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To: Federal Communications Commission
From: Gary J. Ferdinand W2CS

Subject: NPRM 02-98 Comments

I should like to add my views to the NPRM 02-98 discussions. The Notice appears to ask for input on several aspects of the proposal as follows:

135.7-137.8 KHz.

This proposed band is excellent. For years under part 15 hams and others across the world have experimented with LF. The frequency choice is fine. The power limitation and its method of measurement's being EIRP is also fine. I note the NPRM does not restrict the transmitter power, instead relying on the amateurs to compute properly the actual efficiency of the antenna as a system. This I believe is proper and appropriate. The issue is not transmitter power, but radiated power. The comments filed by ARRL included a transmitter power limitation. I believe such a limitation to be superfluous and counter-productive. Consequently, I urge FCC to reject ARRL input on this specific point. As to class of amateur proposed to be General Class or higher, I support that. This band requires the combination of skills rather unique to LF, something our current licensing does not adequately address. The band itself will, due to its imposing technical requirements, provide an adequate filter to inappropriate operations.

5250-5400 KHz.

This proposed amateur band fills a crucial need for an allocation that fills the propagation gap between the current 7000-7300 KHz. and 3500-4000 KHz. amateur allocations. In my 40+ years of amateur service I have frequently invested my time providing both routine and emergency formal message traffic communications. On many occasions having a band in the 5 MHz. location would have greatly improved the efficiency of communications. It also would enable less capable amateurs to provide efficient service. With today's allocations there are instances where only those with superb stations and/or antennas systems for the existing bands can succeed with formal message traffic types of operation. Having the new band will open up such operations to those with more modest capabilities, as the propagation gap will have been filled, and the amateurs can choose the band to optimize the communications.

The proposed power limitation of full amateur legal limit I believe is appropriate to the allocation's probable use and to the characteristics of the frequency band itself – prone to significant noise from atmospheric sources. Full legal limit power will be required in some cases to maintain efficient communications.

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The license class should allow anyone with a General or higher class of operator license to operate this new band. A major reason for providing this band is to fill the propagation gap between existing bands for the purpose of providing, in times of need, public service communications. It would be contrary to that purpose to then restrict the population on that band by license class. I do not favor restricting operation to sub bands based on license class, but rather based on emitted signal bandwidth.

The FCC in its NPRM asks for comment on whether the new band should have specifically allocated sub bands based on mode or bandwidth. My **strong** view is **yes, sub bands should be specified**. The amateur community is in the midst of a strong trend toward increased usage of narrow bandwidth modes of operation. The popularity of the PSK31 (and subsequent variants) mode is testament to this trend. Until voice modes begin to convert to use digital technology instead of the current 40+ year old amplitude-modulated single sideband mode, it will be necessary to protect narrow band operations from wider band operations. Thus, it is my view that there should be sub bands and that the distinguishing factor between the sub bands should be bandwidth of emitted signal. All narrow band modes (CW, RTTY, xTOR, PSKx, etc.) in one sub band, and all wider band modes (SSB, SSTV, AM, etc.) in another. This then begs the question of where to draw the sub bands.

We have a 150 KHz. band proposed. The wideband modes need many times the bandwidth of the narrow band modes for any given transmitted signal. Yet, sufficient space must be allocated to encourage continued narrow band usage and development. I suggest a reasonable split would be to divide the band in half: 5250-5325 KHz for narrow band operation and 5325-5400 for wide band operations.

While this might at first glance seem to provide more spectrum on a normalized basis to the narrow bandwidth modes, I ask the Commission to use this new band as an opportunity to plan ahead for future digital voice modes, which could conceivably occupy no more spectrum than today's xTOR signals and would thus qualify as a narrow bandwidth mode of operation. Thus, reserving half the band for narrow band operations would be an indirect encouragement for the amateur community to develop still more useful digital modes that enable digitally-encoded voice transmission.

Thank you for the opportunity to provide comments via the internet.

(signed)

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