



International Amateur Radio Union Region 1 2017 General Conference – Landshut, Germany



16 – 23 September 2017

Subject:	The Monitoring System Annual Report 2016		
Society	IARUMS	Country:	IARU Region 1
Committee	C3	Paper Number:	LA17_C3_05
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This report gives a general overview of the development of the IARU Monitoring System in Region 1 in 2016, essential material, goals and dependencies for the success of the system.

1. Member Societies of IARU-Monitoring System-Region 1 and their Coordinators

Currently there are 87 societies in Region 1, 29 are represented in the Monitoring System, roughly 30 % of all societies.

It is very important to stay updated with the various societies. Our aims were to recruit more member societies from Region 1.

In March 2017, the involved countries of the IARU-MS Region 1 and their MS coordinators are as follows:

Austria: OE3GSA, Gerd Schweidler, bandwacht@oevsv.at
Belgium: ON8IM, Ivan Moouraux, on8im@on8im.be
Croatia: 9A5DGZ, Gianluca Zaimovic, nadzor@hamradio.hr
Egypt: SU1SA, Sayed, kh_sayed@yahoo.com
Finland: OH2BLU, Pekka Kemppinen, oh2blu@gmail.com
France: F5MIU, Francis Boulot, intruders@r-e-f.org
Germany: DK2OM, Wolfgang Hadel, bandwacht@dark.de
Great Britain: M0VRR, Vaughan Ravenscroft, rsgb@m0vrr.co.uk
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Israel: 4Z1AB, Amos Barak, 4z1ab@iarc.org
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Norway: LA4EU, Hans Arne Oestlund, la4eu@online.no
Oman: A41MA, Younis Albuloushi, a41ma@hotmail.com
Poland: SP9BRP, Jan Szostak, sp9brp@wp.pl
Portugal: CT4AN, Jose Francisco de Almeida, ct4an.radio@gmail.com
Romania: YO9RIJ, Petrica Stolnicu (ARR, non-official IARU), yo9rij@gmail.com
Slovenia: S56ZDB, Darko Bulat, darko.bulat@ceterum.si
South Africa: ZS6NS, James Archibald, jimarch@burst.co.za

Spain: EB1TR, Fabián Malnero, iarums@ure.es
Sweden: SM5-125, Ullmar Qvick, veriori2000@yahoo.se
Switzerland: HB9CET, Peter Jost, bandwacht@uska.ch
Tunisia: 3V8CB, Ahmed Boubaker, Boubaker-AH@hotmail.com

IARU-MS-R1 had very close contacts with the coordinators in Region 2 and 3. These coordinators were exchanging information with Wolf and Peter by e-mail. As Wolf and Peter use sophisticated professional software from WAVECOM in Switzerland, they have become experts for the detection and evaluation of digital signals. Their advices are estimated in all three IARU Regions. Many thanks to WAVECOM for hard- and software support.

2. IARU-MS-R1 Newsletters and Publications in Amateur Radio Magazines

The internet is the most important tool for the Monitoring System. It allows communicating very quickly with the relevant Amateur Radio organizations. Also, it is very helpful to stay in contact with the member societies and contributing amateurs by “Intruder Alert,” connecting 161 people of the Monitoring System worldwide. In 2016 Wolf, DK2OM, edited and published 12 newsletters in English language for IARU-MS-R1 homepage, one for each month. DARC, the German Amateur Radio Club, is sponsoring this homepage. DK2OM is acting as sysop for 14 years. Also, regular intruder reports written by DK2OM can be found every second month in CQ-DL-magazine (one full page), the official DARC pamphlet. Besides this written monthly report, a short version of this reports is aired by the DARC club broadcast “Deutschland-Rundspruch” on various SW, VHF and UHF frequencies. Further-more, Wolf is a regular editor in “Funkamateuer,” a commercial German amateur radio magazine. He reports about the situation of intruders in our ham bands.

Peter, HB9CET is publishing in the USKA magazine, maintains a Bandwacht webpage within the USKA homepage, publishes a Swiss monthly report as pdf and holds regularly lectures about radio monitoring.

Excellent Cooperation of DARC-MS with the German Telecommunications Authorities “Bundesnetzagentur” (Federal Network Agency) at Konstanz

The cooperation of the Coordinator (DK2OM) with the German telecommunications authorities “Bundesnetzagentur” is excellent: The engineers of the “German Government Monitoring and Receiving Station” of Bundesnetzagentur at Konstanz are very obliging and handling the Reports of Harmful Interference of IARU-MS-R1 very quickly and effectively. Cooperation is on a very friendly basis. During the last years, Wolfgang Hadel had telephone contacts with Bundesnetzagentur almost daily reporting harmful intruders to the officers.

In 2016, the German Bundesnetzagentur “Federal Network Agency” filed 14 International Complaints of Harmful Interference to various telecommunications authorities abroad dealing with BC interferences, intermodulation products IM3 of BC), spurious and harmonic transmissions, radar systems, illegal private traffic, embassy traffic, military and illegal digital emissions. All official complaints by the German BNetzA in 2016 were initiated by DK2OM.

Also, the relation between Peter (HB9CET) as vice-coordinator with the Swiss authorities "BAKOM" (OFCOM) is excellent and very helpful. As well Peter acts as USKA liaison officer to BAKOM. Furthermore, Peter acts as EMC-Coordinator for USKA since April 2016.

3. Ham Radio 2016

Wolfgang Hadel, DK2OM, was awarded the Region 1 Medal by IARU Region 1 President Don Beattie, G3BJ, to recognise his ongoing exceptional leadership of the successful IARU monitoring system.

4. Some Highlights of Actions and Observations in 2016

The number of OTH radars was and is still increasing. Chinese radars disturbed 3.5, 7, 14 and 21 MHz with burst signals or long lasting emissions. Further emissions came from Australia, Cyprus, France, Iran, Turkey, UK and Russia. Chinese broadband radars were covering 100 and 160 kHz of 7, 14, 18 and 21 MHz. Iran radar on 28 – 29.7 MHz – is still active until November 2016. The signals were 55 kHz wide and produced splatters up to ± 300 kHz. An official complaint by the German and other European PTTs brought no results.

Miscellaneous example screenshots

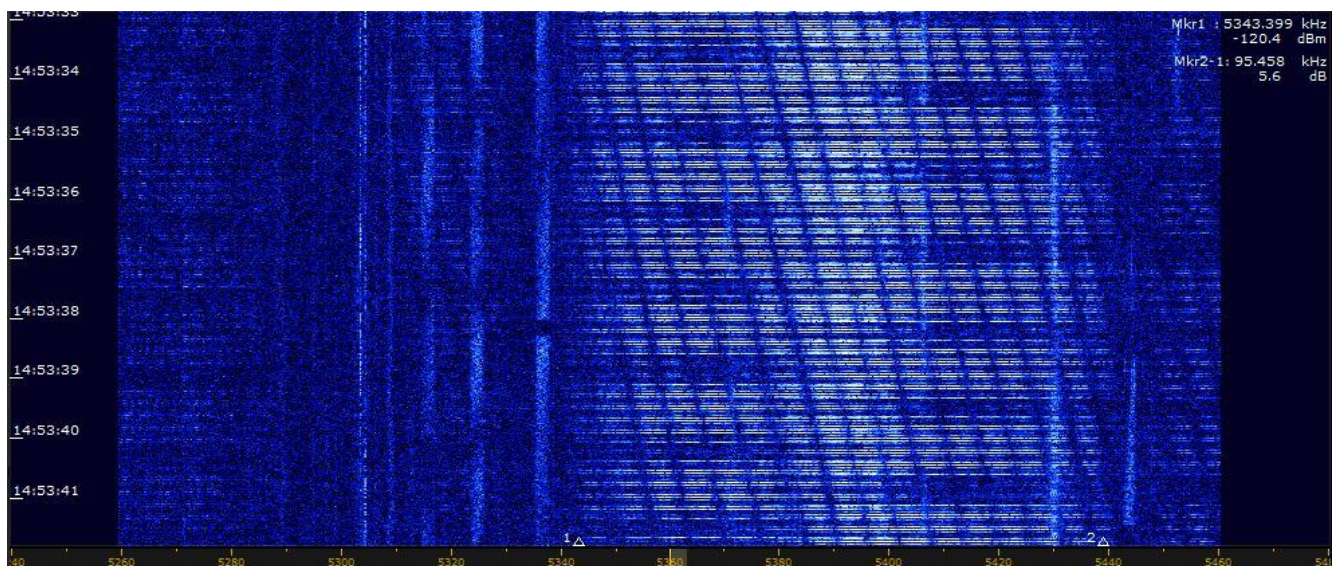
Italian CB'er on 28001.5 kHz on SSTV

An Italian CB'er transmitted on SSTV (Martin 1) the following picture on 3 Dec 2016 on 28 001.5 kHz. He was so kind to mention his exact coordinates and his "call sign."



Chinese OTH radar on our new 5 MHz-band (shared band)

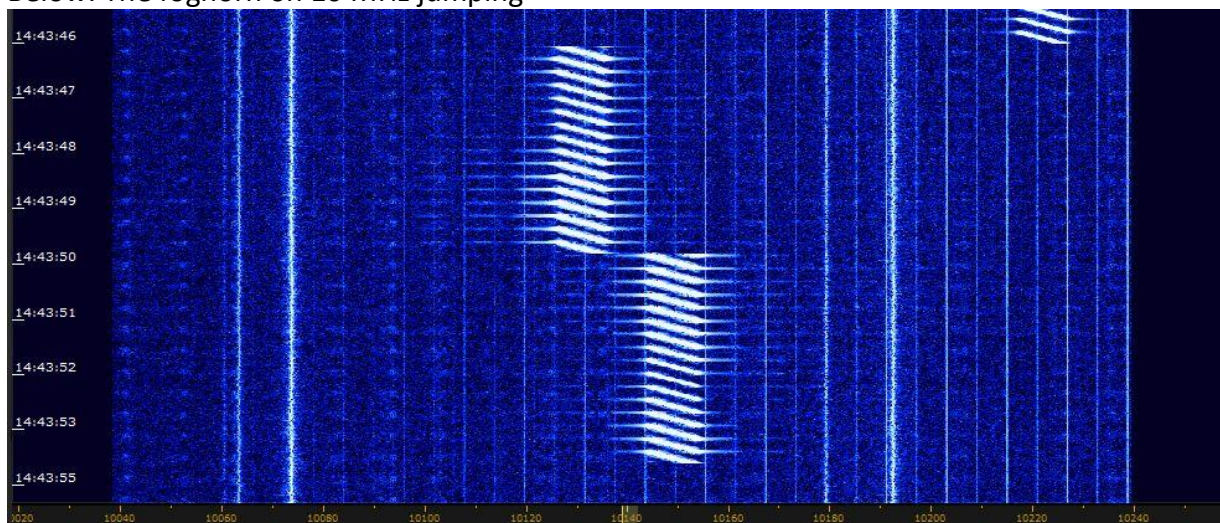
We were very glad to get our new band (5 351.5 – 5 366.5 kHz) in December 2016. But the new band was covered by a Chinese coastal radar named "Sunflower" covering 5 340 – 5 440 kHz during the evenings and nights in December 2016. The Sunflower-system has been developed in Russia and been sold to other countries like China. It works with 43 sweeps/sec and has a normal range of 500 km.



The Chinese “foghorn”

The Chinese OTH radar named “foghorn” (sounding like a foghorn) was often observed on 7, 10, 14 and 21 MHz on burst mode with 66,66 sweeps/sec. The system was often jumping.

Below: The foghorn on 10 MHz jumping



5. BC Stations still transmitting in the 40 m Band, 7 000 – 7 200 kHz

7120 Radio Hargaysa, location Somaliland, in the north of Somalia, SOM (For several weeks not active). Many complaints were not observed

7175 Voice of the broad masses Eritrea jammed by Radio Ethiopia by white noise (no longer in March 2017)

7200 Radio Taiwan interfered by Chinese Jammer

After some BC stations had left the range 7 100 kHz to 7 200 kHz, some military stations occupied these frequencies (mostly Russian, Chinese and Taiwanese military).

The Situation on our Bands in December 2016 (Overview):

1. Illegal fishery buoys 28 000 – 28 500 using A1A
2. Illegal Datawell Waverider buoys: 29 525.0 (Casablanca), 29 500 (Gibraltar) and 29 450 (El Ayùn) F1B, 81,9 dB, 140 Hz shift and others more
3. Illegal buoys 28 000 and 28 350 - F1B, 51 dB, 300 Hz shift – GPS driftnet buoys
4. Illegal CIS taxi traffic in F3E on 28 – 29,7 MHz – mostly from Russia (no change)
5. Illegal Safari and hunting services in Africa – often on 7 MHz
6. Illegal fishery traffic on all HAM-bands, sometimes using voice scramblers (like CRY 2001), from Spain, France, UK, Portugal and Italy
7. Illegal CB-like traffic in all parts of the world on 3.5, 7, 14, 21, 24 and 28 MHz
8. Illegal emissions in AM from CIS countries on 3 500 – 3 600 kHz, 90% from Russia
9. 7 050 kHz LSB – Russian and Ukrainian amateurs with insulting traffic
10. Illegal embassy and diplo-traffic on exclusive bands especially from Democratic People Republic of North Korea and China
11. Numerous military services including radar systems and harmonic emissions on all bands
12. Increasing digital military traffic on 7 MHz
13. Illegal ocean surface radars like CODAR on 7 MHz (Far East)

Pirates are still flooding all shortwave bands and VHF/UHF-bands too. They are not respecting Amateur Radio, maritime distress services or aircraft and emergency traffic systems.

6. Grateful words

Many thanks to all involved Amateurs and PTTs for the excellent support and many thanks to the national societies, which gave us their help. Finally: Grateful words to all IARU Regions and their Presidents and ECs - of course including Don, G3BJ, Tim, VE6SH, and Ole, LA2RR.

IARUMS Region 1 Website: <http://www.iarums-r1.org>

Kind regards

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Peter Jost – HB9CET

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Coordinator of DARC Monitoring System

Vice-Coordinator IARU MS R1
Coordinator of USKA Monitoring System

March 12th 2017