Mail von Heinrich HB9AZO vom 08.06.2021

Dear Amateur Radio Operator interested in EMC and RFI Problems

As you probably know, in August and September 2020 in Switzerland practical field Tests about possible interference between a charging WPT-EV vehicle and a nearby amateur radio station (HB9AZO) were carried out.

During these tests, besides measurements with a receiver of an ICOM IC 7600 at a yagi beam antenna at 17m above ground, also measurements by a measuring team of the Swiss regulator (OFCOM(CH) or BAKOM) were made, in order to obtain information about the real H-field values occurring during the measurements.

Due to the somewhat different focus of the interested parties, it was decided to make three different reports, each concentrating on the topics that are of main interest to each of them (EV-manufacturer BRUSA, OFCOM and USKA). The main outcome was that in the given situation (residential environment) the RFI disturbance from the WPT was much lower than expected based on simple theoretical assumptions.

In this report by USKA team members HB9ZO and HB9BKT, we tried to understand and discuss the reasons for this favourable result. However, it is valid only for the situation and background noise level during these tests and may not be generalised. An important outcome for us is the fact, that obviously industry is able to supply WPT equipment with much lower RFI emissions than the (so far unacceptably high) values discussed so far in drafts for standards (e.g. in CIS B 737 CDV (rejected)), which would give much better practical results also in quiet rural situations.

The report (attached) contains also information about lessons learned and hints for possible further measurements in the future (welcomed and needed especially in quiet rural situations).

Best 73, Henry, HB9AZO.

Dr. Heinrich Häberlin
Member of USKA and the IARU EMC Group G7.