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(27) Applications to license multiple space station systems in the non-voice, non-geostationary mobile-satellite service under blanket operating authority shall also provide all information specified in § 25.142.

6. Section 25.115 is amended by adding new a paragraph (d) to read as follows:

§ 25.115 Applications for earth station authorizations.

(d) User transceivers in the non-voice, non-geostationary mobile-satellite service need not be individually licensed. Service vendors may file blanket applications for transceiver units using FCC Form 493 and specifying the number of units to be covered by the blanket license. FCC Form 430 should be submitted if not already on file in conjunction with other facilities licensed under this subpart. Each application for a blanket license under this section shall include the information described in § 25.135.

7. Section 25.120 is amended by revising paragraphs (d) and (e) to read as follows:

§ 25.120 License term and renewals.

(d) Space stations.

(1) For space stations in the fixed-satellite services, the license term will begin at 3 a.m. EST on the date the licensee certifies to the Commission that the satellite has been successfully placed into orbit and that the operations of the satellite fully conform to the terms and conditions of the space station radio authorization.

(2) For space station systems in the non-voice, non-geostationary mobile-satellite service, the license term will begin at 3 a.m. EST on the date that the licensee certifies to the Commission that its initial space station has been successfully placed into orbit and that the operations of that satellite fully conform to the terms and conditions of the space station system authorization. All space stations launched and brought into service during the ten-year license term shall operate pursuant to the system authorization, and the operating authority for all space stations will terminate upon the expiration of the system license.

(e) **Renewal of licenses.** Applications for renewals of earth station license must be submitted on FCC Form 405 (Application for Renewal of Radio Station License in Specified Services) no earlier than 90 days and no later than 30 days, before the expiration date of the license. Applications for space station system replacement authorization in the non-voice, non-geostationary mobile-satellite service shall be filed no earlier than 90 days and no later than 30 days, prior to the end of the seventh year of the existing system license.

8. Section 25.130 is amended by revising paragraph (b) to read as follows:

§ 25.130 **Filing requirements for transmitting earth stations.**

(b) A frequency coordination analysis in accordance with § 25.203 shall be provided for earth stations transmitting in the frequency bands shared with equal rights between terrestrial and space services, except that transceiver units associated with the non-voice, non-geostationary mobile-satellite service shall instead provide the information required by § 25.135. * * * *

9. Section 25.133 is amended by revising paragraph (b) to read as follows:

§ 25.133 **Period of construction; certification of commencement of operation.**

(b) Each license for a transmitting earth station included in this part shall also specify as a condition therein that upon the completion of construction, each licensee must file with the Commission a certification containing the following information: The name of the licensee, file number of the application, call sign of the antenna, date of the license, a certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in § 25.209, and that the station is operational including the date of commencement of service, and will remain operational during the license period unless the license is submitted for cancellation. For stations authorized under § 25.115(c) and (d) of this part (Large Networks of Small Antennas operating in the 12/14 GHz bands; User transceivers in the non-voice, non-geostationary mobile-satellite service), a certificate must be filed when the network is put into operation.

10. A new section 25.135 is added to read as follows:

§ 25.135 **Licensing provisions for earth station networks in the non-voice, non-geostationary mobile-satellite service.**

(a) Each applicant for a blanket earth station license in the non-voice, non-geostationary mobile-satellite service shall demonstrate that transceiver operations will not cause unacceptable interference to other authorized users of the spectrum, based on existing system information publicly available at the Commission at the time of filing, and will comply with operational conditions placed upon the systems with which they are to operate in accordance with Section 25.142(b). This demonstration shall include a showing as to all the technical parameters, including duty cycle and power limits, under which the individual user transceivers will operate.

(b) Transceiver units associated with the non-voice, non-geostationary mobile-satellite service may not be operated on civil aircraft. All portable or hand-held transceiver units (including transceiver units installed in other devices that are themselves portable or hand-held) having a receiver operating in the 137-138 MHz band shall bear the following statement in a conspicuous location on the device: "This device may not be operated while on board a civil aircraft. It must be turned off at all times while on board such an aircraft." This subsection shall not apply to transceiver units whose receivers are incapable of radiating in the 108-137 MHz frequency bands.

(c) Transceiver units in this service are authorized to communicate with and through U.S. authorized space stations only. No person shall transmit to a space station unless the specific transmission is first authorized by the space station licensee or by a service vendor authorized by that licensee.

(d) Any transceiver unit associated with this service will be deemed, when communicating with a particular non-voice, non-geostationary mobile-satellite service system pursuant to paragraph (c) of this section, to be temporarily associated with and licensed to the system operator or service vendor holding the blanket earth station license awarded pursuant to Section 25.115(d). The domestic earth station licensee shall, for such temporary period, assume the same licensee responsibility for such transceiver as if such transceiver were regularly licensed to it.

11. Section 25.140 is amended by renumbering existing paragraph (d) (2) (iii) as (d) (2) (iv), and by adding a new paragraph (d) (2) (iii) to read as follows:

§ 25.140 Qualifications of domestic fixed-satellite space station licensees.

(d) * * * *

(2) * * * *

(iii) The terms of any grant, or other external funding commitment intended to be used to finance the proposed

construction, acquisition or operation of the requested facilities including such information as the identity of the grantor(s), the amount committed, letters of commitment, and detailed terms of the transaction, including the details of any contingencies;

(iv) Any financing arrangements contingent on further performance by either party, such as marketing of satellite capacity or raising additional financing, will not satisfy the requirements of paragraph (c) of this section.

12. A new Section 25.142 is added to read as follows:

§ 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, legal, and financial qualifications of the applicant. In particular, each application shall include the information specified in Section 25.114, except that in lieu of the information concerning orbital locations requested in Section 25.114(c)(6), the applicant shall specify the number of space stations and applicable information relating to the altitude(s), argument(s) of perigee, service arc(s), right ascension of ascending node(s), eccentricity, and inclination of the space stations (all referenced to the same time) that will comprise its system. 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 Section 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 paragraphs (f) (1), (2), and (3) of Section 25.202, 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) Financial qualifications. Each applicant for space station system authorization in the non-voice, non-geostationary mobile-satellite service must demonstrate, on the basis of the documentation contained in its application, that it is financially qualified to proceed expeditiously with the construction, launch and operation for one year of the first two space stations of its proposed system immediately upon grant of the requested authorization. Failure to make such a showing will result in the dismissal of the application. This showing shall include all information described in § 25.140(c), (d) and (e).

(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 Section 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 Section 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 re-engineer 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 Common Carrier Bureau and the Commission's Laurel, Maryland field office containing the following information:

(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.

13. Section 25.151 is amended by revising paragraph (c) (5) to read as follows:

§ 25.151 Public notice period.

(c) * * * *

(5) For consent to an assignment or transfer of control of a space station authorization or a transmitting earth station authorization, where the assignment or transfer does not involve a substantial change in ownership or control; or

14. Section 25.202 is amended by adding a new paragraph (a) (3), and by revising paragraph (f) (4), to read as follows:

§ 25.202. Frequencies, frequency tolerance and emission limitations.

(a) * * * *

(3) The following frequencies are available for use by the non-voice, non-geostationary mobile-satellite service:

137-138 MHz:	space-to-Earth
148-149.9 MHz:	Earth-to-space
149.9-150.05 MHz:	Earth-to-space
399.9-400.05 MHz:	Earth-to-space
400.15-401 MHz:	space-to-Earth

Until January 1, 1997, the allocations in the 149.9-150.05 MHz and 399.9-400.05 MHz bands may be used on a secondary basis only. Since the 399.9-400.05 MHz band is not allocated internationally to the mobile-satellite service, all operations outside the United States will be on a non-interference basis only. * * * *

(f) * * * *

(4) In any event, when an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in paragraphs (f) (1), (2) and (3) of this section.

SEPARATE STATEMENT

OF

COMMISSIONER ANDREW C. BARRETT

RE: Rules to Establish a Non-Voice, Non-Geostationary Mobile Satellite Service.

This Report and Order adopts rules to establish a Low-Earth Orbit mobile satellite data service in the U.S. I am encouraged by the progress industry and the Commission have made in this regard. Our negotiated rulemaking process was utilized efficiently by industry to provide the Commission with a reasonable set of parameters to develop rules for this LEO service. This Order provides sufficient flexibility for sharing arrangements between several LEO providers. The Order also classifies this service as non-common carrier, which will permit LEO proponents to obtain foreign investment capital in developing their service plans. Given the international nature of these proposed systems, I believe this flexibility is an important component of our rules today. Our LEO service providers will need to pursue international coordination efforts where their services extend beyond U.S. Thus, the potential for private foreign investment in their systems could be a useful mechanism to facilitate access in other markets.

I am encouraged by the aggressive posture the FCC has undertaken to support the introduction of mobile satellite Low Earth Orbit data services in the U.S. This mobile data service will provide consumers and businesses with more alternatives to obtain seamless, interoperable data services. These LEO MSS systems also will provide additional competition for mobile data and location services presently served by terrestrial systems. Clearly, additional pricing competition will be forthcoming in the fast growing area of mobile data. The decision to license LEO MSS mobile data services also reflects another reason why the decision to license 7 PCS service providers per market will not be economically viable. Beyond the two largest PCS licenses, smaller, niche PCS allocations will be under severe pressure to justify their economic viability in view of the burgeoning mobile data MSS market. To the extent that PCS niche service involve data services, query their ability to compete against seamless, interoperable mobile satellite data services that can provide nationwide roaming. The PCS decision will be under continued pressure to justify its economic viability in the face of additional competition from mobile satellite services.