



<b>SUBJECT</b>	<b>Change of spacing for all “narrow” 434 MHz repeaters, - from 1,6 to 2,0 MHz.</b>		
<b>Society</b>	<b>EDR</b>	<b>Country:</b>	<b>Denmark</b>
<b>Committee:</b>	<b>C5</b>	<b>Paper number:</b>	<b>CT08_C5_06</b>
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In the recent years the IARU, Region 1, Committee C5 has made some changes in the band plan for the 435 MHz band.

This was done mainly due to the increasing number of “Low-Power-Devices” and “Short-Range-Devices” in the ISM-band: 433,920 +/- 0,2% (433,052 - 434,788 MHz).

First we moved and “compressed” the beacons from 432,800 - 432,990 MHz down to 432,400 – 432,490 MHz, partly because the beacons then was closer to the narrowband working segment,

- but it was also done in order to be able to expand the repeater-spacing from 1,6 to 2,0 MHz in the countries only having the band 432 – 438 MHz, - and in that way bring the repeater input frequencies outside the ever increasing interference in the ISM band.

Especially the Nordic countries was promoting the change whereas the committee as such wanted to retain the 1,6 MHz repeater-spacing alongside the new 2 MHz repeater-spacing as the “narrow” IARU repeater systems for the time being. (Vienna 2004)

In February 2008 the Danish Repeater-certificate-holders held their bi-annual general assembly. One of the main items on the agenda was an evaluation of the change of the 434 MHz repeater spacing from 1,6 MHz to 2,0 MHz with emphasis on the interference problems from SRDs and LPDs.

It seems like we actually got rid of nearly all of the interfering signals on the repeater input channels! A few stray LPDs can be heard on rare occasions but they are outside their band and can be stopped.

We still do have half of the repeater outputs channels (RU 368/434,600 – RU 382/434,775) in the ISM band but that problem is of far less impact to the repeater users than the previous interference on the input frequencies.

(This problem is present regardless of whether we use 1,6 or 2,0 MHz spacing!)

As the change to 2,0 MHz spacing has eliminated the SRD/LPD interference present on the input channels of the 1,6 MHz system, - and in order to improve repeater operation throughout the countries with less than 10 MHz available of the 435 MHz band:

**We therefore propose to phase out the 1,6 MHz repeater spacing from the 434 MHz bandplan retaining only the 2,0 MHz spacing as the “narrow” IARU, Region 1, 434 MHz FM-repeater system.**

(RU 368 = Output: 434,600 MHz and corresponding input: 432,600 MHz (Before: 433,000)).

