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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 Parts 2.106 and 25.202 of the Commission's Rules to Allocate the 37.5-38.6 GHz Band to the Fixed-Satellite Service and to Establish Technical Rules for the 37.5-38.6 GHz Band	)	RM No. 8811

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COMMENTS OF LOCKHEED MARTIN CORPORATION

Lockheed Martin Corporation ("Lockheed Martin"), by its counsel, hereby submits these comments in support of the petition for rulemaking filed by Motorola Satellite Communications, Inc. ("Motorola") to amend the Commission's rules to allocate the 37.5-38.6 GHz band to the Fixed-Satellite Service ("FSS") (space-to-Earth) on a co-primary basis.[1/] As discussed herein, adoption of a domestic FSS downlink allocation at 37.5-38.6 GHz would be in the public interest, for it would facilitate the next generation of advanced satellite networks to meet increasing demand for broadband satellite services.

New domestic FSS allocations will be needed to satisfy ever-increasing business and consumer demand for satellite services, especially considering the existing congestion at C-

1/ Primary domestic allocations currently exist in the 37.5-38.6 GHz band for the Fixed and Mobile services. By these Comments, Lockheed Martin supports a domestic allocation of the 37.5-38.6 GHz band for FSS downlink use on a co-primary basis.

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and Ku-bands. Further, the high level of interest in deploying FSS networks using Ka-band frequencies -- as evidenced by the submission of thirteen applications filed in the Commission's first Ka-band satellite processing round -- suggests that Ka-band spectrum will not be available in the future to support new generations of advanced satellite networks. Thus, the Commission and the U.S. satellite industry must take steps now to provide for sufficient spectrum to accommodate the next generation of FSS satellite systems expected to be deployed in only a few years' time.

An FSS downlink allocation already exists internationally at 37.5-38.6 GHz, and a new domestic FSS downlink allocation of this spectrum would therefore be entirely consistent with the existing international allocation. Moreover, contiguous spectrum at 38.6-40.5 GHz has been allocated to FSS on both a domestic and worldwide basis. Grant of the requested domestic allocation would result in a contiguous block of domestic spectrum (37.5-40.5 GHz) for FSS downlinks needed to support the next generation of commercial satellite networks, and would help to ensure that sufficient capacity exists to meet growing demand for satellite services domestically and on a global scale. An FSS downlink allocation of contiguous spectrum at 37.5-40.5 GHz would be particularly well-suited for providing high-speed broadband voice, data and video communications services. Deployment of such systems would enable the U.S. satellite industry to contribute to developing the Global Information Infrastructure, and would assist the U.S. industry in maintaining its traditional leadership role in the implementation of advanced communications networks worldwide.

Finally, since the frequencies at 37.5-38.6 GHz are at a higher frequency range than the C-, Ku-, and Ka-bands, satellite networks using these frequencies could employ smaller

spot beams in their satellite design than has been previously possible. Smaller spot beams, in turn, allow for greater frequency re-use and increased spectral efficiency. Consequently, a domestic allocation of these frequencies for FSS downlinks would permit valuable spectrum resources to be used effectively and efficiently in the deployment of advanced communications networks.

For these reasons, Lockheed Martin supports Motorola's petition for rulemaking to allocate the 37.5-38.6 GHz band to the Fixed-Satellite Service (space-to-Earth) on a co-primary basis.

Respectfully submitted,

LOCKHEED MARTIN CORPORATION

By: _____

Raymond G. Bender, Jr., Esquire
Thomas K. Gump, Esquire
Dow, Lohnes & Albertson
A Professional Limited Liability Company
1200 New Hampshire Avenue, N.W.
Suite 800
Washington, D.C. 20036-6802

Mr. Gerald C. Musarra
Senior Director, Commercial Programs
Space and Strategic Missiles Sector
Lockheed Martin Corporation
1725 Jefferson Davis Highway
Arlington, VA 22202-4127

Debra A. Smilley-Weiner, Esquire
Deputy General Counsel
Lockheed Martin Astro Space Commercial
P.O. Box 800
Princeton, NJ 08543-0800

June 20, 1996

CERTIFICATE OF SERVICE

I, Deborah E. Buhner, hereby certify that a copy of the foregoing "Comments of Lockheed Martin Corporation" has been served this 20th day of June, 1996, via first class mail, postage prepaid or by hand delivery to the following:

*Donald H. Gips
Federal Communications Commission
2000 M Street, N.W.
Suite 800
Washington, D.C. 20554

*Cecily C. Holiday, Esquire
Deputy Chief
Satellite and Radiocommunication Division
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Washington, D.C. 20554

*Thomas Tycz, Chief
Satellite and Radio-communications Branch
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Suite 800
Washington, D.C. 20554

*Harry Ng
Branch Chief
Satellite Engineering Branch
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Washington, D.C. 20554

*Karl Kensinger, Esquire
Satellite Policy Division
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 521
Washington, D.C. 20554

*Giselle Gomez
Satellite Policy Division
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 507
Washington, D.C. 20554

*Jennifer Gilsenan, Esquire
Satellite Policy Division
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 511
Washington, D.C. 20554

Philip L. Malet, Esquire
Pantelis Michalopoulos, Esq.
Steptoe & Johnson
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036

*Richard M. Smith
Federal Communications
Commission
Chief, Office of Engineering
and Technology
2000 M Street, N.W., Room 480
Washington, D.C. 20554

*Tom Mooring
Federal Communications
Commission
Office of Engineering and
Technology
2000 M Street, N.W.
Washington, D.C. 20554

*Fern Jarmulnek, Esquire
Chief, Satellite Policy Branch
International Bureau
Federal Communications
Commission
2000 M Street, N.W., Room 511
Washington, D.C. 20554

Deborah E. Buhner

Deborah E. Buhner

*Denotes hand-delivery