



**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION**

RADIO STATION AUTHORIZATION

Name: Communications Laboratories, Inc.

Call Sign: E100117

Authorization Type: Modification of License

File Number: SES-MOD-20160120-00067

Non Common Carrier

Grant date: 05/18/2016

Expiration Date: 03/16/2026



Nature of Service: Fixed Satellite Service

Class of Station: VSAT Network

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	HUB1	750 NORTH DRIVE (3.8M.) HUB-1 MELBOURNE, BREVARD, FL 32934	28°7'7.4"N	80°41'21.3"W	7.5	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				
2)	HUB2	750 NORTH DRIVE (6.3M.) HUB-2 MELBOURNE, BREVARD, FL 32934	28°7'7.4"N	80°41'21.3"W	7.5	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				
3)	HUB3	169 ASH POINT DRIVE (3.8M.) HUB-3 OWLS HEAD, KNOX, ME 04854	44°4'1.2"N	69°5'39.8"W	14.33	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				
4)	HUB4	169 ASH POINT DRIVE (6.3M.) HUB-4 OWLS HEAD, KNOX, ME 04854	44°4'1.2"N	69°5'39.8"W	14.33	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				
5)	HUB5	169 ASH POINT DRIVE (5.6M.) HUB-5 OWLS HEAD, KNOX, ME 04854	44°4'1.2"N	69°5'39.8"W	14.3	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				
6)	HUB6	4005 OPPORTUNITY DRIVE (5.6M.) HUB-6 MELBOURNE, BREVARD, FL 32934	28°6'43.0"N	80°41'31.0"W	6.6	83
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209				



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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
7)	HUB7	4005 OPPORTUNITY DRIVE (9.0M.) HUB-7 MELBOURNE, BREVARD, FL 32934	28°6'43.0"N	80°41'31.0"W	21.7	83	Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209
8)	REMOTE 1A	(0.96M. VSAT), 150 UNITS CONUS, AK, HI, PR,				NA	Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.
9)	REMOTE 2P	various locations throughout (1.2M. VSAT), 2500 UNITS CONUS, AK, HI,				NA	Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209
10)	REMOTE 3	various locations throughout (1.8M. VSAT), 500 UNITS CONUS, AK, HI, PR,				NA	Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209
11)	REMOTE 4A	(1.2M. VSAT), 500 UNITS CONUS, AK, HI, PR,				NA	Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209
12)	REMOTE 5A	various locations throughout (2.4M. VSAT), 200 UNITS CONUS, AK, HI,				NA	Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209



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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
13)	REMOTE 6	(1.0M. VSAT), 500 UNITS VARIOUS,				UNK	
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209					
14)	REMOTE 7	(1.8M. VSAT), 250 UNITS CONUS, AK, HI, US,				UNK	
		Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209					
15)	REMOTE 8	(0.75M. VSAT), 250 UNITS CONUS, AK, HI, US,				UNK	
		Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.					

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 March 16, 2011 (3 AM Eastern Standard Time) and ending March 16, 2026 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is May 18, 2017 (3 AM Eastern Standard Time). Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.
 The General Provision 1900 applies to all transmitting frequency bands.
 For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	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)	14000.0000-14500.0000	H,V	10M0G7D	Tx	71.70	37.70	Hub 1		QPSK DATA
2)	14000.0000-14500.0000	H,V	1M50G7D	Tx	54.94	29.20	Hub 1		QPSK DATA
3)	14000.0000-14500.0000	H,V	2M00G7D	Tx	56.18	29.20	Hub 1		QPSK DATA



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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
4)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 1		QPSK DATA
5)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 1		QPSK DATA
6)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Hub 1		QPSK DATA
7)	14000.0000-14500.0000	H,V	10M0G7D	Tx	77.50	43.50	Hub 2		QPSK DATA
8)	14000.0000-14500.0000	H,V	1M50G7D	Tx	55.34	29.60	Hub 2		QPSK DATA
9)	14000.0000-14500.0000	H,V	2M00G7D	Tx	56.38	29.40	Hub 2		QPSK DATA
10)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 2		QPSK DATA
11)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 2		QPSK DATA
12)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Hub 2		QPSK DATA
13)	14000.0000-14500.0000	H,V	10M0G7D	Tx	71.00	37.00	Hub 3		QPSK DATA
14)	14000.0000-14500.0000	H,V	1M50G7D	Tx	64.74	39.00	Hub 3		QPSK DATA
15)	14000.0000-14500.0000	H,V	2M00G7D	Tx	66.00	39.00	Hub 3		QPSK DATA
16)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 3		QPSK DATA
17)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 3		QPSK DATA
18)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Hub 3		QPSK DATA
19)	14000.0000-14500.0000	H,V	10M0G7D	Tx	77.50	43.50	Hub 4		QPSK DATA
20)	14000.0000-14500.0000	H,V	1M50G7D	Tx	69.24	43.50	Hub 4		QPSK DATA
21)	14000.0000-14500.0000	H,V	2M00G7D	Tx	70.50	43.50	Hub 4		QPSK DATA
22)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 4		QPSK DATA
23)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 4		QPSK DATA
24)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Hub 4		QPSK DATA
25)	14000.0000-14500.0000	H,V	10M0G7D	Tx	76.98	43.00	Hub 5		QPSK DATA
26)	14000.0000-14500.0000	H,V	1M50G7D	Tx	68.74	43.00	Hub 5		QPSK DATA
27)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 5		QPSK DATA



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B) Particulars of Operations

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The General Provision 1900 applies to all transmitting frequency bands.
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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
28)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 5		QPSK DATA
29)	14000.0000-14500.0000	H,V	10M0G7D	Tx	76.98	43.00	Hub 6		QPSK DATA
30)	14000.0000-14500.0000	H,V	1M50G7D	Tx	68.74	43.00	Hub 6		QPSK DATA
31)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 6		QPSK DATA
32)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 6		QPSK DATA
33)	14000.0000-14500.0000	H,V	10M0G7D	Tx	80.10	46.10	Hub 7		QPSK DATA
34)	14000.0000-14500.0000	H,V	1M50G7D	Tx	71.84	46.10	Hub 7		QPSK DATA
35)	11700.0000-12200.0000	H,V	10M0G7D	Rx			Hub 7		QPSK DATA
36)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Hub 7		QPSK DATA
37)	14000.0000-14500.0000	H,V	1M00G7D	Tx	44.53	20.56	Remote 1A	9631	QPSK DATA
38)	14000.0000-14500.0000	H,V	2M00G7D	Tx	46.75	19.77	Remote 1A	9631	QPSK DATA
39)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Remote 1A		QPSK DATA
40)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 1A		QPSK DATA
41)	14000.0000-14500.0000	H,V	1M00G7D	Tx	48.00	24.00	Remote 2P		QPSK DATA
42)	14000.0000-14500.0000	H,V	2M00G7D	Tx	51.00	24.00	Remote 2P		QPSK DATA
43)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 2P		QPSK DATA
44)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 2P		QPSK DATA
45)	14000.0000-14500.0000	H,V	1M00G7D	Tx	45.06	21.10	Remote 3		QPSK DATA
46)	14000.0000-14500.0000	H,V	2M00G7D	Tx	48.07	21.10	Remote 3		QPSK DATA
47)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 3		QPSK DATA
48)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 3		QPSK DATA
49)	14000.0000-14500.0000	H,V	1M00G7D	Tx	44.89	20.92	Remote 4A		QPSK DATA
50)	14000.0000-14500.0000	H,V	2M00G7D	Tx	47.50	20.52	Remote 4A		QPSK DATA
51)	11700.0000-12200.0000	H,V	1M50G7D	Rx			Remote 4A		QPSK DATA



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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
52)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 4A		QPSK DATA
53)	14000.0000-14500.0000	H,V	1M00G7D	Tx	55.20	31.20	Remote 5A		QPSK DATA
54)	14000.0000-14500.0000	H,V	2M00G7D	Tx	58.20	31.20	Remote 5A		QPSK DATA
55)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 5A		QPSK DATA
56)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 5A		QPSK DATA
57)	14000.0000-14500.0000	H,V	1M00G7D	Tx	47.20	23.24	Remote 6		QPSK DATA
58)	14000.0000-14500.0000	H,V	2M00G7D	Tx	50.23	23.24	Remote 6		QPSK DATA
59)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 6		QPSK DATA
60)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 6		QPSK DATA
61)	14000.0000-14500.0000	H,V	1M00G7D	Tx	51.47	27.49	Remote 7		QPSK DATA
62)	14000.0000-14500.0000	H,V	2M00G7D	Tx	54.48	27.49	Remote 7		QPSK DATA
63)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 7		QPSK DATA
64)	11700.0000-12200.0000	H,V	1M00G7D	Rx			Remote 7		QPSK DATA
65)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 7		QPSK DATA
66)	14000.0000-14500.0000	H,V	1M00G7D	Tx	49.21	25.23	Remote 8		QPSK DATA
67)	14000.0000-14500.0000	H,V	2M00G7D	Tx	49.30	22.31	Remote 8		QPSK DATA
68)	11700.0000-12200.0000	H,V	2M00G7D	Rx			Remote 8		QPSK DATA

C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	14000.0000-14500.0000	43.0W	-143.0W	05.0	-05.0	000.0	-000.0	-11.75	Remote 3
2)	11700.0000-12200.0000	43.0W	-143.0W	05.0	-05.0				Remote 3
3)	14000.0000-14500.0000	125.0W	-125.0W	05.0	-05.0	000.0	-000.0	-22.38	Remote 4A



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C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
4)	11700.0000-12200.0000	125.0W	125.0W	05.0	05.0				Remote 4A
5)	11700.0000-12200.0000	43.0W	139.0W	32.9	05.6	144.8	255.7		Hub 3
6)	14000.0000-14500.0000	43.0W	139.0W	32.9	05.6	144.8	255.7	-0.46	Hub 3
7)	14000.0000-14500.0000	43.0W	143.0W	05.0	05.0	000.0	000.0	-5.55	Remote 2P
8)	11700.0000-12200.0000	43.0W	143.0W	05.0	05.0				Remote 2P
9)	14000.0000-14500.0000	43.0W	139.0W	32.9	05.6	144.8	255.7	-0.86	Hub 4
10)	11700.0000-12200.0000	43.0W	139.0W	32.9	05.6	144.8	255.7		Hub 4
11)	14000.0000-14500.0000	43.0W	143.0W	05.0	05.0			-4.35	Remote 5A
12)	11700.0000-12200.0000	43.0W	143.0W	05.0	05.0				Remote 5A
13)	14000.0000-14500.0000	125.0W	125.0W	05.0	05.0			-20.64	Remote 1A
14)	11700.0000-12200.0000	125.0W	125.0W	05.0	05.0				Remote 1A
15)	14000.0000-14500.0000	43.0W	143.0W	37.4	15.8	121.4	256.1	-12	Hub 2
16)	11700.0000-12200.0000	43.0W	143.0W	37.4	15.8	121.4	256.1		Hub 2
17)	14000.0000-14500.0000	43.0W	143.0W	37.4	15.8	121.4	256.1	-13.3	Hub 1
18)	11700.0000-12200.0000	43.0W	143.0W	37.4	15.8	121.4	256.1		Hub 1
19)	14000.0000-14500.0000	43.0W	139.0W	32.9	05.6	144.8	255.7	-0.9	Hub 5
20)	11700.0000-12200.0000	43.0W	139.0W	32.9	05.6	144.8	255.7		Hub 5
21)	14000.0000-14500.0000	43.0W	143.0W	37.4	15.8	121.4	256.1	-12	Hub 6
22)	11700.0000-12200.0000	43.0W	143.0W	37.4	15.8	121.4	256.1		Hub 6
23)	14000.0000-14500.0000	43.0W	143.0W	37.4	15.8	121.4	256.1	-12	Hub 7
24)	11700.0000-12200.0000	43.0W	143.0W	37.4	15.8	121.4	256.1		Hub 7
25)	14000.0000-14500.0000	125.0W	125.0W	05.0	05.0			0.1	Remote 6
26)	11700.0000-12200.0000	125.0W	125.0W	05.0	05.0				Remote 6
27)	14000.0000-14500.0000	125.0W	125.0W	05.0	05.0			-12	Remote 7
28)	11700.0000-12200.0000	125.0W	125.0W	05.0	05.0				Remote 7
29)	14000.0000-14500.0000	125.0W	125.0W	05.0	05.0			-12	Remote 8
30)	11700.0000-12200.0000	125.0W	125.0W	05.0	05.0				Remote 8

D) Points of Communications

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

- 1) REMOTE 3 to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)
- 2) REMOTE 3 to Permitted Space Station List
- 3) REMOTE 4A to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)



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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:

- 4) HUB3 to Permitted Space Station List
- 5) REMOTE 2P to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)
- 6) REMOTE 2P to Permitted Space Station List
- 7) HUB4 to Permitted Space Station List
- 8) REMOTE 5A to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)
- 9) REMOTE 5A to Permitted Space Station List
- 10) REMOTE 1A to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)
- 11) HUB2 to Permitted Space Station List
- 12) HUB1 to Permitted Space Station List
- 13) HUB1 to AMC 21 @ 125 W.L. (United Kingdom-licensed satellite)
- 14) HUB5 to Permitted Space Station List
- 15) HUB6 to Permitted Space Station List
- 16) HUB7 to Permitted Space Station List
- 17) REMOTE 6 to Permitted Space Station List
- 18) REMOTE 7 to Permitted Space Station List
- 19) REMOTE 8 to Permitted Space Station List

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
HUB1	Hub 1	2	3.8	PRODELIN	1383	7.5	5 AGL/ 12.5 AMSL	
Max Gains(s):		53.0 dBi @	14.1250 GHz	51.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =					75.00			
Maximum aggregate output EIRP for all carriers (dBW) =					71.75			
HUB2	Hub 2	1	6.3	VERTEX	6.3M.	7.5	8 AGL/ 15.5 AMSL	
Max Gains(s):		55.5 dBi @	12.0000 GHz	57.5 dBi @	14.1250 GHz			
Maximum total input power at antenna flange (Watts) =					200.00			
Maximum aggregate output EIRP for all carriers (dBW) =					80.50			



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
HUB3	Hub 3	1	3.8	PRODELIN	1383	14.33	5 AGL/ 19.33 AMSL	
Max Gains(s):		53.0 dBi @	14.1250 GHz	51.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						75.00		
Maximum aggregate output EIRP for all carriers (dBW) =						71.75		
HUB4	Hub 4	1	6.3	VERTEX	6.3M.	14.33	8 AGL/ 22.33 AMSL	
Max Gains(s):		57.5 dBi @	14.1250 GHz	55.5 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						200.00		
Maximum aggregate output EIRP for all carriers (dBW) =						80.50		
HUB5	Hub 5	2	5.6	ASC SIGNAL	5.6M.	14.3	6 AGL/ 20.3 AMSL	
Max Gains(s):		57.0 dBi @	14.2500 GHz	55.5 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						200.00		
Maximum aggregate output EIRP for all carriers (dBW) =						80.00		
HUB6	Hub 6	2	5.6	ASC SIGNAL	5.6M.	6.6	6 AGL/ 27.7 AMSL	
Max Gains(s):		57.0 dBi @	14.2500 GHz	55.5 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						200.00		
Maximum aggregate output EIRP for all carriers (dBW) =						80.00		
HUB7	Hub 7	1	9	VERTEX	9.0M.	21.7	10 AGL/ 31.7 AMSL	
Max Gains(s):		60.1 dBi @	14.2500 GHz	51.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						200.00		
Maximum aggregate output EIRP for all carriers (dBW) =						83.10		
REMOTE 1A	Remote 1A	150	0.96	ANDREW	960		0.96 AGL	9631
Max Gains(s):		41.2 dBi @	14.1250 GHz	39.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						4.00		
Maximum aggregate output EIRP for all carriers (dBW) =						47.22		



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RADIO STATION AUTHORIZATION

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Call Sign: E100117

Authorization Type: Modification of License

File Number: SES-MOD-20160120-00067

Non Common Carrier

Grant date: 05/18/2016

Expiration Date: 03/16/2026

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
REMOTE 2P	Remote 2P	2500	1.2	PRODELIN	1120		1.2 AGL	
Max Gains(s):		43.2 dBi @	14.1250 GHz	41.0 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =				6.00				
Maximum aggregate output EIRP for all carriers (dBW) =				51.00				
REMOTE 3	Remote 3	500	1.8	PRODELIN	1183		1.8 AGL	
Max Gains(s):		46.5 dBi @	14.2500 GHz	44.6 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =				8.00				
Maximum aggregate output EIRP for all carriers (dBW) =				55.53				
REMOTE 4A	Remote 4A	500	1.2	ANDREW	123		1.2 AGL	
Max Gains(s):		41.8 dBi @	12.0000 GHz	43.3 dBi @	14.1250 GHz			
Maximum total input power at antenna flange (Watts) =				6.00				
Maximum aggregate output EIRP for all carriers (dBW) =				51.00				
REMOTE 5A	Remote 5A	200	2.4	PRODELIN	1251		2.8 AGL	
Max Gains(s):		49.2 dBi @	14.1250 GHz	47.6 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =				8.00				
Maximum aggregate output EIRP for all carriers (dBW) =				58.20				
REMOTE 6	Remote 6	500	1	COBHAM	8100		1 AGL	
Max Gains(s):		41.2 dBi @	14.2500 GHz	39.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =				8.00				
Maximum aggregate output EIRP for all carriers (dBW) =				50.23				
REMOTE 7	Remote 7	250	1.8	AVL	1878		2 AGL	
Max Gains(s):		46.7 dBi @	14.2500 GHz	44.6 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =				25.00				
Maximum aggregate output EIRP for all carriers (dBW) =				60.68				



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E) Antenna Facilities

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REMOTE 8	Remote 8	250	0.75	TRACSTAR	.75		1 AGL	
Max Gains(s):		39.3 dBi @	14.2500 GHz	44.6 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =					25.00			
Maximum aggregate output EIRP for all carriers (dBW) =					53.30			

F) Remote Control Point:

HUB3	750 NORTH DRIVE, (3.8M.) HUB-3 MELBOURNE, BREVARD, FL 32934 321-409-9898	Call Sign: E100117
HUB4	750 NORTH DRIVE, (6.3M.) HUB-4 MELBOURNE, BREVARD, FL 32934 321-409-9898	Call Sign: E100117
HUB5	4005 OPPORTUNITY DRIVE, (5.6M.) HUB-5 MELBOURNE, BREVARD, FL 32934 321-701-9100	Call Sign: E100117
HUB6	4005 OPPORTUNITY DRIVE, (5.6M.) HUB-6 MELBOURNE, BREVARD, FL 32934 321-701-9100	Call Sign: E100117
HUB7	4005 OPPORTUNITY DRIVE, (9.0M.) HUB-7 MELBOURNE, BREVARD, FL 32934 321-701-9100	Call Sign: E100117
REMOTE 6	4005 OPPORTUNITY DRIVE, (1.0M. VSAT), 500 UNITS MELBOURNE, BREVARD, FL 32934 321-701-9100	Call Sign: E100117



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F) Remote Control Point:

REMOTE 7	4005 OPPORTUNITY DRIVE, (1.8M. VSAT), 250 UNITS MELBOURNE, BREVARD, FL 32934 321-701-9100	Call Sign: E100117
REMOTE 8	4005 OPPORTUNITY DRIVE, (0.75M. VSAT), 250 UNITS MELBOURNE, BREVARD, 32934 321-701-9100	Call Sign: E100117

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:

167 --- This authorization is limited to the total number of terminals listed in Section A of this license for this Site ID.

1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.

1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.

2010 --- This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.

2916 --- Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.

2938 --- Upon completion of construction, each licensee must file with the Commission a certification including the following information: (1) name of the licensee, (2) file number of the application, (3) call sign of the antenna, (4) date of the license, (5) certification that the facility as authorized has been completed, (6) certification that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209, and (7) certification that the station is operational (including the date of commencement of service) and will remain operational during the license period unless the license is submitted for cancellation.



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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:

3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR § 1.1307 (b) (5).

5208 --- The licensee shall take all necessary measures to ensure that the antenna 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 wherever such exposures might occur. 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.

5216 --- All operations shall be on a non-common carrier basis.

9631 --- "In accordance with 25.220 (b) (1) related to Non-conforming transmit/receive earth station operations, the power and power density levels specified for Site ID Remote 1 in SEC-LIC-20101027-01345 as amended by SES-AMD-20101230-01642 meet the antenna performance standard of § 25.209(a) and (b) and may not be increased without authorization from the FCC.

9659 --- The licensee is afforded 30 days from the date of issuance of this license to decline it as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.



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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.

