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 loca-
tion offsets from the 17/24 GHz BSS or-

tibal locations of the adjacent prior-
authorized 17/24 GHz BSS space sta-
tions. In addition, any 17/24 GHz BSS
satellite applicant that has reached a
coordination agreement with an oper-
ator 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 lev-
els 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 de-
sign their satellite networks to be ca-
pable of operating with another 17/24
GHz BSS space station as close as four
degrees away.
(2) Satellite network operators lo-
cated 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 sta-
tion closer than four degrees away, as
a result of the operator’s offset posi-
tion.
(d)–(g) [Reserved]
§25.142 Licensing provisions for the
non-voice, non-geostationary mo-
 bile-satellite service.
(a) Space station application require-
ments. (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-geo-
stationary mobile-satellite system,
setting forth all pertinent technical
and operational aspects of the system,
and the technical and legal qualifica-
tions of the applicant. In particular,
each application shall include the in-
formation specified in §25.114. Appli-
cants must also file information dem-
onstrating compliance with all require-
ments 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 pro-
duced at the Earth’s surface by each
space station of their system in the fre-
quency bands 137–138 MHz and 400.15–401
MHz, to allow determination of wheth-
er coordination with terrestrial serv-
ices is required under international
footnotes 599A and 647B of §2.106 of the
Commission’s Rules. In addition, appli-
cants must identify the measures they
would employ to protect the radio as-
tronomy service in the 150.05–153 MHz
and 406.1–410 MHz bands from harmful
interference from unwanted emissions.
(3) Emission limitations. (i) Appli-
cants in the non-voice, non-geo-
stationary mobile-satellite service shall show that their space stations
will not exceed the emission limita-
tions of §25.202(f) (1), (2) and (3), as cal-
culated for a fixed point on the Earth’s
surface in the plane of the space sta-
tion’s orbit, considering the worst-case
frequency tolerance of all frequency
determining components, and max-
imum positive and negative Doppler
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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 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 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 148.35–148.855 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, 137.655–137.645 MHz, 137.753–137.787 MHz, and 137.825–138 MHz downlink frequency bands (the “System 2 licensees”) 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 licensees 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
§ 25.143 Licensing provisions for the 1.6/2.4 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]