



**UNITED STATES OF AMERICA**  
**FEDERAL COMMUNICATIONS COMMISSION**  


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**RADIO STATION AUTHORIZATION**

**Name:** Gogo LLC

**Call Sign:** E120106

**Authorization Type:** Modification of License

**File Number:** SES-MFS-20131114-01015

**Non Common Carrier**

**Grant date:** 05/13/2014

**Expiration Date:** 05/01/2028

**Nature of Service:** Fixed Satellite Service

**Class of Station:** Other

**A) Site Location(s)**

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	1	1250 North Arlington Heights Road Operate up to 1000 ESAA terminals 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.			0	83

*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 1, 2013 (3 AM Eastern Standard Time) and ending May 1, 2028 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is May 13, 2015 (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 (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)	14000.0000-14500.0000	H, V	9M36G7D	Tx	42.32	9.77	AES1		DIGITAL DATA SERVICES
2)	14000.0000-14500.0000	H, V	2M34G7D	Tx	44.63	18.11	AES1		DIGITAL DATA SERVICES
3)	14000.0000-14500.0000	H, V	2M40G7D	Tx	43.89	16.91	AES1		DIGITAL DATA SERVICES
4)	14000.0000-14500.0000	H, V	2M50G7D	Tx	44.57	17.76	AES1		DIGITAL DATA SERVICES
5)	14000.0000-14500.0000	H, V	3M66G7D	Tx	44.55	16.06	AES1		DIGITAL DATA SERVICES
6)	14000.0000-14500.0000	H, V	3M79G7D	Tx	44.48	15.83	AES1		DIGITAL DATA SERVICES
7)	14000.0000-14500.0000	H, V	3M89G7D	Tx	44.55	15.79	AES1		DIGITAL DATA SERVICES
8)	14000.0000-14500.0000	H, V	3M90G7D	Tx	44.49	15.75	AES1		DIGITAL DATA SERVICES
9)	14000.0000-14500.0000	H, V	4M10G7D	Tx	42.80	12.70	AES1		DIGITAL DATA SERVICES



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 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
10)	14000.0000-14500.0000	H, V	6M00G7D	Tx	44.40	12.70	AES1		DIGITAL DATA SERVICES
11)	14000.0000-14500.0000	H, V	6M56G7D	Tx	44.43	12.28	AES1		DIGITAL DATA SERVICES
12)	14000.0000-14500.0000	H, V	6M57G7D	Tx	44.53	13.51	AES1		DIGITAL DATA SERVICES
13)	14000.0000-14500.0000	H, V	6M94G7D	Tx	44.45	12.05	AES1		DIGITAL DATA SERVICES
14)	14000.0000-14500.0000	H, V	882KG7D	Tx	44.56	22.59	AES1		DIGITAL DATA SERVICES
15)	14000.0000-14500.0000	H, V	8M00G7D	Tx	44.50	11.49	AES1		DIGITAL DATA SERVICES
16)	12200.0000-12750.0000	H, V	30M0G7D	Rx			AES1		Digital Data Services
17)	11700.0000-12200.0000	H, V	30M0G7D	Rx			AES1		Digital Data Services
18)	11450.0000-11700.0000	H, V	30M0G7D	Rx			AES1		Digital Data Services
19)	10950.0000-11200.0000	H, V	30M0G7D	Rx			AES1		Digital Data Services

**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)	14000.0000-14500.0000	302.0E	302.0E	05.0	05.0	000.0	000.0	-3.9	AES1
2)	14000.0000-14500.0000	101.0W	101.0W	05.0	05.0	000.0	000.0	-2	AES1
3)	14000.0000-14500.0000	47.0W	47.1W	05.0	05.0	000.0	000.0	-1	AES1
4)	14000.0000-14500.0000	315.0E	315.0E	05.0	05.0	000.0	000.0	-3.9	AES1
5)	12250.0000-12750.0000	166.0E	166.0E	05.0	05.0	000.0	000.0		AES1
6)	11450.0000-11700.0000	47.0W	47.1W	05.0	05.0	000.0	000.0		AES1
7)	14000.0000-14500.0000	166.0E	166.0E	05.0	05.0	000.0	000.0	-3.9	AES1
8)	11700.0000-12200.0000	101.0W	101.0W	05.0	05.0	000.0	000.0		AES1
9)	10950.0000-11200.0000	47.0W	47.1W	05.0	05.0	000.0	000.0		AES1
10)	11700.0000-11950.0000	315.0E	315.0E	05.0	05.0	000.0	000.0		AES1
11)	11700.0000-12200.0000	302.0E	302.0E	05.0	05.0	000.0	000.0		AES1
12)	12500.0000-12750.0000	47.0W	47.1W	05.0	05.0	000.0	000.0		AES1



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**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		
13)	11700.0000-11950.0000	47.0W	-47.1W	05.0	-05.0	000.0	-000.0		AES1
14)	12500.0000-12750.0000	338.0E	-338.0E	05.0	-05.0				AES1
15)	14000.0000-14500.0000	338.0E	-338.0E	05.0	-05.0			-3.9	AES1
16)	11450.0000-11700.0000	302.0E	-302.0E	05.0	-05.0			0	AES1
17)	12250.0000-12500.0000	72.1E	-72.1E	05.0	-05.0	-000.0			AES1
18)	14000.0000-14500.0000	72.1E	-72.1E	05.0	-05.0			-3.9	AES1
19)	11700.0000-12200.0000	172.0E	-172.0E	05.0	-05.0				AES1
20)	14000.0000-14500.0000	40.5W	-40.5W	05.0	-05.0			0.6	AES1
21)	14000.0000-14500.0000	60.0E	-60.0E	05.0	-05.0			-1	AES1
22)	14000.0000-14500.0000	114.9W	-114.9W	05.0	-05.0			-4	AES1
23)	14000.0000-14500.0000	172.0E	-172.0E	05.0	-05.0			5.1	AES1
24)	10950.0000-11200.0000	172.0E	-172.0E	05.0	-05.0				AES1
25)	11450.0000-11700.0000	172.0E	-172.0E	05.0	-05.0				AES1
26)	12200.0000-12750.0000	172.0E	-172.0E	05.0	-05.0				AES1
27)	10950.0000-11200.0000	40.5W	-40.5W	05.0	-05.0				AES1
28)	10950.0000-11200.0000	60.0E	-60.0E	05.0	-05.0				AES1
29)	11450.0000-11700.0000	60.0E	-60.0E	05.0	-05.0				AES1
30)	11700.0000-12200.0000	114.9W	-114.9W	05.0	-05.0				AES1

**D) Points of Communications**

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

- 1) 1 to SES-1 (S2807) @ 101 degrees W.L. (U.S.-licensed)
- 2) 1 to NSS-703 (S2818) @ 47.05 degrees W.L. (UK/Gibraltar-licensed)
- 3) 1 to INTELSAT 19 (S2850) @ 166.0 degrees E.L. (U.S.-licensed)
- 4) 1 to INTELSAT 14 (S2785) @ 45 degrees W.L. (U.S.-licensed)
- 5) 1 to INTELSAT 21 (S2863) @ 58.0 degrees W.L. (U.S.-licensed)
- 6) 1 to SES-4 (S2828) @ 22 degrees W.L. (Netherlands-Licensed)
- 7) 1 to INTELSAT 22 (S2846) @ 72.1 degrees E.L. (U.S.-licensed)
- 8) 1 to SATMEX-5 (S2589) @ 114.9 W.L. degrees (Mexico-licensed)
- 9) 1 to SES-6 (S2870) @ 40.5 degrees W.L. (Netherlands-licensed)
- 10) 1 to EUTELSAT 172A (S2610) @ 172 degrees E.L. (formerly GE-23) (U.S.-licensed)
- 11) 1 to INTELSAT 904 (S2408) @ 60 degrees E.L. (U.S.-licensed)



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**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	AES1	1000	0.24	AeroSat	HR6400	0	0 AGL/ 0 AMSL	
Max Gains(s):		29.0 dBi @	14.4700 GHz	31.8 dBi @	11.7000 GHz			
Maximum total input power at antenna flange (Watts) =					36.55			
Maximum aggregate output EIRP for all carriers (dBW) =					44.69			

**F) Remote Control Point:**

1	Satmex 5 Teleport, 961 ANSELMO COURT NAPA, NAPA, CA 1-800-321-3959	Call Sign: KA450
1	IS 19 Teleport, 961 ANSELMO COURT Napa, Napa, CA +1 800 321 3959	Call Sign: E980460
1	IS 19 Teleport, 961 ANSELMO COURT Napa, Napa, CA +1 800 321 3959	Call Sign: E980467
1	SES 1 Teleport, 2823 Grimville Rd Woodbine, Carroll, MD +1 703 367 7300	Call Sign: E920698
1	NSS 703 Teleport, 2323 Grimville Rd Mount Airy, Carroll, MD +1 703 367 7300	Call Sign: E070181
1	IS 21 Teleport, 17633 Technology Blvd Hagerstown, Washington, MD +1 800 321 3959	Call Sign: E030051



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**F) Remote Control Point:**

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1	IS 14 Teleport, 2857 Fork Creek Church Road Ellenwood, Dekalb, GA +1 800 321 3959	Call Sign: E090093
1	IS 14 Teleport, 2857 Fork Creek Church Road Ellenwood, Dekalb, GA +1 800 321 3959	Call Sign: E940333
1	IntelSat Teleport, 17633 Technology Blvd Hagerstown, Washington, MD +1 800 321 3959	Call Sign: E120051
1	SES-4 Teleport, 8000 Gainsford Ct. Bristow, Prince William, VA 20136 1 703 367 7300	Call Sign: E000696
1	SES-4 Teleport, 8000 Gainsford Ct. Bristow, Prince William, VA 20136 1 703 367 7300	Call Sign: E020071
1	GoGo Systems Operation Center, 1250 NORTH ARLINGTON HEIGHTS ROAD ITASCA, DUPAGE, IL 60143 1-866-943-4662	Call Sign: NA

**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.



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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:

- 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.
- 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.
- 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).
- 90052 --- When the aircraft earth station network is put into operation, the 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 network was put into operation and will remain operational during the license period unless the license is submitted for cancellation.
- 90053 --- 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. 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](http://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. The licensee shall ensure installation of terminals on aircraft by qualified installers who have an understanding of the antenna's radiation environment and the measures best suited to maximize protection of the general public and persons operating the aircraft and equipment. A terminal exhibiting radiation exposure levels exceeding 1.0 mW/cm<sup>2</sup> in accessible areas, such as at the exterior surface of the radome, shall have a label attached to the surface of the terminal warning about the radiation hazard and shall include thereon a diagram showing the regions around the terminal where the radiation levels could exceed 1.0 mW/cm<sup>2</sup>.
- 90057 --- Operation pursuant to this authorization must be in compliance with the terms of the licensee's coordination agreements with the National Science Foundation and the National Aeronautics and Space Administration pertaining to operation of aircraft earth stations in the Ku-Band.
- 90059 --- Communications between Gogo LLC's aircraft earth stations and the NSS-703 space station must be in compliance with all existing and future space station coordination agreements reached between the United Kingdom and other Administrations.



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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:

- 90061 --- When operating in international airspace within line-of-sight of the territory of a foreign administration where Fixed Service networks have a primary allocation in the 14.0-14.5 GHz band, an aircraft earth station must not produce ground-level power flux density (pfd) in such territory in excess of the following values unless the foreign administration has imposed other conditions for protecting its FS stations:  $-132 + 0.5 \times \text{THETA}$  dB(W/(m<sup>2</sup> MHz)) for  $\text{THETA} \leq 40^\circ$ ;  $-112$  dB(W/(m<sup>2</sup> MHz)) for  $40^\circ < \text{THETA} \leq 90^\circ$ . Where: THETA is the angle of arrival of the radio-frequency wave in degrees above the horizontal, and the aforementioned limits relate to the pfd and angles of arrival that would be obtained under free space propagation conditions.
- 90062 --- Operation pursuant to this authorization outside the United States in the 14.0-14.5 GHz band must be in compliance with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz band.
- 90063 --- Gogo LLC must maintain a U.S. point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein.
- 90064 --- Aircraft earth stations authorized herein must employ a tracking algorithm that is resistant to capturing and tracking adjacent satellite signals, and each station must be capable of inhibiting its own transmission in the event it detects unintended satellite tracking.
- 90065 --- Aircraft earth stations authorized herein must be monitored and controlled by a ground-based network control and monitoring center. Such stations must be able to receive "enable transmission" and "disable transmission" commands from the network control center and must cease transmission immediately after receiving a "parameter change" command until receiving an "enable transmission" command from the network control center. The network control center must monitor operation of each aircraft earth station to determine if it is malfunctioning, and each aircraft earth station must self-monitor and automatically cease transmission on detecting an operational fault that could cause harmful interference to a fixed-satellite service network.
- 90066 --- Stations authorized herein must not be used to provide air traffic control communications.
- 90067 --- Operation in the territory or airspace of any country other than the United States must be in compliance with the applicable laws, regulations, and licensing procedures of that country, as well as with the conditions of this authorization.
- 90072 --- Waiver of the Table of Frequency Allocation, Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, is granted for space-to-Earth operations, on an unprotected, non-interference basis, in the 12.25-12.75 GHz frequency band from Intelsat 19 in ITU Region 2, including portions of U.S. airspace. Reception of downlink transmissions by Gogo LLC's aircraft earth stations pursuant to grant of Gogo LLC's waiver request is limited to the antenna beam patterns provided in IBFS File No. SAT-MOD-20120628-00107.
- 90073 --- Reception of downlink transmissions in the 11.95-12.2 GHz frequency band from Intelsat 14 (Call Sign S2785) at  $45^\circ$  W.L. is not permitted by this authorization. Intelsat 14's authorization does not include those frequencies. (IBFS File No. SAT-RPL-20090123-00007).
- 90075 --- Licensee is afforded 30 days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.



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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:

- 90078 --- In the event that a non-geostationary orbit satellite system commences operations in the 14.0-14.5 GHz frequency band, Gogo LLC must cease operations unless such operations have been coordinated with the operator of the NGSO system or Gogo LLC has demonstrated that its operations will not cause harmful interference to the NGSO system.
- 90079 --- Antenna elevation for all operations must be at least 5 degrees above the geographic horizon while the aircraft is on the ground.
- 90080 --- Gogo LLC shall comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.
- 90081 --- All operations shall be on a non-common carrier basis.
- 90122 --- The earth stations in this blanket license are operated by remote control. The remote control point is a material term of the license and may not be changed without prior authorization under Section 25.117 of the Commission's rules. Public Notice "The International Bureau Provides Guidance Concerning the Relocation of Earth Station Remote Control Points," DA 06-978 (rel. May 4, 2006).
- 90123 --- Operations authorized pursuant to this license are operations by U.S.-registered aircraft anywhere within the coverage area/frequency bands identified in the application for the satellites listed as points of communication. Operations authorized pursuant to this license also include operations by non-U.S.-registered aircraft within U.S. territory, including territorial waters. Authorization for operations by U.S.-registered aircraft outside U.S. territory, pursuant to this license, does not constitute a grant of access to the market in the United States under the Commission's DISCO II policies.
- 90124 --- The aircraft earth stations are authorized to transmit in the 14.0-14.5 GHz frequency band to the geostationary orbit space stations listed as a point of communication in Section D above subject to the particulars of operation and identified frequencies included in Section B above and the licensee's application. Such transmissions are authorized as an application of the Fixed-Satellite Service pursuant to the allocation determinations and service rules in IB Docket No. 12-376 (Docket Name: Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands). Operations must be in accordance with the Federal Communications Commission's rules not waived herein, the technical specifications contained in licensee's application, and are subject to the other conditions listed in the authorization.





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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:

- 90125 --- The aircraft earth stations are authorized to receive downlink transmissions in the 11.7-12.2 GHz frequency band from the geostationary orbit space stations listed as a point of communication in Section D above subject to the particulars of operation and identified frequencies included in Section B above and the licensee's application. Reception is authorized on a primary basis as an application of the Fixed-Satellite Service pursuant to the allocation determinations and service rules in IB Docket No.12-376 (Docket Name: Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands). Operations must be in accordance with the Federal Communications Commission's rules not waived herein, the technical specifications contained in licensee's application, and are subject to the other conditions listed in the authorization.
- 90126 --- The aircraft earth stations are authorized to receive downlink transmissions in the 10.95-11.2 GHz and 11.45-11.7 GHz frequency band from the geostationary orbit space stations listed as a point of communication in Section D above subject to the particulars of operation and identified frequencies included in Section B above and the licensee's application. Reception is authorized on an unprotected basis as an application of the Fixed-Satellite Service pursuant to the allocation determinations and service rules in IB Docket No.12-376 (Docket Name: Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands). Operations must be in accordance with the Federal Communications Commission's rules not waived herein, the technical specifications contained in licensee's application, and are subject to the other conditions listed in the authorization.
- 90127 --- Reception of downlink transmissions is on a non-interference, non-protected basis from the following geostationary orbit space stations: SES-4 (Call Sign S2828) at 22° W.L. in the 12.5-12.75 GHz frequency band; NSS-703 (Call Sign S2818) at 47.05° W.L. in the 12.5-12.75 GHz frequency band; Intelsat 19 (Call Sign S2850) at 166° E.L. in the 12.25-12.75 GHz frequency band; Intelsat 22 (Call Sign S2846) at 72.1° E.L. in the 12.25-12.5 GHz frequency band; and Eutelsat 172A (Call Sign S2610) at 172.0° E.L. in the 12.2-12.75 GHz frequency band. When receiving transmissions from these satellites in these frequency bands, the aircraft earth station operations authorized herein must accept interference from any radio station operating in conformance with the U.S. Table of Frequency Allocations.
- 90128 --- Operation pursuant to this authorization must be in compliance with the terms of coordination agreements between the operators of the Eutelsat 172A, Intelsat 14, Intelsat 21, Intelsat 22, Intelsat 19, Intelsat 904, Satmex 5, SES-1, SES-4, SES-6, and NSS-703 space stations and operators of other Ku-band geostationary space stations within six angular degrees of those space stations. In the event that another GSO Fixed-Satellite Service space station commences operation in the 14.0-14.5 GHz band at a location within six degrees of any of these space stations, aircraft earth stations operating pursuant to this authorization must cease transmitting to that space station unless and until such operation has been coordinated with the new space station's operator or Gogo LLC demonstrates that such operation will not cause harmful interference to the new co-frequency space station.
- 90129 --- Communications between Gogo LLC's aircraft earth stations and the SES-4 and SES-6 space stations must be in compliance with all existing and future space station coordination agreements reached between the Netherlands and other Administrations.
- 90130 --- Communications between Gogo LLC's aircraft earth stations and the Satmex 5 space station must be in compliance with all existing and future space station coordination agreements reached between Mexico and other Administrations.



**UNITED STATES OF AMERICA**  
**FEDERAL COMMUNICATIONS COMMISSION**  

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**RADIO STATION AUTHORIZATION**

Name: Gogo LLC

Call Sign: E120106

Authorization Type: Modification of License

File Number: SES-MFS-20131114-01015

Non Common Carrier

Grant date: 05/13/2014

Expiration Date: 05/01/2028

## H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

90131 --- For each ESAA transmitter, the licensee shall maintain records of the following data for each operating aircraft earth station (AES), a record of the aircraft location (i.e., latitude/longitude/altitude), transmit frequency, channel bandwidth and satellite used shall be time annotated and maintained for a period of not less than one year. Records shall be recorded at time intervals no greater than one (1) minute while the AES is transmitting. The ESAA operator shall make this data available, in the form of a comma delimited electronic spreadsheet, within 24 hours of a request from the Commission, NTIA, or a frequency coordinator for purposes of resolving harmful interference events. A description of the units (i.e., degrees, minutes, MHz ...) in which the records values are recorded will be supplied along with the records.

90132 --- Waiver of the Table of Frequency Allocation, Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, is granted for space-to-Earth operations, on an unprotected, non-interference basis, in the 12.25-12.75 GHz frequency band from NSS-703 in ITU Region 2, including portions of U.S. airspace. Reception of downlink transmissions by Gogo LLC's aircraft earth stations pursuant to grant of Gogo LLC's waiver request is limited to the antenna Spot 2 beam patterns provided in IBFS File No. SAT-PPL-20101103-00230.



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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.**