

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

Amendment of the Commission's Rules)
Regarding the 37.0-38.6 GHz and)
38.6-40.0 GHz Bands; and)

ET Docket No. 95-183
RM-8553

Implementation of Section 309(j) of)
the Communications Act --)
Competitive Bidding, 37.00-38.6 GHz)
and 38.6-40.0 GHz Bands.)

PP Docket No. 93-253

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COMMENTS OF MOTOROLA SATELLITE COMMUNICATIONS, INC.

Motorola Satellite Communications, Inc. ("Motorola") hereby submits its comments to the Notice of Proposed Rule Making and Order initiating this proceeding,^{1/} where the Commission proposes to establish or amend licensing and technical rules for fixed point-to-point microwave operations in the 37.0-38.6 GHz (37 GHz) band and in the 38.6-40.0 GHz (39 GHz) band.^{2/} The Commission makes these proposals in order to accommodate operations such as "backhaul" and "backbone" communications links for personal communications services (broadband PCS), cellular radio, and other commercial and private mobile radio

^{1/} Notice of Proposed Rulemaking, ET Docket No. 95-183, RM-8553, PP Docket No. 93-253, FCC 95-500 (rel. Dec. 15, 1995).

^{2/} Id. at ¶¶ 1-2.

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operations.^{3/} The Commission also requests comment on a request by the National Telecommunications and Information Administration ("NTIA") to allocate the 37-38 GHz band to Space Research downlinks.

Motorola commends the Commission for its efforts to foster commercial use of this spectrum and takes no position on the licensing and technical rules proposed by the Commission. However, Motorola cautions the Commission to be mindful that this spectrum is vital for the accommodation of the next generation of broadband satellite systems. Part of this spectrum -- the 38.6-40.0 GHz bands -- has a domestic and worldwide primary allocation to the Fixed-Satellite Service ("FSS") (space-to-Earth).^{4/} In addition, the 37.5-38.6 GHz band has a worldwide primary allocation to the FSS downlinks, which has not yet been domestically implemented. By a Petition for Rulemaking filed on the same date herewith, Motorola petitions the Commission to allocate the 37.5-38.6 GHz band to FSS downlinks. Motorola also petitions the Commission to adopt for the 37.5-40.5 GHz bands the limits on power flux density that apply to the band under the ITU Radio Regulations, Art. 28 § 4(6), RR 2578, 2582,

^{3/} Id. at ¶ 1.

^{4/} The 39.5-40.0 GHz band moreover has a domestic and worldwide primary allocation to the Mobile-Satellite Service ("MSS").

2583, 2584. Adoption of the limits will ensure sharing between satellite downlinks and terrestrial services in this spectrum.^{5/} Finally, the Commission should ensure that: any terrestrial non-government uses in the 37 and 39 GHz bands remain subject to the implementation of future satellite systems under the existing allocations; and that NTIA's request for a Space Research allocation in the 37-38 GHz band does not compromise the ability of future satellite systems to provide FSS in the 37.5-38.6 GHz band.

Allocation of the 37.5-38.6 GHz band to the FSS will serve the public interest. Lower bands allocated to satellite services are becoming rapidly congested, as evidenced by the numerous applications for Ka-band satellite systems now pending before the Commission. Thus, the 37.5-40 GHz bands, in conjunction with the contiguous and intermediate spectrum which is allocated to FSS,^{6/} are the next available bands for the

^{5/} In the NPRM, the Commission sought comment on "whether our proposed modifications for licensing the 39 GHz band would have any effect on the sharing of this band" between satellite and terrestrial services. NPRM at ¶ 110.

^{6/} The 40.0-40.5 GHz band is also allocated to FSS and Mobile-Satellite Service ("MSS") downlinks worldwide. The 40.5-42.5 GHz band is allocated to the Broadcasting-Satellite Service ("BSS"); the 42.5-43.5 GHz band is allocated to FSS uplinks; the 43.5-47.0 GHz band is allocated to the MSS uplinks and the Radionavigation-Satellite Service; the 47.0-47.2 GHz band is allocated to the Amateur-Satellite Service; and the 47.2-50.2 GHz band is allocated to FSS uplinks.

implementation of domestic and international satellite systems.

If the 37-40 GHz bands are used exclusively for terrestrial services then it would be difficult, if not impossible, to implement certain types of satellite systems in this band as well as in adjacent bands.

In particular, the 37.5-38.6 GHz band, together with the contiguous spectrum, could be used for satellite systems providing high-speed broadband voice, video and data services worldwide. As the Commission is aware, such services are an essential part of the Global Information Infrastructure, and portend huge public benefits for the U.S. public as well as the world economy. Since the 37.5-38.6 GHz band is already allocated for the FSS worldwide, it offers itself for such global services. Moreover, broadband satellite applications require substantial and undisrupted segments of the spectrum, further militating for the requested domestic allocation.

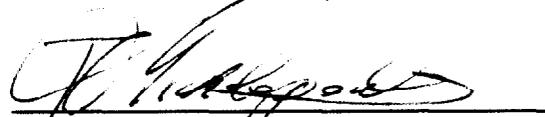
To avoid interference between the FSS and the terrestrial point-to-point microwave services, Motorola requests that the Commission adopt the power flux density limits of the ITU Radio Regulations for the 37.5-40.5 GHz band. See Radio Regulations, Art. 28 § 4(6), RR 2578, 2582, 2583, 2584. These limits will allow FSS systems and microwave operators to co-exist on a co-primary basis. Subject to these constraints, the

Commission should domestically implement the current worldwide primary allocation of the 37.5-38.6 GHz band to the FSS.

Motorola applauds the Commission's intention to foster commercial development in the 37-40 GHz bands, so long as implementation of its proposals does not compromise the existing satellite allocations in these bands. Finally, the Commission should ensure that NTIA's request for a new Space Research allocation in the 37-38 GHz band does not compromise in the least the ability to provide FSS in the 37.5-38.6 GHz band. In view of the enormous advantage of a worldwide FSS allocation in that band, the U.S. satellite industry cannot afford any impediment to the use of this spectrum.

Respectfully submitted,

**MOTOROLA SATELLITE
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CERTIFICATE OF SERVICE

I, Pamela S. Strauss, hereby certify that a copy of the foregoing Comments of Motorola Satellite Communications, Inc. was hand-delivered on this 4th day of March, 1996 to the following:

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