



SKYWARN TIMES

“SPECIAL ANTENNA ISSUE”

Vol. 5 No. 4
Tel. (906) 337-2542
SKYWARN NET: Fridays @ 9 pm EST, FREQ: 147.315 MHz, PL-100.0 Hz
NCS: DAVID TORREY, NCS OF THE FRIDAY NIGHT SKYWARN NET 483-4885
E-Spotter Report: www.crh.noaa.gov/spotter/
PACKET RADIO CHANNEL: 145.090 MHz.
PACKET APRS WX: 144.390 MHz
INTERNET: www.wxspots.com
MARQUETTE NWS: wx8mqt-1 (Use 145.090 Mhz Packet radio - AX.25)
PACKET LINK: [Digipeater] c cmxlan.....c kwnw.....c wx8mqt-1 (AX.25 Packet)
SPOTTER'S LINK TO NWS: 1-800-828-8002 (Spotter's only):

NOAA WX HOME PAGE IN MARQUETTE: <http://www.crh.noaa.gov/mqt/>
AMATEUR RADIO STATION IN NEGAUNEE: WX8MQT
METEOROLOGIST-IN-CHARGE: Robin J. Turner: KC8TII (906) 475-5782 EXT. 642
WARNING COORDINATION METEOROLOGIST: Matt Zika , KD8EFY (906) 475-5782 EXT. 726

WELCOME, NEW SUBSCRIBERS:

We welcome Sheriff Ronald Lahti, and deputies to our page this month. We feel this agency would also benefit from weather information disseminated by this group. There is no charge for the monthly newsletter, and we hope you find it informative, and useful to you in some way, in your work at the Keweenaw County Sheriff Department.

TYPE OF RADIO NET:

It is open to all radio amateurs, and especially those amateurs who have already attended one or more of the annual Spotter Training sessions put on by the National Weather Service Office of Negaunee in the Spring of each year.

SEVERE WEATHER SPOTTER TALK SCHEDULE:

Below is a listing of upcoming severe weather spotter talks. Some sessions are already passed, but you still have an opportunity to attend the one nearest you. Please check the schedule below.

We, who check in to the SKYWARN NET, encourage all of our members to attend one of these sessions. NWS puts these on each year, and we hope to see you at one of the sessions here in the U.P. The listing below is for the entire U.P.....we suggest that you

save this month's copy, and put the date(s) in your scheduler. For those of you who have been through this; come again.....as it is a very good refresher course....To those of you who are new,...please come, and I guarantee it, you will enjoy these sessions....the time really flies by quickly, and you will learn a lot, and there will be plenty of handout material too! Become a Weather Spotter and help your community by being there.

May, 2008 - Upcoming

Day, City, Time, Location

05 Stephenson, MI

(Menominee County) 6:30pm CDT American Legion Building (Upstairs) W5554 River RD #21 (2 blocks west of MSP post) Stephenson, MI

06 Iron River, MI

(Iron County) 6:30pm CDT West Iron County Fire Hall Iron River, MI

08 Iron Mountain, MI

(Dickinson County) 6:30pm CDT Lower Level of Sheriff's Office Iron Mountain, MI

13 Manistique, MI

(Schoolcraft County) 6:00pm EDT Upstairs Courtroom Schoolcraft County Courthouse

14 Newberry

(Luce County) 6:30pm EDT Luce County Ambulance Building 910 Washington Blvd Newberry, MI

20 Munising, MI

(Alger County) 6:30pm EDT Downstairs Meeting Room Alger County Courthouse Munising, MI

22 L'Anse, MI

(Baraga County) 6:30pm EDT Baraga County Courthouse, L'Anse, MI

June, 2008 - Upcoming

03 Eagle River, MI

(Keweenaw County) 6:30pm EDT Upstairs Courtroom Keweenaw County Courthouse Eagle River, MI

SPOTTER TRAINING IN HOUGHTON, A REVIEW:

Room 130 of Fisher Hall on the campus of Michigan Tech was packed! (With almost standing room only at this Houghton session!)

My wife Virginia and I attended the session in Houghton, and found it to be very enlightening once again. Radio hams present at this session were: Howard, (KD8ABP), George, (W8FWG), Glenn (WA8QNF), Tom, (W8KQB), Jack (N8WAV), Jon (N8HZH) and Dave (KD8GBH). Our thanks to Virginia (Associate Member of the KCRA) who provided refreshments for the group! (Thanks Virginia!). Jason did a good job in

presenting it. I estimated we had between 30 and 40 people there, so attendance was “up” from previous years. This session was particularly interesting as it had some local flavor in the way of pictures of storm damage right here in the U.P.....Iron Mountain area, K.I. Sawyer and a local photographer took part ,(WA8FXQ, Bob Meyers) by providing a photograph of a wall cloud at Lac La Belle, in the Keweenaw Peninsula. We had several people in the audience who had experienced the frightening experience of being close to being struck by lightning, and lived through it, and were able to relate their experiences to the group. We also learned (from Jack, N8WAV) that lightning doesn’t always necessarily hit the highest point, as evidenced by a lightning strike in Houghton last year, that did extensive damage to a residence in East Houghton, where structures in higher elevations were left untouched.) Thanks to our friends in Negaunee Township for an interesting presentation, and we look forward to next year’s seminar. There were spectacular views of what flooding can do, and once again the reminder not to attempt driving through deep water, but instead take to the higher ground. Interesting to note that tornadoes did appear in every single county in the state of Michigan at one time or another, so don’t say, “It won’t happen here!”...It has already happened! While they are infrequent, we still have to be prepared. For those folks who may have missed the Spotter Training in your area, please note you still have a chance to attend a session close to you.. Check the listing, above.....for there may still be a chance for you to attend a session near you.

CHECK –INS TO THE “SKYWARN NET” ON FRIDAY NIGHTS, FOR THE MONTH OF APRIL-2008 (4-weeks)

• *** Honor Roll: (Checked in at least four times this month.)**

KD8ABP – Howard-Kearsarge	3
*KD8GBH-David-Dollar Bay	4
KC8FSO-John-South Range	1
*W8FWG – George-Laurium	4
K9GIR-Dennis-Eagle Harbor	2
*K8HRO –Randy- Aura (Near L’Anse)	4
N8HZH-Jon-Dodgeville	2
K9JCO – Carol-Copper Harbor	1
W8KQB – Tom – Elo	3
KC8OCK-Al-Ontonagon	3
KC8YDU-Mark-Hancock	1
*K8YSZ – Gary- Bumbletown	4
Total Checkins for APRIL-2008	32

NOAA Weather Radio All Hazards Expands to Crystal Falls

The NOAA National Weather Service Office in Marquette began broadcasting over the Crystal Falls NOAA Weather Radio All Hazards transmitter Tuesday April 15. The 1000 watt transmitter located near Crystal Falls, MI in Iron County broadcasts on a frequency of 162.475 MHz. The Crystal Falls NOAA Weather Radio All Hazards transmitter will provide coverage across Iron County, Dickinson County, Southern Baraga County, Southwest Marquette County, and across portions of Northern Wisconsin.

Purchase and installation of the transmitter was accomplished through a joint effort between the NOAA National Weather Service and grant funds provided by the Upper Peninsula Regional Homeland Security Planning Board.

NOAA Weather Radio All Hazards, the voice of the National Weather Service, is a warning service which provides civil emergency messages and the quickest access to severe weather warnings, as well as providing important weather information and forecasts around the clock 365 days a year.

NOAA Weather Radio All Hazards receivers are available at electronics and discount stores and can be programmed to allow for remote activation by National Weather Service broadcast codes that will sound a tone alarm and voice warning any time, day or night.

For additional information about the Crystal Falls NOAA Weather Radio All Hazards transmitter, visit our MQT NOAA Weather Radio All Hazards web page or contact the Marquette National Weather Service Forecast Office at 906-475-5212.

STILL TO COME:

We are awaiting news of the new NOAA Radio “All Hazards” Radio Station to come on line from the Marenisco area. Its call sign will be: WNG683, and will operate on 162.550 MHz with an ERP of 300 watts. This one will cover the western portion of the U.P. of Michigan and also cover a portion of Northern Wisconsin. Watch these pages, for a start-up date. We’ll keep you posted! With the addition of that station we should have the U.P. of Michigan well covered.....well done, NOAA weather!

NOAA WEATHER RADIO COVERAGE MAP:

If you go to <http://www.crh.noaa.gov/mqt/> and zoom down to “Weather Safety”....and then on “Weather Radio”...and finally on the second item down labeled “NOAA Weather Radio Coverage”.....you will find a colored map showing the NOAA weather radio coverage here in the U.P. of Michigan. While the Marenisco station is not on the

air yet, a spokesperson at the Negaunee office assures us that as soon as the snow melts, and workman can get to the site, they will be working on bringing it up, on the air. That should be sometime this summer. Even though it operates on the same radio frequency as the station in Marquette, [162.550 MHz], (KIG66) there should not be an interference issue, and the weather folks also check with adjacent states to be sure there is no problem there. The U.P. stations have six different radio frequencies in use, staggered from one another so as to not cause an interference problem in the VHF band.

METHODS OF REPORTING SEVERE WEATHER TO NEGAUNEE:

There are several methods one can use. Being radio “Hams” we like to “do our own thing” (Use radio in reporting). We’ll list several other methods too. While it is not always possible for one reason or another, to report your observations by radio, there are other methods, and they are listed below.

1. **By using FM (voice) radio to WX8MQT when it is manned**
2. **By using “Packet” radio on 145.090 MHz at AX25, 1200 Baud**
3. **By using HF radio when their station is “on” at Negaunee**
4. **By using APRS, and relaying the information in, from a nearby APRS station, on 144.390 MHz.**
5. By telephone using the special (Spotter’s Only) line: 1-800-828-8002
6. By Internet using the E-Spotter method
7. By “Courier” (Hand delivery) You’d have to be close by to do this!
8. By using their URL and sending a message in via the Internet.
9. By using “WxSpots” (provided they have a method of retrieving the message. (www.wxspots.com))
10. By CWOP (they tell us that they monitor this configuration)

NOAA WEATHER RADIO RECEIVERS:

Normally the old axiom of “You get what you pay for” applies here. You could get a “choice cheapie” for perhaps \$20 or less, but a better grade receiver like the Midland Model WR-300 weather radio will probably cost you somewhere in the vicinity of \$50. Higher priced receivers will have such features as:

1. More weather channels available to you
2. Time, date, day, display
3. Automatic turn on for severe weather warning
4. “SAME” (Specific Area Message Encoding) for your county (Capable of encoding 30 counties)
5. AC or DC power
6. Built in, telescoping antenna
7. Higher sensitivity
8. Higher quality audio
9. Built in AM/FM radio
10. Colored (Red, Yellow, Green) Watch, Warning, statement lamps)
11. A built in, audible alarm system

We recommend buying the best radio that your budget can afford. Also, the best quality of cable to an external antenna (if used)...and the best antenna type you can afford.

NOAA WEATHER RADIO RECEPTION PROBLEMS:

Even with the large number of NOAA weather radio transmitters now serving the U.P. the terrain of the Keweenaw Peninsula presents a challenge to reception in some areas. For those users with radio receivers unable to pick up the signal, we recommend an outdoor antenna. If you do go to such a configuration we offer several guidelines:

1. If climbing is involved, get an experienced climber to do the work for you
2. Often, a simple wire antenna will do the job. This could be a simple quarter-wave antenna constructed of an SO-239 (coaxial connector), a short piece of wire and a length of transmission line. The cost of which is often less than \$20. (See constructional details below)
3. Under conditions where reception is still not good with a simple antenna like this, you may have to resort to a “Yagi” (beam), type of antenna (That’s a multi-element antenna that looks much like a TV or FM antenna)

A SIMPLE GROUND-PLANE ANTENNA FOR RECEIVING THE NOAA WEATHER: (Constructional details)

Materials required:

- 1ea. SO-239F (female) coaxial connector
- 1 ea. PL-259M (male) coaxial connector
- 1 ea. Alligator clip
- 5 ea. Brass welding rod (18” long)
- 50 Ft (or less) of coaxial cable (RG8/AU, or RG58A/U or RG8X)
- 1 short section of PVC (plastic) water pipe for the mast

Procedure: Cut ONE welding rod to a length of 17.0 inches, solder it to the solder fitting on the CENTER conductor of the coaxial fitting (The SO-239F)

Leave the other 4 rods at 18 inches, and solder to the four corners of the SO-239F fitting.

Carefully bend the four corner rods down so they form a 45 degree angle with the connector

Mount the antenna on a plastic pipe as high as possible, and run the coaxial cable down to the weather receiver.

CONNECTIONS: Solder a PL-259M to one end of the coaxial cable. (Be sure to solder BOTH the center conductor and the shield..... in all four places) (Get help on this from an experienced radio “ham” if necessary). Thread the fitting onto the threaded part of the SO-239F connector. (It is wise to “continuity” check your work before installing it to be sure that in your soldering operation you did not “short” the connector shell to the center

pin!) When you are done (but before connecting the feedline to the radio, you should read an “open” circuit on the coaxial cable run, going up to the antenna.....if it does, check the end-to-end continuity also! (Center conductor AND shield). Then connect the other end (center conductor) (with an alligator clip) to the antenna rod (or screw connection) on the weather receiver. Connect the shield (braid) of the coaxial cable to the chassis (ground) of the weather radio.

(Our thanks to Gary Hansen, K8YSZ, for presenting this idea to us)

AN ALTERNATE ANTENNA:

If you are so far from a NOAA transmitter that a “Yagi” type antenna is needed, (directional antenna), this becomes a bit more complicated. You might want to invest in a commercial antenna, and possibly a light-duty rotator, so you can “point” the antenna right at the transmitting station. In this case we recommend that you buy a ready-made antenna and rotator, and follow the manufacturer’s instructions for installation.

ANOTHER ALTERNATE:

Some TV stations (Channel 13 out of Marquette does this) broadcasts a “hidden signal” within their main signal, as a “sub-carrier.” If you have a newer TV set with the capability of receiving an “alternate” channel.....(i.e. a channel within a channel), you may already have the weather service right there in your own TV set. Give it a try. Saves the expense of buying a weather radio! The disadvantage of course is: If the power fails, so does your weather radio. A portable, battery operated, weather radio is really the best assurance that you could obtain weather information when you really need it.) The ”Midland” WR-300 fulfills this bill, nicely. On the web, you can find more information on this receiver at: www.midlandradio.com It is also “Public Alert Certified.” [As always, prices vary.....so check around for the best deal.....I’ve seen prices at less than \$50 and more than \$90 !)