

## **1. Minimising the impact of interference especially from new technologies**

### **IN HOUSE PLT**

The CENELEC standard, EN50561-1 which we tried in vain to stop being approved, has now been published in the Official Journal of the EU and can be used to give a presumption of conformity to the EMC Directive for PLT products immediately but does not become the only applicable standard until 9 October 2016. A foreign amateur has mounted a strong campaign against the EU Commission on the grounds that the mandate for the standard is invalid and thus the standard cannot be approved. We are very supportive of this position and are watching developments. Meanwhile we have made our own representations to the Commission which so far have been met with an obtuse response.

In the meantime work has begun in CENELEC on the VHF part of the standard, to be known as EN50561-3 (EN50561-1 covers up to 30MHz). There is already some opposition from radio users and telcos, (who are experiencing cross-talk issues into G-FAST and VDSL+), including those who supported the part 1 limits, that the proposed emission limits in part 3 are too high.

Under the Dresden Protocol the European Commission will shortly have to submit EN50561-1 to CISPR for consideration as a global standard. If CISPR considers it and puts it to the vote which is then rejected, then the EU will need to withdraw EN50561-1.

It is worth noting that while the notches in the in-house PLT spectrum provided by EN50561-1 effectively protect the amateur bands, PLT noise outside the bands can be significant. In some locations the ambient noise floor can only be observed inside the amateur bands. In the longer term there is still concern that intermods may gradually fill the notches.

### **SOLAR PVs**

We have continued to lobby the Department for Business Innovation and Skills (BIS) on the subject of EMC compliance of domestic solar photo-voltaic electricity generating arrays (Solar PVs). This follows several complaints to Ofcom about interference from new installations. We consider that there is a danger that poorly installed solar PVs present an RFI source that can become widespread in residential areas.

BIS' position, reportedly on the advice of the EU Commission and with the support of the Member States' EMC Administrative Co-operation Committee (AdCo), was not to treat these as Fixed Installations, but rather to treat them as separate pieces of apparatus. There is a specific regime for the EMC approval of Fixed Installations. A reading of the Directive and its Guidance appears to show solar PVs clearly fall into this category. However, the Commission has confirmed to us that they *do* regard solar PVs as Fixed Installations and we have put this and other evidence to BIS and are pressing them for a reply.

We have an EMCC member participating in a CISPR/H review of the DC port limits for domestic PV installations, which will feed into a future edition of CISPR 11.

## OTHER ISSUES

**LED LIGHTS.** We continue to watch the matter of emissions from mains voltage installations. We hope to publish developments in RadCom in due course.

**WIRELESS POWER TRANSFER.** The charging of electrical devices, especially vehicles, is a recent issue. We have a member with experience of the power industry on the relevant CISPR (international interference standards committee) group. Also, a new member has joined us and will start investigations during November.

**WINDFARMS.** We have taken measurements of emissions causing interference at several windfarms in Yorkshire and elsewhere to assess levels and determine what part of the installation the emissions are from. Some results of this were included in a presentation to the Convention last month. A paper summarising the results of these measurements was tabled at a recent CISPR/H meeting in Frankfurt by an EMCC member. . Significant interference has only been found when the Farms are located on wet Fenland (peat) near sea level.

**VDSL.** We are working with BT to investigate emissions from VDSL systems. The VDSL service was upgraded in 2012/13 and it has been established that the leakage does occur in certain circumstances but the frequency and magnitude of the problem has not yet been determined. The leakage is continuous and sounds like white noise so it difficult to identify except at the edges of the VDSL bands. Some measurements were also included in the Convention presentation.

**MAINS\_BORNE EMISSION BASICS.** Attempts are being made by others to introduce new measurement methods (into CISPR 16 and CISPR32) that specifically ignore differential-mode interference on mains cables. Such disregard of the fact that mode conversion can lead to radiation of such emission would undermine our work on several of the above technologies. We have succeeded in carrying the UK National Committee with us on this issue and are continuing National (with NPL) and International work.

## **2. Review and update EMC pages on website to include self diagnosis flow charts**

Our pages were updated as part of the new website launch and further updates are planned. The flow chart diagnosis needs further work on how to integrate it in the new wordpress format linking in pictures and soundfiles. This is an area that we believe can be come a useful service to members.

## **3. EMC leaflets**

All leaflets that were being updated have been completed and are on the website.

## **4 Technical Advisors and Forum**

The EMC forum has been put on line, but so far take up has been slow. We are looking at ways of making it more attractive with HQ.

A trawl of existing advisers has shown few have a continuing interest and few new ones have come forward.

From both the forum and via advisers, we have dealt with a number of plasma screen TV interference cases. Our adviser/forum moderator, Ken G3SDW, has good links with several TV manufacturers and has helped solve several cases.

## **5. On-going work**

We had a useful meeting last autumn with Ofcom at which we discussed our willingness to work with them to solve cases while recognising they had limited resources for amateur work. This seemed to be well received and resulted in the present Head of Enforcement, Clive Corrie, penning an article for RadCom. We have not, however, been able to meet the Head of Interference. Nevertheless following the meeting we have now been able to get closed cases of solar PV and plasma TV interference re-opened and their investigations are reported to be near completion. At the meeting we also once again urged Ofcom to introduce updated WT Act Interference Regulations.

Our lobbying of BIS and the EU Commission is reported above.

We are fully involved in the IARU Region 1 EMC Working Group. We were much heartened to see Don Beattie G3BJ, elected as President of IARU Region1. A Resolution on protection of the spectrum from harmful interference has since been passed and we hope there will be greater unanimity on the EMC WG from member countries. In particular the former EMC WG now becomes a full R1 standing committee and has a mandate to lobby regarding relevant legislative changes.

We are now well placed to contribute to CISPR and to CENELEC via our BSI standards committee membership with three new members, recognising however that there is sometimes strong industry opposition to our spectrum protection position. We are looking to begin a database of problem equipment together with fixes, where these are known and we will support the noise floor measurement project.

The Radcom EMC column continues to be an important window on our subject.

The specialist groupings within EMCC – broadly lobbying, standards, investigations/cases and publicity have to continued to work and report in to the whole committee, mostly by e-mail reflector and skype conferencing, but with occasional face to face committee meetings.

EMCC  
October 2014