



International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia

Founded 1950

Committee C4 (HF Matters) Interim Meeting 24-25 February 2007 InterCity Hotel, Vienna

| | | | |
|-------------------|-----------------------------|----------------------|-----------------------------|
| SUBJECT | Beacons below 14 MHz | | |
| Society | RSGB | Country: | U.K. |
| Committee: | C4 | Paper number: | VIE07/C4/06 |
| Contact: | John W. Gould, G3PSM | e-mail: | G3wkl@btinternet.com |

At the IARU Region 1 Conference in 2005 there was unanimous agreement to DV05 C4 Rec 08 "That Conference should discourage operation of unmanned beacon stations on 7 and 10MHz". The recommendation came following the discussion of a paper submitted by EDR, specifically addressing the gradual proliferation of unmanned beacon stations on 30m. The earlier Lillehammer conference had agreed that there would be no beacon sub-band on 7MHz. This paper is intended to clarify these resolutions further and propose a resolution that extends this opposition to unmanned beacons to all Amateur bands below 14MHz.

Discussion

Whilst the Davos recommendation specifically refers to 7 and 10MHz there is a case for extending the recommendation to cover all bands below 14MHz, but with some provisos. Firstly, there would need to be some provision for "experimental" beacons, and secondly, we would need to ensure that there was also support for beacons that are related to scientific experiment or study – in both cases we need this to ensure the future of experimentation and "self-learning" in our hobby. There is also a case for allowing some temporary beacons, for example in support of DXpeditions, commemorative stations, etc.

As a part of his IARU Region 1 Beacon Coordinator role G3USF can agree proposals for new beacons between the triennial conferences. However, it would be useful to conference and to the Beacon Coordinator to have some guidance on what is understood by "experimental" or "scientific" in this context, and perhaps agree what other exceptions might be allowed. This paper is aimed at seeking a consensus on a way forward so that we might move to extend the current recommendation on discouraging beacons below 14MHz, yet leave some provision for allowing unmanned beacons on these bands as described above.

Experiments by nature are difficult to predict, however, the type of experimental beacon that is currently being used on 10MHz are those transmitting slow morse (termed QRSS) at very low power. Since reception of these transmissions requires very narrow-band techniques they cause little if any interference to other spectrum users. Thus, we could draw a general conclusion that experimental beacons could be allowed if the profile of their operation gives little or virtually no interference to other telegraphy, telephony or digimode users of the band.

Beacons that in some way support propagation studies are a second area that we might choose to be allowed in a general policy on discouraging beacons below 14MHz. The RSGB has been coordinating a propagation experiment on 5MHz for the last few years. The purpose of the beacons is related to a scientific study of propagation at this frequency. A large amount of data has been collected, which is now being analysed. It is not inconceivable that once the analysis is underway we might need to gather comparative data on the Amateur bands either side of 5MHz. Consideration of other users on 3.5 and 7MHz should allow the interference from such unmanned beacons to have a limited life and also minimise the interference to other band users. The value of such studies is obviously variable, however, with the Davos recommendation DV05 C3 Rec 20 in mind a study such as the one currently underway by RSGB could well prove useful for Amateurs gaining an allocation at 5MHz.

A third category of allowable unmanned beacon should perhaps be those temporary beacons that either fulfil some short-term commemorative role, or have an operational function, for example a beacon in support of a DF hunt, emergency operations or a propagation indicator in support of a DXpedition. Again, the specification and design of such beacons, if allowed, ought to follow best practice (see DV05 C4 06 Region 1 HF Beacon Coordinator's Report) to minimise interference to other band users.

This paper has sought to clarify the decision made at Davos, and at the same time allow some relaxation in the rule to avoid stifling experimentation and propagation study work.

Recommendation that operation of unmanned beacons apart from those already approved by the IARU Region 1 Beacon Coordinator is discouraged on all Amateur bands below 14MHz, except where approved by the IARU Region 1 Beacon Coordinator under one or more of the following conditions:

- a) Beacons are related to scientific study, experiment or specific propagation requirements;
- b) Experimental and operate at very low power;
- c) Temporary support for DF hunts, DXpeditions, emergency operations and commemorative events.