Subject	**EMC WG Report**		
Society	EMC WG	**Country:**	
Committee:	C3	**Paper number:**	VA14_C3_12
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EMC WG Report

The activities of the EMC WG have consisted of 4 major issues: Standardisation of EMC in general, follow up on PLT, the revision of work of the WG and finalization of the ETSI “Code of Practice”.

This period has been stable because there have been no major changes in strategies.

Input of DL9KCE for the EMC WG Chairman's report for 2013

Since the EMC WG has recognized the increased importance of CISPR standardization work today and the number of topics has risen within almost all CISPR subcommittees, we were able to find a 3rd volunteer for intensive CISPR work. John Pink, G8MM, helps out with his expertise skills in EMC measurement equipment, due to his work for Anritsu before his retirement. Having so much experience with measurement theory, we decided to have him represent CISPR A from now on. During that restructuring in the middle of 2013 a new work partition table has been defined as follows:

EMC WORK repartition 2013

Committee / WG	Responsible participant	Additional Member	Remarks
CISPR S	OZ8CY	DL9KCE	IARU EMC advisor job
CISPR A	G8MM	DL9KCE	Measurement methods
CISPR B	DL9KCE	OZ8CY	Inverters and industry
CISPR D	None	None	Car emissions
CISPR F	DL9KCE	OZ8CY	Lamps and luminaires
CISPR H	DL9KCE	G8MM	Interference models
CISPR I WG1	DL9KCE	OZ8CY	TV /radio equipment #13 & 20
CISPR I WG2	OZ8CY	DL9KCE	Multimedia emissions #32
CISPR I WG3	DL9KCE	OZ8CY	ITE emissions
CISPR I WG4	OZ8CY	DL9KCE	Multimedia immunity #35
CENELEC TC210	OZ8CY	DL9KCE	EU EMC TC
CENELEC TC210 WG11	DL9KCE	G8MM	50561-1 - published and harmonised
ETSI/CLC JWG networks	OZ8CY	None	50249-3
ETSI/ERM_TG26	DO5SUH	None	EN 301 489 part 1 and 15

CISPR work in detail

CISPR B: (Thilo Kootz, DL9KCE)

CISPR B has been working on a DC power port measuring setup and limits. Until this work is finished, solar inverters does not need to comply with any limits on their DC power port. In the past, this lead to disturbance emission, because solar generators like panel arrays are rather good radiators in the shortwave part of the spectrum.

The revision of CISPR 11 in this respect is currently in CDV stage and we can expect to have a Final Draft International Standard ready by the end of the year. The current draft does contain limits as expected, which will prevent most interference cases. However even in the next edition of CISPR 11 those limit will only be preliminary, because the final validation n has not been finished.

During the work on this the following papers were inserted on this project:
130318 CIS_B_561_CD Comments from IARU
130318 CIS_B_562_CD Comments from IARU
131119 CIS-A&B-JTF_13-02_INF_IARU
140127 IARU comments on CISPR_B_594_CDV
140127 IARU comments on CISPR_B_595_CDV
140127 IARU comments on CISPR_B_597_CDV
140127 IARU comments on CISPR_B_598_CDV

CISPR F: (Thilo Kootz, DL9KCE)

CISPR F has been important in the recent years, because radio amateurs have found some new LED lighting equipment was creating noise with great potential. The standard CISPR 15 was fine for low voltage lamps and the faulty one on the market have just slipped through the surveillance process. There are today hardly any bad ones on the market. However on extra low voltage lamps (i.e. 12 V) CISPR 15 did not have test arrangements available. Due to IARU intervention we now have an interpretation sheet to CISPR 15 in place, which has at least an intermediate solution at hand. Edition 8 of CISPR will now have a full concept of measurement setup for ELV-lamps available in CDV stage. We expect it to become valid soon. Meanwhile the work continues on Edition 9, which will be a full edition to "clean up" the whole standard. From our point of view, one of the biggest flaws in this paper is its reversed logic. New technologies, that produce light is not covered from the beginning, because it is not listed in the scope (we have learned that with LED). Our goal for edition 9 is to have all apparatus, which creates light covered and then take out one or the other as necessary. This way new products will be covered from the first day they come on the market.

During the work on this the following papers were inserted on this project:
130813 Comments to F_611_CD from IARU
130813 Comments to F_613_DC from IARU

CISPR F also cares about CISPR 14, which covers EMC in household appliances. Under this, also heating (and cooling) equipment is covered. Some amateurs have experienced electromagnetic compatibility (disturbance and immunity) issues with their sensors lines. In the current version those extra sensor port are measured very

reluctantly and with only very short wires attached. In the field however those sensors lines may become so long, that a good amount of electromagnetic energy can be drawn out of the field leading to failure of the system, or the other way around. Large line length can effectively radiate short wave frequencies leading to harmful interference in the neighbourhood. CISPR 14 is doing a full review right now and the following paper was inserted on this project:
130808 CISPR 14-2 Comments to F_604_CD from IARU

CISPR H: (Thilo Kootz, DL9KCE)

CISPR H generates and validates limits with respect to the needs of radio services. As already reported under CISPR B, the verification of CISPR 11 limits on photovoltaic inverters are only preliminary and it will be task to this group to validate and possible correct them. This will be done during the next 2 years.

The following papers - on behalf of IARU - were inserted into this group:
140122 CIS_H_WG1 Mismatch loss at Solar Generators
140201 CIS_H_WG1 Statistical Model for Solar Generators
130318 CIS_H_250 Comments from IARU

CISPR I multimedia

Cispr 32 on emissions: the basic part is finished and approved but a number of small details is still to be dealt with – but they are not directly relevant to amateurs.

Cispr 35 has just been to final vote (CIS/I/463B/FDIS) but the outcome is not known yet (March 2014)

Other topics:

- Statement in the final plenary during the 2013 CISPR conference 130808 Liason CISPR_Plenary: The paper and speech (DL9KCE) focuses on radiation models for DC networks, wireless power transfer systems for electric cars, photovoltaic generators and magnetic monopole radiators like plasma screens.

- Comments to Smart Grid systems approach 130819 Comments to CISPR_1252_DC from IARU: Paper (DL9KCE) focuses to reminding CISPR about not only interoperability problems, but also those put on radio reception.

- Comments on power transfer systems for electric cars with wire and wireless charging 140130 Comments to 77_456_CD, 140130 Comments to 77_457_CD: Main focus of comments (DL9KCE) here are the PLT devices used to transfer charging information between charger and car.

My conclusion at this moment is to monitor the situation and use our resources to influence the CISPR work.

Regarding the revision of the EMC Directive

This new Directive comes is in force by approximately July 2014 but this should not have any greater impact on radio amateurs. However, national societies are encour-

aged to look into the national implementation of this Directive. A new thing is the emphasis on control (market surveillance).

Best 73
Christian M. Verholt, OZ8CY