2020 RSGB Spectrum Forum

November 2020

WRC 23 and the 23cm Band Update



Radio Society of Great Britain Advancing amateur radio since 1913

Background

- A GALILEO control centre received interference from a ATV station. 2 cases of interference are known but there is an anecdotal report of interference from an EME station to another control centre in Italy.
- Started as a national issue in Germany....
- Became a CEPT issue at the end of 2019....
- Now global as Agenda Item 9.1 b for WRC-23.
- Two parallel study streams in CEPT and ITU-R.









Work Streams

In CEPT:

- Two working groups will develop European regulatory documents aimed at providing "guidance" for administrations on measures that might be needed to protect GALILEO and GLONASS systems in Europe.
- In addition, the Conference Preparatory Group will develop the CEPT position on WRC-23 AI-9.1b.

In ITU-R

 Studies (in two working parties) will consider what operational or technical constraints might be needed in the amateur services to protect radio navigation services.

The CEPT work is complementary to the ITU work.

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IARU Engagement

- IARU is engaged and representing the amateur services in all the international regulatory groups.
 - An IARU Region 1 led working group on the issue exists.
 - Several IARU contributions made to all groups already.
 - Descriptive and activity data on the amateur services provided.
 - IARU believes that the interference potential is over-stated.
 - BUT: The political backing is strong and many regulators are indifferent to the agenda item.

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Technical Study Status

- Discussion remains at a preliminary stage:
 - RNSS (Galileo) protection levels only just being defined.
 - Need to understand the different amateur service applications and their characteristics.
 - Study scenarios and methodology not defined yet.
 - Draft reports have plenty of words but no technical substance yet.
 - Galileo has a consultancy team ready to develop coexistence studies.







Helpful Technical Work

- Measurement campaign carried out in Germany in collaboration with a University and the Galileo team.
 - The campaign used real amateur signals and early RNSS receivers. The impact of the amateur transmission levels on the (much wider) Galileo receiver was measured. These were conducted measurements and not "off air".
 - This has resulted in a sense that "middle of the band" wider bandwidth emissions can cause the most difficulties for the RNSS.
 - The results have been formally contributed to the CEPT and the ITU-R work.









IARU Direction

- Amateur activity information supplied has been based on published activity period data and contest results.
- The aim is to reinforce the view that the potential for interference is very low.
- The IARU position continues to support the view that any coexistence difficulties are best solved nationally and that changes to the ITU-R Radio Regulations are not required and disproportionate.



