

# Spurious Emissions

Orleans County Amateur Radio Club

November 2009

## OCARC Meetings

The OCARC meets at **7:30 PM** on the **2nd Monday** of each month at the Orleans County Emergency Management Office (14064 W. County House Rd. Albion, NY)

The exceptions are the August (picnic) and September (dinner) meetings

## **Club Officers**

### **President**

Stephen W Maier KZ2R

### **Vice President**

Howard Flint KC2EZJ

### **Secy**

Charles Lind N8CL

### **Treas**

Richard Toussaint

KA2BCF

### **Dir**

Bruce Sidari WA2TMC

### **Net Mgr**

Marion Toussaint

KA2BCE

## OCARC Meeting November 9, 2009

### **WHERE:**

EMO

### **When:**

November 9, 2009

### **Time:**

7:30 PM

### **PROGRAM**

Well I must apologize, I will not be at the meeting this month.

I will be in Seattle visiting my son and his family.

This is the second time in 2009 that I have scheduled a Seattle trip conflicting with our meeting night. It was not on purpose believe me.

I **ENJOY** our club meetings a lot.

This month I have scheduled TWO ham radio video presentations.

***Trust me they will not be boring and should run about 50 minutes total.***

I think you will find the quality of each to be studio grade.

The first video will be on ARISS. ***Amateur Radio International Space Station.***

This is a program that W2EV, an advisor at

Medina High School would like the OCARC to help with. It will educate us all a bit more about the ARISS program. The second is about ARDF.

What do you mean you don't know what that is.

Lots of us have done it. Maybe not on the scale as demonstrated in the video, in fact I will guarantee none of us have participated the way these hams did.

ARDF??? Look it up or come to the meeting and be pleasantly surprised.

**De WA2TMC**

## **Nearly FREE parts!**

Speaking of bargains, here's a real bargain tip from George Primivera WA2RCB of Cherry Hill, NJ: "I recently encountered a failure of the external speaker jack on my Icom general coverage receiver. The jack was an 'Alps' (manufacturer's name) component, designed for mounting directly onto the PC board. The small square plastic shell which

serves to hold the metal contacts of the jack assembly together, cracked across the top, rendering the little jack useless. Knowing that such a part was not the type normally available from convenience electronics outlets like Radio Shack (reg. trade name), I searched through the electronics mail-order catalogs, which had similar parts within their pages. Unfortunately, the problem with mail-order parts at times, is that, if you don't have

the exact part number and/or the technical specifications of the part you need, you might not get a suitable replacement. Then I happened to look at a couple of old VCR's that I had salvaged from a nearby TV / VCR repair shop.

Most people now seem to throw away their old VCR's rather than fix them, and I had a few of these 'throw-aways' on hand for their spare parts value. A TV / VCR repair shop in my town was more than happy to 'clear their shelves' of a couple of these lifeless samples just for the taking. Guess what? The external audio jack attached to one of the scrap VCR boards was an exact replacement part for the one needed for my Icom! It was even made by the same manufacturer, Alps Electric Ltd.! Looking at the VCR board, it then became apparent that many of the same passive components (capacitors, resistors, jacks, pushbuttons, etc.) were identical to those used in my Icom. When you think about it, it makes sense; why use different production line components for ham radio equipment and those that are used in Japanese consumer goods like VCR's, TV's, cellular telephones and the like? While there are certainly some components - namely higher power RF parts - that won't show up in consumer electronics, many others do. Some just might be waiting for you to use, and for significantly less that the parts and labor costs you would have to pay if you didn't do the work yourself!

One final example...my Yaesu FT-23R developed an intermittent PTT switch recently. I happily

found an exact replacement for the Yaesu's switch behind the front panel of a scrapped Cannon

VCR I had picked up, free, at the local TV shop. The HT now works just fine, and the cost of replacement parts was about as reasonable as it gets! So next time you need a part, you might consider looking at scrapped consumer electronics items. Of course it's always a good idea to pre-test the salvaged component before installing it in your ham equipment.

Some of the newer VCR's also make use of many surface mount components, and these are a ready source for chip diodes, resistors and capacitors which are often needed for modifications to the newer, smaller ham gear. Look into these 'gold mines' and you might just save yourself a few hard-earned dollars (and not have to wait for the postman) the next time your ham rig develops a easily correctable fault."

## **OCARC Weekly 2 Meter Net**

The OCARC 2 Meter Net meets every Tuesday evening at 9:00 PM on the WA2DQL repeater.

**Freq** = 145.27 KHz -600  
**PL** = 141.3 Hz

This is a very informal net and ALL stations are welcome.

Our monthly Simplex night is the Monday FOLLOWING our normal club meeting.

It is also at 9:00 PM and is conducted on 145.27 Simplex.

The schedule of net Control stations for the next month is:

|     |    |        |
|-----|----|--------|
| Nov | 10 | KC2JKU |
| Nov | 17 | KA2BCE |
| Nov | 24 | WA2TMC |
| Dec | 1  | KA2BCF |
| Dec | 8  | KC2JKU |
| Dec | 15 | KA2BCE |

## **HELP !**

***Need OCARC members to help defend our reputation in the ARRL RTTY Roundup Club competition.***

***IS IT YOU ???????***

# *The Right Tools*

*by Ron Hashiro, AH6RH*

Scotty, the engineer on the original Star Trek series, was always fond of saying "How many times do I have to tell you...use the right tool for the right job!" As an amateur radio operator involved in emergency communications, do you know what are some of the right tools of the trade? Let's take a look.

**Mobile Radios** While we like the convenience of a 3 or 5 watt walkie, nothing beats the transmitting distance and the receiver qualities of a 50 watt VHF mobile or a solid HF transceiver. A rubber ducky and a handie talkie really won't cut it for most emergencies that rely on direct simplex communications on level terrain over distances greater than about two to three miles. And a mobile radio has better intermod rejection than a handie. Living and working in Honolulu, we know what a miserable, frustrating time we get from intermod signals.

**Antennas** If you're insisting on using a rubber duck antenna, you're in big trouble. A rubber duck is really a rubber coated dummy load. To get better performance, you'll need something you can attach to a coax cable and get the antenna closer to a window (if you're inside a sealed air conditioned building) or outdoors to radiate your signal better while you're safe and comfortable inside.

For walkies, a collapsible quarter wave or half-wave "hot-rod" antenna is a start. You can also use a ribbon j-pole antenna. But for mobile radios, you need something that will dissipate 50 watts continuous and many of the commercial walkie antennas are designed for about 5 watts. A regular quarter wave ground plane, mobile magnetic mount antennas -- these are good, portable antennas that are small enough to be used to radiate through a window in a office building or school cafeteria being used as an evacuation shelter.

If you are using a fixed based station, do not be so quick in getting the highest gain vertical antenna you find. Gain is obtained by sacrificing the antenna's radiation pattern. Rather than choosing a 7 dB vertical that slams your signal 100 feet into the building next door, selecting a 3 dB vertical gives an omni-directional antenna with a boost in gain but still allows sufficient radiation from the side lobes to rise over mountains, condo buildings or bend around other obstructions.

A handy item is a portable three or four element beam. A 6 dB gain is worth a four times increase in transmitter power. More importantly, the four times increase in received signal is very handy for pulling out marginal signals. As an example, check out the 146-4 Back Pack from Arrow Antennas ( <http://www.arrowantennas.com>).

**Coaxial Cables** Let's face it. Without feedline, it's mighty hard to get a signal from your radio to the antenna. You would like to position the antenna near a window if you're high above the

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surroundings, or at least higher than the surrounding obstructions to get the signal out.

If you had a chance, hauling 50 or 100 feet of RG-8U would be an ideal medium loss HF, VHF and UHF feedline cable, but it's mighty bulky and heavy. Using RG-58U is smaller and lighter, but the losses at VHF and UHF starts to cut into your operations.

A compromise is RG-8X, which has the bulk of RG-58U but has loss characteristics close to that of RG-8U. The only "drawback" is that the reducers used with PL-259 coax connectors are the UG-176 variety (for 75 ohm RG-59U) rather than the standard 50 ohm UG-175 for RG-58U but that's a small inconvenience.

Headphones and Other Accessories Little things make a big difference. Using headphones and a boom mike will cut out the background noise in a busy, cluttered environment and will also keep your audio from blasting around an already noisy room.

To speed operations, you may want to also include a foot switch to key your radio with your foot to leave your hands free for writing messages and to adjust the radio.

Something as simple as a clipboard ensures you'll have a smooth hard surface to write down messages clearly and legibly no matter where you are.

So, there you have it. A quick run through some simple things that make a big difference in responding to emergencies. Now, it's your turn to be like Scotty and say: "**Use the right tool for the right job!**"

## ***FUTURE CLUB PROGRAMS***

Well since nobody came along to wrestle the position of program director away, you are stuck for another year with me. **PLEASE I want your ideas. I'd love to direct or find a program that YOU wanted.**

**Until then here are a few ideas I have for the next few months:**

### ***Propagation and Sunspots***

**SWR** (with a real practical demo that we can understand)

**Cheap Yagis** (Easy, fun, Cheep AND blow away some commercial ones ) N8CL ????

**Radio Checkup** (bring in your FM gear for testing on some professional equipment)

**Your Idea** (Patiently waiting)