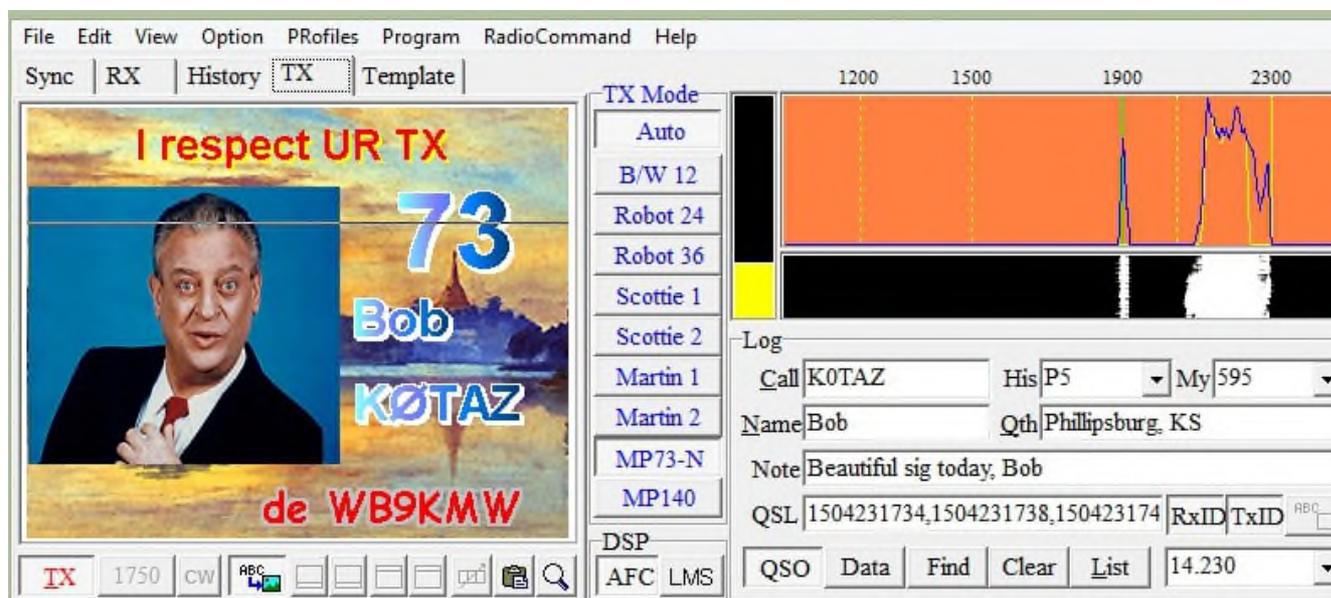


Narrow SSTV on 30 Meters

There has been considerable debate in the US regarding ability for hams to transmit Slow Scan TV signals on the 30 meter band. IF it is permitted at all, hams MUST only use Narrow SSTV modes. Scottie and Martin modes are prohibited. Also, one cannot simply transmit MP73. That is a wide mode, too.

The most popular is MP73-N, and the calling frequency is 10.132 MHz USB.

A transmission would look like this. Very importantly, notice with Narrow SSTV, the audio signal is only 500 Hz wide, extending from 1900 to 2300 Hz on this MMSSTV audio spectrum. Contrast that with normal SSTV, which has a VIS marker at 1200 Hz and color intensity is transmitted between 1500 and 2300 Hz. (This QSO was conducted via MP73-N on 20 meters. That is perfectly acceptable.)



I wrote Chuck Skolaut KØBOG, ARRL Field & Regulatory Correspondent, in June, 2014. I asked if analog SSTV was permitted on 30 meters.

Their rules man stated: SSTV is image modulation, not data modulation. (FYI, the SSTV emission code we use on 14.230 MHz is J3F, ie, SSB, one channel, television/image.) He referred to FCC 97.305(c). And for 30 meters, only RTTY and data may be transmitted. Hence, ARRL concluded that SSTV is not permitted on 30 meters in the US.

Then I came across a very specific subsection of FCC Part 97, which appeared to allow exception for N-SSTV at under 500 Hz. I wrote back to ARRL, and I never received any response for reconsideration.

Further discussion arose in the Amateur Slow Scan TV Facebook forum in April, 2015. I researched in greater depth and uncovered the following information.

I looked at FCC 97.3(c)(2)(iii) which carves out exceptions. It allows: Data...computer communications emissions having...(iii) emissions...J2C, and J3C having an occupied bandwidth of 500 Hz or less when transmitted on an amateur service frequency below 30 MHz. Only a digital code of a type specifically authorized in this part may be transmitted.

So what is J2C & J3C?

Now we move over to FCC 2.201 that defines emissions. Emissions are designated according to classification and necessary bandwidth. Three symbols:

- 1st is type of modulation of main character,
- 2nd is nature of signal modulating main carrier,
- 3rd is type of info transmitted.

As mentioned above, normally we transmit J3F. But the FCC makes exception for J3C.

What's that about?

On October 10, 2006 the FCC released 06-149. It addressed many amateur radio rules questions, including this exception we now see in FCC 97.3(c)(2). The FCC said that it believes amateur stations should be allowed to transmit narrow band image emissions in digital frequency segments. The FCC newly allowed J2C and J3C emission designators in this 'data' definition.

The ARRL objected...overruled!

Well, C stands for facsimile. F stands for television/video. I know SSTV is F. While the FCC allowed for narrow bandwidth analog image emissions in digital frequency segments, they only allowed C: facsimile and not the F: video we commonly have used.

I have not found anyone to state what the emission classification is for MP73-N. IF it is still J3F, then we cannot operate SSTV on 30 meters. It seems that some have quickly jumped to an interpretation that we can, but a limited number have also questioned, like me, if it is a J or a C emission designator that we would be using.

Next, we need solid documentation on whether MP73-N is FAX or video???

I joined the Yahoo user's group, 30 meter SSTV, to see if I could find an answer. Indeed, I went into a series of September, 2010 postings where this topic was being debated. The very first entry I found from Joel KG0DP concluded with this question: **Is MP73-N FAX or video?** Bingo!

I followed the rapid succession of postings. The first response was posted by Jose N4BAA. He asked the FCC, and in a reply from the ULS Customer Support Hotline, he received the following ominous message, which reads in part:

FCC-licensed amateur stations are not authorized to transmit phone or image emissions in the 30 m band, regardless of emission designator.

Slow Scan Television (SSTV) is an image emission.

Some amateurs have been informed that MP73-N type of SSTV is allowed on the 30M amateur band and that this pronouncement applies to FCC-licensed amateur stations; however, they have been incorrectly informed.

SSTV is an image emission which, like phone emission, is not authorized to FCC-licensed amateur stations in the 30 M band.

Currently, the FCC is aware of SSTV activity (MP73-N) users on 30M and is currently identifying those individuals in order to take legal action based on regulations as currently written.

In a post by the administrator of this 30 M SSTV group, Lou W8LEW said that thanks to Mark N5RFX, who petitioned the FCC last year (ie, 2009), the decision was made to allow any kind of image transmission (analog or digital) in text digital portions of the bands here in the US provided that they are 500 Hz or less in bandwidth.

Ergo: Any designator ending in 'c' is fax/image which is permitted on 30m if the bandwidth is held below 500 Hz.

MP73-N and the other MP modes of SSTV are legal in the USA under FCC Rules.

In a subsequent post by Jose N4BAA, he received a personal response from the FCC from William Cross W3TN, staff member in the FCC's Mobility Division, part of the Wireless Telecommunications Bureau. This communication stated:

The Commission does not review different 'modes' that you guys come up with and approve them or determine for you what they are. The Commission allows the amateur service to be self-regulating because it possesses the technical expertise within to develop new communication technologies and implement them within the rules.

We believe that you can determine for yourselves if a particular 'mode' [note that that term is not used anywhere in Part 97] is a data emission, a phone emission or an image emission as the terms are used in Part 97, and that amateur stations will be operated accordingly.

The MP73-N mode, whatever that is, is something that was either developed by the amateur community or offered to it from some other service or system. The same is true of Olivia, JT65, Hellschrieber, Pactor I, II and III, etc. None have been 'Commission-approved' because licenses have determined for themselves whether they are allowed under the rules.

Another post stated that with a name, ie, William Cross, attached to an FCC response, it does lead to a more solid foundation. William Cross's line of thinking and reasoning is interesting as well as logical. I agree!

This implies that in the unlikely event that someone does make an issue of Narrow SSTV, that we as an individual operator will need to articulate our rationale for using the mode we choose, eg, MP73-N.

There is more than enough supporting information along with William Cross's comments to convince that this mode is well within the regulations of Part 97.

Larry WB9KMW @ www.wb9kmw.com

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