

Exhibit B - National Telecommunications and Information Administration Space Record Data Form

To facilitate the FCC's coordination efforts, provided in this exhibit is additional information regarding the transmitter and receiver parameters, as described in Section 9.8.2 of the NTIA Manual, for both space and Earth stations.

Satellite to Ground

Satellite Transmitter Data

Transmit Frequency: 8.260 GHz		
Satellite Name: GNOMES-1		
Data Field	Data Answer	
Polarization (XAP)	XAP = R	
Orientation (XAZ)	XAZ = EC	
Antenna Dimension (XAD)	ANTENNA GAIN 5.0 dBi BEAMWIDTH 360 degrees XAD = 5G360B	
Type of Satellite	Type = Nongeostationary	
For Geostationary	Longitude = N/A	
For Nongeostationary (Orbital Data)	C50-Possible Injection Orbit	INCLINATION ANGLE 97.6 degrees, APOGEE IN KILOMETERS 530 km, PERIGEE IN KILOMETERS 530 km, ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 59, THE NUMBER OF SATELLITES IN THE SYSTEM 1, ORB = 97.6IN00530AP00530PE001.59H01NRT01
	C49-Possible Injection Orbit	INCLINATION ANGLE 37.0 degrees, APOGEE IN KILOMETERS 555 km, PERIGEE IN KILOMETERS 555 km, ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 60, THE NUMBER OF SATELLITES IN THE SYSTEM 1, ORB = 37.0IN00555AP00555PE001.60H01NRT01
	C53-Possible Injection Orbit	INCLINATION ANGLE 98.4 degrees, APOGEE IN KILOMETERS 730 km, PERIGEE IN KILOMETERS 730 km, ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 66, THE NUMBER OF SATELLITES IN THE SYSTEM 1, ORB = 98.4IN00730AP00730PE001.66H01NRT01
	Nominal Operational Orbit	INCLINATION ANGLE 98.0 degrees, APOGEE IN KILOMETERS 650 km, PERIGEE IN KILOMETERS 650 km, ORBITAL PERIOD IN HOURS 1 AND FRACTIONS OF HOURS IN DECIMAL 63, THE NUMBER OF SATELLITES IN THE SYSTEM 1, ORB = 98.0IN00650AP00650PE001.63H01NRT01

Earth Station Receiver Data

Svalbard, Norway – SG42	
Data Field	Data Answer
State (RSC)	RSC = Norway
City Name (RAL)	RAL = Svalbard
Latitude (DDMMSS)	Lat = 781354 N
Longitude (DDMMSS)	Lon = 0152238 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 484 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A00484H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Svalbard, Norway – SG43	
Data Field	Data Answer
State (RSC)	RSC = Norway
City Name (RAL)	RAL = Svalbard
Latitude (DDMMSS)	Lat = 781355 N
Longitude (DDMMSS)	Lon = 0152231 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 479 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A00479H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Svalbard, Norway – SG71	
Data Field	Data Answer
State (RSC)	RSC = Norway
City Name (RAL)	RAL = Svalbard
Latitude (DDMMSS)	Lat = 781336 N
Longitude (DDMMSS)	Lon = 0152506 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 488 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A00488H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Svalbard, Norway – SG180	
Data Field	Data Answer
State (RSC)	RSC = Norway
City Name (RAL)	RAL = Svalbard
Latitude (DDMMSS)	Lat = 781340 N
Longitude (DDMMSS)	Lon = 0152255 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 491 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A00491H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Troll, Antarctica – TR4	
Data Field	Data Answer
State (RSC)	RSC = Antarctica
City Name (RAL)	RAL = Troll
Latitude (DDMMSS)	Lat = 720040 S
Longitude (DDMMSS)	Lon = 0023313 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 1366 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A01366H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Troll, Antarctica – TR6	
Data Field	Data Answer
State (RSC)	RSC = Antarctica
City Name (RAL)	RAL = Troll
Latitude (DDMMSS)	Lat = 720037 S
Longitude (DDMMSS)	Lon = 0023314 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 1354 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A01354H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Troll, Antarctica – TR8	
Data Field	Data Answer
State (RSC)	RSC = Antarctica
City Name (RAL)	RAL = Troll
Latitude (DDMMSS)	Lat = 720041 S
Longitude (DDMMSS)	Lon = 0023317 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 1379 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A01379H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Hartebeesthoek, South Africa – HA2	
Data Field	Data Answer
State (RSC)	RSC = South Africa
City Name (RAL)	RAL = Hartebeesthoek
Latitude (DDMMSS)	Lat = 255308 S
Longitude (DDMMSS)	Lon = 0274220 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 1543 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A01543H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Punta Arenas, Chile – PA50	
Data Field	Data Answer
State (RSC)	RSC = Chile
City Name (RAL)	RAL = Punta Arenas
Latitude (DDMMSS)	Lat = 525606 S
Longitude (DDMMSS)	Lon = 0705214 W
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 36.78 dBi BEAMWIDTH 1.4 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 22 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 5 meters RAD = 37G001B000-360A00022H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Fairbanks, Alaska – UAF2	
Data Field	Data Answer
State (RSC)	RSC = Alaska
City Name (RAL)	RAL = Fairbanks
Latitude (DDMMSS)	Lat = 644737 N
Longitude (DDMMSS)	Lon = 1473210 W
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 55.0 dBi BEAMWIDTH 1.1 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 144 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 9 meters RAD = 55G001B000-360A00144H009
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Chitose, Japan – 3.4 Meter Dish	
Data Field	Data Answer
State (RSC)	RSC = Japan
City Name (RAL)	RAL = Chitose
Latitude (DDMMSS)	Lat = 36.532 N
Longitude (DDMMSS)	Lon = 140.373 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 47.5 dBi BEAMWIDTH 0.73 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 55 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 2 meters RAD = 48G001B000-360A00055H002
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Harmon, Guam – 3.7 Meter Dish	
Data Field	Data Answer
State (RSC)	RSC = Guam
City Name (RAL)	RAL = Harmon
Latitude (DDMMSS)	Lat = 13.5125 N
Longitude (DDMMSS)	Lon = 144.8247 E
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 46.5 dBi BEAMWIDTH 0.7 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 45 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 4.5 meters RAD = 47G001B000-360A00045H005
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Tahiti, French Polynesia – 3.7 Meter Dish	
Data Field	Data Answer
State (RSC)	RSC = Tahiti
City Name (RAL)	RAL = French Polynesia
Latitude (DDMMSS)	Lat = 17.635643 S
Longitude (DDMMSS)	Lon = 149.609625 W
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 46.5 dBi BEAMWIDTH 0.7 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 12 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 10.4 meters RAD = 47G001B000-360A00012H010
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	

Longovilo, Chile – 7.6 Meter Dish	
Data Field	Data Answer
State (RSC)	RSC = Chile
City Name (RAL)	RAL = Longovilo
Latitude (DDMMSS)	Lat = 33.955217 S
Longitude (DDMMSS)	Lon = 71.4 W
Antenna Polarization (RAP)	RAP = R
Antenna Azimuth (RAZ)	RAZ = V05
Antenna Dimensions (RAD)	ANTENNA GAIN 54 dBi BEAMWIDTH 0.32 degrees AZIMUTHAL RANGE 0-360 degrees THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS 168 meters, THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS 11.9 meters RAD = 54G001B000-360A00168H012
FCC notes:	
<ol style="list-style-type: none"> 1. Use S-Note S945 2. REM01 *AGN, Cubesat, GNOMES-1 	