BIG RAPIDS AREA AMATEUR RADIO CLUB
FEBRUARY   2005   MARCH

ARES/RACES REPORT
Tom Behler: KB8TYJ, Mecosta County Emergency Coordinator/Races Officer

   As I sit down to write this article, two things are becoming apparent to me more than ever. First, our local ARES/RACES group continues to be amazingly active for a group of its size. Second, and perhaps most importantly, our local em-com program is on the brink of what appears to be some incredibly exciting times of growth and development.

Our Club's Emergency Committee met at the 911 Dispatch offices in February and discussed a variety of important issues that currently needed attention. In the photo at left starting from the lower left and around the circle clockwise is Mecosta County E.C Tom Behler KB8TYJ, Kathy Foster KC8RBS, Mike Foster KC8PZA, Club President Don Macconnel WA4FRJ, Walt Nalezyty Bob Croaker WB8YPG, WB8GAO, Gordon Trute KC8WFX, Committee Chairperson Beverly Callewaert WD8PFC (holding up the sky), Bob Moody AB8NC (hidden in the corner; Sorry Bob) Dan Dowdy, Mecosta County

EMD, Osceola County E.C. Gary Atteberry, WB8WIA and Matthew Trombley KC8VJR. George Rouman W8OWN is also hiding but behind the camera.

SKYWARN

Let's begin with skywarn, and preparations for the upcoming severe weather season. Thanks to the efforts of Dan Dowdy (Mecosta County's Emergency Management Director), a basic skywarn training program has been scheduled for Mecosta County on Wednesday: April 6 at 6 p.m. The training session will be held at the Big Rapids Department of Public Safety building, located at 435 N. Michigan Ave in Big Rapids. Reservations are not needed, so please just show up at the training for what promises to be another exciting program put on by the National Weather Service folks from Grand Rapids. New skywarn ID cards for 2005 will be issued for all interested ARES/RACES members. In addition, please keep in mind our informal guideline that those who wish to continue their certification as "trained skywarn spotters" should update their training at least every two years. Plans for a basic skywarn training class in Osceola County, and an advanced skywarn class somewhere in our area, are also in the works. Stay tuned to our local nets, and check future newsletters for more details as they become available.

NEW LAKE COUNTY NATIONAL WEATHER SERVICE STATION

As the spring season gets under way, our skywarn efforts will be facilitated further by a new National Weather Service transmitter from the Wolf Lake area of Lake County. The transmitter is slated to begin test operations in early April, and fulltime weather broadcasting in early May. The proposed frequency for this new weather transmitter will be 162.425 MHZ. The Wolf Lake transmitter will provide us with much more reliable access to weather watches and warnings in adjacent counties to our west, which weather buffs will know is very important when tracking the usual movement of severe weather systems. And, speaking of tracking the movement of severe weather systems, Mike Foster (KC8PZA) is in the process of developing a map of designated spotter locations for those who would be interested in providing visual reports of severe storms in our area when appropriate.

CALLING TREE REVISIONS

Our emergency Service Calling Tree also has been given a face lift, and a new look, which should help greatly with its implementation when needed. George Rouman (W8OWN) has reorganized the calling tree by county, so that entities in specific counties can be more easily identified and notified in the event of an isolated severe weather warning that only covers one county, or one part of a county. All calling tree callers have been given a copy of this newly-revised calling tree via e-mail, and are reminded to re-establish contact with the entities they are responsible for to reacquaint them with our service. It should be pointed out that our calling tree service eventually is going to be replaced by a "City Watch" public alert system, that is now in the beginning stages of operation in our two-county area. However, a number of glitches have been discovered, and a number of procedural details remain to be worked out. This has led County officials to request that we keep our calling tree in operation until further notice.

Our local ARES/RACES group also has become involved in a number of other exciting activities that take us well beyond the realm of skywarn, and severe weather

preparedness. Although space does not allow me to go into great detail, here's a quick overview of some additional major highlights of our ongoing em-com efforts.

PACKET RADIO NOW CLUB SUPPORTED

As many readers of this newsletter already know, a number of our club members have become highly involved with packet radio communications. Packet stations have now been put on the air by Bob Croaker (WB8YPG), Walt Nalezyty (WB8GAO), Don Macconnel (WA4FRJ), Mike Foster (KC8PZA), and Pete Chesebrough (W8PET). In fact, W8PET has even established a digi-peater at his home QTH, and thus now serves as a central packet node for our area. If you want to join these folks in our growing packet radio initiative, please contact them and they'll be glad to give you a hand.

MECOSTA COUNTY EMERGENCY COMMUNICATION BASE STATION

We have also made much progress in our efforts to set up an ARES/RACES station at the Mecosta County Emergency Operations Center in the basement of the County Sheriff's department. At our most recent Emergency Committee meeting, a list of equipment and accessories for a fully-functional ARES/RACES station was formulated, in response to a direct request for such information from Dan Dowdy. A substantial Federal "Homeland Security" grant has been awarded to Mecosta County for major upgrades to county communications facilities, and it seems reasonably likely that we will be given a portion of those funds for our ARES/RACES station. If the station becomes a reality, we will have the capability of conducting a full range of HF and VHF/UHF communications in a variety of modes, including FM voice, SSB voice, CW, and packet. This is truly an exciting development that would seem to indicate that we are now being taken seriously by local authorities for what we can do in actual or potential emergencies.

POSSIBLE FERRIS CONNECTION

Finally, I'm happy to report that our ARES and RACES activities are now beginning to be noticed at Ferris State University. I have approached my Department Head, in the Department of Social Sciences about the possibility of teaching one or more "Sociology of Disasters/Emergency

Preparedness" courses at the University on an experimental basis. He has agreed to let me pursue this possibility. Toward this end, I will be attending the Dayton Hamvention in May to gather information, and talk with others about the logistics of this endeavor. My department Head even agreed to consider the idea of including an amateur radio license attainment as an option for fulfilling a major course requirement, which I obviously have endorsed with great enthusiasm. These efforts at course development are merely in the talking stage at this time, but they represent an interesting professional and personal opportunity that wouldn't have been possible 5 or 10 years ago.

TWO METER ARES/RACES NET OPEN TO ALL

In closing, these are truly exciting times for our local ARES/RACES program, and I am honored to be a part of them. If you have any questions concerning our program, or your participation in it, please contact either me (as your Mecosta County EC-RO), or Gary Atteberry as your (Osceola County EC/RO). Also, please don't forget about our local ARES/RACES net. The net occurs on the second and fourth Wednesday of the

month at 9 p.m. on the BRAARC 2-meter repeater. These nets are another arena for an exchange of ideas on relevant ARES/RACES-related issues. In addition, they are a great forum for training. In the months ahead, for example, refresher training will be conducted on the TEL weather-reporting format, and on NTS traffic handling.

IF YOU WEREN'T THERE, YOU MISSED A FINE DEMONSTRATION

For the program at the February 3rd club meeting, Pete Chesebrough gave a short talk and demonstration on the mysteries and realities of Packet Radio. On the demo table was a Timewave PK-96 TNC (Terminal Node Controller) coupled to an MFJ Data Radio (on 145.090 MHz) and 30 Watt UHF amplifier. Using the laptop (HyperTerminal) and video projector already in the room, and by running a coax out the door to a mag-mounted 5/8 wave vertical antenna, he was able to digipeat through Don's (WA4FRJ) packet station to another packet node station in Lakeview and display the screen information to the group. Packet radio materials were handed out, questions were asked, and hopefully some members went away knowing a little more about packet fundamentals than before they came. Pete now reports that his system is on the air 24/7, and has a call of W8PET, a mailbox at W8PET-1, and operates as a packet node at either W8PET-7 or the alias of BGRPDS. He has already received mail from Rick WZ8N, Andrew KC8LQY, Milt KA9FON, Walt WB8GAO, Bob WB8YPG, and has been in contact with Jim Wades about QMN Packet possibilities.

INTRODUCTION TO PACKET RADIO
BY LARRY KENNEY, WB9LOZ

This intro to packet radio was part of the handout used by Pete, W8PET during his presentation. If it peaks your curiosity and desire to know more, contact one of the packet gurus listed in this newsletter and get involved. [Ed.]

DIGIPEATERS AND NODES - THE BASICS

DIGIPEATERS: Digipeater is the term used to describe a packet radio digital repeater. Unlike the FM voice repeaters, most digipeaters operate on simplex and do not receive and transmit simultaneously. They receive the digital information, temporarily

store it and then turn around and retransmit it. Your TNC can be used by others as a digipeater if you have the command DIGIPEAT turned ON.

You use a digipeater by entering its callsign after a V or VIA in your connect sequence. Here are some examples of proper connect sequences:

• C W6PW-3 V WB9LOZ-2

• C N6ZYX V WA6FSP-1,WD6EOB-3

• C W6ABX-4 V K6MXX,M2WLP-2,AB6XO

In the first example, the sequence shown means: Connect to W6PW-3 via the WB9LOZ-2 digipeater. Your TNC will allow you to enter up to eight digipeaters in your connect sequence or in your UNPROTO path, but using more than 3 usually means long waits, lots of repeated packets and frequent disconnects, due to noise and other signals encountered on the frequency.

When entering the list of digipeaters in your connect sequence, you must make sure that you enter the min the exact order that your signal will use them. You must separate the calls by commas, without any spaces, and the EXACT callsigns must be used, including the SSID, if any. That means you need to know what digipeaters are out there before you begin randomly trying to connect to someone. Turn MONITOR ON and watch for the paths that other stations are using. Something to remember when using digipeaters is the difference between making a connection and sending information packets. If the path isn't all that good, you might be able to get a connect request through, but will have a difficult time with packets after that. The connect request is short so it has much less of a chance of being destroyed by noise or collisions than a packet containing information. Keeping information packets short (PACLEN set to 40 or less) can help keep retries down when the path is less than ideal.

NODES: Net/Rom, The Net, G8BPQ packet switch and KA-Node are names that refer to a device called a packet node. This is another means of connecting to other packet stations. Later on in this series you'll find a complete review of node operation, but for now we'll cover the basics so that you can begin to use the node network. The difference between a digipeater and a node that you should note here is that you connect to a node rather than using it in a connect path as you do with a digipeater. Some packet stations are set up so that they can be used as a digipeater and as a node. http://www.choisser.com/packet/part04.html2/2/2005.

Introduction to Packet Radio - van 4 First, you need to determine what nodes are located close to you. You can do this by monitoring and watching for an ID, or by watching to see what other stations in your area are using. It is most common
for a node to have an alias ID in addition to its callsign. Once you determine the callsign or alias of a local node, you connect to it the same way as you connect to any other packet station. You may use either the callsign or the alias to make the connection. For example, the node I operate has the alias ID of BERKLY and the callsign ofWB9LOZ-2, so you could connect to it using: C BERKLY or C WB9LOZ-2 Either one will work.

When you connect to a node, your TNC automatically switches to converse mode, just like when you connect to any packet station. Anything you now type is sent to the node as a packet, and the node acknowledges each packet back to your TNC. For the remainder of your connection your TNC works only with this one node.

To use the node network to connect to another local station, you simply connect to the node and then enter a connect request to the other station. Say you wanted to connect to K9AT using the WB9LOZ-2 node. You first connect to WB9LOZ-2: C WB9LOZ-2 and then, while you ARE STILL CONNECTED TO THE NODE, you enter the connect request to K9AT: C K9AT

The node will then retransmit your connect request and you'll receive one of two responses: "Connected to K9AT" or "Failure with K9AT". Once you are connected you hold your QSO just as if you had connected direct or via a digipeater. When your QSO is finished, go to command mode on your TNC (Control C) and enter: D <CR> and you will be disconnected from the node and the station you were working. Some nodes have a BYE command available for disconnecting. You can get a list of available commands from any node by sending a question mark. All of the node commands will be covered in detail later in this series.

NOTE: If the node you're using is a G8BPQ packet switch, it might have several frequency ports. You'll have to enter a port number between the C and the callsign in your connect request to indicate the frequency you want to use, such as: C 2 K9AT. Enter PORTS for a list of the frequency ports available.

NODE NETWORK: The packet nodes work together to form a packet node network. Once an hour each node transmits a list of other nodes that it knows about. The neighboring nodes use this information to keep track of the other nodes in the network. We will discuss how all of this works later on in the series. When you're connected to a node you can enter: NODES <CR>or M <CR> and you'll receive a list of other nodes that you can reach on the network from the node you're using. You'll note that the node list will vary in length and in the calls listed as you move from frequency to frequency, since all frequencies are not linked together. The list gives both an alias ID and a callsign for each node'. The alias ID often gives you a hint as to where the node is located, but not always. To find out for sure where a node is located you'll need to get a copy of the descriptive node listings that are available on most packet bulletin board systems. These complete lists give the alias, callsign, location, frequency and other information on each node in the network.

To connect to a station in another area using the node network you first must determine which node is closest to the station you want to work. For demonstration purposes, let's say we want to connect to N6XYZ He's told you he uses the W6ABC-3 node, so you check the node list and see that GOLD:W6ABC-3 is listed. WHILE YOU ARE STILL CONNECTED TO YOUR LOCAL NODE you connect to the distant node by sending a normal connect request, in this case: C GOLD or C W6ABC-3. Your TNC will send this as a packet to your local node and your local node will acknowledge it. The network will then go to work for you and find the best path between your local node and the one you're trying to reach. Remember, with digipeaters you needed to know the exact sequence of stations. With nodes you don't. The network does that for you.

You might have to be a little patient here, since it sometimes takes a few minutes for the connection to be completed. Don't type anything while you're waiting for a response because any new information received by your local node will override any previously entered information. When the network has completed its work you'll receive one of two responses: "Connected to W6ABC-3" OR "Failure with W6ABC-3". If it can't connect for some reason, try again later. It could be that W6ABC-3 is temporarily off the

air or the path has decayed and is no longer available. We're going to be positive here and say we received the first option and got connected to the node.

Once you're connected to W6ABC-3, enter: C N6XYZ. Again, your TNC will send this as a packet to your local node and the local node will acknowledge it and send it down the path to W6ABC-3. W6ABC-3 will then attempt to connect to N6XYZ. Here again you'll get one of the two responses: "Connected to N6XYZ" OR "Failure with N6XYZ". If you get connected, you hold your QSO just as you normally would, but there's one BIG difference - your TNC is receiving acknowledgements from your local node, and N6XYZ is receiving acknowledgements from W6ABC-3. The acknowledgements do not have to travel the entire distance between the two end stations. Each node in the path handles the acknowledgement with the next node in line. Because of this, retries are greatly reduced and your packets get through much faster than when using a similar number of digipeaters.   When you're finished with the QSO, you disconnect in the normal manner. Use the BYE command, if available, or go to Command Mode on your TNC and enter: D <CR> Using either method, the entire path will disconnect for you automatically.

Nodes offer a variety of other features besides allowing you to connect to other stations. We'll look at
those and go into much more detail on the packet network in parts 10 and 11 of this series.

## MORE FOX HUNTS AHEAD: JERRY BUSKIRK, KC8CII WILL HEAD THE EFFORT. LOOK FOR ONE HALLOWEEN WEEKEND!

FCC PROPOSES HOLDING THE LINE ON VANITY CALL SIGN FEE

The FCC has proposed retaining the current $20.80 Amateur Radio vanity call sign regulatory fee for the 10-year license term. The fee went from $16.30 to $20.80 last August. In a Notice of Proposed Rulemaking (NPRM), "Assessment and Collection of Regulatory Fees for Fiscal Year 2005" (MD Docket 05-59) released February 15, the FCC says it's proposing to collect more than $280 million in regulatory fees for fiscal year 2005, as mandated by Congress "to recover the regulatory costs associated with the Commission's enforcement, policy and rulemaking, user information, and international activities."

The FCC anticipates 8000 vanity call sign applications during FY2005--up from 7800 applications in FY2004--and it expects to raise $166,443 from vanity call sign fees. More information on vanity call signs is available on the ARRL Web site <http://www.arrl.org/arrlvec/vanity.html>. ARRL News

MONTHLY CLUB BREAKFAST: 8:30 A.M. SATURDAY 26 FEBRUARY AT THE SEASONS RESTAURANT IN ROGERS HEIGHTS ON THE WEST SIDE OF OLD 131. THIS IS A CHANGE FROM THE ANNOUNCED LOCATION AT THE LAST CLUB MEETING. WINDYS RESTAURANT IS NOW OUT OF BUSINESS. JOIN US AT THE SEASONS FOR GOOD FOOD AND CONVERSATION.
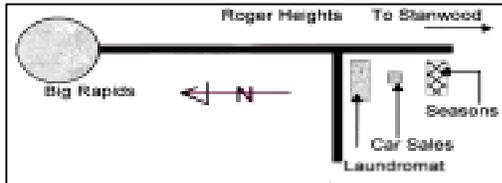
MiQP For First-Timers
By Dave Pruett, K8CC, "k8cc@comcast.net"

The Michigan QSO Party (MiQP) is an operating event held annually with Michigan as the center of attention. This article is a quick overview for those new to MiQP, to explain what it is and to offer encouragement to jump in and participate.

First of all, what is a "QSO party"? Over the years, this term has come to define an on-the-air operating event focusing on a particular geographic area. Amateurs inside the target area (in this case Michigan) earn points towards their QSO party score for making contacts with other amateurs located anywhere, while amateurs outside of the target area get QSO party points only for contacting amateurs inside the target area.

Perhaps the next question is: "Is the MiQP a contest?" Yes it is – the entrants are participating against one other and plaques/certificates are awarded after it is over. But don't let that scare you off - the MiQP is a lot less intense than other contests you might be familiar with, such as Sweepstakes, DX contests, or even Field Day. The bands are not as crowded as during those other events, and the operating style is a lot more relaxed. It's a great venue for a first-timer to get their feet wet.

Why might you want to participate in the MiQP? First of all, it's a great opportunity to hone your HF operating skills or work the bugs out of your HF station. MiQP can provide a concentrated dose of operating that will crack the rust off your CW ability or brush up on your phone operating techniques, skills that you can use in other on-the-air activities.

The fun thing about MiQP for Michigan amateurs is that we are the center of attention. When a Michigan station calls "CQ MIQP" there will usually be several replies. Many MiQP participants make several hundred contacts during the event, even with modest stations such as barefoot transceivers and dipoles. For many, there is a tangible feeling of camaraderie as you work fellow Michiganders, some located in sparsely populated counties with exotic names like Chippewa, Missaukee, or Presque Isle.

What does it take to participate in the MiQP? All it takes is to get on the air during the MiQP period and make contacts with other participants. When it's over, mail in your log if you like so that it can be checked and your score included in the results; you may even win a certificate or plaque. If you include your radio club's name in your entry, then your score will be tabulated along with other member's scores in a separate sub-competition to determine the top Michigan club in the MiQP that year.

When does MiQP happen? MiQP occurs the third Saturday of April every year. For 2005, the starting date for MiQP is Saturday, April 16th. The contest period begins at noon local time here in Michigan (1200 EDST or 1600Z) and runs to local midnight (2400 EDST or 0400Z on April 17th). The contest period was deliberately chosen to be easy to fit into your weekend schedule – you can get up Saturday morning, get some chores or family activities done, and sit down for an afternoon or evening of operating.

Making MiQP QSOs is easy. You can operate on any of the "traditional" HF bands (i.e., no WARC bands) from 80 thru 10 meters. The exchange is your QSO number for that contact – i.e., the first is 001, the second 002, etc., plus your Michigan county. On CW, everyone uses the official county abbreviations from the list on the MiQP web site. Stations outside of Michigan will send their QSO number and state or province abbreviation.

Barring some sort of major propagation disturbance, you will find MiQP activity on 40M CW & SSB for the entire twelve hour contest period. This is a good band to get a mix of in-state and out-state coverage, plus it's popular with the mobile MiQP entries that move from county to county during the event. (Mobiles can be worked again when they change counties.). During the day there is usually good activity on 20M, and lesser amounts on 15M and 10M, depending on the solar cycle. Once darkness falls, there is a lot of MiQP activity on 80M.

Here's how your MiQP score is calculated. Each CW QSO is worth two QSO points while a phone QSO is worth one point. Your final score is equal to the QSO points you've accumulated multiplied by the number of multipliers (Michigan counties, non-Michigan states and Canadian provinces) you work. Multipliers are counted separately on **both** CW and phone. For example, if you work Washtenaw County (WASH) on both CW and phone, that's two multipliers.

As you start out in MiQP you might just want to make QSOs and have fun, but here are some suggestions to keep in mind which should increase your score. A station may be worked once on both CW and phone on each band, so try all five bands (and both CW and phone) to look for MiQP QSOs. The lower bands (80M & 40M) are usually better for in-state QSOs, and out-state QSOs out to 500 miles or so, but try the high bands (particularly 20M) to bolster your score with US states and Canadian provinces from out west. Also, while most people probably have a preferred mode they like to operate, because state and province multipliers are counted separately on CW and phone, in MiQP it's worth the effort to spend some time on the "other" mode to build up the multiplier count for a good score.

When MiQP is over, you have thirty days to submit your entry in order for it to count in the final results. (Note: If you make MiQP QSOs but don't send in a log, no harm is done; the people you worked still get credit for your QSO(s) with them.) Paper logs can be sent to: **Mad River Radio Club, c/o Dave Pruett, 2727 Harris Road, Ypsilanti, MI 48198**. Electronic log files (ASCII text only) can be e-mailed to **LOGS@miqp.org**.

What can you win for participating in MiQP? The Michigan winner in each majority category receives a beautiful 10" x 13" plaque, a total of eleven in all. The top single-operator score in each Michigan county making at least 50 QSOs wins a handsome certificate.

To learn more about MiQP, check out the Michigan QSO Party web site at http://www.miqp.org. There you will find a wealth of information including complete rules, contest forms (summary, log, and multiplier count sheets), a list of county abbreviations, past MiQP results, operating tips and links to free logging software.

| | | | | IN SUMMARY | | | | |

Date /Time: Michigan QSO Party, sponsored by the Mad River Radio Club, from 1600Z April 16th until 0400Z April 17th. Stations may operate the full 12 hours. (12 noon to 12 midnight local Michigan time on April 16)

Modes and Categories: Phone and CW on 80/40/20/15/10 meters. Single-op, multi-op, and mobile categories. Single-op entries are categorized by output power, QRP (5W or less), Low Power (100W or less), and High Power (greater than 100W)

Multipliers: Work stations once per band and mode. Work other states and Michigan Stations. MI to MI QSO's are allowed. Work portables and mobiles again as they change county, state or province.

Exchange: Exchange QSO number and location (county for MI stations, state/province or "DX" for others).

Scoring: One point per phone QSO, two points per CW QSO. Count multipliers once per mode. Multipliers are MI counties for all entries, plus states & provinces for MI entries only. Final score is total QSO points times total multipliers.

Freqs: Suggested frequencies: CW-3545, 7045, 14045, 21045, 28045;   Phone-3850, 7225, 14250, 21300, 28450.

Log Submittal: Mail logs no later than 30 days after the contest to: Mad River Radio Club, c/o Dave Pruett, 2727 Harris Road, Ypsilanti, MI 48198 or via e-mail to logs@miqp.org

Michigan Net, QMN Celebrates 70th Anniversary

The Michigan Net, QMN, will celebrate its 70th anniversary this autumn. Founded in late 1935 by members of the Detroit Amateur Radio Association, QMN is the nation's oldest spot frequency traffic net, and is responsible for a number of innovations in public service communications.

Before QMN, message traffic was handled through individual schedules between stations. Radio Amateurs who were not part of the ARRL Trunk Line system would typically maintain a schedule with stations to the North, South, East and West. When traffic was destined for a location in a particular direction, it was transferred on schedule to the station closest to the addressee. The non-systematic nature of these methods often resulted in delays to message delivery.

A Committee of the Detroit Amateur Radio Association, with an eye toward improving public service communications, took advantage of a number of improvements in radio technology in the 1930s, such as stable crystal controlled transmitters and calibrated receivers, to implement a single-frequency traffic net. This new method permitted stations throughout a State or Region to meet on a specific frequency, at specific times each day to exchange traffic, resulting in more reliable traffic flow and consistent message originations and delivery. This concept of the spot-frequency traffic net would become "QMN"; and has served as the predominant model for all traffic nets to this day.

At a QMN meeting in Detroit in 1939, a Committee developed the well-known " QM" Signals; which were eventually adopted by the ARRL for all CW traffic net use. "QN-Signals are widely distributed in ARRL publications and handbooks, and continue to be used throughout North America. QMN also pioneered in the field of disaster response, deploying QMN emergency response teams in an era before the Amateur Radio Emergency Corps (predecessor to today's ARES and RACES) was a commonplace fixture.

In recent years, QMN had formerly constructed and maintained a VHF packet radio network, which covered a large portion of Lower Michigan. For a time, QMN also operated HF PACTOR gateways for use as a public service communications tool. Today,

QMN continues to serve as Michigan's Section CW Traffic Net. In addition to handling NTS message traffic, QMN operates a statewide rain gauge network in support of the National Weather Service, having implemented innovative methods for automated message delivery and interface with NOAA computer networks. QMN members take great pride in the efficiency and reliability of their CW traffic net. In recognition of its long-time role in public service communications, QMN wishes to announce the creation of a new operating award in honor of its 70th year: The QMN Emergency Preparedness Award. The award is open to any licensed radio amateur who meets the following requirements: He/She must deploy a portable High Frequency station, operating on emergency power, and check-in to the QMN CW Nets a minimum of five times in a calendar year.

Each time the portable station is deployed, a message must be originated to the QMN General Manager (WB8SIW) indicating that the station is deployed in the field and from where the portable station is operating. This message must be properly transmitted in standard NTS message format. Upon completion of the necessary requirements, the participant will receive a handsome certificate suitable for framing, which attests to his level of emergency preparedness and operating skill.

For more information on the QMN Emergency Preparedness Award, please visit the QMN Web Page at: www.qsl.net/w8ihx/ or the NREN web page at: www.aa8vs.net/nren/ One may also contact the QMN General Manager at: wb8siw@wmwisp.net or via telephone at: 269-673-8845. QMN meets on 3663 kHz at 7:30 and 10:00 PM Eastern Time. Via ARRL Michigan Section, Section Manager, Dale

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MARSHALL HAMFEST: SATURDAY MARCH 19TH – 8A.M.TO 1P.M. - $5.00 ENTRY – TALK-IN 146.660-REPEATER & 146.52 SIMPLEX – AT MARSHALL HIGH SCHOOL USING EITHER I-69 AND/OR I-94 TO MARSHALL EXITS.

R. Williams, WA8EFK

A BATTERY IS A BATTERY…NO IT ISN'T!
DON MACCONNEL, WA4FRJ

Most hams have some sort of rechargeable battery for emergency backup power. With a large selection of batteries to choose from, here are a few comments on some common lead acid types.

<u>Engine Starting battery</u> - This type of battery is constructed to supply a high amount of current in a short amount of time, as when starting a cold engine, and then is recharged immediately by the engine alternator. The internal plates are thin to allow more contact area with the acid solution. This allows a great amount of chemical

reaction to take place in a short period of time. The starting battery does its job very well but will perform poorly as a deep cycle battery. It doesn't stand repeated, deep discharges. Try leaving your car lights on three or four times and you can expect to have an early replacement for your battery.

Truck/Marine Battery -This type of battery is constructed in a similar way to the starting battery but the internal plates have more support built in to withstand the pounding of a truck going over rough roads. This battery is required to provide high current to start a truck engine, so it is essentially a beefed up starting battery. This same type of construction is used in batteries intended for boats. I ruined a Sears Die Hard in a rough riding old 3/4 ton Dodge pickup. It shook the thing to death. Sears covered it under warranty but replaced it with a battery intended for truck duty. Just like the starting battery, this type doesn't like repeated deep discharges.

Deep cycle -This type of battery is built to supply smaller amounts of current for relatively long periods of time without being recharged immediately. The internal plates are thick and robust to supply this continuing current but the power is distributed over a longer time span. A deep cycle battery will require a longer recharge time at a lower current level to be fully and safely recharged. I use a little Schumacher 1.5 amp float mode charger. Float mode chargers detect a fully charged battery and will reduce the charge current to less than 10 mills until the battery needs to be charged again. These chargers are safe to leave connected for long periods. The important thing is to avoid continuous connection to "automatic" chargers which reduce output but really keep hitting the battery with spikes of current. This causes the battery to gas and will hurt it on a long term basis. Automatic chargers are not intended to stay connected to a battery once the battery is charged. Deep cycle batteries will withstand repeated deep discharges and don't tend to self-discharge as fast as starting batteries. They are best for back up battery power.

Caution: Lead acid batteries give of hydrogen gas which can be explosive and is highly flammable. Don't make sparks around a battery. Also if you allow a battery to discharge and just sit, it will sulfate. Sulfation is a process that can ruin a battery so keep your batteries charged. Deep cycle batteries more resistant to sulfation but still should be kept charged.

At our next club meeting the "Tech Corner" portion will have a short demonstration of battery chargers at work.

We hope to see you there! Bring your questions. No charge for answers.

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      Checks should be made out to the Big Rapids Area Amateur Radio Club.
Mail this form to Sue Behler, KC8IFP, Treasurer, 511 Spring Street, Big Rapids, MI, 49307 or bring your dues to a meeting.

PLEASE PAY DUES BY MARCH 1, 2005

NEXT MEETING: 7:30 P.M. THURSDAY 3 MARCH 2OO5 AT THE PUBLIC SAFETY BUILDING, 435 NORTH MICHIGAN AVENUE IN BIG RAPIDS. THE BOARD OF DIRECTORS MEETS AT 6:30 P.M. PROGRAM: TIME TO GATHER AND DESIGN THIS YEAR'S FIELD DAY EVENT. NOW IS THE TIME TO OFFER SUGGESTIONS TO IMPROVE OUR PERFORMANCE. BRING YOUR THOUGHTS AND ADVICE FOR THE PLANNING COMMITTEE COMPOSED OF JERRY KC8CII, THOM WI8W, TOM KB8TYJ AND MATTHEW KC8VJR. WE DID GREAT LAST YEAR. CAN WE IMPROVE THIS YEAR? IT'S UP TO YOU!
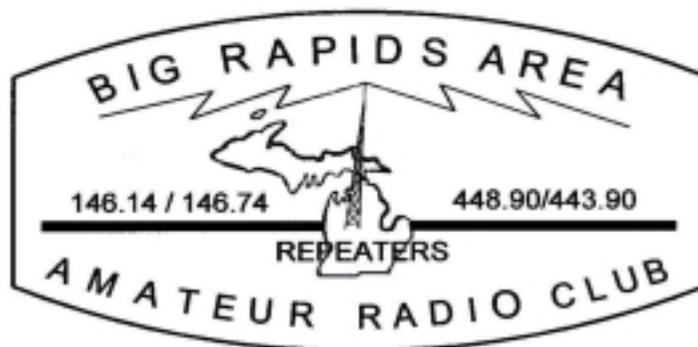
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