BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of the Applications of)
)
NORRIS SATELLITE COMMUNICATIONS, INC.) File Nos. 54-DSS-P/L-90
) 55-DSS-P-90
Application for Authority to Construct,)
Launch and Operate Communications)
Satellites in the Ka-Band)

To: The Commission

OPPOSITION OF TRW, INC. TO NORRIS SATELLITE COMMUNICATIONS, INC.'S PETITION FOR RECONSIDERATION

TRW Inc. ("TRW"), by its attorneys, pursuant to Section 1.106(g) of the Commission's Rules, hereby opposes the Petition for Reconsideration ("Petition") filed by Norris Satellite Communications, Inc. ("Norris") in the above-captioned proceeding. Norris seeks reconsideration of the Commission's Order and Authorization, 7 FCC Rcd 4289 (1992) ("Order") which authorizes Norris to construct, launch and operate two domestic communications satellites to operate in the 19.7-20.2 GHz and 29.5-30.0 GHz frequencies (the "Ka-band" or the "20/30 GHz band"). In its Petition, Norris seeks additional authority to operate in the 19.5-19.7 GHz and 29.3-29.5 GHz bands which would bring its total authorization up to 700 MHz in both the uplink and downlink directions.[1/] As set forth more fully below, Norris has failed to

---

1/ TRW is an interested party to this proceeding as an applicant that has requested authority to construct a low-

(continued...)

demonstrate a legitimate need for the additional requested spectrum. Accordingly, Norris' Petition is not justified and should therefore be summarily denied.

I. OVERVIEW

In its original application for authority to construct, launch and operate a commercial domestic "general satellite service" ("GSS") system in the Ka-band,[2/] Norris requested authority to operate its system using 700 MHz of spectrum in both the uplink and downlink direction.[3/] However, in its Order, the Commission authorized Norris' use of 500 MHz in each direction -- 19.7-20.2 GHz for satellite-to-earth transmissions and 20.5-30.0 GHz for earth-to-satellite transmissions. Order, 7 FCC Rcd at 4292. Norris is now requesting that the Commission modify its authorization to permit it to operate on an additional 200 MHz of spectrum in both the uplink and downlink directions because,

---

1/ (...continued)
Earth orbit ("LEO") Mobile-Satellite Service ("MSS") system called Odyssey which proposes to use the 20/30 GHz band for its feeder link operations. See Application of TRW, Inc. for the Odyssey System (File Nos. 20-DSS-P-91(12) CSS-91-015) filed May 31, 1991.

2/ Although Norris applied to provide GSS (i.e., a combination of fixed-mobile- and broadcast-satellite services), because the requested frequencies (i.e, 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink)) are allocated on a primary basis to fixed-satellite serivce ("FSS"), Norris requested the Commission to proceed with the processing of the FSS portion of its application.

3/ See Application of Norris Satellite Communications, Inc., filed July 16, 1990.

according to Norris, "[t]he Commission erroneously stated that Norris intended to utilize only 500 MHz of the proposed bandwidth on its satellite and provided no explanation for its failure to authorize the facilities as applied for." Petition at iii.

As discussed herein, Norris' request for additional spectrum is nothing more than a premature, overreaching request, which, if granted, will likely adversely impact TRW, as well as other prospective MSS or FSS providers, by further reducing the amount of spectrum available in the Ka-band, a frequency band that is rapidly becoming congested. Specifically, Norris has failed to justify sufficiently its request for the additional 400 MHz of spectrum. This failure is more glaring in view of the growing demand for use of the Ka-band and the uncertainty that exists as to whether Norris' proposed system is progressing in accordance with the schedule set forth in the Commission's Order or, even more importantly, whether the system will ever be fully implemented. Accordingly, the Commission should deny Norris' Petition.

II. NORRIS HAS FAILED TO JUSTIFY SUFFICIENTLY ITS REQUEST FOR ADDITIONAL SPECTRUM

Beyond its contention that the "Commission erroneously stated that Norris intended to use only 500 MHz...," Norris provides but a single justification for its request for additional spectrum -- i.e., that its projected income statement is premised on the availability of twenty-four transponders, each using 24 MHz of spectrum, and that "with only 500 MHz available ... fewer transponders would be available, accommodations of wideband

applications might be more difficult, and prices to end users would be higher." Petition at 3, 11. Norris' unsupported speculative assertion is hardly sufficient justification for its bold request for 400 MHz of additional spectrum above and beyond the frequencies already authorized.

Norris' Petition is completely void of clear evidence that the technical feasibility or economic viability of its proposed system is in any way threatened by the "shortage" of spectrum.[4/] The lack of adequate justification is particularly problematic in view of the uncertainty that exists as to the current status of Norris' satellite system. In this regard, TRW notes that, pursuant to the Commission's Order, Norris is required to commence construction of its first satellite by July 1993. Order at 4292. Despite this, it remains unclear whether construction will begin as required or whether a satellite construction contract is even currently in place.

Moreover, Norris has yet to provide the Commission with any definitive evidence, in the way of executed lease agreements or firm customer commitments, that would substantiate its request for additional spectrum. Simply put, Norris has not shown that the 1000 MHz already allocated for its satellite system is inadequate. Further, with little or no basis upon which to predict customer

---

4/ Even if Norris' request for additional spectrum is not granted by the Commission, Norris estimates that the capital costs of constructing and launching its system will be $190 million, and anticipates a lifetime revenue stream of $630 million. Order at 4289-90.

demand or estimate the availability of transponder capacity (including capacity offered by other potential FSS providers), it would be difficult to determine, at this juncture, whether end-user prices will necessarily be higher as is being claimed by Norris. Petition at 11.

In view of Norris' failure to demonstrate a clear need for additional frequencies, especially in light of the ever increasing demand for use of the 20/30 GHz band as discussed below, it would be entirely premature to grant Norris' Petition at this point. Accordingly, the Commission should deny the subject Petition.

III. NORRIS' REQUEST FOR ADDITIONAL SPECTRUM IS UNWARRANTED GIVEN THE INCREASING DEMAND FOR KA-BAND FREQUENCIES

Since Norris' application was granted, there has been a marked increase in demand for use of the Ka-band.[5/] These new competing demands for use of the Ka-band must be considered by the Commission in addressing Norris' ill-supported request for additional frequencies.

First, as noted in the Commission's Order, several LEO MSS applicants, including Motorola Satellite Communications, Inc., propose to use the 20/30 GHz band for their feeder link operations. Order at 4290, n. 9; see also note 1, supra. TRW also intends to

---

5/ When the Commission granted Norris' application, it noted that the Ka-band was essentially "fallow" and that Norris was the lone applicant proposing to provide commercial FSS. Order at 4290.

use the 20/30 MHz band for its feeder link operations. In addition, Calling Communications Corporation ("Calling") who has filed an opposition in the instant proceeding,[6/] plans to file an application seeking FCC authority to construct, launch and operate a domestic and international satellite system using a significant amount of spectrum in the 17.7-19.7 GHz and 27.5-219.5 GHz bands. According to Calling, "[s]ome of this spectrum will be able to be shared with other proposed satellite systems and other spectrum will not." Calling Opposition at 2-3, 6.

The Ka-band will also be used by the experimental NASA Advanced Communications Technology Satellite ("ACTS") program. ACTS, which is scheduled to be launched in the very near term, will operate its uplinks at 28.97-29.87 GHz and its downlinks at 19.25-20.15 GHz. It is anticipated that the ACTS program will, consistent with its intended purpose, encourage the further development of commercial FSS use in the Ka-band.

Other potential users of the Ka-band include the providers of certain broadcast-satellite services ("BSS") and a new local multipoint distribution service ("LMDS"). Specifically, with respect to BSS, there is a possibility that the Ka-band will be used, both nationally and internationally, for the provision of feeder links in connection with high definition broadcast satellite

---

6/ See Opposition of Calling Communications Corporation, filed May 13, 1993 ("Calling Opposition").

service.[7] In addition, the Commission recently proposed to redesignate the 27.5-29.5 GHz band for LMDS.[8] Although LMDS is strictly a terrestrial service, frequency coordination between LMDS and space segment providers may be required if such providers are both operating in the same geographic area. To this extent, the impact of this additional service as well as the other above-mentioned proposed uses of the Ka-band, must be assessed by the Commission prior to acting on Norris' Petition.

IV. CONCLUSION

On the basis of the foregoing, the Commission should find that Norris has failed to establish adequate justification for its request for additional spectrum. Accordingly, TRW respectfully

---

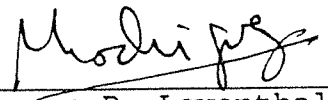
7/ The 27.5-30.0 GHz band has been allocated on a world-wide basis for BSS feeder links. See World Administrative Radio Conference 1992 Final Acts at 27.

8/ See Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, Notice of Proposed Rule Making, 8 FCC Rcd 557 (1993).

urges the Commission to deny Norris' Petition as a wholly unwarranted request.

Respectfully submitted,

TRW INC.

By 

Norman P. Leventhal
Raul R. Rodriguez
A.B. Cruz III

Leventhal, Senter & Lerman
Suite 600
2000 K Street, NW
Washington, DC 20006
(202) 429-8970

May 28, 1993

Its Attorneys

CERTIFICATE OF SERVICE

I, Sharon Krantzman, hereby certify that true and correct copies of the foregoing document were sent by first-class, postage prepaid mail, this 28th day of May, 1993, to the following:

Wayne Hartke, Esquire
Hartke & Hartke
7637 Leesburg Pike
Falls Church, VA 22043

Cicily C. Holiday, Chief
Satellite Radio Branch
Common Carrier Bureau
Federal Communications Commission
Room 6324
2025 M Street, NW
Washington, DC 20554

Thomas Tycz, Deputy Chief
Facilities Division
Common Carrier Bureau
Federal Communications Commission
Room 6010
2025 M Street, NW
Washington, DC 20554

Lon C. Levin, Esquire
American Mobil Satellite Corp.
4th Floor
1150 Connecticut Avenue, NW
Washington, DC 20036

Alfred M. Mamlet, Esquire
Steptoe & Johnson
1330 Connecticut Avenue, NW
Washington, DC 20036

Bruce D. Jacobs, Esquire
Fisher, Wayland, Cooper & Leader
Suite 800
1255 23rd Street, NW
Washington, DC 20037

Mitchell F. Brecher, Esquire
Down & Cleary
Suite 850
1275 K Street, NW
Washington, DC 20005

Mr. Charles T. Force
Associate Administrator for
Space Operations
National Aeronautics and Space
Administration
400 Maryland Avenue, SW
Washington, DC 20546

Sharon Krantzman

Sharon Krantzman