I am replying to the lengthy comments on this issue by Theodore Rappaport. While Mr. Rappaport makes many points in his comments, virtually none of them have any relationship to the issue being considered – removing the symbol rate limit. He attempts to turn the discussion into a referendum on the Pactor protocol and the Winlink radio e-mail system. Those are NOT the topics being considered. The issue under consideration is whether the symbol rate limit should be removed. While people using Pactor with the Winlink system would benefit, so will other amateur radio operators who will benefit from new protocols and systems developed once there's an incentive to develop faster protocols.

Before dealing with individual objections raised by Mr. Rappaport, let me make the point that removing the symbol rate limit is consistent with the mandated principles of making efficient use of the limited band space and developing new radio technology.

Assertion about encryption

Mr. Rappaport asserts – without evidence – that the Winlink and/or Pactor system encrypt transmissions. First, this has no relevance to removing the symbol rate limit. However, he is totally wrong, and he is misrepresenting the facts that have been presented to him numerous times. The Winlink system uses the publicly-documented B2F message protocol. Within B2F, messages are compressed – they are not encrypted. Both the B2F protocol and the actual programming language source code for the compression/decompression algorithm are publicly available from https://winlink.org/B2F. A competent programmer can use the provided compression/decompression code to implement their own program to decompress Winlink messages.

In addition to Winlink-supported applications, third-party programmers have developed both client and server applications that use the B2F protocol and the compression/decompression algorithm used by Winlink. Since non-Winlink applications exist, it's clear that this isn't a secret or proprietary system. If Mr Rappaport is willing to hire or find a capable programmer, he can write his own programs to send, receive and monitor Winlink messages.

Assertion about bandwidth usage

Mr. Rappaport continues to promulgate the false assertion that removing the symbol rate will result in wider bandwidth use. Mr. Rappaport is technically competent, he has been provided with detailed specifications for Pactor 4 by the manufacturer, and he has the technical ability to use a spectrum analyzer to examine Pactor 4 emissions. Considering this, I have to think his insistent claim that Pactor 4 will use additional bandwidth is disingenuous.

Comments regarding Puerto Rico operation

Two groups of amateur radio operators served in Puerto Rico. The first group, which was ARRL sponsored, used Winlink extensively with the Winmor protocol. I didn't monitor the traffic in detail, but I personally know that hundreds of Winlink messages were sent and received. The second group of hams was sponsored by the federal SHARES organization. They did use Pactor. My understanding is that the ARRL learned lessons from this incident, and there are plans to develop better drop kits for future deployments that will be Pactor equipped.

Comments about Vic Poor's estate

I am stunned that Mr. Rappaport attempts to bring the late Vic Poor and his estate into a discussion about symbol rate. His insinuation that Winlink developers somehow benefited from the death of Vic Poor is not just untrue; it is disgusting and shameful.

Summary and conclusion

I repeat my earlier comment: This is NOT a referendum on Pactor and Winlink as Mr. Rappaport attempts to frame it. (Although both are in compliance with amateur radio rules.) This is a consideration of removing an obsolete symbol rate limit which is hindering efficient use of amateur radio spectrum and the development of new transmission methods to advance the state of the art.