

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

|  |   |                        |
|--|---|------------------------|
| In the Matter of                         | ) | RE: WTB 16-239         |
|  | ) |                        |
| Amendment of Part 97 of the Commission's | ) | RM-11708, RM-11759     |
| Amateur Radio Service Rules              | ) | DA 17- 1180, FCC 16-96 |
| to Permit Greater Flexibility            | ) | PSHSB 17-344           |
| in Data Communications                   | ) | RM-11306               |

To: The Chief, Wireless Telecommunications Bureau, PSHSB,  
AND Scot Stone, Stanislava Kimball, Paul Moon, Laura Smith

Via: ECFS Electronic Filing

**ERATA to My REPLY COMMENTS TO Hans-Peter Helfert of SCS 11/14/18**

RE: FCC ID 110731917879 <https://ecfsapi.fcc.gov/file/110731917879/16-239.pdf>

I regret in haste to respond, I failed to include this important evidence in my comments yesterday. I will not expand on it with my own words for the sake of welcome brevity, as the evidence is self-explanatory and thoroughly incriminating.

**IN THEIR OWN WORDS:**

From: [http://www.laarri.org/pdfs/digital\\_comm3.pdf](http://www.laarri.org/pdfs/digital_comm3.pdf)

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In certain configurations, Pactor II and III utilizes proprietary data compression technology which may be used by the unscrupulous to try to conceal the nature of the transmission. This is illegal on ham radio but it is possible with the SCS modems.

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The in-line data compression provided by the PTC modems is especially useful for applications which do not allow off-line (file) compression, e.g. email via TCP/IP, etc. However, it is a proprietary compression method and is not widely accepted by some countries as an acceptable compression method. US amateurs should not use the built in compression of the SCS modems, but rather use the compression methods provided by PACLINK and AirMail in all modes including PACTOR I, in order to comply with the spirit of FCC Part 97 and OSHEP guidelines on data encryption.

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The negatives of PACTOR II and III are:

- Cost is an important consideration when choosing PACTOR II and III equipment. PACTOR I is open technology and used modems can be purchased for PACTOR I (e.g. the Kantronics KAM XL and later models of the AEA PK232 modem) in the \$50-\$150 price range and are in ample supply. Only one soundcard software solution currently transmits and receives PACTOR I – “hf” for Linux. The two enhanced modes, PACTOR II and PACTOR III, are much faster but have been kept proprietary by the German company, SCS, that developed PACTOR. As a result, SCS is the only source for modems capable of these modes. The price of these modems (in some cases as much as a recent model HF radio) discourage many potential users. WinMor is due for release soon and should address this concern as it is promised to be released for the public domain for free and exceeds PACTOR I in performance. It is unclear whether it will be

for the Windows market only or will be multi-platform in it's initial release.

- As wireless Internet connections become commonplace, including satellite Internet service providers and WiFi, users are finding that other reliable ways to communicate that are less costly than proprietary hardware.

- Like all digital radio modulation modes, PACTOR transmissions have the potential to disrupt other modes of communication on the same or nearby frequencies because of bandwidth considerations in data segments of each band, and unattended automated operations. Good operating practices must be followed to avoid potential interference. **SCS modems have the ability to detect activity before transmitting but it is an operator selected option. Previously, PMBO operators had this feature turned off.** Now the use of this feature is more widely accepted and may be in widespread use soon if not already.

#### WINMOR

WINMOR, by Rick Muething KN6KB of the Winlink Development Team, is a new HF radio transmission protocol for the Winlink 2000 system. WINMOR was introduced at the 2008 ARRL / TAPR Digital Communications Conference in Chicago on September 26-28, 2008. Unlike PACTOR II and III, only a simple computer soundcard-to-radio interface is required, and it will run as a "virtual TNC" with PackLink and RMS software. **Also unlike PACTOR, it will be fully documented and without restrictions or license issues preventing anyone from using the protocol in other software.** It will have at least three modes, ranging from 200 to 2000 Hertz in bandwidth, and will provide raw speeds ranging from 125 to at least 1875 bits per second. This rivals PACTOR II under some conditions.

#### CONCLUSION:

What is clear about Pactor 2, 3, 4 is that it is "unspecified" and not "publicly documented" by their own admission, which is illegal on HF, but permissible on VHF/UHF in some circumstances, according to Part 97.305, 97.307, 97.309. The channel busy detection can, and is frequently, turned OFF, resulting in deliberate interference. Deliberate encryption use is possible and ongoing, contrary to 97.309 (4) (b) "unspecified digital codes must not be transmitted for the purpose of obscuring the meaning of any communication". The emails sent through the Winlink system, from unlicensed third party originators who do not know FCC rules about content, are required to be continuously monitored by the initial shore station in 97.115 (b) (1). "The control operator is present at the control point and is continuously monitoring and supervising the third party's participation." This can only be done after the transmission if the control operator elects to supervise via Winlink site's logs of traffic.

What more evidence does the FCC need to begin an investigation of this, before hastily expanding the use of these HF email practices? If you must proceed with this damaging 16-239, please consider limiting it to reasonable size ACDS segments, as 90% of commenters in 16-239 advocated, and this petition recommends:

<https://ecfsapi.fcc.gov/file/100918881206/PETITION%20FOR%20RULEMAKING.pdf>

Please consider these arguments about the legal contradictions in FCC's own 16-239 proposal of unlimited band width anywhere in the HF DATA segments while limiting data to 20 Khz at VHF and 100 Khz band width at UHF. It offers a more reasonable alternative of adjustment of ACDS segment size (a "by band segment" the FCC 16-239 offers) instead of "by band width" full DATA segment takeover:

<https://ecfsapi.fcc.gov/file/1005214251324/FCC%2016-239%20DISMISSorSTAY1.pdf>

Respectfully submitted as further evidence and clarification,

/S/

Janis Carson, AB2RA, member of ARRL 40 years, licensed since 1959.