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December 17, 1999

**VIA ELECTRONIC FILING**

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

Re: Written Ex Parte Communication in ET Docket No. 98-206  
RM-9147 and RM-9245

Dear Ms. Salas:

The Association of American Railroads ("AAR"), by its undersigned counsel, hereby submits, for inclusion in the record in the above-referenced proceeding (ET Docket No. 98-206), its response to the Commission's *Public Notice* DA 99-2733, released December 6, 1999,<sup>1</sup> in which the Commission sought comments on the results from the Conference Preparatory Meeting ("CPM") held in preparation for the World Radiocommunications Conference scheduled for next year ("WRC-2000"), regarding spectrum sharing issues relating to NGSO-FSS satellite systems.

AAR's member railroads use communications facilities operating in the 10.7-11.7 GHz band for purposes of fixed point-to-point microwave communications. These Fixed Service ("FS") links are integral parts of a nationwide communications system owned and maintained by the railroad industry for the safe and efficient operation and control of the nation's freight and passenger rail networks.

AAR wishes to comment on Section 3.1.4.1.1 of Chapter 3 of the CPM Report, entitled "Protection of Fixed-Service Systems from Interference Caused by Non-GSO FSS Space Stations in Bands Covered by Article S21." AAR assumes that WRC-2000 will adopt the recommendations of the CPM Report, including the pfd limits referenced

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<sup>1</sup> Vol. 64 Federal Register No. 240 at 70028, December 15, 1999.

therein, and that the Commission eventually will be called upon to apply and implement the recommendations of WRC-2000.

AAR is satisfied, in general, with the outcome of the CPM regarding protection of FS systems. However, AAR wishes to point out that the CPM's results on this subject were limited insofar as the conclusions are applicable only to **most**, but not all, FS systems. Accordingly, AAR urges the Commission to exercise caution in any implementation and application of the CPM and WRC-2000 results regarding protection of existing FS facilities operating in the 10.7-11.7 GHz band.

Specifically, the Commission must bear in mind that the adequacy of the pfd limits for protecting FS receivers was assessed by Joint Task Group ("JTG") 4-9-11 (and adopted by the CPM) on the basis of FS characteristics that are "**representative** of a **majority** of links"<sup>2</sup> but which are **not** representative of **all** such links. For example, the typical elevation angles of the FS receivers used for purposes of evaluating the adequacy of the pfd limits were 0 and 0.2 degrees.<sup>3</sup> However, many existing FS installations in the U.S. operate at elevation angles that greatly exceed the "typical" elevation angles that were used for purposes of the JTG 4-9-11 assessments.

In this regard, the Commission's attention is directed to the *ex parte* filing in this proceeding on October 28, 1999, by the Fixed Wireless Communications Coalition (of which AAR is a member), which included data showing that 3.2 percent of receivers and transmitters in this band in the U.S. operate at elevation angles greater than 5 degrees. Because of the orbital geometry and beam direction of an NGSO-FSS satellite, the energy from the satellite is more "visible" to an FS receiver whose "look angle" is higher. Thus, an FS receiver operating at an elevation angle greater than those used in the JTG-4-9-11<sup>4</sup> analyses would be more susceptible to downlink interference from an NGSO-FSS satellite than the "typical" or "representative" FS receiver used in the analyses.

In view of the foregoing, AAR urges the Commission to require all NGSO-FSS applicants to make an affirmative showing, prior to receiving any authorization to operate in the U.S., that their pfd levels are sufficiently low as to protect **all** existing FS facilities from interference; furthermore, in the event an FS receiver is not sufficiently protected by the pfd limits (because of operating parameters that are not "typical" or

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<sup>2</sup> CPM Report at Section 3.1.4.1.1(a), emphasis added; see also Document JTG 4-9-11/236 at Table 1.

<sup>3</sup> *Id.*

<sup>4</sup> Elevation angles of FS stations in the U.S. can be derived from information provided by FS licensees to frequency coordinators, as required by the Commission's rules.

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“representative”), then the NGSO-FSS applicant should be required to take appropriate remedial steps to eliminate the interference potential, including payment for the relocation of the FS facility to an alternate frequency band.

Respectfully submitted,

/s/

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American Railroads

cc: Julius Knapp  
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