Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC, 20554

In the Matter of: Notice of Proposed Rulemaking WT Docket 16-239, NPRM-11708

Amending Part 97 of the Commission's Rules and Regulations to Permit Greater Flexibility in Data Communications

To the commission:

REPLY COMMENT AND REBUTTAL OF:
https://ecfsapi.fcc.gov/file/103062622542/WTB16-239response(1).pdf

10/31/16
Matthew Pitts Reply Comment 16-239

Pitts states, referring to me:

"However, her comments and conclusions ignore that no current or planned modulation technology being requested can utilize more than 3 kHz bandwidth on HF even if the transmitting radio is theoretically capable of transmission at those bandwidths. She also ignores that when your predecessors originally established the current ACDS bands, they correctly decided to avoid establishment of such a band on 160 meters and pushes for one to be established simply because the IARU band plans show the option."

COMMENT: Just because no one foresees an emission mode wider than 3 Khz for the Amateur spectrum does not mean that it does not exist. STANAG 3 Khz is available and does not seem to suffer from the "BUGS" pervasive in experimental data modes they are constantly tinkering with. It is a fully developed robust communication emission that would be ideal for interoperability with Military and Civil Defense users in Emergency Communications. In fact, there is a STANAG mode that is 24 Khz wide that delivers connection speed nearly that of older dial up internet. In Emergency Communications, that could be useful. There is nothing in the FCC WT 16-239 proposal for unlimited band width emission that would preclude the use of STANAG for such purposes. In fact, it might be preferable to adopt STANAG as a tool for Emergency Communications rather than Winlink or ARDOP. Both of the current non-military emissions seem to have problems, as stated in another recent filing by Pitts himself: "Despite what appear to be claims to the contrary, busy channel detection is a complicated process and current implementations have serious unacknowledged flaws when used in anARQ system. It is not possible ... to determine if a wider bandwidth transition will cause interference with adjacent signals,"

That being the case, I have advocated for the FCC proposal of "unlimited band width" but that it be "limit(ed) (to) only in particular subbands." This method is DIRECT method that segregates the incompatible modes in which " It is not possible" to "mitigate" interference. The ARRL petition fails on a number of counts, as I recently filed a reply comment explaining, but the most significant is that it does NOT "mitigate" the interference by separating the incompatible emissions into their own segments.

As regards the 160 meter band, IARU recently updated their plan for 160 meters, moving the ACDS segment. ARRL is the USA representative for IARU, and since ARRL is the primary organization "pushing" for adoption of Winlink like wider data emissions, we can conclude that it was the intent of ARRL to USE 160 meters for that purpose. I now merely wish to establish an unambiguous FCC Part 97 rule that conforms to IARU Region 2 allocations. There have been too many "costs" associated with excessively "vague" Part 97 rules and "voluntary" band plans enacted at the whim of a private organization, the ARRL, which provides no guarantee of fair and balanced public input. I plan to file a small erratum correcting to the new rules on 160 meters, to move my proposed segment (which conformed to older IARU region 2 band plans at the time). That was as FCC recommended in FCC WT 16-239 reply comments guidelines for complying with "generally applicable standards" of IARU Region 2.

Pitts states, referring to a previous FCC RM-11392:

No bandwidth limit is therefore needed.

COMMENT: I agree, so long as those emissions are contained "only in particular subbands" as suggested in the FCC WT 16-239 filing instructions. I provided detailed band plans, based on both the current FCC Part 97 rules and tables, and the proposed ARRL HF band plan and IARU Region 2 band plan. They are already filed with the FCC:

Detailed band plans using the Part 97 rules as a template:
https://ecfsapi.fcc.gov/file/1091422828084/filing%2016239%20changes%20to%20fcc%20part%2097%20B.pdf

Detailed band plans using ARRL's own proposed band plan and IARU region 2 band plan:
https://ecfsapi.fcc.gov/file/109011952607702/FCC%20FILING%20docket%2016%20239%20FINAL10%20%20rm11708.pdf

Pitts continues:

And as your predecessors so eloquently stated in their report and order in RM-11392 "We also believe that imposing a maximum bandwidth limitation on data emission swould result in a loss of flexibility to develop and improve technologies as licensees' operating interests change, new technologies are incorporated, and frequency bands are reallocated. Additionally, we believe that amending the amateur service rules to limit the ability of amateur stations to experiment with various communications technologies or otherwise impeding their ability to advance the radio art would be inconsistent with the definition and purpose of the amateur service. Moreover, we do not believe that changing the rules to prohibit a communications technology currently in use is in the public interest."

The FCC proceeding quoted by Pitts includes the possible future solution of separate "frequency bands are reallocated" for the use of wider band new emission classes, as proposed by the FCC. The FCC in WT 16-239 creates a new class of data emission, with no band width limit; I do not dispute either the FCC or Pitts in that matter. I merely am following the FCC WT 16-239 guidelines in advocating for separate segments for CW/narrow DATA and the new ROBOT/WIDE DATA.

In fact I NEVER was "pushing" for anything at all before this. I was minding my own business, when ARRL, Pitts, Waterman of Winlink, and others "pushed" for a rule making change, and the possible

“costs” to many incumbent users necessitated the filing of essential replies that requested “mitigation”. Those commenters requesting a roughly 100 Khz segment at the lowest end of each major HF band, with a separate segment for the ACDS ROBOTS and new no band width limit DATA were not “pushing” any agenda either. They were simply acting for their own self protection from others who were essentially confiscating spectrum from them. ARRL now finallly admits that it could result in that, as addressed in my other filing in response the the ARRL:

https://ecfsapi.fcc.gov/file/11091541913133/FCC%20WT%2016-239%20ARRL%20reply.pdf

“Despite what appear to be claims to the contrary, busy channel detection is a complicated process and current implementations have serious unacknowledged flaws when used in an ARQ system. It is not possible, without complicated auxiliary listening technologies, to determine if a wider bandwidth transition will cause interference with adjacent signals,

COMMENT: Pactor and ARDOP is an evolving technology that is not compatible with any other emissions. Matthew Pitts states it has “serious unacknowledged flaws” Further he states: “ It is not possible (to prevent) interference.” These emissions still have work to do to prevent interference with it's own type of data. A regulation of 2.8 Khz as the ARRL has proposed does not separate the incompatible modes and “mitigate” this interference that Matthew Pitts admits exists. That is why I have recommended that all “ROBOT” or non HUMAN modes, regardless of bandwidth, be given their own separate sub band, separate from CW/narrow DATA. This is in line with the FCC guidelines for WT 16-239: “ the basis for the particular limitation the commenter proposes, and whether the limit should apply across the bands or only in particular subbands”. These separate sub bands and further grounds for adoption into Part 97 rules, not a voluntary band plan administered by a private agency (ARRL), are given in my previous filings:

Detailed band plans using the Part 97 rules as a template:
https://ecfsapi.fcc.gov/file/1091422828084/filing%2016239%20changes%20to%20fcc%20part%2097%20B.pdf

Detailed band plans using ARRL's own proposed band plan and IARU region 2 band plan:
https://ecfsapi.fcc.gov/file/109011952607702/FCC%20FILING%20docket%2016%20239%20FINAL10%20%20rm11708.pdf

COMMENT: Pitts then admits that most developers, specifically Pactor, DO NOT even intend to attempt to comply with “listen before transmit”. This is precisely what many commenters have been saying all along about existing problems, even before FCC implements the outcome of WT 16-239. Previous comments by Ted Rappaport presented proof of this on 9/26/16 in an ex parte presentation before the FCC. For brevity, I will not restate them here, but you can refer to them at:

https://ecfsapi.fcc.gov/file/1092719005718/Winlink%20Compilation%20pt2.pdf
https://ecfsapi.fcc.gov/file/1092719005718/exparte%20September%2026%202016%20attachment.docx
https://ecfsapi.fcc.gov/file/10925839109476/FCC%20exparte%20letter%209%2025%202016.docx
https://ecfsapi.fcc.gov/file/10925839109476/K7NHV%20Winlink%20Handout.pdf
https://ecfsapi.fcc.gov/file/10925839109476/FCCNPRM%20Docket%2016-239%20Final.pptx
https://ecfsapi.fcc.gov/file/10925839109476/Winlink%20compilation%20pt1.pdf

These are the legal "grounds" for FCC taking action to prevent intolerable "congestion" and interference, with associated "costs" for enforcement action to deal with the consequences.

Having seen the frank admission and documented track record of "serious unacknowledged flaws" in the implementation of these ROBOT emissions, I petition for relief and "mitigation" of such interference and "congestion" by means of " limiting" these emissions to "only in particular subbands".

Please therefore adopt the following band plans as Part 97 rules, limiting the "ROBOT" and wide band data emissions to specified sub bands as described in:

Detailed band plans using the Part 97 rules as a template:
https://ecfsapi.fcc.gov/file/1091422828084/filing%2016239%20changes%20to%20fcc%20part%2097%20B.pdf

Detailed band plans using ARRL's own proposed band plan and IARU region 2 band plan:
https://ecfsapi.fcc.gov/file/109011952607702/FCC%20FILING%20docket%2016%20239%20FINAL10%20%20rm11708.pdf

Respectfully submitted,

/s/

Janis Carson, AB2RA, Extra Class, Amateur licensee since 1959, ARRL member 40 years.

APPENDIX, FCC DIRECTIVE IN RESPONDING TO NPRM-11708 & WT 16-239:

"While we tentatively conclude that a specific bandwidth limitation for RTTY and data emissions in the MF/HF bands is not necessary, we nonetheless request comment on whether we should establish emission bandwidth standards for amateur service MF/HF RTTY and data emissions. Commenters favoring such action should address what the maximum bandwidth should be, the basis for the particular limitation the commenter proposes, and whether the limit should apply across the bands or only in particular subbands. Commenters should explain the grounds for departing from the generally applicable standards."