

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 "Swift Water" Gateway	E5: Call Sign:	
E2: Contact Name:	SpaceX NoC	E6: Phone Number:	360-780-3103
E3: Street:	4110 Lower Peoh Point Rd	E7: City:	Cle Elum, WA
E4: State:	978e209fdbbd22008e0b75131f9619b1	E8: County:	Kittitas County
		E9: Zip Code:	98922
E10: Area of Operation:	Cle Elum, WA		
E11: Latitude:	47° 10' 32.3148"		
E12: Longitude:	120° 53' 44.1996"		
E13: Lat/Lon Coordinates are:	nad-83		
E14: Site Elevation (AMSL):	630		

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

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 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 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 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	37500 42000	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	81000 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 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 30000	T	null	360MD7W	62.7	13.1
E50. Modulation and Services						
BPSK up to 256 QAM; Digital Data						

E28.	E43/44.	E45.	E46. Antenna	E47.	E48.	E49. Maximum
-------------	----------------	-------------	---------------------	-------------	-------------	---------------------

Antenna Id	Frequency Bands (MHz)	T/R Mode	Polarization (H,V,L,R)	Emission Designator	Maximum EIRP per Carrier (dBW)	ERIP Density per Carrier (dBW/4kHz)
CO-1	47200 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 52400	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	17300 20200	R	null	480MD7W	0	0

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern/Western Limit	E57. Antenna Elevation Angle Eastern/Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
-----------------	---------------------------	-------------------------------	--	--	--	---

CO-1	Non-Geostationary	71000 76000	0 / 0	0 / 360	10 / 10	16.1
------	-------------------	----------------	-------	---------	---------	------

CO-1Non-Geostationary92000

940000 / 00 / 36010 / 1016.3CO-1Non-Geostationary37500

420000 / 00 / 36010 / 1010.3CO-1Non-Geostationary47200

502000 / 00 / 36010 / 1010.3CO-1Non-Geostationary50400

524000 / 00 / 36010 / 1010.3CO-1Non-Geostationary17300

202000 / 00 / 36010 / 1013.1CO-1Non-Geostationary81000

860000 / 00 / 36010 / 1016.1CO-1Non-Geostationary102000

1095000 / 00 / 36010 / 1016.3CO-1Non-Geostationary111800

1142500 / 00 / 36010 / 1016.3CO-1Non-Geostationary94100

1000000 / 00 / 36010 / 1016.3CO-1Non-Geostationary27500

300000 / 00 / 36010 / 1013.1

REMOTE CONTROL POINT LOCATION

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