



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Unofficial Copy

Name Norlight Telecommunications, Inc.
(d/b/a)

Callsign: E5401

File Number: SES-LIC-20030904-01219

Authorization License

Non Common Carrier **Grant Date:** 11/12/2003 **Expiration Date:** 11/12/2018

Nature Of Service: Domestic Fixed Satellite Service

Class Of Station: Fixed Earth Stations

A) Site Location(s)

#	Site ID	Address	Latitud	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
1)	1	3617 OAKTON STREET SKOKIE, COOK, IL 60076	42°1'28.0"N	87°43'7.0"W	179.8	83	
Licensee certifies antenna(s) comply with gain patterns 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 Wednesday, November 12, 2003 (3 AM Eastern Standard Time) and ending Monday, November 12, 2018 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is Friday, November 12, 2004 (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	Polarization	Emission	Tx/Rx Mode	Max EIRP /Carrier	Max EIRP Density	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	5925.0000 - 6425.0000	H,V	36M0F8W	T	77.60	50.60	1		
2)	5925.0000 - 6425.0000	H,V	36M0F8W	T	88.50	61.50	1		
3)	5925.0000 - 6425.0000	H,V	36M0G2F	T	81.00	41.40	1		DIGITAL DATA
4)	5925.0000 - 6425.0000	H,V	43K8G1D	T	61.70	51.30	1		DIGITAL DATA
5)	5925.0000 - 6425.0000	H,V	36M0G1D	T	81.00	41.40	1		DIGITAL DATA



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6)	5925.0000 - 6425.0000	H,V	43K8G1E	T	61.70	51.30	1	DIGITAL TELEPHONY
7)	5925.0000 - 6425.0000	H,V	36M0G1E	T	81.00	41.40	1	DIGITAL TELEPHONY
8)	5925.0000 - 6425.0000	H,V	43K8G1F	T	61.70	51.30	1	DIGITAL VIDEO
9)	5925.0000 - 6425.0000	H,V	36M0G1F	T	81.00	41.40	1	DIGITAL VIDEO
10)	5925.0000 - 6425.0000	H,V	43K8G1W	T	61.70	41.40	1	COMBINATION OF DIGITAL CARRIERS
11)	5925.0000 - 6425.0000	H,V	36M0G1W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
12)	5925.0000 - 6425.0000	H,V	43K8G2D	T	61.70	51.30	1	DIGITAL DATA
13)	5925.0000 - 6425.0000	H,V	36M0G2D	T	81.00	41.40	1	DIGITAL DATA
14)	5925.0000 - 6425.0000	H,V	43K8G2E	T	61.70	51.30	1	DIGITAL TELEPHONY
15)	5925.0000 - 6425.0000	H,V	36M0G2E	T	81.00	41.40	1	DIGITAL TELEPHONY
16)	5925.0000 - 6425.0000	H,V	43K8G2F	T	61.70	51.30	1	DIGITAL VIDEO
17)	5925.0000 - 6425.0000	H,V	36M0G2D	T	81.00	41.40	1	DIGITAL VIDEO
18)	5925.0000 - 6425.0000	H,V	43K8G2W	T	61.70	51.30	1	COMBINATION OF DIGITAL CARRIERS
19)	5925.0000 - 6425.0000	H,V	36M0G2W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
20)	5925.0000 - 6425.0000	H,V	43K8G3D	T	61.70	51.30	1	DIGITAL DATA
21)	5925.0000 - 6425.0000	H,V	36M0G3D	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS



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22)	5925.0000 - 6425.0000	H,V	43K8G3E	T	61.70	51.30	1	DIGITAL TELEPHONY
23)	5925.0000 - 6425.0000	H,V	36M0G3E	T	81.00	41.40	1	DIGITAL TELEPHONY
24)	5925.0000 - 6425.0000	H,V	43K8G3F	T	61.70	51.30	1	DIGITAL VIDEO
25)	5925.0000 - 6425.0000	H,V	36M0G3F	T	81.00	41.40	1	DIGITAL VIDEO
26)	5925.0000 - 6425.0000	H,V	43K8G3W	T	61.70	51.30	1	COMBINATION OF DIGITAL CARRIERS
27)	5925.0000 - 6425.0000	H,V	36M0G3W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
28)	5925.0000 - 6425.0000	H,V	43K8G7D	T	61.70	51.30	1	DIGITAL DATA
29)	5925.0000 - 6425.0000	H,V	36M0G7D	T	81.00	41.40	1	DIGITAL DATA
30)	5925.0000 - 6425.0000	H,V	43K8G7E	T	61.70	51.30	1	DIGITAL TELEPHONY
31)	5925.0000 - 6425.0000	H,V	36M0G7E	T	81.00	41.40	1	DIGITAL TELEPHONY
32)	5925.0000 - 6425.0000	H,V	43K8G7F	T	61.70	51.30	1	DIGITAL VIDEO
33)	5925.0000 - 6425.0000	H,V	36M0G7F	T	81.00	41.40	1	DIGITAL VIDEO
34)	5925.0000 - 6425.0000	H,V	43K8G7W	T	61.70	51.30	1	COMBINATION OF DIGITAL CARRIERS
35)	5925.0000 - 6425.0000	H,V	36M0G7W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
36)	5925.0000 - 6425.0000	H,V	43K8G8D	T	61.70	51.30	1	DIGITAL DATA
37)	5925.0000 - 6425.0000	H,V	36M0G8D	T	81.00	41.40	1	DIGITAL DATA



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38)	5925.0000 - 6425.0000	H,V	43K8G8E	T	61.70	41.40	1	DIGITAL TELEPHONY
39)	5925.0000 - 6425.0000	H,V	36M0G8E	T	81.00	41.40	1	DIGITAL TELEPHONY
40)	5925.0000 - 6425.0000	H,V	43K8G8F	T	61.70	51.30	1	DIGITAL VIDEO
41)	5925.0000 - 6425.0000	H,V	36M0G8F	T	81.00	41.40	1	DIGITAL VIDEO
42)	5925.0000 - 6425.0000	H,V	43K8G8W	T	61.70	41.40	1	COMBINATION OF DIGITAL CARRIERS
43)	5925.0000 - 6425.0000	H,V	36M0G8W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
44)	5925.0000 - 6425.0000	H,V	43K8G9D	T	61.70	51.30	1	DIGITAL TELEPHONY
45)	5925.0000 - 6425.0000	H,V	36M0G9D	T	81.00	41.40	1	DIGITAL DATA
46)	5925.0000 - 6425.0000	H,V	43K8G9E	T	61.70	51.30	1	DIGITAL TELEPHONY
47)	5925.0000 - 6425.0000	H,V	36M0G9E	T	81.00	41.40	1	DIGITAL TELEPHONY
48)	5925.0000 - 6425.0000	H,V	43K8G9F	T	61.70	51.30	1	DIGITAL VIDEO
49)	5925.0000 - 6425.0000	H,V	36M0G9F	T	81.00	41.40	1	DIGITAL VIDEO
50)	5925.0000 - 6425.0000	H,V	43K8G9W	T	61.70	51.30	1	COMBINATION OF DIGITAL CARRIERS
51)	5925.0000 - 6425.0000	H,V	36M0G9W	T	81.00	41.40	1	COMBINATION OF DIGITAL CARRIERS
52)	3700.0000 - 4200.0000	H,V	36M0F8W	R			1	
53)	3700.0000 - 4200.0000	H,V	36M0F8W	R			1	



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54)	3700.0000 - 4200.0000	H,V	43K8G1D	R	1	DIGITAL DATA
55)	3700.0000 - 4200.0000	H,V	36M0G1D	R	1	DIGITAL DATA
56)	3700.0000 - 4200.0000	H,V	43K8G1E	R	1	DIGITAL TELEPHONY
57)	3700.0000 - 4200.0000	H,V	36M0G1E	R	1	DIGITAL TELEPHONY
58)	3700.0000 - 4200.0000	H,V	43K8G1F	R	1	DIGITAL VIDEO
59)	3700.0000 - 4200.0000	H,V	36M0G1F	R	1	DIGITAL VIDEO
60)	3700.0000 - 4200.0000	H,V	43K8G1W	R	1	COMBINATION OF DIGITAL CARRIERS
61)	3700.0000 - 4200.0000	H,V	36M0G1W	R	1	COMBINATION OF DIGITAL CARRIERS
62)	3700.0000 - 4200.0000	H,V	43K8G2D	R	1	DIGITAL DATA
63)	3700.0000 - 4200.0000	H,V	36M0G2D	R	1	DIGITAL DATA
64)	3700.0000 - 4200.0000	H,V	43K8G2E	R	1	DIGITAL TELEPHONY
65)	3700.0000 - 4200.0000	H,V	36M0G2E	R	1	DIGITAL TELEPHONY
66)	3700.0000 - 4200.0000	H,V	43K8G2F	R	1	DIGITAL VIDEO
67)	3700.0000 - 4200.0000	H,V	36M0G2F	R	1	DIGITAL VIDEO
68)	3700.0000 - 4200.0000	H,V	43K8G2W	R	1	COMBINATION OF DIGITAL CARRIERS
69)	3700.0000 - 4200.0000	H,V	36M0G2W	R	1	COMBINATION OF DIGITAL CARRIERS



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70)	3700.0000 - 4200.0000	H,V	43K8G3D	R	1	DIGITAL DATA
71)	3700.0000 - 4200.0000	H,V	36M0G3D	R	1	DIGITAL CARRIERS
72)	3700.0000 - 4200.0000	H,V	43K8G3E	R	1	DIGITAL TELEPHONY
73)	3700.0000 - 4200.0000	H,V	36M0G3E	R	1	DIGITAL TELEPHONY
74)	3700.0000 - 4200.0000	H,V	43K8G3F	R	1	DIGITAL VIDEO
75)	3700.0000 - 4200.0000	H,V	36M0G3F	R	1	DIGITAL VIDEO
76)	3700.0000 - 4200.0000	H,V	43K8G3W	R	1	COMBINATION OF DIGITAL CARRIERS
77)	3700.0000 - 4200.0000	H,V	36M0G3W	R	1	COMBINATION OF DIGITAL CARRIERS
78)	3700.0000 - 4200.0000	H,V	43K8G7D	R	1	DIGITAL DATA
79)	3700.0000 - 4200.0000	H,V	36M0G7D	R	1	DIGITAL DATA
80)	3700.0000 - 4200.0000	H,V	43K8G7E	R	1	DIGITAL TELEPHONY
81)	3700.0000 - 4200.0000	H,V	36M0G7E	R	1	DIGITAL TELEPHONY
82)	3700.0000 - 4200.0000	H,V	43K8G7F	R	1	DIGITAL VIDEO
83)	3700.0000 - 4200.0000	H,V	36M0G7F	R	1	DIGITAL VIDEO
84)	3700.0000 - 4200.0000	H,V	43K8G7W	R	1	COMBINATION OF DIGITAL CARRIERS
85)	3700.0000 - 4200.0000	H,V	36M0G7W	R	1	COMBINATION OF DIGITAL CARRIERS



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86)	3700.0000 - 4200.0000	H,V	43K8G8D	R	1	DIGITAL DATA
87)	3700.0000 - 4200.0000	H,V	36M0G8D	R	1	DIGITAL DATA
88)	3700.0000 - 4200.0000	H,V	43K8G8E	R	1	DIGITAL TELEPHONY
89)	3700.0000 - 4200.0000	H,V	36M0G8E	R	1	DIGITAL TELEPHONY
90)	3700.0000 - 4200.0000	H,V	43K8G8F	R	1	DIGITAL VIDEO
91)	3700.0000 - 4200.0000	H,V	36M0G8F	R	1	DIGITAL VIDEO
92)	3700.0000 - 4200.0000	H,V	43K8G8W	R	1	COMBINATION OF DIGITAL CARRIERS
93)	3700.0000 - 4200.0000	H,V	36M0G8W	R	1	COMBINATION OF DIGITAL CARRIERS
94)	3700.0000 - 4200.0000	H,V	43K8G9D	R	1	DIGITAL DATA
95)	3700.0000 - 4200.0000	H,V	36M0G9D	R	1	DIGITAL DATA
96)	3700.0000 - 4200.0000	H,V	43K8G9E	R	1	DIGITAL TELEPHONY
97)	3700.0000 - 4200.0000	H,V	36M0G9E	R	1	DIGITAL TELEPHONY
98)	3700.0000 - 4200.0000	H,V	43K8G9F	R	1	DIGITAL VIDEO
99)	3700.0000 - 4200.0000	H,V	36M0G9F	R	1	DIGITAL VIDEO
100)	3700.0000 - 4200.0000	H,V	43K8G9W	R	1	COMBINATION OF DIGITAL CARRIERS
101)	3700.0000 - 4200.0000	H,V	36M0G9W	R	1	COMBINATION OF DIGITAL CARRIERS



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102) 5925.0000 - 6425.0000	H,V	36M0F8W	T	77.60	50.60	2	
103) 5925.0000 - 6425.0000	H,V	36M0F8W	T	77.60	50.60	2	
104) 5925.0000 - 6425.0000	H,V	36M0G7D	T	77.63	37.93	2	MODULATION AND SERVICES DIGITAL
105) 5925.0000 - 6425.0000	H,V	36M0G2F	T	77.63	37.93	2	MODULATION AND SERVICES DIGITAL
106) 5925.0000 - 6425.0000	H,V	43K8G1D	T	58.80	48.40	2	DIGITAL DATA
107) 5925.0000 - 6425.0000	H,V	36M0G1D	T	77.63	37.93	2	DIGITAL DATA
108) 5925.0000 - 6425.0000	H,V	43K8G1E	T	58.80	48.40	2	DIGITAL TELEPHONY
109) 5925.0000 - 6425.0000	H,V	36M0G1E	T	77.63	37.93	2	DIGITAL TELEPHONY
110) 5925.0000 - 6425.0000	H,V	43K8G1F	T	58.80	48.40	2	DIGITAL VIDEO
111) 5925.0000 - 6425.0000	H,V	36M0G1F	T	77.63	37.93	2	DIGITAL VIDEO
112) 5925.0000 - 6425.0000	H,V	43K8G1W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
113) 5925.0000 - 6425.0000	H,V	36M0G1W	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
114) 5925.0000 - 6425.0000	H,V	43K8G2D	T	58.80	48.40	2	DIGITAL DATA
115) 5925.0000 - 6425.0000	H,V	36M0G2D	T	77.63	37.93	2	DIGITAL DATA
116) 5925.0000 - 6425.0000	H,V	43K8G2E	T	58.80	48.40	2	DIGITAL TELEPHONY
117) 5925.0000 - 6425.0000	H,V	36M0G2E	T	77.63	37.93	2	DIGITAL TELEPHONY



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118) 5925.0000 - 6425.0000	H,V	43K8G2F	T	58.80	48.40	2	DIGITAL VIDEO
119) 5925.0000 - 6425.0000	H,V	36M0G2D	T	77.63	37.93	2	DIGITAL VIDEO
120) 5925.0000 - 6425.0000	H,V	43K8G2W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
121) 5925.0000 - 6425.0000	H,V	36M0G2W	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
122) 5925.0000 - 6425.0000	H,V	43K8G3D	T	58.80	48.40	2	DIGITAL DATA
123) 5925.0000 - 6425.0000	H,V	36M0G3D	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
124) 5925.0000 - 6425.0000	H,V	43K8G3E	T	58.80	48.40	2	DIGITAL TELEPHONY
125) 5925.0000 - 6425.0000	H,V	36M0G3E	T	77.63	37.93	2	DIGITAL TELEPHONY
126) 5925.0000 - 6425.0000	H,V	43K8G3F	T	58.80	48.40	2	DIGITAL VIDEO
127) 5925.0000 - 6425.0000	H,V	36M0G3F	T	77.63	37.93	2	DIGITAL VIDEO
128) 5925.0000 - 6425.0000	H,V	43K8G3W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
129) 5925.0000 - 6425.0000	H,V	36M0G3W	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
130) 5925.0000 - 6425.0000	H,V	43K8G7D	T	58.80	48.40	2	DIGITAL DATA
131) 5925.0000 - 6425.0000	H,V	36M0G7D	T	77.63	37.93	2	DIGITAL DATA
132) 5925.0000 - 6425.0000	H,V	43K8G7E	T	58.80	48.40	2	DIGITAL TELEPHONY
133) 5925.0000 - 6425.0000	H,V	36M0G7E	T	77.63	37.93	2	DIGITAL TELEPHONY



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134) 5925.0000 - 6425.0000	H,V	43K8G7F	T	58.80	48.40	2	DIGITAL VIDEO
135) 5925.0000 - 6425.0000	H,V	36M0G7F	T	77.63	37.93	2	DIGITAL VIDEO
136) 5925.0000 - 6425.0000	H,V	43K8G7W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
137) 5925.0000 - 6425.0000	H,V	36M0G7W	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
138) 5925.0000 - 6425.0000	H,V	43K8G8D	T	58.80	48.40	2	DIGITAL DATA
139) 5925.0000 - 6425.0000	H,V	36M0G8D	T	77.63	37.93	2	DIGITAL DATA
140) 5925.0000 - 6425.0000	H,V	43K8G8E	T	58.80	48.40	2	DIGITAL TELEPHONY
141) 5925.0000 - 6425.0000	H,V	36M0G8E	T	77.63	37.93	2	DIGITAL TELEPHONY
142) 5925.0000 - 6425.0000	H,V	43K8G8F	T	58.80	48.40	2	DIGITAL VIDEO
143) 5925.0000 - 6425.0000	H,V	36M0G8F	T	77.63	37.93	2	DIGITAL VIDEO
144) 5925.0000 - 6425.0000	H,V	43K8G8W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
145) 5925.0000 - 6425.0000	H,V	36M0G8W	T	77.63	37.93	2	COMBINATION OF CARRIERS
146) 5925.0000 - 6425.0000	H,V	43K8G9D	T	58.80	48.40	2	DIGITAL TELEPHONY
147) 5925.0000 - 6425.0000	H,V	36M0G9D	T	77.63	37.93	2	DIGITAL DATA
148) 5925.0000 - 6425.0000	H,V	43K8G9E	T	58.80	48.40	2	DIGITAL TELEPHONY
149) 5925.0000 - 6425.0000	H,V	36M0G9E	T	77.63	37.93	2	DIGITAL TELEPHONY



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150) 5925.0000 - 6425.0000	H,V	43K8G9F	T	58.80	48.40	2	DIGITAL VIDEO
151) 5925.0000 - 6425.0000	H,V	36M0G9F	T	77.63	37.93	2	DIGITAL VIDEO
152) 5925.0000 - 6425.0000	H,V	43K8G9W	T	58.80	48.40	2	COMBINATION OF DIGITAL CARRIERS
153) 5925.0000 - 6425.0000	H,V	36M0G9W	T	77.63	37.93	2	COMBINATION OF DIGITAL CARRIERS
154) 3700.0000 - 4200.0000	H,V	36M0F8W	R			2	
155) 3700.0000 - 4200.0000	H,V	36M0F8W	R			2	
156) 3700.0000 - 4200.0000	H,V	43K8G1D	R			2	DIGITAL DATA
157) 3700.0000 - 4200.0000	H,V	36M0G1D	R			2	DIGITAL DATA
158) 3700.0000 - 4200.0000	H,V	43K8G1E	R			2	DIGITAL TELEPHONY
159) 3700.0000 - 4200.0000	H,V	36M0G1E	R			2	DIGITAL TELEPHONY
160) 3700.0000 - 4200.0000	H,V	43K8G1F	R			2	DIGITAL VIDEO
161) 3700.0000 - 4200.0000	H,V	36M0G1F	R			2	DIGITAL VIDEO
162) 3700.0000 - 4200.0000	H,V	43K8G1W	R			2	COMBINATION OF DIGITAL CARRIERS
163) 3700.0000 - 4200.0000	H,V	36M0G1W	R			2	COMBINATION OF DIGITAL CARRIERS
164) 3700.0000 - 4200.0000	H,V	43K8G2D	R			2	DIGITAL DATA
165) 3700.0000 - 4200.0000	H,V	36M0G2D	R			2	DIGITAL DATA



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Name Norlight Telecommunications, Inc.

Callsign: E5401

File Number: SES-LIC-20030904-01219

Authorization License

Non Common Carrier Grant Date: 11/12/200 Expiration Date: 11/12/2018

166) 3700.0000 - 4200.0000	H,V	43K8G2E	R	2	DIGITAL TELEPHONY
167) 3700.0000 - 4200.0000	H,V	36M0G2E	R	2	DIGITAL TELEPHONY
168) 3700.0000 - 4200.0000	H,V	43K8G2F	R	2	DIGITAL VIDEO
169) 3700.0000 - 4200.0000	H,V	36M0G2F	R	2	DIGITAL VIDEO
170) 3700.0000 - 4200.0000	H,V	43K8G2W	R	2	COMBINATION OF DIGITAL CARRIERS
171) 3700.0000 - 4200.0000	H,V	36M0G2W	R	2	COMBINATION OF DIGITAL CARRIERS
172) 3700.0000 - 4200.0000	H,V	43K8G3D	R	2	DIGITAL DATA
173) 3700.0000 - 4200.0000	H,V	36M0G3D	R	2	DIGITAL CARRIERS
174) 3700.0000 - 4200.0000	H,V	43K8G3E	R	2	DIGITAL TELEPHONY
175) 3700.0000 - 4200.0000	H,V	36M0G3E	R	2	DIGITAL TELEPHONY
176) 3700.0000 - 4200.0000	H,V	43K8G3F	R	2	DIGITAL VIDEO
177) 3700.0000 - 4200.0000	H,V	36M0G3F	R	2	DIGITAL VIDEO
178) 3700.0000 - 4200.0000	H,V	43K8G3W	R	2	COMBINATION OF DIGITAL CARRIERS
179) 3700.0000 - 4200.0000	H,V	36M0G3W	R	2	COMBINATION OF DIGITAL CARRIERS
180) 3700.0000 - 4200.0000	H,V	43K8G7D	R	2	DIGITAL DATA
181) 3700.0000 - 4200.0000	H,V	36M0G7D	R	2	DIGITAL DATA



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182) 3700.0000 - 4200.0000	H,V	43K8G7E	R	2	DIGITAL TELEPHONY
183) 3700.0000 - 4200.0000	H,V	36M0G7E	R	2	DIGITAL TELEPHONY
184) 3700.0000 - 4200.0000	H,V	43K8G7F	R	2	DIGITAL VIDEO
185) 3700.0000 - 4200.0000	H,V	36M0G7F	R	2	DIGITAL VIDEO
186) 3700.0000 - 4200.0000	H,V	43K8G7W	R	2	COMBINATION OF DIGITAL CARRIERS
187) 3700.0000 - 4200.0000	H,V	36M0G7W	R	2	COMBINATION OF DIGITAL CARRIERS
188) 3700.0000 - 4200.0000	H,V	43K8G8D	R	2	DIGITAL DATA
189) 3700.0000 - 4200.0000	H,V	36M0G8D	R	2	DIGITAL DATA
190) 3700.0000 - 4200.0000	H,V	43K8G8E	R	2	DIGITAL TELEPHONY
191) 3700.0000 - 4200.0000	H,V	36M0G8E	R	2	DIGITAL TELEPHONY
192) 3700.0000 - 4200.0000	H,V	43K8G8F	R	2	DIGITAL VIDEO
193) 3700.0000 - 4200.0000	H,V	36M0G8F	R	2	DIGITAL VIDEO
194) 3700.0000 - 4200.0000	H,V	43K8G8W	R	2	COMBINATION OF DIGITAL CARRIERS
195) 3700.0000 - 4200.0000	H,V	36M0G8W	R	2	COMBINATION OF DIGITAL CARRIERS
196) 3700.0000 - 4200.0000	H,V	43K8G9D	R	2	DIGITAL DATA
197) 3700.0000 - 4200.0000	H,V	36M0G9D	R	2	DIGITAL DATA



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198)	3700.0000 - 4200.0000	H,V	43K8G9E	R	2	DIGITAL TELEPHONY
199)	3700.0000 - 4200.0000	H,V	36M0G9E	R	2	DIGITAL TELEPHONY
200)	3700.0000 - 4200.0000	H,V	43K8G9F	R	2	DIGITAL VIDEO
201)	3700.0000 - 4200.0000	H,V	36M0G9F	R	2	DIGITAL VIDEO
202)	3700.0000 - 4200.0000	H,V	43K8G9W	R	2	COMBINATION OF DIGITAL CARRIERS
203)	3700.0000 - 4200.0000	H,V	36M0G9W	R	2	COMBINATION OF DIGITAL CARRIERS

C) Frequency Coordination

#	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)	3700.0000 - 4200.0000	60.0W	145.0W	33.9	15.3	141.9	246.7		1
2)	5925.0000 - 6425.0000	60.0W	145.0W	33.9	15.3	141.9	246.7	-9.3	1
3)	5925.0000 - 6425.0000	60.0W	145.0W	33.9	15.3	141.9	246.7	-0.5	2
4)	3700.0000 - 4200.0000	60.0W	145.0W	33.9	15.3	141.9	246.7		2

D) Point of Communications

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

- 1) 1 to All authorized U.S. Domestic (ALSAT) Satellites.

E) Antenna Facilities

Site/Elevation: 179.83 (Meters) AMSL

Site ID	Antenna ID	Units	Diameter (meters)	Manufacture	Model number	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
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Authorization	License
Non Common Carrier	Grant Date: 11/12/200 Expiration Date: 11/12/2018

1	1	1	10	SCIENTIFIC ATLANTA	8113A	11 AGL/ 190.8 AMSL
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Max Gains(s): 54.0 dBi @ 6.0000 GHz 51.0 dBi @ 4.0000 GHz
Maximum total input power at antenna flange (Watts) = 15,211.00
Maximum aggregate output EIRP for all carriers (dBW) 95.82

1	2	1	7	SCIENTIFIC ATLANTA	8010C	8 AGL/ 187.8 AMSL
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Max Gains(s): 51.1 dBi @ 6.0000 GHz 47.7 dBi @ 4.0000 GHz
Maximum total input power at antenna flange (Watts) = 13,057.00
Maximum aggregate output EIRP for all carriers (dBW) 92.26

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special

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.

1950 The EIRP and EIRP Density listed is for the 10 meter Scientific Atlanta 8113-A.

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.

2500 With respect to potential co-channel interference to or from terrestrial microwave radio stations: receive frequency band(s) listed in Section B of this authorization have been cleared for transmissions from and transmit frequency band(s) listed in Section B have been cleared for transmission to satellites located in the portion of the geostationary satellite orbit specified in Section D for the emissions designated in Section B.

2810 The grantee shall maintain on file with the Commission's current list or plan of the precise frequencies in actual use at this station, specifying for each such frequency: the r.f. center frequency, polarization, emission designator, EIRP (dBW), EIRP density (dBW/4kHz), and receiving earth station(s). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis, and shall be updated within seven days of any changes in frequency usage at this station. Temporary usage of frequencies for periods of less than seven days need not be notified to the Commission if accurate station records are maintained of the times and particulars of such temporary frequency usage.



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FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

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Authorization License

Non Common Carrier Grant Date: 11/12/200 Expiration Date: 11/12/2018

H) Special and General Provisions

- 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: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209 and 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.
- 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).
- 5216 All operations shall be on a non-common carrier basis.
- 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



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H) Special and General Provisions

B) This RADIO STATION AUTHORIZATION is granted subject to the

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 does not meet each required construction deadline by the required date of completion unless, before such date(s), a specific application is timely filed to request an extension of the construction deadline(s), supported with good cause why that failure to construct 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 regulates 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.