Narrowband Proposal

Last year[1], we discussed how the BCARCC was considering following the Western Washington Amateur Relay Association's proposal to move the 2m repeater spacing from 20 kHz to 12.5 kHz and the 70cm repeater spacing from 25 kHz to 12.5 kHz.

The 70cm move is pretty straight forward since 12.5 kHz fits exactly twice in 25 kHz so no-one would have to actually change frequency other than changing to narrowband. However, the 2m move is more involved since 12.5 kHz doesn't fit nicely into 20 kHz. In fact, it takes 8 channels of 12.5 kHz to overlap with with 5 channels of 20 kHz.

The latest proposal doesn't explicitly state how the mapping from the current to the proposed frequencies would be, but looking at the list, the following scheme seems to minimize the frequency shift to a maximum of ±5.0 kHz.

This plan would:

- Increase the number of repeater channels from 59 to 94
- With 11 channels keeping the same frequency,
- 24 channels moving up or down by 2.5 kHz, and
- 24 channels moving up or down by 5.0 kHz

Our repeater, for example, would probably have to move to 147.225 MHz. One technical question we'd have to figure out is whether a 5 kHz change would require the duplexer to be retuned. The answer isn't immediately obvious: 5 kHz represents 0.8% of the 600 kHz spread between the input and the output; it may or may not be significant.

1)
See meeting minutes for April 4, 2020, New Business, Point 2