

RADIO STATION AUTHORIZATION

Name: University of Tennessee Call Sign: E880575

Authorization Type: License File Number: SES-LIC-20021118-01994

Non Common Carrier Grant date: 01/15/2003 Expiration Date: 01/15/2018

Nature of Service: Domestic Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1) 1	CIRCLE PARK DRIVE SUITE 91 COM-EXT BLDG. KNOXVILLE, KNOX, TN 37996	35°57'7.0"N	83°55'36.0 " W	286.5	27
	Licensee certifies antenna(s)	comply with g	ain patterns sp	ecified 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 January 15, 2003 (3 AM Eastern Standard Time) and ending January 15, 2018 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is January 15, 2004 (3 AM Eastern Standard Time). Grantee must file with the Commission a certification upon completion of

B) Particulars of Operations

construction and commencement of operation.

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)	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) 14	1000.0000-14500.0000	Н, V	36M0F8W	Tx	82.80	56.00	No. 1		ANALOG ASSOCIAT SUBCARRI	AND AUDIO
2) 11	700.0000-12200.0000	Н, V	36M0F8W	Rx			No. 1		ANALOG ASSOCIAT SUBCARRI	AND AUDIO

C) Frequency Coordination Limits

			Satellite Arc (Deg. Long.)		Elevation (Degrees)		muth grees)	Max EIRP Density toward			
#	Frequency Limits (MHz)	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	Horizon (dBW/4kHz)		Associated Antenna(s)	
1)	14000.0000-14500.0000	62.0W-	-146.0W	42.3	-13.8	145.6	-252.7	1	No.	1	



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C) Frequency Coordination Limits

		Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward	
#	Frequency Limits (MHz)	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	Horizon (dBW/4kHz)	Associated Antenna(s)
2)	11700.0000-12200.0000	62.0W-1	46.0W	42.3-	-13.8	145.6	-252.7		No. 1

D) Points of Communications

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

E) Antenna Facilities

_	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
1		No. 1	1	7	SCIENTIFIC-ATLANTA	8010K	286.5	8.4 AGL/ 294.6 AMSL	
	Max (Gains(s):	58.0	dBi @	14.0000 GHz 56.8	dBi @ 12.00	00 GHz		
	Maxir	mum total inpu	t power	at anten	na flange (Watts) =	302.00			
	Maxin	mum aggregate	output :	EIRP for	all carriers (dBW) =	82.80			

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:
 - 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.

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^{1) 1} to Permitted Space Station List



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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:

- 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: (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.
- 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).
- 5219 --- All operations via TDRS-41are restricted to the provision of capacity through the sale or lease of transponder capacity for communications not interconnected with the public-switched message networks (except for emergency restoration service) and shall be in accordance with the parameters summarized and conditions described in the INTELSAT Board of Governors document entitled "Article XIV (d) Consultation Concerning the Proposed Use of the Columbia Satellite System", BG-90-67E, August 27, 1991. This authorization is subject to all terms and conditions imposed on the Columbia satellite system by the Commission. This autorization is not to be construed as including any uplink or downlink authority in other countries, and all communications via TDRS-41 shall be between the US and those countries authorized in the above-referenced application which TDRS-41 is authorized by the Commission to serve.
- 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 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.

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