

Before the

Federal Communications Commission  
Washington, D. C. 20554

In the Matter of ) WT Docket No.rm9673  
)  
Request to change Part 97.305 ) RM-9673  
of the Commission's Rules to limit )  
certain types of transmission )  
on prescribed portions of the )  
Amateur VHF and UHF bands )

To: The Commission

COMMENTS OF TIMOTHY J. SALO, AB0DO

BACKGROUND

This document contains the personal comments of Timothy J. Salo, AB0DO, and recommends that the Commission reject the petition for proposed rulemaking submitted by the Central States VHF Society (CSVHFS).

My background includes 25 years experience researching, planning, designing, developing and marketing computer communications products and technologies. For the last eight years I have been responsible for several Federally funded Internet research projects. The focus of my research as been the integration of new, high-speed, wide-area network technologies into large, public, IP internets, such as the Internet, (see <http://www.msci.magic.net>).

I believe that new wireless digital networking technologies will provide the foundation for the next significant advances in the continuing convergence of computing, communications, mobility and the Internet. As such, wireless technologies will be fundamental to the further integration of ubiquitous computing with all aspects of our society.

In mid 1996, after a lapse of over two decades, I again became interested amateur radio. I completed my licensing later that year and hold amateur extra class license AB0DO.

My renewed interest was motivated by the prospect of amateur radio as a potential large-scale, real world testbed for advanced wireless networking techniques and mobile (even ubiquitous) computing solutions. In my vision, the amateur radio community will collaborate with wireless, networking and computing researchers to deploy cutting-edge wireless networking technologies in a large-scale, real-world testbed based on amateur radio activities. Prototype implementations embodying new technologies will be developed by researchers in the course of their work and by technically advanced amateurs. The broader amateur digital radio community will deploy these techniques and prototypes, providing a much larger, more diverse testbed than could be funded with research dollars alone. The amateur radio community will benefit from the infusion of current and leading-edge wireless networking technologies. Researchers will gain the early deployment of their research results in real-world environments. The Federal government will increase the effectiveness of its research dollars because the research and amateur

communities will be working collaboratively to advance the state of wireless networking technologies. And our society, at a time when ubiquitous computing and communications are ever more important to all aspects of our lives, will benefit from the more timely availability of refined wireless networking solutions resulting from these researcher/amateur collaborations.

I believe this collaborative vision is consistent with and supportive of the purposes of the amateur radio service. I further believe that this model is consistent with the research objectives of Federal agencies that are supporting wireless and mobility programs as well as other national priorities.

The comments that follow are made the context of this vision of the amateur radio service as a collaborative partner in advanced wireless and mobile networking and computing research.

#### SUMMARY

I recommend Commission reject the CSVHFS petition for proposed rulemaking for the following reasons:

- o Appendix A of the CSVHFS petition contains serious, apparently unintended, technical errors.
- o The CSVHFS petition represents a unilateral move from voluntary band planning by amateur organizations towards a formal regulatory process before the Commission. This move to a regulatory basis for band planning has not, to my knowledge, been widely debated, much less endorsed, by either the amateur radio community or the Commission.
- o The CSVHFS petition represents the desires of only one special interest group within the amateur community, rather than a balance between the competing desires of numerous groups.
- o The CSVHFS petition appears, in seeking to mitigate the "encroachment" of new technologies into traditional amateur radio activities, primarily reactive. Greater consideration ought to be given to supporting, even promoting, the use of emerging wireless networking technologies on the amateur frequencies.

I believe that the Commission might also wish to consider examining:

- o The role band planning ought to play in promoting the use of new and experimental wireless networking technologies, particularly in the VHF and UHF amateur bands;
- o How band planning activities ought to balance the competing demands for amateur radio spectrum, particularly between emerging technologies and traditional amateur activities;
- o The effectiveness of existing, voluntary band planning activities in meeting these objectives; and
- o The most appropriate role for the Commission's regulatory processes in amateur band planning.

#### DISCUSSION

Appendix A of the CSVHFS petition contains serious, apparently unintended, technical errors. As submitted to the Commission, the CSVHFS petition would, for example, prohibit packet communications on the two-meter amateur band. These errors are the topic of numerous

other comments and require little attention here. My detailed analysis of the errors can also be found at <http://www.umn.edu/home/tjs/CSVHFS.html>.

The CSVHFS petition proposes that the Commission's rulemaking processes be substituted for the existing voluntary band planning activities of amateur radio organizations, such as the American Radio Relay League (ARRL). Such a move should not be taken without thorough deliberation. To the best of my knowledge, the use of the Commission's rulemaking processes for amateur band planning has not been widely debated by either the amateur community nor by the Commission. I believe that these discussions ought to occur before any changes to the Rules, such as proposed by the CSVHFS, are made. I also believe that these discussions ought to include an examination of the long-term advantages and limitations of both the voluntary and regulatory models of amateur band planning.

The CSVHFS petition reflects the desires on one special interest group within the amateur community, rather than a balancing of competing interests. I believe that this balancing can occur effectively only when all competing demands for amateur radio spectrum are examined as a whole. A piecemeal or first-come-first-served approach where the early petitions for rulemaking are considered in isolation is likely to lead to a "land rush" reaction where every special interest group rushes to submit their proposals for rulemaking while unallocated spectrum is still available. Such a situation is likely, in addition to other difficulties, to be detrimental to the use of new wireless networking technologies in the amateur bands. Such a result would be, I believe, detrimental to the purposes of the amateur radio service and to the national interests.

Finally, the CSVHFS proposal represents an effort to preserve the status quo through rulemaking. The CSVHFS correctly observes that new technologies and activities are competing with traditional activities in the amateur bands. They have also noted that band-planning activities are difficult and that the amateur community may not have been as effective as it might in balancing competing demands. On the other hand, it appears to me that the voluntary band planning activities need to be more effective in recognizing and promoting the use of new digital network technologies, particularly in the popular VHF and UHF bands. For example, the ARRL two-meter band plan published on their Web site (<http://www.arrl.org/field/regulations/bandplan.html>) contains no explicit provisions for digital modes, other than a note that says "144.9-145.10-- Weak signal and FM simplex (145.10, 03, 05, 07, 09 are widely used for packet)". This language implicitly acknowledges that new technologies are competing with traditional activities, but that the band planning process has not necessarily caught up with these changes. I am hopeful that the CSVHFS petition can initiate broader discussions about future role of amateur radio, particularly in advancing the state of the art of wireless communications.

## CONCLUSION

I recommend Commission reject the CSVHFS petition for proposed rulemaking for the following reasons:

- o The proposal contains serious errors;
- o The proposal replaces voluntary band planning with the Commission's regulatory processes;
- o The proposal represents the desires on only one special interest group; and
- o The proposal seeks to limit, rather than advance, the growth of new technologies in the amateur spectrum.

Finally, I wish to thank both the CSVHFS and the Commission for this opportunity to articulate and publish my thoughts on these matters.

Respectively submitted,

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