

**SATELLITE EARTH STATION AUTHORIZATIONS**  
**FCC Form 312 - Schedule B:(Technical and Operational Description)**  
**FOR OFFICIAL USE ONLY**

**Location of Earth Station Site**

|                               |                                  |                   |              |
|-------------------------------|----------------------------------|-------------------|--------------|
| E1: Site Identifier:          | The "Hills Have Eyes" Gateway    | E5: Call Sign:    |              |
| E2: Contact Name:             | SpaceX NoC                       | E6: Phone Number: | 360-780-3103 |
| E3: Street:                   | 6141 State Hwy 171               | E7: City:         | Hillsboro    |
| E4: State:                    | 7a6226aedbb122008e0b75131f96197b | E8: County:       | Hill         |
|                               |                                  | E9: Zip Code:     | 76645        |
| E10: Area of Operation:       | Hillsboro, TX                    |                   |              |
| E11: Latitude:                | 32° 0' 16.1"                     |                   |              |
| E12: Longitude:               | 97° 3' 47.5"                     |                   |              |
| E13: Lat/Lon Coordinates are: | nad-83                           |                   |              |
| E14: Site Elevation (AMSL):   | 235                              |                   |              |

|                                                                                                                                                                                                                                                                                                                                                                            |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide a technical analysis showing compliance with two-degree spacing policy. | N/A |
| If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS) or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement?                     | N/A |
| Is Frequency Coordination required?                                                                                                                                                                                                                                                                                                                                        | Yes |
| Is coordination with another country required?                                                                                                                                                                                                                                                                                                                             | No  |
| Is FAA notification required?                                                                                                                                                                                                                                                                                                                                              | No  |
| Is facility operated by remote control?                                                                                                                                                                                                                                                                                                                                    | Yes |

**POINTS OF COMMUNICATION**

|                                          |                                    |
|------------------------------------------|------------------------------------|
| Satellite Name: SpaceX Gen2 (S2992/3069) |                                    |
| E21. Common Name: SPACEX GEN2 (S3069)    | E22. ITU Name: SpaceX GEN2 (S3069) |
| E23. Orbit Location: NGSO                | E24. Country:                      |

|                                          |                                    |
|------------------------------------------|------------------------------------|
| Satellite Name: SpaceX Gen1 (S2983/3018) |                                    |
| E21. Common Name: SPACEX (S2983/3018)    | E22. ITU Name: SPACEX (S2983/3018) |
| E23. Orbit Location: NGSO                | E24. Country:                      |

## ANTENNA

| Site ID                       | E28. Antenna Id | E29. Quantity | E30. Manufacturer | E31. Model | E32. Antenna Size (meters) | E41/42. Antenna Gain Transmit and/or Recieve (dBi at GHz) |
|-------------------------------|-----------------|---------------|-------------------|------------|----------------------------|-----------------------------------------------------------|
| The "Hills Have Eyes" Gateway | CO-1            | 40            | SpaceX            | 1.999m     | 1.999                      | undefined at 0                                            |

| E28. Antenna Id | E33/34. Diameter Minor/Major (meters) | E35. Above Ground Level (meters) | E36. Above Sea Level (meters) | E37. Building Height Above Ground Level (meters) | E38. Total Input Power at Antenna Flange (Watts) | E39. Maximum Antenna Height Above Rooftop (meters) | E40. Total EIRP for all carriers (dBW) |
|-----------------|---------------------------------------|----------------------------------|-------------------------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------------------|----------------------------------------|
| CO-1            | 1.999/1.999                           | 1.7                              | 235                           | 0                                                | 0                                                | 1.7                                                | 0                                      |

## FREQUENCY

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 102000<br>109500              | T             | null                                | 1G20D7W                  | 71.1                                | 16.3                                             |

### E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 71000<br>76000                | R             | null                                | 1G20D7W                  | 0                                   | 0                                                |

**E50. Modulation and Services**

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 111800<br>114250              | T             | null                                | 1G20D7W                  | 71.1                                | 16.3                                             |

**E50. Modulation and Services**

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 92000<br>94000                | T             | null                                | 1G44D7W                  | 71.9                                | 16.3                                             |

**E50. Modulation and Services**

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 81000<br>86000                | T             | null                                | 1G20D7W                  | 70.9                                | 16.1                                             |

**E50. Modulation and Services**

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 94100<br>100000               | T             | null                                | 840MD7W                  | 69.5                                | 16.27                                            |

#### E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 27500<br>30000                | T             | null                                | 360MD7W                  | 62.7                                | 13.1                                             |

#### E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 47200<br>50200                | T             | null                                | 900MD7W                  | 63.8                                | 10.27                                            |

#### E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

| E28. Antenna Id | E43/44. Frequency Bands (MHz) | E45. T/R Mode | E46. Antenna Polarization (H,V,L,R) | E47. Emission Designator | E48. Maximum EIRP per Carrier (dBW) | E49. Maximum ERIP Density per Carrier (dBW/4kHz) |
|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
|                 |                               |               |                                     |                          |                                     |                                                  |

|                                     |                |   |      |         |      |       |
|-------------------------------------|----------------|---|------|---------|------|-------|
| CO-1                                | 50400<br>52400 | T | null | 900MD7W | 63.8 | 10.27 |
| <b>E50. Modulation and Services</b> |                |   |      |         |      |       |
| BPSK up to 256 QAM; Digital Data    |                |   |      |         |      |       |

| <b>E28. Antenna Id</b>              | <b>E43/44. Frequency Bands (MHz)</b> | <b>E45. T/R Mode</b> | <b>E46. Antenna Polarization (H,V,L,R)</b> | <b>E47. Emission Designator</b> | <b>E48. Maximum EIRP per Carrier (dBW)</b> | <b>E49. Maximum ERIP Density per Carrier (dBW/4kHz)</b> |
|-------------------------------------|--------------------------------------|----------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------|
| CO-1                                | 17300<br>20200                       | R                    | null                                       | 480MD7W                         | 0                                          | 0                                                       |
| <b>E50. Modulation and Services</b> |                                      |                      |                                            |                                 |                                            |                                                         |
| BPSK up to 256 QAM; Digital Data    |                                      |                      |                                            |                                 |                                            |                                                         |

| <b>E28. Antenna Id</b>              | <b>E43/44. Frequency Bands (MHz)</b> | <b>E45. T/R Mode</b> | <b>E46. Antenna Polarization (H,V,L,R)</b> | <b>E47. Emission Designator</b> | <b>E48. Maximum EIRP per Carrier (dBW)</b> | <b>E49. Maximum ERIP Density per Carrier (dBW/4kHz)</b> |
|-------------------------------------|--------------------------------------|----------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------|
| CO-1                                | 37500<br>42500                       | R                    | null                                       | 1G20D7W                         | 0                                          | 0                                                       |
| <b>E50. Modulation and Services</b> |                                      |                      |                                            |                                 |                                            |                                                         |
| BPSK up to 256 QAM; Digital Data    |                                      |                      |                                            |                                 |                                            |                                                         |

## FREQUENCY COORDINATION

| <b>E28. Antenna Id</b> | <b>E51. Satellite Orbit Type</b> | <b>E52/53. Frequency Limits(MHz)</b> | <b>E54/55. Range of Satellite Arc E/W Limit</b> | <b>E56. Earth Station Azimuth Angle Eastern/Western Limit</b> | <b>E57. Antenna Elevation Angle Eastern/Western Limit</b> | <b>E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)</b> |
|------------------------|----------------------------------|--------------------------------------|-------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|
| CO-1                   | Non-Geostationary                | 50400<br>52400                       | 0 / 0                                           | 0 / 360                                                       | 10 / 10                                                   | 10.3                                                           |

CO-1Non-Geostationary17300  
202000 / 00 / 36010 / 1013.1CO-1Non-Geostationary94100  
1000000 / 00 / 36010 / 1016.3CO-1Non-Geostationary111800  
1142500 / 00 / 36010 / 1016.3CO-1Non-Geostationary81000

860000 / 00 / 36010 / 1016.1CO-1Non-Geostationary71000  
 760000 / 00 / 36010 / 1016.1CO-1Non-Geostationary102000  
 1095000 / 00 / 36010 / 1016.3CO-1Non-Geostationary47200  
 502000 / 00 / 36010 / 1010.3CO-1Non-Geostationary37500  
 425000 / 00 / 36010 / 1010.3CO-1Non-Geostationary27500  
 300000 / 00 / 36010 / 1013.1CO-1Non-Geostationary92000  
 940000 / 00 / 36010 / 1016.3

#### REMOTE CONTROL POINT LOCATION

|                                                        |                          |                                                     |                             |
|--------------------------------------------------------|--------------------------|-----------------------------------------------------|-----------------------------|
| E61. Call Sign:<br><br>REDMOND                         |                          | E65. Phone Number:<br><br>360-780-3103              |                             |
| E62. Street Address:<br><br>23020 NE Alder Crest Drive |                          |                                                     |                             |
| E63. City:<br><br>Redmond                              | E67. County:<br><br>King | E64/68. State/Country:<br><br>undefined / undefined | E66. Zip Code:<br><br>98053 |

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 0.25 - 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PER, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to [PRA@fcc.gov](mailto:PRA@fcc.gov). PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember - You are not required to respond to a collection of information sponsored by the Federal government, and the government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

**THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.**