

Comments Regarding RM-11708 Petition
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While in general I applaud the removal of symbol rate as a determiner of allowed modulation schemes, it is what I am sure are the unintended consequences of approving this petition that causes me to ***ask for its dismissal***. They are:

1. *Interference with users of existing narrow band digital modulation schemes.* With up to 2.8 khz of occupied bandwidth (plus any increase due to modulation schemes that do not require the netting of frequency used by both ends of a link) it would be easy to occupy the entire allowed digital subband with a very few stations. This is especially true on 30M (10 khz allowed), and 12/17M with only 5 Khz allowed. Even on the remaining bands it would be possible to dominate the allowed sub bands to the detriment of users of existing modulation schemes. It is especially difficult to determine interference to many of the narrow band modulation signals as they can appear to be unmodulated carriers. In addition many of the users of these narrow band emissions pride themselves on using minimal power to achieve communications, and thus can be easily overwhelmed.
2. *Loss of innovation.* Some of the most exciting, and popular digital modulation schemes have resulted from working to see how efficiently bandwidth can be used for the 'keyboard to keyboard' communications that are the heart of ham radio. JT65, PSK31, PSK63, JT9 are a few examples of innovative use of technology to develop and use new efficient modulation schemes. Their popularity is proof of their effectiveness. On the other hand the petition appears to be focused on merely gaining approval for use of an existing high speed commercial modulation scheme, PACTOR IV.
3. *Expansion of Unattended Digital Gateways* The idea that the user of an automated gateway becomes the control operator and is responsible for avoiding interference to existing communications is inadequate. Again it is difficult even for a considerate wide band data user to avoid interfering with users of existing narrow band modulation schemes. This petition as a consequence will increase the number of gateways and the resulting confusion and interference.
4. *Competition with Commercial Services* The ability to send volumes of data on the amateur HF bands to internet portals is in direct competition with commercial services currently providing this ability, especially for ocean going vessels. This conflicts with the basic premise of Amateur Radio.
5. In addition, the current rules adequately allow for experimentation with faster digital modulation schemes in the bands above 29.7 Mhz. The characteristics of these bands lend themselves to providing internet gateways for the handling of emergency traffic in case of

natural or other disasters. Experience has proved that Amateur Radio can provide the link to existing, undamaged infrastructure outside the disaster area with the coverage provided by the bands above 29.7 Mhz. To move focus to the bands below 29.7 Mhz would harm the expansion of this key ability.

My background Originally licensed in 1970 I currently hold an Amateur Extra Class License. As a graduate engineer, I have worked in the two-way and cellular communications industry for over 40 years, and am the holder of several patents. I held a First Class Radiotelephone license, which has since been replaced with a General Radiotelephone Operator License. I am currently a Life Member of ARRL having been a member since 1968. In my ham radio 'career' I have made close to 100,000 contacts, many of them using the various digital modes as well as cw and voice.