



RSGB EMC Committee update to the Spectrum Forum

November 2019

A Diverse workload

EMC Committee members have been very busy supporting IARU activity. Though this is very much to the RSGB's members benefit, it is a strain on our resources and more EMCC members are needed.

IARU EMCC representation at the CISPR Plenary in Shanghai

Martin Sach (RSGB EMCC Chair) is also on the IARU's EMCC and is on the editing team of various IEC CISPR workgroups setting new global EMC standards. His full report of the 2 weeks at the Plenary in Shanghai is attached. These documents are shared with Spectrum on the understanding that they are CONFIDENTIAL to the IARU. The IARU is an I-Member of CISPR which entitles its delegates to attend any meeting and give their views to our best advantage. The IARU may make a liaison statement which Martin presented to the main plenary meeting. This is attached. The RSGB EMCC tries to support this regulatory work through its investigations.

IARU Noise measurement campaign

David Lauder has been chairing this long standing IARU project to accurately measure the rise in the noise floor. Several permanent measurement stations are set up and new automation controllers are being rolled out.

Dealings with Ofcom

We have been working with Ofcom on making joint measurements of HF RFI from VDSL2 Broadband. Our report has been on the RSGB website for some time. Ofcom have now finalised their report. There have been high level meetings between the RSGB and Ofcom to discuss this report and further action with regards to Ofcom's unsatisfactory regulation of these matters is in progress. This is a delicate matter and will be reported officially elsewhere.

Key standards in development

Wireless charging of Electric Vehicles (WPT-EV)

Martin has been in the committee drafting this standard for over a year. The limits being proposed are about 30dB higher than what either we or the European Broadcasting Union (EBU) considers acceptable. Martin is currently reviewing the latest draft which is aimed to be put up for national voting early next year. We are still working with the EBU and the ITU-R to try to get this standard amended before its put out for voting.



Setting of new RFI Limits

Technical Report TR 16-4-4 describes a mathematical model for how future limits should be set. This document is under review and Martin is on the review team. If we can get this right, we will reduce the risk of future standards setting unreasonably high RFI limits. This was the key topic for our presented liaison statement. I am pleased to report that the plenary instructed the maintenance committee to take all our input into consideration. Fortunately, the EBU is chairing this work so with luck we may get our views turned into legislation.

Reporting of RFI complaints

As a spinoff from TR 16-4-4 there will be a new TR defining how complaints should be recorded and managed. Our input will be to advise that the existing form filling system should be replaced with a machine-readable format that captures all complaints in a hierarchical way. Currently most complaints get filtered out at the Ofcom level and very few get to CISPR. This results in the CISPR committee members underestimating the extent of real-world problems.

British Standards

Our approach to standards is at two levels. Through the IARU and CISPR we attempt to get reasonable standards set. If we fail (due to being out voted at committee level) then it's up to national committees to influence their national vote. Through our representation at BSi we succeeded in getting Negative UK voting on CISPR/F 767 CDV and CISPR/F 769 CDV. The proposed changes were to RELAX the CISPR standard for household appliances, including inductive cookers.

RSGB Convention

John Rogers & David Lauder presented "How to locate and identify different common sources of RFI," based on EMC leaflet 4 and on using SDRs and spectrum analyser to derive a signature for the RFI.

Investigations

Our main area for future investigations after VDSL is Wireless power transfer. We are coordinating with the IARU on this and doing measurements at a test site in the UK. So far these have only been on phone chargers which typically don't appear to be a problem. We are in discussions with WPT-EV developers WiTricity to do measurements on their equipment.

Martin Sach, RSGB EMCC

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