



The Wisconsin ARES/RACES Newsletter

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The WI ARES/RACES Newsletter is published monthly in .pdf format to the Wisconsin ARES/RACES Web site <http://wi-aresraces.org>. It is intended to provide a forum for WI ARES/RACES leadership and members to share ideas concerning the organization and training of their respective groups, and as a source of news concerning Wisconsin ARES and RACES. Comments, suggestions and articles (finished or in rough form) are solicited from readers.

Deadlines: *The newsletter is published between the 15th and the 31st of the month preceding the date shown on the issue. Thus, the February issue is published in late January. Articles and notices should reach the editor no later than January 1 to be considered for the February issue. Permission is granted to reprint articles from this newsletter provided credit is given as follows: "Reprinted from the Wisconsin ARES/RACES Newsletter, Bill Niemuth, Editor".*

ARES Leadership and Organizational Changes

By Bill Niemuth, KB9ENO, SEC WI

As reported in this column in February, **Ray Wolfe, K9RI**, has retired as Kenosha County EC after 27 years of service! I am pleased to announce Ray's replacement who is **Frank Moss, KC9ILZ**. Frank's professional life is in emergency management and now he is doing it in his spare time as well. We are thankful to have Frank in the role and look forward to him matching Ray's tenure!

Weather Spotter Dos and Don'ts

Offered by Jeff Last, KC9ESR, Warning Coordination Meteorologist Green Bay Weather Forecast Office

- * Do attend spotter classes as much as possible.
- * Do surf the web for additional information on spotting, severe weather, etc. (including the Storm Prediction Center).
- * Do have a watch, pencil, notepad, cell phone, and Spotter Reference Guides with you when spotting.
- * Do make an effort to provide an accurate report - the time, location, condition (what you experienced/saw), and location.
- * Do reference your severe weather report location to the cultural/political center of the nearest city/village, to the nearest 1/10 mile and one of the 16 compass points, such as "2.5 NW of Green Bay."
- * Do provide in your report what direction you are looking at while viewing a rotating wall cloud, funnel cloud, or tornado, since you may not be able to accurately determine, in the heat of the battle, how far away the wall cloud/funnel cloud/tornado is from your position.
- * Do spot with a partner, when possible, especially if you are mobile; two heads are better than one in this business!
- * Do place the safety of you and your family first, your report is second priority.
- * Do take a deep breath, try to remain calm, and get the job done.
- * Do utilize communication channels that have been set up for you or your group, and follow proper format/procedures.
- * Do make sure the National Weather Service receives your report via our 800 number, ham frequencies, or eSpotter.
- * Do be willing to freely share some of your severe weather pictures with the NWS for educational purposes and on-line stories.
- * Do feel good about what you are doing as a spotter - you are just as important as any other spotter!

- * Don't assume you know everything there is to know about spotting - keep an open mind - you'll learn something new every year.
- * Don't make it difficult for emergency response people (emergency management, law enforcement, fire fighters, Red Cross, etc.) to do their job - don't get in the way.
- * Don't just take pictures and video of a wall cloud or tornado and forget to relay your spotter report.
- * Don't look at spotting as a game or procedure that will make you look more important to your peers - keep a level head and just do your best.
- * Don't look down at or ridicule another spotter for making a mistake - you may make the next mistake - we all have - no one is perfect.
- * Don't get upset at the National Weather Service if you don't see your severe weather report appear on-line as a Local Storm Report (LSR) or in a Public Information Statement (PNS), or in some "Top News of the Day" article on the NWS's web page - we get hundreds of reports from the 22 counties we serve.
- * Don't assume you have a tornado just because you see something that looks like a funnel cloud - you must see some indication of ground-based, rotational effects (rotating debris/dirt) underneath or very close to the funnel cloud in order to classify it as a tornado and there may be very little if any funnel cloud.
- * Don't...get caught up in the game of trying to be the first person to call-in a tornado report - spotting is about being 100% correct. It's not a game of being the first.
- * Don't call-in or relay a report if you're not sure what you're looking at. You must be 100% sure of what you are looking at - accuracy is the highest priority, after your safety. We would rather have no report rather than a false report.
- * Don't forget to give yourself a pat on the back - for your volunteer, public safety efforts!

EMP (Electromagnetic Pulse) and Lightning Protection

By Ken Meyer, K9KJM, EC Door County

EMP is a fast rise time event that happens when a nuclear device is detonated. It is very similar to a lightning strike. For further information visit <http://www.unitedstatesaction.com/emp-terror.htm>.

A number of years ago, the threat of nuclear warfare was pretty much unthinkable, with thousands of warheads aimed this way from the former Soviet Union. Now that the Soviet Union is no more, much of that threat has passed. HOWEVER, there are many who consider the nuclear devices that have gone "missing" from the Soviet Union to be in the hands of terrorists who WILL use them in the USA. It is considered only a matter of time by many. A single nuclear device detonated high above a city like Chicago would cause EMP that would damage unprotected solid state radios in our area.

The good news is that proper lightning protection, including bonding grounds, with the correct arrestors, like those made by I.C.E. (Industrial Communications Engineers) should protect equipment. <http://www.iceradioproducts.com/impulse1.html#1>

Lightning season is right around the corner. If you are going to upgrade your shack for lightning, also consider EMP. A good overview of lightning protection is at: <http://members.cox.net/pc-usa/station/ground0.htm>

It is a very long read by the time you have visited all the links provided, but it provides some great information on proper protection. A typical ham station CAN survive direct lightning strikes. Just like repeater towers, cell phone towers, broadcast stations, etc., it does take some effort, but it does not have to cost all that much. Old used copper tubing will work about as good as shiny new copper strap, old copper wire from a house being torn down will work as good as new. There are a lot of ways to cut costs while providing proper protection.

If I can help anyone with questions, just send me an email to Ken Meyer, K9KJM at k9kjm@arrl.net.

And by the way, don't toss out that old tube radio just yet. Tube radios are pretty much immune to EMP!

Hospital Emergency

By Dr. Stan Kaplan, WB9RQR, SEC WI Emeritus and Member Ozaukee County ARES/RACES

On Sunday morning, 4 March, Ozaukee County Emergency Management received notification that St. Mary's Hospital – Ozaukee (SMO) had just lost all internal and external telephone communications. This meant a complete communications blackout for the hospital. The emergency room could not call the pharmacy for drugs or blood, physicians could not be called to report to sites inside the hospital, nor could calls be made to the outside to bring in nurses or physicians for routine activities or emergencies. This was a serious incident!

OZARES was activated and eight hams reported to the hospital to provide communications until the phone systems could be repaired. In less than an hour from the time the emergency was reported, OZARES hams had:

1. Erected an emergency antenna at the hospital (renovations to the hospital were still being completed, so the antenna had been collapsed and stored in the ambulance bay).
2. Connected and powered up a base station we had stored there, and established communications with three OZARES home stations (six more hams at those sites), so telephone messages could be relayed to a working phone site from the ambulance bay. If you think about those home stations, you will realize that they were just as important as the stations at the hospital.
3. Our previous tests had shown hams in various wings could not reliably communicate with each other or the ambulance bay directly on either VHF or UHF (because of shielding and the peculiar geometry of the hospital). Indeed, two hams who could actually see each other at opposite ends of a long corridor could not always communicate by HT! Accordingly, we established cross-band repeater service using a vehicle parked in the hospital lot. This permitted hams with HTs deployed to any site in the hospital to communicate with each other, as well as with the base station in the ambulance bay. We had shown this to be a workable solution during previous training tests.

Again, all this was accomplished in under an hour. How did we do it this quickly? We were not strangers to the hospital. OZARES hams and Emergency Management (OZARES is permanently attached to Emergency Management, by mutual consent) have been working with St. Mary's for well over 10 years, to provide communications for the hospital in the case of mass care incidents or other emergencies. All three institutions (the hospital, EM and OZARES) have a cordial relationship with mutual respect all around.

So, what happened next? At one hour into the incident, just when individual OZARES hams were deploying to the various wings of the hospital to provide communications for the emergency room, operating rooms, ICU, etc., we were informed telephone service had been restored. Rebooting the main and the back-up computer controlling the telephone network (both of which had failed) restored the system. We were asked to stay around for a time while tests were made to make sure everything was working properly. Shortly, it was clear all was well, so we secured operations and went home. We received sincere thanks from the hospital.

This was a real emergency, and it turned out well, in the sense that OZARES was ready, we responded in a timely fashion, and set up adequate communications in a very short time.

A new emergency communications center is being built at the hospital, and an OZARES operating position (with ham equipment) is being included. Permanent ham antennas are being installed on the roof. In addition, the hospital will also provide us with a commercial band radio in the center so OZARES ops can talk with maintenance and other key hospital personnel using the SMO radio system. We are also planning periodic drills that include both SMO and OZARES personnel.

Motorola MSF-5000 UHF 100 Watt Repeater Wanted

By Bill Niemuth, KB9ENO, SEC WI and President, WeComm, Ltd.

WeComm, Ltd. is in need of a Motorola MSF-5000 UHF 100 Watt repeater for a project in Northeastern Wisconsin. If you know of one, please contact me as soon as possible at bn Niemuth@new.rr.com. Thank you!

WI ARES/RACES at the WI Governor's Conference on Emergency Management and Homeland Security!

By Mark Smick, N9UNW, DEC WCW

Editor's Note: A big thank you to Mark Smick and his team for a great showing at the Governor's Conference. I was not able to make the conference in the first time in 15 years, so thank you for stepping up Mark!

La Crosse County ARES/RACES, with assistance from the Mississippi Valley Amateur Association, set-up and staffed a booth/exhibition at the 40th Annual Governor's Conference on Homeland Security and Emergency Management at the La Crosse Center on March 28-29. Station set-up included an HF, VHF/UHF, and APRS demonstration with numerous contacts made throughout the state during the two days. One of the most popular demonstrations getting the most attention was a large real-time video wall display of APRS showing movement of APRS equipped mobile units utilizing the real-time tracking capability of mobile units deployed for Skywarn storm spotting or similar deployment purposes.

A large quantity of Wisconsin ARES/RACES brochures along with contact information was distributed to additional potential service clients/customers.

Visitors at the booth included Skip Sharp, W9REL, ASEC, Training, and Gary Sorensen, W9ULK, ASEC, Marketing and Recruiting.





Individuals pictured above or who helped with the booth include:

- Terry Miller, KB9YXV
- Todd Shea, KB9YXS, NWS La Crosse Warning Coordination Meteorologist
- Craig Goldbeck, N9ETD, La Crosse County ARES/RACES Member
- Carl Thurston, KC9HDS
- Chris O'Hearn, KC9DGP
- Tom Speropulos, N9IGS
- Erin Papenfuss, WX9EP, La Crosse County ARES/RACES AEC
- Keith Butler, KC9IWL, La Crosse County Emergency Management Director
- Nancy Smick, KC9HDU
- Oscar Crary, K9WKW
- Mark Smick, N9UNW, DEC WCW

Wisconsin ARES/RACES Net

By Bill Niemuth, KB9ENO, SEC WI

Please remember the WI ARES/RACES Net, which meets every Sunday evening at 6:00 p.m. local time on 3977.5 KHz in the 75-Meter band. This is our state net where we exchange ARES/RACES news, items and conduct training. If you are a new General Class operator you are especially invited.

We generally have between 25 and 40 check-ins each week. We have 72 counties in Wisconsin. Is your county represented on this net? If not, it is time to assign some HF operators to check-in and get accustomed to working with the statewide system.

We are also looking to develop additional Net Control Stations who can assume NCS duties for one net a quarter or so. We are blessed by having many NCS, but can always use more. If you are interested in an NCS assignment, please contact our Net Manager Wally Kruk, N9VAO, at kruk1209@charter.net.
