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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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September 24, 1997

VIA HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W. - Room 222
Washington, D.C. 20554

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Re: RM-9005

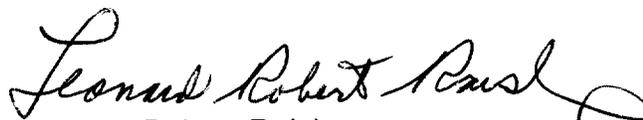
Dear Mr. Caton:

On behalf of Harris Corporation-Farion Division ("Harris"), we are filing an original and four (4) copies of its Comments in the above cited matter.

If there are any questions, do not hesitate to contact the undersigned.

Respectfully submitted,

FLETCHER, HEALD & HILDRETH, PLC



Leonard Robert Raish
Counsel for Harris Corporation-Farion
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Enclosures

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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

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SEP 24 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Routine Licensing of Large Numbers)
of Small Antenna Earth Stations) RM No. 9005
Operating in the Ka-Band)

**COMMENTS BY THE
HARRIS CORPORATION- FARINON DIVISION**

Harris Corporation-Farinon Division ("Harris"), hereby submits its Comments below in the above cited proceeding, which involves a request by several parties interested in the GSO Fixed-Satellite Service (FSS) for the Commission to revise Part 25 of its Rules.^{1 2} The basic request pertained to blanket licensing of earth stations in the 28 GHz band. The one and only commenter, Teledesic, has urged the Commission to extend blanket licensing to the 18 GHz band be addressed as well. The parties filing the original request concurred with the Teledesic view. The interest of Harris in this proceeding relates to the 18 GHz band only.

I. GENERAL

Harris is a Florida corporation with its headquarters located in Melbourne, Florida. Through its Farinon Division, located in Redwood Shores, California, Harris

¹These parties are Lockheed-Martin Corporation, AT&T Corporation, LORAL Space & Communications, Ltd., and GE American Communications.

²Also see, Public Notice, Commission Requests Comment to Refresh Record on Proposals For Blanket Licensing of Satellite Earth Stations Operating In The 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands and Sharing Between Fixed Terrestrial and Satellite Services in the 17.7-19.7 GHz Frequency Bands, IN Rep. 97-27 (released September 5, 1997).

designs, develops and manufactures microwave and multiplex systems used by licensees in the terrestrial fixed microwave service. Harris is one of the largest suppliers of microwave equipment in the global market. As a leading manufacturer of equipment used in the terrestrial fixed services, Harris is interested in advancing the state-of-the-art in microwave technology and to maximize efficient use of the spectrum available for all microwave services.

II. TIA FIXED POINT-TO-POINT SECTION VIEWS ARE SUPPORTED

Harris participated significantly in the preparation of the Comments being filed concurrently and separately by the Fixed Point-to-Point Communications Section, Network Equipment Division, of the Telecommunications Industry Association ("the Section"). Harris supports those comments in all respects.

III. TELEDESIC PROPOSAL OVERLOOKS THE RECORD ON FS/FSS SHARING AND ACTUALLY PROMOTES FS RELOCATION

Harris fails to understand why Teledesic, which is perfectly aware of FS/FSS sharing difficulties in high frequency bands, proposes to put a large number of FSS Earth Stations in the 17.7-19.7 GHz band, home to 38,126 licensed FS frequencies. In a pending rulemaking concerning similar issues, Teledesic condemned the concept of FS/FSS band sharing:

"[T]he prospect of multiple, ubiquitously deployed, and incompatible services [is unacceptable]. The traditional paradigm of satellite/terrestrial co-frequency operation - by which a relatively small number of large, expensive terrestrial links were coordinated

site by site with a relatively small number of large, expensive satellite earth stations - [does] not fit these newer services and provide[s] no help in resolving the conflict.”³

By going as far as proposing blanket licensing of FSS Earth Stations in the 17.7-19.7 GHz range, Teledesic is, in effect, proposing that the Fixed Service be relocated from that band, in line with what just happened with DEMS users.⁴ However, unlike the small DEMS band, the 17.7-19.7 GHz microwave bands are used by hundreds of FS operators nationwide. These operators depend on the 18 GHz band to rapidly deploy short range high speed point-to-point links at a reasonable cost. The 23 GHz band is not an alternative to most of them. It has limited reach and cannot offer the same deployment speed because of the obligation to share with NTIA systems.⁵

IV. RELEVANT SHARING STUDIES ARE YET TO BE DONE

Studies are yet to be done on the viability of sharing between any of the proposed FSS systems and existing and future FS systems in the 17.7-19.7 GHz band. Existing ITU-R findings⁶ suggest that sharing can only be viable if the number of FSS

³Teledesic Comments on Band Segmentation Rulemaking in IB Docket No. 97-95, RM-8811 (Released March 24, 1997).

⁴Amendment of the Commission's Rules to Relocate the DEMS from the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service, ET Docket no. 97-99, March 14, 1997 "DEMS Order".

⁵Recent actions of FCC and IRAC indicate no relief is in sight. Most 23 GHz systems will continue to be excluded from Conditional Licensing (FCC 47 C.F.R. § 101.31) and be subject to time consuming FCC/NTIA coordination and traditional FCC licensing process at Gettysburg.

⁶ITU-R Document 4-9S/TEMP/29 (Rev.1) indicates coordination distances of 53 to 107 miles between 19 GHz FS transmitters and FSS earth station receivers. See

earth stations is limited or if FSS earth stations are deployed away from urban areas.

Sharing studies will need time and require active participation by the 18 GHz FS community. An August 21, 1997 meeting convened by the Wireless Telecommunications Bureau with representatives of the 18 GHz terrestrial user community and further industry discussions on the present proceeding has made it clear to Harris that 18 GHz FS operators are just now becoming aware of the FSS proposals for that band. Meanwhile, indications are that most FSS operators are still far from being able to provide any service in the 18 GHz band.⁷

V. THE FS CAPABILITY TO USE THE BAND IN THE FUTURE MUST BE PROTECTED

As a primary service, FS should expect to be able to grow and normally expand in its 18 GHz bands. We strongly suggest that future FCC proceedings on the present matter specifically inquire into the rules and restrictions that should be placed upon FSS operations to protect future growth of the FS in the 18 GHz band. Such proceedings should be based on the results of in-depth technical studies.

VI. CONCLUSIONS

In conclusion:

- (a) The comments of the TIA Fixed Point-to-Point Communications Section are strongly supported.
- (b) Noting the difficulty of FSS/FS sharing, the blanket licensing concept, if adapted,

4-9S Chairman's report 4-9S/69 of June 23, 1997, Attachment 6, Part 2, Table 3.

⁷Operators slow to commit to building Ka-Band satellites". Communications Daily, Thursday, August 28, 1997, page 3.

would rapidly paralyze and prevent any future FS use of the 17.7-19.7 GHz band thus defeating the concept of co-primary sharing.

- (c) In-depth technical studies need to be completed prior to further Commission action in this proceeding.
- (d) The petition in this proceeding should be denied because of technical issues yet to be resolved.

Respectfully submitted

THE HARRIS CORPORATION-FARINON DIVISION

By: Leonard Robert Raish
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Its Attorney

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Date: September 24, 1997

CERTIFICATE OF SERVICE

I, Chellestine Johnson, a secretary in the law firm of Fletcher, Heald & Hildreth, P.L.C., do hereby certify that copies of the foregoing Comments were sent this 24th day of September, 1997, by first-class United States mail, postage prepaid, to:

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