Dr Theodore S. Rappaport, PE, N9NB May 11, 2018

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To whom it may concern:

On this date, the undersigned had a telephone call with Eric Berger, the Chief Technical Officer of the Federal Communications Commission, regarding a number of topics, including global 5G rollouts, trends in higher education in engineering, and past filings and petitions made in RM-11306, RM-11708, WT16-239, PSHSB17-344, as well as the ARRL’s recent petition that seeks to expand operating privileges for entry-level technician class operators in Part 97.

We discussed a number of public filings at the FCC and public forums, such as IEEE.TV, QRZ.com, and KB6NU.com, and discussed numerous ongoing violations of Part 97 rules by “wideband” data operations on the amateur radio HF bands, including the inability of amateur operators to intercept transmitted messages by some stations in the amateur HF service, and examples of amateur stations that operate out of the proper band segment which has been allocated to automated data services (bulletin boards/remote mail servers), and which cause interference to narrow band stations, and where in some cases the wideband digital stations are operated by non-licensed individuals and carry commercial or illegal traffic.

We discussed national security concerns voiced in public comments that urge WT16-239 and RM-11708 not be enacted, since the proposals ignore interference and would inadvertently perpetuate radio traffic that is impossible to self-monitor or intercept, leading to a greater increase of nefarious or illegal messages using proprietary schemes that are extremely difficult or impossible to intercept using “a man in the middle” amateur radio station. We discussed interference that occurs when wideband data is allowed to operate in the same spectrum as narrowband signals, and discussed where Part 97 rules are ambiguous in prohibiting (perceived by some to be a loophole) proprietary compression or encryption for over-the- air signaling. I urged the Commission to insist that petitioners be transparent and objective about such issues. We discussed national security concerns that might stem from a sudden increase in US amateur operators using the HF data spectrum without first curing current violations. We discussed consequences of providing vast HF spectrum privileges to new operators, or to wideband digital stations that are known to interfere with narrowband modes, without first clarifying and enforcing that all amateur radio traffic must be completely open to eavesdropping. I suggested small sub-bands of operation would be more prudent for new operators and for wideband digital operations, such as the Novice HF sub-band segments used in the 1970s.

We discussed whether ARRL’s recent petition for expanded technician privileges was seeking only “very nominal” change, as stated by petitioner. Given current problems of encryption, illegal use, interference, and other violations by some wideband HF stations, and lack of experience of entry-level technician class operators, we discussed whether opening the floodgates to 370,000+ new operators across the vast part of the HF spectrum would be wise for US national security or the hobby. We discussed STEM, engineering in the US, and the published questions and answers available to pass the various US amateur radio exams.

Sincerely,



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