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January 6, 1993

BY HAND DELIVERY

Donna R. Searcy,
Secretary
Federal Communications Commission
1919 M Street, N.W. Room 222
Washington, DC 20554

RE: CC Docket No. 92-166

Dear Ms. Searcy:

Transmitted herewith on behalf of Loral Qualcomm Satellite Services, Inc., for filing in the above-referenced docket are an original and four copies of its "Proposed Rule Provisions for the Mobile and Radiodetermination Satellite Service."

Should there be any questions regarding this document, please communicate with this office.

Respectfully submitted,

William D. Wallace
(Member of Florida Bar only)

Enclosures

cc: All Members of the
MSS Above 1 GHz
Negotiated Rulemaking
Committee

No. of Copies rec'd 0+4
List A B C D E

LORAL QUALCOMM SATELLITE SERVICES, INC
CC DOCKET NO. 92-166

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**PROPOSED RULE PROVISIONS FOR THE MOBILE AND RADIODETERMINATION SATELLITE SERVICE**

1. **Replace subsection (25) to Section 25.114(c) with the following:**

**(25) Applications for authorizations in the Mobile and Radiodetermination Satellite Service in the 1610-1626.5 MHz and 2483.5-2500 MHz bands shall also provide all information specified in Section 25.141.**

2. **Modify Section 25.141 of the Commission's Rules to read as follows:**

Section 25.141. **Licensing Provisions For The Mobile and Radiodetermination Satellite Service in the 1610-1626.5 MHz and 2483.5-2500 MHz Bands.**

(a) Space station application requirements. Each application for a space station license in the Mobile and Radiodetermination Satellite Service in the 1610-1626.5 MHz and/or 2483.5-2500 MHz bands shall describe in detail the proposed Mobile and Radiodetermination Satellite Service satellite system, setting forth all pertinent technical and operational aspects of the system, including its capability for providing radiodetermination service on a geographic basis, and the technical, legal and financial qualifications of the applicant. In particular, each applicant shall include the information specified in Section 25.114, except that applicants for non-geostationary Mobile and Radiodetermination Satellite Service systems, in lieu of providing the information concerning orbital locations requested in Section 25.114(c) (6), shall specify the number of space stations that will comprise its system and their orbital configuration, including the number of planes and their inclinations, altitude(s), argument(s) of perigee, service arc(s), and right ascension of ascending node(s). Any future applicants must also file information demonstrating compliance will all requirements of this section, specifically including information demonstrating that they will not cause harmful interference to any authorized or licensed Mobile and Radiodetermination Satellite Service system.

(b) User Transceivers. Individual user transceivers will not be licensed. Service vendors may file blanket applications for transceiver units using FCC Form 493 and specifing 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 must show that its user transceiver units will comply with the technical parameters of the satellite system(s) with which the units will communicate.

(c) Permissible communications. Stations in these bands shall provide both mobile and radiodetermination satellite communications services.

(d) Frequency assignment policies. Each satellite system authorized under this section will be assigned the entire allocated frequency bands on a non-exclusive basis. Coordination procedures and power limits as set forth in subsections (e) and (f) below shall be employed to avoid harmful interference with other satellite systems in these bands.

(e) Mobile and Radiodetermination satellite system coordination procedures.

(1) Licensees shall coordinate with other licensees to avoid harmful interference to Mobile and Radiodetermination satellite systems in these bands. During the coordination processes, licensees shall exchange relevant information and interference calculations, subject to appropriate confidentiality arrangements, and shall meet as necessary to negotiate in good faith to resolve potential interference problems. Coordination hereunder shall be a continuous process, taking into account changes in system parameters, traffic configuration, and other relevant factors.

(2) Technical coordination is these bands is based on the equitable allocation of interference noise among systems sharing these bands. A non-spread spectrum system shall not cause a higher level of interference to a spread spectrum system, nor place any more restrictive constraints on the operations of a spread spectrum system, than that imposed by any other single spread spectrum system operating in the bands.

(3) Coordination agreements would typically be based on mutually agreed values of the following parameters of each system operating in the band:

(i) The maximum value of the downlink PFD at any point in the service area per system, averaged over an appropriate period of time. Polarization effects shall be considered when calculating the maximum PFD.

(ii) The maximum aggregate EIRP density simultaneously radiated by all user terminals for a single system within the Continental United States.

(iii) Polarization;

(iv) Frequency plans;

(v) Code structures and associated cross correlation properties;

(vi) Antenna beam patterns; and

(vii) Signal burst structures.

(f) License conditions. All authorizations in these bands shall be subject to the following conditions:

(1) The e.i.r.p. density of any earth station transmitter shall not exceed -15 dBW/4 kHz in any portion of the 1610-1626.5 MHz band where satellite-borne electronic aids to air navigation are operated under the provision of RR No. 732 of the international Radio Regulations and operation within this limit shall be deemed to provide the necessary level of interference protection to such systems. Notwithstanding the preceding sentence, the e.i.r.p. density of an earth station transmitter may exceed -15 dBW/4 kHz in exceptional cases, even in a portion of the 1610-1626.5 MHz band where satellite borne electronic aids to air navigation are operated, provided that whatever special measures may be necessary to protect such systems from harmful interference are taken.

(2) Each licensee of transmitting earth stations in the 1610.6-1613.8 MHz band shall coordinate its operations with the designated representative for the radio astronomy service in order to provide adequate protection of radio astronomy observations in this band.

[IN RECOGNITION OF THE FACT THAT UNRESOLVED ISSUES REMAIN REGARDING THE DOMESTIC ALLOCATION FOR BI-DIRECTIONAL OPERATIONS IN THE 1613.8-1626.5 MHz BAND, AND IN THE EVENT THAT THE COMMISSION DECIDES TO ALLOW FOR THE POSSIBILITY OF SUCH SECONDARY, BI-DIRECTIONAL OPERATIONS IN THAT BAND, SUBSECTION (g), AS FOLLOWS, WOULD BE ADDED]

(g) Downlink operations in the 1613.8-1626.5 MHz band. Use of the 1613.8-1626.5 MHz band for space-to-Earth transmission is authorized on a secondary basis as defined in Section 2.104(d) (4) and Section 2.105(c) (3) of the Commission's Rules. Authorizations to conduct such space-to-Earth transmissions shall be subject to the following conditions:

(1) Any secondary usage of the 1613.8-1626.5 MHz band shall not reduce the capacity of any primary user of the band.

(2) The transmitting space station EIRP density shall be below (TBD) for transmissions not impinging on the earth in order to avoid harmful interference into primary uplink services;

(3) The EIRP of the main lobe downlink transmission shall be limited so as to include the effects due to specular reflections from the earth to comply with paragraph (1)

of this subsection (g);

(4) Space-to-Earth transmissions in any space station antenna beam shall cease whenever there is a direct line-of-sight coupling with a receiving beam on another satellite in the band;

(5) Receiving earth stations in this band cannot claim protection from harmful interference from, nor otherwise place operating constraints on, transmitting earth stations operating in the band; and

(6) Operation of such downlinks shall cease immediately upon notification of harmful interference being caused to licensed uplink operations in the band.