I am a licensed extra class amateur radio operator with the call sign K3WA. I have been active since 1956. And I strongly object to RM-11708 and urge that it **not be adapted**.

The three reasons I **do not** support RM-11708 are 1. National Security, 2. Science, Technology, Engineering and Math. (STEM), and 3. Adverse impacts on the Amateur Radio Service

If RM-nnnnn were to be enacted, one of the immediate results will be the introduction of multiple broadband, encrypted communication streams across vast portions of the radio frequency (RF) spectrum allocated to amateur radio use. The encryption slated to be used, should this come to pass, is intended to be propriety and unreadable by anyone other than the source and designated recipient of these communications. The amateur radio spectrum is essentially self-policed, guided of course by the Federal Communication Commission (FCC). Without the ability to 'read' what is transmitted, there is no way to self-police. The spectrum assigned to the amateur radio service must be non-commercial by law. Without the means to verify that signals in this spectrum, enforcement monitors must be able to read (copy, understand) those transmissions. Moreover, while what is transmitted could be benign; it may equally be communications between criminals, drug and/or human traffickers, or even terrorists. Since it would also include the ability to distribute emails to internet channels, it could prove the means to distribute malware to unknowing sites. As a nation we cannot afford to open this Pandora’s box. The national security aspects of not adapting RM-nnnnn are serious and worthy of serious consideration. We cannot afford to allow encrypted communication in the amateur radio spectrum.

I am one of many amateur radio operators who founded their careers by the technical knowledge and skills learned through study and practical skills developed in amateur radio. I was licensed at the age of 13. That study and practical skilled allowed me to start a career in the U.S. Navy following high school. I started out as an entry level seaman and advance as an electronics technician. Over the next 31 years of active duty I gained Bachelor's and Master’s degrees, and retires as a senior office over a 31 year career. Following my time in the Navy, I became a Vice President and a business unit manager in a major corporation and then started a small research and development company of my own prior to retirement. I am one of many who had similar careers based on my amateur radio experience. My experience may have been many years ago - but is no difference today. I see many young women and men, girls and boys, who become interested in amateur radio today, and, because of that interest, migrate into STEM programs as the grow in their education. It is in our nation's best interests to facilitate interest in STEM education. Doing anything detrimental to the amateur radio service would be detrimental to facilitating interest in STEM education and careers. Supporting RM-11831 would be thusly detrimental.

The encrypted communication envisioned by some are very broad banded by nature. The current RF spectrum allocated by the FCC to the amateur radio spectrum is limited. The amateur radio portion of the spectrum is subdivided among various communications and experimental modes in bands from 1.8 MHz to light. The high frequency (HF) bands from 160-10 Meters in particular are subject to interference from wide bandwidth signals. Over the years band use planning and restrictions have provided reasonable accommodation to narrow bandwidth technology such as continuous wave (CW) with broader bandwidth such as SSB, RTTY and the newer data modes. The separation of these has kept amateur radio open and available to all modes and foster the innovation and interest in this hobby and in STEM subjects. Allowing broadband data transmissions will fill much, if not most, of this frequency allocation with very wide bandwidth signals, lessening the opportunities and enjoyment of users. Moreover, many of these encrypted, bandwidth hogging signals, which may be unidentifiable by normal means, can allow improper use without detection in spectrum presently allocated to narrow band transmissions. While RM-11708 may provide greater flexibility in digital data communications, it would only do so to the detriment of on-going amateur radio service operations while incurring risk that is harmful to the amateur radio service as a whole.

For these reasons I **cannot support** RM-11708 and **urge it be rejected**.