



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

Name: The Boeing Company

Call Sign: E140097

Authorization Type: Modification of License

File Number: SES-MFS-20170912-00997

Non Common Carrier

Grant date: 03/20/2018

Expiration Date: 03/13/2030



Nature of Service: Earth Station Aboard Aircraft

Nature of Service: 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)	Aircraft	Operate up to 100 ESAA Terminals GLOBAL	0°0'0.0"N	0°0'0.0"W	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 March 13, 2015 (3 AM Eastern Standard Time) and ending March 13, 2030 (3 AM Eastern Standard Time) . The required date of completion of construction and commencement of operation is March 20, 2019 (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, L, R	32M4G7D	Tx	50.60	11.50	BPA	Direct Sequence Spectrum, O-QPSK	Spread
2)	14000.0000-14500.0000	H, V, L, R	420KG7D	Tx	31.70	11.50	BPA	Direct Sequence Spectrum, O-QPSK	Spread
3)	12200.0000-12750.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	BPA	Direct Sequence Spectrum, O-QPSK	Spread
4)	12200.0000-12750.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	BPA	Direct Sequence Spectrum, O-QPSK	Spread
5)	11700.0000-12200.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	BPA	Direct Sequence Spectrum, O-QPSK	Spread
6)	11700.0000-12200.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	BPA	Direct Sequence Spectrum, O-QPSK	Spread



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7)	11450.0000-11700.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	BFA	Direct Sequence Spectrum, O-QPSK	Spread
8)	11450.0000-11700.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	BFA	Direct Sequence Spectrum, O-QPSK	Spread
9)	14000.0000-14500.0000	H, V, L, R	32M4G7D	Tx	46.70	7.60	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
10)	14000.0000-14500.0000	H, V, L, R	420KG7D	Tx	30.50	10.30	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
11)	12200.0000-12750.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
12)	12200.0000-12750.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
13)	11700.0000-12200.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
14)	11700.0000-12200.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
15)	11450.0000-11700.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
16)	11450.0000-11700.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Reflector	Direct Sequence Spectrum, O-QPSK	Spread
17)	14000.0000-14500.0000	H, V, L, R	32M4G7D	Tx	44.80	5.70	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
18)	14000.0000-14500.0000	H, V, L, R	420KG7D	Tx	37.80	17.60	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
19)	12200.0000-12750.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
20)	12200.0000-12750.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
21)	11700.0000-12200.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
22)	11700.0000-12200.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
23)	11450.0000-11700.0000	H, V, L, R	32M4G7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread
24)	11450.0000-11700.0000	H, V, L, R	420KG7D	Rx	0.00	0.00	Tecom	Direct Sequence Spectrum, O-QPSK	Spread



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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		
1)	11450.0000-11700.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	BPA
2)	11700.0000-12200.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	BPA
3)	12200.0000-12750.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	BPA
4)	14000.0000-14500.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	-18.5	BPA
5)	11700.0000-12200.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Reflector
6)	12200.0000-12750.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Reflector
7)	11450.0000-11700.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Reflector
8)	14000.0000-14500.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	-29.8	Reflector
9)	11450.0000-11700.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Tecom
10)	11700.0000-12200.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Tecom
11)	12200.0000-12750.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	0	Tecom
12)	14000.0000-14500.0000	101.0W	-113.0W	39.7	-35.2	160.8	-145.0	-28.9	Tecom

D) Points of Communications

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

- 1) Aircraft to AMC-15 (S2180) @ 105 degrees W.L.(U.S.-licensed)
- 2) Aircraft to TELSTAR 11N (S2357) @ 37.55 degrees W.L. (U.S.-licensed)
- 3) Aircraft to Eutelsat 36B @ 36 degrees E.L. (France Licensed)
- 4) Aircraft to EUTELSAT 172A (S2610) @ 174 degrees E.L. (formerly GE-23) (U.S.-licensed)
- 5) Aircraft to Eutelsat 7A @ 7 degrees E.L. (France Licensed)
- 6) Aircraft to SES-1 (S2807) @ 101 degrees W.L. (U.S.-licensed)
- 7) Aircraft to Superbird C2 (M334100) @144 degrees E.L. (Japan-licensed)
- 8) Aircraft to INTELSAT 907 (S2411) @ 27.5 degrees W.L. (U.S.-licensed)
- 9) Aircraft to Eutelsat 113WA (S2695) @ 113 degrees W.L. (formerly SATMEX 6) (Mexico-licensed)
- 10) Aircraft to GALAXY 17 (S2715) @ 91 degrees W.L. (U.S.-licensed)
- 11) Aircraft to GALAXY 28 (S2160) @ 89 degrees W.L. (U.S.-licensed)
- 12) Aircraft to INTELSAT 33e (S2939) @ 60.0 degrees E.L. (U.S.-licensed)
- 13) Aircraft to Eutelsat 10A (W2A) (M0311) @ 10 degrees E.L. (France-licensed)
- 14) Aircraft to EUTELSAT 172B (S3021) @ 172degrees E.L. (US & France 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)
Aircraft	BPA	30	0.381	Boeing	Boeing Phased Array	0	0 AGL/ 0 AMSL	
Max Gains(s):		34.9 dBi @	14.2000 GHz	36.7 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						42.70		
Maximum aggregate output EIRP for all carriers (dBW) =						51.20		
Aircraft	Reflector	30	0.65	Mitsubishi Electric Co.	Boeing Reflector Ant	0	0 AGL/ 0 AMSL	
Max Gains(s):		33.1 dBi @	14.2000 GHz	31.6 dBi @	12.0000 GHz			
Maximum total input power at antenna flange (Watts) =						23.00		
Maximum aggregate output EIRP for all carriers (dBW) =						46.70		
Aircraft	Tecom	40	0.65	Tecom Industries, Inc.	KuStream 1500	0	0 AGL/ 0 AMSL	
Max Gains(s):		31.5 dBi @	12.0000 GHz	32.5 dBi @	14.2000 GHz			
Maximum total input power at antenna flange (Watts) =						17.00		
Maximum aggregate output EIRP for all carriers (dBW) =						44.80		

F) Remote Control Point:

Aircraft	Boeing NOC, 20403 68th Ave South Kent, King County, WA 98032 (253) 773-0609	Call Sign: N/A
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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:

- 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 this earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.



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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:

- 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.
- 6631 --- 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. 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.
- 6634 --- Communications between The Boeing Company's ESAAs and the Superbird C2 space station must be in compliance with all existing and future space station coordination agreements reached between Japan and other Administrations.
- 6638 --- This authorization is subject to an overall limit of 100 remote terminals, of the types identified in Section A above, operating at one time.
- 6639 --- The applicant's request for a waiver of Section 25.283(c) of the Commission's rules, 47 C.F.R. § 25.283(c), is granted. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. Eutelsat E36B is a Thales Alenia Space Spacebus 4000 spacecraft that was launched on August 15, 2008. Applicant states that due to its design, E36B's two identical helium tanks were sealed immediately following the completion of launch and early orbit phase (LEOP) operations and cannot be further discharged. Applicant states that the sealed helium pressurant tanks will retain a total mass of approximately 2.2 kilograms of helium at end of life, with each tank volume being 90 liters. Applicant further states that the MON-1 propellant tanks and lines and MMH propellant tanks and lines will be emptied as far as possible. Once the spacecraft is finally switched off, however, the thruster propellant flow control valves for the MON-1 and MMH tanks are left closed, because power is needed to open them. Applicant states that the worst-case post-passivation remaining material in the MON-1 tank and lines will be 10.5 kilograms of MON-1 and 2.7 kilograms of helium in a total volume of 1391.65 liters, and the maximum remaining material in the MMH tank and lines will be 2.8 kilograms of MMH and 2.8 kilograms of helium in a total volume of 1391.65 liters. Compliance with Section 25.283(c) is not achievable except through direct retrieval of spacecraft. The information submitted is not sufficient to support a finding that the underlying purpose of Section 25.283(c) would be served by sealing the helium tanks without completely venting them. However, we grant a partial waiver of the rule because undue hardship would result from requiring modification of the space station at this time.



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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:

- 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/lrfsafety) 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/cm² 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/cm².
- 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.
- 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.
- 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.
- 90079 --- Antenna elevation for all operations must be at least 5 degrees above the geographic horizon while the aircraft is on the ground.
- 90095 --- The licensee shall comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.
- 90104 --- For any new antenna authorized by this grant, 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, Site ID, date of the license and certification that the antenna model was put into operation.
- 90105 --- Authority is granted to operate this station by remote control provided that the operator is responsible for ensuring the operations are in accordance with the terms and conditions of the license and pursuant to Section 25.271 of the Commission's rules. 47 C.F.R. 25.271.
- 90116 --- The licensee 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. The licensee shall have available, at all times, the technical personnel necessary to perform supervision of remote station operations.



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- 90118 --- The licensee shall comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.
- 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).
- 90246 --- ESAAs 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.
- 90247 --- ESAAs 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 ESAA to determine if it is malfunctioning, and each ESAA must self-monitor and automatically cease transmission on detecting an operational fault that could cause harmful interference to a fixed-satellite service network.
- 90259 --- For purposes of this authorization, the term earth stations aboard aircraft, or ESAA, is used to refer to any earth station on aircraft communicating with Fixed-Satellite Service (FSS) geostationary-orbit (GSO) space stations, without reference to the technical and licensing rules specifically adopted for earth stations on aircraft 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. See 47 C.F.R. § 25.227; 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, 11.34-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands, IB Docket No. 12-376, Notice of Proposed Rulemaking and Report and Order, FCC 12-161, 27 FCC Rcd 16510 (2012); Revisions of 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, IB Docket No. 12-376, Second Report and Order on Reconsideration, FCC 14-45, 29 FCC Rcd 4226 (2014). Nothing in this authorization extends those technical and licensing rules to earth stations on aircraft not operating in those specified frequency bands.
- 90304 --- 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 ESAAs in the Ku-Band.
- 90305 --- 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 ESAA 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/(m² MHz)) for $\text{THETA} \leq 40^\circ$; -112 dB(W/(m² 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.



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- 90308 --- The ESAAs 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.
- 90309 --- The ESAAs 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.
- 90310 --- For each ESAA transmitter, the licensee shall maintain records of the following data for each operating ESAA, 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 ESAA 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.
- 90311 --- The ESAAs 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 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.



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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:

- 90365 --- Reception of downlink transmissions is on a non-interference, non-protected basis from the following geostationary orbit space stations: Eutelsat 7A at 7.0° E.L., Eutelsat 172A (formerly GE-23) (Call Sign S2610) at 172.0° E.L. and Superbird C2 at 144.0° E.L. in the 12.2-12.75 GHz frequency band. When receiving transmissions from these satellites in this frequency band, the ESAA operations authorized herein must accept interference from any radio station operating in conformance with the U.S. Table of Frequency Allocations. Operations in the band were not requested with any other satellites.
- 90366 --- Operation pursuant to this authorization must be in compliance with the terms of coordination agreements between the operators of the AMC-15, Eutelsat 36B (formerly Eutelsat W7), Eutelsat 7A, Eutelsat 172A (formerly GE-23), Intelsat 907, SES-1, Superbird C2, Telstar 11N, E113WA (formerly SatMex 6), Galaxy 17, and Galaxy 28 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, ESAAs 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 The Boeing Company demonstrates that such operation will not cause harmful interference to the new co-frequency space station.
- 90367 --- Communications between The Boeing Company's ESAAs and the E116WA (formerly Satmex 6) space station must be in compliance with all existing and future space station coordination agreements reached between Mexico and other Administrations.
- 90368 --- Communications between The Boeing Company's ESAAs and the Eutelsat 36B (formerly Eutelsat W7) and the Eutelsat 7A space stations must be in compliance with all existing and future space station coordination agreements reached between France and other Administrations
- 90369 --- The Boeing Company's ESAAs shall not receive downlinks from Eutelsat 172A (Call Sign S2610) at 172° E.L. in the 12.2-12.75 GHz frequency band in U.S. airspace, including airspace over U.S. territorial waters. Eutelsat 172A (formerly GE-23 and AMC-23) is not authorized to provide downlink services into the United States and its Possessions in those frequencies. (IBFS File No. SAT-LOA-20031218-00353).
- 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.



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: The Boeing Company

Call Sign: E140097

Authorization Type: Modification of License

File Number: SES-MFS-20170912-00997

Non Common Carrier

Grant date: 03/20/2018

Expiration Date: 03/13/2030

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.