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Subject	1 298 – 1 300 MHz Band Plan		
Society	RSGB	Country:	Great Britain
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1 298 – 1 300 MHz Band Plan

Introduction

As previously proposed by RSGB and UBA papers at the 2010 Vienna Region 1 Interim Meeting, the 1 298 – 1 300 MHz band plan has been identified for modernisation to facilitate modern data transmissions. A number of adjustments are also proposed to clarify use by other uses

Background

The current edition (v5.42) of the IARU-R1 VHF Managers Handbook has the following for the 1 298 – 1 300 section:

1298.000	20kHz	All Modes	1298.025-1298.500	Repeater output channel freqs, ch. RS1 – RS28
			1298.500-1300.000	Digital communications (within RS channels) d)
1300.000			1298.725-1299.000	Packet-Radio duplex channel freqs, ch. RS29 -- RS40

This section is nominally All-modes, but also is a key one for supporting Digital Communications

Key Points

- The current band plan designates channels only up to 20 kHz maximum bandwidth, with 25 kHz spacing (although it is an All-Modes section), preventing wider band Digital Data (DD) use
- There is a typographical error present in the first sub-band 1298.025 - 1298.500, which should be designated as RS1 - RS19 (not RS28)
- Current/legacy usage does not need a total of forty (RS1 - 40) 20 kHz channels, especially for Packet, so there is clearly scope for re-planning
- Whilst some Societies have merged and allocated channels for greater bandwidths, this has not been coordinated so far. However, modern developments such as commercial 128 kb/s Digital Data (DD), future innovations which may also be full duplex in future, indicate it is opportune to introduce a new framework to support this.

- Whilst we propose a fresh approach for this part of the band, it is in line with the philosophy used in Cavtat CT08_C5_Rec27 (Cavtat Paper CT08_C5_19 'A new Vision for 23 cms') which concentrated on 1 240 – 1 250 MHz
- The re-plan should more carefully protect ad-hoc narrowband experiments and beacons close to the 1298.000 MHz band edge.
- A new plan could also facilitate wider spacing to ease construction of repeaters
- The size of frequency blocks designated for wideband data should be compatible with current and 'post-Galileo' band planning

Proposals

a) Clarify 1298.000 - 1298.500 use by correcting the channel designation in the Handbook and suppressing use of RS1 (1298.025) for wideband communications/data to improve protection for narrowband usage close to 1298.000
b) Add a guidance footnote to cover narrowband experiments near 1298.000
c) Designate 1299.000-1299.750 for high speed data channels (DD)
d) Designate an additional set of frequencies within the 1299.750 - 1300.000 MHz range which may be used for FM/DV repeater use - as this permits greater frequency splits for easier duplexing filters
e) Based on the above we propose the following:-

Frequency, MHz	Max BW	Mode	Usage
1298.000 1298.500	20 kHz	All modes	General mixed analogue, or digital use in RS2 - 19
1298.500 1299.000	20 kHz	All modes	Digital Communications within RS21 - 39
1299.000 1299.750	150 kHz	All modes	Nominally 5 x 150 kHz blocks. To support high speed Digital Data (DD) usage
1299.750 1300.000	20 kHz	All modes	8 x 25 kHz Channels (available for FM/DV use) Centres: 1299.775 - 1299.975

Notes

- The Centres of the new 150 kHz blocks are: 1299.075, 1299.225, 1299.375, 1299.525, 1299.675 MHz (+/- 75 kHz)
- Subject to coordination, the 150 kHz blocks may be merged for greater bandwidth or an individual block may be sub-divided to create narrower channels compatible with legacy use (e.g. 3 x 50 kHz or 6 x 25 kHz)

Recommendations

- That the 1.3 GHz band plan be re-planned in the 1 298 – 1 300 MHz range to facilitate new data and other communications systems as per the detailed proposals above
- That narrowband ad-hoc use in the first channel of the all modes section at 1298.025 MHz be protected by de-allocating channel RS1 (1298.025)