

Comments of: Fred C. Jensen, K6DGW

In re: RM-11759 ...

“Amendment of Part 97 of the Commission's Amateur Radio Service Rules to Facilitate High-Frequency Data Communications”

I believe the petition filed by ARRL¹ and designated RM-11759 for public comment, if enacted by the Commission, would make the following changes to 47CFR97:

- Re-allocate the 80 meter RTTY/Data sub-band from 3500-3600 KHz to 3500-3650 KHz, an increase of 50 KHz.
- Re-allocate the 80 meter Voice/Image sub-band from 3600-4000 KHz to 3650-4000 KHz, a decrease of 50 KHz.
- Grant General/Advanced licensees access to the range 3600-3650 KHz for all emissions permitted in RTTY/Data sub-bands.
- Grant Novice/Technician licensees access to the range 3600-3650 for all emissions permitted in RTTY/Data sub-bands.3750
- Permit Novice/Technician licensees the use of RTTY and other digital emissions in the segment of the 15 meter band now allocated to them.

My comments are based on the above understanding of the Petition.

Relocation of the RTTY/Data – Voice/Image Boundary

Evolution of RTTY/Data Usage: Docket 04-140 in 2006 proposed to relocate this boundary downward from 3750 KHz to 3725 KHz, resulting in a 55/45 split in spectrum allocation between the Voice/Image and RTTY/Data sub-bands, primarily to alleviate overcrowding of voice operations on 75 meters. However the Report and Order in the docket ultimately reduced the RTTY/Data allocation to 100 KHz from 3500 to 3600 KHz, expanding the Voice/Data sub-band to 400 KHz from 3600 to 4000 KHz. The lower 100 KHz were reserved for Amateur Extra class licensees only, the lower 200 KHz for Extra and Advanced class licensees only, and the top 200 KHz for all licensees. This amounted to an 80/20 split between Voice/Image and RTTY/Data.

It is important to note that, while Morse telegraphy [“CW”] is permitted throughout all Amateur HF allocations, by long-standing agreement, operators using CW congregate in the lower parts of the RTTY/Data sub-bands, while RTTY and various digital modes congregate in the upper parts. During CW operating contests, the CW stations do migrate upwards into the upper regions of the RTTY/Data sub-bands, and likewise, during RTTY contests, stations migrate downward. Although permitted, Morse telegraphy is almost **never** found in the Voice/Image sub-bands. If one attempts to operate CW in the voice bands, one will be highly abused by the voice operators and thus, while legal everywhere, in practice CW is confined to the RTTY/Data sub-bands. This is simply a fact of life and should not be ignored by the Commission.

Since the 2006 action, new digital emission types have arisen and come into common usage. While a single signal in most of these emission types tend to be very narrow, their implementation in computer software provides for spectrum displays [“waterfalls”] where multiple individual narrow-band signals spread out in the displayed spectrum. In many cases, the spectrum display approximates a 2.8 KHz voice channel in width. Thus, on 20 meters for example, 14070 KHz is “the PSK31 frequency” and the range 14070-14073 will be filled with PSK31 signals. Similarly, the “JTxx” series of emissions, by convention, tend to start at 14075 and extend upward about 3 KHz. The net result is that, while these digital modes are very narrow-band individually, they collectively do consume significant spectrum space on 80 meters at night.

80 meters is also the traditional home of a variety of CW nets and groups and has been for as long as I've been licensed [1953]. Docket 04-104 also moved the ACDS spectrum downward to 3585-3600 KHz. While automatic stations can recognize “one of their own” occupying a frequency, they do not recognize other modes and transmit without warning. Now, 10 years after the R&O in Docket 04-104, 100 KHz is turning out to be insufficient spectrum for all these uses.

Therefore, I believe that the boundary between the two sub-bands should be moved upward. The ARRL Petition proposes 3650 KHz [net 50 KHz], and inasmuch as there are solid grounds to increase the RTTY/Data sub-band, I support the ARRL proposal of 3650 KHz. I have reservations however about how the ARRL proposes to effect that change, and my support for the proposed change is contingent upon resolution of those reservations.

¹ ARRL, The National Association for Amateur Radio

Amateur Extra and Advanced Voice Segments: The ARRL petition takes all 50 KHz from the lower portion of the Extra-class voice segment and I believe doing so is an error. So long as the Commission maintains the policy of no new Advanced class licenses, the Advanced class operators are an endangered species so to speak. As time progresses, there will be fewer and fewer of them and eventually, extinct. On the other hand, new Extra-class licensees are showing up every day.²

Therefore, if the Commission accepts 3650 KHz as proposed by ARRL, I submit that the 50 KHz loss in Voice/Image spectrum should be taken from the Advanced segment by moving its lower limit to 3750 KHz. This preserves 100 KHz for Extra-class licensees.

It could also be argued that the 50 KHz loss of Voice/Image spectrum should come equally from all three license classes. That however would result in loss to the General-class operators who are currently confined to the most excessively crowded portion of the 75 meter band and I see no merit in that argument.

Therefore, my support for ARRL's proposal is contingent upon an additional relocation of the Extra/Advanced boundary to 3750 KHz, preserving 100 KHz for Extra-class licensees.

General, Novice, and Technician RTTY/Data Access to 3600-3650 KHz

The ARRL Petition proposes to grant RTTY/Data access to the additional portion of the sub-band [3600-3650 KHz] to General, Novice, and Technician licensees. While I doubt that many Technicians will make use of it, and the Novice licensees are another endangered species, such access will probably have a small positive impact on the Amateur service and causes no harm. Again however, my support for this is contingent on the 50 KHz loss in the Voice/Image sub-band not affecting the Extra-class only Voice/Image segment.

General, Novice, and Technician RTTY/DATA Access to Current 15 meter Segments

I support this proposal.

Radio Biography:

I was first licensed as KN6DGW in 1953 at age 13. I upgraded to General-class about 6 months later, and to Extra-class after acquiring the then-required two years of on-air experience. With the exception of 4 years from the beginning of 1964 to the end of 1967 as a member of US Armed forces in Southeast Asia, I have been continually active on the air. I am a member of ARRL, and have been for most of my amateur career.

In the interest of full disclosure, I lost a great deal of my hearing traumatically while in uniform and spend most of my operating time on CW with some RTTY activity in contests, and I struggle with SSB. We recently moved to Sparks NV where I am antenna-limited by CC&R's, and I currently operate W7RN remotely.

Sincerely,

Fred C. Jensen K6DGW
1229 Ambonnay Land
Sparks NV 89436

² In their petition, ARRL points out that while the Extra-class segment will shrink, Extra-class licensees still have access to the Advanced segment as well as the 200 KHz from 3800-4000 KHz as well. I believe this is, at the very least, disingenuous.