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

In the matter of	)	
	)	
Amendment of Part 97 of the Commission's Rules	)	
Governing the Amateur Radio Service Concerning	)	RM-11306
Permitted Emissions and Control Requirements	)	
	)	

To: The Commission

Comments of Alexander Krist, Amateur Radio Station KR1ST

February 3, 2006

I. Introduction

The following are my comments to the amendments to Part 97 as proposed by the Amateur Radio Relay League. I have been a licensed Amateur Radio Operator for over twenty years and hold degrees in Electronics and Computer Technology. I am currently employed as a Programmer/Analyst.

I fully agree with the ARRL that unnecessary regulation should not stand in the way of experimentation and exploration which could lead to new technologies beneficial to everyone. However, I am against the proposed amendments to Part97 and would like to ask the Commission to reject the Petition.

II. Discussion

1. Representation

One can not escape the impression that the proposed amendments are written with the interest in mind of a very small populace of the Amateur Radio Community. In fact, the Ad Hoc HF Digital Committee developing the proposed amendments to Part 97 consists of only five members (not including the two liaisons) all with an almost exclusive interest in (HF) digital communications. Even though the ARRL implies and argues that the Petition is a consensus proposal reached through a democratic process, the ARRL made no effort to make other parties with different interests' part of the Ad Hoc Committee. Also, dissenting opinions were not appreciated by the Ad Hoc Committee which resulted in one member resigning from the Committee and another to write an alternate proposal. Unfortunately, the proposal that is before you is based on controversy and not consensus, nor is it consensus building.

Even though the ARRL is the largest Amateur Radio organization in the country, one should keep in mind that it does not represent the largest population of Amateur Radio Operators. It even appears that there's not even consensus within its membership about the proposed amendments.

2. Needs Assessment

Indeed times are changing and so do the needs and population within the Amateur Radio Service. It is wise to review regulations from time to time to make sure they reflect the realities of today and tomorrow.

The ARRL did not make a case in its Petition that would justify such a dramatic change in frequency band allocations and regulations as it has proposed. Only one case is cited where a "technical experimenter" inquired the ARRL about symbol rate restrictions for HF communications. The "technical experimenter" referred to in the Petition happens to be a member

of the Ad Hoc HF Digital Committee and is a driving force behind this Committee and the Petition. Also, this person has a vested interest in the Winlink software and technology promoted by the ARRL. This gives at least the impression of a conflict of interest.

The ARRL properly suggested this person to look into an experimental license. Indeed, a mechanism is already in place to develop new technologies through experimental licenses. Many Amateur Radio Operators have benefited from such licenses. For instance, experimental licenses granted for experimentation on the 60m band resulted in expansion of HF frequency allocations to the Amateur Radio Service. To acquire such a license can hardly be called a cumbersome procedure since it will give the licensee certain protections that he or she would not have otherwise, and it grants room for experimentation beyond what is already possible with the license the person already possesses.

The focus of and the arguments by the ARRL in this Petition is experimentation and the development of new digital technologies. The Amateur Radio Service already enjoys great freedom to experiment and the current regulations are not obstructive to the extend the ARRL makes it seem to argue for a complete overhaul of the frequency band allocations. The focus of this Petition is unnecessarily narrow and should be on higher efficiency; doing more with less and not doing more with more as frequency band allocations are a limited and highly valuable resources.

There are many interests involved within the Amateur Radio Service. To assess the needs of all stakeholders it would have been prudent to include these stakeholders in the Ad Hoc Committee so that a more balanced proposal could have been produced that would have been consensus building. The write-in campaign organized by the ARRL which allowed anyone to

comment on their proposal was not sufficient to ensure adequate representation of all stakeholders. The comment review process was not transparent and open but seemed to be merely procedural in nature. No feedback, insights or inspections on these comments and alternate proposals were offered as it is the case with the comment procedure implemented by the FCC.

3. Revising Definitions

The Proposal contains two amendments that would change the definition of "Bandwidth" and "Spurious Emissions".

3a. Bandwidth

The current definition of Bandwidth in Section 97.3(a)(8) gives a very specific, single measure that defines the bandwidth of a transmitted signal in terms of power and attenuation. This leaves very little room for interpretation errors.

The amendment proposed by the ARRL to replace this section makes the term Bandwidth unnecessarily vague and broad with terms like "the quality required under specified conditions" that will lead to confusion and disputes.

3b. Spurious Emissions

The proposed amendment to Section 97.3(a)(42) defines spurious emissions as emissions outside the "allocated frequency band". This amendment will in fact allow spurious emissions as long as they are within the frequency limits of a band allocation. Such spurious emission can be cause of interference and dispute which should be prevented.

The current definition is much clearer and less prone to interpretation errors and should therefore be kept in force.

4. Automatic Operation and Incompatible Modes

The ARRL Petition proposes to amend Section 97.221 in order to allow for automatic transmissions anywhere as long as such an automatically controlled station doesn't begin to transmit without interrogation. The ARRL relies on "respectful operating practices" and "listen-before-transmitting protocols" to deal with the interference potential.

This is not sufficient to prevent interference between incompatible modes (like phone and a digital transmission). An operator may very well not be aware that another transmission is taking place on the same frequency, one the operator can not hear because of result of the inherent propagation conditions that can be found on the HF bands, causing unintentional interference. Also, an operator may not recognize a digital transmission taking place on a frequency he or she would like to initiate a (analog) voice transmission on. For instance, a 9600 baud FSK digital transmission sounds very similar to white noise on a FM receiver. It would be easy for an operator to think that the frequency is available while it is not.

So far listen-before-transmitting protocols (like the recently introduced SCAMP protocol) utilized by certain software products fail because they allow the user to defeat the functionality either by simply turning it off or by selecting a higher level at which recovered audio from a receiver is considered random noise.

As long as there is no proven technology available it would be ill advised to allow for incompatible modes on the same frequency. Automatic and Semi-Automatic operation should be limited to certain specified narrow band segments.

5. Band Plan

A voluntary bandplan will only be adhered to when reached through consensus and not through a controversy. Already this Petition is causing a lot of controversy so a voluntary bandplan will not be easily established and adopted. There is no mention in the Petition on how the new voluntary bandplan would be established other than the ARRL is offering itself to facilitate the process.

Any attempt to restructure Amateur Radio band allocations, especially on the MF and HF bands, should involve the International Community through the International Amateur Radio Union in order to align the United States Bandplan for the Amateur Radio Service with the same services outside of the United States. This would be mutually beneficially in the (internationally) development of new technologies that may necessitate realignment of bandplans.

6. Enforcement

If the proposed amendments would be adopted it becomes enforceable law. The consequence of this is that it will lead to a multitude of complains filed with the Enforcement Bureau which is already combating stressed resources. Rather than relieving the Enforcement Bureau, the proposed amendments will burden the Enforcement Bureau due to the fact that confusion is created by the ambiguities in the proposed amendments. Today, the Enforcement Bureau is already dealing with many interference complaints between same mode transmissions. This will only multiply when incompatible modes are allowed to mix and (semi-) automatic modes will be permitted to take anywhere.

III. Conclusion

What the ARRL is proposing in their Petition restructures the Amateur Radio frequency Band allocation in a way that will benefit only a small segment of the Amateur Radio Community, but has major consequences to all Amateur Radio Operators, including international operators. Any change in band allocations should be inclusive of all interested parties and should be placed in an international context.

Considering the forgoing, I would like to urge the Commission to not adopt the amendments to Part 97 as proposed by the ARRL.

Respectfully submitted,

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