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BEFORE THE

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Federal Communications Commission

WASHINGTON, D.C. 20554

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JUL 22 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Amendment of Section 2.106 of the)	ET Docket No. 95-18
Commission's Rules to Allocate)	RM-7927
Spectrum at 2 GHz for Use by the)	
Mobile-Satellite Service)	

To: The Commission

**REPLY COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION FIXED
POINT-TO-POINT COMMUNICATIONS SECTION**

In the above-captioned First Report and Order and Further Notice of Proposed Rulemaking ("Further Notice"), the Commission allocated 70 MHz in the 1990-2025 MHz and 2165-2200 MHz bands to the Mobile-Satellite Service ("MSS"), effective January 1, 2000. The Telecommunications Industry Association Fixed Point-to-Point Communications Section ("TIA")¹ hereby submits the Reply Comments below on the Commission's Further Notice of Proposed Rule Making in the above-captioned proceeding.

To implement this MSS allocation, FS users would have to be relocated from the 2110-2130 MHz and 2165-2200 MHz bands unless they could share those bands with Broadcast Auxiliary Service ("BAS") or MSS users, respectively. In the Further Notice, the Commission sought public

¹TIA 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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comment on its proposals to follow its Emerging Technologies policies for the relocation of FS incumbents from the 2110-2130 MHz and the 2165-2200 MHz bands and in using the same sunset period and good faith guidelines for such relocation as those established in the Microwave Cost Sharing proceeding. The Commission also noted that the MSS and FS industries, through TIA, are attempting to develop interference standards under the offices of TIA. Additionally, the Commission, in the Further Notice, sought comments on procedures for relocation of FS licensees in the paired 2130-2150 MHz and 2180-2200 MHz bands.

I. Summary and Introduction

TIA does not concur with the interpretation expressed by the MSS Coalition regarding the work of the Joint Working Group sponsored by the TIA (TR14.11/TR 34.2) (“JWG”). According to the MSS Coalition, the work of the TIA Joint Working Group on 2.1 GHz FS/FSS matters will produce a sharing process that will result in a very limited number of actual interference cases between FS and MSS at 2.1 GHz. The MSS Coalition also finds more in common between the present 2.1 GHz situation and the 30-year-old FS/low density GSO FSS sharing arrangement² than with the recent introduction of the competing PCS service in the 2 GHz band.

As noted in page 3 of the TIA Comments in this proceeding, the JWG is working on interference criteria, not sharing criteria. Sharing only can be achieved if the interference criteria are met. Current interference criteria used in the U.S. are based on low density, geo-stationary fixed satellite systems. Any extrapolation from these criteria to a standard for protecting FS from mobile, non-geostationary global satellite systems is meaningless and without support.

²See Comments by MSS Coalition at page 3; also noted that the sharing arrangement eventually resulted in the impossibility of deploying new FS systems.

The main process contemplated at 2.1 GHz is simple and was expressed long ago by the Commission in its historic ET Docket No. 92-9 proceeding. Its relocation rules automatically are triggered when the agreed-upon criteria show that a given FS link cannot share with the emerging service entering its frequency. The ensuing relocation will require compensation unless the sunset period has been reached. The record supports continuing this approach with respect to MSS-induced FS relocation.

II. Temporary Sharing Has Not Yet Been Identified by the JWG as a Viable Scenario at 2.1 GHz and Sharing/Coordination Mechanisms Do Not Exist

The MSS Coalition, in its comments, attempts to establish that sharing and frequency coordination processes have been identified and that corresponding mechanisms exist for a partial coexistence of FS and MSS at 2.1 GHz.³ The MSS Coalition has it wrong.

The facts as seen by TIA are that:

- The JWG has not yet identified or proven any sharing or frequency coordination process at this point. The group just completed establishing FS systems interference thresholds but is still far from having an agreed-upon interference calculation algorithm.
- The JWG has identified that sharing ceases to be a possibility as soon as a certain level is reached in the MSS use of the band. With many MSS providers now applying for frequencies in the 2.1 GHz band, that level of loading will happen sooner rather than later.
- The JWG is breaking new ground. In the present context, the U.S. has no existing sharing or coordination mechanisms other than for sharing of FS systems with geostationary FSS.

The MSS Coalition goes through extraordinary simplifications when they suggest that the 30-year-old sharing arrangements between FS and FSS in the 4 and 6 GHz bands can help guide the

³See MSS Coalition Comments at pages 5, 10 and 11.

FS/MSS situation at 2.1 GHz. The Commission should note that these long-ago-established FS/FSS arrangements and models no longer are adequate even to help solve the sharing of FS with the new generations of FSS systems proposed in higher frequency bands.⁴

The 4/6 GHz procedures referred to by the MSS Coalition were based upon FS systems sharing with low density, GSO FSS. At 2.1 GHz, a very busy FS band⁵ is to be the home to a series of mobile, NGSO global satellite systems. This is a totally different scenario. Specifically, MSS earth stations are mobile and their satellites are all over the sky, transmitting at levels that are about 20 dB higher than the 4 GHz GSO FSS satellite transmitters.

Even with the much less complex sharing situation occurring at 4/6 GHz, the 4 GHz band has become unavailable to FS. The 6 GHz band is still usable for FS only because it has been limited to fixed GSO uplinks. If anything, the 4/6 GHz experience proves that the odds of FS and MSS sharing the 2.1 GHz bands are very low.

Assuming that the JWG can identify cases where sharing is possible, all parties agree that this capability will be time-dependent. There will be a need to relocate most FS systems as soon as the MSS systems will carry a significant amount of traffic.⁶ It is uncertain when this critical loading level will be reached. With many MSS providers now applying for frequencies in the 2.1 GHz band,

⁴See Section 7.5 of CPM Report on technical, operational and regulatory; procedural matters to be considered by the 1997 World Radiocommunication Conference, May 1997; See also FCC ET Docket 97-99 on relocation of 18 GHz FS systems to accommodate FSS at 18 GHz.

⁵For many years preceding the release and resolution of ET Docket 92-9, the 2.1 GHz band was the only narrow band available to U.S. cellular companies for reasonable hop length applications.

⁶MSS Coalition, Further Comments at 10.

this level of loading should happen sooner rather than later.

III. The Fact that Some FS Links Temporarily Might Be Able to Share the 2.1 GHz Band with MSS Has No Bearing on the FCC's Relocation Policy

On page 13 of its Comments, the MSS Coalition suggests that their compensation obligation is incompatible with its obligation to protect FS systems from interference and to evaluate all interference cases according to the criteria that will be adopted by all at the JWG. Inexplicably, the MSS Coalition claims that "reimbursed relocation" would prevent cooperation from FS incumbents in trying to evaluate an interference situation based on the pre-set JWG criteria. The MSS Coalition's logic is highly questionable. Why would FS users willfully misapply criteria that is clear cut and agreed to by all parties as being needed? If no interference is shown using the criteria, the FS user will feel reassured, network integrity will be guaranteed, and no reimbursement will be required. If the criteria indicate interference, the relocation procedures will be warranted, unless both parties can agree on a temporary "fix" that could postpone relocation to a later date while still ensuring that the incumbent will be treated fairly.

The fine-tuned 2 GHz PCS relocation process involving FS and emerging technology licensees illustrates perfectly how temporary band sharing, relocation and compensation can be interrelated smoothly. Given its inherent flexibility, the PCS relocation process has shown great diversity in its implementation across the U.S. For example, relocations were made on a local or a national scale, based on single links or on entire systems -- a reality which is quite different from the narrow definition presented in the MSS Coalition Comments (see page 15).

IV. FS Incumbents Need Reasonable Notice

Unlike the MSS Coalition claim on page 7 of their Comments, the 2.1 GHz operators have

not been “on notice since 1992 that they would eventually have to vacate the radio spectrum that has been allocated to MSS....”

As late as 1992, the Commission was still contemplating ongoing sharing between PCS and incumbent FS licensees in the 2 GHz band.⁷ Complete relocation had never been suggested in any way to the FS users of the 2.1 GHz band. In fact, MSS had not even been identified as the technology earmarked to come into that terrestrial band.

The First Report and Order and Third NPRM of Docket 92-9⁸ precisely illustrates the uncertainty under which the 2.1 GHz incumbents had to live for several years:

“..we are allocating the 1850-1990, 2110-2150 and 2160-2200 MHz bands for development and implementation of emerging technologies on a shared basis with [FS]. The use of these allocations will be developed in on-going and future proceedings that will address particular emerging technologies services.”
(paragraph 21)

“[FCC does] not believe it necessary to identify the exact services it would be permitting to operate in the emerging technologies bands prior to making a general spectrum allocation. ...We do not want to predefine all services and specific technologies that might operate in these bands...” (paragraph 39)

It is only recently that 2.1 GHz incumbents have learned with a certainty that MSS will be allocated in their band and that prospects of band sharing are gloomy. The Commission’s First Report and Order in ET Docket No. 95-18, released on March 14, 1997, for the first time allocates “70 MHz of spectrum at 1990-2025 MHz and 2165-2200 MHz to the MSS effective January 1, 2000.”

⁷See 5/92 FCC Public Notice.

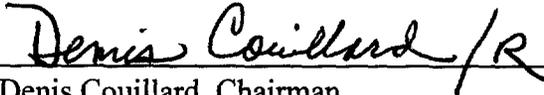
⁸7 FCC Rcd 6886 (1992).

Based on this and on the significant quantity of recent radios in the band, TIA proposed the sunset date to be ten years after the beginning of the voluntary negotiation period for relocation.⁹

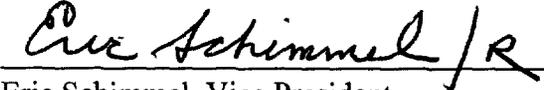
The Commission is urged to take the foregoing Reply Comments into account as it goes forward in this proceeding.

Respectfully submitted,

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⁹TIA Fixed Point-to-Point Section June 6, 1997 Comments to ET Docket 95-18, page 3.

CERTIFICATE OF SERVICE

I, Eric Schimmel, of TIA, hereby certify that copies of the foregoing Reply
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