

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**

Washington, D.C. 20554

In the Matter of )  
 )  
Amendment of Part 97 of the Commission's ) RM-11831  
Rules Governing the Amateur Radio Service )  
Rules to Reduce Interference and )  
Add Transparency to )  
Digital Data Communications )

To: The Chief, Wireless Telecommunications Bureau

Via: ECFS electronic Filing

April 22, 2019

COMMENTS OF JOHN E. HENDRICKS, K7JLT

I have been an amateur radio operator for 60 years and I am the extra class license trustee for the amateur radio station W7OEM (the amateur station used by The Oregon Office of Emergency Management). To find the purpose of Amateur Radio, one does not have to look any further than FCC's Rule and Regulation (R&R) 97.1. I am deeply disappointed that some of my fellow amateur radio operators do not share the FCC's vision for Amateur Radio. By supporting the additions and changes to the R&R's proposed in RM-11831 the FCC's stated purposes of our hobby here in Oregon would be decimated. Radio operators in the State of Oregon fully support the stated emergency communications fundamental purpose of our hobby. Reject RM-11831 because of the harm to the public good these changes will cause.

## 1. FCC Rule 97.1

### Basis and purpose

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

- a. Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communications service, particularly with respect to **providing emergency communications.**<sup>i</sup>

Amateur radio operators in Oregon have fully supported emergency communications throughout the state for many years. A storm in 2007 interrupted all telephone, cell phone and internet communications for several days to Oregon's northern coastal counties. Road access to and within these counties was also greatly limited by storm damage. During this time Amateur Radio Operators stepped in and provided missing communications links using voice communications. Any form of communication that relied on internet connectivity was impossible during the outage. To fill in the missing strategic parts of this communications gap, with error free e-mail service, The State of Oregon in 2007 purchased a large quantity of PACTOR-3 capable modems along with HF radio equipment and computers. This equipment was then deployed to every county in Oregon. With this deployment, e-mail between the counties and Oregon Office of Emergency Management (OEM) was now possible when normal internet connections have failed. This initial quantity of equipment has since been expanded to include over 100 PACTOR modems. The users of PACTOR modems now includes critical State agencies, County Governments, City Governments, Tribal Governments, relief organizations, many hospitals and private groups to provide basic e-mail capability within the state. The Amateur Radio community in Oregon has purchased many additional PACTOR modems with their own money to practice and learn the operating characteristics of the PACTOR equipment, all preparing to serve the public's needs when the next

communications outage emergency occurs. Full adoption of RM-11831 would make this large reservoir of existing emergency e-mail capability useless.

## 2. FCC Rule 97.1

- b. Continuation and extension of the amateur's proven ability to contribute to the **advancement of the radio art.**<sup>ii</sup>

The FCC rules presently restricts data throughput by placing a limit on the Baud Rate that can be used {FCC R&R 97.307(f)}. This limitation curtailed the advancement of the radio art. Innovative computer programming enhancements that are less expensive like Winmore, VARA, VARA-FM, ADOPT are also stopped from advancing to greater bandwidth efficiency (more data within the same occupied bandwidth) by the Baud Rate limitation. The worldwide acceptance of PACTOR-4 demonstrates how far behind the United States is in the advancement of the radio art. The need for **error free** written communications is necessary in this increasingly complex world to meet the documentation requirements of FEMA and Oregon State Law to allow the cost sharing of emergency costs.

## 3. FCC Rule 97.1

- c. Encouragement and improvement of the amateur service through rules which provide for **advancing skills in both the communication and technical phases** of the art.<sup>iii</sup>

In an emergency restoration of the full internet is not possible because of the extremely large bandwidth required. Through the use of PACTOR Modems and Winlink Software OEM has started using Hyper Text Markup Language (HTML) generated forms that interface with Winlink Software. After being sent using the existing PACTOR Modems the forms can pass seamlessly into OEM's existing emergency management tracking and dispatch systems. When being generated, these forms have the look and feel of the internet input process that County Emergency Managers have been training on for several years, without the large bandwidth required by a full internet connection. Full implementation of RM-11831 would move this process to voice communications which would be much slower, requiring a much larger team of radio operators.

#### 4. FCC R&R 97.1

- d. Expansion of the existing reservoir within the amateur radio service of **trained operators, technicians, and electronics experts**.<sup>iv</sup>

Skilled operators will be required during a communications outage. The OEM Radio Operations Room would require a total of 40 trained amateur radio operators operating in rotating shifts to provide the voice and data communications for the duration of any prolonged communications outage. Additional skilled operators are required at County Governments, City Governments, Tribal Governments, and relief organizations to form the other end of any communications path. A large pool of skilled operators has been developed in Oregon by having large scale communications exercises 6 times a year. Over the prior 12 year period (2007-2019) thousands of hours have been devoted to passing simulated emergency e-mail messages within the emergency response community using PACTOR-3 Modems, including e-mail messages with adjacent states (Washington, Idaho, California) and FEMA. Practice nurtures and develop the skills necessary to respond properly when a high stress emergency occurs.

When a Cascadia Subduction Zone Earthquake occurs, it is predicted there will be a loss of all commercial communications for months from the Northern California coast, through Western Oregon, Western Washington into Vancouver Island in Canada. A very large pool of trained amateur radio operators will be quickly required to provide communications. The implementation of any FCC generated special authority to allow PACTOR-4 operations after the incident occurs would not be able to provide the equipment and trained operators where they will be needed in a timely manner. If RM-11831 is implemented a logistics nightmare should be expected instead of a timely emergency response.<sup>v</sup>

#### 5. FCC R&R 97.1

- e. Continuation and extension of the amateur's unique ability **to enhance international goodwill**.<sup>vi</sup>

The international community has adopted PACTOR-3 and is quickly advancing to PACTOR-4 as the standard for emergency e-mail communications. If RM-11831 is adopted the loss of PACTOR capability will certainly **not** enhance international goodwill when the international community requests assistance and the United States amateur radio community would be unable to respond.

An interference issue is presented in the petition for rule making by Ron Kilarik (FCC ID 100918881206) as reasons for the drastically change to Part 97 R&R's. If Ron Kilarik would of had some experience with operating a PACTOR modem he would realize that interference is something to be avoided because it drastically reduces message throughput, sometimes to zero. If the operator initiating a PACTOR connection to a Automatically Control Data Station operating as a gateway into the internet encounters a busy channel or interference the operator looks for an different gateway to pass traffic. It has been my experience with PACTOR over last 10 years that interference occurs less often than what I have observed in the 60 years of operating CW, RTTY, AM, FM, Single Side Band, Slow Scan TV, ARPS and many of the newer narrow bandwidth data modes.

In my 60 years as an Amateur Radio Operator, respectfully sharing the amateur radio bands with many different emission types and other operators has been the norm and this needs to be continued into the future.

A self-monitoring and self-regulation issue is presented in the petition for rule making by Ron Kilarik (FCC ID 100918881206) as a reason for a drastically change to Part 97 R&R's. While it may Ron's desire, nowhere in the existing Part 97 R&R's is self monitoring, self-regulation or unlimited access to free hardware and software mentioned. Anyone that has such a passion for self monitoring of the amateur radio bands, should commit resources to pursuing that goal like I and many others have for emergency communications. As has been stated by others the equipment, software and educational materials are available to accomplish a self-monitoring goal, it only takes commitment.<sup>vii</sup>

## Summary:

The Rules and Regulations recognize that providing emergency communications is the primary value and purpose of amateur radio. This is a value and purpose to which the Oregon Amateur Radio Community, the State of Oregon and I have committed money, time and effort to supporting over many years. Approval of RM-11831 will destroy much of our commitment to emergency communications. Reject RM-11831 because of the harm to the public good these changes will cause.

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<sup>i</sup> Emphasis add by the Author

<sup>ii</sup> Emphasis add by the Author

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<sup>v</sup> ARRL QST Article September 2016 “Cascadia Rising 2016: Pacific Northwest Amateurs Called to Serve”

<sup>vi</sup> Emphasis add by the Author

<sup>vii</sup> Lering Kutchins “Comments in support and Rebuttal of Opponent’s Arguments”  
FCC ID 120566997404 Afternotes Number 12