

Hamgram

Newsletter of the Winona Amateur Radio Club, Inc. Aug 2006
www.w0ne.org

Meeting Announcement

The August meeting of the Winona Amateur Radio Club will be held on Thursday, August 17, 2006, at 7:00 p.m. in the conference room on the lower level of the Winona County Annex Building. A program will be presented by Clare (KØNY). He will discuss the use of the APRS computer program XASTIR. A business meeting will be held immediately following the evening's program. All radio club members and enthusiasts are welcome.

Minutes of the June & July 2006 meetings of the WARC

The June meeting of the Winona Amateur Radio Club was held at the river cottage of Dick (NØVV). Many club members were providing public service communications for the Great River Bicycle Festival race in Cannon Falls. It is unknown at this time whether or not any formal business was conducted at the get together at Dick's cottage.

The July meeting of the Winona Amateur Radio Club was the summer picnic held at Winona's Lake Park. The sole item of business conducted during a short business meeting called to order by President Darlene Tagliapietra (KCØCTH) was the election of Jake (KC9CRM) to the Member-At-Large position on the Executive Committee for the second half of the year. The meeting was then adjourned.

Treats Schedule:

August: NØJP/NØNUO

September: *

October: *

November: KØBAD

December: KC9ERJ/KC9CRM

(* = OPEN)

Respectfully Submitted,

Leslie D. Hittner

Leslie Hittner, Secretary

Fremont Store celebrates 150 years

By Delores, NØNUO and Ken, NØJP

On July 16, WARC members and others operated a "Mini Special Event" at the 150th anniversary celebration of the Fremont Store. We were asked if we wished to do so by Mrs. Martha Johnson, mother of former WARC member (now a Slent Key) Donald Johnson, WAØEPX. Don was the owner of the store for many years. At his invitation the club also held a special event there in 1996. Although the bands weren't real good, contacts were made on 2 and 20 meters. The most satisfying result of the day was the warm reception by the Johnson family. Stations who contacted WØNE may request a QSL.

Great last minute Field day effort nets a respectful score

By Les, KØBAD

I don't know what our final score was but I had a heck of a good time at Field Day. It was fun to play with a good antenna system and to collect the points. Our score, roughly 2500, is reported to have been one of our best efforts in recent history.

Thanks Clare and Shari for sharing your lawn and your antennas. Let's do it this way again next year, perhaps at somebody else's QTH!

Repeater Update - Your input needed

By: Erik Brom, WBØNIU Chairman, Voice Repeater Committee

In general, our voice repeaters (146.64, 444.225, 146.835) have been functioning quite reliably, but this summer we have had some issues with the power supplies and one other item.

The 146.64 and 444.225 repeaters are co-located at the KAGE FM

transmitting site on Garvin Heights, above Hy-Vee. The '64 normally runs off AC power, but is backed up by storage batteries kept charged by an automatic charger. The '444 repeater runs directly off of these batteries. The site has a generator, but we cannot depend on that to always come up. Over the years, we

have sometimes purchased new batteries, and sometimes used batteries taken out of computer UPSs on a regular schedule. New batteries last longer but cost the club money, where-as used batteries wear out sooner, but are free.

Earlier this summer, the used batteries at the site were found to be no-good, and the club authorized replacing them. They were replaced with new "flooded cell" batteries. These are good, economical batteries, but require periodic inspection and maintenance. This is the first time we have used other than sealed maintenance free batteries.

To summarize, we now have brand new batteries, with a not-so-new charger.

Sunday night, August 6, the 64 repeater did not function well during WEPNET. There was a lot of noise, and only strong stations could be heard. The problem went away later in the evening, and has not come back. We are investigating, though, and will try to fix the problem.

Our other voice repeater, 146.835, is located at the KHME FM transmitting site in Wisconsin, above Bluff Siding. We do not have use of any backup AC at this site. We are fortunate that we enjoy the use of these sites completely free, including power, courtesy of Winona Radio.

This repeater experienced an outage the last week of July. The power supply for this repeater is the same as the 444 repeater - an automatic battery charger keeping a set of batteries charged. The repeater runs directly off the batteries. The original battery was purchased new. Last year, we obtained some high capacity, but used, fork lift batteries, and we decided to swap the original out for these.

The outage was caused by the failure of a fuse holder on the output of the charger. We are going to examine all of the sites for other similar fuse holders, and replace them. This caused some concern over the batteries, and we have swapped them with an identical set, which Ken, NØJP, had kept "hot". The first set is now at Ken's, slightly stressed, but ready for service.

Over winter the repeater had been operating strangely, and that was traced to water in the feedline. Earlier this summer, Russ, NØQK, climbed up to the antenna, which was found to be in good shape, and then examined the feedline on the way down. About 25 feet off the ground he found damage, including a hole, due to gunfire. It appeared someone was shooting at a bird perched on the tower. He patched the hole, and we have not had a problem with that since.

Not really part of the voice repeater committee's jurisdiction, but we also checked the APRS repeater site, which is on the road to the 835 site. The battery there is in dire need of replacement.

Now, we need some input from the club.

A little more background first, though: the 835 site is the hardest to get to, about a mile down a field road, which is not easily passable during any wet or winter weather. The KAGE (64/444) site is also about a mile into a private road, but this is gravel, and usually passable, except during deep snow. The APRS site is the easiest to get at, as it is in the farm yard at the start of the road to the 835 site. It is located in a refrigerator in a machine shed, but is sometimes "parked in" with stored machinery.

Our club prides itself on providing emergency communications, and having reliable repeaters is a critical part of this. We did well during the last major power outage - the KAGE site ran for 40 hours, and the 835 ran 24, with no sign of failure at either site. New equipment, (past the infant mortality stage) is more reliable than older equipment. This is especially true of batteries.

So, here's where we need club input: the batteries at the KAGE site are brand new, the 835 site has a good serviceable set of used batteries, and the APRS site has a worn-out battery. The chargers at all three sites are consumer level products that have been, and continue to, function reliably.

We have several options:

- 1) **Do nothing.** Cost: \$0. This leaves us in good shape at KAGE, reasonable shape at 835, and poor shape on APRS.

- 2) **Put the batteries recently removed from 835 on APRS.** Cost: \$0. This improves the situation at APRS to reasonable.
- 3) **Purchase new batteries for 835 and/or APRS.** Cost would be in the \$75 to \$150 range at each site.
- 4) **Purchase new, commercial grade chargers, for some or all of the sites.** This is at a cost of approximately \$100 per site.

If cost were no consideration, we would all like brand new batteries and chargers at all the sites, of course. However, we need to balance this with the club's finances. If there is enough interest, we could also try to raise some funds outside of the club's treasury, either from within or outside the club.

My personal opinion is that we should do at least option 2, to improve APRS. We could get by over the winter with just this. However, to have a really first class operation will require purchasing some new equipment.

Other items:

Not much has happened with the remote receiver project until recently. The hardware is about 90% finished. Len, KCØRSX, is pushing hard to get it going before winter. There are some other things to discuss on the repeater controllers, but I'll leave that for later.

Test Your Amateur Radio Knowledge

By Len Litvan KCØRSX

The following are from the FCC exam pool—Technician, General and Amateur Extra.

#1 - Which of the following statements about Amateur Radio autopatch usage is true?

- A. The person called using the autopatch must be a licensed radio amateur
- B. The autopatch will allow only local calls to police, fire and ambulance services
- C. Communication through the autopatch is not private
- D. The autopatch should not be used for reporting emergencies

#2 – Why might it be important to minimize the mutual inductance between two inductors?

- A. To increase the energy transfer between both circuits
- B. To reduce or eliminate stray coupling between RF stages
- C. To reduce conducted emissions
- D. To increase the self-resonant frequency of both inductors

#3 - What type of frequency synthesizer circuit uses a stable voltage-controlled oscillator, programmable divider, phase detector, loop filter and a reference frequency source?

- A. A direct digital synthesizer
- B. A hybrid synthesizer
- C. A phase-locked loop synthesizer
- D. A diode-switching matrix synthesizer

Answers to Exam Pool Questions:

#1 - (C); #2 - (B); #3 - (C)

Hosted By
Wisconsin State University

Wisconsin, Minnesota

great river SHAKESPEARE festival

great stories

great town. great plays.

Wisconsin, a small city with a big heart, nestled between the hills and the mighty Mississippi River, Wisconsin is surrounded by spectacular natural beauty, steeped in history, and steeped in cultural legacy. It is noted by a statehood captain in 1831, Wisconsin's location on the island in the Mississippi made it a transportation hub and one of the nation's richest areas by 1800. The legacy remains in the form of historic buildings and vintage homes, and in an ongoing harmony with the river.

The inaugural season of the Great River Shakespeare Festival held in 2009, was an enormous success. The 2009 season which held June 28-August 6, 2009 featuring Turkish Night and Kismet and Juliet.

Amateur Radio Station WØNE Special Event

| Station | Date | Qty | Mhr | Rat | Mode |
|---------|------|-----|-----|-----|------|
| | | | | | |

GRSF Special Events Station certificate

The Winona Amateur Radio Club, Inc.

President: Darlene Tagliepietra
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Vice President: Clare Jarvis
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1128 West Mark Street
Winona, Minnesota 55987

Member At Large: Jake Saverynski
1075 N Schiller
Buffalo City WI 54622
06/01/06 to 12/31/06

Dues: \$25.00 per calendar year per license holder.
\$30.00 per calendar year per license holder and members
of the same family within the same household.

Dues should be sent to: Richard Kolter, Treasurer

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Board meetings are announced in advance (WEPNet)

Monthly club meetings are held on the third Thursday. The submission deadline for the *Hamgram* is Wednesday of the week *prior* to that of the club meeting.

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