

Comments on OET 17-215 Technical Inquiry into Reforming Technical Regulations

There is a section of Part 97 rules that is possibly out of date and in need of revision as a result of proposed FCC Rule Making WT 16-239 or RM-11708, as well as RM-11759.

I quote current published rules:

“Paragraph 97.221 Automatically controlled digital station.

(a) This rule section does not apply to an auxiliary station, a beacon station, a repeater station, an earth station, a space station, or a space telecommand station.

(b) A station may be automatically controlled while transmitting a RTTY or data emission on the 6 m or shorter wavelength bands, and on the 28.120-28.189 MHz, 24.925-24.930 MHz, 21.090-21.100 MHz, 18.105-18.110 MHz, 14.0950-14.0995 MHz, 14.1005-14.112 MHz, 10.140-10.150 MHz, 7.100-7.105 MHz, or 3.585-3.600 MHz segments.

(c) Except for channels specified in §97.303(h), a station may be automatically controlled while transmitting a RTTY or data emission on any other frequency authorized for such emission types provided that:

(1) The station is responding to interrogation by a station under local or remote control; and

(2) No transmission from the automatically controlled station occupies a bandwidth of more than 500 Hz.

[60 FR 26001, May 16, 1995, as amended at 72 FR 3082, Jan. 24, 2007; 77 FR 5412, Feb. 3, 2012]”

The FCC in WT 16-239 currently proposes to abolish all band width specifications for RTTY/DATA. The result of this rule making, if it becomes a final Report and Order, would be to make Paragraph 97.221 C redundant, since no 500 Hz limit would be valid. **Therefore the 97.221 C portion of the rule should be DELETED, since that is the clear intent of WT 16-239 as currently written.**

If enacted in that fashion, **Paragraph 97.221 B would also need correction**, to conform to the intent of WT 16-239. This would allow a single digital ACDS station to occupy ALL the entire currently enumerated CW/DATA band segments of the HF bands mentioned above. This in effectively expands the paragraph 97.221 B ACDS to the entire CW/DATA segment of the HF band it occupies. To illustrate the effect of this, the specified ranges of ACDS operation would be:

28.120-28.189 MHz	would become	28.0 – 28.2
24.925-24.930 MHz	would become	24.890 – 24.930
21.090-21.100 MHz	would become	21.0 – 21.2
18.105-18.110 MHz	would become	18.068 – 18.110
14.0950- 14.112 MHz	would become	14.0 – 14.150
10.140-10.150 MHz	would become	10.1 – 10.15
7.100-7.105 MHz	would become	7.0 – 7.125 (in the continental USA, not offshore)
3.585-3.600 MHz	would become	3.5 – 3.6

Or, if RM-11759 is enacted as ARRL requested, 80 meters would be:

3.585-3.600 MHz	would become	3.5 – 3.65
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Thus, 97.221 B is ALSO OBSOLETE in the event WT 16-239 becomes a Report and Order. Essentially, the entire paragraph 97.221 can be eliminated, if WT 16-239 is enacted.

BOTTOM LINE RESULT: ONE SINGLE ACDS DATA SIGNAL CAN LEGALLY OCCUPY ALL OF THE CW/DATA SEGMENT OF ANY GIVEN AMATEUR HF BAND, IF WT 16-239 TAKES PLACE, AS WRITTEN. ARRL admits this is possible in their reply comments.

I therefore am recommending and requesting that the FCC NOT take the action described above, but instead retain and preserve a form of the existing wording, and restrict the “unlimited band width” ACDS signals and even narrow band ACDS signals to a specified portion of any given HF band. The real problem is separating the “ROBOTS” from humans. I recommend the following:

1. Delete paragraph 97.221 C entirely, including its sub paragraphs.
2. Replace the wording of paragraph 97.221 B with:

28.120-28.189 MHz	would become	28.120 – 28.189
24.925-24.930 MHz	would remain as it is currently;	that band is too narrow to accommodate more
21.090-21.100 MHz	would become	21.090 – 21.200
18.105-18.110 MHz	would remain as it is currently;	that band is too narrow to accommodate more
14.0950-14.0995 MHz & 14.1005-14.112 MHz	would become	14.0950-14.0995 & 14.101 – 14.150 (must avoid beacons 14.100)
10.140-10.150 MHz	would remain as it is currently;	that band is too narrow to accommodate more
7.100-7.105 MHz	would become	7.100 – 7.125
3.585-3.600 MHz	would become	3.585 – 3.635

(this is a compromise to the ARRL 3.650 they call for in RM-11759)

3. Create a new emission designation for the the new class of data proposed in WT 16-239, which has only the stipulation that it and its distortion products are contained within the assigned segments noted above. I propose the new FCC emission designation be a ? since it could literally be ANYTHING that was automatic unattended operation regardless of bandwidth. I am presenting a solution to a contentious proceeding and a long standing problem. It also allows the

FCC to exit the micro management of digital modes and partially implement deregulation of band width, within the ACDS segments. The incumbent narrow band emissions and their related tables of frequencies assignments would remain unchanged. The incumbent VOICE/DATA emissions would also remain unchanged.

This is exactly what ARRL proposed (or more) in their published HF band plan proposal:

<http://www.arrl.org/files/file/About%20ARRL/Committee%20Reports/2015/January/SUMNER%20OS4.pdf>

The above changes to paragraph 97.221 also correspond as much as possible to IARU region 2 band plans;

<http://www.iaru-r2.org/documents/explorer/files/Plan%20de%20bandas%20%7C%20Band-plan/R2%20Band%20Plan%202013.pdf>

Region 2 band plan (which includes USA) further states:

“DM: Digital Modes: Any mode devoted to digital data communication restricted to the specified bandwidth and application of the segment (not for Digital Voice and Internet Voice Gateways). Examples: RTTY, PSK, FSK, etc”

“ACDS:

Automatic Controlled Data Stations, including Store and Forward stations (not Digital Voice Repeaters and Internet Voice Gateways) In the case of digital beacons, it’s recommended to insert CW on the usual schedule for non-machine recognition and use narrow BW as possible.

ACDS are allowed only when directly specified on the segment (except those

on board satellites and spacecraft - able to transmit on specified satellites

segments - and onboard near space stations see “NSS”). Unattended operations

are restricted in HF (see “Unmanned/unattended transmitting stations”)

I previously provided detailed discussions with graphics showing how to accomplish this in FCC filings:https://ecfsapi.fcc.gov/file/109011952607702/FCC_FILING_docket_16_239_FINAL10_rm11708.pdf

I appreciate the opportunity to address this long standing situation before the FCC, and hope that the real solution of separating “ROBOT” ACDS stations from manned human operators is implemented as I have proposed. **The issue is NOT band width. It is “ROBOT” vs “human” operators.** “Listen before Transmit” is the bedrock of shared spectrum. “ROBOT” stations prioritize message delivery over “listen before transmit” and **need their own separate spectrum assigned**.

Respectfully submitted,

/S/

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