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BEFORE THE

**Federal Communications Commission**

WASHINGTON, D.C. 20554

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JUN 6 1997

Federal Communications Commission  
Office of Secretary

In the Matter of )  
)  
Amendment of Section 2.106 of the )  
Commission's Rules to Allocate )  
Spectrum at 2 GHz for Use )  
by the Mobile-Satellite Service )

ET Docket No. 95-18  
RM-7927  
PP-28

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**COMMENTS ON FURTHER NOTICE  
OF PROPOSED RULEMAKING**

Pursuant to Section 1.405 of the Commission's rules, 47 C.F.R. § 1.405, the Fixed Point-to-Point Communications Section, Network Equipment Division of the Telecommunications Industry Association ("TIA")<sup>1</sup>, submits the comments below on the Further Notice of Proposed Rulemaking ("Further Notice") in this proceeding.

The Commission proposes to allocate 70 megahertz of spectrum at 1990-2025 MHz and 2165-2200 MHz to the Mobile-Satellite Service (MSS), effective January 1, 2000. The Commission also proposes to relocate BAS, CARS and LTTS (designated in this proceeding as "BAS") currently at 1990-2025 MHz to the 2110-2145 MHz band. Currently Common Carrier (formerly Part 21) FS users occupy the 2110-2130 and 2160-2180 MHz bands. Likewise, currently Private Fixed (Formerly Part 94) FS users occupy the 2130-2150 and 2180-2200 MHz bands. The FS bands are paired go/return duplex subbands. Impact to one subband affects the paired channel in the other

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<sup>1</sup>TIA is the principal industry association representing fixed point-to-point microwave radio manufacturers. TIA members serve, among others, companies, including telephone carriers, utilities, railroads, state and local governments, and cellular carriers, licensed by the Commission to use private and common carrier bands for provision of important and essential telecommunications services.

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subband.

This proceeding affects both Common Carrier and Private Fixed FS users. The Commission proposes to relocate the existing FS licenses to bands above 5 GHz in accordance with existing Emerging Technologies rules. According to these rules, the emerging technology service provider must guarantee payment of all relocation expenses, build the new microwave facilities at the relocation frequencies, and demonstrate that the new facilities are comparable to the relocated facilities.<sup>2</sup> TIA strongly supports this position.

In its First Report and Order accompanying the Further Notice wherein reference is made by the Commission to “MSS and FS industry groups are currently working under the auspices of TIA to resolve differences over sharing models and adopt a set of mutually agreed sharing criteria”.<sup>3</sup> Since medium to long term sharing is unrealistic,<sup>4</sup> TIA urges the Commission to give the MSS/FS industry group (known as Joint Working Group TR.14.11/34.2) ample opportunity to discuss means to avoid disruptive or premature relocation of on-going operational terrestrial fixed services as well as to protect them from harmful interference. In the Further Notice the Commission notes that “The MSS and FS industries are currently developing interference standards under

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<sup>2</sup>See Emerging Technologies, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rec 6886 at P21 and First Report and Order and Further Notice of Proposed Rule Making, in this proceeding (ET Doc 95-18 at p.6).

<sup>3</sup>See First Report and Order and Further Notice at page 19, para. 42.

<sup>4</sup>IBID pages 16 and 17, paras. 36-38.

the good offices of TIA. We propose to adopt those standards, or their successors, in determining whether our sunset rules would apply to a given FS incumbent.”<sup>5</sup> It should be noted that the TIA Joint Working Group (TR 14.11/34.2) is working on interference criteria, not sharing criteria. Sharing can only be achieved if the interference criteria are met. Current Part 25 interference criteria for FS systems is inappropriate because it is based on the geostationary satellite service. TIA applauds this approach and urges the Commission to continue to rely on the MSS/FS Working Group to resolve the compatibility and sharing situations described in the Further Notice. As seen by TIA, the parties involved are in the best position to make the necessary recommendations on how to share spectrum.

Responding to the specific point raised in Paragraph 77 of the Further Notice it is suggested the sunset date should be at least ten years after the beginning of the voluntary negotiation period for relocation. The 2.1 GHz band is “home” to a significant quantity of new microwave digital radios (over 1400 radio T/Rs were sold for use in the 2 GHz bands in the U.S. during the single year of 1996 for cell site interconnects). Traditionally, 2 GHz radios are heavily used by Public Utility operators (i.e., railroads, pipelines, electric companies) looking for the robust propagation characteristics typical of lower microwave frequency bands.

The Commission is urged also to take into account that the frequency bands immediately above 5 GHz are already heavily congested by existing terrestrial fixed

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<sup>5</sup>See Further Notice at page 33, para. 77.

operations in or near most metropolitan areas in the U.S. The 5925-6425 MHz band is allocated in addition for the Fixed Satellite Service (FSS) (earth-to-space).<sup>6</sup> The congestion could become even more severe as the 6425-6700 MHz band has also been allocated for FSS (earth-to-space) and the 6700-7075 MHz band has been allocated for FSS (space-to-earth).<sup>7</sup> Further, there is also a possibility that the Maritime Mobile Satellite Service (MMSS) may also be superimposed upon these already congested bands.<sup>8</sup>

The Commission observed the "BAS and FS generally cannot share spectrum". The Commission seeks comment on whether or not it is necessary to clear completely fixed services from the 2110-2130 before relocating BAS operation can begin.<sup>9</sup> Radio units in the BAS band are deployed to different locations for short periods of time on a unpredictable manner. BAS radio equipment is build for rapid mobile deployment and temporary installation. By necessity, their transmitter stability, emission characteristics and antenna patters are incompatible with FS operations. Due to their mobile nature, if problems develop, finding the offending transmitter will be difficult or impossible.

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<sup>6</sup>See FCC Rules at Section 25.202.

<sup>7</sup>See ITU Radio Regulation, International Table of Frequency Allocations (Article S.5). Also see Annex 2 to Resolution 46 annexed to the ITU Radio Regulations. Note the Commission has not yet undertaken rulemaking action to amend Part 25 of its Rules to reflect the ITU allocations for FSS in the 6425-7075 MHz band, but such action could be imminent.

<sup>8</sup>See proposal by Maritime Telecommunications Network Co. to FCC IWG-4 in connection with planning for ITU WRC-97 and WRC-99.

<sup>9</sup>See First Report and Order and Further Notice of Proposed Rulemaking in this proceeding (ET Doc 95-18 at page 28, para. 69).

However, the probability of interference to existing primary facilities is a certainty. For these reasons, TIA strongly recommends the FS users in the 2110-2145 frequency range (plus 5 MHz of guard band) and their paired channels in the 2160-2180 MHz and 2180-2200 MHz bands be evacuated prior to the introduction of BAS operations. The Commission proposes that “. . . All activities necessary for placing the new facilities or equipment into operation, including clearing incumbents from the 2110-2130 MHz band into which BAS will be relocated, engineering, and frequency coordination, would be completed before relocation. . . . All relocation expenses would be paid entirely by the displacing MSS provider.”<sup>10</sup> TIA concurs with this position.

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<sup>10</sup>See First Report and Order and Further Notice of Proposed Rule Making, ET Doc 95-18 at page 30, para. 70.

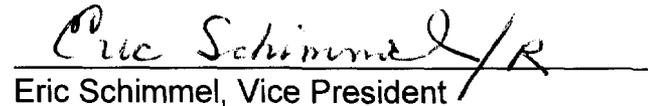
The Commission is urged to take the foregoing comments into account as it goes forward in this proceeding.

Respectfully submitted

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## CERTIFICATE OF SERVICE

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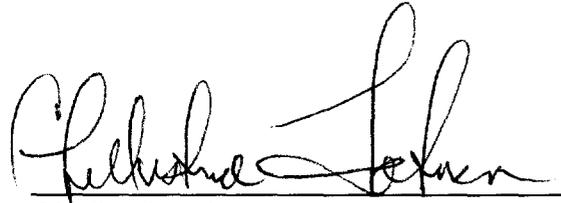
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