



International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia

Founded 1950

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SUBJECT	Region 1 Amateur Radio Observation Service Report		
Society	IARU Region 1	Region 1 AROS Coordinator	
Committee:	C4	Paper number:	VIE16_C4_13
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The IARU Region-1 2014 General Conference made the following recommendation:

Recommendation VA14_C4_REC_05:

That a Region 1 Amateur Radio Observation Service (AROS) Coordinator is appointed to:

- a. Coordinate the establishment of independent AROS operations in around six member societies*
- b. Commence the monitoring of DXpeditions for malicious QRM*
- c. Coordinate operation with the aim of identifying any patterns and possible sources of jamming, and*
- d. Report back by the next Interim Meeting*

Report

A small group has been formed that comprises representatives from CRC, IARC, KARS, RAAG, REF, ROARS, RSGB and SARL. A closed website has been operational throughout 2015 for this group and for any observer teams that they have created. Observation activity has been very low, apart from a specific exercise during the K1N operation and during the Nepal Emergency. It is thought that this is for the following reasons:

- Lack of DF capability – rudimentary at HF and almost absent at LF
- Number of observers is well below critical mass and they seem difficult to motivate to operate as a team
- Decision not to open up some of the onscreen map plots
- Perceived lack of technology, process and sanction for a perceived “end-game”
- Need to develop the website so that it includes on-line analysis of the data

The website captures reports and displays the directions of DQRM from the observing station onto a global map. Reports of the same DQRM (of approximately the same frequency and time) can provide loci that intersect if the reports come from suitably located stations. This provides a rudimentary indication of the source of DQRM.

During the K1N (Nevassa Island) operation:-

1. The team shared their own DQRM data with R1 AROS, though it was not made generally available.
2. The sources of DQRM seem much wider than we had previously thought. Most parts of Europe and NA seem to have their own DQRMs;
3. There was a lot of interference that really fell into the category of frustrated people waiting for the DXpedition to show on certain bands and modes. Whilst deliberate it did not really interfere with K1N as such, but demonstrated a level of bad manners amongst those waiting for the DXpedition to appear on a specific frequency.

R1 AROS was also active during the Nepal Emergency and called in professional assistance that provided an approximate location for one instance of DQRM to the net. This information was passed on to the net controller. The action may have had a role in causing the DQRM to cease.

Conclusions

Responding to DQRM is challenging. One does not want to create a response from the DQRMer to the monitoring, so inherently the approach needs to be very discrete, yet one needs a critical mass and some measure of success in order to motivate the observers.

The work in 2015 clearly demonstrates that some long-range DF technology is needed. This may indicate that in addition to developing an amateur DF capability the IARU should explore forging closer links for gaining location support from professional capabilities. Close in location technology is also needed for the final ground-wave location task. Appealing to the person's good will is still the main option in terms of the "end-game".

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