

OCEC/RACES SIGNALS

For the support of County Government during emergencies



Oswego County Emergency
Communicators/RACES
200 North 2nd Street
Fulton, NY 13069

Oswego County Repeaters

147.150 mHz PL not req'd
146.850 mHz PL not req'd
442.350 mHz 103.5 PL

Other repeaters of interest

146.670 mHz PL 151.4 Syracuse
147.345 mHz No PL Phoenix

Packet FlexDigi User Ports

EOC Fulotn 145.090 mHz K2QQY
Scriba 145.690 mHz KA2AON
Hannibal 145.770 mHzK1YHR

NETS

OCEC/RACES The 1st and 3rd Sunday
of the month at 2000 Hrs. 147.150 mHz

NYS RACES Net Every Sunday Morn-
ing at 0900 local on 3993.50 kHz

WEB SITES

OCEC/RACES
www.oswegoraces.org

Fulton Amateur Radio Club
www.fultonhamradioclub.org

Go to our web page for more links to
interesting places.

*A monthly meeting is held in the
lower level of the County Building
on Route 481 North, Fulton,
across from Mimi's restaurant.
Access is through the west door
until the meeting starts. Door is
secured after that. Use the after
hours button if late. Someone will
come up and let you in. Meeting
sign in is at 1850 hours local.*

Meeting Agenda for Wednesday, August 20, 2008

1850 - 1900 Sign In
1900 - 1950 Drill Review
2000 - 2100 Picture Show

Ham to the rescue

**KUDOS to Sir Galahad last Sat-
urday for racing with an um-
brella to a lady and her two
small children who were trying
to find shelter from the down-
pour during the YMCA race. I
understand that in getting
low enough to the children that a
certain part of his anatomy got
soaked, but the children are
okay.**

OFFICERS

John K2QQY Radio Officer
Keith, WB2NVY ARO Admin
Jim N2MGU ARO Comms
Mark KC2JNI ARO Logistics
Bob WA2AFF ARO Ops & Plan,
Tom W2TQF ARO ARRL EC
John N2MKH Unit Ldr Packet
Steve KC2QXE Unit Ldr IT
Brien KA2AON Unit Ldr Skywarn

INSIDE

REPP Drill Comments

Cross band repeating

REPP DRILL

Wednesday, August 13 RACES responded to the call by the Emergency Management Office to move operators to the JIC, EOF and EOC to support the radiological event at Nine Mile Point.

Dave, WD4EKB and Jim, N2MGU went to the EOF and Ben, KC2PNN, Redd, AI2N and Don, W2VIV manned the comms position at the JIC.

Reporting to the EOC was Henry, KC2SUL; Ed, KC2SUJ; Keith, WB2NVY; John N2MKH; and Bob, WA2AFF. Sarah, KC2PNE and Judy, KC2SUM were also at the EOC taking exposure data from the PMC and assisting the Operating Section Chief.

Brien, KA2AON, picked up Net Control from his home. Having a remote NCS worked out very well and we will try to do this during future events.

Glitches were encountered at both the JIC and EOF. Antenna problems were preventing communications on VHF. Ben and Jim set up their mobile radios in their vehicles for cross band repeating and their problems were over for the duration.

We passed some practice messages on VHF voice and packet to tone up the brain cells. Worked very well as at around 1120 local the phone system went down taking away fax capability and leaving only those cell phones that had access to the tower outside, which it turned out was not many. From 1120 to about 1230 all outgoing traffic to the EOF and JIC came to us for transmitting. An HF contact to Albany SEMO was made at 1146 for use by the NYS Health Department.

This is the first time that we were written into the event and much was learned about how well people would adapt to the situation. This will result in some revisiting of message handling routines and some interaction between other agencies, that did not have a back up plan for their possible loss of phone service.

We will review more comments and plans at our regular meeting. Here are a few pictures from the drill.



Ed, KC2SUL VHF Operator



K2QQY and Ron Raymond of SEMO
Looking over operations.



Henry, KC2SUL and Bob, WA2AFF
WA2AFF at the HF operating position.



John, N2MKH coaching the PIO personnel.

Crossband Repeating

Last month we discussed crossband repeating and a request for a reprint of the information was made so that everyone could have a copy. Trying to copy a copy did not turn out good, so here is my attempt to explain the different aspects of crossbanding. Information for this article came from the Icom web site and from the February 2006 issue of CQ, along with personal experiences.

What is crossbanding? Receiving a signal in one frequency range (e.g. UHF) and transmitting it in another (e.g. VHF). Many mobile dual band radios have a feature available that allows them to receive a signal on one band and transmit it on the other band. Accessing the remote located crossband repeater from a handheld for example, is referred to as linking to an auxiliary station. Because the FCC only allows linking on frequencies higher than 222.15 MHz. to auxiliary stations, stations that are having a hard time making it to the outside world must use those higher frequencies to communicate to a crossband repeater. If the crossband radio is yours and is operating as a repeater, you are responsible for its control and must be available to shut the repeater down if a problem arises.

There are three basic modes or uses of crossbanding.

1. You need to communicate from a shielded position to another station using a simplex mode. Solution-you simplex to a crossband repeater that relays your conversation to the other station and in return relays his information back to you. Your radio remains on one frequency.
2. You need to communicate from a shielded position to another station through a local repeater. Solution- You transmit in a simplex mode to a crossband repeater, which passes the signal to the local repeater, using the proper offset, and on to the receiving station. The message coming back goes to the repeater, back to the crossband repeater and finally to your station. This mode is used when you can not hear the local repeater or do not have dual band receive capability.
3. You need to communicate from a shielded position to another station through a local repeater and you have a dual band receive radio and can hear the local repeater. Solution- You transmit in a simplex mode to a crossband repeater, which passes the signal to the local repeater and on to the receiving station. The message coming back to the local repeater is passed through on its normal frequency which you can hear on your radio. The returning signal does not come back through the crossband repeater.

Details

Mode 1. Assumption: You have a UHF HT and are located in a hard to communicate position and you have a mobile radio capable of crossbanding. Using a simplex UHF frequency such as 445 MHz, program your crossbander to that frequency. Program the VHF frequency, such as 145.560 MHz for communicating with other stations. Follow the manufacturer's instructions and place the radio in the crossband repeater mode. Suggestion, run the repeater at the lowest power level that will maintain the

communication path. Now, using your HT you talk to other stations that are on VHF through your crossband repeater. They answer on VHF and you hear them on UHF because of the crossband feature.

Mode 2. Same assumptions as above except a local repeater will be the station you want to talk to. Program the UHF side to the simplex frequency, 445.000 MHz. Program the VHF side for the local repeater frequency, same as you would do for voice, complete with offset and any channel guard tones that may be required. Now you talk to the crossbander on UHF and it talks to the local repeater on its input frequency which is retransmitted on its output frequency. When a return is made to you, the input to the crossbander is the local repeater's output. The crossbander transmits that to you HT on 445.MHz. Note: You must wait for the local repeater to drop out before trying to transmit through the crossbander. As long as there is a carrier from the local repeater, the crossbander will think it has to transmit that signal. As soon as the carrier drops, you are ready to talk again. This can be a tricky operation if your patience runs out.

Mode 3. Like Mode 2 except it is possible to hear the local repeater on your dual band HT. Program the UHF side of your crossbander for 445.000MHz and the VHF side for the input frequency of the local repeater. Be sure to include channel guard tones if required. Now when you talk on 445, the crossbander will send out your message on the local repeaters input frequency and retransmit to the other operators. You will hear any transmissions directed to you and you can respond before the tail drops on the repeater.



