

M.C.W.A. NEWS

March 2014
Vol. 14, No. 3

McHenry County Wireless Association

Since 1978
35 Years



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VE TESTING



Testing By Appointment Only !

7 PM on 3rd Tuesday of month
(Sept. thru May)

Cost is \$15 one time charge
for session no matter how
many elements are taken.
Must show original license
and/or CSCE if upgrading .
Valid photo ID needed.
SS# or FRN#

Steve, KB9OLD

847/477-3518

MARCH MEETING

March 4, 2014

Crystal Lake Bank
5100 Rt. 14, Crystal Lake, IL
6:30 PM - Socializing
7:00 PM - Meeting

PROGRAM :

* Low Noise Antennas

* Baluns – Do We Really Need Them?

By Jack, W9MU

MCWA Treasurer’s Report – March 2014

Below find our current bank balance. I’m still accepting dues from those that have not paid yet for 2014.

Feel free to contact me about any Treasurer related issues.

73

Bob Lubecker NZ1B
3812 Monica Trail
Crystal Lake, IL 60014

BankBalance:

Per. 1-31-14 Statement	
Beginning Balance	\$5,048.43
Checks written	.00
Deposits	20.00
Interest	.43
Ending Balance	\$5,068.86



“Remarkable Conditions Continue”

This past fall and this current winter will be remembered by us hams for the challenging weather and the remarkable propagation. But as the days are lengthening in the northern hemisphere, the propagation is apparently getting extra life. As of this writing, the solar number is 185 and the solar flux index is 167. These numbers have been holding up, which was not characteristic of the previous rises and falls of cycle 24.

Basically, all bands have been good to excellent. 20m has been already acting like spring has sprung staying open some nights to near 11:00pm local time. The upper HF bands have been favorable till an hour or so after sunset. I have had QSO's on 12m and 15m to Asia past sunset on numerous occasions. Because we are approaching spring equinox, the world is wide open these days. South America has been especially strong as daylight in the northern and southern hemispheres is balancing out.

The FT5ZM dxpedition did a fine job and logged a great amount of QSO's. I worked them by phone on 20m and 12m on first call or so. The S9TF dxpedition is also to be commended. They covered the bands and openings quite well. FW5JJ has been strong and very workable. I logged him on 10m and heard him on another band or two. Yosi did a good operation from 9X0ZM. On the 15th and 16th of February, South Korea had a pipeline to the U.S. I worked HL5KY on 15m and HL5FUA on 12m. The latter call was 5/9 plus!

There have been many special event stations. Brazil is celebrating 80 years of amateur radio and you can hear ZZ80 prefixes calling in abundance on all bands. W1AW, of course, is celebrating 100 years. You can work all states with W1AW portable calls. I have collected quite a few states already on various bands. The other afternoon I worked J65SLI35. He was on a beach where it was 70 degrees in the shade. I told him

that is our bath water temperature here. By the way, Ernest was using 10w and a stick antenna powered by a battery. Look for Ernest and his fellow hams which are celebrating St. Lucia's Independence of 35 years (thus the call ending with 35).

In March be looking for VK9X, 5H3MB, TX6G, VU4K, TO7BC, VK9MT and ZL7AAA, among many other DX operations

The bands are looking good and we hope these remarkable conditions continue!

Good DX ... 73 Dave KA9OZP

W1AW Centennial

If you're on HF, you're no doubt heard the W1AW stations operating portable from each call area. This is a year long contest . Points are accumulated via contacts submitted via LoTW.

But it's not just all those W1AW stations that are worth points. Every ARRL member is worth at least 1 point and life members are worth 2 points. ARRL volunteers (EC, VE, SM, OO , OOC etc.) are all worth greater points values. There is a chart on the ARRL web site which enumerates these further. The best part is that these points are added up for you when you submit contacts to LoTW.

More info can be found at:

<https://centennial-qp.arrl.org/index.php>

You'll need your LoTW password to get in, but you'll see you total points.

With this being a year long contest, it gives a lot of time to work lots of stations. The more stations you work the more points you get. Contests are a good way to collect points. These stations are available on SSB, CW and Data modes and you can log same station on more than one mode/band.

This looks to be a bit of HF fun that takes only what time you have to devote to it on your schedule.



FROM THE EDITOR'S DESK

UPCOMING DXPEDITIONS:

FR7 Tromelin Is. Rare one 2014 TBA

(TBA = To Be Announced)

Stray “When you hear a guy say ”gonna keep it short, here“, or ”okay, gonna let you run“, did ya ever notice how much longer he continues to talk?? ”

(K4KJC from Eham.net)

Tower Danger An article on the next page shows how dangerous tower climbing can be; especially in Winter.

Cuba's 5 MHz Band Comes with Strings Attached

02/05/2014

Cuba's Ministry of Communications (ACS) recently granted radio amateurs on the island nation a 12 kHz wide band at 5 MHz, — 5418 to 5430 kHz — rather than the channelized system other countries have had to use to avoid interference to primary users. Now the ham who provided the initial information, Pavel Milanés Costa, CO7WT, said the ACS clarified at an FRC (Federación de Radioaficionados de Cuba) gathering that hams in Cuba may not make contacts with hams outside of Cuba on the new band.

“The ACS made it clear, the band is for emergencies and experimentation [within] the national territory, and only with Cuban hams,” Milanés Costa said. “No contact is allowed with other countries until further notice.”

Cuban licensees must obtain an update in order to use the new band. The ACS said it has not yet developed the procedures to handle updates, and “it will take a while,” Milanés Costa said. — Pavel Milanés Costa, CO7WT; Southgate ARC

de ARRL {Ed. - Don't work Cuba on 60m !}

Club Projects ? Meetings are great with all sorts of guest speakers and Field Day for MCWA is a dead issue for us as a group. Maybe we should think about some sort of project or even a picnic for Summer 2014 , if it ever shows up. What would the members like to do ? Maybe a special event station ??? **Please let us know !**

STRAY. why do USA stations keep posting other USA stations on the **DX spotter networks?**
NQ3C (de eham)

W9DIK SK A frequent voice on 145.41, Harold , W9DIK, passed away on February 14. He'll be missed. RIP Harold.

Idaho Ham Seriously Injured in Tower Mishap:

Robert “Bearpaw” Galindo, KE7ADT, of Athol, Idaho, was critically injured February 13 when the winching cable of his 40 foot crank-up tower snapped while he was working on the tower. Galindo, 52, a General class licensee and ARRL member, was reported trapped and dangling 20 feet in the air when rescue crews arrived at his home. His wife, Gail Perry, KE7ADN, witnessed the accident and called 911. The mishap resulted in the loss of Galindo's right hand and several fingers of his left hand.

Timberlake Fire Protection District officials reported that rescuers had to raise the upper tower sections to extricate Galindo. He was transported by helicopter to a hospital in Coeur d'Alene, where he underwent surgery. Galindo was listed in critical condition following the surgery and was expected to remain hospitalized for several days. -- Thanks to John Bigley, N7UR, Nevada Amateur Radio Newswire <http://www.nevadahamradio.com/>

Fatal West Virginia Tower Collapse Takes Out Ham Radio Repeaters

02/03/2014

The collapse of two radio towers in North-Central West Virginia on February 1 resulted in three deaths and injuries to two individuals. The tragedy also resulted in the loss of three Amateur Radio repeaters belonging to the Stonewall Jackson Amateur Radio Association (SJARA) and forming part of the HamTalk linked repeater system, which were available to assist with emergency and disaster communication. Richard Wilt, K8TPH, reported that one tower went down, killing two workers on the 300 foot structure and taking down a second, shorter tower. An emergency responder died after being struck by falling debris. Two other tower workers suffered minor injuries.

“The towers are an important link in maintaining cell service and repeaters for several commercial companies locally,” Wilt said. “The towers also were in use by the Amateur Radio community with three repeaters located on the towers. These Amateur repeaters are a major part of the North-Central West Virginia emergency communications to assist the Office of Emergency Management of Harrison County, FEMA, and the American Red Cross.”

The Stonewall Jackson ARA has a memorandum of understanding with the Harrison County Commission and the cities of Clarksburg and Bridgeport to assist during emergencies that require communication support. SJARA Vice President David Anderson, N8YPE, is the Harrison County Emergency Coordinator.

Wilt said the club has moved its weekly emergency net to another repeater, but he said it’s not known when the towers will be replaced. He said the SJARA spent a substantial amount last year on repeater maintenance, and he expressed concerns about the cost of replacing the repeaters.

According to news accounts, West Virginia State Police said three workers approximately 70 feet above the ground and a fourth man about 20 feet above the ground were on the tower. They were said to be on the tower to repair structural supports.

de ARRL

FCC and Manufacturer Conclude Consent Decree on Marketing of Noncompliant Device (02/17/2014)

The FCC and the manufacturer of a device that wirelessly reports propane tank levels have entered into a Consent Decree that concludes an investigation into whether the company had been marketing a noncompliant RF device. It also provides a window into how the Commission occasionally resolves certain enforcement proceedings. The EnerTrac “Big Drops System” operated as an unlicensed Part 15 intentional radiator on 433 MHz; the manufacturer has since shifted to a licensed Part 90 frequency. According to the terms of the arrangement, EnerTrac will admit no wrongdoing, agree not to break the rules in the future, and make a “voluntary contribution” of \$13,000 to the US Treasury. In return the FCC will drop the entire matter.

“After reviewing the terms of the Consent Decree and evaluating the facts before us,” the FCC said, “we find that the public interest would be served by adopting the Consent Decree and terminating the investigation.

As the FCC pointed out in the Consent Decree, intentional radiators must first receive FCC certification before being marketed in the US. Part 15 rules prescribe the maximum field strength emission limits for “periodic operation of intentional radiators that transmit at certain frequencies, including frequencies in the 433 MHz band,” the FCC explained. While the Amateur Service enjoys privileges on 70 centimeters on a secondary basis, many unlicensed Part 15 devices operate in the vicinity of 433 MHz on a non-interference basis.

Prior to marketing the Big Drops System, EnerTrac submitted relevant information and a sample device to the FCC’s Office of Engineering and Technology (OET). The OET certified the device as being in compliance with Part 15 rules.

In July 2012, however, the FCC received a complaint that the Big Drops System was not operating within the terms of its authorization. The Commission issued a Letter of Inquiry to EnerTrac relating to the system’s compliance with Part 15. Responding to the inquiry, EnerTrac reminded the FCC that the 433 MHz Big Drops System had been tested for compliance with Part 15 rules and had been tested for compliance

Rail Riding Radio

Scott Parker, KDØHRM

A Minnesota club plays radio while railroading through the forests of the Lake Superior region.

Most of us have multiple hobby interests and it's always fun when we can combine them into a single event. Besides being an Amateur Radio operator, I'm lucky enough to be a locomotive engineer on the North Shore Scenic Railroad out of Duluth, Minnesota. We use VHF radios for railroad work, which would seem to limit opportunities to combine ham radio with railroads. Not true! Our railroad is part of the Midwest's premier Lake Superior Railroad Museum. While volunteering at the railroad, I've been involved in several radio projects. Recently, several local amateurs helped to design and install a repeater system for the 30 mile rail route. The system is used by train crews to communicate with each other as well as train dispatchers.

In 2011, I became curious as to how an HF station might operate from a moving passenger train. Many ham operators design and test their equipment to operate in harsh emergency conditions. Those operating conditions are never the same and never predictable. Operating "railroad mobile" would be another opportunity to adapt HF gear to an environment that was certainly not designed with long range communications in mind. A modest test involved a simple 20 meter wire attached to some existing insulators on a rail car's roof. A small group of operators made some good contacts and seeded the idea for a railroad mobile club.

Presidential Portable

In 2012, a small group got together and created the North Shore Scenic Railroad Radio Club with call sign NSØSR. Our goal is to sponsor at least one mobile event each fall for an entire day, operating as a special event station. This gives us an opportunity to design and test new antennas while operating in a very temporary and restricting environment. Using backup power for multiple stations in close proximity was also required as only 34 V dc train line power is available.

These 100 year old 34 V wires didn't run through the entire train and power was only available when the engine was operating. The portable generator allowed us to position our stations wherever it was convenient and to keep them operating when the train was idle.

On October 6, 2012, we operated from the old Duluth Missabe & Iron Range Railway Presidential Support Car W24. This early 20th century Pullman car has a large baggage area perfect for group gatherings. Large doors offer great views and fresh air. There is also a small seating area where operators can relax and soak in the "clickety-clack" of the ride as they enjoy a bygone era. Private state rooms were used for operating both 20 and 40 meter stations. These rooms allowed up to four operators to assist in radio traffic and logging while sitting in 1920s comfort. High back Pullman chairs and large windows transported them back to the era of elegant railroad travel.

The rail car's roof has three heavy-duty steel conduits welded along the length of the 85 foot car. These were installed when the 105 ton passenger car underwent renovations in the beginning of the 20th century to include such amenities as electric lighting. Our group used this conduit to attach an "X" bracing of 2 x 3 inch pine boards. Nine of the X braces were installed along the coach, allowing for both the 20 and 40 meter dipoles. Air choke baluns were placed on both ends of the coax runs, which were dropped down the side of the coach into the radio rooms. Due to height restrictions, our dipoles were limited to being no more than 3 feet off the roof. The total antenna height above the rail head was around 18 feet.

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next page =====>

Rail Riding Radio - cont'd

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Rolling Radios

Our stations consisted of Icom 7200 and 7000 transceivers, both running off large AGM batteries. A Honda generator was on hand for charging and powering the laptops used in logging and PSK operations. A pair of Dunestar filters were used for out of band rejection considering our antennas were only a couple of feet apart. The filters worked flawlessly and neither station experienced interference.

Also on our train was a Soo Line Railway caboose in which we installed a CW station consisting of a Yaesu FT-817D transceiver driving a vertical antenna mounted to the roof grab irons. A second roof vertical was used for an Automatic Packet Reporting System (APRS) station. Antennas performed well with the exception of when we entered a tunnel. For that brief moment, the cell phone adage, "Can you hear me now?" applied.

Our rail cars were attached to the morning train from Duluth to Two Harbors, Minnesota. This regularly scheduled tourist trip winds through the woods and along Lake Superior slowing for a few waterfalls and scenic locales. These provided great operating vistas for our purposes. was all aboard and another 2 hours of operating as we traveled back to Duluth.

At Two Harbors, we took a lunch especially on break while the excursion train stopped for the passengers

to explore the area. After a 2 hour stop at Two Harbors, it was all aboard and another 2 hours of operating as we traveled back to Duluth.

The evening trip saw us switched onto the local tourist dinner train for another trip up the shore and back. We called our favorite pizzeria and placed an order. We stopped the train next to the eatery and picked up our food for the evening. Not too many amateur field operations can say they've done that!

Eighteen local hams operated over the several hours we were moving. It was great fun explaining to contacts that we were on a moving train. Many contacts mentioned having relatives either working for or retired from various railroads all over the country. We made just under 200 contacts with people from coast to coast as well as Canada, Mexico, and Cuba. Most had never made contact with a railroad mobile HF station. Some were skeptical until they heard the locomotive horn in the background or verified our moving APRS signal.

A Good Match

We are very lucky to have supportive staff at the railroad. It also helps that the general manager has been involved in radio himself for decades. For local hams, our relationship with the museum is a great combination of being able to help out the museum with technical radio work as well as further the HF side of our hobby. It also gives us practice in using the space and conditions given to make an HF station work. Any time that we can practice our abilities to operate in unfamiliar environments we prepare ourselves for unknown situations in the future. Whether those are emergencies or a weekend operating session, they are all good preparation.

Information about our 2014 outings and photos of past events can be found at our QRZ.com page under the NSØSR call. We will announce the dates for our events on that page as well as at the eham.com, QST and CQ websites.

Ed. - This might be a great Club project for MCWA at the Illinois Railway Museum in Union this Summer or Fall. Anyone interested? We could use Club's Call "K9RN" or my Club Call "K9ATI" (American Transportation Industry).



FCC and Manufacturer - cont'd from page 4

with Part 15 rules and had been certified by the FCC. The OET tested the system, however, and determined that it exceeded Part 15 emission limits, suggesting that there may have been differences between the unit tested for certification purposes and the version that EnerTrac marketed.

Subsequently EnerTrac told the FCC that the devices it was marketing “had the same radio frequency characteristics as the device certified” and the device the OET tested. EnerTrac further reported that it had ceased marketing the 433 MHz Big Drops System in November 2012 and had begun marketing a new Part 90 (Private Land Mobile Radio Services) device to replace it.

In terminating its investigation, the FCC Enforcement Bureau agreed that “in the absence of new material evidence,” it would not use facts developed in the investigation to institute a new proceeding or take action against EnerTrac concerning matters that were at the heart of the investigation. The Enforcement Bureau also said it would not use any of the findings of its investigation in determining EnerTrac’s basic qualifications to hold FCC licenses or authorizations

EnerTrac, in turn, agreed to a compliance plan, which the Consent Decree incorporates and spells out in detail. It includes development of internal procedures and policies to ensure that all devices the manufacturer plans to market comply with FCC technical standards and have been properly authorized. It also entails a compliance training program and stipulates that EnerTrac pull its 433 MHz Big Drops System devices out of service by the end of 2017. The company would have to remove immediately any device that is the subject of a complaint of unlawful interference, however.



Ham radio antenna rules debated in Poway

POWAY — Working to comply with federal guidelines and recent court decisions, the Poway City Council this week signaled its intent to ease restrictions on local ham radio antennas.

At its Tuesday night meeting, the council directed city staff to prepare a draft ordinance that will raise the height limit of antennas from 35 feet to 65 feet and make it easier and less expensive to obtain permits to erect them.

The Federal Communications Commission licenses and oversees amateur radio operators, but gives municipalities limited power to regulate antennas under local zoning rules. Over the years, that power has been shrinking in response to numerous lawsuits brought against cities around the country.

In Poway, local radio enthusiasts haven’t filed suit, but for more than a decade have been urging the city to change its rules. The council has been resistant, hoping to keep unattractive antennas from scarring the city’s horizon and possibly lowering property values of homes near an unsightly antenna.

Now Poway officials are changing their stance, to protect against future lawsuits and bring the city within federal guidelines. “It has been concluded that a jurisdiction must make ‘reasonable accommodations’ for amateur radio operators and installations,” Director of Developmental Services Director Bob Manis told the council Tuesday night..

Poway has some of the most stringent antenna laws in the county, including a 35-foot height limit and a permitting process that, among other things, requires neighbors be notified if a new antenna is proposed. Most San Diego County cities have no height limit, and few, if any, permit requirements, according to a survey conducted by Poway officials.

In today’s high-tech communications world, ham radios are a throwback to an earlier time. But radio hobbyists are still plentiful and they insist their network can be very important during times of extreme emergencies when other forms of communications fail.

Tuesday night radio enthusiasts packed the chambers during what was billed as a council “workshop.” Many chided the council for being out of compliance with federal and state regulations for years and said Poway was lucky it hadn’t been called on it in court.

Charles Ristorcelli of the Poway Amateur Radio Society, gave a lengthy presentation that concluded a 65-foot height limit would be an acceptable compromise.

“It is time amateur radio antennas not be confused with construction of a superstore,” he said.

Chuck Cross, of the Poway Neighborhood Emergency Corps, noted that ham radio operators provided important communication outlets during the wildfires last decade. He urged the council to “simplify and clarify” the process.

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A few speakers did express concern about tall, ugly towers being erected in their neighborhoods.

But resident Pete Babich said: "I suspect that a lot of people who complain about it will be the first ones to come to their neighbors to find out what's going on when the asteroid hits."

In September, the City Council acknowledged the benefits of ham radios during emergencies and agreed to waive fees associated with smaller antennas in the city. The council also asked city staff to come back with recommendations on how best to change broader antenna rules.

The resulting recommendations were to raise the height limit to 50 feet, ending a permit requirement for antennas of 35 or less, and allowing for antennas taller than 50 feet in special cases where it can be shown that greater height is needed if an acceptable signal can't be received otherwise.

The council members all agreed on several points Tuesday night. They said the process that ham radio operators go through when applying for a permit must be clear and concise, which it isn't now.

They also agreed that when a large antenna is planned, neighbors should be notified. And they seemed to be in agreement that 65 feet should be the height limit.

"What's the difference between 50 and 65 feet?" said Councilman Dave Grosch. "I know it's 15 feet, but is the difference really worth all this aggravation and all the money we have spent on this and will spend on this?"

A proposed ordinance is expected to come back before the council in a few months.

[Dutch scientists flap to the future with 'insect' drone](#)
By Jan Hennop | AFP – 15 hrs ago

A view of the DelFly Explorer, the world's lightest autonomous flapping drone, during a demonstration at the Delft Technical University, on January 29, 2014 (AFP Photo/Charles Onians)View Photo

Delft (Netherlands) (AFP) - Dutch scientists have developed the world's smallest autonomous flapping drone, a dragonfly-like beast with 3-D vision that could revolutionise our experience of everything from pop concerts to farming.

"This is the DelFly Explorer, the world's smallest drone with flapping wings that's able to fly around by itself and avoid obstacles," its proud developer Guido de Croon of the Delft Technical University told AFP.

Weighing just 20 grammes (less than an ounce), around the same as four sheets of printer paper, the robot dragonfly could be used in situations where much heavier quadcopters with spinning blades would be hazardous, such as flying over the audience to film a concert or sport event.

The Explorer looks like a large dragonfly or grasshopper as it flitters about the room, using two tiny low-resolution video cameras -- reproducing the 3-D vision of human eyes -- and an on-board computer to take in its surroundings and avoid crashing into things.

And like an insect, the drone which has a wing span of 28 centimetres (11 inches), would feel at home flying around plants.

"It can for instance also be used to fly around and detect ripe fruit in greenhouses," De Croon said, with an eye on the Netherlands' vast indoor fruit-growing business.

