



# International Amateur Radio Union Region 1

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Subject	Beacons below 14 MHz		
Society	HF Committee	Country:	IARU Region 1
Committee:	C4	Paper number:	LA17_C4_18
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## 1. Background:

### Beacons on HF bands

Noting that the Amateur Radio Services are services which rely to a great extent on self-regulation for effective use of their spectrum allocation, the IARU Region 1 has given several recommendations for the operation of beacons.

It seems that it is appropriate again to draw attention to these recommendations to make them better known.

## 2. Situation

### Beacon definition:

**Beacon** – a station in the Amateur Service or Amateur Satellite Service that autonomously transmits in a defined format, which may include repetitive data or information, for the study of propagation, determination of frequency or bearing or for any other experimental purposes including construction. (Cavtat 2008 - CT08\_C4\_Rec\_07)

### Two recommendations are forming the IARU Region 1 beacon policy:

#### Recommendation 1:

That the Conference should *discourage operation of unmanned beacon stations on 7 and 10 MHz.*

The plenary of the IARU Region 1 Conference Davos 2005 accepted this recommendation: (DV05\_C4\_Rec\_08)

#### Recommendation 2:

In the IARU Region 1 HF Managers Handbook V8.2 February 2009 it reads in **Chapter 7.2:**

It is recommended that operation of unmanned beacons apart from those already approved by the IARU Region 1 Coordinator is *discouraged on all amateur bands below 14 MHz*, except where coordinated 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 operating at very low power.

(Cavtat 2008 – CT08\_C4\_Rec\_04)

### 3. IARU Region 1 Beacon List

A list of (observed) beacons is maintained by Martin Harrison, G3USF, as IARU Region 1 beacon coordinator. <https://www.keele.ac.uk/depts/por/28.htm>

The list notes some beacons, which, after coordination with G3USF, are excepted from the official Region 1 beacon policy not to operate beacons below the 14 MHz band.

Beacons operating not according to the IARU Region 1 beacon policy

Here a list of uncoordinated beacons (not complete), which were observed fairly regularly:

Observation period: 20 December 2016 – 29 March 2017. Total number of detected spots: 54 407. (Display threshold 108 spots)	Observation period: 1 April – 10 April 2017. Total number of detected spots: 2 113. (Display threshold 4 spots)
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No of Spots	kHz	Call sign	No of Spots	kHz	Call sign
5 961	1 854.0	OK0EV			
125	3 548.9	ER1AAZ	1 485	3 549.0	ER1AAZ
1 260	3 549.1	ER1AAZ	9	3 566.5	SM6AAL/B
117	3 549.2	ER1AAZ			
211	3 576.5	IZ3DVW/B	37	3 576.5	IZ3DVW/B
516	3 576.5	IZ3DVW/B	6	3 576.6	IZ3DVW/B
2 000	3 578.8	S52AB/B			
395	3 578.9	S52AB/B			
151	3 579.2	PA1W/B			
134	3 579.3	SV2HQL/B	13	3 579.3	SV2HQL/B
548	3 580.3	UR5QGC/B	20	3 580.3	UR5QGC/B
340	3 600.0	OK0EN			
4 797	5 352.5	HG7BHB			
192	7 023.1	IZ3KLB/B	43	7 029.3	R2DNN/B
1270	7 023.2	IZ3KLB/B	268	7 029.4	R2DNN/B
540	7 029.3	R2DNN/B	44	7 029.45	R2DNN/B
2 225	7 029.4	R2DNN/B	17	7 029.5	R2DNN/B
202	7 031.0	R2AJA/B	28	7 031.0	R2AJA/B
124	7 036.7	IZ6IOA/B	125	7 031.1	R2AJA/B
1 388	7 036.7	SZ6IOA/B	9	7 031.15	R2AJA/B
599	7 036.8	SZ6IOA/B	12	7 036.3	ISOFFU/B
209	7 038.2	IZ7WEM/B	13	7 038.1	IZ7WEM/B
782	7 039.0	IK1HGI/B	78	7 038.2	IZ7WEM/B

No of Spots	kHz	Call sign	No of Spots	kHz	Call sign
2 295	7 039.1	IK1HGI/B	67	7 039.1	IK1HGI/B
587	7 039.4	OK0EPB			
154	7 040.0	IZ3DVW/B	16	7 040.0	IZ3DVW/B
183	7 040.3	G0WUY/B	19	7 040.3	G0WUY/B
1 693	10 133.0	SA6RR	11	10 129.2	MOERE/B
1 077	10 133.1	SA6RR	17	10 129.3	MOERE/B
3 608	10 133.5	HB4FV/B	9	10 129.4	MOERE/B
10 552	10 133.6	HB4FV/B	77	10 133.1	SA6RR
1 010	10 137.8	IK6BAK/B	95	10 133.5	HB4FV/B
1 880	10 137.9	IK6BAK/B	994	10 133.6	HB4FV/B
			17	10 137.4	IK3NWX/B
			24	10 138.9	IK1HGI/B

Many amateurs rightly comment that too many CW beacons are operating permanently without coordination and against the official Region 1 beacon policy, especially on 30, 40 and 80 m.

Although the operators claim to use low power, these beacons “block” a frequency from other usage by individuals.

Some have asked whether this type of permanent uncoordinated beacons have been put on air just to strengthen the “ego” of the operator.

#### 4. How to handle uncoordinated beacons below 14 MHz?

It might be helpful for member societies to make operators of uncoordinated beacons aware of IARU Region 1 beacon policy.

Operators of these beacons should be notified of the IARU Region 1 policy and be asked to stop the beacon transmission.

#### 5. Transfer from uncoordinated to coordinated beacons?

Operators of such type of beacons should join a system of more sophisticated beacons, e.g. to use WSPR in the well-known small frequency windows.

CW skimmers at hundreds of volunteer monitoring stations in the Reverse Beacon Network report the observed CW activity via RBN web site, which obviously makes “ego” CW beacons superfluous.

There are even ideas to have beacons which are timesharing on a single frequency, but equipped with a receiver to evaluate under a known situation the signal strengths of other beacons in that system and then be able to send out an assessment of actual propagation conditions into various areas. Volunteers for such program are welcome.

It would be helpful to convince operators of uncoordinated beacons to either stop them or to change to a system which is serving the amateur radio community in a much better way.

## **5. Recommendation**

That each Member Society be reminded of the IARU Region 1 policy for beacons below 14 MHz and again makes this policy clearly known in its country.