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

In the Matter of:)	
)	
Amending Part 97 of the Commission's)	
Rules and Regulations to Redesignate) Docket No	
Sub-Bands from Exclusively Morse Code)	
to Narrowband Modes, including CW and		
for Other Purposes)	

To the Commission:

<u>PETITION FOR RULEMAKING /</u> INFORMAL REQUEST IN THE NATURE OF RULEMAKING

COMES NOW the undersigned Petitioner, JAMES EDWIN WHEDBEE, who pursuant to Section 1.401 of the Commission's Rules (47 CFR Sec. 1.401) petitions the Commission to issue a Notice of Proposed Rulemaking (NPRM) – or alternatively, who pursuant to Section 1.41 of the Commission's Rules (47 CFR Sec. 1.41) informally requests the Commission to take up and decide, sua sponte, to issue a NPRM, the undertaking of which is to modify Part 97 of the Commission's Rules and Regulations over the Amateur Radio and Amateur Satellite Services to eliminate exclusively Morse Code/CW (150HA1A) sub-bands and redesignate those as available to narrowband emission modes, and for other bandwidth related purposes. In support hereof, as and for good cause herefor, Petitioner states the following.

- 1. Petitioner in a United States Citizen who has been since 1981 and currently is licensed by the Commission in the Amateur Radio Service; accordingly, the Petitioner has standing.
- 2. This Petition can be deemed an Informal Request or vice versa; accordingly, if the Commission prefers, reference to "Petition" also includes "Informal Request" and "Petitioner" also

includes "Requestor." Concurrently, if it would expedite consideration hereof, rather than treating this document as a Petition for Rulemaking, the Commission may consider it as an Informal Request and proceed, sua sponte, as if originally couched in such language.

- any Amateur Radio Service license, much has changed. In 1990 and before, a telegraphy (morse code) test was administered to test proficiency at five words per minute (5 WPM) for the Novice Class operator, thirteen words per minute (13 WPM) for the General Class operator, and twenty words per minute (20 WPM) for the Amateur Extra Class operator. Effective in 1991, the Commission issued its decision to allow "codeless" Technician Class licenses which permitted Novice/Tech-Plus Class HF privileges once and after a Technician licensee passed the 5 WPM morse code test. In 2000, the Commission eliminated the 13 WPM and 20 WPM morse code tests, such that passing a single 5 WPM morse code test was sufficient for all operator classes. In its WRC-03 revisions to the international radio Rules and Regulations, the ITU eliminated the need for proficiency in telegraphy for amateur radio operators using HF bands. In December 2005, the Commission codified this ITU decision by eliminating the 5 WPM morse code test for the Amateur Radio Service.
- 4. Despite the progressive reduction and eventual elimination of the Morse Code proficiency tests from the Amateur Radio Service rules, there remain legacy subbands within the Amateur Radio and Amateur Satellite Service frequencies which only permit Morse Code emissions., or 150HA1A telegraphy. As regards these sub-bands, this has proven both grossly inefficient as well as a manifest under-utilization of those.
 - 5. Many digital emissions within the existing state of the art surpass Morse Code in

efficacy and efficient use of the spectrum. Morse Code's emission designator suggests a typical signal will require 150 Hertz of bandwidth (of course this varies by speed and transmitter stability). Certain digital emissions can be readily received at 20+ dB below the noise level and have bandwidths as narrow as 9 Hertz. These emissions are orders of magnitude better than Morse Code in terms of spectrum utilization and require less power to communicate over a shorter period of time the same message otherwise communicable via Morse Code. Put simply, the state of the art no longer permits exclusive designation of certain radio sub-bands to Morse Code telegraphy; however, in the Novice/Technician sub-bands in HF bands and in 50-50.1 MHz and 144-144.1 MHz sub-bands, that is the current situation.

- 6. Nostalgia for retention of Morse Code telegraphy-only sub-bands is also an insufficient reason to avoid moving forward to elimination of such sub-bands because nothing about this Petition suggests the elimination of the mode itself, only that it not be the sole authorized mode in the subject sub-bands.
- 7. In a recent rulemaking request, the ARRL proposes that the 80 meter and 15 meter Novice/Technician sub-bands include emission modes other than Morse Code telegraphy. This Petition not only supports that effort, but suggests it doesn't go far enough.
- 8. Progressive licensing demonstrated by examination requires preservation of incentives; however, the current state of the art with Morse Code radiotelegraphy would have many newer licensees using computer soundboards to communicate via Morse Code rather than hand-keying; accordingly, there are few, if any, meaningful reasons and bases to continue with the Novice/Technician privileges being limited to Morse Code radiotelegraphy on the HF bands. With that in mind,

progressive licensing will still be best served by assigning frequency privileges based on proficiency and experience of the licensee.

- 9. Not even in the newly allocated LF and 630-meter MF bands (the subject of the WRC-07 and WRC-12 final acts, addressed in ET Docket No. 15-99) has serious consideration been given to creating a Morse Code-only emission environment.
- 10. For the foregoing reasons, continuing to have Morse Code telegraphy-only sub-bands within the Amateur Radio and Amateur Satellite Services is an excessive regulatory constraint as well as a poor use of the spectrum concerned requiring modification to regulate those sub-bands by emission bandwidth and mode-exclusion.
- 11. Petitioner proposes all privilege restrictions limiting any part of the amateur radio spectrum to the use of CW/Morse Code radiotelegraphy to the exclusion of other emission modes be eliminated entirely.
- 12. To avoid future confusion and need for clarification, Petitioner further proposes that where operator privileged by mode are described in the rules and regulations, that the Commission refer to the ultimate form of communication reproduced at the receiving end of the communication. By way of example, regardless of the manner of modulation, if an emission reproduces on the receiving end a discrete symbol (i.e., letter, numeral, punctuation, or similar unique symbol) by manual or automatic means without intent to convey aural or visual information other than such symbol(s), for purposes of amateur radio, it is "Symbol Communication" modes; if an emission reproduces on the receiving end voice or sound, for purposes of amateur radio, it is a Voice mode; if an emission

reproduces on the receiving end a picture or moving image, including a combination and/or collection of discrete symbols used for the purpose of creating an illustration, for purposes of amateur radio, it is an Image mode. Nothing about this simplified emission privilege system refers to a specific emission designator because, as recent rulemaking/clarifying proceedings have clearly demonstrated, continuing regulation by specific emission designator is proving to be onerous with changes to the state of the art; accordingly, to continue developing the state of the art in radiocommunications, amateur radio needs to clearly get away from regulating in that fashion and return to considerations of what the receiving end of the communication reproduces.

- 13. Petitioner further proposes that where current rules for the Amateur Radio and Amateur Satellite Services refer to exclusively CW/Morse Code radiotelegraphy as the permitted operating mode within a given set of frequencies, the privileges be changed to reflect Symbol Communication modes.
- 14. Petitioner further proposes that where current rules for the Amateur Radio and Amateur Satellite Services prohibit voice and image modes, the privileges be changed to reflect Symbol Communication modes.
- 15. Petitioner further proposes that where current rules for the Amateur Radio and Amateur Satellite Services prohibit Symbol Communication modes other than CW/Morse Code radiotelegraphy, that Voice and Image modes be permitted with an exception made for manually-keyed CW/Morse Code radiotelegraphy.
 - 16. Petitioner further proposes that for Symbol Communication modes below 1.8 MHz, the

20 dB bandwidths be limited to 200 Hertz; between 1.8 and 29.5 MHz, the 20 dB bandwidths be limited to 2800 Hertz; between 29.5 and 219 MHz, the 20 dB bandwidths be limited to 20 kiloHertz (i.e., "old" narrowband FM modulated by data); between 219 and 1240 MHz, the 20 dB bandwidths be limited to 200 kiloHertz (i.e., wideband FM modulated by data); between 1240 and 2450 MHz, the 20 dB bandwidths be limited to 12 MegaHertz; and above 2450 MHz, the total bandwidths of the emission shall be constrained entirely within the amateur band.

- bandwidths be limited to 1300 Hertz (i.e., Codec 2 digital voice); between 1.8 and 29.5 MHz, the 20 dB bandwidths be limited to 8000 Hertz (i.e., double-sidebanded analog AM voice); between 29.5 and 220 MHz, the 20 dB bandwidths be limited to 20 kiloHertz; between 220 and 225 MHz, the 20 dB bandwidths be limited to 20 kiloHertz; between 420 and 2450 MHz, the 20 dB bandwidths be limited to 12 MegaHertz; and above 2450 MHz, the total bandwidths of the emission shall be constrained entirely within the amateur band.
- 18. Petitioner further proposes, as exceptions to the foregoing, that the status quo be preserved as regards the entire 60 meter secondary Amateur Radio allocation unless and until the WRC-15 final acts are implemented and as regards the 219-220 MHz sub-band of the 1.25 meter Amateur Radio allocation regarding message forwarding being the sole privilege for that sub-band.
- 19. Given the foregoing, the frequencies above 219 MHz in the Amateur Radio and Amateur Satellite Services will require no changes to established privileges. Below 219 MHz, the privileges in the Amateur Radio and Amateur Satellite Services will change as follows.

- 20. In the entire LF Band, 135.7 to 137.8 kHz, only Symbol Communication modes are allowed.
- 21. In the 630 meter MF Band, once service privileges are established, Symbol Communication modes are allowed between 472 and 475 kHz with Symbol, Voice, and Image Communication modes authorized between 475 kHz and 479 kHz.
- 22. In the 160 meter MF Band, Symbol, Voice, and Image Communication modes are authorized between 1.8 and 2 MHz.
- 23. Redesignating 75 meters as 80 meters such as to permit reference to the whole 3.5 to 4 MHz band as the 80 meter HF Band, Symbol Communication modes are authorized between 3.5 MHz and 3.65 MHz with Voice and Image modes authorized between 3.65 and 4 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 80 meter HF Band.
- 24. In the 40 meter HF Band, Symbol Communication modes are authorized between 7 and 7.125 MHz with Voice and Image modes authorized between 7.125 and 7.3 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 40 meter HF Band.
- 25. In the entire 30 meter HF Band, Symbol Communication modes are exclusively authorized.
- 26. In the entire 20 meter HF Band, Symbol Communication modes are authorized between 14 and 14.15 MHz with Voice and Image modes authorized between 14.15 and 14.35 MHz, subject to

manual CW/Morse Code radiotelegraphy being authorized throughout the entire 20 meter HF Band.

- 27. In the 17 meter HF Band, Symbol Communication modes are authorized between 18.068 and 18.11 MHz with Voice and Image modes authorized between 18.11 and 18.168 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 17 meter HF Band.
- 28. In the 15 meter HF Band, Symbol Communication modes are authorized between 21 and 21.2 MHz with Voice and Image modes authorized between 21.2 and 21.45 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 15 meter HF Band.
- 29. In the 12 meter HF Band, Symbol Communication modes are authorized between 24.89 and 24.93 MHz with Voice and Image modes authorized between 24.93 and 24.99 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 12 meter HF Band.
- 30. In the 10 meter HF Band, Symbol Communication modes are authorized between 28 and 28.3 MHz with Voice and Image modes authorized between 28.3 and 29.7 MHz, subject to manual CW/Morse Code radiotelegraphy being authorized throughout the entire 10 meter HF Band.
- 31. In the 6 meter VHF Band, Symbol Communication modes are authorized between 50 and 50.1 MHz with Symbol, Voice, and Image Communication modes authorized between 50.1 and 54 MHz.
 - 32. In the 2 meter VHF Band, Symbol Communication modes are authorized between 144

and 144.1 MHz with Symbol, Voice, and Image Communication modes authorized between 144.1 and 148 MHz.

- 33. All amateur operator classes, except Novice shall have frequency privileges on all frequencies above 29.7 MHz. Novice Class operators above 29.7 MHz have frequency privileges on 222 to 225 MHz and 1270 to 1295 MHz.
- 34. Amateur Extra class operators have frequency privileges on all Amateur Radio and Amateur Satellite Service frequencies.
- 35. Once allocated and service rules are adopted, General, Advanced, and Amateur Extra Class operators shall have frequency privileges on all Amateur Radio and Amateur Satellite Service frequencies in the LF Band and the 630 meter MF Band.
- 36. General, Advanced, and Amateur Extra Class operators shall have frequency privileges on all Amateur Radio and Amateur Satellite Service frequencies in the 160 meter MF Band, the 60 meter HF Band, the 30 meter HF Band, the 17 meter HF Band, the 12 meter HF Band, and the 10 meter HF Band.
- 37. In the 80 meter HF Band, Novice, Technician, General, and Advanced Class operators shall have frequency privileges in the sub-band of 3.525 to 3.65 MHz; General Class operators have frequency privileges in the sub-band of 3.8 to 4 MHz; and Advanced Class operators have frequency privileges in the sub-band of 3.7 to 4 MHz.

- 38. In the 40 meter HF Band, Novice, Technician, General, and Advanced Class operators shall have frequency privileges in the sub-band of 7.025 to 7.125 MHz; General Class operators have frequency privileges in the sub-band of 7.175 to 7.3 MHz; and Advanced Class operators have frequency privileges in the sub-band 7.125 to 7.3 MHz.
- 39. In the 20 meter HF Band, General and Advanced Class operators shall have frequency privileges in the sub-band of 14.025 to 14.15 MHz; General Class operators have frequency privileges in the sub-band of 14.225 MHz to 14.35 MHz; and Advanced Class operators have frequency privileges in the sub-band of 14.175 to 14.35 MHz.
- 40. In the 15 meter HF Band, Novice, Technician, General, and Advanced Class operators shall have frequency privileges in the sub-band of 21.025 to 21.2 MHz; General Class operators have frequency privileges in the sub-band of 21.275 to 21.45 MHz; and Advanced Class operators have frequency privileges in the sub-band of 21.225 to 21.45 MHz.
- 41. In the 10 meter HF Band, Novice and Technician operators have frequency privileges in the sub-band of 28 to 28.5 MHz.
 - 42. Petitioner proposes no power limit changes.
- 43. Petitioner will submit, separately (under separate cover), proposed service rules as an Appendix "A" hereto once this Petition for Rulemaking/Informal Request in the Nature of Rulemaking has received an appropriate docket number. Once such service rules are submitted, said Appendix "A" hereto is incorporated herein by reference as if fully set out hereinbelow and submitted herewith.

WHEREFORE, the foregoing considered, the undersigned respectfully moves, requests, and petitions the Commission to issue its NPRM to implement the foregoing as soon as practically possible.

May 2, 2016

Respectfully Submitted:

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Petitioner/Informal Requestor