



BATC Spectrum Forum report – October 2015

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The Amateur Television Community continues to drive innovation in spectrum use and the last 12 months has seen the introduction of Reduced Bandwidth RB-TV transmissions, the release of 2 new bands for RB-TV use and adoption of 2 more bands for ATV use.

BATC continues to support and drive these initiatives with a program of awards and grants and the use of the BATC shop to purchase and stock otherwise difficult to source components.

Whilst the hobby is thriving technically, the BATC is aware that operating levels are still declining – to try and counter this we have awarded a number of prizes for contest winners and have introduced a 3 monthly activity weekend timed to coincide with activity weekends in neighbouring IARU countries.

BATC has also been involved in the setting up of the European ATV Forum (www.eatf.org) designed to encourage co-ordination between ATV communities and organisations in European countries and in particular to share knowledge on regulatory and spectrum matters.

TV Repeaters

35 TV repeaters are currently in operation with primary outputs on 4 bands. The 2.3 GHz PSSR reallocation program involved moving 5 repeater input channels and all have now been re-allocated channels mainly on 1.3 GHz with the exception of GB3KM who applied for and were allocated a 5.6 GHz input channel – a first on that band.

The bands

24 GHz

G1LPS and M0DTS have been conducting tests on 24 GHz, a band which is used throughout Europe by ATV operators, but is believed to be a first in the UK.

10 GHz

Activity continues on the band with several repeater inputs / outputs active and a new test ATV beacon has recently been commissioned on the Isle of Wight with a view to applying for a repeater NoV. The team is intending to use a transmit linear mix from 23cms enabling the use of common mixer, PA's and antennas with the proposed Narrow Band 10 GHz beacon. This will enable common use of the very good site for several facilities, an approach the amateur community may need to consider as sites become harder to find.

5.6 GHz

As mentioned above, an input on 5.665GHz has been approved for GB3KM. This was awarded as part of the PSSR program and the frequency was chosen to enable the use of readily available FM ATV equipment designed for drone downlinks. The ATV community will be monitoring performance closely to see if we should adopt the use of 5.6GHz more widely.

3.4 GHz

2 more repeaters are now on air in the ATV sub segment with 2 MHz wide DVB-S transmissions. Reports continue to confirm that the band performs better than 2.3 GHz, mainly due to lack of interference and the availability of C band LNBs making it easy to build an effective receive system.

2.3 GHz

The re-allocation of 5 repeaters under the PSSR scheme went smoothly, thanks to support of Murray and John McCullagh. We do still have 3 units with outputs operating on 13cms and are looking at the potential of using the remaining segment at 2390 – 2400MHz for further inputs / outputs.

1.3 GHz

Most ATV activity continues to take place on 23cms and we have seen NoVs released for 5 more repeaters in the last 12 months. However, that progress has stopped since the change of personnel at the primary user and we are now seeing significant delays in the NoV process with GB3EY site change still not released after 18 months and no update on the GB3ET application has been received after 3 months.

70cms

The use of DATV continues to revive interest in 70cms and tests with the new RB-TV mode shows signs of even greater DX potential plus the ability to operate between the PU transmission frequencies in the north of England.

146 MHz

The ATV community has risen to the challenge of using 500 KHz of the new band for RB-TV use. No suitable equipment was available for Tx or RX, but these have been developed and several QSOs of more than 100 KMs using 25 watts erp have been achieved.

This initiative has shown that the amateur community can still innovate and has helped RSGB increase the profile of the radio amateurs as innovators with Ofcom.

70 MHz

As a direct result of the 146 MHz work, a further allocation of 1 MHz was gained at 71 MHz – unfortunately due to a lack of time and resources, no ATV activity has yet taken place on the band. However, given time it is envisaged that ATVers will experiment with the potential application of RB-TV technologies in bandwidths of 125 - 450 KHz on this band, particularly given the potential for propagation via Es modes.