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April 30, 2003 Federal Communications Commission
Office of Secretary

HAND DELIVERED

Marlene H. Dortch, Secretary
Federal Communications Commission
Room TW-A325
445 12th Street, S.W.
Washington, DC 20554

Re: MB Docket No: 03-50
Notice of Proposed Rulemaking
Amendment of Part 76 of the Commission's
Rules to Extend Interference Protection to
the Marine and Aeronautical Distress and
Safety Frequency 406.025 MHz

Dear Ms. Dortch:

Pursuant to Section 1.415 of the Commission's Rules, transmitted herewith on behalf of RCN Telecom Services, Inc. ("RCN") are of the Comments of RCN in the above-referenced docketed proceeding ("Comments"). Pursuant to Section 1.419(b) of the Commission's Rules, one (1) original paper and nine (9) paper copies of the Comments are being filed with this office.

Should any questions arise with respect to these Comments, please communicate directly with this office.

Respectfully submitted,


Richard S. Becker
Christopher A. Fedeli

Attorneys for RCN Telecom
Services, Inc.

Enclosures

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

Federal Communications Commission
Office of Secretary

In the Matter of)
)
Amendment of Part 76 of the)
Commission's Rules to Extend)
Interference Protection to the)
Marine and Aeronautical Distress)
and Safety Frequency 406.025 MHz)
)
)

MB Docket No: 03-50

COMMENTS OF RCN TELECOM SERVICES, INC.

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Attorneys for RCN Telecom Services, Inc.

Date: April 30, 2003

I. Introduction

RCN Telecom Services, Inc. and its affiliates ("RCN"), the nation's largest cable overbuilder with systems in seven of the ten largest U.S. markets, operates fiber optic and coaxial cable communications systems which deliver broadband services, including Multichannel Video Program Distribution ("MVPD") services, to the public. By the instant rulemaking, the Commission proposes to amend Section 76.616 of its Rules to prohibit MVPD service providers like RCN from making transmissions capable of delivering peak power levels equal to or greater than 10 microwatts within 100 kHz of the international digital emergency distress frequency 406.025 MHz over their closed communications systems.¹

RCN respectfully submits that this proposed Rule change is unnecessary for the protection of the international digital emergency distress frequency, as closed communications systems, such as RCN's and other cable operators' generally, do not pose a significant risk of interference to over the air signals. In addition, RCN believes that the technical specifications of the proposed Rule are more appropriately applied to analog cable transmissions as opposed to digital ones. Accordingly, RCN respectfully submits that, even if the proposed Rule is deemed

¹ *Amendment of Part 76 of the Commission's Rules to Extend Interference Protection to the Marine and Aeronautical Distress and Safety Frequency 406.025 MHz, Notice of Proposed Rulemaking*, MB Docket No: 03-50, 68 FR 15419, ¶6 (2003) ("NPRM").

necessary, the requirements should be amended by the Commission to more closely account for the significant technical differences between analog and digital cable transmissions, particularly in light of the fact that cable operators like RCN are in the process of transitioning a substantial portion of their system's operations to digital.

II. RCN Operates A Closed Communications System Which Poses No Significant Risk of Interference To Aeronautical Signals

RCN's MVPD networks carry signals over a closed system of fiber optic and coaxial cable and do not utilize over the air transmissions except as licensed by the Commission. Moreover, RCN's systems are already carefully monitored for signal leakage in accordance with the relevant FCC Rules. RCN believes that its systems, and those of cable operators generally, are not susceptible to signal leakage sufficient to cause interference to aeronautical frequencies, and should, therefore, not be required to now adopt measures to protect new additional frequencies such as 406.025 MHz against hypothetical interference to over the air transmissions.

RCN submits that improved technology and advances in the operating procedures of the cable industry in compliance with the Commission's existing aeronautical frequency protection Rules change the criteria for evaluating what kinds of cable transmissions can reasonably be considered to be possible causes of

harmful interference since these Rules were first implemented.² In this regard, the strides made towards eliminating signal leakage by the cable industry generally, and by broadband service providers such as RCN in particular, deserve special consideration by the Commission in this proceeding.³

III. The Proposed Limits on Peak Power Levels Are Too Restrictive When Applied To Digital Cable Transmissions

The Commission's proposed Rule prohibiting transmissions of peak power levels equal to or greater than 10 microwatts within 100 kHz of 406.025 MHz is similar to other aeronautical restrictions which have traditionally been applied to analog cable transmissions. However, as RCN and other cable operators transition their systems to exclusively digital transmissions over all available channels, the differences between analog and digital transmissions over cable systems and the potential problems the proposed Rule may cause for digital transmissions must be addressed.

² See *Amendment of Part 76 of the Commission's Rules to add Frequency channelling requirements and restrictions and to require monitoring for signal leakage from cable television systems, Report and Order*, Docket No. 21006, 65 FCC 2nd 813, ¶3 (1977).

³ As the Commission earlier observed when implementing certain aeronautical frequency protection Rules, the Rules were only intended to remain in effect until "the cable industry can fully bring leakage problems under control". See *Amendment of Part 76 of the Commission's Rules to Add Frequency Channelling Requirements and Restrictions, and to Require Monitoring for Signal Leakage from Cable Television Systems, Memorandum Opinion and Order*, Docket No. 21006, 101 FCC 2nd 118, ¶8 (1985) ("Signal Leakage Order").

While analog signals over cable systems reach their highest power level at a particular frequency within an allocated band, digital transmissions produce signals that reach equal power levels for brief periods across all frequencies in an allocated band. As a result, while analog signals can be offset from aeronautical frequencies to avoid transmissions of a certain power near the specified frequency within a band, the nature of digital signals will not allow them to be offset in this way. This difference between digital and analog transmission properties will make it far more difficult and burdensome for cable operators to comply with the Commission's proposed power level limitations near the frequency 406.025 MHz once they commence using digital transmissions across all channels. Such digital transmissions cannot be offset from a particular frequency in such a way as to avoid both reaching the specified peak power levels near the designated channel while simultaneously delivering a higher power level on another portion of the same band.

Currently, RCN utilizes both digital and analog transmissions on its systems. Given RCN's and the cable industry's transition away from analog and to digital cable systems, any proposed additional rules for the protection of over the air transmissions against cable system signal leakage interference should, at a minimum, provide separate standards to accommodate the unique technical properties of digital.

Accordingly, RCN respectfully requests that the Commission

consider adopting a separate standard for digital cable transmissions across the frequency 406.025 MHz. Restrictions should be eased for digital cable transmissions by providing higher peak power limits for digital operations near protected frequencies, or by limiting only average peak power levels over specified time periods for digital transmissions near the emergency distress frequencies, instead of applying the same blanket prohibition on delivery of any specified peak power levels that apply to analog transmissions.⁴ In addition, instead of using a wide prohibition of all transmissions within 100 kHz of 406.025 MHz as proposed, the Commission in this instance should use a defined measurement bandwidth which corresponds to the actual receiving bandwidth used for emergency and distress signals. However, RCN believes that the proposed Rule change as outlined in the NPRM will be unduly restrictive on future digital cable operations.

Furthermore, the creation of a separate aeronautical frequency protection standard specifically for digital cable transmissions is also appropriate to the extent that cable operators deploying digital signals near 406.025 MHz will be using modern and advanced equipment, further reducing any potential for interference from signal leakage. In addition, such a separate standard would advance the public interest goal of accelerating the transition to digital television by easing the burden of compliance on cable

⁴ See *Signal Leakage Order*, ¶30 (The Commission, responding to a request from the NCTA, agreed that average peak power over a specified time period was a better measure of potential interference than peak power and so modified its aeronautical frequency protection Rules).

operators making the transition to digital systems. As the Commission has observed, the transition of the nation's cable systems from analog to digital will have the effect of accelerating the digital television transition overall, which will ultimately deliver enormous benefits to all consumers of media and telecommunications services.⁵

⁵ See *Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, Second Report and Order and Second Memorandum Opinion and Order*, MM Docket No. 00-39, 17 FCC Rcd 15978, 15994-15995 (2002) (The Commission notes the importance of the deployment of digital cable set top boxes in order to advance Chairman Powell's plan to accelerate the DTV transition).

IV. Conclusion

For all the foregoing reasons, RCN respectfully submits that the proposed Rule is unnecessary to protect the international digital emergency distress frequency of 406.025 MHz. However, if the Commission does find the proposed Rule to be necessary in the public interest, RCN respectfully requests that a separate standard be introduced for digital cable transmissions, so as to prevent the unnecessary burden of forcing digital cable operators to comply with an aeronautical frequency protection standard for limiting cable transmissions that was originally conceived by the Commission in the 1970s, and was intended to apply only to analog cable systems.

Respectfully submitted,



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