DATA ON THE CARRIER, EXAMPLE, BPSK, QPSK, GMSK. DATA RATE: INFORMATION DATA RATE
Emissions Designator	100KG1D																																	
Necessary Bandwidth	100 kHz																																	
-3 dB Bandwidth	100 kHz																																	
-20 dB Bandwidth	—																																	
-40 dB Bandwidth	—																																	
-60 dB Bandwidth	—																																	
Modulation Type	QPSK																																	
Data Rate	64.8 kbps																																	
Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)																																	
Total Symbol Rate	148 ksym/s																																	
Emissions Designator	2M00G1D																																	
Necessary Bandwidth	2.00 MHz																																	
-3 dB Bandwidth	2.00 MHz																																	
-20 dB Bandwidth	—																																	
-40 dB Bandwidth	—																																	
-60 dB Bandwidth	—																																	

	Modulation Type	QPSK	TOTAL SYMBOL RATE: DATA RATE COMBINED WITH FEC AND FRAME OVERHEAD RESULTING IN THE TOTAL SYMBOL RATE AT THE INPUT TO THE SYMBOL MAPPER/MODULATOR. Note: All transmitters in this section transmit the same emissions designators.
	Data Rate	1.30 Mbps	
	Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)	
	Total Symbol Rate	2.96 Msym/s	
	Emissions Designator	400KG1D	
	Necessary Bandwidth	400 kHz	
	-3 dB Bandwidth	400 kHz	
	-20 dB Bandwidth	—	
	-40 dB Bandwidth	—	
	-60 dB Bandwidth	—	
	Modulation Type	QPSK	
	Data Rate	259 kbps	
	Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)	
	Total Symbol Rate	593 ksym/s	
	Emissions Designator	640KG1D	
	Necessary Bandwidth	640 kHz	
	-3 dB Bandwidth	640 kHz	
	-20 dB Bandwidth	—	
	-40 dB Bandwidth	—	
	-60 dB Bandwidth	—	
	Modulation Type	QPSK	
	Data Rate	415 kbps	
	Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)	
	Total Symbol Rate	948 ksym/s	
	Emissions Designator	920KG1D	
	Necessary Bandwidth	920 kHz	
	-3 dB Bandwidth	920 kHz	
	-20 dB Bandwidth	—	
	-40 dB Bandwidth	—	
	-60 dB Bandwidth	—	
	Modulation Type	QPSK	
	Data Rate	596 kbps	
	Forward Error Correction Coding	Convolutional 1/2 + RS (255,223)	
	Total Symbol Rate	1.36 Msym/s	

Earth Station Data – Leaf Peterborough Southern Australia (Transmitter 1)	
State (XSC)	XSC = Southern Australia
City Name (XAL)	XAL = Peterborough

Latitude (DDMMSS)	Lat = 325743 S	
Longitude (DDDMMSS)	Lon = 1385058 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
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, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 539.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD01 35G003B000-360A00539H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Nangetty Western Australia (Transmitter 2)		
State (XSC)	XSC = Western Australia	
City Name (XAL)	XAL = Nangetty	
Latitude (DDMMSS)	Lat = 290037 S	
Longitude (DDDMMSS)	Lon = 1152032 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT

Antenna 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
Antenna Azimuth (XAZ)	XAZ = XAZ02 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 270.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD02 35G003B000-360A00270H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Nangetty Western Australia (Transmitter 3)		
State (XSC)	XSC = Western Australia	
City Name (XAL)	XAL = Nangetty	
Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDDMMSS)	Lon = 1152033 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
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 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90

Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 272.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD03 35G003B000-360A00272H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006
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Earth Station Data – Leaf Absheron Azerbaijan (Transmitter 4)		
State (XSC)	XSC = Azerbaijan	
City Name (XAL)	XAL = Absheron	
Latitude (DDMMSS)	Lat = 402759 N	
Longitude (DDDMMSS)	Lon = 0492910 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP04 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 = XAZ04 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD04 35G003B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Absheron Azerbaijan (Transmitter 5)		
State (XSC)	XSC = Azerbaijan	
	XAL = Absheron	

City Name (XAL)		
Latitude (DDMMSS)	Lat = 402758 N	
Longitude (DDMMSS)	Lon = 0492911 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP05 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 = XAZ05 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 210.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD05 35G003B000-360A00210H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Punta Arenas Chile (Transmitter 6)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705049 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT,

		K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP06 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 = XAZ06 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD06 35G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Punta Arenas Chile (Transmitter 7)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530231 S	
Longitude (DDDMMSS)	Lon = 0705046 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP07 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
	XAZ = XAZ07 V10	

Antenna Azimuth (XAZ)		THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD07 35G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Punta Arenas Chile (Transmitter 8)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDMMSS)	Lon = 0705048 W	
Transmit Power (PWR)	PWR = 23.442 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP08 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 = XAZ08 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 36.3 dBi BEAMWIDTH@ ½ Power 2.7 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD08 36G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Punta Arenas Chile (Transmitter 9)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530230 S	
Longitude (DDDMMSS)	Lon = 0705045 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP09 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 = XAZ09 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD09 35G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Punta Arenas Chile (Transmitter 10)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530229 S	
Longitude (DDDMMSS)	Lon = 0705047 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP10 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 = XAZ10 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 36.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD10 35G003B000-360A00036H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Santiago Chile (Transmitter 11)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDMMSS)	Lon = 0704620 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP11 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 = XAZ11 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD11 35G003B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Santiago Chile (Transmitter 12)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Santiago	
Latitude (DDMMSS)	Lat = 332153 S	
Longitude (DDDMMSS)	Lon = 0704621 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP12 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 = XAZ12 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD12 35G003B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Santiago Chile (Transmitter 13)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Santiago	
Latitude (DDMMSS)	Lat = 332154 S	
Longitude (DDMMSS)	Lon = 0704622 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP13 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 = XAZ13 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 464.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD13 35G003B000-360A00464H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Blonduos Iceland (Transmitter 14)		
State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDMMSS)	Lon = 0201442 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP14 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 = XAZ14 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD14 35G003B000-360A00053H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Blonduos Iceland (Transmitter 15)

State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Blonduos	
Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDMMSS)	Lon = 0201441 W	
Transmit Power (PWR)	PWR = 6.310 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP15 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 = XAZ15 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.0 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 53.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD15 37G002B000-360A00053H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Blonduos Iceland (Transmitter 16)		
State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDDMMSS)	Lon = 0201421 W	
Transmit Power (PWR)	PWR = 6.310 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP16 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 = XAZ16 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.0 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters XAD = XAD16 37G002B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Blonduos Iceland (Transmitter 17)		
State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Blonduos	
Latitude (DDMMSS)	Lat = 653851 N	
Longitude (DDDMMSS)	Lon = 0201421 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP17 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 = XAZ17 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD17 35G003B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Blonduos Iceland (Transmitter 18)		
State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Blonduos	
Latitude (DDMMSS)	Lat = 653850 N	
Longitude (DDDMMSS)	Lon = 0201419 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP18 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 = XAZ18 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 55.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD18 35G003B000-360A00055H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Kandy Sri Lanka (Transmitter 19)

State (XSC)	XSC = Sri Lanka	
City Name (XAL)	XAL = Kandy	
Latitude (DDMMSS)	Lat = 071627 N	
Longitude (DDMMSS)	Lon = 0804329 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP19 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 = XAZ19 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 456.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD19 35G003B000-360A00456H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Mon Loisir Mauritius (Transmitter 20)		
State (XSC)	XSC = Mauritius	
City Name (XAL)	XAL = Mon Loisir	
Latitude (DDMMSS)	Lat = 200822 S	
Longitude (DDDMMSS)	Lon = 0574113 E	
Transmit Power (PWR)	PWR = 19.953 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP20 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 = XAZ20 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.0 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 96.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters XAD = XAD20 37G002B000-360A00096H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf La Paz Mexico (Transmitter 21)		
State (XSC)	XSC = Mexico	
City Name (XAL)	XAL = La Paz	
Latitude (DDMMSS)	Lat = 240559 N	
Longitude (DDMMSS)	Lon = 1102311 W	
Transmit Power (PWR)	PWR = 26.424 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP21 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 = XAZ21 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 36.28 dBi BEAMWIDTH@ ½ Power 2.75 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters XAD = XAD21 36G003B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf La Paz Mexico (Transmitter 22)		
State (XSC)	XSC = Mexico	
City Name (XAL)	XAL = La Paz	
Latitude (DDMMSS)	Lat = 240600 N	
Longitude (DDMMSS)	Lon = 1102311 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP22 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 = XAZ22 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.3 meters XAD = XAD22 35G003B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Awarua New Zealand (Transmitter 23)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463141 S	
Longitude (DDMMSS)	Lon = 1682245 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP23 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 = XAZ23 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD23 35G003B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Awarua New Zealand (Transmitter 24)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDDMMSS)	Lon = 1682304 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP24 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 = XAZ24 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD24 35G003B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Awarua New Zealand (Transmitter 25)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463158 S	
Longitude (DDMMSS)	Lon = 1682303 E	
Transmit Power (PWR)	PWR = 23.442 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP25 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 = XAZ25 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 36.3 dBi BEAMWIDTH@ ½ Power 2.7 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 8.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD25 36G003B000-360A00008H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Awarua New Zealand (Transmitter 26)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463155 S	
Longitude (DDMMSS)	Lon = 1682303 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP26 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 = XAZ26 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD26 35G003B000-360A00010H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Santa Maria Azores (Transmitter 27)

State (XSC)	XSC = Azores	
City Name (XAL)	XAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365951 N	
Longitude (DDMMSS)	Lon = 0250814 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP27 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 = XAZ27 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 194.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD27 35G003B000-360A00194H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Santa Maria Azores (Transmitter 28)		
State (XSC)	XSC = Azores	
City Name (XAL)	XAL = Santa Maria	
Latitude (DDMMSS)	Lat = 365950 N	
Longitude (DDDMMSS)	Lon = 0250814 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP28 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 = XAZ28 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 195.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD28 35G003B000-360A00195H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Talkeetna Alaska (Transmitter 29)		
State (XSC)	XSC = Alaska	
City Name (XAL)	XAL = Talkeetna	
Latitude (DDMMSS)	Lat = 621955 N	
Longitude (DDMMSS)	Lon = 1500157 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP29 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 = XAZ29 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 143.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.5 meters XAD = XAD29 35G003B000-360A00143H004	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Pretoria South Africa (Transmitter 30)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282713 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP30 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 = XAZ30 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD30 35G003B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Pretoria South Africa (Transmitter 31)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282712 E	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP31 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 = XAZ31 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1389.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.2 meters XAD = XAD31 35G003B000-360A01389H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Nova Scotia Canada (Transmitter 32)		
State (XSC)	XSC = Canada	
City Name (XAL)	XAL = Nova Scotia	
Latitude (DDMMSS)	Lat = 451904 N	
Longitude (DDDMMSS)	Lon = 0610209 W	
Transmit Power (PWR)	PWR = 31.623 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP32 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 = XAZ32 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.0 dBi BEAMWIDTH@ ½ Power 2.76 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD32 35G003B000-360A00025H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Al Ain United Arab Emirates (Transmitter 33)		
State (XSC)	XSC = United Arab Emirates	
City Name (XAL)	XAL = Al Ain	
Latitude (DDMMSS)	Lat = 241156 N	
Longitude (DDMMSS)	Lon = 0554100 E	
Transmit Power (PWR)	PWR = 27.542 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP33 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 = XAZ33 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.6 dBi BEAMWIDTH@ ½ Power 2.8 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 247.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD33 36G003B000-360A00247H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Leaf Al Ain United Arab Emirates (Transmitter 34)		
State (XSC)	XSC = United Arab Emirates	
City Name (XAL)	XAL = Al Ain	
Latitude (DDMMSS)	Lat = 241155 N	
Longitude (DDMMSS)	Lon = 0554100 E	
Transmit Power (PWR)	PWR = 27.542 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP34 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 = XAZ34 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.6 dBi BEAMWIDTH@ ½ Power 2.8 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 248.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.2 meters XAD = XAD34 36G003B000-360A00248H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Selfoss Iceland (Transmitter 35)		
State (XSC)	XSC = Iceland	
City Name (XAL)	XAL = Selfoss	
Latitude (DDMMSS)	Lat = 640304 N	
Longitude (DDMMSS)	Lon = 0202518 W	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP35 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 = XAZ35 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 125.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD35 33G003B000-360A00125H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Colorado Springs Colorado (Transmitter 36)		
State (XSC)	XSC = Colorado	
City Name (XAL)	XAL = Colorado Springs	
Latitude (DDMMSS)	Lat = 385638 N	
Longitude (DDDMMSS)	Lon = 1044446 W	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP36 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 = XAZ36 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 2076.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD36 33G003B000-360A02076H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Pitea Sweden (Transmitter 37)		
State (XSC)	XSC = Sweden	
City Name (XAL)	XAL = Pitea	
Latitude (DDMMSS)	Lat = 652016 N	
Longitude (DDMMSS)	Lon = 0212531 E	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP37 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 = XAZ37 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD37 33G003B000-360A00009H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Pretoria South Africa (Transmitter 38)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Pretoria	
Latitude (DDMMSS)	Lat = 255137 S	
Longitude (DDMMSS)	Lon = 0282714 E	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP38 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 = XAZ38 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1393.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD38 33G003B000-360A01394H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Torrance California (Transmitter 39)		
State (XSC)	XSC = California	
City Name (XAL)	XAL = Torrance	
Latitude (DDMMSS)	Lat = 334827 N	
Longitude (DDMMSS)	Lon = 1182100 W	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP39 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 = XAZ39 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD39 33G003B000-360A00025H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Awarua New Zealand (Transmitter 40)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463144 S	
Longitude (DDDMMSS)	Lon = 1682251 E	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP40 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 = XAZ40 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.8 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD40 33G003B000-360A00011H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal Punta Arenas Chile (Transmitter 41)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 530703 S	
Longitude (DDDMMSS)	Lon = 0705339 W	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP41 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 = XAZ41 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 29.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD41 33G003B000-360A00029H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – AnySignal North Pole Alaska (Transmitter 42)		
State (XSC)	XSC = Alaska	
City Name (XAL)	XAL = North Pole	
Latitude (DDMMSS)	Lat = 644549 N	
Longitude (DDDMMSS)	Lon = 1472213 W	
Transmit Power (PWR)	PWR = 69.984 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP42 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 = XAZ42 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 33.3 dBi BEAMWIDTH@ ½ Power 3.1 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 148.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.0 meters XAD = XAD42 33G003B000-360A00149H002	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Bismarck North Dakota (Transmitter 43)		
State (XSC)	XSC = North Dakota	
City Name (XAL)	XAL = Bismarck	
Latitude (DDMMSS)	Lat = 465256 N	
Longitude (DDMMSS)	Lon = 1004817 W	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP43 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 = XAZ43 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 591.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD43 33G004B000-360A00591H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Loring Maine (Transmitter 44)		
State (XSC)	XSC = Maine	
City Name (XAL)	XAL = Loring	
Latitude (DDMMSS)	Lat = 465601 N	
Longitude (DDDMMSS)	Lon = 0675434 W	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP44 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 = XAZ44 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 207.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD44 33G004B000-360A00207H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Kihei Hawaii (Transmitter 45)		
State (XSC)	XSC = Hawaii	
City Name (XAL)	XAL = Kihei	
Latitude (DDMMSS)	Lat = 204444 N	
Longitude (DDMMSS)	Lon = 1562613 W	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP45 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 = XAZ45 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 59.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD45 33G004B000-360A00059H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Vodno Bulgaria (Transmitter 46)		
State (XSC)	XSC = Bulgaria	
City Name (XAL)	XAL = Vodno	
Latitude (DDMMSS)	Lat = 435141 N	
Longitude (DDMMSS)	Lon = 0270903 E	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP46 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 = XAZ46 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 219.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD46 33G004B000-360A00219H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Neu Poserin Germany (Transmitter 47)		
State (XSC)	XSC = Germany	
City Name (XAL)	XAL = Neu Poserin	
Latitude (DDMMSS)	Lat = 533315 N	
Longitude (DDMMSS)	Lon = 0121327 E	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP47 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 = XAZ47 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 54.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD47 33G004B000-360A00054H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – Northwood Rio Gallegos Argentina (Transmitter 48)		
State (XSC)	XSC = Argentina	
City Name (XAL)	XAL = Rio Gallegos	
Latitude (DDMMSS)	Lat = 514003 S	
Longitude (DDDMMSS)	Lon = 0691551 W	
Transmit Power (PWR)	PWR = 64.565 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP48 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 = XAZ48 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.5 dBi BEAMWIDTH@ ½ Power 3.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 21.0 meters ANTENNA HEIGHT ABOVE TERRAIN 3.0 meters XAD = XAD48 33G004B000-360A00021H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Athens Greece (Transmitter 49)		
State (XSC)	XSC = Greece	
City Name (XAL)	XAL = Athens	
Latitude (DDMMSS)	Lat = 375043 N	
Longitude (DDDMMSS)	Lon = 0223726 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP49 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 = XAZ49 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 281.6 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD49 34G003B000-360A00282H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Fairbanks Alaska (Transmitter 50)		
State (XSC)	XSC = Alaska	
City Name (XAL)	XAL = Fairbanks	
Latitude (DDMMSS)	Lat = 644904 N	
Longitude (DDDMMSS)	Lon = 1474330 W	
Transmit Power (PWR)	PWR = 8.710 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP50 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 = XAZ50 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.6 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 135.484 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD50 36G002B000-360A00135H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Jeju South Korea (Transmitter 51)

State (XSC)	XSC = South Korea	
City Name (XAL)	XAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDMMSS)	Lon = 1261901 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP51 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 = XAZ51 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 240.497 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD51 34G003B000-360A00240H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Jeju South Korea (Transmitter 52)		
State (XSC)	XSC = South Korea	
City Name (XAL)	XAL = Jeju	
Latitude (DDMMSS)	Lat = 332314 N	
Longitude (DDDMMSS)	Lon = 1261904 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP52 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 = XAZ52 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 239.946 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD52 34G003B000-360A00240H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Jeju South Korea (Transmitter 53)		
State (XSC)	XSC = South Korea	
City Name (XAL)	XAL = Jeju	
Latitude (DDMMSS)	Lat = 332315 N	
Longitude (DDMMSS)	Lon = 1261902 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP53 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 = XAZ53 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 238.992 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD53 34G003B000-360A00239H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Bel Ombre Mauritius (Transmitter 54)		
State (XSC)	XSC = Mauritius	
City Name (XAL)	XAL = Bel Ombre	
Latitude (DDMMSS)	Lat = 203002 S	
Longitude (DDMMSS)	Lon = 0572703 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP54 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 = XAZ54 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 26.221 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD54 34G003B000-360A00026H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Mingenew Australia (Transmitter 55)		
State (XSC)	XSC = Australia	
City Name (XAL)	XAL = Mingenew	
Latitude (DDMMSS)	Lat = 290039 S	
Longitude (DDMMSS)	Lon = 1152029 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP55 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 = XAZ55 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 265.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD55 34G003B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Mingenew Australia (Transmitter 56)		
State (XSC)	XSC = Australia	
City Name (XAL)	XAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDDMMSS)	Lon = 1152030 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP56 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 = XAZ56 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 266.3 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD56 34G003B000-360A00266H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Mingenew Australia (Transmitter 57)		
State (XSC)	XSC = Australia	
City Name (XAL)	XAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152032 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP57 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 = XAZ57 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 266.7 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD57 34G003B000-360A00267H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Mingenew Australia (Transmitter 58)		
State (XSC)	XSC = Australia	
City Name (XAL)	XAL = Mingenew	
Latitude (DDMMSS)	Lat = 290040 S	
Longitude (DDMMSS)	Lon = 1152033 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP58 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 = XAZ58 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 267.2 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD58 34G003B000-360A00267H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Awarua New Zealand (Transmitter 59)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463142 S	
Longitude (DDMMSS)	Lon = 1682244 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP59 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 = XAZ59 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.559 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD59 34G003B000-360A00013H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Awarua New Zealand (Transmitter 60)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463146 S	
Longitude (DDDMMSS)	Lon = 1682250 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP60 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 = XAZ60 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 12.294 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD60 34G003B000-360A00012H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Awarua New Zealand (Transmitter 61)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463156 S	
Longitude (DDMMSS)	Lon = 1682304 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP61 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 = XAZ61 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.244 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD61 34G003B000-360A00009H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Awarua New Zealand (Transmitter 62)		
State (XSC)	XSC = New Zealand	
City Name (XAL)	XAL = Awarua	
Latitude (DDMMSS)	Lat = 463157 S	
Longitude (DDMMSS)	Lon = 1682302 E	
Transmit Power (PWR)	PWR = 8.710 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP62 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 = XAZ62 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.6 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 9.226 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD62 36G002B000-360A00009H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Punta Arenas Chile (Transmitter 63)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDMMSS)	Lon = 0705224 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP63 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 = XAZ63 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.096 meters XAD = XAD63 34G003B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Punta Arenas Chile (Transmitter 64)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525608 S	
Longitude (DDDMMSS)	Lon = 0705225 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP64 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 = XAZ64 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.129 meters XAD = XAD64 34G003B000-360A00025H004	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Punta Arenas Chile (Transmitter 65)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525603 S	
Longitude (DDDMMSS)	Lon = 0705224 W	
Transmit Power (PWR)	PWR = 8.710 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP65 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 = XAZ65 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 35.6 dBi BEAMWIDTH@ ½ Power 2.3 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 25.0 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters XAD = XAD65 36G002B000-360A00025H005	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Puertollano Spain (Transmitter 66)		
State (XSC)	XSC = Spain	
City Name (XAL)	XAL = Puertollano	
Latitude (DDMMSS)	Lat = 384020 N	
Longitude (DDDMMSS)	Lon = 0040946 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP66 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 = XAZ66 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 685.841 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters XAD = XAD66 34G003B000-360A00686H005	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Puertollano Spain (Transmitter 67)		
State (XSC)	XSC = Spain	
City Name (XAL)	XAL = Puertollano	
Latitude (DDMMSS)	Lat = 384019 N	
Longitude (DDMMSS)	Lon = 0040946 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP67 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 = XAZ67 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 684.597 meters ANTENNA HEIGHT ABOVE TERRAIN 4.5 meters XAD = XAD67 34G003B000-360A00685H005	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Hartebeesthoek South Africa (Transmitter 68)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255310 S	
Longitude (DDDMMSS)	Lon = 0274222 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP68 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 = XAZ68 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1564.73 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD68 34G003B000-360A01565H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Hartebeesthoek South Africa (Transmitter 69)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Hartebeesthoek	
Latitude (DDMMSS)	Lat = 255312 S	
Longitude (DDDMMSS)	Lon = 0274222 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP69 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 = XAZ69 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 1568.5 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD69 34G003B000-360A01569H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Puunene Hawaii (Transmitter 70)		
State (XSC)	XSC = Hawaii	
City Name (XAL)	XAL = Puunene	
Latitude (DDMMSS)	Lat = 204902 N	
Longitude (DDDMMSS)	Lon = 1562717 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP70 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 = XAZ70 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 43.46 meters ANTENNA HEIGHT ABOVE TERRAIN 5.66 meters XAD = XAD70 34G003B000-360A00043H006	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Puunene Hawaii (Transmitter 71)

State (XSC)	XSC = Hawaii	
City Name (XAL)	XAL = Puunene	
Latitude (DDMMSS)	Lat = 204901 N	
Longitude (DDMMSS)	Lon = 1562716 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP71 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 = XAZ71 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 43.46 meters ANTENNA HEIGHT ABOVE TERRAIN 5.66 meters XAD = XAD71 34G003B000-360A00043H006	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Puunene Hawaii (Transmitter 72)		
State (XSC)	XSC = Hawaii	
City Name (XAL)	XAL = Puunene	
Latitude (DDMMSS)	Lat = 204903 N	
Longitude (DDDMMSS)	Lon = 1562716 W	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP72 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 = XAZ72 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 34.0 dBi BEAMWIDTH@ ½ Power 2.71 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 43.33 meters ANTENNA HEIGHT ABOVE TERRAIN 5.23 meters XAD = XAD72 34G003B000-360A00043H005	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Tromso Norway (Transmitter 73)		
State (XSC)	XSC = Norway	
City Name (XAL)	XAL = Tromso	
Latitude (DDMMSS)	Lat = 693944 N	
Longitude (DDMMSS)	Lon = 0185629 E	
Transmit Power (PWR)	PWR = 10.000 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP73 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 = XAZ73 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 32.4 dBi BEAMWIDTH@ ½ Power 3.26 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 135.4527 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD73 32G003B000-360A00135H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Dublin Ireland (Transmitter 74)		
State (XSC)	XSC = Ireland	
City Name (XAL)	XAL = Dublin	
Latitude (DDMMSS)	Lat = 532424 N	
Longitude (DDMMSS)	Lon = 0061328 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP74 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 = XAZ74 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 84.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD74 38G002B000-360A00084H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Columbus Ohio (Transmitter 75)

State (XSC)	XSC = Ohio	
City Name (XAL)	XAL = Columbus	
Latitude (DDMMSS)	Lat = 400603 N	
Longitude (DDMMSS)	Lon = 0831151 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP75 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 = XAZ75 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 282.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD75 38G002B000-360A00282H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Boardman Oregon (Transmitter 76)		
State (XSC)	XSC = Oregon	
City Name (XAL)	XAL = Boardman	
Latitude (DDMMSS)	Lat = 455116 N	
Longitude (DDDMMSS)	Lon = 1193755 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP76 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 = XAZ76 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 101.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD76 38G002B000-360A00101H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Kapolei Hawaii (Transmitter 77)		
State (XSC)	XSC = Hawaii	
City Name (XAL)	XAL = Kapolei	
Latitude (DDMMSS)	Lat = 212012 N	
Longitude (DDMMSS)	Lon = 1580524 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP77 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 = XAZ77 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 52.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD77 38G002B000-360A00052H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Punta Arenas Chile (Transmitter 78)		
State (XSC)	XSC = Chile	
City Name (XAL)	XAL = Punta Arenas	
Latitude (DDMMSS)	Lat = 525632 S	
Longitude (DDMMSS)	Lon = 0705059 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP78 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 = XAZ78 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 4.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD78 38G002B000-360A00004H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Deadhorse Alaska (Transmitter 79)		
State (XSC)	XSC = Alaska	
City Name (XAL)	XAL = Deadhorse	
Latitude (DDMMSS)	Lat = 701214 N	
Longitude (DDMMSS)	Lon = 1482824 W	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP79 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 = XAZ79 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 5.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD79 38G002B000-360A00005H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Singapore Singapore (Transmitter 80)		
State (XSC)	XSC = Singapore	
City Name (XAL)	XAL = Singapore	
Latitude (DDMMSS)	Lat = 011859 N	
Longitude (DDDMMSS)	Lon = 1034203 E	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP80 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 = XAZ80 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 82.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD80 38G002B000-360A00082H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Stockholm Sweden (Transmitter 81)		
State (XSC)	XSC = Sweden	
City Name (XAL)	XAL = Stockholm	
Latitude (DDMMSS)	Lat = 593857 N	
Longitude (DDMMSS)	Lon = 0163505 E	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP81 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 = XAZ81 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 39.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD81 38G002B000-360A00039H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Sydney Australia (Transmitter 82)		
State (XSC)	XSC = Australia	
City Name (XAL)	XAL = Sydney	
Latitude (DDMMSS)	Lat = 321031 S	
Longitude (DDMMSS)	Lon = 1483656 E	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA

		INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP82 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 = XAZ82 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 284.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD82 38G002B000-360A00284H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006

Earth Station Data – KSAT Cape Town South Africa (Transmitter 83)		
State (XSC)	XSC = South Africa	
City Name (XAL)	XAL = Cape Town	
Latitude (DDMMSS)	Lat = 340139 S	
Longitude (DDMMSS)	Lon = 0184307 E	
Transmit Power (PWR)	PWR = 16.982 W	TRANSMIT POWER SUPPLIED TO THE ANTENNA INPUT TERMINAL, EXAMPLE, PWR01 W2 TRANSMIT POWER UNITS INCLUDE: W = WATT, K = KILOWATT, M = MEGAWATT
Antenna Polarization (XAP)	XAP = XAP83 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 = XAZ83 V10	THE EARTH STATION TRANSMITTER ANTENNA AZIMUTH, THE MINIMUM ANGLE OF ELEVATION, V00 TO V90
Antenna Dimensions (XAD)	ANTENNA GAIN(dBi) 37.7 dBi BEAMWIDTH@ ½ Power 1.9 degrees AZIMUTHAL RANGE 0-360 degrees SITE ELEVATION ABOVE MSL 10.0 meters ANTENNA HEIGHT ABOVE TERRAIN 2.5 meters XAD = XAD83 38G002B000-360A00010H003	EXAMPLE ASSUMING NONGEOSTATIONARY, XAD01 16G030B000-360A00357H006