

**UNITED STATES OF AMERICA**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**RADIO STATION AUTHORIZATION**

Unofficial Copy

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

**Callsign:** E930271

**File Number:** SES-RWL-20030617-00855

**Authorization** Renewal of License

**Non Common Carrier** **Grant Date:** 06/23/2003 **Expiration Date:** 06/25/2018

**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&deg;1'29.0"N	87&deg;43'9.0"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, June 25, 2003 (3 AM Eastern Standard Time) and ending Monday, June 25, 2018 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is 00/00/0000 (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	36M0F3F	T	90.00	63.00	1		ANALOG TV
2)	5925.0000 - 6425.0000	H,V	36M0G9W	T	81.90	42.30	1		COMBINATION OF DIGITAL CARRIERS
3)	5925.0000 - 6425.0000	H,V	43K8G9W	T	62.60	52.20	1		COMBINATION OF DIGITAL CARRIERS
4)	5925.0000 - 6425.0000	H,V	36M0G9F	T	81.90	42.30	1		DIGITAL VIDEO
5)	5925.0000 - 6425.0000	H,V	43K8G9F	T	62.60	52.20	1		DIGITAL VIDEO



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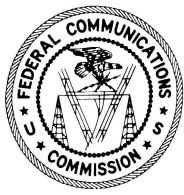
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6)	5925.0000 - 6425.0000	H,V	36M0G9E	T	81.90	42.30	1	DIGITAL TELEPHONY
7)	5925.0000 - 6425.0000	H,V	43K8G9E	T	62.60	52.20	1	DIGITAL TELEPHONY
8)	5925.0000 - 6425.0000	H,V	36M0G9D	T	81.90	42.30	1	DIGITAL DATA
9)	5925.0000 - 6425.0000	H,V	43K8G9D	T	62.60	52.20	1	DIGITAL TELEPHONY
10)	5925.0000 - 6425.0000	H,V	36M0G8W	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
11)	5925.0000 - 6425.0000	H,V	43K8G8W	T	62.60	52.20	1	COMBINATION OF DIGITAL CARRIERS
12)	5925.0000 - 6425.0000	H,V	36M0G8F	T	81.90	42.30	1	DIGITAL VIDEO
13)	5925.0000 - 6425.0000	H,V	43K8G8F	T	62.60	52.20	1	DIGITAL VIDEO
14)	5925.0000 - 6425.0000	H,V	36M0G8E	T	81.90	42.30	1	DIGITAL TELEPHONY
15)	5925.0000 - 6425.0000	H,V	43K8G8E	T	62.60	52.20	1	DIGITAL TELEPHONY
16)	5925.0000 - 6425.0000	H,V	36M0G8D	T	81.90	42.30	1	DIGITAL DATA
17)	5925.0000 - 6425.0000	H,V	43K8G8D	T	62.60	52.20	1	DIGITAL DATA
18)	5925.0000 - 6425.0000	H,V	36M0G7W	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
19)	5925.0000 - 6425.0000	H,V	43K8G7W	T	62.60	52.20	1	COMBINATION OF DIGITAL CARRIERS
20)	5925.0000 - 6425.0000	H,V	36M0G7F	T	81.90	42.30	1	DIGITAL VIDEO
21)	5925.0000 - 6425.0000	H,V	43K8G7F	T	62.60	52.20	1	DIGITAL VIDEO



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22)	5925.0000 - 6425.0000	H,V	36M0G7E	T	81.90	42.30	1	DIGITAL TELEPHONY
23)	5925.0000 - 6425.0000	H,V	43K8G7E	T	62.60	52.20	1	DIGITAL TELEPHONY
24)	5925.0000 - 6425.0000	H,V	36M0G7D	T	81.90	42.30	1	DIGITAL DATA
25)	5925.0000 - 6425.0000	H,V	43K8G7D	T	62.60	52.20	1	DIGITAL DATA
26)	5925.0000 - 6425.0000	H,V	36M0G3W	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
27)	5925.0000 - 6425.0000	H,V	43K8G3W	T	62.60	52.20	1	COMBINATION OF DIGITAL CARRIERS
28)	5925.0000 - 6425.0000	H,V	36M0G3F	T	81.90	42.30	1	DIGITAL VIDEO
29)	5925.0000 - 6425.0000	H,V	43K8G3F	T	62.60	52.20	1	DIGITAL VIDEO
30)	5925.0000 - 6425.0000	H,V	36M0G3E	T	81.90	42.30	1	DIGITAL TELEPHONY
31)	5925.0000 - 6425.0000	H,V	43K8G3E	T	62.60	52.20	1	DIGITAL TELEPHONY
32)	5925.0000 - 6425.0000	H,V	36M0G3D	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
33)	5925.0000 - 6425.0000	H,V	43K8G3D	T	62.60	52.20	1	DIGITAL DATA
34)	5925.0000 - 6425.0000	H,V	36M0G2W	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
35)	5925.0000 - 6425.0000	H,V	43K8G2W	T	62.60	52.20	1	COMBINATION OF DIGITAL CARRIERS
36)	5925.0000 - 6425.0000	H,V	36M0G2D	T	81.90	42.30	1	DIGITAL VIDEO
37)	5925.0000 - 6425.0000	H,V	43K8G2F	T	62.60	52.20	1	DIGITAL VIDEO



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38) 5925.0000 - 6425.0000	H,V	36M0G2E	T	81.90	42.30	1	DIGITAL TELEPHONY
39) 5925.0000 - 6425.0000	H,V	43K8G2E	T	62.60	52.20	1	DIGITAL TELEPHONY
40) 5925.0000 - 6425.0000	H,V	36M0G2D	T	81.90	42.30	1	DIGITAL DATA
41) 5925.0000 - 6425.0000	H,V	43K8G2D	T	62.60	52.20	1	DIGITAL DATA
42) 5925.0000 - 6425.0000	H,V	36M0G1W	T	81.90	42.30	1	COMBINATION OF DIGITAL CARRIERS
43) 5925.0000 - 6425.0000	H,V	43K8G1W	T	62.60	52.20	1	COMBINATION OF DIGITAL CARRIERS
44) 5925.0000 - 6425.0000	H,V	36M0G1F	T	81.90	42.30	1	DIGITAL VIDEO
45) 5925.0000 - 6425.0000	H,V	43K8G1F	T	62.60	52.20	1	DIGITAL VIDEO
46) 5925.0000 - 6425.0000	H,V	36M0G1E	T	81.90	42.30	1	DIGITAL TELEPHONY
47) 5925.0000 - 6425.0000	H,V	43K8G1E	T	62.60	52.20	1	DIGITAL TELEPHONY
48) 5925.0000 - 6425.0000	H,V	36M0G1D	T	81.90	42.30	1	DIGITAL DATA
49) 5925.0000 - 6425.0000	H,V	43K8G1D	T	62.60	52.20	1	DIGITAL DATA
50) 3700.0000 - 4200.0000	H,V	36M0F3F	R			1	
51) 3700.0000 - 4200.0000	H,V	36M0G9W	R			1	COMBINATION OF DIGITAL CARRIERS
52) 3700.0000 - 4200.0000	H,V	43K8G9W	R			1	COMBINATION OF DIGITAL CARRIERS
53) 3700.0000 - 4200.0000	H,V	36M0G9F	R			1	DIGITAL VIDEO



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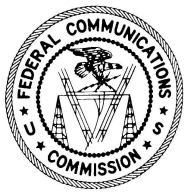
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54)	3700.0000 - 4200.0000	H,V	43K8G9F	R	1	DIGITAL VIDEO
55)	3700.0000 - 4200.0000	H,V	36M0G9E	R	1	DIGITAL TELEPHONY
56)	3700.0000 - 4200.0000	H,V	43K8G9E	R	1	DIGITAL TELEPHONY
57)	3700.0000 - 4200.0000	H,V	36M0G9D	R	1	DIGITAL DATA
58)	3700.0000 - 4200.0000	H,V	43K8G9D	R	1	DIGITAL DATA
59)	3700.0000 - 4200.0000	H,V	36M0G8W	R	1	COMBINATION OF DIGITAL CARRIERS
60)	3700.0000 - 4200.0000	H,V	43K8G8W	R	1	COMBINATION OF DIGITAL CARRIERS
61)	3700.0000 - 4200.0000	H,V	36M0G8F	R	1	DIGITAL VIDEO
62)	3700.0000 - 4200.0000	H,V	43K8G8F	R	1	DIGITAL VIDEO
63)	3700.0000 - 4200.0000	H,V	36M0G8E	R	1	DIGITAL TELEPHONY
64)	3700.0000 - 4200.0000	H,V	43K8G8E	R	1	DIGITAL TELEPHONY
65)	3700.0000 - 4200.0000	H,V	36M0G8D	R	1	DIGITAL DATA
66)	3700.0000 - 4200.0000	H,V	43K8G8D	R	1	DIGITAL DATA
67)	3700.0000 - 4200.0000	H,V	36M0G7W	R	1	COMBINATION OF DIGITAL CARRIERS
68)	3700.0000 - 4200.0000	H,V	43K8G7W	R	1	COMBINATION OF DIGITAL CARRIERS
69)	3700.0000 - 4200.0000	H,V	36M0G7F	R	1	DIGITAL VIDEO





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70)	3700.0000 - 4200.0000	H,V	43K8G7F	R	1	DIGITAL VIDEO
71)	3700.0000 - 4200.0000	H,V	36M0G7E	R	1	DIGITAL TELEPHONY
72)	3700.0000 - 4200.0000	H,V	43K8G7E	R	1	DIGITAL TELEPHONY
73)	3700.0000 - 4200.0000	H,V	36M0G7D	R	1	DIGITAL DATA
74)	3700.0000 - 4200.0000	H,V	43K8G7D	R	1	DIGITAL DATA
75)	3700.0000 - 4200.0000	H,V	36M0G3W	R	1	COMBINATION OF DIGITAL CARRIERS
76)	3700.0000 - 4200.0000	H,V	43K8G3W	R	1	COMBINATION OF DIGITAL CARRIERS
77)	3700.0000 - 4200.0000	H,V	43K8G3E	R	1	DIGITAL TELEPHONY
78)	3700.0000 - 4200.0000	H,V	36M0G3D	R	1	DIGITAL CARRIERS
79)	3700.0000 - 4200.0000	H,V	43K8G3D	R	1	DIGITAL DATA
80)	3700.0000 - 4200.0000	H,V	36M0G2W	R	1	COMBINATION OF DIGITAL CARRIERS
81)	3700.0000 - 4200.0000	H,V	43K8G2W	R	1	COMBINATION OF DIGITAL CARRIERS
82)	3700.0000 - 4200.0000	H,V	36M0G2F	R	1	DIGITAL VIDEO
83)	3700.0000 - 4200.0000	H,V	43K8G2F	R	1	DIGITAL VIDEO
84)	3700.0000 - 4200.0000	H,V	36M0G2E	R	1	DIGITAL TELEPHONY
85)	3700.0000 - 4200.0000	H,V	43K8G2E	R	1	DIGITAL TELEPHONY



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86)	3700.0000 - 4200.0000	H,V	36M0G2D	R	1	DIGITAL DATA
87)	3700.0000 - 4200.0000	H,V	43K8G2D	R	1	DIGITAL DATA
88)	3700.0000 - 4200.0000	H,V	36M0G1W	R	1	COMBINATION OF DIGITAL CARRIERS
89)	3700.0000 - 4200.0000	H,V	43K8G1W	R	1	COMBINATION OF DIGITAL CARRIERS
90)	3700.0000 - 4200.0000	H,V	36M0G1F	R	1	DIGITAL VIDEO
91)	3700.0000 - 4200.0000	H,V	43K8G1F	R	1	DIGITAL VIDEO
92)	3700.0000 - 4200.0000	H,V	36M0G1E	R	1	DIGITAL TELEPHONY
93)	3700.0000 - 4200.0000	H,V	43K8G1E	R	1	DIGITAL TELEPHONY
94)	3700.0000 - 4200.0000	H,V	36M0G1D	R	1	DIGITAL DATA
95)	3700.0000 - 4200.0000	H,V	43K8G1D	R	1	DIGITAL DATA
96)	3700.0000 - 4200.0000	H,V	36M0G3F	R	1	DIGITAL VIDEO
97)	3700.0000 - 4200.0000	H,V	43K8G3F	R	1	DIGITAL VIDEO
98)	3700.0000 - 4200.0000	H,V	36M0G3E	R	1	DIGITAL TELEPHONY

**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)	5925.0000 - 6425.0000	55.0W	145.0W	31.3	15.3	136.2	246.7	-0.4	1



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2) 3700.0000 - 4200.0000 55.0W - 145.0W 31.3 - 15.3 136.2 - 246.7 1

**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:** 179.8 (Meters) AMSL

Site ID	Antenna ID	Units	Diameter (meters)	Manufacture	Model number	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1	1	1	11	HARRIS	5260	12 AGL/ 191.8 AMSL	

Max Gains(s): 51.6 dBi @ 4.0000 GHz 54.9 dBi @ 6.0000 GHz

Maximum total input power at antenna flange (Watts) = 15,417.00

Maximum aggregate output EIRP for all carriers (dBW) 96.78

**F) Remote Control**

1

**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.
- 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.
- 2454 All satellite uplink transmissions carrying broadband video information shall comply with the Automatic Transmitter Identification System (ATIS) requirements of Section 25.281 of the Rules, as modified by FCC Report No. DS-1066, released on April 3, 1991.





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## H) Special and General Provisions

- 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.
- 2510 Waiver of Section 25.203 (e) of the Commission's Rules and Regulations is granted for the beam intersections listed in the application(s) for this facility.
- 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.
- 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).
- 5208 The licensee shall take extraordinary measures to ensure that the antenna does not create a potential for harmful non-ionizing radiation to persons who may be within the immediate vicinity since this earth station exceeds the radiation hazard level of 5 mW/cm<sup>2</sup>. This shall include but not be limited to roping off an area or establishing a physical barrier within a radius of at least 20 feet surrounding the antenna or the trailer on which it is mounted. During actual transmitting, warning signs shall be posted informing all persons to keep outside of the roped off area. The bottom of the satellite dish shall not be less than 6 feet above ground level.
- 5216 All operations shall be on a non-common carrier basis.



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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 is not ready for operation by the required date of completion of construction unless an application for modification of construction permit for 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 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.**