

Orange County Radio Amateurs (OCRA) Newsletter November 2008

From the Editor

Thank you to everyone who contributed to this month's newsletter. As usual, there is a wide variety of articles and subjects that are included.

Congratulations to Chris Pope, KG4CFX, who was presented the OCRA cup by Karen Synder, KD4YJZ, at the October meeting. Chris – It was wonderful to see you at the meeting. And, sincerely thank you for all your contributions to OCRA. You are truly appreciated.

Remember – The location of the monthly membership meeting has changed. Further information about the location, time, and directions are provided in the newsletter. The next OCRA meeting will be held on Monday, November 10. I hope to see you there.

Well, it is that time again – Time to get comfortable and read your club's newsletter.

Until next month....

Best regards,
Laurie - N1YXU
lbmeier@bellsouth.net

REMINDER: New Location for the Monthly OCRA Membership Meeting

Please take note that the location for the monthly OCRA membership meeting has changed. The new location is the Orange County EOC Building which is located at 510 Meadowland Drive in Hillsborough. [Directions are detailed below.] The monthly meeting starts at 7:30 pm. Prior to the meeting, there is an open board meeting at the Casa Ibarra restaurant on South Churton Street in Hillsborough. The open board meeting begins at 6:00 pm.

Directions to the new Orange County EOC Building

From Chapel Hill:

1. Take Martin Luther King ("Historic Airport Road") north toward Hillsborough.
2. MLK becomes Highway 86 (north towards Hillsborough)
3. Turn right onto Highway 70 Business at Hillsborough at the "T" intersection
4. Pass Meadowland Drive at the Triangle Sportsplex entrance to Meadowland office park
5. Turn right onto the second Meadowland Drive (Meadowland Drive is a

loop), approximately six tenths of a mile from intersection of Highway 86 and Highway 70 Business

6. Turn left into second driveway at 510 Meadowland (see radio tower), which is the location of Orange EOC

From Durham:

1. Take Interstate 85 South toward Hillsborough.
2. Exit Interstate 85 at Highway 70.
3. Bear to the left and take Highway 70 Business at Wayside Baptist Church
4. Turn left onto Meadowland Drive
5. Turn left into second driveway at 510 Meadowland (see radio tower), which is the location of Orange EOC

OCRA Christmas Party

This year the OCRA Christmas party has moved to a new location. It will be held at the Mayflower Restaurant in Durham. Several OCRA members have eaten at both Mayflower locations, and it is their opinion that the food is much better at the Durham location. So, as the drive is not really much different, we agreed at the last club meeting to give the Durham Mayflower a try. Additionally, they have a private banquet room in the back of the restaurant that is reserved for us.

Day: Tuesday

Date: December 9, 2008

Time: 6:30pm – 9:30pm

Phone: 919.401.9888

Location: Mayflower Restaurant
3742 B & C Chapel Hill Blvd

Next to Michael Jordan Nissan / Across 15-501 from Sam's Club

PLEASE RSVP by DECEMBER 2, 2008 TO:

Bruce or Laurie Meier

N1LN@arrl.net / N1YXU@arrl.net

919.942.4641

or, let us know on the 442 repeater.

The President's QRM

by Woody Woodward, K3VSA

First, let's recognize our new OCRA members: Ed Paradise (WA1YMP) and John "Andy" Yates (W4KIL). Welcome to you both, and we look forward to talking with you on the air.

While we're on the subject of club membership, we're currently looking at about 75 OCRA members at this time, which is pretty good. It may be subjective, but to me, membership numbers seem to be trending up. Even better, most of our "carry over" members are paid-up with only very few who have not as yet paid dues for 2008, and some of these are people who've just not realized they're behind in their membership dues. With the end of the year approaching rapidly, it might be a good time to slip our treasurer a check for 2009 dues and just "git er done!" I hope everybody who was a paid-up

2008 member will reenlist for 2009. We don't know what 2009 will hold for us, but I suspect it'll be exciting. What with the state the nation and the world are in now, anything could happen, so have your batteries charged up.

And while we're on the subject of the end of the year, let us not forget our annual holiday dinner will be coming up in early December. For the past two years, we've enjoyed getting together at Mayflower Seafood in Hillsborough, and the food there is pretty good. However, we've been apprised of the fact that Mayflower Seafood in Durham is even better, so we've elected to hold this year's event there instead. Watch the OCRA website for more information on this, but be advised that Mayflower is not open Mondays, so we have our holiday dinner on Tuesday instead.

How about those Field Day scores? OCRA came in second overall in our category, placing 35th out of several thousand North American entries. A very strong message of thanks and appreciation is now inserted here to our Field Day Captain, Dave Snyder (W4SAR), who, once again, masterfully guided our operations to a successful conclusion. And our neighboring club to the west, in Alamance County, placed first in their category. North Carolina is a happening place for ham radio!

The dates for Winter Field Day were finally announced: Saturday, January 24th through Sunday, January 25th, so we better start deciding if we want to participate, and if so, where and how? The FYBO Field Day date has not been announced, but I suspect it'll be on February 7th, the same date as FrostFest in Richmond and the Charleston, SC, hamfest.

Our OCRA website now has a page devoted to D-STAR, which lists those of us who've become capable in that mode. D-STAR is getting a lot of attention these days, and this page will hopefully sort out the confusion and help you understand it all. I can tell you that some people are getting impatient about ICOM being the only equipment provider and are reverse engineering the D-STAR protocols with the intent of building more versatile applications themselves. Nobody really knows where D-STAR will end up, but it has a lot of potential and is worth paying attention to.

We also took our first fledgling steps toward a page on the OCRA website where you can purchase OCRA-related logo items. One of our members, Chris Staley (K4CPS), is starting an embroidery business, and perhaps we can cajole him into doing a line of OCRA logo apparel items (he's already made some callsign customized OCRA ball caps) that we could add to our new page. Most of you already know about the OCRA coffee cups that you can order from the Sign Man of Baton Rouge (a ham and a great guy, BTW), and I'll probably ask him to add OCRA name tags, too.

Well, that's it for another month. I hope to see everybody at the next OCRA meeting, or at the holiday dinner, or at Bojangles, or talk to you on the air. Until next time,

73 de Woody K3VSA

2008 ARRL – SS – SSB

by Bruce Meier, NILN

Are you trying to qualify for your Worked All States award from the ARRL? If so, there is no better opportunity than the upcoming ARRL Sweepstakes SSB weekend. You don't need to have a big contest station. You don't need to be a contester. You don't need to operate any more time than you want to. You don't need to send in a contest entry. You don't need contest software – all you need to do is get on the air and make some contacts. Yes, you need to follow the agreed upon contest exchange, and, at first, it may look long and cumbersome, but after a few Qs it gets easy. (Suggestion: write it down....I do!!)

So, dust off those rigs, test out the antennas, get out that pencil and paper – and get on the air. At the next club meeting, you can actually report that you did do something Amateur Radio related.

Date: November 15 – November 16

Time: 2100 UTC Saturday – 0300 UTC Monday (1600 EST Saturday – 2200 UTC Sunday)

Exchange: QSO serial #, Precedence (more later), Your call sign, Check # (more later), ARRL Section (NC)

Precedence:

1. “Q” for Single Op QRP (5 Watts output or less);
2. “A” for Single Op Low Power (up to 150 W output);
3. “B” for Single Op High Power (greater than 150 W output);
4. “U” for Single Op Unlimited;
5. “M” for Multi-Op;
6. “S” for School Club;

Check #: The last two digits of the year you were first licensed (mine is “check 64”)

My exchange is as follows: Call of station calling / Q# / U / N1LN / 64 / NC. For example, let us say I am working Steve – KZ1X - and he is my 45th QSO. (KZ1X, 45, U, N1LN, 64, NC) See – easy!!!!

ARRL URL for official rules: <http://www.arrl.org/contests/rules/2008/novss.html>

Field Day 2008 Rankings Posted

by Dave Snyder, W4SAR, 2008 Field Day Coordinator

The long-awaited posting of the Field Day scores has been made available on the members only section of the ARRL website. I expect it will be made available to the general public as the December 2008 QST is mailed out. A change made in the posting this year is that the results are posted as rankings in order of points accumulated highest to lowest. Several filters are offered so that rankings of stations can be determined by section, class, and other factors. With that in mind, here is how OCRA fared against the competition this year- and we have earned the right to strut in more ways than one!

Ranking among all participating stations in USA and Canada: 35th out of 2,410

Ranking among all stations running QRP (output 5 watts or less): 5th out of 252

Ranking among all stations in the North Carolina Section: 2nd out of 73

Ranking among all stations running as 8A Battery: 2nd out of 2

Although they are separate categories, if all the stations running as 8A and 8A Battery were combined, we'd rank 3rd out of 12.

The #1 ranked station overall was W3AO, the Potomac Valley RC in MDC Section which posted 33,684 points and 10,709 QSOs.

In the North Carolina Section, the #1 Station was W4DXA, the North Carolina DX Association which posted 13,950

points and 3,774 QSOs.

In the 8A Battery Category, N6N the West Valley ARA in the Santa Clara Valley Section beat us with a score of 11,650 points and 1,190 QSOs.

In short, for a QRP operation working under very poor propagation conditions we performed awesomely! Our score was 10,530 points and 1,067 QSOs. N6N only led us by 123 QSOs. So, my conjecture is that they beat us on total CW QSOs. If we can get at least three dedicated CW stations working next year, we can top the category! We can also discuss other strategies. W4DXA had a little over three times as many QSOs as us, but they operated at a higher power level, with a 2X multiplier as opposed to our 5X. Do we want to bump up our power level next year for more QSOs or continue to refine our excellent QRP performance?

At any rate, this was our finest Field Day to date. We set a new point record under daunting conditions. But most importantly, everyone worked well together, and to me it appeared that everyone had a good time. I look forward to working towards Field day again this coming year.

OCRA Club Project – Float Charger Kit for Lead-Acid Batteries

by Steve Jackson, KZ1X

[Note: This is a reprint from the October newsletter. The diagram for the club project has been updated.]

The OCRA club project that I am working on is a float charger kit for lead-acid batteries, such as the gel cells that many club members have.

The goal is to have a simple kit that can help people learn a bit about electronics and building, to use up some free surplus parts to make an immediately useful item, and to save some money while having a little fun.

What IS this project ?

It **is** a very low cost kit that requires some customization by the user.

It **is** a circuit that can be safely left charging a typical gel cell, indefinitely.

It **is** a 100% zero-RF-noise circuit.

It **is** small and easy to build by anyone, in less than an hour, with just basic soldering skills and hand tools.

What ISN'T this project?

It is **not** a charger capable of restoring a deeply discharged battery.

It is **not** a charger designed to charge anything other than portable gel cells.

It is **not** a huge, complex undertaking.

It is **not** something that requires you to have a shop full of tools, or lots of electronics experience.

FAQ

Q. Can the charger overcharge my gel cell?

A. A typical 12V gel cell is designed to 'float' indefinitely at 13.7V, and that is what this charger does.

Q. How many gel cells can I put on the charger?

A. It is designed to charge one battery at a time, typically between 1 and 7 amp-hour size.

Q. There is no fuse on the output of the charger. Why?

A. None is needed. If you short the charger output, it simply goes into current limiting. No damage is done.

Q. What happens if the battery is on, but the AC power fails. Won't the battery try to 'back power' the charger circuitry?

A. No. The charger 'chip' senses that condition, and opens the circuit.

Q. Can I operate my radio from the battery while it is being charged?

A. Yes. Just remember, the charger is a trickle-charge type, and only provides enough power to charge the battery, not run the radio.

Q. So, if I have one of these just float-charging the battery, and I suddenly need the battery, it will be ready to go at a moment's notice?

A. Yes, if you have the connectors set up for that use, it's the perfect solution to this common challenge.

Q. What parts do I need besides the kit?

A. You'll need to supply the fuse holder and fuse, an AC power cord, suitable connectors, and some kind of enclosure. You may already have these items.

Q. What tools will I need?

A. You need some kind of soldering iron, solder, a wire stripper/cutter, and needle-nose pliers. A multimeter would be handy, too. If you have a hot-melt glue gun, that is also nice.

Q. Is there a circuit board?

A. No. The kit is too low-cost and simple for that. A few wires installed by hand are all that are needed to hook the whole thing up.

Q. I see the schematic, but I don't know how to read it. Will there be a tutorial?

A. Yes. You will be shocked to find out how easy this is to learn about, and how quickly you will pick up on the concept.

Q. What is the cost of this kit?

A. Right now it is looking like around \$4, plus the stuff you supply.

Q. Can I modify the kit to be more powerful?

A.. Yes. You can buy a larger transformer and simply substitute it, up to a point of diminishing returns.

Q. What if the charger fails in the future, how am I supposed to fix it?

A. The charger is made of easy-to-get, low-cost common parts. Most are sold at RadioShack! Because you build it, you can fix it, too.

Q. I have never built anything before. How can I be sure this will work?

A. Ideally, we'd have a building session at one or two club meetings.

You will have ample chance to have 100% success.

Q. Can I buy kits for my friends?

A. Sure, as long as they are OCRA members! Realistically, we have to limit this somehow. Only a fixed number of kits will be available.

Q. When will the project start?

A. The goal is to have these available for a building session / demonstration at the November OCRA meeting. Let's see how this goes.

Our Rich Ham Radio Heritage (Number 10 of a Series)

by Woody Woodward, K3VSA

Jeffrey Herman was a Coast Guard radio operator stationed in Hawaii. He operated CW at their USGC Station, callsign NMO, for some years and now has a fascinating website on which he recounts some of his experiences as a radio op. Here below, reprinted with permission, is his riveting account of the first SOS call he handled:

My First SOS at NMO

copyright 1994 by Jeffrey Herman

I always sat the 12 hour 500 kc night watch on my duty nights; I loved listening to the steady flow of calls from ships in far off waters. Even though we sat in the Central Pacific, I would sometimes even copy a fluttery East Coast US shore station.

Throughout the night I would hear ghostly signals, just above the noise level, that would fade in and out from who knows where. We used a Beverage-type long wire that stretched over one mile in length, and NMO sat in a very electrically quiet region. We were able to copy any ship or shore station anywhere in the Pacific.

One evening, feeling a bit drowsy (0200 local!), I thought I was dreaming when I heard a long dash, a pause, another long dash, a pause, another long dash, a pause, Like an electric shock, adrenalin flooded through me at the speed of light - OH MY GOD - SOMEONE IS SENDING AN AUTO ALARM! My eyes shot to the clock to time the dashes: 4 seconds on, 1 second off, 4 seconds on, 1 second off - those 12 long dashes almost froze me. I yelled into the intercom to the chief, "Auto Alarm on 500," knowing at the same time alarm bells were ringing on board every ship scattered around the Pacific within radio range of the distressed ship.

Recall that when a shipboard operator goes off watch, ITU rules dictate he leaves a receiver tuned to 500 kc with a decoder attached - if that decoder hears at least four 4-second dashes each with 1-second separation, relays in the decoder will clamp shut triggering alarm bells in the radio room, in the radio officer's sleeping quarters, and up on the bridge, to warn of a distress message about to be sent on 500 kc.

Now, the two-tone AA used on the voice SSB MF distress/calling freq of 2182 kc was common: Mexican fishing crews used them when they were drunk. But AA's on 500 kc are *never* sent except when a ship is in distress. This was the first one I'd heard since my radioman school days. I can't put into words the terror I felt while sitting out the ITU-required 2 minute wait (recall that the ITU dictates every step the distressed vessel's radio officer takes: Auto Alarm, then the 2-minute wait [if possible] for off-duty ops on other ships, woken by their Auto Alarm receivers, to race to their radio shacks to copy the distress).

500 kc was now in an extended silent period. Someone started tuning up and was immediately pounced on by myself: QRT SOS was all I needed to send - dead silence. One of the Australian shore stations was sending a CQ at the same time the AA went out - he must have heard the AA through his CQ for he stopped in mid broadcast. Nothing but an occasional static crash - dead silence. Throughout my brief 500kc career there had never been a silence like this I thought.

Then it came: SOS SOS SOS CQ DE DJNK DJNK DJNK SOS BT MV PANAMA TRADER HULL CRACKED IN HEAVY SEAS MAJOR FLOODING 42-27N 42-27N 178-51W 178-51W NOW ABANDONING SHIP SOS BT MASTER AR K

Then came the 10 second-long dash (ITU: for direction finding). I was first - in A2 I sent:

SOS DJNK DJND DJNK DE NMO NMO NMO RRR SOS and after me 500 kc was flooded with ships and shore stations sending sending the ITU response:

SOS DJNK DJNK DJNK DE NMC NMC NMC RRR SOS (San Francisco) SOS DJNK DJNK DJNK DE NOJ NOJ NOJ RRR SOS (Alaska) SOS DJNK DJNK DJNK DE NMQ NMQ NMQ RRR SOS (Long Beach, CA) SOS DJNK DJNK

DJNK DE KPH KPH KPH RRR SOS (San Fran.) along with KFS in California, NRV in Guam, a couple of Japan shore stations; the radio operator aboard DJNK must have breathed a sigh of relief and taken some comfort knowing his message was heard by so many.

Once the RRR SOS replies ceased, NMO took control. I asked the standard questions for situations such as this: SOS DJNK DE NMO BT NEED FOLLOWING INFO NR OF POB (number of persons on board) CSE (course) HULL ES SS COLOR (hull and superstructure colors) NR OF BOATS (number of lifeboats) BOAT RADIO FREQS, EPIRB WX, WIND SPD ES DIR, SWELL HT ES DIRECTION, CURRENT (weather and sea data) BT SOS K and DJNK patiently answered each.

After getting these important answers I had the uncomfortable task of asking:

SOS DJNK DE NMO BT OM PSE CL KEY BEFORE U LV OK? K SOS NMO DE DJNK WILL DO OM. Every shipboard telegraph key has a switch which, when closed, will continuously cause the ship's radio to transmit. This enables rescue aircraft to home in on the distressed vessel using their direction finding equipment. I had asked the op to close his key switch before he leaves the ship.

At the same time our AMVER computer was generating a printout of the locations of ships transiting the North Pacific: No ships were in DJNK's area! At least no AMVER reporting ships; it's possible there was a ship close to DJNK that wasn't sending us his AMVER position reports. A very slim possibility but a chance we couldn't ignore. I was ordered by our Rescue Center to send the DDD SOS, i.e. to relay DJNK's distress message from our 10 kW transmitter. In A2 I sent: AUTO ALARM (12 four second dashes with a one second pauses) then with my hand shaking, clenching the key: DDD SOS SOS SOS DDD CQ DE NMO NMO NMO SOS BT (DJNK's message) BT ANY SHIPS IN AREA DIVERT AND ASSIST SIGNED US COAST GUARD AR DDD SOS K

Dead silence reigned for minutes that seemed like hours. An awful, awful feeling of helplessness overcame me as I sat in that chair with the entire NMO crew standing in silence - all of us knowing at that very moment men were perishing in an icy ocean... Already we had aircraft in the air heading to DJNK's position so I notified him: SOS DJNK DJNK DE NMO NMO BT USCG AIRCRAFT LAUNCHED TO UR POSN ETA 3 HRS BT HOWS UR COND? K SOS NMO DE DJNK HV TO LEAVE SHIP NOW TU OM FER

His transmitter had emitted a - a scream - it actually screamed! I turned to the Chief asking, "Is that...?" "Yes, the ocean water just flooded his radio room shorting out his transmitter and batteries." I couldn't accept this - the man at that key couldn't have just perished!

I sent: SOS DJNK DE NMO SOS DJNK DJNK DE NMO. At this point the Chief put his hand on my shoulder and only said, "He can't answer you - he's gone." Throughout the night at 15 minute intervals I continued to send the Auto Alarm and the DDD SOS to no avail.

At daybreak our aircraft reported seeing only debris: bales of hay, which was the cargo of DJNK; no lifeboats, no bodies, only debris. Even to this day I sometimes hear, in my sleep, the scream DJNK's transmitter emitted that terrifying and horrible night. I pray the crew of that ship rest in peace.

2008 OCRA Officers and Board Members

Officers:

Woody Woodward, K3VSA – President
Ken Kauffmann, KR4FM – Vice President
Dan Eddleman, KR4UB - Treasurer

Laurie Meier, N1YXU - Secretary

Board Members:

Justin Heinecke, KD4CPM, One year term remaining

Gary Pielak, AI4GT, One year term remaining

Robert Little, N4ZAK, Two year term remaining

Brian McLamb, KI4YSZ, Two year term remaining