



The Wisconsin ARES/RACES Emergency Coordinator



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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.

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Training Topics

By Jack Morrison, N9SFG jmorrison1@wi.rr.com
Assistant SEC for Training

One of the most difficult tasks for each EC is planning the monthly meeting. Either alone or with the assistance of AECs, the EC must plan a meeting that is interesting and informative, that builds on previous meetings and that is neither too short nor too long.

Several years ago, our OZARES EC at the time started a "meeting before the meeting". As the title suggests, this gathering was anytime before the monthly meeting, but usually was held during the week after a meeting. He designed it to review the past and to serve as a planning aid for the future.

We still have those planning meetings, although now they are quarterly to help us plan a bigger "chunk" of the future. Also, much of this planning can now be done via email, allowing fewer in-person conclaves. All this heavy-duty future planning started when we once sat down and tried to make an outline for the whole years scheduled meetings, including training topics. It worked so well that it became a regular task.

To plan an entire years training at one meeting seemed at first to be impossible. It turned out to be, difficult, yes, but not impossible. We started out by polling the members for topics, and we accepted any and all ideas. Not infrequently, the topic came from a very knowledgeable ham that could easily act as an instructor! The polling resulted in a list that was reviewed individually by the EC and AECs, and discussed among them at the next planning meeting. Not all the proposed ideas made it to the final list, but enough did that we had more topics than needed for the next year.

Training is not solely limited to net operations, message handling, and similar traditional topics. It can also include issues such as severe weather training, first aid, safety precautions when out in the field and many others. For example, in OZARES, vehicular traffic control, boat operations and HazMat training are a few non-traditional topics that we have covered. Some topics may be unique to the particular activities of only a few ARES/RACES groups, but others are common to us all.

To facilitate training in the state, I have started a data bank of items that can be shared by all local groups to help with their training agendas. This bank contains training outlines that have already been prepared and used by an individual group. The honor of providing the very first entry in this resource goes to **Gary Payne (N9VE, Walworth County)**.

Gary has prepared a set of complete and well-done briefing notes on the National Traffic System (NTS) that covers message preparation and handling. Anyone desiring a copy can contact me (my email address is in the byline) and I will be happy to forward you a copy. A printed copy can be provided if you cannot receive it by email.

If your group has some lesson outlines or briefing notes that you are willing to share, please send them to me for inclusion in the bank.

I plan to announce new outlines as they become available in this newsletter, and as the list grows, it will be posted on our ARES/RACES website. Other web-based resources for training will also be posted on our website, so keep an eye out there for items that may help you with your training agenda.

Any Repeater Updates?

Skip Voros, WD9HAS, requests that you peruse the following repeater/frequency list that shows stations involved in **severe WX reporting**. If there are additions or changes, report them directly to him at svoros@execpc.com. Now is the time! Remember the Siren tornado on June 18th, and the northern Racine County event August 25th of last year? Skip will share any updates with us, so stay tuned.

CITY	COUNTY	FREQUENCY/SERVICE
Adams-Frdship	Adams	145.290 A
Algoma	Kewaunee	146.805 A
Antigo	Langlade	145.310 A
Ashland	Ashland	147.315 A
Baraboo	Sauk	146.880* AW
Bayfield	Bayfield	146.610 A
Big Flats	Adams	146.460 A
Crivitz	Marinette	145.470 A
Crystal Lake, IL	McHenry	145.330 A
Dubuque, IA	Dubuque	147.240 A
Earl	Washburn	147.390 A
Eau Claire	Eau Claire	146.91/147.24 AW
Elkhorn	Walworth	146.865* A
Fennimore	Grant	147.360 A
Fond du Lac	Fond du Lac	147.090/145.430 A
Granton	Clark	146.775 A
Green Bay	Brown	146.835 A
Green Lake	Green Lake	?
Greenwood	Clark	145.490 A
Hayward	Sawyer	147.255 A
Hixton	Jackson	146.940 A
Hollandale	Iowa	146.655 A
Hudson	St. Croix	145.130 A
Janesville	Rock	145.450* A
Juneau	Dodge	146.640* A
Kenosha	Kenosha	224.800* A
Manitowoc	Manitowoc	146.610 A
Marinette	Marinette	147.000 A
Mauston	Juneau	146.850 A
Medford	Taylor	147.150 A
Menomonee	Dunn	146.610 A
Milwaukee	Milwaukee	146.910* AW 146.67 backup
Milwaukee	Milwaukee	Business Band IG
Montello	Marquette	146.745 A (new 2002)
Mt. Sterling	Crawford	147.360 A
Monroe	Monroe	154.115 155.925 backup

New Holstein	Calumet	147.300 A
Oshkosh	Winnebago	147.240 A
Packwaukee	Marquette	146.595* A
Park Falls	Price	147.000 A
Port Washington	Ozaukee	147.330* A 146.97 backup
Racine	Racine	147.270* A
Roberts	St. Croix	147.330 A
Shawano	Shawano	145.350 AW
Sheldon	Rusk	145.470 A
Shell Lake	Washburn	147.045 A
Siren	Burnett	146.625 A
Solon Springs	Douglas	145.490 A
Stevens Point	Portage	146.985 A
Sturgeon Bay	Door	147.210 A
Superior	Iron	146.760 A
Wisconsin Rapids	Wood	146.790 A
Tomah	Monroe	145.390 444.850 A backup
Tomahawk	Lincoln	145.430 A
Wabeno	Oconto	145.110 AW
Waukesha	Waukesha	154.040 R
Waupaca	Waupaca	147.165 A
Wausau	Marathon	146.820 A

Who cares?

By Denny Rybicke, K9LGU, Section Traffic Manager
Be careful. Although what we do is a hobby, we take pride in doing it right. Take care to write your traffic with a proper preamble, correct address, phone number, and accurate check.

Spend the extra moment to jot down the names of operators with whom you work. Get their calls right. Making an effort to remember will help others to know that their help and cooperation is truly appreciated.

When you are copying a message, do not be afraid to ask for fills. The sending station wants to pass the message correctly, too, and has no idea what you may be going through to copy. The QRM, QRN, cat jumping on the desk, spilled coffee, drifting receiver, ringing phone, or call from your spouse is assumed by the sender who will gladly repeat what you need.

Care enough to fill in as net control when the regular operator isn't on frequency. Check out the hints on www.wna.eboard.com so you'll be ready when the opportunity is presented.

As a net control, it would be good to care about the time of those checked in. Try to be efficient but always be friendly. Remember to handle traffic first. Stand by frequently for check-ins, always listing the outstanding traffic before you do. If you move off net frequency to handle traffic, be sure you aren't landing on an occupied spot. Since the receiving station calls first, that operator should ask is the frequency is in use before calling.

In your club's training sessions or classes for hams-to-be, don't neglect the public service aspects of the hobby. Teaching the ARRL message format is as easy as Ohm's Law.

We care to get the message through, to do it quickly and accurately. We support this public service aspect of our hobby because we care about those we serve. And we care about each other during these laudable pursuits. Take care.

PSK-31: A Proposal

By Stan Kaplan, WB9RQR

I finally configured my new Rigblaster and have been playing around a bit with PSK-31. My very first contact was with a Danish station! Following that thrill, my next two were with a North Dakota, and a German station. All contacts were made with roughly 40 watts into a 106 foot hunk of wire, shaped like this -  - fed at one open end and with only about 6 feet between the legs. Furthermore, the entire antenna is only 10 feet above ground. Amazing!

At any rate, my entry into this new (for me) venue has made it apparent that PSK-31 is very, very much like packet radio. It is clearly a digital mode, with the data being encoded in ON or OFF states. This gives it a tremendous advantage over voice in being able to get the message through under poor conditions – much like CW is able to do. It is a snap to operate, once you get over the learning curve of the particular brand of software that you choose to use. That is not a big hurdle, though. Digipan is pretty easy to learn, and other packages seem to be variations on that theme. So, it seems to me that, given the difficulty in hitting the State Hamshack at WEM from some areas in the state with packet, PSK-31 might well be a viable alternative emergency communications mode.

Yes, it has some disadvantages, too. 1. Because of PSK's ability to cover the world, messages are less secure than the short distance, line of sight characteristics we experience with packet. 2. PSK requires an operator with HF privileges to be present during transmissions. 3. Plain vanilla PSK has no error correction built in, so there is a chance of errors creeping into messages. On the other hand, it will get the message through when voice will not. And most every ham can learn to peck out a message, or to press a button to capture a message or print it out. Furthermore, because it is a worldwide mode, PSK does not depend on a series of nodes to relay messages to the Hamshack at WEM. It can go direct.

So then, read the following scenario, which describes Wisconsin ARES/RACES in the year 200?, and see if you like it. Of course, it is fantasy, but

there is no reason why we cannot make it a goal to work towards. As long as I am dreaming, permit me to extend the fantasy a bit beyond the bounds of the current PSK-31 discussion.

Wisconsin ARES has an EC at the helm in every county, and the RACES Radio Officer in every county is an AEC. Each unit holds monthly meetings, with a significant training component, at the county Emergency Operations Center. Every county Emergency Manager has a ham ticket, so that he or she understands the volunteer hams that work for Emergency Management during communications crises. All county Emergency Management facilities host a 2-meter repeater, complete with an antenna on the roof or public service radio tower. All EOCs have a ham station equipped with a 2-meter voice operating position and a 24/7-packet station. Sufficient nodes exist for the great majority of counties to relay messages to the Hamshack at WEM without difficulty or unreasonable delays. Each county has, at the EOC or at the home of a key member, an operational PSK-31 station. The statewide ARES/RACES PSK frequency is 7.079 MHz days and 3.579 MHz nights. Time-critical messages can be relayed by packet from the EOC to the PSK station site (if at the home of a key member), and then via PSK to the Hamshack. Non-time-critical messages are put directly on the packet network for delivery to the Hamshack.

Do you like it? Do you see any holes in the logic? Is it not the best way to do things? This newsletter is a forum for ideas, and any discussion on the topic is most welcome. Let me hear your opinion, which will be shared with all in these pages.

A New ARES/RACES/ SKYWARN Net

By Tim Willoughby, KB9TJI kb9tji@yahoo.com
EC, Ashland and Bayfield Counties

Effective 18 Feb 2002 at 8:00 pm CST, a new net will be launched on the 146.610 MHz Bayfield/147.315 MHz Ashland **linked** repeaters. This net will be servicing ARES/RACES and SKYWARN for Ashland and Bayfield Counties, including training. We expect that this net will become a regular weekly event.

A Packet Tidbit: Node User Frequency versus Node Backbone Frequency

[Richard Polivka (N6NKO) sent a query to Ray Meyer (N9PBY) in late January, and I thought both the question and Ray's answer were interesting and informative. Therefore, they are reprinted here. By the way, did you know there is a discussion group on HF digital communications? Simply send an email to this address: wi-hf-digital-subscribe@yahoogroups.com (this is a newly corrected e-mail address) with the single word SUBSCRIBE on the subject line.]

To Ray From Richard: Does this thought fly against current reality and practice? Nodes should forward traffic between themselves on a non-user accessible backbone frequency and not on the user connect frequencies they monitor.

Ray's Reply: Essentially yes, with the exception that the backbone (in our case) is user accessible via gateways from LAN [Local Area Network] ports. The goal however, is to make the backbone links as transparent as possible to the end-user, although still accessible.

Now, does the network reach everywhere that it needs to be to make user LAN's separate from the interconnect (i.e., backbone) frequencies? The answer is no. In developing areas, everything tends to go across a user WAN [Wide Area Network] to either its destination or to wherever it can be passed through a gateway onto a backbone to reach its destination. While it does have its fallibilities, it is a means for developing and encouraging use. Eventually, as need and desire develop, backbone links would be extended into such areas. Separate LAN frequencies would be developed to accommodate the group. The common WAN port would remain active to service adjacent areas that do not have backbone coverage, until such areas have developed and the WAN port is no longer needed.

It's sort of a tiered system. I guess the best way to analogize this (though not technically similar) is the development of cellular telephone systems. In the beginning, cell companies put up larger area coverage towers. As customer usage grew, these higher profile sites were dismantled and smaller cells created to handle the increased load. Meanwhile, high profile sites were being added to extend coverage into more remote regions. The biggest hurdle for a cellular telephone company is the procurement of the site. After that, it is not much more than technician maintenance to adjust its configuration. A similar aspect applies here. Our biggest obstacle is getting a node established in the first place. Once it's there, it is somewhat easier to add ports or change frequencies after its purpose is demonstrated.

The state of Wisconsin is in various stages of development, depending on region. Some areas are rather mature, while many are still in their infancy. Hope that gives you a somewhat better idea of the big picture.

Training Tidbits

By Jack Morrison, N9SFG, ASEC for Training

Milwaukee ARES conducted a novel, very interesting and informative training session recently. They practiced programming their HTs, using **nonstandard**

offsets. The variety of HTs required a variety of methods to attain their goal. Some were simply able to program their radios with the new offset, while others with dual band radios programmed the input frequency on one band and the output on the other.

As Jeananne Bargholz (N9VSV, EC, Milwaukee ARES) put it, *It wasn't a futile exercise, by any means. So, what did this prove? Why first of all, I hope we all learned a little more about our radios. I know I did. I hope, too, that this proved to some of us that we can do something a little more complex with our gear. Bottom line, though, is that we need to understand how this works to cross band; and we'll need to know this if we are in a situation where a portable, temporary repeater is needed. To avoid, interfering with other repeaters, a nonstandard offset will be used.*

This is a very good example of the type of training that is both useful and also simple to set up and conduct. As Jeananne also stated, *And it was fun. I'll repeat that. It was FUN!*

The **Web Site of the Month** is a source of just about anything related to amateur radio. If something is not already present on the site, you will find a link to a site that does have it. Well worth a visit:

<http://www.stetson.edu/~kmccoy/eop.html>

A Replacement for the ARRL Message Form???

Well, maybe. There is a nationwide move since 9/11 to put into place a universal message format that can be used by any agency, public or private, and that will be readily received by any other agency and understood. SHARES (a consortium of volunteer agencies) and federal government agencies already use a standard format called, oddly enough, the Federal Format. Next month will feature the first of a series of articles by Ron Henry, N9KWW (also known as NNN0VAG in Navy/Marine Corps MARS circles), on the Federal Format. Look for it!

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