

# **RADIO STATION AUTHORIZATION**

Name: Viasat, Inc.Call Sign: E050033Authorization Type: Renewal of LicenseFile Number: SES-RWL-20200219-00168Non Common CarrierGrant date: 08/03/2020Expiration Date: 04/26/2035

Nature of Service: Fixed Satellite Service

Class of Station: Other

#### A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1) WB1000-C	(500,000 0.7m antennas) CONUS,	0°0'0.0"N	0°0'0.0"W	0	27
	Licensee certifies antenna(s) E for special conditions place				ase refer to Section
2) WB1000-C2	(200,000 .38 cm antennas) CONUS				27
	Licensee certifies antenna(s) E for special conditions place				ase refer to Section
3) WB1000-C3	(1,000,000 .7 cm antennas) CONUS,				27
	Licensee certifies antenna(s) E for special conditions place				ase refer to Section
4) WB1000-C4	(100,000 .98 cm antennas) CONUS,				27
	Licensee certifies antenna(s)	comply with g	ain patterns sp	pecified in	Section 25.209
5) WB1000-S2	(1,000,000: 0.745 METER ANTENNAS) CONUS,				NA
	Licensee certifies antenna(s)	comply with g	ain patterns sp	pecified in	Section 25.209
6) WB1000-TF2	(1,000 0.7m antennas) CONUS,				27
	Licensee certifies antenna(s) E for special conditions place				ase refer to Section



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Non Common Carrier	Grant date:	08/03/2020	Expiration Date:	04/26/2035	

### A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
7) WB1000-TF3	(10,000 .7cm antennas) CONUS,				27
	Licensee certifies antenna(s) E for special conditions plac	-	-		ase refer to Section
8) WB1000-TF4	(10,000 .98 cm antennas) CONUS,				27
	Licensee certifies antenna(s)	comply with	gain patterns s	specified in	Section 25.209

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning April 26, 2020 (3 AM Eastern Standard Time) and ending April 26, 2035 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is 00/00/0000. Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

### **B)** Particulars of Operations

Frequency # (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services		
1) 29500.0000-30000.0000	L,R	1M60G7W	Tx	46.30	20.30	WB1000C2		1280 KSPS Carrier	QPSK,	Digital
2) 29500.0000-30000.0000	L,R	3M20G7W	Tx	46.30	17.20	WB1000C2		2560 KSPS Carrier	QPSK,	Digital
3) 29500.0000-30000.0000	L,R	1M60G7W	Tx	41.00	25.90	WB1000C2		1280 KSPS ( Carrier (non conditions)	~ /	ear sky
4) 29500.0000-30000.0000	L,R	400KG7W	Tx	46.30	26.30	WB1000C2			ed unde	



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### **B)** Particulars of Operations

For the	text of these provisions, refe	er to Section H			Max EIRP	Max EIRP		Special Provisions	
#	Frequency (MHz)	Polarization Code	n Emission	Tx/Rx Mode	/Carrier	Density /Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services
5) 295	600.0000-30000.0000	L,R	400KG7W	Tx	46.30	37.20	WB1000C2		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
6)295	600.0000-30000.0000	L,R	800KG7W	Tx	46.30	23.30	WB1000C2		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
7) 295	500.0000-30000.0000	L,R	800KG7W	Tx	46.30	34.20	WB1000C2		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
8) 295	500.0000-30000.0000	L,R	200KG7W	Tx	46.30	29.30	WB1000C2		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
9)295	500.0000-30000.0000	L,R	200KG7W	Tx	46.30	40.30	WB1000C2		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
10)197	700.0000-20200.0000	L,R	18M0G7W	Rx	0.00	0.00	WB1000C2		15 MSPS 8PSK Digital Carrier
11) 197	700.0000-20200.0000	L,R	27M0G7W	Rx	0.00	0.00	WB1000C2		22.5 MSPS 8PSK, Digital Carrier
12)295	500.0000-30000.0000	L,R	1M60G7W	Tx	47.00	21.00	WB1000C3		1280 KSPS QPSK, Digital Carrier
13)295	500.0000-30000.0000	L,R	3M20G7W	Tx	47.00	17.90	WB1000C3		2560 KSPS QPSK, Digital Carrier
14)295	500.0000-30000.0000	L,R	1M60G7W	Tx	41.00	25.90	WB1000C3		1280 KSPS QPSK, Digital Carrier (normal clear sky conditions)
15)295	600.0000-30000.0000	L,R	200KG7W	Tx	47.00	30.00	WB1000C3		160 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
16)295	500.0000-30000.0000	L,R	200KG7W	Τx	47.00	40.60	WB1000C3		160 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
17) 295	500.0000-30000.0000	L,R	400KG7W	Tx	47.00	27.00	WB1000C3		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
18) 295	500.0000-30000.0000	L,R	400KG7W	Tx	47.00	37.90	WB1000C3		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)



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### **B)** Particulars of Operations

For the te	ext of these provisions, refe	er to Section 1	H.		Max	Max EIRP		Special		
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services	
19) 2950	00.0000-30000.0000	L,R	800KG7W	Tx	47.00	24.00	WB1000C3		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)	
20) 295(	00.0000-30000.0000	L,R	800KG7W	Tx	47.00	34.90	WB1000C3		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)	
21) 197(	00.0000-20200.0000	L,R	18M0G7W	Rx	0.00	0.00	WB1000C3		15 MSPS QPSK. Digita Carrier	1
22) 197(	00.0000-20200.0000	L,R	27M0G7W	Rx	0.00	0.00	WB1000C3		22.5 MSPS 8PSK, Digita Carrier	1
23) 295(	00.0000-30000.0000	L,R	1M60G7W	Τx	50.00	24.00	WB1000C4		1280 KSPS QPSK Digita Carrier	1
24) 2950	00.0000-30000.0000	L,R	3M20G7W	Tx	50.00	20.90	WB1000C4		2560 KSPS QPSK Digita Carrier	1
25) 295(	00.0000-30000.0000	L,R	400KG7W	Tx	50.00	30.00	WB1000C4		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)	
26) 295(	00.0000-30000.0000	L,R	800KG7W	Tx	50.00	27.00	WB1000C4		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)	
27) 295(	00.0000-30000.0000	L,R	200KG7W	Tx	50.00	33.00	WB1000C4		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)	
28) 197(	00.0000-20200.0000	L,R	18M0G7W	Rx			WB1000C4		15 MSPS 8PSK Carrier	
29) 1970	00.0000-20200.0000	L,R	27M0G7W	Rx			WB1000C4		22.5 MSPS 8PSK Carrier	
30) 295(	0.0000-30000.0000	L,R	5M00G7W	Tx	48.80	17.90	WB1000S2		5 MBD PSK, DIGITA CARRIER	L
31) 2950	00.0000-30000.0000	L,R	1M60G7W	Tx	48.80	22.80	WB1000S2		1.6 MBD PSK, DIGITA CARRIER	L
32) 295(	00.0000-30000.0000	L,R	2M50G7W	Τx	48.80	20.90	WB1000S2		2.5 MBD PSK, DIGITA CARRIER	L
33) 295(	0.0000-30000.0000	L,R	3M20G7W	Tx	48.80	19.80	WB1000S2		3.2 MBD PSK, DIGITA CARRIER	L
34) 295(	00.0000-30000.0000	L,R	625KG7W	Tx	45.90	24.00	WB1000S2		625 KBD PSK, DIGITA CARRIER	L
35) 295(	00.0000-30000.0000	L,R	800KG7W	Tx	48.80	25.80	WB1000S2		800 KBD PSK, DIGITA CARRIER	L



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### **B)** Particulars of Operations

For the t	ext of these provisions, refe	er to Section 1	H.		Max EIRP	Max EIRP		Special Provisions			
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	/Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services		
36)295	00.0000-30000.0000	L,R	1M25G7W	Tx	48.80	23.90	WB1000S2		1.25 MBD CARRIER	PSK,	DIGITAL
37) 295	00.0000-30000.0000	L,R	3M20G7W	Tx	47.00	17.90	WB1000S2		2560 KBD CARRIER	QPSK	DIGITAL
38)295	00.0000-30000.0000	L,R	1M60G7W	Tx	47.00	21.00	WB1000S2		1280 KBD CARRIER	QPSK,	DIGITAL
39)295	00.0000-30000.0000	L,R	400KG7W	Tx	47.00	27.00	WB1000S2		320 KBD CARRIER (U FADE CONDI		
40)295	00.0000-30000.0000	L,R	800KG7W	Tx	47.00	24.00	WB1000S2		640 KBD CARRIER (U FADE CONDI		
41)197	00.0000-20200.0000	L,R	18M0G7W	Rx			WB1000S2		15 MSPS 8	PSK Car	rier
42)197	00.0000-20200.0000	L,R	27M0G7W	Rx			WB1000S2		22.5 MSPS	8 PSK C	arrier
43)197	00.0000-20200.0000	L,R	52M1G7W	Rx			WB1000S2		52 MBD CARRIER	PSK,	DIGITAL
44) 295	00.0000-30000.0000	L,R	5M00G7W	Tx	48.80	17.90	WB1000S2B		5 MBD CARRIER	PSK,	DIGITAL
45)295	00.0000-30000.0000	L,R	1M60G7W	Tx	48.80	22.80	WB1000S2B		1.6 MBD CARRIER	PSK,	DIGITAL
46)295	00.0000-30000.0000	L,R	2M50G7W	Tx	48.80	20.90	WB1000S2B		2.5 MBD CARRIER	PSK,	DIGITAL
47)295	00.0000-30000.0000	L,R	3M20G7W	Τx	48.80	19.80	WB1000S2B		3.2 MBD CARRIER	PSK,	DIGITAL
48)295	00.0000-30000.0000	L,R	400KG7W	Tx	47.00	27.00	WB1000S2B		400 KBD CARRIER	PSK,	DIGITAL
49)295	00.0000-30000.0000	L,R	625KG7W	Tx	45.90	24.00	WB1000S2B		625 KBD CARRIER	PSK,	DIGITAL
50)295	00.0000-30000.0000	L,R	800KG7W	Τx	48.80	25.80	WB1000S2B		800 KBD CARRIER	PSK,	DIGITAL
51)295	00.0000-30000.0000	L,R	1M25G7W	Tx	48.80	23.90	WB1000S2B		1.25 MBD CARRIER	PSK,	DIGITAL
52) <sub>197</sub>	00.0000-20200.0000	L,R	52M1G7W	Rx			WB1000S2B		52 MBD CARRIER	PSK,	DIGITAL
53)295	00.0000-30000.0000	L,R	1M60G7W	Τx	46.30	20.30	WB1000TF2		1280 KSPS Carrier	QPSK	Digital



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### **B)** Particulars of Operations

For the	text of these provisions, refe	er to Section l	Н.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
54)29	500.0000-30000.0000	L,R	3M20G7W	Τx	46.30	17.20	WB1000TF2		2560 KSPS QPSK, Digital Carrier
55)29	500.0000-30000.0000	L,R	1M60G7W	Tx	41.00	25.90	WB1000TF2		1280 KSPS QPSK, Digital Carrier (normal clear sky conditions)
56)29	500.0000-30000.0000	L,R	400KG7W	Τx	46.30	26.30	WB1000TF2		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
57)29	500.0000-30000.0000	L,R	400KG7W	Τx	46.30	37.20	WB1000TF2		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
58) <sub>29</sub>	500.0000-30000.0000	L,R	800KG7W	Tx	46.30	23.30	WB1000TF2		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
59) <sub>29</sub>	500.0000-30000.0000	L,R	800KG7W	Tx	46.30	34.20	WB1000TF2		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
60)29	500.0000-30000.0000	L,R	200KG7W	Τx	46.30	29.30	WB1000TF2		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
61) <sub>29</sub>	500.0000-30000.0000	L,R	200KG7W	Tx	46.30	40.30	WB1000TF2		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
62) <sub>19</sub>	700.0000-20200.0000	L,R	18M0G7W	Rx			WB1000TF2		15 MSPS 8PSK Digital Carrier
63)19	700.0000-20200.0000	L,R	27M0G7W	Rx			WB1000TF2		22.5 MSPS 8PSK, Digital Carrier
64)29	500.0000-30000.0000	L,R	1M60G7W	Tx	47.00	21.00	WB1000TF3		1280 KSPS QPSK Digital Carrier
65)29	500.0000-30000.0000	L,R	3M20G7W	Tx	47.00	17.90	WB1000TF3		2560 KSPS QPSK, Digital Carrier
66)29	500.0000-30000.0000	L,R	1M60G7W	Tx	41.00	25.90	WB1000TF3		1280 KSPS QPSK, Digital Carrier (normal clear sky conditions)
67) 29	500.0000-30000.0000	L,R	400KG7W	Tx	47.00	27.00	WB1000TF3		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)



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### **B)** Particulars of Operations

For th	ne text of these provisions, refe	H.		Max	Max EIRP		Special		
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
68) 29	9500.0000-30000.0000	L,R	400KG7W	Tx	47.00	37.90	WB1000TF3		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
69)2	9500.0000-30000.0000	L,R	800KG7W	Tx	47.00	24.00	WB1000TF3		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
70)29	9500.0000-30000.0000	L,R	800KG7W	Tx	47.00	34.90	WB1000TF3		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
71) 29	9500.0000-30000.0000	L,R	200KG7W	Tx	47.00	30.00	WB1000TF3		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
72) 29	9500.0000-30000.0000	L,R	200KG7W	Tx	47.00	40.60	WB1000TF3		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
73) <sub>1</sub>	9700.0000-20200.0000	L,R	18M0G7W	Rx			WB1000TF3		15 MSPS 8PSK Digital Carrier
74)1	9700.0000-20200.0000	L,R	27M0G7W	Rx			WB1000TF3		22.5 MSPS 8PSK, Digital Carrier
75) <sub>2</sub>	9500.0000-30000.0000	L,R	1M60G7W	Tx	50.00	24.00	WB1000TF4		1280 KSPS QPSK Digital Carrier
76)29	9500.0000-30000.0000	L,R	3M20G7W	Tx	50.00	20.90	WB1000TF4		2560 KSPS QPSK Digital Carrier
77) 29	9500.0000-30000.0000	L,R	400KG7W	Τx	50.00	30.00	WB1000TF4		320 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
78) 29	9500.0000-30000.0000	L,R	800KG7W	Tx	50.00	27.00	WB1000TF4		640 KSPS QPSK, Digital Carrier (used under rain fade conditions only)
79) 29	9500.0000-30000.0000	L,R	200KG7W	Tx	50.00	33.00	WB1000TF4		160 KSPS QPSK , Digital Carrier (used under rain fade conditions only)
80) <sub>1</sub>	9700.0000-20200.0000	L,R	18M0G7W	Rx			WB1000TF4		15 MSPS 8 PSK Carrier
81)19	9700.0000-20200.0000	L,R	27M0G7W	Rx			WB1000TF4		22.5 MSPS 8 PSK Carrier



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### **C)** Frequency Coordination Limits

	<b>D</b>	Satellite Arc (Deg. Long.			Max EIRP Density toward	
#	Frequency Limits (MHz)	East Wes Limit Lim		Vest East Wes imit Limit Limi		Associated Antenna(s)
1)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 0	WB1000C2
2)	29500.0000-30000.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -16	WB1000C2
3)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 0	WB1000C3
4)	29500.0000-30000.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -14.7	WB1000C3
5)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9	WB1000TF2
6)	29500.0000-30000.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -16	WB1000TF2
7)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9	WB1000TF3
8)	29500.0000-30000.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -14.7	WB1000TF3
9)	29500.0000-30000.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -20	WB1000C4
10)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9	WB1000C4
11)	19700.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9	WB1000TF4
12)	29500.0000-20200.0000	109.2W-111.	LW 23.0-21.	5 159.3-231.9	9 -20	WB1000TF4
13)	19700.0000-20200.0000	85.0W-111.1	W 23.6-21.	5 128.8-234.0	)	WB1000S2
14)	29500.0000-30000.0000	85.0W-111.1	W 23.6-21.	5 128.8-234.0	-14.7	WB1000S2
15)	19700.0000-20200.0000	85.0W-111.1	W 23.6-21.	5 128.8-234.0	)	WB1000S2B
16)	29500.0000-30000.0000	85.0W-111.1	W 23.6-21.	5 128.8-234.0	) -14.7	WB1000S2B

## **D)** Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

1) WB1000-C to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)

- 2) WB1000-C to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 3) WB1000-C to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 4) WB1000-C to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 5) WB1000-TF2 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 6) WB1000-TF2 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 7) WB1000-TF2 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 8) WB1000-TF2 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 9) WB1000-C4 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 10) WB1000-C4 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 11) WB1000-C4 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 12) WB1000-C4 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 13) WB1000-TF4 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 14) WB1000-TF4 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)



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### **D)** Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

15) WB1000-TF4 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)

- 16) WB1000-TF4 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 17) WB1000-TF3 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 18) WB1000-TF3 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 19) WB1000-TF3 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 20) WB1000-TF3 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 21) WB1000-C2 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 22) WB1000-C2 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 23) WB1000-C2 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 24) WB1000-C2 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 25) WB1000-C3 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 26) WB1000-C3 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 27) WB1000-C3 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 28) WB1000-C3 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 29) WB1000-S2 to AMC-15 (S2180) @ 105.05 degrees W.L.(U.S.-licensed)
- 30) WB1000-S2 to ANIK-F2 (S2742) @ 111.1 degrees W.L. (Canada-licensed)
- 31) WB1000-S2 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 32) WB1000-S2 to WildBlue-1 (S2355) @ 111.1° W.L. (Canada-licensed)
- 33) WB1000-S2 to Permitted Space Station List

### E) Antenna Facilities

Site ID	Antenna ID	Diamete Units (meters)		Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
WB1000-C	WB1000C2	200000 0.7	Raven Manufacturing	WB1000-002	0	0 AGL/ 0 AMSL	
Ma	-	-	30.0000 GHz 39.0 nna flange (Watts) = all carriers (dBW) =	0 dBi @ 20.20 2.80 46.30	00 GHz		
WB1000-C	WB1000C3	1000000 0.7	Raven Manufacturing	WB1000-003	0	0 AGL/ 0 AMSL	
Ma	-	-	30.0000 GHz 39.4 nna flange (Watts) = all carriers (dBW) =	dBi @ 20.20 2.80 47.00	00 GHz		



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Special

### E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Mode	l number	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
WB1000-C4	WB1000C4	100000	0.98	Raven Manufacturin	ng WB1	098-003			
Maxim	-	ut power		20.2000 GHz 45 na flange (Watts) = all carriers (dBW) =		30.000 2.80 50.00	0 GHz		
WB1000-S2	WB1000S2	100000	0.745	VIASAT, INC.	RÆ	40750			
Max G	Gains(s): 29	40.4 .5000 GH	dBi @ z 44	20.2000 GHz 40 .5 dBi @ 30.0000	0.3 dBi @ GHz	19.700	0 GHz	44.5 dBi 0	
Maxim	um total inp	ut power		na flange (Watts) =		2.80			
Maxim	num aggregate	output	EIRP for	all carriers (dBW) =	=	48.80			
WB1000-S2	WB1000S2B	100000	0.745	VIASAT, INC.	RA	40750			
Max G	Gains(s): 29	40.3 .5000 GH	dBi 0 z 44	19.7000 GHz 40 .5 dBi @ 30.0000	0.4 dBi @ GHz	20.200	0 GHz	44.5 dBi 0	
Maxim	um total inp	ut power	at anten	na flange (Watts) =		2.80			
Maxim	num aggregate	output	EIRP for	all carriers (dBW) =	=	48.80			
WB1000-C	WB1000TF2	500	0.7	Raven Manufacturin	ng WB1	.000TF2	0		
Max G	Gains(s):	39.0	dBi @	20.2000 GHz 41	1.8 dBi 0	30.000	0 GHz		
Maxim	um total inp	ut power	at anten	na flange (Watts) =		2.80			
Maxim	num aggregate	output	EIRP for	all carriers (dBW) =	=	46.30			
WB1000-C	WB1000TF3	10000	07	Raven Manufacturin	na WB1	.000TF3	0		
					-				
	Gains(s):		dBi @		2.5 dBi 0	30.000 2.80	0 GHz		
	=	-		na flange (Watts) = all carriers (dBW) =		2.80 47.00			
Maxin	uni aggregate	output	LIKF IOI	all Calliers (GBW) -	_	47.00			
WB1000-TF4	WB1000TF4	10000	0.98	Raven Manufacturin	ng WB1	098-003			
Max G	Gains(s):	42.5	dBi 0	20.2000 GHz 45	5.5 dBi 0	30.000	0 GHz		
	( )			na flange (Watts) =		2.80			
Maxim	um aggregate	output	EIRP for	all carriers (dBW) =	=	50.00			



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### F) Remote Control Point:

WB1000-C	5970 Greenwood Plaza Boulevard, Suite 300	Call Sign: N/A
	Greenwood Village, Arapahoe, CO 80111	
	720-554-7400	
WB1000-C4	5970 Greenwood Plaza Boulevard, Suite 300	Call Sign:
	Greenwood Village, Arapahoe, CO 80111	
	720-554-7575	
WB1000-S2	5970 SOUTH GREENWOOD PLAZA BOULEVARD, SUITE 300	Call Sign:
	GREENWOOD VILLAGE, ARAPAHOE, CO 80111	
	720-554-7575	
WB1000-TF2	5970 Greenwood Plaza Boulevard, Suite 300	Call Sign:
	Greenwood Village, Arapahoe, CO 80111	
	720-554-7400	
WB1000-TF4	5970 Greenwood Plaza Boulevard, Suite 300	Call Sign:
	Greenwood Village, Arapahoe, CO 80111	
	720-554-7575	

### G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
  - 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.
  - 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
  - 8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.



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### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
  - 102 --- 24 Hour Contact: Applicant has provided the name and telephone number of a contact person in the United States, available seven days a week, twenty-four hours a day, for cessation of emissions from suspected source of interference in the event of need to resolve interference issues, on direction from authority with jurisdiction for licensing in the area of operation.
  - 251 --- The Wildblue-1 space station must be constructed, launched, and placed into operation in accordance with the technical parameters set forth in its application and amendments and terms and conditions of this authorization by these specified dates:
    - a. Execute a binding contract for construction by Oct. 10, 2007;
    - b. Complete the Critical Design Review by Oct. 10, 2008;
    - c. Commence construction by Oct. 10, 2009;
    - d. Launch and begin operations by Oct. 10, 2011;

WB Holdings 1 must post a \$3 million bond with the Commission, pursuant to the procedures set forth in Public Notice, DA 03-2603, 18 FCC Rcd 16283 (2003), within 30 days following the Public Notice announcing the re-issuance of this license. Failure to meet any of these dates shall render this authorization null and void without further action by the Commission. See 47 C.F.R. 88 25.161 any and 25.164.

- 3900 --- Ka-band earth station operators authorized to access the Anik F2 satellite may not use Anik F2 to provide any Direct-to-Home (DTH) service, Direct Broadcast Satellite (DBS) service, or Digital Audio Radio Service (DARS) to, from, or within the United States.
- 3942 --- Ka-band operations over the Anik F2 satellite network, associated with the earth station(s) authorized herein, shall not cause harmful interference to, nor shall operators accessing this satellite network claim protection from U.S.-authorized services provided by U.S.-licensed satellites and non-U.S.-licensed satellite networks authorized to access the U.S. market that are compliant with the Commission's two-degree spacing rules.
- 9662 --- The 17.8 20.2 GHz band is shared with U.S. Government space stations and associated earth stations in the fixed-Satellite Services. Services within the United States over the satellite network of which this is a cooperating earth station are subject to coordination under US334 and operation of the earth station(s) authorized herein will be subject to any technical constraints resulting from this coordination. See 47 C.F.R. Section 2.106, Footnote US334.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)
- 90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR §§ 1.1307(b) and 1.1310. Physical measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.



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### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
- 90405 --- Operations with PERMITTED LIST satellite must comply with §25.212 levels and operations above these levels must coordinate with satellite operators prior to operations.
- 900407 --- The Permitted Space Station List (Permitted List) is a list of all geostationary space stations providing fixed-satellite service pursuant to a Commission license or grant of U.S. market access. The Permitted List currently includes the following frequency bands per §25.103 and §25.115(k)(1):

3600-4200 MHz (space-to-Earth) 5850-6725 MHz (Earth-to-space) 10.95-11.2 GHz (space-to-Earth) 11.45-12.2 GHz (space-to-Earth) 13.75-14.5 GHz (Earth-to-space) 18.3-18.8 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 24.75-25.25 GHz (Earth-to-space) 28.35-28.6 GHz (Earth-to-space) 29.25-30.0 GHz (Earth-to-space).

Earth stations with "Permitted List" designated as a point of communication may access any space station on the Permitted List, provided the operations comply with the applicable "routine" uplink and downlink limits, are within the specific frequency bands authorized in the earth station license, have completed coordination with terrestrial stations pursuant to §25.203, and otherwise comply with all terms and conditions of both the earth station license and the space station grant.



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**B**) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R.§ 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.