|  |  |
| --- | --- |
| **Subject** | C5 - Beacon Coordinator Report |
| **Society** | VU MW Beacon Coordinator | **Country:** |  |
| **Committee:** | C5 | **Paper number:** | NS20\_C5\_09 |
| **Author:** | Mathias Klug, DH4FAJ |

The IARU V/U/MW beacon database is growing. Nearly 750 records of beacons from 18 countries in IARU Region 1 have been entered already. However, not all beacons could be recorded so far, as it depends on the reports of national beacon coordinators, VHF managers or individual beacon keepers. Some countries still failed to send data at all, others did it without any request: Thank you!

As the database had to be setup from scratch, we are still working on improvement of the performance. Some issues in CSV export concerning the data formats have been reported. It´s mainly caused by different formats for numbers and dates in different countries.

Several new beacons have been coordinated, for example YM4SIX and YM4VHF. It has to be mentioned, that the Turkish Coast Guard, as regulation authority only approves applications for beacons, when the IARU has recommended a frequency. This is practice in some more Region 1 countries as well. More on this later in the report.

A large coordination task appeared at the horizon. Ozzy, TA2NC, the new VUS manager of the Turkish Radio Club TRAC, asked me to coordinate frequencies for 8 beacons in the 6m band. It is a beacon project covering the Turkish call sign regions 1-9. This project is very new. Region 4 has already been coordinated for YM4SIX. Hopefully this beacons will be on air soon.

Earlier this year Andreas DJ5AR and me are visiting the GHz Tagung (GHz meeting) in Dorsten, Germany. Andreas gave a lecture on the coordination of beacons, which gained much interest.

He talked about the importance of a beacon system for scientific and experimental amateur radio, the difficulties in frequency coordination and the technical parameters of beacons, e.g. the frequency accuracy. He illustrated it in graphs and pictures. Some beacons in the GHz bands perform a dance around their nominal frequency, others show kinds of strange keying.

Obviously, it is important for me to have a close look at the technologies used, when processing coordination requests. As it is state of the art, I urge the keepers to lock the frequency to GPS or in minimum to have an option to do so later. There are quite simple technologies available to setup efficient beacons. But never the less the location has to be considered. Contrary to rural areas it is not useful to install a beacon with a high noise level in a metropolitan area.

A coordinator always has to ensure a good compromise between what is feasible and what is worthwhile. To assist aspiring beacon keepers, we intend to publish a link list to sites with useful information and about beacon technologies on the home page of the IARU R1 beacon coordinator.

I am also pushing the Synchronized Beacon Project (SBP) in the 50 MHz band. Whenever I get coordination requests for 6m beacons, I ask about interest in participating in the project. As it is very ambitious, it is important to have access to the required technology. I also got in touch with regions 2 and 3 to promote it there as well. Despite the fact, that their 50 MHz band plans have 10 kHz slots for the SBP as well, there hasn´t been much interest so far.

In my report for the interim meeting in Vienna 2019, I already wrote about the high importance to focus on our beacon systems. As said before, beacons are a major part in the experimental and scientific amateur radio service all around the world.

Another intention is, to differ between propagation and local and experimental beacons. It is important to keep propagation beacons free from interference by other beacons. That is the most challenging item of beacon coordination. But the is also demand for beacons to provide just a signal to perform tests on the equipment or to experiment with new modes. Here it is not too important to have interference free reception in case of e.g. tropo or Es. We have written a separate proposal to benefit both, the propagation beacons and the local and experimental ones.

As a conclusion and as said before, the regulation authorities are more and more interested in getting the beacon frequencies coordinated by the IARU. A national authority usually does not look beyond national borders. I am curious which are the next countries, to follow PA, TA and DL.

Dear friends, please do not hesitate to ask me if anything is unclear and continue to support me with your input.

Please stay healthy.

Mathias Klug, DH4FAJ

IARU V U S MW Beacon Coordinator & Team

Andreas, DJ5AR

Sören, DO5SBM