The Wisconsin ARES/RACES

Wisconsin EC

Emergency Coordinator

The WEC Newsletter is sent monthly to all American Radio Relay League Emergency Coordinators in the State of Wisconsin. It is intended to provide a forum for ECs to share ideas concerning the organization and training of their respective groups, and as a source of news concerning ARES and RACES activities in the state.

Comments, suggestions and articles (finished or in rough form) are solicited from the readers.

This newsletter and other important documents are posted on the Wisconsin ARES/RACES web page at:

http://wi-aresraces.org

in PDF format, shortly after each issue is published.

Deadlines: The newsletter is mailed on or about the 15th of the month preceding the date shown on the issue. Thus, the February issue is mailed on or about the 15th of January. Articles and notices must reach the editor no later than the 1st of January to be considered for the February issue.

Use of the Internet in Emergency Communications

[In early July your SEC received a question from an EC via email. I thought it would be useful to share the question and my answer with you.]

THE QUERY: I'm curious what your take is on this? Specifically using the Internet to augment emergency communications. To me this seems counterproductive. I have had many conversations over the past year or two with ham radio operators who I've been trying to recruit into ARES/RACES. A common theme for them is to ask why amateur radio is important anymore with the proliferation of cell phones and Internet connections.

Don't get me wrong; I'm 100% into computers. It's what I do for a living. I love Internet gateways on packet/APRS and think the whole Internet/repeater connection is really cool, too. We use the one up in Wausau when time allows and it's great talking to people around the world.   It just seems to me that the promoting of the Echolink system for emergency communications might be something that should be looked into a little bit.

Maybe I'm way off. One could suggest that as amateur radio operators we need to use every resource that is available to us, including the Internet connectivity. But it does run contrary to what ARES/RACES groups have been using as a justification for ARES/RACES and our radio spectrum. Connecting your Labtec microphone/headset up to your soundcard and using any one of ten different instant messengers could be used to bypass the whole radio thing altogether. Toss in a cheap webcam and you get video too. All for less than $75 and no license is required.

Like I said, I could be way off base here and I'd like to hear your opinions on it.

THE RESPONSE:

My opinion is that, while Internet connections are certainly convenient and relatively fast, they are vulnerable, just like cell phones, in emergencies.   In every major emergency including 9/11, cell phones have gone down immediately. During 9/11, so did landlines. No phone calls of any kind were possible for some considerable period of time. That is where we hams come in with VHF/UHF repeaters and HF.

On the other hand, if a ham in an emergency situation could use HF to cross the state and get into a working landline, then use an Internet connection at that site to transmit a message to wherever, that might work. So, I think it is good that we hams experiment with all sorts of ways to get the message through, whether it involves the Internet or not.

That is it in a nutshell. Good to experiment with, but not good to rely upon completely, because it may not be there when we need it during a real emergency.

As I see it, the likelihood of Internet connections (and phone or cable or DSL lines) not being there when needed is directly proportional to the size of the emergency.   Thus, a very localized emergency is less likely to cause a widespread failure of phone lines than, for example, a multi-county disaster.

I think the message is that we hams should not put all of our eggs in any one basket. We are known to be innovative and flexible during emergencies, and we should continue to foster communications modes that allow us to continue that way. The Internet, PSK-31, packet and so on are all relatively new methods we should encourage and keep in our arsenal of modes, but we shouldn't select any one of them to use exclusively. That even includes HF.

On Doing the Right Thing

By Dennis Rybicke, K9LGU
Wisconsin Section Traffic Manager (STM)

The net should have started four minutes ago. There are stations on frequency, waiting to list or receive traffic. The net control is missing. You call up the net and either turn it over to the regular NCS when he shows, or simply run the show yourself. If you don't, the National Traffic System isn't much of a system.

The skip is too long. The net members aren't hearing each other. The traffic can't even be efficiently re-layed. As NCS, you announce a new frequency and move the whole net to a better band. If you don't, the net can't function.

Tonight you are NCS, but there's a QSO going on net frequency and it's time to call up the net. You know you could ask for the frequency or just turn on your amplifier, but what impression would that give of your net operation? Politely, you move up the band a few kilohertz and start the proceedings.

There's traffic listed for Podunk Hollow, which you can handle via a local two-meter repeater. You volunteer. If you don't pick it up, it will be listed a few times and be serviced to the originating station without delivery.

It's time to send a message, so you prepare it in ARRL format, including the check. This way, the receiving station can be more certain that the text is right - and it serves as a good example to others listening. Counting isn't all that hard and the famous pink card (FSD-218) has all you need for the details of the format. If you don't, there's danger of error and a missed opportunity for some easy training.

You are busily passing traffic, when the receiving station asks you to speed up (QRQ) or slow down (QRS). You value the other operator's time, so you comply. If you don't it may mean more fills or re-peats or a lesser chance that the receiver will want to take traffic from you again.

It's another one of those generic messages from someone who doesn't really know the addressee. Instead of complaining about it, you take and deliver the traffic, meet a nice person on the phone, and make a note to originate some not-so-generic traffic

yourself to keep the NTS in tune. Without traffic, it will fade.

Someone has traffic for Ninth Region Net and no regular rep has checked in to the net. You gra-ciously volunteer to take the traffic from our section net to the next level. If you don't, the system breaks down.

You remember it's a hobby. You try to keep nets and all of your Ham activity in perspective. You know the nets need your participation, and so does your fam-ily. You choose to keep a balance. If you don't, something suffers.

You see, when you eliminate the choices with less positive results, only the right thing is, er, left.

Setting Up a New EOC?

[I have been a fan for many years of Jerry Wellman (W7SAR), who writes the Search and Rescue column for that fine ham publication, WorldRadio. Jerry's column in the August 2002 is well worth reading, and covers how to hold members in your group.

Another article in that same issue is by Jim Wades (WB8SIW), the Traffic columnist, but in this issue he does a very fine job of telling us how to set up an EOC. The article below is just an extract from the article, so get the publication to read the whole thing. Thanks to WorldRadio for their liberal reprint policy and permission.

BTW, if you don't already subscribe to WorldRadio, you can do it toll free, at (877) 472-8643 with a credit card. The $14.75 cost for 12 issues per year is simply an out-standing value. You might want to start your subscription with the August issue so that you can read both articles in their entirety.]

Don't overlook the most basic capabilities. On 4 June we found ourselves assembling a complete radio communications center from scratch at a County EOC that had no antennas, coaxial cables, conduits, or equipment of any kind. Yet, we man-aged to have a wide variety of capabilities in place within an hour or so. These capabilities included VHF-FM, VHF Packet Radio, and High Frequency SSB, CW and PACTOR. While things worked well on our end, problems arose at the State Emergency Operations Center. For about the third time in as many years, circumstances were such that HF CW proved the only reliable link to the State EOC. The lesson from this is something far too many of us forget about: Sometimes the most basic capabilities prove the most reliable. CW proved more than ade-quate for handling the required traffic.

Before we leave the topic; here are some other considerations for an, EOC radio area:
1. Don't overlook acoustics. Some form of acous-tical treatment for walls and ceilings will do much to improve operator efficiency by de-

creasing ambient noise. Acoustical tiles are available from a number of broadcast supply houses.

2. Try to separate voice positions with digital positions. For example, a packet radio station or CW position is likely to be less distracting to a radiotelephone operator than a similar voice net operating right next door.

3. Supply headphones and encourage their use. This means operators must be trained to transcribe messages and keep radio logs, as opposed to "shouting" information across the room.

4. Don't overlook the small stuff. For example:
   a. Clocks
   b. Message Forms, Radio Logs, and so forth
   c. Word Processing programs or electronic typewriters
   d. Pens, pencils, etc.
   e. Post summaries of basic operating instructions for the radio at each position.

5. Finally, stay safe: ensure that all RF transmission lines are grounded and equipped with lightning arrestors. Avoid "rat's nests" of electrical cables. Spend some money on proper surge suppression and bonding.

EC and LEC Changes

Workload has caused **Len Kreyer, N9QIP**, to vacate his position as **EC for Packet Technical Operations**. We thank Len for his years of hard work in fostering packet communications in our Section.

Bruce Micales, WA2DEU, has cut back on his volunteer activity with the American Red Cross, and so has vacated the **Liaison Emergency Coordinator for the Red Cross** position in our Section. Bruce put many hours of hard work into fostering good relationships between Amateur Radio and the ARC, which is greatly appreciated.

The new guy on the block is **Chuck Humboldt, KC9BWS**, who is our new **EC for Columbia County** effective 27 July 2002. Chuck may be a relatively new ham, but he is definitely no newcomer to emergency communications. He has wide experience covering more than 20 years as a law enforcement officer, and finished his tour as Chief of Police for Lodi. As such, he has seen all sorts of communications problems from the point of view of the first responder community, and is now enrolled in EmComm I to help him understand the Amateur Radio approach. We are **delighted** to have him join our ranks. You will find his data in the updated EC Roster, available to all ECs at our website (see the masthead of this newsletter if you forgot the address). For now, how about sending him a note of welcome?

Just address your note to **chuck@wipcug.com**. Welcome aboard, Chuck!!

What's that? You say you can't access the "For ECs" section of the website? Well, that is because you need a password. Simply request one from Ray Meyer via email: **n9pby@wi-aresraces.org** and he'll send you one if you are an EC or other leadership official in Wisconsin ARES/RACES. The password is required because many ECs do not want their data publicly available. Get your password now – the future may find things password protected other than just the EC Roster.

Jeff Rymer, KE9S, currently DEC for NE WI and EC for Marinette, has consented to bring **Oconto County** under his wing. He is its EC effective 9 August. Thanks, Jeff, for taking on the additional task. ECs, look around you on the new EC map. Is one of the 11 remaining EC-less counties on your border? How about picking it up, as Jeff did? Remember, a county with no EC has no ARES group or RACES members, unless the hams there join a group in an adjoining county where an EC exists. You'd be doing those hams a service by taking an extra county under your wing, as Jeff just did. An EC with a good assistant can easily manage more than one. Think about it. Let me know.

Flash: EC Conference Date and Place Set

The 2002 EC Conference will be held earlier this year, on **Saturday, 9 November**. Several of us put our heads together last year and decided we had been extremely lucky with weather, having held the conference during the first week of December since the start. Accordingly, to try to fox out Mother Nature, we agreed that an earlier date was prudent. So, 9 November it is, at **Wisconsin Emergency Management in Madison**.

Now, you all know that security is heightened all over the country and that includes WEM. I will need to know the **name, call, vehicle make and license number** of each person attending, **a week before the event,** so that I can transmit that information through Mack Brophy (N9NTB, State Hamshack Manager) to WEM Security. Only the driver need submit vehicle info if you are going to carpool. Don't send me info yet. This is just a heads up notice – details of lunch and other stuff still needs to be worked out. I will call for your reservations and data next month in the newsletter. For now, just mark your calendar and talk it up with folks you might want to travel with. Oh yes, time is the same - from 10:00 a.m. to 3:00 p. m., to allow travelers ample time to get there and get home.

How To Map Your County's 2-Meter Coverage

By Stan Kaplan, WB9RQR, SEC

Here is a fun exercise you can do on a weekend morning that will yield interesting and useful data for future emergency communications in your county. Ideal for summer or fall, it is flexible enough to accommodate just about any number of hams. We did this back in June 1991, when I was EC for Ozaukee County, and the data has enabled us to clearly understand the ease (or lack of ease) with which we can communicate within our county borders via either HT or mobile rigs.

PREPLANNING. Get a copy of your county map and pick (ideally) five or more sites that are spread out from the far corners to the center. Save Give each a tactical name, such as "Far Northeast" or similar. Make sure each site is a place where a mobile ham can safely park off the road, out of harm's way. A school parking lot, the start of a driveway to a business that is closed on the weekend, a low-traffic side street with parking and the like are all good. Prepare a sheet for each site labeled with that site's tactical name and listing all sites, with room for a ham to record the data discussed below.

START THE EXERCISE. After your Saturday morning ham breakfast (or whenever), assemble your operators and their vehicles. Send out two hams per vehicle, with cars going to as many sites as you can cover, based on who shows up for the exercise. Each car should have both a mobile 2m rig and an HT for the tests.

INITIAL PLAY. Start a net on your repeater as the vehicles are moving out to their assigned sites (we are assuming that each vehicle can hit the repeater wherever they are in the county). When all vehicles are parked and in position at their site, have pairs of vehicles (such as "Northeast" and "Northwest") move to a simplex frequency (a different simplex frequency for each pair), and attempt contact with each other on the mobile rig. Have them rate the contact and record the rating on the preprinted sheet you have given them. EXCELLENT = 100% copy/full quieting, GOOD = 100% copy/weaker but solid, FAIR = 85-90% copy/heavy frying background noise, POOR = 50% or less copy/noise covers communications or NO CONTACT. Remind them to have their squelch turned completely down! When they have finished with the mobile rig test, have one of the ops step out of the car, move to a position fifteen paces away from the car, and repeat the test, HT to HT. Have each pair return to the repeater net when they are done.

NEXT. When enough pairs have checked back into the net, reassign them. That is, if "Northeast" and "Northwest" completed the tests, reassign "Northeast" with "Southeast", have them move to a simplex frequency and repeat the tests described above. When all possible combinations of pairs have finished the tests, everyone comes back to a central meeting point to discuss the operation and turn in their sheets.

AFTER THE EXERCISE. Draw lines between the test points on your county map. Record a summary of the results on each line: "G/NC" would indicate good mobile-to-mobile but no contact with HTs. Step back and look at the results. You have a pretty good indication of 2m communications in the county. DON'T bury the results. DO publish it in your newsletter if you have one, or make a copy for each member and your Emergency Manager. It is valuable data for now and in the future.

THINGS TO REMEMBER.

- *SAFETY FIRST!* Make sure each vehicle is well away from traffic, in a safe location, BEFORE the ops start the tests. Hammer this point home!

- It is also a very good idea to inform your Emergency Manager and the Sheriff's Department of the exercise, several days before it happens.

- The number of simplex frequencies you will need that day depends upon the number of vehicles in the exercise. The number of reassignments you will need to do during the exercise also depends upon the number of cars/ops.

- If your county is geographically large and your ARES/RACES unit is small, just do the north or south half on one weekend. Do the other half the following week. You could even do thirds, or quarters.

The data you get from this exercise can be of real value. For example, it will tell you whether HT coverage between an EOC and a shelter in a local school is possible. You bet! Your Emergency Manager will be interested in that fact! Even more important, it will tell you that HT coverage is NOT possible and you will need to post a vehicle or a mobile rig there. You might want to extend the exercise to do a more thorough check of possible shelter sites in your county. That would include actually entering the site, to check for RF obstructions caused by the building itself. You don't know where shelter sites are in your county? Ask your Emergency Manager. That person knows, for sure. They will be very interested in your radio checks!