



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: MOBILE SATELLITE CONNECTION,LLC

Call Sign: E030046

Authorization Type: Modification of License

File Number: SES-MOD-20051205-01682

Non Common Carrier

Grant date: 01/17/2006

Expiration Date: 05/21/2018

Nature of Service: Domestic Fixed Satellite Service

Nature of Service: Fixed Satellite Service

Nature of Service: International Fixed Satellite Service

Class of Station: Temporary Fixed Earth Station

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	1	CONUS U.S. and it's territories	0°0'0.0"N	0°0'0.0"W	0	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.

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 May 21, 2003 (3 AM Eastern Standard Time) and ending May 21, 2018 (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

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)	5925.0000-6425.0000	H,V	36M0G7F	Tx	65.50	25.90	1		Compressed Digital Video, 45 Mbps, 3/4 FEC. Emission range: 4M00G7F -36M0G7F
2)	5925.0000-6425.0000	H,V	4M00G7F -	Tx	61.50	31.50	1		Compressed Digital Video, 5000 kbps, 3/4 FEC
3)	5925.0000-6425.0000	H,V	36M0F3F	Tx	65.50	38.50	1		Standard video with associated audio subcarriers
4)	3700.0000-4200.0000	H,V	4M00G7F -	Rx			1		Compressed Digital Video, 5000 kbps, 3/4 FEC



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5)	3700.0000-4200.0000	H, V	36M0G7F	Rx			1		Compressed Digital Video, 45 Mbps, 3/4 FEC. Emission range: 4M00G7F -36M0G7F
6)	3700.0000-4200.0000	H, V	36M0F3F	Rx			1		Standard video with associated audio subcarriers
7)	5925.0000-6425.0000	H, V	36M0G7F	Tx	72.39	32.85	1		Compressed digital video
8)	5925.0000-6425.0000	H, V	4M00G7F	Tx	61.90	31.90	1		Compressed digital video
9)	5925.0000-6425.0000	H, V	36M0F3F	Tx	72.39	45.40	1		Standard analog video with associated audio subcarriers

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)	5925.0000-6425.0000	74.0W-139.0W		05.0-05.0		000.0-000.0		13.5	1
2)	3700.0000-4200.0000	74.0W-139.0W		05.0-05.0					1
3)	5925.0000-6425.0000	22.0W-143.0W		05.0-05.0				12.7	1

D) Points of Communications

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

- 1) 1 to GALAXY IX @ 127 W.L. (U.S.-licensed domestic satellite)
- 2) 1 to GALAXY I-R @ 133 W.L. (U.S.-licensed domestic satellite)
- 3) 1 to TELSTAR 7 @ 129 degrees W.L. (U.S.-licensed domestic satellite)
- 4) 1 to GALAXY V @ 125 W.L. (U.S.-licensed domestic satellite)
- 5) 1 to GALAXY 10R satellite @ 123 W.L. (U.S.-licensed domestic satellite)
- 6) 1 to GALAXY 4R @ 99 W.L. (U.S.-licensed domestic satellite)
- 7) 1 to TELSTAR 5 @ 97 degrees W.L. (U.S.-licensed domestic satellite)
- 8) 1 to GALAXY 3C (S2381) @ 95.05 W.L. (U.S.-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:

- 9) 1 to TELSTAR 6 @ 93 degrees W.L. (U.S.-licensed domestic satellite)
- 10) 1 to GALAXY XI @ 91 W.L. (U.S.-licensed domestic satellite)
- 11) 1 to TELSTAR 4 @ 89 degrees W.L. (U.S.-licensed domestic satellite)
- 12) 1 to IA-8 Intelsat Americas satellite @ 89 degrees W.L., of the INTELSAT system (U.S.-licensed)
- 13) 1 to AMC 7 (S2155) @ 135 W.L. (U.S.-licensed)
- 14) 1 to INTELSAT AMERICAS-6 @93 degrees W.L. satellites(s) of the INTELSATsystem. (U.S.-licensed)
- 15) 1 to AMC-6 (S2347) @ 83degrees W.L. (U.S.-licensed)
- 16) 1 to @121 degrees W.L. satellites(s) of the INTELSATsystem. (U.S.-licensed)
- 17) 1 to ANIK F2 @111.1° W.L. (Canada-licensed)
- 18) 1 to AMC-4 (S2135)@ 134.9 degrees W.L. (U.S.-licensed)
- 19) 1 to AMC-3 (S2162) @ 72 degrees W.L. (U.S.-licensed)
- 20) 1 to ANIK F1 (S2745) @ 107.3 degrees W.L. (Canada-licensed)
- 21) 1 to AMC 2 satellite @ 105 degrees W.L.(U.S.-Licensed)
- 22) 1 to INTELSAT AMERICAS 5 @ 97 degrees W.L., satellite of the INTELSAT system (U.S.-licensed)
- 23) 1 to AMC-8 (S2379) @ 139 degrees W.L. (U.S.-licensed)
- 24) 1 to AMC 16 (S2181) @ 85 degrees W.L. (U.S.-licensed)
- 25) 1 to AMSC 1 satellite @ 103 degrees W.L. (U.S.-licensed)
- 26) 1 to AMC 10 satellite @ 135 degrees W.L.(U.S.-licensed)
- 27) 1 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)
1	1	1	4.1	Comtech RSI	Offsat	0	0 AGL/ 0 AMSL	3851 5838
Max Gains(s): 45.9 dBi @ 6.1750 GHz								
Maximum total input power at antenna flange (Watts) =					446.00			
Maximum aggregate output EIRP for all carriers (dBW) =					72.39			

F) Remote Control Point:

1

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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.
- 2098 --- (a) Operation of this station is limited to locations within the territory of the United States. (b) All operations shall be in accordance with the applicable provisions of Sections 101.815 and 101.817 of the Rules.
- 2325 --- Antennas and all antenna supporting structures used under this authorization shall not exceed 20 feet in height.
- 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).
- 3420 --- 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 may exceed the radiation hazard level of 1 mW/cm². This shall include but not be limited to establishing a physical barrier or roping off an area, where the radiation hazard level is or below 1 mW/ cm², surrounding the antenna or the trailer on which it is mounted. During actual transmissions, warning signs shall be posted informing all persons to keep outside the physical barrier or the roped off area.
- 3815 --- For each use of this temporary-fixed station the licensee shall coordinate the station with terrestrial users in accordance with Section 25.203 (Choice of sites and frequencies) of the Commission's Rules.



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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:

- 3851 --- The receiving antenna gain pattern(s) does(do) not comply with Section 25.209 of the FCC Rules. The operation of this antenna will not be protected from harmful interference caused by other geostationary satellite networks to the extent that harmful interference would not be expected to be caused to an antenna that is compliant with the antenna performance standards of Section 25.209.
- 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.
- 5838 --- The authorized antenna(s) does(do) not comply with the antenna gain envelope specified in Section 25.209(a) of the Commission's Rules for Theta between 1 and 2 degrees. The EIRP and EIRP density limits stated in this license are the maximum permitted for this station. No harmful interference shall be caused by the operations of this station to other lawfully operated radio stations that are compliant with the Commission's two-degree spacing rules.



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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.