International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

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SUBJECT	ARDF Bandplans		
Society	ARDF WG	Country:	Region 1
Committee:	C5	Paper number:	04
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Introduction

ARDF WG proposes to recognise officially the amateur bands used for ARDF activity and to include our usage in the official Region 1 Band Plans, eg. to include in 144 MHz band plan the segment [144.500 -144.900 MHz] - unmanned ARDF beacons (A2A).

Background

The short term goal would be the official recognition by VHF communities of our spectrum occupancy within 2 m band, an the long term goal would be world-wide harmonisation of ARDF frequencies having in mind avoiding old problems at the world events, when participants from different IARU Regions had brought receivers with incompatible tuning ranges.

Key points

In
INTERNATIONAL AMATEUR RADIO UNION Region 1 RULES FOR CHAMPIONSHIPS IN AMATEUR RADIO DIRECTION FINDING - PART B - COMPETITION
the technical parameters for ARDF transmitters are specified:

Appendix 1: Technical Specifications for Amateur Radio Direction Finding Equipment

2. Transmitters

2.1 It is the responsibility of the organising society to ensure that all transmitters in use comply with the relevant radio regulations in force in the country of operation with regard to their electric parameters, identification and to their being operated only by duly authorised operators.

2.2 All transmitters within one competition shall have the same parameters and the same antenna installation.

2.3 The frequency of the beacon transmitter shall be significantly different from the frequency of the other five transmitters.

2.4 When not scheduled to be transmitting, neither transmitter nor its antenna may radiate any RF energy.

2.5 Antennas shall provide omnidirectional horizontal radiation patterns.

2.6 Specifications for the 3.5 MHz transmitters:

- Carrier frequency * 3510 ... 3600 KHz
- Frequency stability better than 50 ppm
- Undesired products level conforming to the national regulations
- Output RF power 1 - 5 W
- Mode A1A (keyed unmodulated carrier)
- Keying speed 8 ... 12 WPM
- Antenna vertical

2.7 Specifications for the 144 MHz transmitters:

- Carrier frequency * 144.5 ... 144.80 MHz
- Frequency stability better than 50 ppm
- Undesired products level conforming to the national regulations
- Effective Radiated Power (ERP) 0,25 - 1 W
- Mode A2A (keyed carrier modulated by AF tone or continuous carrier modulated by keyed AF tone)
- Modulation depth 75 +- 5%
- Keying speed 8 ... 12 WPM
- Antenna polarisation horizontal
- Antenna height 2 ... 3 meters above ground level

*Note: (*) Carrier frequency ranges indicated in these Rules are those normally used by IARU Region I societies. Organizers in other Regions may employ different ranges to meet their band plan regulations. According to Part A 7.4 of these Rules transmitter frequencies are to be stated in bulletin 2, which is to be dispatched 5 months before the event.*

Recommendation

It is recommended by the IARU Region 1 ARDF Working Group to include in 144 MHz band plan the segment [144.500 -144.900 MHz] - unmanned ARDF beacons (A2A)