

Before the Federal Communications Commission  
Washington, D.C. 20554

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In The Matter of )  
Amendment of the Amateur Service )  
Rules to Provide For ) WT Docket No. 97-12  
Greater Use of Spread )  
Spectrum Communication ) RM-8737  
Technologies )  
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To: The Commission

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June 2, 1997

**Background**

I have been licensed as an Amateur Radio operator since 1985 and currently hold an Advanced class license. As an Amateur I have enjoyed a wide variety of operating activities but Packet Radio has been one of facets of Amateur Radio on which I have spent the most time. I currently am a participant in the Tucson Amateur Packet Radio Spread Spectrum STA.

**Summary**

I urge the Commission to adopt a set of rules based upon, but slightly different than, the rules currently proposed. While I applaud the the effort to modify the Amateur Radio SS rules to promote greater use, I fear that some aspects of the proposed rule changes may continue to hinder wide-spread adoption of SS in Amateur Radio. I would further urge the Commission to reject any proposals from non-Amateur, commercial groups which seek to subvert the proposed rules changes to serve their own means as a way to chip away at the current Amateur allocations.

**Discussion**

Section 97.119(b)(5), which mandates the use of CW for identification, should be eliminated. In the near term this requirement would disallow the use of off-the-shelf Spread Spectrum components or systems as few, if any, support such an awkward method of identification.

While completely Amateur based Spread Spectrum systems may be built with CW identification its use in properly identifying an SS station is questionable, at best. Where shall an SS transmitter transmit its narrow-band CW identification stream? Given a transmitter that may be spreading its signal out over 10 MHz or more, a narrow-band receiving station may have as much trouble finding the CW signal as they would the wide-band transmission.

Part 97.311(g), which mandates automatic power control when transmitter output exceeds 1 watt, should be changed. In communications situations where stations are operating in a point-to-point manner power control makes sense, both for the stations involved in the communications and other users who must share the same spectrum. This mode of operation is the norm for services such as cellular, where each user communicates with one single base station at a time.

In Amateur Radio this model gets more complex with the addition of point-to-multipoint situations. Amateur Radio repeaters, satellites and "simplex" operation use this topology. One Amateur station transmits and many listen. With which station should the transmitter coordinate to set the allowable transmitter output power? And if the transmitter adjusts power for proper receive levels at a more distant

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receiver, does not the transmitter exhibit more than "enough" power at receivers located closer to the transmitter? Is an Amateur transmitter then breaking the rule? The formula for automatic power control as it stands would render common Amateur Radio communications topologies unusable.

The current rules regarding the use of the minimum power necessary, Part 97.313(a), provide ample protection to ensure that excessive power is not used and still provides enough flexibility to allow for complex topologies like point-to-multipoint. The sentence in Part 97.311(g) which limits SS power output to 100 watts does not appear to be a burden at this time.

If the purpose of the proposed rules changes for Spread Spectrum are to allow for greater use by making SS a "first class" mode in the eyes of the Commission then these restrictive rules must be removed or modified.

#### **Conclusion**

The proposed rules changes are a step in the right direction. Only a few changes need to be made to the rules to ensure that Spread Spectrum becomes a "first class" mode in the Amateur Radio Service.

Respectfully Submitted,

*Robert Barron*

**Robert Barron, KA5WSS**