I am a licensed amateur of 47 years, reasonably active on the bands, and a regular participant with my local public service group which uses digital modes on a regular basis in support of emergency communications and disaster response training. I am a Contributing Editor to the ARRL (not an ARRL employee) and have a BSEE degree with more than 30 years of industry experience in product development consulting. I request that the petition be denied on several grounds:

Its adoption would directly undermine amateur radio's ability to provide "service to the public" as required in our Basis and Purpose (FCC Part 97.1(a)). Further, actions suggested by the petitioners to restrict protocol and coding development would severely limit the amateur's ability to develop new forms of digital communication, an ability at the heart of "advancement of the radio art" (Part 97.1(b), and "advancing skills" (Part 97.1(c)) in communications. Innovation by amateurs in developing new methods of digital communication is something of which we should be proud, not seeking to restrict.

A primary issue presented by the petitioners the transfer of "non-ham digital content" on the amateur bands: licensed amateur stations exchanging messages via the Winlink system that are either third-party traffic or messages that violate amateur restrictions on content. The Winlink system administrators are vigilant about abuse, regularly blocking traffic and disqualifying offenders from using the system. The initial communication session establishment mechanisms use public protocols "in the clear" that anyone can monitor to see who is connecting. Non-licensed or falsely licensed stations trying to conduct comms via the ham bands would find it challenging and exposed. The insignificant magnitude of this problem does not warrant a wholesale restriction to the extensive data networks that have been developed by the amateur community.

Transferring messages has been a foundational component of amateur radio for a long time. Many hams worked hard at and became proud of developing skills in exchanging "non-amateur content" as radiograms on data networks called the National Traffic System (NTS). These data networks remain active today and the NTS is implementing digital technology that employs some of the same technologies being objected to in this petition.

Another issue is raised regarding interference from message network stations. This is not a new thing in amateur radio as anyone operating on a traffic net frequency at check-in time can attest. Amateur radio has unparalleled flexibility in choice of frequency, mode, and methods of communication. We take advantage of this flexibility every time we get on the air - even in our choosing which channelized repeater system to use. The solution to interference is better use of our flexibility, not restricting one use in favor of others.

Finally, the issue of "effective encryption" is simply inflammatory rhetoric. The petitioners well know the difference between encoding, compression, and encryption. "Effective encryption" is undefined and an impossible standard to administer, both technically and legally. True encryption is already outlawed. Requirements for encoding are already in place in the FCC rules for amateur radio. This leaves compression.

I agree that the use of compression makes it more difficult to monitor the data being transferred. In fact, that is the point of compression technologies and it is good practice to employ it in order to reduce the number of "channel-seconds" required to transfer a message. Using compression actually reduces the potential for interference.

It is true that compression makes decoding the data being exchanged more difficult in that the monitoring station must receive the entire transmission without error in order to decode the entire message. But that does not meet the standard of intentionally obscuring the message to be considered encryption. This characteristic is true of all compression schemes and should not be a disqualifying point against their being allowed for amateurs.

Is the fact of PACTOR 4 being a proprietary protocol disqualifying? Radioteletype was effectively a proprietary mode for a long time - no one built their own teleprinters back before computer software modems became feasible. Digital voice systems also use relatively undecipherable codecs, including the proprietary AMBE family, and some depend on proprietary network protocols, as well. Amateur radio has dealt with proprietary technology in many aspects of the hobby without damage, often simply implementing an open version that is equivalent to the proprietary technology. For example, amateur-invention WINMOR is an alternative to PACTOR 4 and CODEC2 is an alternative to proprietary voice codecs used in digital voice systems. The availability of proprietary technology has served to stimulate amateur innovation, not suppress it.

So, on examining the petition, we find little technical, operational, or administrative reason to adopt it. The actions it requests would damage the amateur service without commensurate benefits. New technologies and methods have always displaced those already present, justifying the aggravation by delivering new and improved capabilities. So it is with digital technologies used on the amateur HF bands today, which should be encouraged, not restricted. At its root, this petition really stems from a lack of trust and suspicion of change within the amateur community. Neither is a good reason to restrict technological progress. The amateur community, relying on a long and fairly successful history of self-organizing and self-policing, can handle this challenge, too.

73, Ward Silver, N0AX