

W5DNT
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Subject: W5DNT's Formal Input Regarding RM-11708

Ladies & Gentlemen,

Thank you for the opportunity to provide input after the comment period, regarding RM-11708, an American Radio Relay League rulemaking request to eliminate the symbol rate limit. By background I am a registered Professional Petroleum Engineer, and my comments will be in easily understood and very direct non technical parlance, as a long time user of the amateur service. I was first licensed as an amateur radio operator in 1971 and am a Life Member of the ARRL. In the spirit of full disclosure, I am also a major financial contributor to the ARRL. Having said that, it brings me no pleasure to disagree with the ARRL, but based on the current situation and the serious ramifications of RM-11708, I am left with no alternative but to openly do so. I simply could not disagree more with the ARRL with regard to their RM-11708 rulemaking request. It is at best a very one sided approach that would allow "special interest" spectrum use at the expense of the traditional modes of CW and RTTY. RM-11708 ignores the concerns of many thousands of existing long time radio amateurs.

Since first licensed, I have been a CW enthusiast and am an avid DXer. CW, RTTY and SSB are of course the mainstream modes for the DX hobby. While SSB spectrum is not affected by RM-11708, as filed it literally throws traditional CW and RTTY spectrum under the bus, allowing signals of SSB bandwidth to freely encroach.

Not only am I an avid DXer, but I am also an EMCOMM person, holding the job of ARES Emergency Coordinator of two counties in Texas, and a County RACES Radio Officer in one of those counties. I have used RMS Express Winmor (Winlink email) and have it operational at both of my own stations. At our local EOC I have sent and received email via PACTOR 3, so I am not unfamiliar with the technology. Furthermore, I routinely operate all modes including SSB, CW, RTTY, DSTAR, VHF/UHF FM, several narrowband digital modes, satellite operations, repeater installation and occasional HF & VHF contesting. Hopefully this demonstrates the point that I am not just another special interest person, but a radio amateur with over 43 years of fairly diverse experience on the bands, who has dabbled in many facets of amateur radio. My interest is in the well being of our hobby overall, without the special interests of a few being placed above the interests of other established traditional mainstream sectors of our hobby, as would be done by approval of RM-11708.

In reviewing the ramifications of RM-11708, we did a tremendous amount of research into many related subjects, such as how PACTOR 3 & 4 work technically, appropriateness of encryption or quasi encryption, how busy detectors work or don't work, maritime usage, what the wide band waveform of a modern transceiver looks like when operated on a deep cycle marine battery at 12V or less vs. a 13.8V power supply, common FCC 97.221 frequency excursions by existing automated stations operating at bandwidths greater than 500 Hz, better alternative maritime services for compliance with FCC 97.113, MARS radio email usage as mandated by DOD, waveform classifications and new modes beyond PACTOR, interference problems, past ARRL RMs and their history, public comments, potential for skimmer analysis during handshake of callsigns and usage, lack of vertical vs. horizontal frequency deployment (coordinated sharing by servers of single frequencies), competitor analysis with regard to frequency desires, etc., etc. etc. The point is that a lot of material was reviewed in a very short time.

As part of this review, we quickly arrived at a truly complex question; what is amateur radio really all about? This is at the core of the issue. In our attempts to better frame that question in our own minds, we asked ourselves "what is amateur radio NOT really about?" That question is actually very interesting, as it gets at the usage of some of this new technology.

Amateur radio is not a "personal or private communications service" nor a "quasi commercial service", where folks use it primarily to avoid paying for maritime data plans, text message their non ham buddies, get WX maps for their commercial fishing vessel, post to Facebook, post blogs, etc. Winlink itself claims to be used by over 10,000 sailors. (http://www.dtreg.com/Winlink_Radio_Network.pdf) When FCC 97.113 is considered, surely there is a better suited service reasonably available to the maritime community as a routine email provider, other than amateur radio. Amateur radio is not meant to be a global ISP, nor a radio based backup for the internet. While that may be a prime directive for MARS, it is at best secondary for amateur radio, and certainly should not come at the expense of traditional usage.

Paradoxically, while ARRL objected strongly and rightfully to "Broadband Over Power Line" (BPL), their proposal of RM-11708 would in essence bring broadband directly into our non-phone frequencies, to compete directly with CW, RTTY and narrowband digital modes.

Amateur radio is not set up to be an encrypted service. As the FCC and ARRL have both said on numerous occasions in the past, we all need to know what is being said via amateur radio, and by whom. After all, that is a key to the self policing aspect of our great hobby. Besides that, when a real emergency does exist, we need a transparent way to ensure that all know what is going on, so that frequencies can be properly cleared and made available for responders.

Right now with the new PACTOR modes, it is virtually impossible for an Official Observer to actually perform their duties with regard to all the automated email servers that are in operation. A functional Official Observer program is essential to ensure the integrity and lawful use of amateur spectrum. May I suggest to anyone that might believe amateur radio has a need for encryption that they look to other radio services to provide for their "customers"; encryption is not consistent with the amateur radio service.

Presently, PACTOR 3 does not even have an option to force a CW ID. It uses a much more obscure FEC ID option. When an operator is unexpectedly interfered with by one of these automated stations, callsign capture by FEC is often not practical and in fact beyond the equipment capabilities of many amateurs. A simple CW ID levels the playing field and should be a requirement of these new modes! The "busy detectors" *sometimes* enabled by automated stations have been demonstrated repeatedly to be ineffective at best in detecting anything other than another PACTOR signal. Busy detectors alone simply will not solve the interference problem. The fact that PACTOR claims a distinct advantage over other narrowband modes is in and of itself very problematic from an interference standpoint.

The single biggest problem many of us see is interference from automated stations. Based on data obtained from Winlink.org, many of these automatic PACTOR stations are operating at greater than 500 Hz outside of the required "automatic station bands", with no apparent regard for FCC 97.221. If they don't have any regard now for existing FCC rules, one really has to question their future regard for any voluntary band plan the ARRL might or might not develop.

Recently, during the costly "FT5ZM" Amsterdam Island DXpedition, one of these automated RMS Express stations was very active sending and receiving routine emails directly on the transmit frequency of FT5ZM in the 40M foreign phone band, while FT5ZM was working split SSB. Did the users check to see if the frequency was busy with SSB traffic? NO! They went right ahead with their email traffic and essentially jammed the DX station for well over an hour. With regard to Amsterdam Island and the digital interference that occurred, that interference cost many DXers a 40M SSB QSO. That DXpedition had an operational cost of \$20 per minute. As a financial contributor to FT5ZM, I am disappointed to see jamming of any sort, including the RMS Express situation cited above. We should really consider the appropriateness of email systems on HF, particularly broadband modes.

An ARRL executive commented to me that we can't even imagine what technologies will be available in five to ten years. I certainly agree with and support that concept. The real question for us to ponder is this, what will those new technologies be used for? Will the usage of those new technologies really be "ham radio" or just some sort of personal radio service as described above? That is a core question to carefully keep in mind going forward, one that really gets at the heart and soul of the amateur radio service. As we all go forward with evolving technologies, it is my strong desire that we not lose sight of what amateur radio is all about.

In conclusion, it is my strong recommendation that the FCC deny ARRL's request for RM-11708 to eliminate the symbol rate limit. Furthermore, I believe the FCC should closely examine compliance with both FCC 97.221 and FCC 97.113 by automated and maritime email stations now in operation. Thank you for your consideration of my comments, and let me know if there are any further details I may be able to provide.

Respectfully,

Dan White
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