

RADIO STATION AUTHORIZATION

Name: MCI Communications Services, Inc.

Call Sign: E000589

Authorization Type: Renewal of License

File Number: SES-RWL-20170403-00347

Common Carrier

Grant date: 04/06/2017

Expiration Date:

06/06/2032



Nature of Service: Domestic Fixed Satellite Service Nature of Service: International 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) MTJKVA | 1295 INDUSTRIAL PARK RD QUICKSBURG, SHENANDOAH, VA 22847 | 38°43'45.4"N | 78°39'25.1"W | 280.4 | 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 June 6, 2017 (3 AM Eastern Standard Time) and ending June 6, 2032 (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

B) Particulars of Operations

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. | | | Max EIRP | Max EIRP Density | | Special Provisions | | |
|---|-------------------------------|---------------|-------------------|------------------------|-----------------------|-------------------------|-------------------------|------|
| # Frequency (MHz) | Polarization Code Emission | Tx/Rx Mode | /Carrier (dBW) | /Carrier (dBW/4kHz) | Associated Antenna | (Refer to Section H) | Modulation/ Services | |
| 1) 5925.0000-6425.0000 | H, V, L, R 2M05F8F- | Tx | 85.32 | 58.30 | MJS-01A | | ANALOG VIDEO | |
| 2) 5925.0000-6425.0000 | H,V,L,R36M0F8F | Tx | 85.32 | 58.30 | MJS-01A | | ANALOG VIDEO | |
| 3) 5925.0000-6425.0000 | H, V, L, R 56K0G7W- | Tx | 68.76 | 57.30 | MJS-01A | | DIGITAL VIDEO, VOICE, | DATA |
| 4) 5925.0000-6425.0000 | H, V, L, R 72M0G7W | Tx | 86.70 | 44.15 | MJS-01A | | DIGITAL VIDEO, VOICE, | DATA |
| 5) 5850.0000-5925.0000 | H,V,L,R 2M05F8F- | Tx | 85.32 | 58.30 | MJS-01A | | ANALOG VIDEO | |
| 6) 5850.0000-5925.0000 | H,V,L,R36M0F8F | Tx | 85.32 | 58.30 | MJS-01A | | ANALOG VIDEO | |
| 7) 5850.0000-5925.0000 | H, V, L, R 56K0G7W- | Tx | 68.76 | 57.30 | MJS-01A | | DIGITAL VIDEO, VOICE, | DATA |
| 8) 5850.0000-5925.0000 | H, V, L, R 72M0G7W | Tx | 86.70 | 44.15 | MJS-01A | | DIGITAL VIDEO, VOICE, | DATA |
| 9) 3700.0000-4200.0000 | H, V, L, R 2M05F8F- | Rx | | | MJS-01A | | ANALOG VIDEO | |

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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 Max EIRP EIRP Density /Carrier /Carrier (dBW) (dBW/4kHz) | Associated Antenna Special Provisions (Refer to Section H) | Modulation/ |
|-----|-------------------------|-------------------------------|---------------|--|--|----------------------------|
| - | LO) 3700.0000-4200.0000 | H,V,L,R36M0F8F | Rx | | MJS-01A | ANALOG VIDEO |
| - | 11) 3700.0000-4200.0000 | H, V, L, R 56K0G7W- | Rx | | MJS-01A | DIGITAL VIDEO, VOICE, DATA |
| 1 | 12) 3700.0000-4200.0000 | H, V, L, R 72M0G7W | Rx | | MJS-01A | DIGITAL VIDEO, VOICE, DATA |
| . 1 | L3) 3625.0000-3700.0000 | H, V, L, R 2M05F8F- | Rx | | MJS-01A | ANALOG VIDEO |
| 1 | L4) 3625.0000-3700.0000 | H, V, L, R 36M0F8F | Rx | | MJS-01A | ANALOG VIDEO |
| 1 | L5) 3625.0000-3700.0000 | H, V, L, R 56K0G7W- | Rx | | MJS-01A | DIGITAL VIDEO, VOICE, DATA |
|] | L6) 3625.0000-3700.0000 | H, V, L, R 72M0G7W | Rx | | MJS-01A | DIGITAL VIDEO, VOICE, DATA |

C) Frequency Coordination Limits

| | Frequency Limits | | te Arc Long.) West | | ation grees) West | | muth grees) West | Max EIRP Density toward Horizon | Associated |
|----|---------------------|--------|--------------------------|-------|-------------------------|-------|------------------------|---------------------------------------|------------|
| # | (MHz) | Limit | Limit | Limit | Limit | Limit | Limit | (dBW/4kHz) | Antenna(s) |
| 1) | 5925.0000-6425.0000 | 7.0W-1 | L51.0W | 05.6- | 05.0 | 101.7 | -258.7 | 21.08 | MJS-01A |
| 2) | 3700.0000-4200.0000 | 7.0W-1 | L51.0W | 05.6- | 05.0 | 101.7 | -258.7 | | MJS-01A |
| 3) | 5850.0000-5925.0000 | 18.0W- | -55.5W | 14.0- | 39.1 | 109.4 | -145.6 | 11 | MJS-01A |
| 4) | 3625.0000-3700.0000 | 18.0W- | -55.5W | 14.0- | 39.1 | 109.4 | -145.6 | | MJS-01A |

D) Points of Communications

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

- 1) MTJKVA to Permitted Space Station List
- 2) MTJKVA to INTELSAT AOR @ 310.0 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 3) MTJKVA to INTELSAT AOR @ 307.0 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 4) MTJKVA to INTELSAT 805 (S2404) @ 304.5 E.L. (U.S.-licensed)
- 5) MTJKVA to INTELSAT AOR @ 325.5 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 6) MTJKVA to INTELSAT AOR @ 340.0 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 7) MTJKVA to INTELSAT AOR @ 330.5 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 8) MTJKVA to INTELSAT AOR (S2411) @ 332.5 E.L. satellite of the INTELSAT system (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) MTJKVA to INTELSAT AOR @ 342.0 E.L. satellite of the INTELSAT system (U.S.-licensed)
- 10) MTJKVA to INTELSAT AOR @ 335.5 E.L.satellite of the INTELSAT system (U.S.-licensed)
- 11) MTJKVA to INTELSAT AOR @ 328.5 E.L. satellite of the INTELSAT system (U.S.-licensed)

E) Antenna Facilities

| Site ID | | | Manufacturer | Model number | Site Elevation (Meters) | Max Antenna Height (Meters) | Special Provisions (Refer to Section H) | |
|------------|--------------------------------------|---|-----------------|--------------------------------|-------------------------------|-----------------------------------|--|--|
| MTJKVA | MJS-01A | 1 | 18.3 | UNIVERSAL | 1183 | 280.4 | 19.828 AGL/ 300.2 AMSL | |
| | Max Gains(s): Maximum total input | | dBi @ at antenn | 4.0000 GHz a flange (Watts) | | 00 GHz | | |

89.40

None unless otherwise specified under Special and General Provisions

Maximum aggregate output EIRP for all carriers (dBW) =

G) Antenna Structure marking and lighting requirements:

H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
 - 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (IBFS) in the "Other Filings" tab within 10 days of the change.
 - 5 --- Licensee must notify the Commission when an earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.
 - 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
 - 5225 --- This action constitutes the final step with respect to the provision of the services only insofar as the US regulatory process is concerned. However, this authority shall not be construed as authorizing the distribution of programming where the approriate copyright clearances have not been obtained or where the U.S. Government has determined that appropriate copyright protection does not otherwise exist.
 - 5797 --- The EIRP and EIRP Density values for the digital carriers are the maximum permissible under the Section 25.212 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:
 - 5802 --- This authorization is issued pursuant to and subject to the terms and policy adopted in the Commission's Order, released December 11, 2000 (FCC 00-363).
 - 5822 --- The 3600-3650 MHz band is shared on a co-primary basis in the U.S. and Possessions with Federal Government radiolocation systems. Unacceptable interference may be caused to this earth station from radiolocation systems, including high-powered, highly mobile, shipborne and airborne radar transmitters, operating in the frequency band. Consistent with the applicant's EMC analysis (as required by US245 and based on the NTIA TR-99-361 Report, Technical Characteristics of Radiolocation Systems operating in the 3.1-3.7 GHz Band and Procedures for assessing EMC with Fixed Earth Station Receivers (available at http://www.ntia.doc.gov/osmhome/reports.html), the licensee accepts this potential for unacceptable interference. In the case that out-of-band interference does occur, the licensee is further aware that use of a RF filter ahead of the low noise amplifier (LNA) will limit potential out-of-band interference to its receiving earth station. Additionally, per US 245, in the band 3600-3650 MHz, these fixed-satellite service operations are limited to international inter-continental satellite systems.
 - 5823 --- The 5850-5925 MHz band is shared in the U.S. and Possessions on a co-primary basis with Federal Government radiolocation systems. Unacceptable interference may be caused to this earth station's communication links from radiolocation systems, including high-powered land-based transportable and shipborne radar transmitters, operating in the frequency band in accordance with footnote G2. (See, e.g., NTIA Report Federal Radar Spectrum Requirements, (http://www.ntia.doc.gov/osmhome/reports/ntia00-40/ntia00-40.pdf), NTIA Report Resource Assessment in 5650-5925 Spectrum the (http://www.fcc.gov/ib/srd/fedreg ntiareport.html), and FCC Fifth Notice of Inquiry in Preparation for a General World Administrative Conference in 1979 (Docket No. 20271; FCC 77-349)). As required by US245, the earth station licensee is aware of the EMC environment and this sharing situation with the radiolocation service and accepts the potential for unacceptable interference. Additionally, this fixed-satellite service earth station is limited to operations over international inter-continental satellite systems.
 - 5880 --- Use of this facility to provide international service on a common carrier basis requires a separate authorization under Section 214 of the Communication Act of 1934, as amended.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (see 47 C.F.R. §§1.1307, 1.1308 and 1.1311)
- 90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) 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. Physical 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.

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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.

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