

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

In the Matter of)
)
Amendment of Part 97 of the Commission’s) **RM - 11759**
Amateur Radio Service Rules to Facilitate)
High-Frequency Data Communications)

To: The Chief, Wireless Telecommunications Bureau
Via: Electronic Comment Filing System

COMMENTS OF ARRL, THE NATIONAL ASSOCIATION FOR AMATEUR RADIO

ARRL, the national association for Amateur Radio, formally known as the American Radio Relay League, Incorporated (ARRL), by counsel, and pursuant to the *Public Notice*, Report No. 3039, released February 22, 2016, hereby respectfully submits its Comments in continued support of its *Petition for Rulemaking* (the Petition), filed January 8, 2016. The Petition proposes to modify various sections of Part 97 of the Commission’s Rules, so as to facilitate Amateur Radio communications using modern High Frequency (HF) data transmission modes and protocols. In continued support of its Petition, ARRL states as follows.

1. ARRL has reviewed the more than 190 comments filed to date in response to the Petition. They reflect mixed opinions about the Petition and the comprehensive band plan revision proposed by ARRL. The Petition enjoys support from a substantial number of licensees, including Extra Class licensees who operate telegraphy, RTTY and data modes in the RTTY/data subband at 80 meters. Those commenters urge, in support of ARRL’s proposal, that additional spectrum is needed for those emissions, now and for the future, especially to encourage expanded use of digital emissions. Others, very specifically Extra Class licensees who have,

since the overly extensive expansion of the 75-meter phone/image subband in October of 2006¹ enjoyed the additional exclusive spectrum that was made available for them, object to the portion of the Petition that urges “refarming” of the segment 3600-3650 kHz. Those Extra Class licensees who oppose the Petition suggest that reallocating *some* of the very large telephony subband exclusively allocated to Extra Class licensees will serve as a disincentive to upgrade their license class. This argument, ARRL suggests, is not well-founded.

2. It is well-understood that *any* subband allocation proposal is something about which reasonable minds may differ. Those whose favorite operating modes within the very limited HF allocations might be affected by any such proposal will be influenced by their own self-interest. However, ARRL’s proposal is not fairly viewed as a proposal to take anything away from anyone. It is more properly viewed as the effectuation of a fair, equitable and efficient “band plan” looking forward for the foreseeable future that balances everyone’s needs, and which remedies a plainly unfair plan imprudently created in the 2006 *Report and Order* in Docket 04-140.

3. In order to understand the logic of ARRL’s Petition in the face of the Extra Class licensees who have expressed concern about the proposed reduction in the very large, exclusive Extra Class 75-meter telephony subband, it is worthwhile to summarize the history of the subband allocation of the 75/80-meter band (3500-4000 kHz). Prior to 2006, the Commission’s rules divided the 75/80 meter band evenly between RTTY/data and phone/image subbands.² The RTTY/data subband extended from 3500 kHz to 3750 kHz and the phone/image subband

¹ Amendment of Part 97 of the Commission’s Rules Governing the Amateur Radio Services, *Report and Order*, WT Docket No. 04-140, 21 FCC Rcd 11643 (2006) (*Omnibus R&O*).

² Morse telegraphy (CW) has always been permitted throughout the 75/80 meter band, limited only by the portion of the band available pursuant to the licensee’s license class. As a practical matter, by convention, most CW operation occurs in the lower portions of each HF band along with narrower bandwidth emission modes including RTTY and data.

extended from 3750 kHz to 4000 kHz. In WT Docket No. 04-140, however, this even division of emission types, which generally aggregated narrow bandwidth emissions including RTTY and data in a lower frequency subband and wider bandwidth emissions in an upper frequency subband, was substantially altered.³ The Notice of Proposed Rulemaking in Docket 04-140 proposed to move the dividing line between the 80-meter RTTY/data subband and the 75-meter phone/image subband from 3750 kHz downward to 3725 kHz pursuant to a 2002 ARRL Petition for Rule Making, RM-10413, filed March 22, 2002. ARRL's proposed expansion of the telephony subband at 75 meters, from 3750-4000 kHz to 3725-4000 kHz was a balanced proposal for a reasonable expansion of the crowded phone/image segment at 75 meters.⁴ The 2002 ARRL proposal for that division of subbands had been the subject of an extensive survey of more than 5,000 radio amateurs at the time. It represented a proposed shift in the ratio of spectrum between phone/image and RTTY/data segments at 75/80 meters from 50/50 to 55/45. *This change was proposed by the Commission in the Omnibus NPRM.* ARRL believed then and still believes now that conversion to digital communications technologies in the Amateur Service over time is an important component of the future of Amateur HF communications in order to accommodate continued growth in the Service and to extend Amateur Radio's leadership in the development and refinement of digital communications technology. The *Omnibus NPRM* thus included a reasonable, modified split intended to accommodate expanded telephony operation in, among others, the 75-meter band, and at the same time preserved some of the "refarmed" spectrum to encourage conversion to narrowband digital communications.

³ The so-called "Omnibus" Amateur rulemaking proceeding dealt with a wide range of issues, most of them not controversial. See, *Amendment of Part 97 of the Commission's Rules Governing the Amateur Radio Services, Notice of Proposed Rulemaking and Order*, WT Docket No. 04-140, 19 FCC Rcd 7293 (2004) ("Omnibus NPRM").

⁴ The *Omnibus NPRM* at ARRL's request proposed that in the 75 meter band, the spectrum authorized for phone communications be expanded by 25 kHz; that Amateur Extra Class licensees be authorized the use of 3725-4000 kHz; that Advanced Class licensees be authorized the use of 3750-4000 kHz; and that General Class licensees be authorized the use of 3800-4000 kHz.

4. However, most unexpectedly, the *Report and Order* in Docket 04-140 made a very substantial and unjustifiable departure from the *Omnibus NPRM* proposal with respect to the 75 and 80-meter bands. The phone/image subband at 75 meters was changed from 3750-4000 kHz to 3600-4000 kHz -- an expansion of 150 kilohertz. *This was 125 kilohertz more than the Omnibus NPRM had proposed.* It reduced the 80-meter RTTY/data subband from 3500-3750 kHz to 3500-3600 kHz, which changed the entire dynamic of this band. The ratio of phone and image spectrum to RTTY/data/CW emissions went from 50/50 to 80/20, rather than the 55/45 split that the *Omnibus NPRM* had proposed.

5. The telephony subband expansion constituted a reduction of 100 kHz in the spectrum between 3500 and 4000 kHz that was previously available to General Class licensees, whereas the *Omnibus NPRM* had proposed for General Class licensees an increase of 25 kHz. Advanced Class licensees suffered a reduction of 75 kHz in the spectrum between 3500 and 4000 kHz that was available to them before the *Report and Order*, though The *Omnibus NPRM* had proposed no change in the amount of available spectrum for Advanced Class licensees. Though the *Report and Order* indicated that no operating privileges were being removed from incumbent licensees, that was not correct; clearly there were operating privileges that were adversely affected for certain classes of incumbent licensees. The *Report and Order* also completely eliminated access to 3620-3635 kHz by automatically controlled digital stations (ACDS). This was an apparent oversight by the Commission at the time. However, the remedy for this made the situation worse still. In a multiple-docket *Report and Order and Order on Reconsideration*, FCC 06-178, released December 19, 2006, the Commission replaced the inadvertently deleted automatically controlled digital station segment at 3620-3635 kHz with a replacement segment at 3585-3600 kHz. Moving the inadvertently deleted digital subband downward in frequency below 3600 kHz

made the situation in the 80-meter RTTY/data subband even worse than it was. It resulted in a sudden and severe dislocation of traffic handling nets using telegraphy without advance planning or notice. It disaccommodated net participants with General and Advanced Class licenses; and it worsened the effect of the overexpansion of the 75-meter phone/image subband by making *even less* spectrum available for locally controlled narrowband digital emissions. The result during the past nine years has been a shortfall in available RTTY/data spectrum at 80 meters, and that shortfall has become a significant obstacle to and disaccommodation of narrowband digital data communications and experimentation in this band. The ARRL Petition now simply restores that which was disrupted in 2006 in error.

6. It is impossible on the above facts for Extra Class licensees who favor 75-meter telephony to fairly argue that they will be “disaccommodated” by the very modest rebalancing proposal of the ARRL Petition. The Commission’s actions in 2006 reduced the 80-meter RTTY/data subband from 250 kilohertz to 100 kilohertz, and limited access to the 3600-3700 kHz segment of the 75-meter phone/image subband to Amateur Extra class licensees only. ARRL proposes in the Petition that the separation between the 80 meter RTTY/data subband and the 75 meter phone/image subband should be relocated from 3600 kilohertz to 3650 kilohertz; and that segment should be restored for use by General and Advanced class licensees. *Extra Class licensees now enjoy an inordinately large, exclusive telephony subband at 3600-3700 kHz but that expansion was improvidently and arbitrarily created at the expense of other classes of licensees and at the expense of users of other emission types.* Under ARRL’s proposal, Extra Class licensees would still be entitled to use the 3700-3800 kHz segment of the 75-meter band, together with the steadily decreasing group of Advanced Class licensees.⁵ After the rebalancing

⁵ Only 7 percent of the Commission’s licensees hold Advanced Class licenses, and that number will continue to decline over time, as this license class is no longer being issued.

of the phone/image subband at 75 meters (from 400 kilohertz to 350 kilohertz) as ARRL proposes, *it will still be the largest phone/image subband among all of the HF Amateur allocations.*

7. The HF allocations, and especially the 75/80 meter band, are very small relative to the number of licensees who regularly use them at all times of the day and night. There are compromises in their deployment no matter how band plans for those bands are approached. Looking forward, it is necessary in order to encourage experimentation with and expand the use of digital communications techniques to rebalance the 75-meter and 80-meter subbands. ARRL suggests that the proposals contained in its Petition achieve the proper balance and do not create any burden on incumbent Extra Class users of the 75-meter phone/image subband.

Therefore, the foregoing considered, ARRL, the national association for Amateur Radio, respectfully reiterates its request that the Commission issue a Notice of Proposed Rule Making at an early date, proposing to modify Sections 97.221, 97.301, and 97.305 of the Commission's rules as specified in the *Appendix* to RM-11759.

Respectfully submitted,

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