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performance specified in § 25.209 (a) and (b), or the actual receiving earth station antenna performance, if actual performance provides greater isolation from adjacent satellite interference. For purposes of insuring the correct level of protection, the applicant shall provide, for each earth station antenna type, the antenna performance plots for the 20 GHz band, including the format specified in paragraph (d) of this section.

(f) The earth station licensee shall not transmit towards a GSO FSS satellite unless it has prior authorization from the satellite operator or a space segment vendor authorized by the satellite operator. The specific transmission shall be conducted in accordance with the operating protocol specified by the satellite operator. The holder of an FCC blanket license pursuant to this section shall be responsible for operation of any transceiver to receive GSO FSS service provided by that licensee or provided by another party with the blanket licensee's consent. Operators of GSO FSS systems shall not transmit communications to or from user transceivers in the United States unless such communications are authorized under a service contract with the holder of a pertinent FCC blanket license or under a service contract with another party with authority for such transceiver operation delegated by such a blanket licensee.

(g) A licensee applying to renew its license must include on FCC Form 405 the number of constructed earth stations.

[65 FR 54169, Sept. 7, 2000, as amended at 66 FR 63515, Dec. 7, 2001; 68 FR 16966, Apr. 8, 2003; 69 FR 5710, Feb. 6, 2004]

§ 25.139 NGSO FSS coordination and information sharing between MVDDS licensees in the 12.2 GHz to 12.7 GHz band.

(a) NGSO FSS licensees shall maintain a subscriber database in a format that can be readily shared with MVDDS licensees for the purpose of determining compliance with the MVDDS transmitting antenna spacing requirement relating to qualifying existing NGSO FSS subscriber receivers set forth in § 101.129 of this chapter. This information shall not be used for purposes other than set forth in § 101.129 of this chapter. Only sufficient information to determine compliance with § 101.129 of this chapter is required.

(b) Within ten business days of receiving notification of the location of a proposed MVDDS transmitting antenna, the NGSO FSS licensee shall provide sufficient information from the database to enable the MVDDS licensee to determine whether the proposed MVDDS transmitting site meets the minimum spacing requirement.

(c) If the location of the proposed MVDDS transmitting antenna site does not meet the separation requirements of § 101.129 of this chapter, then the NGSO FSS licensee shall also indicate to the MVDDS licensee within the same ten day period specified in paragraph (b) of this section whether the proposed MVDDS transmitting site is acceptable at the proposed location.

(d) Nothing in this section shall preclude NGSO FSS and MVDDS licensees from entering into an agreement to accept MVDDS transmitting antenna locations that are shorter-spaced from existing NGSO FSS subscriber receivers than the distance set forth in § 101.129 of this chapter.

[67 FR 43037, June 26, 2002, as amended at 68 FR 43945, July 25, 2003]

SPACE STATIONS

§ 25.140 Qualifications of fixed-satellite space station licensees.

(a) New fixed-satellites shall comply with the requirements established in Report and Order, CC Docket No. 81–704 (available at address in § 0.445 of this chapter.) Applications must also meet the requirements in paragraphs (b) through (d) of this section. The Commission may require additional or different information in the case of any individual application. Applications will be unacceptable for filing and will be returned to the applicant if they do not meet the requirements referred to in this paragraph.

(b) Each applicant for a space station authorization in the fixed-satellite service must demonstrate, on the basis of the documentation contained in its

application, that it is legally, technically, and otherwise qualified to proceed expeditiously with the construction, launch and/or operation of each proposed space station facility immediately upon grant of the requested authorization. Each applicant must provide the following information:

(1) The information specified in § 25.114; and

(2) Except as set forth in paragraphs (b)(3), (b)(4), (b)(5), and (b)(6) of this section, all applicants must provide an interference analysis to demonstrate the compatibility of their proposed system two degrees from any authorized space station. An applicant should provide details of its proposed r.f. carriers which it believes should be taken into account in this analysis. At a minimum, the applicant must include, for each type of r.f. carrier, the link noise budget, modulation parameters, and overall link performance analysis. (*See, e.g.*, appendices B and C to Licensing of Space Stations in the Domestic Fixed-Satellite Service (available at address in Sec. 0.445)).

(3) Except as described in paragraph (b)(5) of this section, an applicant for a license to operate a 17/24 GHz BSS space station that will be located precisely at one of the 17/24 GHz BSS orbital locations specified in Appendix F of the Report and Order adopted May 2, 2007, IB Docket No. 06–123, FCC 07–76, must provide an interference analysis of the kind described in paragraph (b)(2) of this section, except that the applicant must demonstrate the compatibility of its proposed network with any current or future authorized space station in the 17/24 GHz BSS that complies with the technical rules in this part and that will be located at least four degrees from the proposed space station.

(4) Except as described in paragraph (b)(5) of this section, an applicant for a license to operate a 17/24 GHz BSS space station that will not be located precisely at one of the nominal 17/24 GHz BSS orbital locations specified in Appendix F of the Report and Order adopted May 2, 2007, IB Docket No. 06–123, FCC 07–76, must make one of the following showings:

(i) In cases where there is no previously licensed or proposed space station to be located closer than four degrees from the applicant's space station, and the applicant seeks to operate pursuant to § 25.262(b) of this part, the applicant must provide an interference analysis of the kind described in paragraph (b)(2) of this section, except that the applicant must demonstrate the compatibility of its proposed network with any current or future authorized space stations in the 17/24 GHz BSS that are operating in compliance with the technical rules of this part and that will be located at least four degrees from the applicant's proposed space station;

(ii) In cases where there is a previously licensed or proposed 17/24 GHz BSS space station to be located within four degrees of the applicant's proposed space station, the applicant must provide an interference analysis of the kind described in paragraph (b)(2) of this section, except that the applicant must demonstrate that its proposed network will not cause more interference to the adjacent 17/24 GHz BSS satellite networks operating in compliance with the technical requirements of this part, than if the applicant were located at the precise Appendix F orbital location from which it seeks to offset;

(iii) In cases where there is no previously licensed or proposed 17/24 GHz BSS space station to be located within four degrees of the applicant's proposed space station, and the applicant does not seek to operate pursuant to § 25.262(b) of this part, the applicant must provide an interference analysis of the kind described in paragraph (b)(2) of this section, except that the applicant must demonstrate that its proposed operations will not cause more interference to any current or future 17/24 GHz BSS satellite networks operating in compliance with the technical requirements of this part, than if the applicant were located at the precise Appendix F orbital location from which it seeks to offset.

(5) An applicant for a license to operate a 17/24 GHz BSS space station, in cases where there is a previously licensed or proposed space station operating pursuant to § 25.262(b) of this part located within four degrees of the applicant's proposed 17/24 GHz BSS space

station, must provide an interference analysis of the kind described in paragraph (b)(2) of this section, except that the applicant must demonstrate that its proposed operations will not cause more interference to the adjacent 17/24 GHz BSS satellite network than if the adjacent space station were located four degrees from the applicant's space station.

(6) In addition to the requirements of paragraphs (b)(3), (b)(4), and (b)(5) of this section, the link budget for any satellite in the 17/24 GHz BSS must take into account longitudinal stationkeeping tolerances and, where appropriate, any existing orbital location offsets from the 17/24 GHz BSS orbital locations of the adjacent prior-authorized 17/24 GHz BSS space stations. In addition, any 17/24 GHz BSS satellite applicant that has reached a coordination agreement with an operator of another 17/24 GHz BSS satellite to allow that operator to exceed the pfd levels specified in the rules for this service, must use those higher pfd levels for the purposes of this showing.

(c) Operators of satellite networks using 17/24 GHz BSS space stations must design their satellite networks to be capable of operating with another 17/24 GHz BSS space station as follows:

(1) Except as described in paragraphs (b)(4)(ii) and (b)(4)(iii) of this section, all satellite network operators using 17/24 GHz BSS space stations must design their satellite networks to be capable of operating with another 17/24 GHz BSS space station as close as four degrees away.

(2) Satellite network operators located less than four degrees away from a space station to be operated pursuant to §25.262(b) of this part must design their satellite networks to be capable of operating with that adjacent 17/24 GHz BSS space station.

(3) Satellite network operators using 17/24 GHz BSS space stations located at an orbital location other than those specified in Appendix F of the Report and Order adopted May 2, 2007, IB Docket No. 06–123, FCC 07–76, and that are not operating pursuant to §25.262(b) of this part, must design their satellite networks to be capable of operating with another 17/24 GHz BSS space station closer than four degrees away, as a result of the operator's offset position.

(d)–(g) [Reserved]

[62 FR 5929, Feb. 10, 1997, as amended at 68 FR 51504, Aug. 27, 2003; 72 FR 50028, Aug. 29, 2007; 72 FR 60279, Oct. 24, 2007]

§25.142 Licensing provisions for the non-voice, non-geostationary mobile-satellite service.

(a) *Space station application requirements.* (1) Each application for a space station system authorization in the non-voice, non-geostationary mobile-satellite service shall describe in detail the proposed non-voice, non-geostationary mobile-satellite system, setting forth all pertinent technical and operational aspects of the system, and the technical and legal qualifications of the applicant. In particular, each application shall include the information specified in §25.114. Applicants must also file information demonstrating compliance with all requirements of this section, and showing, based on existing system information publicly available at the Commission at the time of filing, that they will not cause unacceptable interference to any non-voice, non-geostationary mobile-satellite service system authorized to construct or operate.

(2) Applicants for a non-voice, non-geostationary mobile-satellite must identify the power flux density produced at the Earth's surface by each space station of their system in the frequency bands 137–138 MHz and 400.15–401 MHz, to allow determination of whether coordination with terrestrial services is required under international footnotes 599A and 647B of §2.106 of the Commission's Rules. In addition, applicants must identify the measures they would employ to protect the radio astronomy service in the 150.05–153 MHz and 406.1–410 MHz bands from harmful interference from unwanted emissions.

(3) Emission limitations. (i) Applicants in the non-voice, non-geostationary mobile-satellite service shall show that their space stations will not exceed the emission limitations of §25.202(f) (1), (2) and (3), as calculated for a fixed point on the Earth's surface in the plane of the space station's orbit, considering the worst-case frequency tolerance of all frequency

determining components, and maximum positive and negative Doppler shift of both the uplink and downlink signals, taking into account the system design.

(ii) Applicants in the non-voice, non-geostationary mobile-satellite service shall show that no signal received by their satellites from sources outside of their system shall be retransmitted with a power flux density level, in the worst 4 kHz, higher than the level described by the applicants in paragraph (a)(2) of this section.

(4) [Reserved]

(5) Replacement of space stations within the system license term. The licensee need not file separate applications to construct, launch and operate technically identical replacement satellites within the term of the system authorization. However, the licensee shall certify to the Commission, at least thirty days prior to launch of such replacement(s) that:

(i) The licensee intends to launch a space station that is technically identical to those authorized in its system license, and

(ii) Launch of this space station will not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

(b) *Operating conditions.* In order to ensure compatible operations with authorized users in the frequency bands to be utilized for operations in the non-voice, non-geostationary mobile-satellite service, non-voice, non-geostationary mobile-satellite service systems must operate in accordance with the conditions specified in this section.

(1) Service limitation. Voice services may not be provided.

(2) Coordination requirements with Federal government users.

(i) The frequency bands allocated for use by the non-voice, non-geostationary mobile-satellite service are also authorized for use by agencies of the Federal government. The Federal use of frequencies in the non-voice, non-geostationary mobile-satellite service frequency bands is under the regulatory jurisdiction of the National Telecommunications and Information Administration (NTIA).

(ii) The Commission will use its existing procedures for liaison with NTIA to reach agreement with respect to achieving compatible operations between Federal government users under the jurisdiction of NTIA and non-voice, non-geostationary mobile-satellite service systems (including user transceivers subject to blanket licensing under §25.115(d)) through the frequency assignment and coordination practices established by NTIA and the Interdepartment Radio Advisory Committee (IRAC). In order to facilitate such frequency assignment and coordination, applicants shall provide the Commission with sufficient information to evaluate electromagnetic compatibility with the Federal government use of the spectrum, and any additional information requested by the Commission. As part of the coordination process, applicants shall show that they will not cause unacceptable interference to authorized Federal government users, based upon existing system information provided by the Government. The frequency assignment and coordination of the satellite system with Federal government users shall be completed prior to grant of construction authorization.

(iii) The Commission shall also coordinate with NTIA/IRAC with regard to the frequencies to be shared by those earth stations of non-voice, non-geostationary mobile-satellite service systems that are not subject to blanket licensing under §25.115(d), and authorized Federal government stations in the fixed and mobile services, through the exchange of appropriate systems information.

(3) Coordination among non-voice, non-geostationary mobile-satellite service systems. Applicants for authority to establish non-voice, non-geostationary mobile-satellite service systems are encouraged to coordinate their proposed frequency usage with existing permittees and licensees in the non-voice, non-geostationary mobile-satellite service whose facilities could be affected by the new proposal in terms of frequency interference or restricted system capacity. All affected applicants, permittees, and licensees shall, at the direction of the Commission, cooperate fully and make every reasonable effort to resolve technical

problems and conflicts that may inhibit effective and efficient use of the radio spectrum; however, the permittee or licensee being coordinated with is not obligated to suggest changes or reengineer an applicant's proposal in cases involving conflicts.

(4) Safety and distress communications. Stations operating in the non-voice, non-geostationary mobile-satellite service that are used to comply with any statutory or regulatory equipment carriage requirements may also be subject to the provisions of sections 321(b) and 359 of the Communications Act of 1934, as amended. Licensees are advised that these provisions give priority to radio communications or signals relating to ships in distress and prohibit a charge for the transmission of maritime distress calls and related traffic.

(c) *Reporting requirements.* All operators of non-voice, non-geostationary mobile-satellite service systems shall, on June 30 of each year, file a report with the International Bureau and the Commission's Columbia Operations Center in Columbia, Maryland, containing the following information current as of May 31st of that year:

(1) A listing of any non-scheduled space station outages for more than thirty minutes and the cause(s) of such outages;

(2) A detailed description of the utilization made of the in-orbit satellite system. That description should identify the percentage of time that the system is actually used for domestic transmission, the amount of capacity (if any) sold but not in service, and the amount of unused system capacity; and

(3) Identification of any space stations not available for service or otherwise not performing to specifications, the cause(s) of these difficulties, and the date any space station was taken out of service or the malfunction identified.

(d) *Prohibition of certain agreements.* No license shall be granted to any applicant for a non-voice, non-geostationary mobile-satellite service system if that applicant, or any companies controlling or controlled by the applicant, shall acquire or enjoy any right, for the purpose of handling traffic to or from the United States, its territories or possessions, to construct or operate space segment or earth stations in the non-voice, non-geosynchronous mobile-satellite service, or to interchange traffic, which is denied to any other United States company by reason of any concession, contract, understanding, or working arrangement to which the licensee or any persons or companies controlling or controlled by the licensee are parties.

(e) *Spectrum priority.* (1) The non-voice, non-geosynchronous mobile-satellite service system that is authorized in the second application processing round to operate in the 148–148.25 MHz, 148.75–148.855 MHz, 148.905–149.81 MHz and 150–150.05 MHz uplink frequency bands and the 400.505–400.5517 MHz, 400.5983–400.645 MHz, 137.025–137.175 MHz, 137.333–137.4125 MHz, 137.475–137.525 MHz, 137.595–137.645 MHz, 137.753–137.787 MHz and 137.825–138 MHz downlink frequency bands (the ''System 2 licensee'') will have a first priority to apply for and use a limited amount of downlink spectrum duly allocated worldwide and domestically to the non-voice, non-geosynchronous mobile-satellite service by the ITU, at WRC–97 or a subsequent World Radiocommunication Conference, and by the Commission, respectively (the ''Future Spectrum''). The System 2 licensee will be eligible to apply for and use the first 210 kHz of Future Spectrum plus spectrum sufficient to account for Doppler frequency shift in the Future Spectrum (the ''Supplemental Spectrum'') to implement its non-voice, non-geosynchronous mobile-satellite service system. The System 2 licensee's application for and use of the Supplemental Spectrum is subject to the Commission's Rules and policies, such reasonable operating conditions as may be imposed by the Commission, and international spectrum coordination requirements. For so long as the System 2 licensee is permitted by the Government of France to operate in the 400.5517–400.5983 MHz band coordinated with the French system S80–1, the Supplemental Spectrum shall be reduced to an amount equivalent to 150 kHz of Future Spectrum plus spectrum sufficient to account for Doppler frequency shift in the Future Spectrum.

(2) The System 2 licensee's priority to apply for and use the Supplemental Spectrum is conditioned on the System 2 licensee's compliance with the terms and conditions of its second processing round authorization, including, but not limited to, its system construction, launch and operation milestones, and any modifications thereto, and the Commission's Rules. The System 2 licensee's priority to apply for and use the Supplemental Spectrum shall automatically terminate upon the occurrence of any of the following events:

(i) The System 2 licensee being permitted to operate in the Supplemental Spectrum;

(ii) The expiration or revocation of the System 2 licensee's second processing round authorization;

(iii) The discontinuance of use of the spectrum assigned to the System 2 licensee under its second processing round authorization; or

(iv) The surrender of the System 2 licensee's second processing round authorization to the Commission.

[58 FR 68060, Dec. 23, 1993, as amended at 62 FR 5930, Feb. 10, 1997; 62 FR 59295, Nov. 3, 1997; 68 FR 51504, Aug. 27, 2003]

§ 25.143 Licensing provisions for the 1.6/2.4 GHz mobile-satellite service and 2 GHz mobile-satellite service.

(a) *System license.* Applicants authorized to construct and launch a system of technically identical satellites will be awarded a single ''blanket'' license. In the case of non-geostationary satellites, the blanket license will cover a specified number of space stations to operate in a specified number of orbital planes. In the case of geostationary satellites, as part of a geostationary-only satellite system or a geostationary/non-geostationary hybrid satellite system, an individual license will be issued for each satellite to be located at a geostationary orbital location.

(b) *Qualification Requirements—(1) General Requirements.* Each application for a space station system authorization in the 1.6/2.4 GHz Mobile-Satellite Service or 2 GHz Mobile-Satellite Service shall describe in detail the proposed satellite system, setting forth all pertinent technical and operational aspects of the system, and the technical and legal qualifications of the applicant. In particular, each application shall include the information specified in § 25.114. Non-U.S. licensed systems shall comply with the provisions of § 25.137.

(2) *Technical qualifications.* In addition to providing the information specified in paragraph (b)(1) of this section, each applicant and letter of intent filer shall demonstrate the following:

(i) That a proposed system in the 1.6/2.4 GHz MSS frequency bands employs a non-geostationary constellation or constellations of satellites;

(ii) That a system proposed to operate using non-geostationary satellites be capable of providing mobile satellite services to all locations as far north as 70 deg. North latitude and as far south as 55 deg. South latitude for at least 75% of every 24-hour period, *i.e.*, that at least one satellite will be visible above the horizon at an elevation angle of at least 5 deg. for at least 18 hours each day within the described geographic area;

(iii) That a system proposed to operate using non-geostationary satellites be capable of providing mobile satellite services on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands, i.e., that at least one satellite will be visible above the horizon at an elevation angle of at least 5 deg. at all times within the described geographic areas; and

(iv) That a system only using geostationary orbit satellites, at a minimum, be capable of providing mobile satellite services on a continuous basis throughout the 50 states, Puerto Rico, and the U.S. Virgin Islands, if technically feasible.

(v) That operations will not cause unacceptable interference to other authorized users of the spectrum. In particular, each application in the 1.6/2.4 GHz frequency bands shall demonstrate that the space station(s) comply with the requirements specified in § 25.213.

(3) [Reserved]

(c) *Replacement of Space Stations Within the System License Term.* Licensees of 1.6/2.4 GHz mobile-satellite systems authorized through a blanket license pursuant to paragraph (a) of this section need not file separate applications to construct, launch and operate technically identical replacement satellites

within the term of the system authorization. However, the licensee shall certify to the Commission, at least thirty days prior to launch of such replacement(s) that:

(1) The licensee intends to launch a space station that is technically identical to those authorized in its system authorization, and

(2) Launch of this space station will not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

(d) *In-Orbit Spares.* Licensees need not file separate applications to operate technically identical in-orbit spares authorized as part of the blanket license pursuant to paragraph (a) of this section. However, the licensee shall certify to the Commission, within 10 days of bringing the in-orbit spare into operation, that operation of this space station did not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

(e) *Reporting requirements.* (1) All operators of 1.6/2.4 GHz Mobile-Satellite Service systems and 2 GHz Mobile-Satellite Service systems shall, on October 15 of each year, file with the International Bureau and the Commission's Columbia Operations Center, Columbia, Maryland, a report containing the following information current as of September 30 of that year:

(i) Status of satellite construction and anticipated launch dates, including any major problems or delays encountered;

(ii) A listing of any non-scheduled space station outages for more than 30 minutes and the cause or causes of the outage;

(iii) A detailed description of the utilization made of the in-orbit satellite system. That description should identify the percentage of time that the system is actually used for U.S. domestic or transborder transmission, the amount of capacity (if any) sold but not in service within U.S. territorial geographic areas, and the amount of unused system capacity. 2 GHz Mobile Satellite systems receiving expansion spectrum as part of the unserved areas spectrum incentive must provide a report on the actual number of subscriber minutes originating or terminating in unserved areas as a percentage of the actual U.S. system use; and

(iv) Identification of any space stations not available for service or otherwise not performing to specifications, the cause or causes of these difficulties, and the date any space station was taken out of service or the malfunction identified.

(2) All operators of 1.6/2.4 GHz mobile-satellite systems shall, within 10 days after a required implementation milestone as specified in the system authorization, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met.

(3) All operators of 2 GHz Mobile-Satellite Service systems must begin system construction upon award of a service link license to U.S.-based applicants, or upon designation of spectrum for non-U.S.-based systems, in accordance with milestones set forth in the respective system's authorization. All operators of 2 GHz Mobile-Satellite Service systems shall, within 10 days after a required implementation milestone as specified in the system authorization, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met. Failure to file timely certification of milestones, or filing disclosure of non-compliance, will result in automatic cancellation of the authorization with no further action required on the Commission's part.

(f) *Safety and distress communications.* (1) Stations operating in the 1.6/2.4 GHz Mobile-Satellite Service and 2 GHz Mobile-Satellite Service that are voluntarily installed on a U.S. ship or are used to comply with any statute or

regulatory equipment carriage requirements may also be subject to the requirements of sections 321(b) and 359 of the Communications Act of 1934. Licensees are advised that these provisions give priority to radio communications or signals relating to ships in distress and prohibits a charge for the transmission of maritime distress calls and related traffic.

(2) Licensees offering distress and safety services should coordinate with the appropriate search and rescue organizations responsible for the licensees service area.

(g) [Reserved]

(h) *Prohibition of certain agreements.* No license shall be granted to any applicant for a space station in the mobile satellite service operating at 1610–1626.5/2483.5–2500 MHz if that applicant, or any persons or companies controlling or controlled by the applicant, shall acquire or enjoy any right, for the purpose of handling traffic to or from the United States, its territories or possession, to construct or operate space segment or earth stations, or to interchange traffic, which is denied to any other United States company by reason of any concession, contract, understanding, or working arrangement to which the Licensee or any persons or companies controlling or controlled by the Licensee are parties.

(i) *Incorporation of ancillary terrestrial component base stations into a 1.6/2.4 GHz mobile-satellite service network or a 2 GHz mobile-satellite service network.* Any licensee authorized to construct and launch a 1.6/2.4 GHz or a 2 GHz mobile-satellite system may construct ancillary terrestrial component (ATC) base stations as defined in § 25.201 at its own risk and subject to the conditions specified in this subpart any time after commencing construction of the mobile-satellite service system.

(j) *Pre-operational build-out and testing.* An MSS licensee may, without further authority from the Commission and at its own risk, engage in pre-operational build-out and conduct equipment tests for the purpose of making such adjustments and measurements as may be necessary to assure compliance with the terms of the technical provisions of its MSS license, ATC operation requirements, the rules and regulations in this Part and the applicable engineering standards. Prior to engaging in such pre-operational build-out and testing, an MSS licensee must notify the Commission concerning the initiation of MSS system satellite construction and the MSS operator's intent to construct and test ATC facilities. This notification must take the form of a letter formally filed with the Commission in the appropriate MSS license docket. Such letter shall specify the frequencies on which the MSS licensee proposes to engage in pre-operational testing and shall specify the name, address, telephone number and other such information as may be necessary to contact a MSS licensee representative for the reporting and mitigation of any interference that may occur as a result of such pre-operational testing and build-out. MSS licensees engaging in pre-operational build-out and testing must also comply with §§ 5.83, 5.85(c), 5.111, and 5.117 of this chapter relating to experimental operations. An MSS licensee may not offer ATC service to the public for compensation during pre-operational testing. In order to operate any ATC base stations, such a licensee must meet all the requirements set forth in § 25.149 and must have been granted ATC authority.

(k) *Aircraft.* ATC mobile terminals must be operated in accordance with 25.136(a). All portable or hand-held transceiver units (including transceiver units installed in other devices that are themselves portable or handheld) having operating capabilities in the 2000–2020/2180–2200 MHz or 1610–1626.5 MHz/2483.5–2500 MHz bands shall bear the following statement in a conspicuous location on the device: ''This device may not be operated while on board aircraft. It must be turned off at all times while on board aircraft.''

[59 FR 53328, Oct. 21, 1994, as amended at 61 FR 9945, Mar. 12, 1996; 62 FR 5930, Feb. 10, 1997; 65 FR 59143, Oct. 4, 2000; 68 FR 33649, June 5, 2003; 68 FR 47858, Aug. 12, 2003; 68 FR 51504, Aug. 27, 2003; 70 FR 59277, Oct. 12, 2005]

§ 25.144 Licensing provisions for the 2.3 GHz satellite digital audio radio service.

(a) Qualification Requirements:

(1) [Reserved]

(2) General Requirements: Each application for a system authorization in the satellite digital audio radio service in the 2310–2360 MHz band shall describe in detail the proposed satellite digital audio radio system, setting forth all pertinent technical and operational aspects of the system, and the technical, legal, and financial qualifications of the applicant. In particular, applicants must file information demonstrating compliance with §25.114 and all of the requirements of this section.

(3) Technical Qualifications: In addition to the information specified in paragraph (a)(1) of this section, each applicant shall:

(i) Demonstrate that its system will, at a minimum, service the 48 contiguous states of the United States (full CONUS);

(ii) Certify that its satellite DARS system includes a receiver that will permit end users to access all licensed satellite DARS systems that are operational or under construction; and

(iii) Identify the compression rate it will use to transmit audio programming. If applicable, the applicant shall identify the compression rate it will use to transmit services that are ancillary to satellite DARS.

(b) Milestone requirements. Each applicant for system authorization in the satellite digital audio radio service must demonstrate within 10 days after a required implementation milestone as specified in the system authorization, and on the basis of the documentation contained in its application, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met. The satellite DARS milestones are as follows, based on the date of authorization:

(1) One year: Complete contracting for construction of first space station or begin space station construction;

(2) Two years: If applied for, complete contracting for construction of second space station or begin second space station construction;

(3) Four years: In orbit operation of at least one space station; and

(4) Six years: Full operation of the satellite system.

(c) Reporting requirements. All licensees of satellite digital audio radio service systems shall, on June 30 of each year, file a report with the International Bureau and the Commission's Laurel, Maryland field office containing the following information:

(1) Status of space station construction and anticipated launch date, including any major problems or delay encountered;

(2) A listing of any non-scheduled space station outages for more than thirty minutes and the cause(s) of such outages; and

(3) Identification of any space station(s) not available for service or otherwise not performing to specifications, the cause(s) of these difficulties, and the date any space station was taken out of service or the malfunction identified.

(d) The license term for each digital audio radio service satellite shall commence when the satellite is launched and put into operation and the term will run for eight years.

[62 FR 11105, Mar. 11, 1997, as amended at 68 FR 51504, Aug. 27, 2003; 70 FR 32254, June 2, 2005]

§25.145 Licensing conditions for the Fixed-Satellite Service in the 20/30 GHz bands.

(a) Except as provided in §25.210(b), in general all rules contained in this part apply to Fixed-Satellite Service in the 20/30 GHz bands.

(b) *System License.* Applicants authorized to construct and launch a system of technically identical non-geostationary satellite orbit satellites will be awarded a single ''blanket'' license covering a specified number of space stations to operate in a specified number of orbital planes.

(c) In addition to providing the information specified in §25.114, each non-geostationary satellite orbit applicant shall demonstrate the following:

(1) That the proposed system be capable of providing fixed-satellite services to all locations as far north as 70 deg.

latitude and as far south as 55 deg. latitude for at least 75% of every 24-hour period; and

(2) That the proposed system is capable of providing fixed-satellite services on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands, U.S.

(3) [Reserved]

(d) [Reserved]

(e) *Prohibition of certain agreements.* No license shall be granted to any applicant for a space station in the fixed-satellite service operating in the 20/30 GHz band if that applicant, or any persons or companies controlling or controlled by the applicant, shall acquire or enjoy any right, for the purpose of handling traffic to or from the United States, its territories or possession, to construct or operate space segment or earth stations, or to interchange traffic, which is denied to any other United States company by reason of any concession, contract, understanding, or working arrangement to which the Licensee or any persons or companies controlling or controlled by the Licensee are parties.

(f)(1) *Reporting Requirements.* All licensees in the 20/30 GHz band shall, on June 30 of each year, file a report with the International Bureau and the Commission's Columbia Operations Center, 9200 Farm House Lane, Columbia, MD 21046 containing the following information:

(i) Status of space station construction and anticipated launch date, including any major problems or delay encountered;

(ii) A listing of any non-scheduled space station outages for more than thirty minutes and the cause(s) of such outages; and

(iii) Identification of any space station(s) not available for service or otherwise not performing to specifications, the cause(s) of these difficulties, and the date any space station was taken out of service or the malfunction identified.

(iv) All operators of NGSO FSS systems in the 18.8–19.3 GHz and 28.6–29.1 GHz bands shall, within 10 days after a required implementation milestone as specified in the system authorization certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or person with knowledge thereof) to demonstrate that the milestone has been met. Failure to file a timely certification of milestones, or filing disclosure of non-compliance, will result in automatic cancellation of the authorization with no further action required on the Commission's part.

(2) Licensees shall submit to the Commission a yearly report indicating the number of earth stations actually brought into service under its blanket licensing authority. The annual report is due to the Commission no later than the first day of April of each year and shall indicate the deployment figures for the preceding calendar year.

(g) *Policy governing the relocation of terrestrial services from the 18.3 to 19.3 GHz band.* Frequencies in the 18.3–19.3 GHz band listed in parts 21, 74, 78, and 101 of this chapter have been reallocated for primary use by the Fixed-Satellite Service, subject to various provisions for the existing terrestrial licenses. Fixed-Satellite Service operations are not entitled to protection from the co-primary operations until after the period during which terrestrial stations remain co-primary has expired. (see §§ 21.901(e), 74.502(c), 74.602(g), 78.18(a)(4), and 101.147(r) of this chapter).

(h) *Replacement of Space Stations within the System License Term.* Licensees of NGSO FSS systems in the 18.8–19.3 GHz and 28.6–29.1 GHz frequency bands authorized through a blanket license pursuant to paragraph (b) of this section need not file separate applications to launch and operate technically identical replacement satellites within the term of the system authorization. However, the licensee shall certify to the Commission, at least thirty days prior to launch of such replacement(s) that:

(1) The licensee intends to launch a space station into the previously-authorized orbit that is technically identical to those authorized in its system authorization and

(2) Launch of this space station will not cause the license to exceed the

total number of operating space stations authorized by the Commission.

(i) *In-Orbit Spares.* Licensees need not file separate applications to operate technically identical in-orbit spares authorized as part of the blanket license pursuant to paragraph (b) of this section. However, the licensee shall certify to the Commission, within 10 days of bringing the in-orbit spare into operation, that operation of this space station did not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

[62 FR 61456, Nov. 18, 1997, as amended at 65 FR 54171, Sept. 7, 2000; 66 FR 63515, Dec. 7, 2001; 67 FR 39310, June 7, 2002; 68 FR 16966, Apr. 8, 2003; 68 FR 51505, Aug. 27, 2003; 68 FR 59129, Oct. 14, 2003; 70 FR 59277, Oct. 12, 2005]

§ 25.146 Licensing and operating authorization provisions for the non-geostationary satellite orbit fixed-satellite service (NGSO FSS) in the bands 10.7 GHz to 14.5 GHz.

(a) A comprehensive technical showing shall be submitted for the proposed non-geostationary satellite orbit fixed-satellite service (NGSO FSS) system in the bands 10.7 GHz to 14.5 GHz. The technical information shall demonstrate that the proposed NGSO FSS system would not exceed the validation equivalent power flux-density (EPFD) limits as specified in §25.208 (g), (k), and (l) for $EPFD_{down}$, and $EPFD_{up}$. If the technical demonstration exceeds the validation EPFD limits at any test points within the U.S. for domestic service and at any points outside of the U.S. for international service or at any points in the geostationary satellite orbit, as appropriate, the application would be unacceptable for filing and will be returned to the applicant with a brief statement identifying the non-compliance technical demonstration. The technical showing consists of the following:

(1) *Single-entry validation equivalent power flux-density, in the space-to-Earth direction, ($EPFD_{down}$) limits.* (i) Provide a set of power flux-density (pfd) masks, on the surface of the Earth, for each space station in the NGSO FSS system. The pfd masks shall be generated in accordance with the specification stipulated in the ITU-R Recommendation BO.1503, ''Functional Description to be used in Developing Software Tools for Determining Conformity of Non-GSO FSS Networks with Limits Contained in Article S22 of the Radio Regulations.'' In particular, the pfd mask must encompass the power flux-density radiated by the space station regardless of the satellite transmitter power resource allocation and traffic/beam switching strategy that are used at different periods of a NGSO FSS system life. The pfd masks shall also be in an electronic form that can be accessed by the computer program contained in paragraph (a)(1)(iii) of this section.

(ii) Identify and describe in detail the assumptions and conditions used in generating the power flux-density masks.

(iii) If a computer program that has been approved by the ITU for determining compliance with the single-entry $EPFD_{down}$ validation limits is not yet available, the applicant shall provide a computer program for the single-entry $EPFD_{down}$ validation computation, including both the source code and the executable file. This computer program shall be developed in accordance with the specification stipulated in Recommendation ITU-R S.1503 (2000). If the applicant uses the ITU approved software, the applicant shall indicate the program name and the version used.

(iv) Identify and describe in detail the necessary input parameters for the execution of the computer program identified in paragraph (a)(1)(iii) of this section.

(v) Provide the result, the cumulative probability distribution function of EPFD, of the execution of the computer program described in paragraph (a)(1)(iii) of this section by using only the input parameters contained in paragraphs (a)(1)(i) and (a)(1)(iv) of this section.

(2) *Single-entry validation equivalent power flux-density, in the Earth-to-space direction, $EPFD_{up}$ limits.* (i) Provide a set of NGSO FSS earth station maximum equivalent isotropically radiated power (e.i.r.p.) mask as a function of the off-axis angle generated by a NGSO FSS earth station. The maximum e.i.r.p. mask shall be generated in accordance with the specification stipulated in the ITU-R Recommendation BO.1503. In

particular, the results of calculations encompass what would be radiated regardless of the earth station transmitter power resource allocation and traffic/beam switching strategy are used at different periods of a NGSO FSS system life. The e.i.r.p. masks shall also be in an electronic form that can be accessed by the computer program contained in paragraph (a)(2)(iii) of this section.

(ii) Identify and describe in detail the assumptions and conditions used in generating the maximum earth station e.i.r.p. mask.

(iii) If a computer program that has been approved by the ITU for determining compliance with the single-entry $EPFD_{up}$ validation limits is not yet available, the applicant shall provide a computer program for the single-entry $EPFD_{up}$ validation computation, including both the source code and the executable file. This computer program shall be developed in accordance with the specification stipulated in Recommendation ITU-R S.1503 (2000). If the applicant uses the ITU approved software, the applicant shall indicate the program name and the version used.

(iv) Identify and describe in detail the necessary input parameters for the execution of the computer program identified in paragraph (a)(2)(iii) of this section.

(v) Provide the result of the execution of the computer program described in paragraph (a)(2)(iii) of this section by using only the input parameters contained in paragraphs (a)(2)(i) and (a)(2)(iv) of this section.

(b) Ninety days prior to the initiation of service to the public, the NGSO FSS system licensee shall submit a comprehensive technical showing for the non-geostationary satellite orbit fixed-satellite service (NGSO FSS) system in the bands 10.7 GHz to 14.5 GHz. The technical information shall demonstrate that the NGSO FSS system is expected not to operate in excess of the additional operational $EPFD_{down}$ limits and the operational $EPFD_{down}$ limits as specified in § 25.208 (i), (j) and notes 2 and 3 to the table in paragraph (l). If the technical demonstration exceeds the additional operational $EPFD_{down}$ limits or the operational $EPFD_{down}$ limits at any test points with the U.S. for domestic service and at any test points out side of the U.S. for international service, the NGSO FSS system licensee shall not initiate service to the public until the deficiency has been rectified by reducing satellite transmission power or other adjustments. This must be substantiated by subsequent technical showings. The technical showings consist of the following:

(1) *Single-entry additional operational equivalent power flux-density, in the space-to-Earth direction, (additional operational $EPFD_{down}$) limits.* (i) Provide a set of anticipated operational power flux-density (pfd) masks, on the surface of the Earth, for each space station in the NGSO FSS system. The anticipated operational power flux-density masks could be generated by using the method specified in ITU-R Recommendation BO.1503. In particular, the anticipated operational pfd mask shall take into account the expected maximum traffic loading distributions and geographic specific scheduling of the actual measured space station antenna patterns (see § 25.210(k)). The anticipated operational power flux-density masks shall also be in an electronic form that can be accessed by the computer program contained in paragraph (b)(1)(iii) of this section.

(ii) Identify and describe in detail the assumptions and conditions used in generating the anticipated operational power flux-density masks.

(iii) Provide a computer program for the single-entry additional operational $EPFD_{down}$ verification computation, including both the source code and the executable file. This computer program could be developed by using the method specified in ITU-R Recommendation BO.1503.

(iv) Identify and describe in detail the necessary input parameters for the execution of the additional operational $EPFD_{down}$ verification computer program identified in paragraph (b)(1)(iii) of this section.

(v) Provide the result, the cumulative probability distribution function of EPFD, of the execution of the verification computer program described in paragraph (b)(1)(iii) of this

section by using only the input parameters contained in paragraphs (b)(1)(i) and (b)(1)(iv) of this section for each of the submitted test points provided by the Commission. These test points are based on information from U.S.-licensed geostationary satellite orbit fixed-satellite service and broadcast satellite service operators in the bands 10.7 GHz to 14.5 GHz. Each U.S.-licensed geostationary satellite orbit fixed satellite service and broadcast satellite service operator in the bands 10.7 GHz to 14.5 GHz may submit up to 10 test points for this section containing the latitude, longitude, altitude, azimuth, elevation angle, antenna size, efficiency to be used by non-geostationary satellite orbit fixed-satellite service licensees in the bands 10.7 GHz to 14.5 GHz during the upcoming year.

(2) Operational equivalent power flux-density, space-to-Earth direction, (operational $EPFD_{down}$) limits. Using the information contained in (b)(1) of this section plus the measured space station antenna patterns, provide the result of the execution of the computer simulation for the anticipated in-line operational $EPFD_{down}$ levels for each of the submitted test points provided by the Commission. Submitted test points are based on inputs from U.S.-licensed geostationary satellite orbit fixed-satellite service and broadcast satellite service operators in the bands 10.7 GHz to 14.5 GHz. Each U.S.-licensed geostationary satellite orbit fixed-satellite service and broadcast satellite service operator in the bands 10.7 GHz to 14.5 GHz may submit up to 10 test points for this section containing the latitude, longitude, altitude, azimuth, elevation angle, antenna size, efficiency to be used by non-geostationary satellite orbit fixed-satellite service licensees in the bands 10.7 GHz to 14.5 GHz during the upcoming year.

(c) The NGSO FSS system licensee shall, on June 30 of each year, file a report with the International Bureau and the Commission's Columbia Operations Center in Columbia, Maryland, certifying that the system continues to operate within the bounds of the masks and other input parameters specified under 25.146(a) and 25.146(b) as well as certifying the status of the additional operational $EPFD_{down}$ levels into the 3 m and 10 m geostationary satellite orbit fixed-satellite service receiving Earth station antennas, the operational $EPFD_{down}$ levels into the 3 m, 4.5 m, 6.2 m and 10 m geostationary satellite orbit fixed-satellite service receiving Earth station antennas and the operational $EPFD_{down}$ levels into the 180 cm geostationary satellite orbit broadcast satellite service receiving Earth station antennas in Hawaii and 240 cm geostationary satellite orbit broadcast satellite service receiving Earth station antennas in Alaska.

(d) The Commission may request at any time additional information from the NGSO FSS system applicant or licensee concerning the EPFD levels and the related technical showings.

(e) A NGSO FSS system licensee operating a system in compliance with the limits specified in § 25.208 (g), (i), (j), (k), (l) and (m) shall be considered as having fulfilled its obligations under ITU Radio Regulations provision S22.2 with respect to any GSO network. However, such NGSO FSS system shall not claim protection from GSO FSS and BSS networks operating in accordance with this part 25 or part 100 of this chapter, respectively, and the ITU Radio Regulations.

(f) Coordination will be required between NGSO FSS systems and GSO FSS earth stations in the frequency band 10.7–12.75 GHz when all of the following threshold conditions are met:

(1) Bandwidth overlap; and

(2) The satellite network using the GSO has specific receive earth stations which meet all of the following conditions: earth station antenna maximum isotropic gain greater than or equal to 64 dBi; G/T of 44 dB/K or higher; and emission bandwidth of 250 MHz; and the $EPFD_{down}$ radiated by the satellite system using the NGSO into the GSO specific receive earth station, either within the U.S. for domestic service or any points outside the U.S. for international service, as calculated using the ITU software for examining compliance with EPFD limits set forth in Article 22 of the ITU Radio Regulations exceeds −174.5 dB(W/(m2/40kHz)) for any percentage of time for NGSO systems with all satellites only operating at or below 2500 km altitude, or −202 dB(W/(m2/40kHz)) for any percentage of

time for NGSO systems with any satellites operating above 2500 km altitude.

(3) If there is no ITU software for examining compliance with EPFD limits set forth in Article 22 of the ITU Radio Regulations, then the $EPFD_{down}$ coordination trigger is suspended and the requirement for coordination will be based on bandwidth overlap and the satellite network using the GSO has specific receive earth stations which meet all of the following conditions: earth station antenna maximum isotropic gain greater than or equal to 64 dBi; G/T of 44 dB/K or higher; and emission bandwidth of 250 MHz.

(g) *Operational power flux density, space-to-Earth direction, limits.* Ninety days prior to the initiation of service to the public, the NGSO FSS system licensee shall submit a technical showing for the NGSO FSS system in the band 12.2–12.7 GHz. The technical information shall demonstrate that the NGSO FSS system is capable of meeting the limits as specified in § 25.208(o). Licensees may not provide service to the public if they fail to demonstrate compliance with the PFD limits.

(h) *System License.* Applicants authorized to construct and launch a system of technically identical non-geostationary satellite orbit fixed satellite service satellites will be awarded a single ''blanket'' license covering a specified number of space stations to operate in a specified number of orbital planes.

(i) In addition to providing the information specified in § 25.114, each NGSO FSS applicant shall provide the following:

(1) A demonstration that the proposed system is capable of providing fixed-satellite services on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands, U.S.; and

(2) A demonstration that the proposed system be capable of providing fixed-satellite services to all locations as far north as 70 deg. latitude and as far south as 55 deg. latitude for at least 75 percent of every 24-hour period; and

(3) Sufficient information on the NGSO FSS system characteristics to properly model the system in computer sharing simulations, including, at a minimum, NGSO hand-over and satellite switching strategies, NGSO satellite beam patterns, NGSO satellite antenna patterns and NGSO earth station antenna patterns. In particular, each NGSO FSS applicant must explain the switching protocols it uses to avoid transmitting while passing through the geostationary satellite orbit arc, or provide an explanation as to how the power-flux density limits in § 25.208 are met without using geostationary satellite orbit arc avoidance. In addition, each NGSO FSS applicant must provide the orbital parameters contained in Section A.3 of Annex 1 to Resolution 46. Further, each NGSO FSS applicant must provide a sufficient technical showing to demonstrate that the proposed non-geostationary satellite orbit system meets the power-flux density limits contained in § 25.208, as applicable, and

(4) [Reserved]

(j) [Reserved]

(k) Implementation Milestone Schedule. Each NGSO FSS licensee in the 10.7–12.7 GHz, 12.75–13.25 GHz and 13.75–14.5 GHz frequency bands will be required to enter into a non-contingent satellite manufacturing contract for the system within one year of authorization, to complete critical design review within two years of authorization, to begin physical construction of all satellites in the system within two and a half years of authorization, to complete construction and launch of the first two satellites within three and a half years of grant, and to launch and operate its entire authorized system within six years of authorization. Each NGSO FSS licensee in the 10.7–12.7 GHz, 12.75–13.25 GHz and 13.75–14.5 GHz frequency bands must submit certifications of milestone compliance within 10 days following a milestone specified in its authorization.

(l) *Reporting Requirements.* All NGSO FSS licensees in the 10.7–12.7 GHz, 12.75–13.25 GHz and 13.75–14.5 GHz frequency bands shall, on June 30th of the first year following launch of the first two space stations in their system, and annually thereafter, file a report with the International Bureau and the Commission's Laurel, Maryland field office containing the following information:

(1) Status of space station construction and anticipated launch date, including any major problems or delay encountered;

(2) Identification of any space station(s) not available for service or otherwise not performing to specifications, the cause(s) of these difficulties, and the date any space station was taken out of service or the malfunction identified.

(m) Replacement of Space Stations within the System License Term. Licensees of NGSO FSS systems in the 10.7–12.7 GHz, 12.75–13.25 GHz and 13.75–14.5 GHz frequency bands authorized through a blanket license pursuant to paragraph (g) of this section need not file separate applications to launch and operate technically identical replacement satellites within the term of the system authorization. However, the licensee shall certify to the Commission, at least thirty days prior to launch of such replacement(s) that:

(1) The licensee intends to launch a space station into the previously-authorized orbit that is technically identical to those authorized in its system authorization and

(2) Launch of this space station will not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

(n) In-Orbit Spares. Licensees need not file separate applications to operate technically identical in-orbit spares authorized as part of the blanket license pursuant to paragraph (g) of this section. However, the licensee shall certify to the Commission, within 10 days of bringing the in-orbit spare into operation, that operation of this space station did not cause the licensee to exceed the total number of operating space stations authorized by the Commission.

[66 FR 10619, Feb. 16, 2001, as amended at 67 FR 53510, Aug. 16, 2002; 68 FR 16447, Apr. 4, 2003; 68 FR 43946, July 25, 2003; 68 FR 51505, Aug. 27, 2003; 69 FR 31302, June 3, 2004; 70 FR 59277, Oct. 12, 2005]

EFFECTIVE DATE NOTE: At 68 FR 43946, July 25, 2003, § 25.146 was amended by redesignating paragraphs (g) through (m) as paragraphs (h) through (n) and by adding a new paragraph (g). This paragraph contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

§ 25.147 Licensing provision for NGSO MSS feeder downlinks in the band 6700–6875 MHz.

If an NGSO MSS satellite transmitting in the band 6700–6875 MHz causes harmful interference to previously licensed co-frequency Public Safety facilities, then that satellite licensee is obligated to remedy the interference complaint.

[67 FR 17299, Apr. 10, 2002]

§ 25.148 Licensing provisions for the Direct Broadcast Satellite Service.

(a) *License terms.* License terms for DBS facilities are specified in § 25.121(a).

(b) *Due diligence.* (1) All persons granted DBS authorizations shall proceed with due diligence in constructing DBS systems. Permittees shall be required to complete contracting for construction of the satellite station(s) within one year of the grant of the authorization. The satellite stations shall also be required to be in operation within six years of the authorization grant.

(2) In addition to the requirements stated in paragraph (b)(1) of this section, all persons who receive new or additional DBS authorizations after January 19, 1996 shall complete construction of the first satellite in their respective DBS systems within four years of grant of the authorization. All satellite stations in such a DBS system shall be in operation within six years of the grant of the authorization.

(3) DBS licensees shall be required to proceed consistent with all applicable due diligence obligations, unless otherwise determined by the Commission upon proper showing in any particular case. Transfer of control of the authorization shall not be considered to justify extension of these deadlines.

(c) *Geographic service requirements.* Those entities acquiring DBS authorizations after January 19, 1996, or who after January 19, 1996 modify a previous DBS authorization to launch a replacement satellite, must provide DBS service to Alaska and Hawaii

where such service is technically feasible from the authorized orbital location. This requirement does not apply to DBS satellites authorized to operate at the 61.5° W.L. orbital location. DBS applicants seeking to operate from locations other than 61.5° W.L. who do not provide service to Alaska and Hawaii, must provide technical analyses to the Commission demonstrating that such service is not feasible as a technical matter, or that while technically feasible such services would require so many compromises in satellite design and operation as to make it economically unreasonable.

(d) *DBS subject to competitive bidding.* Mutually exclusive initial applications to provide DBS are subject to competitive bidding procedures. The general competitive bidding procedures set forth in part 1, subpart Q of this chapter will apply unless otherwise provided in this part.

(e) *DBS long form application.* Winning bidders are subject to the provisions of §1.2107 of this chapter except that in lieu of a FCC Form 601 each winning bidder shall submit the long-form satellite service application (FCC Form 312) within thirty (30) days after being notified by Public Notice that it is the winning bidder. Each winning bidder will also be required to submit by the same deadline the information described in §25.215 (Technical) and §25.601 (EEO), and in paragraph (f) of this section. Each winner also will be required to file, by the same deadline, a signed statement describing its efforts to date and future plans to come into compliance with any applicable spectrum limitations, if it is not already in compliance. Such information shall be submitted pursuant to the procedures set forth in §25.114 and any associated Public Notices.

(f) *Technical qualifications.* DBS operations must be in accordance with the sharing criteria and technical characteristics contained in Appendices 30 and 30A of the ITU's Radio Regulations. Operation of systems using differing technical characteristics may be permitted, with adequate technical showing, and if a request has been made to the ITU to modify the appropriate Plans to include the system's technical parameters.

[67 FR 51113, Aug. 7, 2002]

§25.149 Application requirements for ancillary terrestrial components in the mobile-satellite service networks operating in the 1.5./1.6 GHz, 1.6/2.4 GHz and 2 GHz mobile-satellite service.

(a) Applicants for ancillary terrestrial component authority shall demonstrate that the applicant does or will comply with the following through certification or explanatory technical exhibit, as appropriate:

(1) ATC shall be deployed in the forward-band mode of operation whereby the ATC mobile terminals transmit in the MSS uplink bands and the ATC base stations transmit in the MSS downlink bands in portions of the 2000–2020 MHz/2180–2200 MHz bands (2 GHz band), the 1626.5–1660.5 MHz/1525–1559 MHz bands (L-band), and the 1610–1626.5 MHz/2483.5–2500 MHz bands (Big LEO band).

NOTE TO PARAGRAPH (a)(1): An L-band MSS licensee is permitted to apply for ATC authorization based on a non-forward-band mode of operation provided it is able to demonstrate that the use of a non-forward-band mode of operation would produce no greater potential interference than that produced as a result of implementing the rules of this section.

(2) ATC operations shall be limited to certain frequencies:

(i) In the 2000–2020 MHz/2180–2200 MHz bands (2 GHz MSS band), ATC operations are limited to the selected assignment of the 2 GHz MSS licensee that seeks ATC authority.

(ii) In the 1626.5–1660.5 MHz/1525–1559 MHz bands (L-band), ATC operations are limited to the frequency assignments authorized and internationally coordinated for the MSS system of the MSS licensee that seeks ATC authority.

(iii) In the 1610–1626.5 MHz/2483.5–2500 MHz bands (Big LEO bands), ATC operations are limited to the 1610–1617.775 MHz, 1621.35–1626.5 MHz, and 2483.5–2495 MHz bands and to the specific frequencies authorized for use by the MSS licensee that seeks ATC authority.

(3) ATC operations shall not exceed the geographical coverage area of the

mobile satellite service network of the applicant for ATC authority.

(4) ATC base stations shall comply with all applicable antenna and structural clearance requirements established in part 17 of this chapter.

(5) ATC base stations and mobile terminals shall comply with part 1 of this chapter, Subpart I—Procedures Implementing the National Environmental Policy Act of 1969, including the guidelines for human exposure to radio frequency electromagnetic fields as defined in §§1.1307(b) and 1.1310 of this chapter for PCS networks.

(6) ATC base station operations shall use less than all available MSS frequencies when using all available frequencies for ATC base station operations would exclude otherwise available signals from MSS space-stations.

(b) Applicants for an ancillary terrestrial component shall demonstrate that the applicant does or will comply with the following criteria through certification:

(1) *Geographic and temporal coverage.* (i) For the 2 GHz MSS band, an applicant must demonstrate that it can provide space-segment service covering all 50 states, Puerto Rico, and the U.S. Virgin Islands one-hundred percent of the time, unless it is not technically possible, consistent with the coverage requirements for 2 GHz MSS GSO operators.

(ii) For the L-band, an applicant must demonstrate that it can provide space-segment service covering all 50 states, Puerto Rico, and the U.S. Virgin Islands one-hundred percent of the time, unless it is not technically possible for the MSS operator to meet the coverage criteria from its orbital position.

(iii) For the Big LEO band, an applicant must demonstrate that it can provide space-segment service to all locations as far north as 70° North latitude and as far south as 55° South latitude for at least seventy-five percent of every 24-hour period, *i.e.*, that at least one satellite will be visible above the horizon at an elevation angle of at least 5° for at least 18 hours each day, and on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands, *i.e.*, that at least one satellite will be visible above the horizon at an elevation angle of at least 5° at all times.

(2) *Replacement satellites.* (i) Operational NGSO MSS ATC systems shall maintain an in-orbit spare satellite.

(ii) Operational GSO MSS ATC systems shall maintain a spare satellite on the ground within one year of commencing operations and launch it into orbit during the next commercially reasonable launch window following a satellite failure.

(iii) All MSS ATC licensees must report any satellite failures, malfunctions or outages that may require satellite replacement within ten days of their occurrence.

(3) *Commercial availability.* Mobile-satellite service must be commercially available (*viz.*, offering services for a fee) in accordance with the coverage requirements that pertain to each band as a prerequisite to an MSS licensee's offering ATC service.

(4) *Integrated services.* MSS ATC licensees shall offer an integrated service of MSS and MSS ATC. Applicants for MSS ATC may establish an integrated service offering by affirmatively demonstrating that:

(i) The MSS ATC operator will use a dual-mode handset that can communicate with both the MSS network and the MSS ATC component to provide the proposed ATC service; or

(ii) Other evidence establishing that the MSS ATC operator will provide an integrated service offering to the public.

(5) *In-band operation.* (i) In the 2 GHz MSS band, MSS ATC is limited to an MSS licensee's selected assignment. MSS ATC operations on frequencies beyond the MSS licensee's selected assignment are prohibited.

(ii) In the Big LEO bands, MSS ATC is limited to no more than 7.775 MHz of spectrum in the L-band and 11.5 MHz of spectrum in the S-band. Licensees in these bands may implement ATC only on those channels on which MSS is authorized, consistent with the Big LEO band-sharing arrangement.

(iii) In the L-band, MSS ATC is limited to those frequency assignments available for MSS use in accordance with the Mexico City Memorandum of

Understanding, its successor agreements or the result of other organized efforts of international coordination.

(c) *Equipment certification.* (1) Each ATC MET utilized for operation under this part and each transmitter marketed, as set forth in §2.803 of this chapter, must be of a type that has been authorized by the Commission under its certification procedure for use under this part.

(2) Any manufacturer of radio transmitting equipment to be used in these services may request equipment authorization following the procedures set forth in subpart J of part 2 of this chapter. Equipment authorization for an individual transmitter may be requested by an applicant for a station authorization by following the procedures set forth in part 2 of this chapter.

(3) Licensees and manufacturers are subject to the radiofrequency radiation exposure requirements specified in §§1.1307(b), 2.1091 and 2.1093 of this chapter, as appropriate. MSS ATC base stations must comply with the requirements specified in §1.1307(b) of this chapter for PCS base stations. MSS ATC mobile terminals must comply with the requirements specified for mobile and portable PCS transmitting devices in §1.1307(b) of this chapter. MSS ATC mobile terminals must also comply with the requirements in §§2.1091 and 2.1093 of this chapter for Satellite Communications Services devices. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

(d) Applicants for an ancillary terrestrial component authority shall demonstrate that the applicant does or will comply with the provisions of §§1.924 and 25.203(e) through 25.203(g) and with §§25.252, 25.253, or 25.254, as appropriate, through certification or explanatory technical exhibit.

(e) Except as provided for in paragraph (f) of this section, no application for an ancillary terrestrial component shall be granted until the applicant has demonstrated actual compliance with the provisions of paragraph (b) of this section. Upon receipt of ATC authority, all ATC licensees must ensure continued compliance with this section and §§25.252, 25.253, or 25.254, as appropriate.

(f) Special provision for operational MSS systems. Applicants for MSS ATC authority with operational MSS systems that are in actual compliance with the requirements prescribed in paragraphs (b)(1), (b)(2), and (b)(3) of this section at the time of application may elect to satisfy the requirements of paragraphs (b)(4) and (b)(5) of this section prospectively by providing a substantial showing in its certification regarding how the applicant will comply with the requirements of paragraphs (b)(4) and (b)(5) of this section. Notwithstanding §25.117(f) and paragraph (e) of this section, the Commission may grant an application for ATC authority based on such a prospective substantial showing if the Commission finds that operations consistent with the substantial showing will result in actual compliance with the requirements prescribed in paragraphs (b)(4) and (b)(5) of this section. An MSS ATC applicant that receives a grant of ATC authority pursuant to this paragraph (f) shall notify the Commission within 30 days once it begins providing ATC service. This notification must take the form of a letter formally filed with the Commission in the appropriate MSS license docket and shall contain a certification that the MSS ATC service is consistent with its ATC authority.

[68 FR 47859, Aug. 12, 2003, as amended at 69 FR 48162, Aug. 9, 2004; 70 FR 19318, Apr. 13, 2005, 73 FR 25592, May 7, 2008]

Processing of Applications

§25.150 Receipt of applications.

Applications received by the Commission are given a file number and (domestic only) a unique station identifier for administrative convenience. Neither the assignment of a file number and/or other identifier nor the listing of the application on public notice as received for filing indicates that the application has been found acceptable for filing or precludes the subsequent return or dismissal of the application if