

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the matter of

Establishing an Advisory)
Committee to Negotiate)
Regulations for the Provision)
of Mobile Satellite Services)
in the 1610-1626.5 MHz and)
2483.5-2500 MHz Frequency Bands)

CC Docket No. 92-166

To: The Commission

COMMENTS OF TRW INC.

TRW Inc. ("TRW"), by undersigned counsel and pursuant to the Commission's August 7, 1992 Public Notice in the above-styled proceeding (DA 92-1085), hereby comments on, and confirms its intention to participate in, a proposed negotiated rulemaking, the purpose of which is to establish regulations for the provision of mobile satellite services ("MSS") in the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands.

I. INTRODUCTION

TRW commends the Commission and its staff for moving rapidly to establish proceedings which can result in the speedy introduction of mobile voice, data and radiodetermination satellite ("RDSS") services. The parallel and expedited processing of CC Docket No. 92-166 and ET Docket No. 92-28, and of the pending applications for the provision of MSS and RDSS in

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the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands, will clear the way for the earliest possible introduction of these services to the consuming public. TRW urges the Commission to continue in this expedited fashion and to conclude these proceedings as rapidly as practicable.

Because TRW supports every effort to expedite the introduction of MSS and RDSS, we support the Commission's initiative in this docket. For the reasons stated below, we also urge the Commission to expand the scope of negotiated rulemaking to include consideration of service rules. Further, borrowing from the experience gained in the ongoing small LEO negotiated rulemaking, the interests of all affected parties would be best served if the time allotted for the advisory committee to conclude these negotiations were reduced significantly, and the number of parties permitted to participate were limited to only those who will be truly and significantly affected by the outcome of the proceeding.

II. ISSUES TO BE ADDRESSED IN THE NEGOTIATED RULEMAKING

TRW does not take issue with the Commission's conclusion that regulatory negotiation is appropriate for this rulemaking, and TRW looks forward to participating in the negotiations. We believe, however, that the issues identified by the Commission -- inter- and intra-service technical sharing rules -- may not be easily resolved by negotiations among the identified parties. Also, almost all aspects of these

"technical issues" have been fully briefed by the parties in voluminous filings before the Commission during one-and-one-half years of proceedings, including rounds of comments on system applications, requests for pioneers' preferences, and WARC-92 preparations.

Indeed, the salient issue is whether code division multiple access, which facilitates multiple entry and is presently required for RDSS, should be the mandated modulation technique for MSS. Four applicants argue the answer is an emphatic "yes," and one says "no." TRW is not convinced that an additional four months of negotiations will be needed to attempt a resolution of this issue.

We therefore urge the Commission to consider reducing the timeframe for the regulatory negotiations to no more than three months. All affected parties are intimately familiar with all of the arguments. If the "technical issues" cannot be resolved in three months or less, TRW does not think additional expenditures of time and resources by the affected parties and Commission staff will significantly increase the probability of successful resolution of this issue.

There is one area, however, which TRW believes can be resolved through regulatory negotiations and which should be added to the Commission's list of issues to be considered by the advisory committee: service rules. The Commission is currently considering spectrum allocations in ET Docket 92-28, and technical sharing issues are being explored in the instant

proceedings. The Commission, however, has not addressed the issue of service rules for MSS in the identified frequency bands. TRW believes an advisory committee comprising existing users and all applicants for the use of the identified spectrum would be competent to advise the Commission on appropriate rules for the MSS/RDSS service.

In an effort to facilitate discussions on this matter, TRW has drafted proposed service rules modeled after the rules which presently govern RDSS. We have provided copies of these rules to all the affected parties and have invited their comments. A copy of TRW's draft proposed rules is attached to these comments. We strongly urge the Commission to add consideration of proposed service rules to the scope of the work of the advisory committee, and we invite the parties to use the attached draft proposed rules as a starting point for discussion.

III. ADVISORY COMMITTEE PARTICIPATION

The Commission has identified two classes of significantly affected parties who should participate on the advisory committee: applicants to provide RDSS/MSS and existing users of the affected bands. TRW concurs with the Commission's proposal to limit participation in the regulatory negotiations to those parties having a present vested interest in the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands. We believe the Commission has already properly identified the universe of

affected parties; the group should not be expanded beyond those listed in the August 7, 1992 Public Notice.^{1/}

If the advisory committee is to achieve consensus on the issues it must consider and resolve, the Commission must not burden the committee by permitting non-affected parties to participate in the committee's deliberations. TRW anticipates that other parties, affected either marginally or not at all, will attempt to add themselves to the committee's membership, and the Commission must reject all such efforts.

For example, Celsat, Inc. ("Celsat") has already applied to participate.^{2/} The Commission must not allow Celsat, or any other entity (other than those previously identified) to participate in the formal proceedings of the advisory committee. Celsat has not filed an application to use the affected frequency bands, and its petition for rulemaking with respect thereto has been denied.^{3/} Celsat has no standing

^{1/} The only party identified by the Commission whose interest in the affected bands is somewhat questionable is the American Mobile Satellite Corporation ("AMSC"). In ET Docket 92-28, the Commission denied AMSC's request to allocate the 1515-1525 MHz frequency band for MSS, which AMSC would pair with the 1616-1626.5 MHz frequency band. It is thus questionable whether AMSC will be able to use the 1616-1626.5 MHz band since it did not apply to pair this band other than with the 1515-1525 MHz band. This being the case, TRW questions whether AMSC is a sufficiently "affected party" to merit participation on the advisory committee.

^{2/} See Comments and Application of Celsat, Inc., filed on September 3, 1992, in CC Docket No. 92-166.

^{3/} See Notice of Proposed Rulemaking and Tentative Decision, ET Docket No. 92-28, FCC 92-358 at n.15 (released September 5, 1992).

to claim it will be "significantly affected" by the rules to be discussed by the advisory committee. In deciding who must participate because of their significantly affected status, the Commission must draw from the experience it gained while considering who should participate in the small LEO advisory committee. There, Loral and Ellipsat applied to participate in order to protect their claimed interest in the instant proceeding. Their requests were properly denied because they were not applicants for use of the spectrum which was the subject of the small LEO regulatory negotiations. For the same reason, Celsat's application to participate in this advisory committee must be denied.

Likewise, LEOSAT Corporation's participation in the small LEO advisory committee is not analogous to Celsat's request. When the small LEO advisory committee was formed, LEOSAT had pending before the Commission a timely-filed petition for reconsideration of its dismissed application. LEOSAT had thus made clear its interest in the small LEO spectrum by filing an application and by timely prosecuting review of its dismissal. While TRW takes no position with respect to whether LEOSAT should or should not have been appointed to participate in the small LEO advisory committee, at a minimum, prior to its appointment to the committee, LEOSAT had demonstrated a colorable interest in the use of the affected spectrum. Here,

Celsat has simply stated that it plans someday to file an application to use the 1610-1626.5 MHz and 2483.5-2500 MHz bands, or some other frequency bands.

IV. TRW CONFIRMATION OF INTENTION TO PARTICIPATE

TRW respectfully confirms its intention to participate in the Commission's proposed advisory committee to negotiate regulations defining the technical and other rules appropriate to the provision of MSS and RDSS in the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands. TRW is an applicant to provide MSS and RDSS in these bands and has diligently prosecuted its application and associated petition for rulemaking. TRW was also an active contributor to the United States preparations for WARC-92 and participated significantly as a member of the United States Delegation. TRW has thus demonstrated its ongoing interest in the allocation of spectrum and the adoption of technical and service rules for MSS and RDSS. For these reasons, TRW concurs with the Commission's inclusion of TRW in its list of significantly affected parties and states its intention to participate fully in the deliberations of the proposed advisory committee.

In this respect, TRW urges the Commission to permit participants to name up to six persons who can represent the interests of each participant. Only one person should represent and speak on behalf of each participant at any one meeting of the advisory committee. Nonetheless, the same individual may

not always be available or the subject matter for discussion may not be amenable to having only one "official" representative for each participant. TRW therefore names the following individuals to represent its interests on the advisory committee:

Roger Rusch
Eric Wizwell
Michael Horstein
Norman Leventhal
Raul Rodriguez
Stephen Baruch

CONCLUSION

TRW will work in good faith with other members of the advisory committee to develop technical and service rules for MSS and RDSS in the 1600-1626.5 MHz and 2483.5-2500 MHz frequency bands. We believe, however, that the work of this committee can be accomplished in no more than three months. If the advisory committee cannot reach consensus within this timeframe, TRW doubts that additional expenditures of time and resources will significantly increase the probability of achieving consensus. The Commission can maximize the

probability of consensus by limiting participation to those entities it has already identified. There are no other bona fide significantly affected parties.

Respectfully submitted,

TRW Inc.

By 

Norman P. Leventhal
Raul R. Rodriguez
Stephen D. Baruch

Its Attorneys

September 14, 1992

ATTACHMENT

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

1. **Modify Section 25.114(c)(18) by adding the following sentence at the end of the subsection:**

Applications for Mobile/Radiodetermination Satellite Service systems shall provide the information required by Section 25.145.

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

(25) Applications for authorizations in the Mobile/Radiodetermination Satellite Service shall also provide all information specified in § 25.141.

3. **Modify Section 25.141 of the Commission's Rules by modifying the title of the section; by deleting subsections (b) and (g); by renumbering subsections (c), (d), (e), and (f) as subsections (b), (c), (d), and (e), respectively; and by modifying subsection (a) and renumbered subsections (c), (d), and (e) as follows:**

§ 25.141. Licensing Provisions For The Mobile/Radiodetermination Satellite Service.

(a) Space station application requirements. Each application for a space station license in the Mobile/Radiodetermination Satellite Service shall describe in detail the proposed Mobile/Radiodetermination Satellite Service radiodetermination/satellite system, setting forth all pertinent technical and operational aspects of the system, including its capability for providing and controlling 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/Radiodetermination Satellite Service systems, in lieu of providing the information concerning orbital locations requested in Section 25.116(c)(6), shall specify the number, altitude(s), argument(s) of perigee, service arc(s), right ascension of ascending node(s), and orbital plane(s) (including both number per plane and inclination) of the space stations that will comprise its

system. appendix B of Space Station Application Filing Procedures, 93/FCC/2d/1260/1263 (1983), except that in lieu of demonstrating compliance with item II.F (two degree spacing), applicants are required to demonstrate compatibility with licensed radiodetermination satellite systems. Applicants must also file information demonstrating compliance with all requirements of this section, specifically including information demonstrating how the applicant has complied or plans to comply with the requirements of paragraph (e) of this section (i.e., information demonstrating that they will not cause harmful interference to any authorized or licensed Mobile/Radiodetermination Satellite Service system).

(b) Space station application procedures. Each application for a space station in the radiodetermination satellite service shall be placed on public notice for 60 days, during which time interested parties may file comments and petitions related to the application. A 60 day cut-off period shall also be established for the filing of applications to be considered in conjunction with an original application.

(c) User transceivers. Individual user transceivers will not be 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 must demonstrate that transceiver operations will not cause interference to other users of the spectrum.

(d) Permissible communications. Stations in this service are authorized to render radiodetermination service and all other forms of mobile satellite communications services, and may not render other services except as ancillary to the radiodetermination service.

(e) Frequency Allocation Policies. Each Mobile/Radiodetermination Satellite Service radiodetermination satellite service licensee will be assigned [the entire allocated frequency bands on a non-exclusive basis.] [Coding techniques and] power limits as set forth in paragraph (e) of this section and orbital spacing shall be employed to avoid harmful interference with other Mobile/Radiodetermination Satellite Service radiodetermination/satellite service systems.

(ef) Mobile/Radiodetermination Satellite Service. Licensees shall coordinate with other licensees to avoid harmful interference to other Mobile/Radiodetermination Satellite Service radiodetermination/satellite systems through (1) power flux density limits; (2) use of pseudorandom-noise codes (for both the satellite-to-user link and for the user-to-satellite link); and (3) random access, time division multiplex techniques.]

(g) //License/conditions//All/authorizations//In/the radiodetermination/satellite/service/shall/be/subject/to/the policies/set/forth/in/the/Report/and/Order/including compliance/with/appendix/D/and/the/Second/Report/and/Order/in General/Docket/No./84-689/and/84-690/and/to/any/policies/and rules/the/Commission/may/adopt/at/the/latest/date/

4. Modify Part 25 of the Commission's Rules By Adding New Sections 25.142 through 25.147, as follows:

§ 25.142. **Noncommon Carrier/Common Carrier Operation; Eligibility For License.**

(a) Applicants for space station licenses in the Mobile/Radiodetermination Satellite Service may request that the space stations in their proposed systems be licensed on either a noncommon carrier or a common carrier basis. Applicants for multiple space station licenses in the Mobile/Radiodetermination Satellite Service must request either noncommon carrier status or common carrier status with regard to all space stations that would be operated as part of a single system.

(b) Common carrier Mobile/Radiodetermination Satellite Service space station licenses shall be classified as nondominant carriers, and shall be subject to streamlined tariff filing and facilities authorization procedures under Parts 61 and 63 of the Commission's rules.

(c) The Commission will preempt any conflicting state regulations over technical standards and entry regulation of the space segment.

§ 25.143. License Term.

The license terms for Mobile/Radiodetermination Satellite Service space stations that are operated as a single system will begin simultaneously at 3 a.m. EST on the date that the licensee certifies to the Commission that the minimum number of space stations required to enable the licensee to conform the operations of its system fully to the terms and conditions of its instrument of authorization have been successfully placed into orbit. As additional space stations originally authorized as part of the system are brought into service, the expiration dates of the licenses of such stations shall be the date ten years after the date on which the licensee made the certification contemplated by this paragraph.

§ 25.144. Space Station License Renewal.

(a) Space Station Renewal. A licensee of a Mobile/Radiodetermination Satellite Service satellite system consisting of multiple space stations that are operated as a single system shall file a blanket application for renewal of the licenses of the space stations that comprise such system. Renewal applications shall be filed by the licensee no earlier than ninety (90) days and no later than (30) days prior to the end of the eighth year of the license term.

(b) Renewal Expectancy. A Mobile/Radiodetermination Satellite Service renewal applicant involved in a comparative renewal proceeding shall receive a preference, commonly referred to as a renewal expectancy, which is the most important comparative factor to be considered in the proceeding, if its past record for the relevant license period demonstrates that the renewal applicant:

- (1) Has substantially used its spectrum for its intended purpose;
- (2) Has substantially complied with applicable Commission rules, policies, and the Communications Act; and
- (3) Has not otherwise engaged in substantial relevant misconduct.

(c) Public Notice. All applications for renewal of licenses of space stations in the Mobile/Radiodetermination Satellite Service shall be placed on public notice.

§ 25.145. Financial Qualifications.

(a) Each application for authority to construct, or to construct, launch, and operate a space station in the Mobile/Radiodetermination Satellite Service shall include a detailed statement of the:

(1) Estimated costs of proposed construction and/or launch, and any other initial expenses for the space station(s); and

(2) Estimated operating expenses for one year after launch of the proposed space station(s). The showings required by this paragraph (a)(2) shall be for the period commencing on the date that the licensee expects to be able to make the certification required by Section 25.143(a).

(3) The source(s) or potential source(s) of funding of the proposed system for one year, including the identity of financiers and their letters of financial interest, or other sources of funding.

(b) Any applicant that makes the showing required in paragraph (a) of this section shall be found financially qualified to receive a conditional construction permit. A conditional construction permit for a space station(s) does not permit the applicant to commence construction of such station.

(c) In order to commence construction, an applicant must demonstrate its current financial ability to meet the costs specified in paragraph (a) of this section, by submitting the following financial information verified by affidavit:

(1) An applicant relying on internal funds to finance its system must submit a current or recent (no earlier than the last complete fiscal year) balance sheet and income statement demonstrating that the applicant has current assets and operating income sufficient to satisfy the requirements of paragraph (a) of this section. If the applicant is owned by one or more corporate parent(s), and is relying upon such corporate parent(s) for funds to finance its system, it must submit evidence of a firm commitment to the proposed satellite program by management of the corporate parent(s) upon whom it is relying;

(2) An applicant relying on external sources of funding must submit a current balance sheet and income statement, along with an exhibit indicating that the estimated income or revenues anticipated from the proposed operation of the Mobile/Radiodetermination Satellite Service system are sufficient to meet the estimated construction, launch, and first year operating costs not met by internal funds, along with any additional information requested by the Commission, which would include scheduled debt financing or stock issues, established lines of credit or other forms of financing upon which the applicant is relying.

(d) Any applicant that makes the showing required in paragraph (c) of this section shall be found financially qualified to receive a nonconditional construction permit. Upon the issuance of a nonconditional construction permit for a space station(s), an applicant is authorized to commence construction of such station(s).

§ 25.146. Milestones.

(a) All conditional permittees of space stations in the Mobile/Radiodetermination Satellite Service must file the demonstrations required by Section 25.145(c) within one year after the grant of the conditional construction permit, and, in the case of conditional permittees of space stations in the Mobile/Radiodetermination Satellite Service that will provide international service, within sixty days after the State Department has notified the Commission that all applicable treaty obligations of the United States have been satisfied, whichever is later.

(b) Construction of the first space station in a Mobile/Radiodetermination Satellite Service system must be commenced within one year after the grant of a nonconditional construction permit, and must be completed within four years after the grant of a nonconditional construction permit.

(c) Permittees of multiple Mobile/Radiodetermination Satellite Service space stations must commence construction of all remaining space stations required to make the certification called for in Section 25.143(a) within three years after the grant of a nonconditional construction permit.

(d) All space stations authorized for a Mobile/Radiodetermination Satellite Service system, except stations authorized as on-ground spares, must be launched and operational within six years after the grant of a nonconditional construction permit.

(e) All permittees of space stations in the Mobile/Radiodetermination Satellite Service must notify the Commission as each milestone in paragraphs (a) - (d) of this section is met.

§ 25.147. Operating Conditions for Systems Operating in the Mobile/Radiodetermination Satellite Service.

In order to ensure compatible operations with authorized users in the frequency bands to be utilized for operations in the Mobile/Radiodetermination Satellite Service, Mobile/Radiodetermination Satellite Service systems must operate in accordance with the conditions specified in this section.

[TO BE DETERMINED]

CERTIFICATE OF SERVICE

I, Kimberly A. Moats, hereby certify that the foregoing "Comments of TRW Inc." were served by first-class mail, postage prepaid, this 14th day of September, 1992 on the following persons:

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