

To whom it may concern:

SUBJECT: Docket 16-239 (Amateur Baud Rate NPRM)

Recently this proposed change was brought to my attention and during my review I read two documents written by Theodore Rappaport (dated 10 Nov and 15 Nov 2018) that objected to the change. I also read the ARSFI response to these objections.

I am not an acknowledged expert on the details of the protocols in question but do feel obligated to provide my feedback on this issue.

It appears Prof Rappaport has the following concerns/objections: 1) threat to national security 2) that Amateur communications must be open, unobscured, freely listened, to and interpreted by other hams and that digital protocols are difficult to intercept or decipher over the air transmissions 3) there are on-going issues with the misuse of the amateur radio spectrum that neither Amateur operators or the FCC have addressed. 4) rank and file government organizations are unable to decode the transmissions. My comments are as follows:

By and large I agree with the ARSFI response. Specifically, I have the following issues with Prof Rappaport's objections:

- 1) Any communications system could be considered a threat to national security. A counter to his argument is that radio communications are MORE easily monitored by the Government (part of it anyhow) and other organizations than land lines. In either case, there are procedures available to allow the Government to obtain information set between individuals and groups.
- 2) The open, unobscured and freely listened to argument falls apart because it is based on ease. I would submit that if this change was denied for this reason, then all other amateur radio use above HF would also need to be eliminated. It is "easier" to build an HF transmitter and receiver than a VHF or UHF receiver. Also, it is more difficult to build a HF voice transceiver than a ASK transmitter so I guess HF voice transceivers are out also. (yes, my argument is a bit ridiculous but it is in-line with the argument Prof Rappaport presented).

Also, Prof Rappaport appears to be confusing encoding with encryption. I'm not able to clearly articulate the differences because at some level any coding and encryption are the same. However, it seems the real difference is the intent of the code. Encoding is performed to improve the performance of the transmission through a particular environment while encryption is solely intended to obscure the meaning of the information (often at the expense of added inefficiency).

- 3) The ongoing abuse of the spectrum should be treated as a different issue. My first question would be why are the abuses occurring without being addressed. I suspect it is primarily a funding/manpower issue. There isn't enough funding for the FCC to monitor, find, and remedy the violators and in light of current national budget issues I doubt that can be addressed.

Amateurs can detect interference but really can force compliance and have to submit the complaints/information to the FCC which still cant address all the complaints do the funding issues. I doubt that approving the proposed changes will make this particular issue any worse.

- 4) Prof Rappaport argues both sides of “organizations cant decode issue” since he acknowledges that equipment that can decode the transmissions is available. Instead it is again more of a funding issue where if a local organization wants to purchase the equipment they can but instead have other higher priority issues the need the available funding.

Thank you for this opportunity to comment.

Mike McLaughlin