



INDIAN RIVER ARC

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KN4JN**

Over the Horizon Radars Becoming Routine Visitors on Amateur HF Bands

The International Amateur Radio Union Region 1 (Europe/Africa) Monitoring System ([IARUMS](#)) has reported a spate of over the horizon (OTH) radar signals on various Amateur Radio HF bands – exclusive and shared. Many of these signals are being heard outside of the Region 1 confines.

A 50 kHz wide Russian OTH radar has been heard in the evening on 80 meters, often in the CW part of the band. An "often long-lasting" Russian OTH signal about 13 kHz wide is being heard on the 7000-7100 kHz segment of 40 meters, while some digital traffic (FSK or PSK), and a "Codar-like radar from the Far East" are being heard in the 7000-7200 kHz segment as well as non-amateur CW transmissions.

The same OTH radar being heard on 40 meters also is appearing on 20 meters, along with digital traffic in FSK or PSK and on CW and broadband OTH radar signals from China. Some monitoring reports are intriguing, such as this one on 14.280 MHz from IARU Region 1 "Female voice with encrypted msgs – figures – 'SZRU' = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 UTC."

Broadband OTH radars from China, Australia, Cyprus, and Turkey have been monitored in 15 meters. On 10 meters, radars from Iran with FM CW and different sweep rates have been monitored, as well as fishery buoys on CW, and taxi operVoice traffic from fishing operations has been heard on all or most HF bands, as have a variety of broadcasters, including the third harmonic of Radio Tajik (4765 kHz) on 14.295 MHz, Radio Taiwan and

SPURIOUS EMISSIONS

MAY 2016

CLUB MINUTES

IRARC General Meeting May 5th 2016

The meeting began at 735 with the pledge of allegiance. Next, visitors K05AFS and Jeff KM4SOM were recognized.

President, Dave KU0R, reported that Ray N4LEM is recovering well after his heart surgery.

He thanked everyone that participated in the JDRF walk, and Larry WD5CKN reported we had 12 communication volunteers for the walk.

The president called for a motion to approve the April meeting minutes; it was moved, seconded and approved by acclamation.

Treasurer, Larry KK4WDD, reported that we had, prior to major expenses, \$3568.97 in the general fund and \$1276.81 in the equipment fund, plus \$41 cash. We reimbursed Dave KU0R for antenna purchases he made for the club and now the club assets shrunk to \$2423.04, total. Larry suggested that we have a fund raiser to boost the club's funds. A motion was made to approve the treasurer's report for audit; it was approved by acclamation.

Next, Vice President Viron N4VEP said that he missed the prior meeting because he overslept, not that he was scuba diving, as reported.

Dave KU0R reported for the technical committee: all repeaters are working, and the 146.88MHz repeater is running

in fusion mode. It is unclear how well it is performing and further tests will be done. The tower climb on the 145.37 MHz repeater was accomplished in mid April and we found lightning damage on a jumper cable between the hardline and the antenna. It was replaced and now there is a good SWR; however, the antenna is in bad shape and should be replaced.

Dave K4UZM reported that the building housing the .37 repeater could use some cleaning and painting. He asked for volunteers to help Jim Grossman, who will provide a pressure cleaner and paint, to do the job. Our repeater is in that building free of charge.

Upcoming events: On the 14th a SET will utilize the 60m band. QRP outing will be on the 21st of May at Rotary Park on Merritt Island.

Emergency Coordinator, Larry WD5CKN, reported that he participated in the VOAD SET meeting held at the Red Cross facility and there had been a lot of discussion about communication with the EOC, but they had not considered how to accomplish those contacts if the cell phone system was down: that possibility did not cross their minds.

All organizations present at that meeting require volunteers to pass background checks.

Larry is still looking for volunteers for shelter operations. He wants to change the volunteer assignment procedure. Volunteers will gather at King Street and be henceforth dispatched from there according to shelter requirements, rather than be assigned to a particular shelter ahead of time, due to the fact that the county does not know ahead of time which shelters will be opened.

No old business.

New business: We want to replace the

145.37MHz repeater antenna. A motion to approve the antenna purchase of \$900 plus was made. The motion was approved through acclamation.

New policy for the repeater site work: all participants working on site must wear a hard hat.

No one has volunteered to organize Field Day. If no one steps forward, the club will not participate in Field Day.

The 50-50 drawing found the winning number to be held by Porter WA4WW.

Presenting for the evening was Viron N4VEP on an economic analysis of solar power versus commercial electricity for emergency communications. He made a point that solar could be more cost effective on longer term use for an ongoing base station. Following a storm, gas to run generators may be hard to get; yet, solar power would be available as long as the sun shines. Another good point was that solar should not be the only source of power during storms; it needs to be supplemented with batteries or wind generators. Batteries should not be allowed to be completely discharged, which adds an extra factor in the cost of commercial electricity. Viron showed examples of solar equipment.

A motion to adjourn occurred 900 at and was moved and approved.

Respectfully Submitted

Steve N4UTQ

Secretary

HAPPENINGS

Myanmar Radio, both on 7.200 MHz, and Radio Hargeysa in Somalia on 7.120 MHz.

The February 2016 IARU Region 1 Monitoring System [newsletter](#) offers more details. There is an online [archive](#) of past issues. – *Thanks to the IARU Region 1 Monitoring System*

On April 30 volunteers from IRARC assisted with communications the Juvenile Diabetes walk on the beach. Larry WD5CKN, Chris AA4CD, Ernie K1CPO, Dave K4UZM, Viron N4VEP, Dwaine KM4HCN, Larry KK4WDD, Armando KN4JN, Dave KD4SFR, Fred KB4DMQ, Bill KA4VYH gathered

promptly at 7:00 AM at Lori Wilson Park to set up the base control station and assign positions. The group successfully used 147.42 MHz simplex for the operation, which proceeded without any glitches. All had a good time in helping the JDRF folks, who were most grateful.

Saturday, May 21, will be the next QRP event. This time at Rotary Park on Merritt Island.

Hurricane Watch Net Seeks Net Control Operators

The Hurricane Watch Net ([HWN](#)) is looking for additional net control operators. Hurricane Season in the Atlantic begins on [June 1](#) and [ends on November 30](#); in the Eastern Pacific, it [begins on May 15](#) and [ends on November 30](#). Hurricanes can form at any time of the year, however, as witnessed by Hurricane Alex in January.

With the 2016 hurricane season rapidly approaching, the Hurricane Watch Net is preparing for what looks to be an active season," HWN Manager Bobby Graves, KB5HAV, said.

"It has been a long time since the US has seen a major hurricane make landfall." He believes the US may be overdue for one.

Graves said the HWN is always on the lookout for well-qualified, experienced net control operators who can effectively communicate with hurricane-prone areas from eastern Canada, the US East Coast, the Gulf of Mexico, Central America, and the Caribbean. He said bilingual (English and Spanish) operators are a valuable asset.

Visit the HWN [Membership Information Page](#), if you're interested in becoming a member of the Hurricane Watch Net. Read [more](#)

ON THE AIR

BULGARIA, LZ. Special event station LZ65HSC is QRV during all of 2016 to celebrate the 65th anniversary of the High Speed Telegraphy Club. QSL via N7RO.mmmthfortthofaugustwast hday

POLAND, SP. Dionizy, SP6IEQ is QRV with special call sign HF6FIRAC during 2016. QSL to home call.

MACEDONIA, Z3. Members of radio club Stevo Patakot are QRV as Z37OCEF until the end of the year to celebrates its 70th anniversary. QSL via bureau.

Amateur Radio is traveling with the "[Great Northern Way](#)" Arctic expedition in Russia. Listen for R3CA/8/9/0 along the route. The historical-geographical expedition commemorates the 400th anniversary of the Northern Sea Route and will be part of a research program, "Mysteries of the Russian Arctic."

Two all-terrain vehicles will carry participants along a 10,000 kilometer (approximately 6200 miles) route on frozen Siberian rivers, the open spaces of the Arctic tundra, and the land-fast

and drifting ice of Russia's Arctic seas. The expedition plans to make stops of about 1 day each on some Arctic islands, which would be of interest to Islands on the Air (IOTA) enthusiasts.

Heading the expedition is the president of the Russian Geographical Society's Arktika Center and polar explorer Vladimir Chukov, R3CA. Call sign designators will indicate the location – R3CA/8 (Yamal), R3CA/9 (Taimyr), and R3CA/0 (Yakutia, Chukotka). Operation has been on SSB in the vicinity of 14.120 and 14.130 MHz.

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JAN MAYEN, JX. Svein, LA9JKA will be QRV as JX9JKA from April 12 to October 4. Activity will be on 160 to 6 meters using SSB and various digital modes in his spare time. QSL direct to home call.

Radiosport by Armando Delgado, KN4JN

Radiosport, as contesting is now called, is one of amateur radio's most popular activities. Hams have participated in contests since the early days of radio and its popularity has increased with time. Today, scanning the pages of amateur journals or visiting web sites dedicated to contesting shows multiple radio contests each week. This popularity arises from multiple reasons. Contesting is a learned skill that takes time

and experience to develop. Most newcomers to ham radio and some older operators fail to understand this fact. They try to enter a contest and become frustrated because they fail to make many contacts. The purpose of contests is to make radio contacts with as many stations as possible. This is a common denominator of all contests, but each contest follows a different format and a different contact exchange.

The first step in learning to contest is to become familiar with the rules of the contest at hand. These rules are published by the contest sponsoring organization or group and can be found in the Internet, either at the sponsor's web site or by googling the contest name. QST each month publishes a list of popular contests, including the date and their web address. Invariably, most contests happen on weekends.

Once familiar with the rules, the first skill to develop is to identify the station controlling the frequency. In most contests there are two types of operations: frequency control, and hunt and pounce. In frequency control, the station sits on a specific frequency and calls "CQ Contest". Generally, these are more experienced operators, many

Radiosport

times using amplifiers to produce a loud signal. The hunt and pounce operators roam the frequencies listening for stations calling "CQ Contest" and then try to contact them. Low power stations and less experienced operators usually favor this mode.

While roaming the frequencies, it is not uncommon to run into an exchange in progress. If one of the stations is loud and easily readable, one must bide his time to wait for the exchange to finish and then listen for the station calling "CQ Contest". That should be the station to contact. This point seems obvious, but in busy contests there may be several stations transmitting in close-by frequencies so that at any given moment one can hear several call signs at once. The skilled contestant will be able to hone in on the crucial station quickly.

One other skill to develop is proper timing in making the call. In a clear frequency, with just the frequency controlling station giving his call sign, calling back as soon as he finishes should work. But if there are several stations calling him back, each operator follows a different pattern to respond. Some will invariably answer the first station coming back to him; others will wait for the pile up to subside then listen for the first straggler. Identifying his pattern of operation is vital to a quick, successful contact. Once his pattern of operation is clear, dropping your call at the proper time will invariably work, if propagation allows your signal to be strong at his place. Also, when giving your call do not give his call as well. Just state your call sign once and listen for a reply, which should follow the format of the particular contest. Answering his response, you would give the contest exchange without your call sign. This makes the total exchange simple and quick, which is what most contestants want, so they can move on to another contact.

One other skill to develop, and a harder one at that, is proper enunciation of your call sign. Some voices do better than others, due to the natural pitch of the voice, and that cannot be changed. However, by enunciating each letter of the call sign clearly it is possible to overcome any natural shortfalls. Most stations will hear better the last two letters of the call sign, so it is very important to stress these two a little more. Practice, experimentation, and the phonetic alphabet will ascertain the right pattern to follow. Of course, in CW enunciation is not an issue, but matching the sending speed of the other station is very important. Certain contestants will not reply to a slow station, but many will slow down to get the contact.

Some contestants enter contests to compete for first place, certificates, and recognition, but the majority of contestants actually compete against themselves. It is not just the score that is important, but the performance skill. Contests are a great tool to develop operational skills, and as operators gain in these skills, the satisfaction of contesting increases.

One other benefit of contesting is discovering the radiation pattern of your antenna. Contests require operations through multiple bands, multiple directions and multiple distances. With time, one can discern in which directions and in which frequencies the antenna performs best.

So find out which is the next contest and give it a try.

ARRL CONTESTS

January 2016 1 Straight Key Night 2-3 RTTY Roundup 3 Kids Day 30-1 January VHF	February 2016 8-12 School Club Roundup 20-21 International DX -CW
March 2016 5-6 International DX-Phone	April 2016 17 Rookie Roundup - Phone
June 2016 11-13 June VHF 18 Kids Day 25-26 Field Day	July 2016 9-10 IARU HF World Championship
August 2016 6-7 August UHF 20-21 10 GHz & Up - Round 1 21 Rookie Roundup - RTTY	September 2016 10-12 September VHF 17-19 10 GHz & Up - Round 2 24-25 EME - 2.3 GHz & Up
October 2016 17-21 School Club Roundup 22-23 EME -50 to 1296 MHz	November 2016 5-7 Nov. Sweepstakes - CW 19-21 Nov. Sweepstakes - Phone 19-20 EME - 50 to 1296 MHz
December 2016 2-4 160 Meter 10-11 10 Meter 18 Rookie Roundup-CW	

W1AW CW PRACTICE TRANSMISSIONS

Slow CW : (5-15WPM)
 7 PM EST Mon, Wed, Fri

Fast CW: (35-10 WPM)
 7 PM EST Tue, Thu

FREQUENCIES:

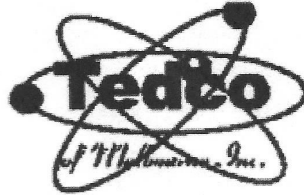
1.8025, 3.5815, 7.0475,
 14.0475, 18.0975, 21.0675,
 28.0675, 147.555



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