

**JUNE 2011**



## The Standing Wave

*The monthly newsletter of the Hiawatha Amateur Radio Association of Marquette, Michigan. Comments and suggestions can be sent to the club at P.O. Box 1183, Marquette, Mi 49855 or to the editor at [ki8af@arrl.net](mailto:ki8af@arrl.net) Club info, membership, dues, etc can be found on our website at [www.qsl.net/k8lod](http://www.qsl.net/k8lod)*

**MONTHLY MEETING:** Marquette County Health Department Bldg., Lower Level, Negaunee Township.  
Date: **June 2, 2011**  
Time: **7:30 PM**

### **CLUB OFFICERS, 2011**

Pres. Lou Gembolis KG8NK  
VP: Lane Dawson WD8PAJ  
Sec. Mike Beltz KD8JIR  
Tres. Fred Mouser KD8JIP  
Board Members:  
Past Pres. Paul Racine KB0P  
EC Rich Schwenke N8GBA  
Eric Pellinen N8TEV

### **STANDING WAVE**

Editor, Greg KI8AF  
Publishing, Lane WD8PAJ  
Distribution, Greg KI8AF

### **REPEATERS**

KG8YT, 147.270 / .870 with 100 Hz PL-Tone Marquette  
K8LOD, 146.910 / .310 Ishp.  
N8RRZ, 146.640 / .040 Gwinn with 100 Hz PL-tone  
K8LOD-3.144.390 APRS Digi Mqt

### **WHAT'S NEXT FOR US**

**Field Day: June 25 – 26**  
**July 4<sup>th</sup> Parade in Marquette**

### ***Radio Amateurs Assist American Red Cross, Served Agencies During Joplin Storm***

From:

*The ARRL Letter, May 26, 2011*

05/25/2011

On Sunday, May 22 at 5:41 PM (CDT), the single deadliest twister in almost 60 years -- and the second major tornado disaster in less than a month -- swept through the southwestern Missouri city of Joplin, slamming straight into St John's Regional Medical Center. The tornado killed 117 people. As soon as the storm cleared, area Amateur Radio operators responded to requests from the American Red Cross and local hospitals to help provide communications support.

“On Sunday, right after the tornado hit, I received a call from the American Red Cross office in Springfield, asking for radio support,” ARRL Missouri Section Emergency Coordinator Ken Baremore, W0KRB. “I contacted Greene County Emergency Coordinator William Gilmore, KC0TCF, and asked him to join me in Springfield. We got there at 9 PM and used a newly installed 2 meter beam to talk to the Joplin repeater, establishing communications between the two American Red Cross offices. Cell phone coverage was spotty at best, but mostly non-existent, and the circuit was overloaded most of the time. We left about 12:30 AM.”

Officials evacuated long-term patients from the city's other medical center, Freeman Health System, to make room for emergency cases from the tornado, said Missouri Governor Jay Nixon.

That hospital treated 465 patients, including 11 who died, the hospital said in a statement. A Freeman Health System hospital in nearby Neosho, Missouri, treated 39 people, the hospital said.

Patients from St John's were taken to hospitals in Springfield and Northwest Arkansas.

"Sometime late Sunday evening, we received a call from Freeman Hospital, requesting assistance to help provide communications support," Baremore said. "Using Amateur Radio, we provided communications between Freeman Hospital in Joplin to the hospitals in Springfield, as the tornado took down phone lines and cell towers. Springfield is about 70 miles east of Joplin. Members of the Southwest Missouri Amateur Radio Club ([SMARC](#)), along Christian County Emergency Coordinator Pat Conway, WA6GJM, helped out with this, using mobile radios set up just inside the doors of the hospital. John Howard, K0VET, activated the Missouri Emergency Services Net (MESN) and it was up until 11 PM Monday night. It ended up steering a lot of people to the proper website for health and welfare messages. By 9 AM Monday, the hospital no longer needed radio amateurs to provide communications support and we were released." Baremore said that radio amateurs are still on standby status to provide communications support between the American Red Cross offices in Springfield and Joplin.

The American Red Cross set up a shelter at Missouri Southern State University in Joplin. Jasper County Assistant Emergency Coordinator Chris Wilson, N0CSW, helped set up communications between the shelter and the American Red Cross office in Joplin.

On Tuesday, Newton County Emergency Coordinator LaVerne Wilson, NQ0B, together with Lawrence County Assistant Emergency Coordinator Katherine Parker, KD0ETX, and District D Assistant District Emergency Coordinator Cecil Higgins, AC0HA, provided some additional relief to the operators



According to [SATERN](#) National Director Major Patrick McPherson, WW9E, the Kansas and Western Missouri SATERN Team was activated for the Joplin storm. "SATERN will assist with communications in the affected area. The MO-KAN Division SATERN began running nets on 75 meters at 3.920 on Tuesday at 9 AM, 3 PM and 9 PM to support the operation. The nets will continue every day until further notice. SATERN Central Territorial Coordinator Bill Shillington, W9ZCL, and SATERN Associate Central Territorial Coordinator Ken Panczyk, W9KMP, have been dispatched to the tornado scene to assist in the general response."

Qualified SATERN members in SATERN's MIDLAND and MO-KAN Divisions who wish to help should send information via [e-mail](#) to SATERN Kansas State Coordinator June Jeffers, KB0WEQ. Currently, SATERN is scheduling operators for Joplin through June 1. According to Jeffers, no out-of-division operators are being used at this time.

The National Weather Service has determined the twister packed top winds of more than 200 miles per hour, making it an EF5 -- the highest rating given on the enhanced Fujita scale -- said Bill Davis, the meteorologist who reviewed the damage. The tornado was given a preliminary rating of EF4 on Monday. He said that the tornado left "about six miles of total destruction" in its wake, and that examinations of some of the buildings destroyed or damaged convinced forecasters to raise the designation, he said. According to Missouri's State Emergency Management Agency, the tornado grew to as wide as three-quarters of a mile at one point.

Forecasters said severe weather would probably persist all week. Arkansas, Kansas, Missouri and Oklahoma could see tornadoes through Tuesday, and the bad weather could reach the East Coast by Friday. The twister that hit Joplin was one of 68 reported across seven Midwest states over the weekend. One person was killed in Minneapolis and another in Kansas, but Missouri took the hardest hits.

The Joplin tornado was the nation's deadliest single twister since a June 1953 tornado in Flint, Michigan. Unlike the multiple storms that killed more than 300 people last month across the South, Joplin was smashed by just one exceptionally powerful twister.

## V.E. TESTING:

**06/11 Marquette:** 8:30am eastern time, (arrive by 8:00am) Marquette County Health Dept. Bldg, U.S. 41 just east of the Michigan State Police Post. Contact Rich Schwenke, N8GBA at 906 249-3837 or e-mail: [n8gba@att.net](mailto:n8gba@att.net)

**07/09 Houghton:** 8:30am eastern time, V.E. Exams at Zion Lutheran Church in Hancock. 400 Ingot St. North on Hwy US 41 (Quincy Hill) near the Lookout turn left on Ingot. Go up about a block. The church is on the left hand side of the street. This is a barrier free entrance for the handicapped. Contact Glenn Ekdahl, WA8QNF at (906) 482-7743 or email to: [wa8qnf@arrl.net](mailto:wa8qnf@arrl.net) if you have questions.

**08/06 Iron Mountain:** 9:00am central time, (arrive by 8:30am) Dickinson County Library (conference room), contact Mark J. Lewis N8UKD (906) 776-1553, 412 Fairmount St. Kingsford, Mi 49802

**07/09 Gladstone:** Delta County Amateur Radio Society Time: 10:00AM (Walk-ins welcome) Contact: Howard St. John (906) 428-9476 Email: [hsj99@charter.net](mailto:hsj99@charter.net) VEC: ARRL/VEC Location: Gladstone City Hall Main Meeting Room 1100 Delta Ave. Gladstone, MI 49837

Please arrive one-half hour early for test sessions to give time to process applications. Testing applicants should bring the following items with them: Two pieces of I.D. one being a photo I.D., Original license and one clear copy of their license if applicable, Completed form 605 (one will be provided if you don't have one), pencils, calculator and the test fee of \$15.00. Please have the correct fee as examiners do not carry change. *Please contact the individual(s) listed to confirm date(s), location(s), etc.*

## HIAWATHA AMATEUR RADIO ASSOCIATION MAY 2011 MINUTES

All Officers were present – President, Lou Gembolis KG8NK, Vice-Pres. Lane Dawson WD8PAJ, Secretary Mike Beltz KD8JIR, and Treasurer Fred Mouser KD8JIP

**Meeting was called to order** at 7:05 pm by Lou Gembolis KG8NK. A motion to approve the agenda by Rich Schwenke N8GBA and seconded by Jim Jacobson W8QQE. All approved the motion.

**Introductions and Attendance:** The Club had 17 members and 2 guests in attendance.

**Secretary's Report** – Mike KD8JIR submitted the April's meeting minutes and it was published in the Standing Wave. Members were asked if any changes were needed, None were noted and a motion to accept the Secretary's Report as published made by Ralph Watters N8HXG and seconded by Bill Dowe KC8EWD. The motion passed.

**Treasurer's Report** – Fred KD8JIP handed out the accounting for H.A.R.A. for April. Our Checking stood at \$815.88 while our money market account was at \$5340.51. A motion to accept the Treasurer's Report by Bill Dowe KC8EWD and seconded by Rich Schwenke N8GBA. The motion passed.

**Correspondence** – We received a letter of insurance change by the ARRL. Discussion on whether we should also switch will be under New Business.

### Committee Reports –

**Repeaters/Tech.** –Paul Racine KB0P stated the Grand Marais link has burned out. Also a new node is up coming in Champion. 144.390 Apar packet radio.

**Ares/Races** - Rich N8GBA stated E-team training is expected to be May 25 from 8 to 4  
**PR** – Mining Journal had printed the Ham of the Year a couple of weeks ago.

**Old Business –**

**Dayton** – Everyone is getting ready.

**Greg KI8AF** – has been on the air between 6 and 10.

**New Business –**

**YMCA** – The Y thanked us for having operators at their Run/Walk. Most of the operators were our youth hams. (14 & 18 year olds) Thanks to all the participating hams.

**Equipment** – Fred Mouser KD8JIP stated the need for a voice recorder to help with the minutes. It was agreed to pick one up.

**Insurance.** – Lane Dawson WD8PAJ brought up the issue of insurance. After some discussion it was determined to get quotes from other carriers and what they have to offer.

**50/50 drawing** – Congratulations to Jim Jacobson W8QQE.

**End of Meeting** – A motion to conclude the meeting was made by Bill Dowe KC8EWD and seconded by Robin Turner KC8EWD. The motion was approved.

**Post Meeting Program** – Sky Warn training was presented by the NOAA. The program ran about 1 and ½ hours and covered many storms which just occurred this past month. Great program – Thanks guys.

**Future Meeting Programs – June.** Fox Hunting.



*Greg, KI8AF on Vacation: A recent gathering of some of the local Hams and Steven, VK2HSL from Australia*



**Storm Spotter Training 2011 held at the HARA Meeting in Marquette, Michigan.**



## ***ARRL Field Day Overview (JUNE 25<sup>th</sup> and June 26<sup>th</sup> 2011)***

**From: The ARRL web page: <http://www.arrl.org/field-day>**

ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. Each year over 35,000 amateurs gather with their clubs, friends or simply by themselves to operate.

ARRL Field Day is not a fully adjudicated contest, which explains much of its popularity. It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, most groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to local elected community leaders, key individuals with the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

(Editors Note: The following is from the ARRL Web Site: <http://www.arrl.org/field-day> )

### **VHF Operation and Field Day: FAQ's, Tips and Guides for Getting More Field Day QSOs**

**By Steve Ford, WB8IMY, Editor, QST & Sean Kutzko, KX9X, ARRL Contest Branch Manager**

#### **Updated February 2011:**

When most hams think of Field Day, they automatically envision a stampede of activity on the HF bands. While this may be true, there is a gold mine of contact points on the bands above 30 MHz. Beginning in 2011, **ALL** class A and class F entries are able to have a free VHF station to make extra QSOs towards their Field Day score. Adding an experienced VHF team to your Field Day effort can pay big dividends. Many efforts to gain points from a VHF station in the past have not succeeded because the operating protocols on VHF are not known to hams who operate mostly HF, and they simply do not know where or when to transmit. This guide attempts to answer some basic questions about VHF operating so your club can utilize their VHF station to its maximum potential.

#### **Terrestrial VHF Communication**

During the summer months, sporadic-E propagation comes into full force, opening the door for possible long-haul QSOs on 6 Meters across the country. During exceptional openings, Sporadic-E is possible on 2 Meters, too. Tropospheric enhancement on 2 meters and 432 can occur as well, allowing communications as far as several hundred miles. Sporadic-E is, by definition, unpredictable; nobody knows when it will occur. While it can occur at any time, it seems to occur most often in the afternoon and evening. Tropospheric conditions are generally best in the early-morning hours, especially on 2 meters and 432 MHz.

It is also possible to have VHF bands that are completely dead, or openings that only last a very short period of time. VHF bands generally do not function like HF, and require some enhanced propagation conditions to come to life. Two of the best tools for using the VHF bands are patience and perseverance.

#### **General VHF Tips**

Technician-class licensees have full privileges on 6 meters and up. However, don't make the mistake of leaving an inexperienced Technician (or any class licensee, for that matter) at the VHF station without some guidance; you may end up with a very dissatisfied operator. Recruit an experienced VHF operator to your team and let them provide instruction for those unfamiliar with VHF operating techniques. Feedline losses are much higher on VHF frequencies than HF. If you're going to set up a VHF station, use high-quality coaxial cable. RG-8 is the bare minimum; do not even bother to use RG-58 or RG-59, as the losses will be substantial.

Many VHF operators use Maidenhead grid squares to help identify their location more precisely. Some collect grids, much like HF operators try to work all States or DXCC countries. Know what grid square your Field Day operation is in; while exchanging grids is not required for a Field Day QSO, many

VHF'ers you work will want to exchange grids. You can get more information on grid squares here: <http://www.arrl.org/grid-squares>

The VHF bands are generally "line-of-sight" bands, so antenna height is critically important on the VHF bands. "The higher, the better" is definitely true! If possible, set your VHF station at the highest elevation point of your Field Day site. If your Field Day site is in a valley or has high hills surrounding it, your VHF operations may suffer.

### **CW/SSB**

Most long-haul communications on the VHF bands take place on USB or CW. Horizontally-polarized yagis or loops are the preferred antenna for SSB/CW VHF communication. Even a dipole on 6 meters will work nicely, and is less than 10 feet long.

Attempting VHF SSB/CW communication with a vertically polarized antenna, especially on 2 meters and higher, will reduce your ability to hear stations and be heard by others by as much as 20 dB. Make sure you use horizontally-polarized antennas when attempting SSB/CW VHF work.

### **Important 6 Meter SSB/CW tips:**

- 1) 6 meter SSB activity is from 50.125 to 50.200 MHz, and can go up to 50.300 MHz if the band is open and packed with signals.
- 2) 6 meter CW activity will range from 50.080 to 50.100 MHz. from 50.000 to 50.080 MHz, you can listen for CW beacons to help see if the band is open.
- 3) 50.100 to 50.125 MHz is the 6 Meter DX window, which is reserved for stations attempting intercontinental QSOs. **Please do not make Field Day QSOs in the DX Window.** There are many non-Field Day operators that focus on 6 meter DX'ing and request the DX window be kept clear.
- 4) The 6 Meter SSB calling frequency is 50.125 MHz. If you spin the dial and don't hear many callers, you can call CQ on the calling frequency. However, do not monopolize the calling frequency; if the band is open, find a clear frequency above 50.125 and call CQ there.
- 5) If 6 meters is open, you will hear where the most stations are coming from; listen to the Field Day exchanges being made and what Section the station is sending. If you have a rotatable antenna, point it toward the area where stations are being heard. If there isn't a big opening occurring, rotating your antenna in different directions every 15 minutes or so will increase your chances of being heard in different parts of the country. Under poor conditions, try to aim your antenna toward large population centers.

### **2 Meter SSB/CW Operating Tips**

- 1) The 2 meter SSB/CW calling frequency is 144.200 MHz. As with 6 meters, please do not monopolize the calling frequency.
- 2) Activity will range between 144.160 to 144.240 MHz in densely populated areas. If you live in a more rural part of the country, activity will be much more centered around the calling frequency.
- 3) Once again, horizontally-polarized antennas are the custom. A 5 or 6-element yagi on 2 meters works very well, but larger is generally better. Higher is better, too!
- 4) Rotate the antenna every 15 minutes or so if you don't hear anybody. Point towards high-population areas when possible.

For 222 and 432 MHz, the calling frequencies are 222.100 and 432.100 MHz.

### **FM**

For Field Day operating, FM is probably the easiest VHF mode to implement. You'll have little trouble finding FM rigs to use; even a hand-held transceiver can make a fine Field Day rig. **FM doesn't have the range of CW or SSB**, but it is the most popular communications mode on the VHF and UHF bands. You'll find the greatest amount of FM simplex activity on the 2-meter band, although 6 meter FM may be worth a try as well. **Remember that Field Day rules prohibit the use of repeaters.** This means you'll have to hunt for contacts on the recognized simplex frequencies.

Unlike CW and SSB, most FM operators use vertically polarized antennas. To maximize your signal coverage, you'll want to use vertical polarization, too. A small beam antenna mounted in the vertical-polarity position (elements perpendicular to the ground) is one suggestion. An alternative is a simple omni-directional antenna such as a ground plane. Since most of your contacts will be local, an omni-directional antenna may be nearly as effective as a beam.



There are many 6 meter FM operators, and if the band is open, 6 Meter FM could yield some long-haul QSOs. Monitor the 6 meter calling frequency at 52.525 MHz; simplex QSOs will be possible around the calling frequency. Open your squelch so weak signals will be heard. As with SSB/CW work, please do not monopolize the calling frequency.

## **SATELLITES**

Satellites are a blast on Field Day! Of course, to use a satellite you have to know when it will be passing across your local sky. One easy way to obtain pass predictions is on the AMSAT Web site at [www.amsat.org/amsat-new/tools/predict/](http://www.amsat.org/amsat-new/tools/predict/). Just print the predictions for the satellites you intend to use.

### ***FM Birds***

Do you have a dual band VHF/UHF FM rig that can receive below 437 MHz? Try OSCARs 27 and 51—the FM repeater satellites. Just use the frequency table below to program the radio's memories so that you can compensate for Doppler shifting by simply changing memory channels.

Satellite AO-27 AO-51

*Time Transmit Receive Transmit Receive*

AOS (start) 145.840 436.805 145.910 435.310

AOS+3 Minutes 145.845 436.800 145.915 435.305

Zenith (maximum) 145.850 436.795 145.920 435.300

Zenith+1 Minute 145.855 436.790 145.925 435.295

LOS (end) 145.860 436.785 145.930 435.290 Another FM satellite to try is HOPE-OSCAR 68 (also referred to as XW-1). The only catch is that this bird also operates in SSB, so you need to check its schedule ahead of time on the Web at <http://www.camsat.cn/>.

When HOPE-OSCAR 68 is operating in the FM repeater mode, transmit at 145.825 MHz with a 67 Hz CTCSS, and listen at 435.675 MHz.

**One important thing to remember is that the ARRL Field Day rules have changed in regards to these single-channel FM satellites. Stations participating in ARRL Field Day are limited to one (1) QSO on any "birds" that fall into the single channel FM classification. This change is to allow more groups the opportunity to experience the thrill of satellite communications.**

### ***SSB/CW Satellites***

If you can transmit and receive SSB on 2 meters and 70 cm, try **VUSat-OSCAR 52** or **HOPE-OSCAR 68**

These are excellent SSB/CW birds and you can work it with a fairly minimal setup. The tricky aspect is that these satellites have *inverting transponders*. If you transmit LSB, the satellite repeats as USB. If you transmit at the high end of the passband (see below), the satellites will repeat your signal at the low end of the passband.

*Uplink Passband Downlink Passband*

OSCAR 52 435.220 – 435.280 MHz 145.870 – 145.970 MHz

OSCAR 68 145.925 – 145.975 MHz 435.715 -- 435.765 MHz

As noted in the FM section above, OSCAR 68 operates on a varying schedule. Check online at <http://www.camsat.cn/>.

For more detailed information about satellite operating, pick up a copy of the ARRL Satellite Handbook. You can order on the Web at [www.arrl.org/catalog/](http://www.arrl.org/catalog/) or call **1-888-277-5289**.

### **Some Final Considerations :**

**When it comes to VHF/UHF operating, antenna height is everything** (the only exception is satellite operation). To make the most of your VHF/UHF capability, you'll need to mount your antennas on portable supports or select a hill or mountain for your Field Day site. Feed line loss is substantial at VHF and UHF, so use the best coaxial cable you can find. If you exploit the VHF/UHF bands to their full potential, you'll be surprised at how many points you'll add to your score. And if the HF bands are dead, VHF and UHF may save the day!



**HARA membership?** New member or need to renew your membership? Dues can be mailed to the: Hiawatha Amateur Radio Association, P.O. Box 1183, Marquette, MI 49855. Dues annual rate structure: Single \$15.00, Family \$20.00, Associate \$10.00, Family associate \$15.00, Student \$7.50. More information and an application form is available at <http://www.qsl.net/k8lod/membership.html>

## **EMCOMM and You!**

PR.....Happenings

Our PR committee needs input from each of us if we expect them to do their part in getting the word out about our organization and amateur radio. Please contact a committee member well in advance of a happening. PR committee members are: Lee KD8BJC [leerowe@charter.net](mailto:leerowe@charter.net) or 346-9278, Lane WD8PAJ [laned@chartermi.net](mailto:laned@chartermi.net) or 486-8697.

## **Volunteering your time Counts!**

Each month many members volunteer their time for club activities some of which might include repeater maintenance, ARES, EOC operations, Life Tracker, newsletter, PR, club business, etc. All these volunteered hours and mileage can be credited to HARA and amateur radio but only if you report them. AEC Dave Thomas KD8DRF reports these numbers monthly. So at the end of each month please contact Dave with services rendered, hours and mileage. Contact Dave at [dlthomas@chartermi.net](mailto:dlthomas@chartermi.net)

**Note: Greg, KI8AF was on vacation for a few months. During his absence I had the honor of doing the newsletter with the help of LaneWD8PAJ. Please send me any feedback, comments or suggestions on the newsletter for April, May and June of 2011.**

Steve

[KD8CCP@yahoo.com](mailto:KD8CCP@yahoo.com)

**Greg will be back and doing the July, 2011 Newsletter.**

And that's a wrap for another month. Please if you have an article or something which you may think will be of interest to the club membership get it to me. Also if you have any comments or suggestions please get a hold of me. 73 until next month, Greg KI8AF@arrl.net



*The monthly newsletter of the Hiawatha Amateur Radio Association of Marquette, Michigan. Comments and suggestions can [www.qsl.net/k8lod](http://www.qsl.net/k8lod) be sent to the club at P.O. Box 1183, Marquette, Mi 49855 or to the editor at [ki8af@arrl.net](mailto:ki8af@arrl.net) Club info, membership, dues, etc can be found on our website at . Annual membership dues can be sent to the above address directly.*