

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of)
)
Amendment of Part 97 of the)
Commission's Amateur Radio Service) **RM-11708**
Rules to Permit Greater Flexibility)
In Digital Data Communications)

To: The Chief, Wireless Telecommunications Bureau

COMMENTS ON PETITION FOR RULEMAKING

BACKGROUND AND INTRODUCTION

This station is very active on the amateur bands utilizing all modes of operation and specializing in digital communications. This station is also active in DHS OIC SHARES a government service. The station is operated 24 hours per day 365 days a year in digital modes on VHF and HF frequencies.

I formerly served on the Amateur Radio Digital Committee a national committee formed in 1990 to represent views of amateurs across the nation on digital matters. I also have served for many years as President of a Digital Radio group in Eastern Washington.

I have written articles, reviews, as well as other content for many Amateur Radio Journals in the last 25 years. These include CQ Magazine, National Contest Journal, Pactor News, QST, RTTY Digital Journal as well as several amateur radio industry articles. These article range in score from Digital Contest results to Digital Hardware and Software reviews. I was the Digital Journal's CLOVER columnist. CLOVER was and is a leading edge commercial digital protocol created by HAL Communications.

I was the founding Vice President of the American Digital Radio Society and served on its board of directors for several years. I am a member of the Amateur Radio Relay League the petitioner.

Professionally, from 1980 until my retirement was involved in the computer industry and was the CIO for a company with operations in the 18 western states as well as much of the Pacific. Developed software products for this company. Created their network systems, web systems and all information services as well as telecommunications systems during my business career.

COMMENTS

1. In this Petition For Rulemaking RM-11708 (PFR), you are being asked to initiate a rulemaking aimed at relieving the amateur radio service of some outdated rules that the petitioner claim of outdated restrictions that hamper or preclude state-of-the-art experimentation. This symbol rate limitation and change thereto appears to be valid and timely. I would agree with this change.
2. Having a bandwidth limitation at HF also seems to be valid and timely, however, the petitioner has not put forth any arguments that would lend credence to its proposal that *establishing a bandwidth limit of 2.8 kilohertz for amateur data emissions below 29.7 MHz* has technical merit.

The argument that channels in the 5.4 MHz area that the NTIA and the commission allowed amateurs access is some sort of precedence. It is not. These are very special channels that are not the normal practice in any of the rest of the amateur radio frequency bands. The petitioner states, “the only emission permitted on those channels was Single-Sideband voice (SSB), which has a bandwidth of 2.8 kilohertz.” This was of course later modified to include digital and SSB.

Practice in the digital portions of the amateur radio service currently range from very narrow (CW) to FSK 500 hertz modes. It also includes wide modes like Pactor III that is 2.2 KHz mode. Many amateurs wish to utilize the mode Pactor IV. This mode has a bandwidth of 2.4 kilohertz but a symbol rate not yet permitted by the rules. These new commercial modes all have one important distinction in that they fit into the bandwidth of the normal radio transmitter.

It could be argued that a limitation of 2.4 KHz would permit all old modes, allow several new modes not presently permitted and allow experimentation. I would concur and find no problem with a 2.4 KHz limitation. The petitioner mentions STANAG in the PFR and I presently am using this mode on government frequencies and it fits fine in 2.4 KHz. This is a soundcard implementation and is an example of what is currently not allowed. Amateur operators tend to use soundcard solutions on nearly all of the experimentation currently being conducted. Most of this is very narrow and not wide band.

3. The “PFR” that you are considering has one basic flaw. It does not go far enough.¹ The other basic tenant of amateur radio is also found in the rules. This petition addresses one

purpose of the amateur radio service – advancement of the state of the art, while ignoring one of the other main purposes – value to the public as a voluntary non-commercial service, particularly with respect to proving emergency communications.² This is because as the opening of the 5.4 MHz frequencies put forth a new basic tenant that of having SSB voice and digital stations having the ability to use the both modes on a single frequency at the same time. This is fundamental to all other radio services and should be a part of this petition for rulemaking.

4. I would suggest that the present limitation of digital modes to just portions of the amateur band(s) is the basic problem in achieving both of the fundamental purposes of the amateur radio service. The differences between narrow mode digital and wide mode digital can easily be alleviated using band planning if full use of our frequencies is permitted. The commission should include the deletion of all of these antiquated provisions and allow digital in all portions of all amateur frequency bands to 29.7 as they are currently above 29.7.³
5. The change I would propose would be to the petitioner’s appendix 97.305 to permit the use of Emission types RTTY and data in all bands and frequencies authorized Phone and image. This would enhance the emergency communicators use of all modes and add the flexibility of command and control via voice that is found in all other radio services as well as in the amateur service above 29.7 MHz. This would in addition give all amateurs the ability to experiment with modern high frequency (HF) protocols. If the commission wants to permit greater flexibility in Digital Data communications then it is high time to simplify the rules and permit data everywhere that CW is permitted along with changing the symbol rate and implementing a 2.4 KHz bandwidth for data.

1 The Bureaus issued a Public Notice seeking comments on whether there were any such impediments, specifically asking if any Commission rules create such impediments and what actions could be taken to minimize the effect of those rules. See Commission Seeks Comment on Emergency Communications by Amateur Radio and Impediments to Amateur Radio Communications, Public Notice, GN Docket No. 12-91, 27 FCC Rcd 3200 (WTB/PSHSB 2012).

2 FCC DA 13-1918. Order dismissing RM-11699

3 ARRL Appendix PFR RM-11708 changes to 97.305 (c)

Respectfully submitted,

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