



The *ORC* Newsletter

Official publication of the Ozaukee Radio Club, Inc. Mail all contributions to the editor, Tom Ruhlmann, W9IPR, 465 Beechwood Dr., Cedarburg WI 53012 (phone 262 377-6945). Permission to reprint articles published in any issue is granted provided the author and the Ozaukee Radio Club Newsletter are credited.



ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: www.ozaukeeradioclub.org
Facebook: facebook.com/orcwi

Volume XXVV

August, 2012

Number 8

From the President

De Ken Boston (W9GA)

Boy, I can hardly believe it is already August, and the summer is rapidly disappearing. All the massive antenna projects that I thought I would have done by now, are still in progress. I have had to spend a considerable amount of time this year just trying to keep my 1+ acre lawn from burning into oblivion. (I have been spot-sprinkling; don't have but the one well, and the municipality finally called a halt to sprinkling)

Coming up on August 8, Wednesday night, our own Stan the man, WB9RQR, will be presenting a program on crystal radios. I believe he will show a number of neat but simple designs for crystal based receivers that should be fun to play with. This brings back memories of my first attempt to build a receiver, using a germanium diode as the crystal. I had wound a tickler coil on the end of the main coil, and was convinced that I would get regeneration and have a more sensitive receiver. (I was 11 years old at the time) Of course, with no amplification in the basic crystal set, there was no regeneration.

Also keep in mind that the Lighthouse activation is coming up in Port Washington on the 18-19 of August, and you are welcome to drop in at the lakefront, "in the shadow of the lighthouse" to join in the fun.

I just got back from the Central States VHF conference in Cedar Rapids, Iowa a couple days ago. The various VHF talks were interesting, with some of the more well known VHF hams giving talks. While entertaining, the highlight for me is to gather with other hams that share my passion and love for the hobby, and share the camaraderie. It was good to see Dennis, K7BV looking very healthy at last. (He had cancer recently) I also got into a 'heated' discussion with Justin Johnson, GOKSC, over various features of his latest yagi antenna designs. The antennas are now marketed in the USA under the Innovantennas brand. You always seem to be able to rub elbows with some of the true leaders in this hobby at these specialized conferences. In 2002, I and a group here in Milwaukee held this conference in this area, and we are contemplating hosting this affair back here in 2014 or 2015. Although it is a ways off, consider attending, there is a lot to experience.

What neat adventures have you been involved in? Consider writing a few paragraphs, and send them to Tom, W9IPR for inclusion in one of the upcoming newsletters. Pictures are also accepted!

Plan on joining us this Wednesday (8/8; 7:30PM) at the Grafton Senior Center.

73 Ken W9GA

DX'ing

De Gary Sutcliffe (W9XT)

If you want to contact other ham stations in distant locations on HF, understanding propagation is essential. The best way to learn propagation is to be active. Ideally you will be present on every band 24/7 for a few solar cycles. Of course that is a bit impractical for most of us.

At a first level glance, the low bands, 160, 80 and 40 meters are night time bands. They open around sunset and close at sunrise. The higher bands, 10 and 15 meters tend to be open during the day and close after sunset. The middle bands, 20 and 30 meters frequently offer DX possibilities during the day and night.

The low bands often open up several hours before sunset and stay open after sunrise. During the winter at low sunspot times it is not unusual to hear European stations as early as 2:00 pm local on 40 meters. Frequently 40 meters will open up long path to Asia an hour or so before sunset.

How long 20 meters and up are open depends on the ionization levels, which correlates to the sunspot number. At high sunspot levels 20 meters can be open all night. I have heard 10 meters stay open to 11:00 PM under these conditions and have worked VU (India) at 2:00 AM on 15 meters.

Every band has some unusual openings that the sharp operator learns and takes advantage of. Europe opens on 10 and 15 shortly after sunrise if the solar activity is high enough. These bands follow the sun and eventually the band opens to Africa, and proceeds to South America, the south Pacific and later to JA (Japan). An hour or so after Europe closes we sometimes have a strange polar path to northern Europe. Stations from Sweden (SM), Norway (LA), and Finland (OH) can sometimes be heard. They are weak and have a watery signal. You won't hear them if the beam is not pointing that way.

Quite a few years ago there was a DXpedition to VK0, Heard Island. This is a small island owned by Australia in the frigid waters off the coast of Antarctica. No one had been there in decades and it was #1 on just about everyone's needed list. Needless to say, the pileups were horrendous. I remember a guy in Texas talk about how 20 meters closed and everyone went to bed disappointed because they didn't get through. He knew the band might open up again in that direction in an hour or so. Sure enough the band opened up there again. He didn't have much completion this time and worked the VK0 quite easily. If you know these openings you can often work stations when your competition is not looking. You need to learn about them from operating or learning from other DXers in the area. Unexpected propagation is one of the things that make DXing exciting.

At the ORC fall swapfest a few years ago I did a presentation on the basics of propagation and general characteristics of each of the HF bands. The PowerPoint presentation is at my web site. www.w9xt.com Go to the radio page and scroll down to the bottom and click on the link to all my ham radio presentations. If you don't have PowerPoint you can download a free viewer from the Microsoft page.

Speaking of learning about propagation, Carl Luetzelschwab, K9LA, is one of the experts. Carl has written propagation columns and articles in a number of radio publications as well as being a frequent speaker at radio conventions. A couple of weeks ago he presented a webinar sponsored by the PVRC, a big contest club centered in the Washington DC area. You can watch a recording of this at the PVRC website. <http://www.pvrc.org/webinar/webinars.htm> Carl discusses the progress of solar cycle 24 and some other related topics. Well worth watching.

The serious (and not so serious) DXers in the region are making plans for W9DXCC. This is an annual event put on by the Northern Illinois DX Assoc. This year is the 60th year and is held near O'Hare. The

dates are September 14 & 15th. The main events are Saturday the 15th. It starts with a day of presentations with a banquet in the evening. They have a lot of door prizes given during the day and at the banquet, the big one this year is an FT-2000. After the banquet my DX club, the Greater Milwaukee DX Assoc., puts on a hospitality suite with an assortment of beverages and treats from the land of cheese heads.

The banquet speaker this year is Fred Laun, K3ZO. Fred is a well-known contester and DXer originally from Wisconsin. He worked for the government and was stationed at a lot of overseas posts. He was on the air from many of them. Fred was elected to the CQ Magazine Contest Hall of Fame in 1993. This year they added a new feature on Friday afternoon. It is a series of classes on the basics of working DX. W9DXCC is always a fun event and a good learning experience. www.w9dxcc.com

Computer Corner

No. 173: Defragmenting the Registry

Stan Kaplan, WB9RQR

This is yet another topic suggested by Ed (AA9W). First, what the heck is the Registry? It is a huge database listing configuration data for: 1. All the **hardware** in your machine, including the necessary device drivers. 2. All the **software** programs you have installed, 3. All of the **personal settings** you have made (such as desktop icons, or preferences in many programs). In other words, the Registry contains almost everything about your machine! Each and every operation of your machine either adds to or removes from or at least accesses information in the Registry. This happens more than a hundred times per second when your machine is on! Organized in several chunks called hives, it is truly the heart and brain of your computer. And, it resides entirely in memory when your computer is on.

When you uninstall a really well-written program, the registry entries are removed. However, most programs simply do not clean up the mess left when you uninstall them. Therefore, irrelevant information is left behind in the Registry, and with time the database gets bigger and bigger. Even when registry entries are properly removed, empty areas are left behind, so the Registry still gets bigger and bigger with the addition of new programs, and fragmentation can result. All of this – the Registry getting bigger and bigger AND the fragmentation of information that is present – can slow down your machine over time.

Therefore, maintaining a clean and compact Registry is really a two-part task. 1 Cleaning out the unused or incorrect entries, and 2 Defragmenting and compacting the whole database.

That is a daunting task if one were to do it manually, and it would require knowledge much beyond the average user's capabilities besides being somewhat dangerous. But there are tools out there to do it for you.

The first is CCleaner (<http://www.piriform.com/ccleaner> (a.k.a. Crap Cleaner, but they don't use that moniker anymore because it is socially inappropriate). I have written about it before – it is probably the most widely used utility program on the planet, and it is free. The first item in CCleaner is the general cleaner, which you should run first. The second is the registry cleaner, which you should run second. That cleans out all sorts of Registry errors – right in the Registry itself. Missing shared DLLs, unused file extensions, ActiveX and class Issues, and at least a dozen more categories that can contain errors. So now your general junk and Registry errors are dealt with. But what about defragmentation? CCleaner does not defragment the Registry.

There are a number of free Registry defragmenters out there, but the stand-alone one I like best is Auslogics Registry Defrag, which you can get here:

<http://www.auslogics.com/en/software/registry-defrag/>.

This company makes good software and this package will do the job. Give yourself time when you run it and prepare to let it reboot during the process, a step that is necessary to do the job correctly. Be patient when it reboots ... you may think you have the “blue screen of death” for a few moments, but it will start eventually and do the job. It will probably wish to do a quick reboot again when it is finished. This will be something you want to do only once every 3 – 6 months or so, not a weekly task! But it will result in a cleaner, meaner, faster machine.

There you have it. A Registry with no errors and minimal fragmentation! Happy Computing!

“640k ought to be enough for anybody.” Bill Gates, 1981

Training

De Tom Ruhlmann (W9IPR)

Well the days have been hot so I have spent the afternoons in the basement revising the ten Technician Training power point presentations to reflect the current study guide and curriculum. That being essentially finished we can now plan a technician training class. I hope to have the sessions at the Cedarburg police station starting in September and completing in November with a total of 8 Saturday morning sessions followed by a testing session. Hopefully others will get involved in the promotion of the class and presentation of the materials. If you would like to be a part of the training program just give me a call at 262-377-6945.

Club Static

You may have been wondering what happened to the “contesting column” written by Bob Truscott (W9LO). Well Bob’s wife Jean has needed his constant care and they are currently moving into an assisted living apartment in Jackson. I am sure Bob would enjoy hearing from you.

A few of us went to the South Milwaukee ARC swapfest in Oak Creek and as usual, it was a good time seeing old friends and looking for that great bargain. And yes, I did find a great bargain – an excellent leather climbing belt for only \$10. Guess that’s another bargain I won’t tell Pat about. And that’s not the only bargain. I also got a 35 ampere 12 VDC distribution strip to provide a common distribution point for the station. Again, it was worth the time and gas. You miss a good time and an education if you skip the local swapfests.

At the Oshkosh EAA fly-in Aeromart I bought a Bendix automatic radio direction finder ADF-T-12C for \$10 and it looks like I will be able to adapt it to receive not only the normal broadcast band but the LF band below the broadcast band. Should be interesting.



Upcoming Contests

August 4-5

- ARRL UHF Contest
- North American QSO Party--CW
- Int'l Lighthouse-Lightship Contest
- TARA Grid Dip Shindig--Digital
- 10-10 Summer Phone QSO Party
- European HF Championship
- South Africa DX SSB Contest

August 11-12

- OK1WC Memorial Contest (Aug 6)
- CWops Monthly Mini-CWT Test (Aug 8)
- Worked All Europe--CW
- Maryland-DC QSO Party
- Fall VHF Sprints
- Straight Key Weekend Sprintathon
- NJQRP Skeeter Hunt—CW



The ORC Scholarship Winner for 2012

The Foundation For Amateur Radio has chosen our fall semester winner. Our one thousand dollar scholarship has been awarded to Sadie F. Barozas of Madison, WI. Mrs. Barozas received her license (KJ4PLW) when living in Charleston, S.C. she is presently enrolled in UW Madison. She plans to be more active as a member in the campus radio club.

Upcoming Events

The ORC Fall Amateur Radio and Hobby Swapfest is coming up on Sept. 29th. Over 700 flyers have been distributed so far and it is announced in QST. Locally it has been posted on Sherm's (KB9Q) week-

ly newsletter for the past several weeks. If you wish to get involved just give me (Tom Ruhlmann, W9IPR) or Ed Frac, AA9WW, a call. We will be having a committee meeting August 00 at my home. If interested, be there.

The following listing of area swapfests is reproduced from Sherm's (KB9Q) weekly newsletter. To be added or removed from Sherm's mailing, send your call sign to kb9q@arrl.net

07/28/2012 | MAGIC Yard Sale Location: St. Paul, MN

Type: ARRL Hamfest

Sponsor: MAGIC Repeater Club

Website: <http://www.magicrepeater.net/>

08/05/2012 | HAMFESTERS Radio Club HAMFEST Location: Peotone, IL

Type: ARRL Hamfest

Sponsor: Hamfesters Radio Club

Website: <http://hamfesters.org>

08/11/2012 | 2nd Annual LAARC Freefest Location: Lyons, WI

Type: ARRL Hamfest

Sponsor: Lakes Area Amateur Radio Club

Website: <http://sites.google.com/site/laarcradioclub/>

08/11/2012 | Fifth Annual RACINE MEGACYCLE FREEFEST 2012 Location: Sturtevant, WI

Type: ARRL Hamfest

Sponsor: Racine Megacycle Club

Website: <http://www.w9udu.org>

08/25/2012 | Sixteenth Annual Circus City Swapfest Location: Baraboo, WI

Type: ARRL Hamfest

Sponsor: Yellow Thunder Amateur Radio Club

Website: <http://www.yellowthunder.org>

09/14/2012 | W9DXCC Convention Location: Elk Grove Village, IL

Type: ARRL Convention

Sponsor: Northern Illinois DX Association

Website: <http://www.w9dxcc.com>

Hello Sherm,

Please add Radio Expo to the Hamfest list. Not sure why it isn't on the ARRL website, date is Saturday only 9/15/2012.

<http://www.chicagofmclub.org/radioexpo2012.html>

Thanks Jeff K9YR

09/22/2012 | Illinois State Convention (Peoria Superfest 2012) Location: Peoria, IL

Type: ARRL Convention

Sponsor: Peoria Area Amateur Radio Club

Website: <http://www.peoriasuperfest.com>

09/29/2012 | Ozaukee Radio Club's Fall Electronics, Computer & Hobby Swapfest Location: Cedarburg, WI

Type: ARRL Hamfest

Sponsor: Ozaukee Radio Club

Website: <http://ozaukeeradioclub.org>

10/13/2012 | Iowa State Convention (Hamboree 2012) Location: Sergeant Bluff, IA

Type: ARRL Convention

Sponsor: The 3900 Club & Siouxland Amateur Radio Association

Website: <http://3900club.com>

10/14/2012 | SEWFARS Swapfest Location: Hubertus, WI

Type: ARRL Hamfest

Sponsor: Southeastern Wisconsin FM Amateur Repeater Society

Website: <http://www.sewfars.com>

10/21/2012 | Kalamazoo Hamfest Location: Kalamazoo, MI

Type: ARRL Hamfest

Sponsor: Kalamazoo Amateur Radio Club (KARC) & Southwest Michigan Amateur Radio Team (SMART)

Website: <http://www.KalamazooHamfest.Com>

The 2012 MRC (Milwaukee Repeater Club) Swapfest will held on November 3rd at: The Elks Lodge 5555 West Good Hope Road Milwaukee, WI (Not ARRL registered yet.)

11/04/2012 | Iowa Section Convention (41st Annual DRAC Hamfest & Computer Show) Location: Davenport, IA

Type: ARRL Convention

Sponsor: Davenport Radio Amateur Club

Website: <http://www.arcsupport.com/drac/hamfest.html>

11/17/2012 | Indiana State Convention (Fort Wayne Hamfest & Computer Expo) Location: Fort Wayne, IN

Type: ARRL Convention

Sponsor: Allen County Amateur Radio Technical Society

Website: <http://www.fortwaynehamfest.com>

Lighthouse Special Event Station

Port Washington: SPECIAL EVENT HAM RADIO STATION AT THE 1860 LIGHTSTATION - AUGUST 18, 19

Amateur radio operators (hams) will be making radio contacts from a temporary station on the grounds of the 1860 Light Station August 18 and 19 during Port Washington's Maritime Heritage Festival.

Lighthouse visitors are welcome to witness local 'hams' communicating with other lighthouses and amateurs around the world during the International Lighthouse Lightship Weekend. The event is organized by the Ayr Amateur Radio Group in Scotland ... to increase public awareness of historic lighthouse preservation projects and to promote international goodwill through amateur radio.

Local Ozaukee county radio club members hope to contact members of the Luxembourg Amateur Radio Society on the 10th anniversary of the dedication of the 1860 Light Station tower and lantern. The tower and lantern restoration was made possible by the country of Luxembourg as a gift to the people of the Port Washington area of Luxembourg descent, and as a memorial to those American service men that liberated their country from German occupation in 1944.

Information can be found at: <http://www.alk.org.uk/events/ilw12.html> .

Information for the 1860 Light Station museum including hours of operation, admission etc. can be found at: <http://www.portwashingtonhistoricalsociety.org/lightstation.htm>

ORC 2012 Field Day Points Summary (as W9LO, 4A WI)

By Janice Hoettels, KA9VVQ, Field Day Points Captain

Good news! Mike Yuhas, AB9ON, was able to locate his Field Day invitation to Mark Owen, who is the director of emergency management for Ozaukee County, and Stan Kaplan, WB9RQR, was able to obtain proof of Mark's visit to our site. The net result was an additional 100 points for a visit by a served agency official! Below is a revised version of the club's Field Day points summary that now includes these 100 points.

Band	Mode	QSOs	Multiplier	Total Points
VHF/UHF				
23 cm	CW	1	2	2

23 cm	Phone	0	1	0
70 cm	CW	0	2	0
70 cm	Phone	4	1	4
2m	CW	0	2	0
2m	Phone	16	1	16
6m	CW	2	2	4
6m	Phone	47	1	47
Satellite	CW	0	2	0
Satellite	Phone	5	1	5
VHF Total		75		78
HF				
10m	CW	0	2	0
10m	Phone	0	1	0
15m	CW	75	2	150
15m	Phone	163 (includes 5 SSB Solar)	1	163
20m	CW	334	2	668
20m	Phone	1097	1	1097
40m	CW	616	2	1232
40m	Phone	866	1	866
80m	CW	117	2	234
80m	Phone	119	1	119
GOTA	Phone	19	1	19
HF Total		3406		4548
VHF +HF Total Points				4626
Power Multiplier (150W or less)				x2
Claimed QSO Score				9252

BONUS POINTS	
Description	Points
100% Emergency power (100 points per transmitter, max 20 transmitters)	400
Media publicity	100
Set-up in public place	100
Info.booth	100
NTS message to ARRL SM/SEC	100
W1AW Field Day message	100
Formal NTS messages handled (10)	100
Satellite QSO completed	100
Natural power QSOs completed (minimum 5 QSOs)	100
Site visit by invited elected official	100
Site visit by invited served agency official*	100
Educational activity bonus	100
Youth element achieved (2 kids <18 y/o x 1 QSO x 20 points per kid)	40
GOTA bonus**	0**
Summary submitted using b4h.net applet	50
Total Bonus Points Claimed	1590
Total Claimed Score (claimed QSO points + claimed bonus points)	10842

**None of the GOTA ops. completed 20 QSOs to obtain GOTA bonus points.

Minutes– July11th, 2012

De Janice Hoettels (KA9VVQ)

President Ken Boston, W9GA, called the meeting to order at 7:30 p.m. Members present then introduced themselves.

Announcements/Show-and-Tell:

Stan Kaplan, WB9RQR, commented that there is still one Field Day laptop computer available to loan to a club member. See Stan if you're interested.

Jim Albrinck, K9QLP, and Ken Boston, W9GA, discussed their observations of 2m and 6m band conditions.

Program:

D. Stephen Buck, WI9ARC, of American Red Cross Disaster Services, gave a presentation about the vast resources the ARC has at its disposal during a time of emergency. The discussion's main focus was on disaster communications, including the interaction the ARC has with amateur radio operators, and in particular ARES/RACES hams.

50/50 Raffle: Ed Rate, AA9W, won the raffle.

Auction: Stan Kaplan, WB9RQR, played the role of auctioneer once again during the meeting. Half the proceeds go to the club's scholarship fund and half go to OZARES.

Business Meeting:

President's report: Ken Boston, W9GA, noted that some work needs to be done at the shed. He will provide details at the next meeting.

1st VP Report: Nothing to report.

2nd VP Report: Nothing to report.

Repeater VP Report: Tom Trethewey, KC9ONY, noted that the 2m repeater still has some issues that need to be addressed. The 440 repeater is working, but there is little use of this repeater. Nels Harvey, WA9JOB, installed the amplifier for the 220 MHz repeater.

Secretary's Report/Minutes: Dave Barrow, N9UNR, motioned to accept last month's meeting minutes and Nancy Stecker, KC9FZK, seconded the motion and the motion passed.

Treasurer's Report: Dave Barrow, N9UNR, noted that the June ORC Income & Expense Report was sent by email to the club's members. Any members with questions or who want more detail should be sure to contact Dave. Stan Kaplan, WB9RQR, made a motion to accept the treasurer's report. Bill Howe, KA9WRL, seconded the motion and the motion passed.

Committee Reports:

Leon Rediske, K9GCF, Field Day captain, and Janice Hoettels, KA9VVQ, Field Day point's captain, reviewed the results of the recent Field Day event. Jim Albrinck, K9QLP, the Field Day safety officer, congratulated the Field Day participants regarding their attention to safety during the event.

Bill Howe, KA9WRL, reminded the club about the club's participation in the International Lighthouse Lightship Weekend August 18 and 19. The club sets up and operates a station at the Port Washington Lighthouse for this event. Set-up will start on August 17 in the afternoon. The station will operate both Saturday and Sunday. Maritime Days will also be taking place in Port Washington and the tall ships will be there too. Bill encouraged members to come out and participate in the event and enjoy Maritime Days as well.

Bill also reminded the members about the club's upcoming fall swapfest, Saturday, September 29. It's held at Fireman's Park in Cedarburg. Tom Ruhlmann, W9IPR, who runs the fall swapfest, will be scheduling a pre-swapfest meeting soon, and Bill encouraged those interested in helping out to attend.

Old/New Business: Dave Barrow, N9UNR, mentioned that the club's membership directory is available...one free copy for each paid member. See Dave for your copy.

Adjournment:

Stan Kaplan, WB9RQR, moved and Nels Harvey, WA9JOB, seconded the motion to adjourn the meeting.

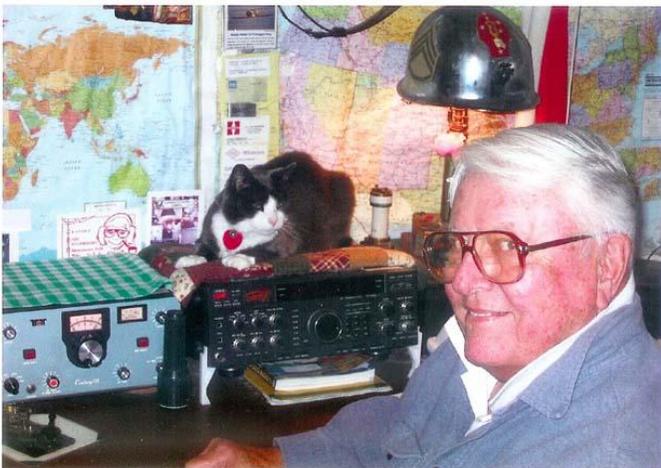
At 9:20 p.m. the meeting was adjourned.

Members signing the attendance sheet:

Nancy Stecker, KC9FZK; Kate Holt, KB0SIO; Cindy Douglas, KA9PZG; Jane Rediske, KK4HQG; Lori Ann Parkinson, N9PCA; Janice Hoettels, KA9VVQ; Mark Tellier, AB9CD; Ed Seigworth, AA9GT; Kristian Moberg, KC9TFP; Stan Kaplan, WB9RQR; Dave Barrow, N9UNR; Ted Schwitzer, KB9RUI; Bruce Whitney, W8RA; Nels Harvey, WA9JOB; Jim Albrinck, K9QLP; Bernie Golownia, AA9CI; Ed Rate, AA9W; Todd Fast, N9DRY; Mark Fielkow, KB9PXE; Ben Smith, KC9TSM; Gary Drasch, K9DJT; Ray Brunette, W9BUJ; Richard Holt, AB0VF; Rick Whitehead, AB9XI; Art Davidson, AC9CD; Glenn Classey, KC9UHP; Nathan Scheunemann, AC9BU; Gary Sutcliffe, W9XT; Jeff Alper, WB9PZD; Ray Totzke, W9KHH; Dale Matthies, N9NNE; David Parkinson, KA9RNU; Michael York, AE9MY; Tom Trethewey, KC9ONY; Bill Howe, KA9WRL; Jerry Rauth (no callsign); Leon Rediske K9GCF; Brian Skrentny, N9LOO; Ken Boston, W9GA.

Guests: Mark Sebern, WA9JMS; Peter Chow, AF6DS; David Lakritz, WA9VCK

Joe Sturmberg (KA9DFZ) has a cat (Big Albert) and a unique sense of humor. You will be seeing more of his thoughts in the issues to come.



AGENDA

August 8, 2012

1. 7:00 – 7:30 PM – Network & Rag Chew
2. Call to order: Ken Boston (W9GA)
3. Introductions.
4. Announcements, Bragging Rights, Show & Tell, Upcoming events, Etc.,
5. Questions and Answers:
6. Program:
7. 50/50 – Kent Christianson (W9WH)
8. Fellowship Break
9. Auction – Stan Kaplan (WB9RQR)
10. Presidents Report – Ken Boston (W9GA)
11. 1st VP Report – Art Davidson (KC9PXR)
12. 2nd VP Report – Brian Skrentny (N9LOO)
13. Repeater VP report – Tom Trethewey (KC9ONY)
14. Acceptance of Minutes – Janice Hoettels (KA9VVQ)
15. Treasurers Report: Dave Barrow (N9UNR)
16. Committee reports.
Field Day –
Fall Swapfest – Tom Ruhlmann (W9IPR)
Other:
17. OLD BUSINESS
18. NEW BUSINESS
19. Adjournment to ?

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, August 8th

7:00 PM – doors open

7:30 – Membership Meeting