RSGB VHF Manager's Report

Report for Spectrum Forum, November 2020

The VHF Manager, John Regnault G4SWX is responsible for RSGB spectrum matters for the VHF and UHF amateur bands 50-432MHz.

Highlights:

- A report to Ofcom on the experimental work at 70.5MHz and 146MHz highlighted the latest developments in fast data particularly the work with 360Kbps New Packet Radio (NPR) data at 146MHz. The report also highlighted the ongoing innovative work on RB-DATV
- The temporary experimental spectrum at 70.5-71.5MHz and 146-147MHz will be renewed for another year.
- The RSGB proposed changes in the VHF/UHF band-plans in line with our policy of band-plan simplification were all approved at the IARU R1 conference by the C5 VHF Committee and subsequently endorsed at the plenary session.

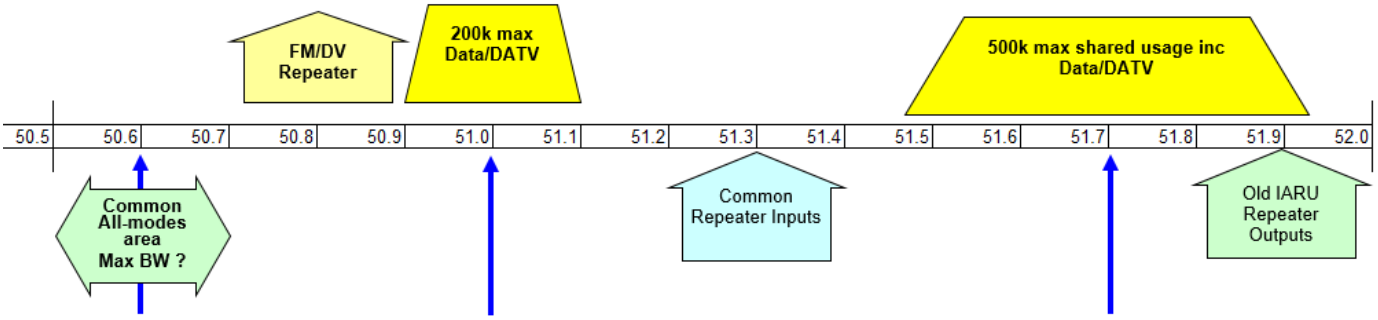
Lowlights

- Although there has been an increase in VHF/UHF amateur activity as a result of the coronavirus pandemic the general level of traditional VHF/UHF amateur FM/DV/SSB voice and CW activity continues to cause concern. This is particularly an issue with newcomers starting with cheap equipment who regularly cite the lack of stations active on FM. It has been suggested that some repeater channels should be set aside for FM use only to make things easier for newcomers.
- Yet again there have been complaints concerning some amateurs using data modes starting to transmit on frequencies already in use by other amateurs, often using voice modes. Many amateurs using data modes seem to have forgotten that transmitting on a frequency that is otherwise occupied (particularly on bands where amateurs only have secondary status) can be a breach of the amateur licence conditions.

IARU R1 Conference & Band-Plans

The virtual IARU conference was held online over 11-16th October 2020. The RSGB proposed changes in the VHF/UHF band-plans in line with our policy of band-plan simplification were all approved by the VHF Committee C5 and subsequently endorsed at the plenary session.

Of particular note are the changes in the 50MHz band-plan which reduces the number of underused FM/DV channels in order to establish two slices of spectrum which is shared with wider bandwidth modes.



Notes:-
Blue Arrows are existing experimental centres at 50.6, 51.0, 51.7
Very few old IARU Voice Repeater Outputs in use at 51.9

The RSGB paper concerning the 432MHz band-plan primarily concerned the use of 435-438MHz and the co-existence of the amateur satellite service and wider bandwidth applications. It clarifies that that 435-436 MHz is amateur satellite and not for other use, which aligns with the IARU coordination of weak-signal mode satellites in this sub-range. It establishes that 436-438MHz whilst remaining amateur satellite, can be used for DATV or other experimental Data developments for short transmission periods and subject to a number of limitations. These limitations include that no fixed infrastructure shall be permitted for repeaters, gateways or nodes for DATV, data and DV hot-spots.

It is the RSGB view that this change clarifies that amateur satellites are the main user 435-438MHz, although short term use of 436-438MHz can be made by DATV and high-speed data.

There was also a minor change at 433.775 and 433.9MHz which had been specified as LoRA channels to a more general description: '125kHz Max BW Data (such as LoRa etc)'.

The IARU R1 conference also raised the longer-term issue of how amateur radio should respond to threats to amateur spectrum at 144MHz and above. Although the response to 2019 French proposals for the 144MHz band were rejected following a strong response from IARU R1, it was proposed that a more coordinated international approach will be adopted in response to any threat to amateur spectrum where a pool of IARU expertise could be rapidly be brought in to assist any member society in dealing with national regulators.

Outlook

A number of innovative applications that have been demonstrated using 'New Packet Radio' (NPR) point the way to a potentially large number of new amateur applications layered over TCP/IP. As many of these amateur applications will involve forwarding packets containing amateur data it seems clear that the current practice of gateway NoVs is not suitable for the 21st century. This issue will be raised in discussions with Ofcom.

The VHF Manager would yet again like to thank BATC and in particular Noel Matthews G8GTZ for the ongoing work in supporting the RSGB case being made to Ofcom to renew the temporary VHF spectrum allocations at 70.5MHz and 146MHz and indeed some of the ground-breaking work at 51MHz. The perceived value from such amateur experimentation should not be underestimated as it certainly played a very significant part in the renewal of access to experimental spectrum at 70.5-71.5MHz and 146-147MHz.

Amateur radio is in a unique position in having access to spectrum which is dedicated to experimental transmission techniques; we need to make greater use of it. Although the workload of defending amateur spectrum at VHF/UHF has decreased in the past year it is important to push new innovative technologies and techniques to maintain credibility that the amateur spectrum is well used in terms that spectrum regulators understand.

John Regnault G4SWX, November 2020