

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

MAY 5 1997

In the Matter of)	
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Allocation and Designation of Spectrum)	IB Docket No. 97-95
for Fixed-Satellite Services in the)	
37.5-38.5 GHz, 40.5-41.5 GHz, and)	
48.2-50.2 GHz Frequency Bands; Allocation)	RM-8811
of Spectrum to Upgrade Fixed and Mobile)	
Allocations in the 40.5-42.5 GHz Frequency)	
Band, Allocation of Spectrum in the)	
46.9-47.0 GHz Frequency Band for Wireless)	
Services; and Allocation of Spectrum in the)	
37.0-38.0 GHz and 40.0-40.5 GHz Bands for)	
Government Operations.)	

To: The Commission

COMMENTS

In the above-captioned Notice of Proposed Rulemaking ("NPRM"), the Commission proposes several major changes to the millimeter wave bands above 30 GHz. Pursuant to Section 1.415 of the Commission's Rules,¹ Alcatel Network Systems, Inc. ("Alcatel"),² by its attorneys, hereby comments on the NPRM.

¹47 C.F.R. §1.415 (1997). The NPRM was published in the Federal Register on April 4, 1997. 62 FR 16129.

²Alcatel is a major microwave, crossconnect and lightwave manufacturer. It is a wholly-owned subsidiary of Alcatel Alsthom, one of the world's largest corporations (with annual sales in excess of \$30 billion) and the world's largest manufacturer and supplier of telecommunications equipment. In particular, Alcatel Alsthom is the world's largest independent manufacturer and supplier of microwave radios. Formerly Collins Radio and Rockwell International, Alcatel, with over \$1 billion in annual sales, is a world leader in manufacturing microwave and lightwave transmission systems. Alcatel's equipment is used for a wide range of services, including short, medium and long-haul voice, video and data transmission. Its microwave customers include all the Bell Operating Companies, most major independent telephone companies, cellular operators, power and other utility companies, oil companies, railroads, industrial companies, and state and local government agencies.

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In the NPRM, the Commission has developed a proposed overall policy and framework for services in the 36-51.4 GHz band. This plan is designed to accommodate the competing needs of terrestrial fixed point-to-point microwave service ("FS") users, Geostationary ("GSO") and non-Geostationary ("NGSO") Fixed-Satellite Service ("FSS") users, and Mobile-Satellite Service ("MSS") users. Under the proposal, the 36-51.4 GHz band is segmented, so that FS, FSS and MSS users can have sufficient available spectrum; co-primary band sharing is minimized; spectrum for GSO and NGSO FSS users is allocated; and non-Government and Government sharing is promoted.³

In comments filed contemporaneously herewith, the Fixed Point-to-Point Communications Section, Network Equipment Division, of the Telecommunications Industry Association ("TIA"), generally supports the Commission's decision to eliminate unnecessary or impractical band sharing and to develop a comprehensive plan for future use of the 36-51.4 GHz band. However, to minimize ongoing controversy over band sharing between FS and satellite users, and to avoid retarding development of the bands above 30 GHz, TIA proposes revising the Commission's segmentation plan to satisfy the equally compelling spectrum needs of FS and satellite users. Alcatel supports TIA's approach.

In the NPRM, the Commission proposes designating the non-contiguous 38.5-40.5 and 41.5-42.5 GHz bands for FS and the non-contiguous 37.5-38.5 and 40.5-41.5 GHz bands for FSS. Under TIA's compromise, the Commission instead would designate the 37-40 GHz band for FS and the 40.5-42.5 GHz band for FSS. Thus, FS and FSS users each would get adequate spectrum in bands which are contiguous and which are consistent with international allocations.

TIA's proposed band segmentation plan clearly is in the public interest. It affords adequate flexibility to accommodate the needs of FS and satellite users. Furthermore, the TIA plan is coherent

³NPRM at ¶ 1.

and has contiguous bands allocated for the same services, unlike the non-contiguous bands proposed in the NPRM.

TIA emphasizes that any decisions made by the Commission in the NPRM must protect FS users. Alcatel agrees. The fundamental role of FS, including the High Density Fixed Services ("HDFS")⁴ emerging in the bands above 30 GHz, must be recognized.⁵

Finally, as TIA demonstrates, any new allocations made in the NPRM need to be harmonized with international allocations. The band segmentation must be consistent with international and domestic needs. Harmonization with global allocations would increase export opportunities for domestic equipment manufacturers, reduce development and product costs, and encourage innovation.

⁴HDFS is a form of fixed point-to-point microwave service operating at high frequencies and short paths. It is differentiated from more conventional fixed terrestrial service by its large scale deployment, utilization of wide bandwidth, and use of many different network topologies and path geometries.

⁵Given the short-haul, wideband characteristics of the 36-51.4 GHz band, this spectrum is useful for a wide range of wireless network applications. Moreover, these frequencies support the other telecommunications services that private and common carrier FS users provide, such as emergency, public health and safety services, and they support services for local exchange carriers, cellular licensees, utilities, railroads, petroleum companies, and financial institutions. Finally, the short-haul FS frequencies in the 36-51.4 GHz band also are used for private LAN-to-LAN interconnection, surveillance, and other related applications. These needs are demonstrated by the number of businesses and governmental entities already employing these frequencies for such services.

CONCLUSION

The Commission's band segmentation proposals in the NPRM are a good first step towards ensuring that FS and satellite users will be able to continue serving the public. Certain refinements to this proposal, as set forth in TIA's comments, however, must be integrated into this band plan.

Respectfully submitted,

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