

# *The Wobbly Oscillator*Cuyahoga Amateur Radio Society

NO8A Special Event Call K8ZFR Cle

K8ZFR Cleveland Area Repeaters 146.82 - 443.825 - 444.75



**July 2004** 

## **Volume XXXIV**

**Issue VII** 

#### From the Prez

Thanks to all who attended our first outdoor meeting in 2004.

Carol, KC8TIE provided a good supply of refreshments and several members cooked their own food on the grill. Kayla, N8KAY collected \$50.00 for the 50/50 drawing this month, Gary, NI8Z was the lucky winner and collected \$25.00 as his share of the pot.

CARS provided both SAG Wagon & Ham radio support for this years Cleveland Diabetes "Tour de Cure" cycling event on Sunday June 13, 2004. Tom, WB8N has a complete report but it was a good event with 18 volunteers showing up. I have attached 2 pictures from Tour De Cure rest stops. 280 cyclists raised \$90,000.00 that Sunday!

We had our 4th build session for the "Fox Hunt" project June 12, most have finished both the antenna and the active attenuator. We have scheduled the first Fox Hunt just before the July 21, 2004 meeting, it will start about 6:30pm so come early and join in.

CARS Field Day 2004 is history, we again ran 8A but with the fading propagation I think our points total will be about the same as last year. Steve, N8IS came out for a short time with his trailer for a try at satellite contacts. No injuries this year but Ron K8VJG had his Yaesu Ft1000MP display quit and my Yaesu FT1000 MP Mark V smoked the finals at 4:00am Sunday morning ending my run on 40 ssb at only 371 contacts with 10 hours to go. A special thanks to all who came out and worked this years Field Day! This year was a real success story no mater how many points we end up with, great participation.



Handle Rd rest stop



Handle Rd rest stop

That's it for this month. Remember that old saying: While one person hesitates because he feels inferior, the other is busy making mistakes and becoming superior.

de, Bob W8GC

#### MINUTES OF THE JUNE MEETING

President Bob Check, W8GC called the meeting to order at 7:30 PM June 16, 2004 at the Brecksville Metro Parks Oak Grove picnic area. Introductions were held with. 26 Members were in attendance.

A motion to accept the minutes of the May 19, 2004 meeting was made by Marc KB8QHJ and seconded by Bill KC8YSV. A vote was taken and passed.

The treasurers report was made by Mike KB8UGT. A motion to accept the treasurers report was made by Steve N8IS and seconded by Terry KB8DTC. A vote was taken and passed.

Bob announced that Dave KD8V, the Sunshine Chairman, was unable to attend tonight and no cards had been sent that we know of.

Gordon W8GTK reported that Wednesday night nets could always use more participation. Please check in. Effective immediately, the NET time will change to 9:00 p.m.

Bob said all the amateur radio classes are done until next January. We have some students working on the material through the mail.

Dave K8DAV mentioned that most of the website is in pdf files now.

Bob announced that some changes are being made to the 146.82 repeater, due to an interference problem during the Diabetes Tour de Cure event Sunday, the 13th. Someone kept turning on the old 82 repeater and caused interference while members tried to communicate for the event.

Tom WB8N reported on the WO. Not enough articles coming in. Consider contributing to YOUR newsletter. Articles may be submitted via cars@newsletter.org.

Tom also announced that Field Day preparations are coming along well. A meeting at the site last week helped finish up location and band designations. The new mayor of Broadview Hts has been contacted and we hope he will visit as well. We will be a 8A station and hope you have time to stop out and visit Field Day and participate. If you have any questions about location or anything please get in touch with Tom WB8N or Bob W8GC.

Tom WB8N reported that 16 CARS Members came out in support of the Diabetes Tour de Cure.

No major injuries this year and thank you to all who helped out. Diabetes Association really appreciates our help.

Bob W8GC announced that since most people are done with their fox hunting equipment that we will have a Fox Hunt at 6:30 p.m. before the next meeting. Mike K8EHP and his wife are currently in California at a large fox hunting event but we'll notify them of our event via e-mail.

Gary NI8Z reported that the next VE Session is July 11th and he already has a couple people signed up to take tests that day.

Toby WT8O reported that he's excited about Field Day this year. He also advised the club that some antenna work will be done at the Mather in the future.

Bob W8GC mentioned that he visited the ARRL headquarters in Connecticut and recommended that if you are ever in the area it's well worth a stop.

Bob W8GC mentioned that the antenna should be moved and the Kenwood TS-850 taken down to the Mather before the 8th Annual Worldwide Museum Ship Weekend July 17 and 18th. If you are interested in operating that weekend, please get with Toby WT8O or Bob W8GC to reserve your requested time.

George K8KR & Aaron KC8INE will give their talk on being a UFO investigator at the July meeting due to a scheduling conflict for George K8KR. Tonight Mike KB8BMY is doing a presentation on Geocaching. Our August speaker, Dick Mondro W8FQT ARRL district VP has confirmed he will be attending.

Bob W8GC passed around a example of the certificates that were made for the North Royalton Middle School teachers for our school event in April. A plaque is also be made that will be presented to the Principal.

Bob W8GC congratulated Aaron KC8INE on getting married 2 ½ weeks ago.

The 50/50 raffle was won by Gary NI8Z. His share was \$25.00.

continued on next page....

A motion to adjourn the meeting was made by Bob KC8MRC and seconded by Dave K8DAV. A vote was taken and passed. W8GC adjourned the meeting at 8:31 p.m.

Submitted by Tina Check W8HBI, Secretary

## ACTOR MARLON BRANDO, KE6PZH / FO5GJ, SK

One of the best-known names in cinematic as well as Amateur Radio circles, actor Marlon Brando, died in Los Angeles July 1 at age 80. Known to hams worldwide as KE6PZH and FO5GJ, Brando is listed on the FCC database as Martin Brandeaux. He was on the air occasionally through the years with his FO5 call sign from his private island in French Polynesia. In an interview with Larry King on CNN in 1994, Brando confirmed his continued interest in Amateur Radio. In response to a caller's question, he said ham radio provided him with the opportunity to just be himself. The iconoclastic actor was best known for his roles as Stanley Kowalski in "A Streetcar Named Desire," a dockworker in "On the Waterfront," and Vito Corleone in "The Godfather." He was nominated for eight Academy Awards and won twice.

#### **JULY BIRTHDAYS**

K8KR George Pindroh 7-5-42
K8MPL Philip Ricca Jr 7-14-42
KB8LWM Paul Naujoks 7-24-43
KB8PYB Robert Wick 7-14-46
KC8INE Aaron Clark 7-2-75
KC8LEO Scott Dressler 7-24
N8TCP Roger Boehnlein 7-9-52
W2THU Robert Winston 7-28-45
W8MCD Len Holmes 7-24-43
WA8GEO Bill Savage 7-27-40
K8CMI Jerry Steele 7-15-62
Congratulations, and Happy Birthday to all!

#### **CONGRATULATIONS**

Congratulations to Steve Riley, N8IS and Gary Dewey, NI8Z for their great results in the 2004 RTTY Round- up.

Steve was 4th in Ohio with a score of 63,936 and 666 QSO's. Gary was 9th in Ohio with a score of 29,848 and 362 QSO's. Both did a great job and we'll be watching for your scores next year.

#### **Survival Awareness Week End**

During the weekend of May 22 – 23 I participated in an event at the Office of Emergency Management (OEM), Town of Lancaster, New York. The building is located just before the club house of the amateur radio club I belong to up "in this neck of the woods". The Lancaster Amateur Radio Club, (LARC), has many active members who participate in the OEM and I myself am hoping to join in the near future.

The weekend presentation was called "Survival Awareness Weekend." Could you and your family survive an Earthquake, Severe Weather, Terrorism Attack or a Power Failure? Inside the OEM building there were classes and presentations in what to do and of course what not to do. Outside was where all of us hams fit in. There were three HF rigs set up for any operator or for whoever wanted to give Dxing a whirl. The object was to promote amateur radio's role in emergencies. If a station sent us a QSL card we in turn sent a

8 ½ x 11 flyer with the OEM station call sign KC2LAS, pictures etc. This was a family and friends event so there were prizes, contests, giveaways, hotdogs and pop.

Most of our contacts were done on 40, 20 and 15 meters. Contacts seemed sporadic, but there were times when activity picked up. I would say that 97% of our contacts were US, but I got the first Dx contact in the Cayman Islands. Our President Luke Calianno, N2GDU contacted Columbia, South America. Someone contacted a continued on next page....

station in South Africa, also in OEM and a station in Texas in OEM I can say that we got a lot of positive feedback from many of the stations we contacted. I thoroughly enjoyed myself since I rarely get the chance to get on the HF bands.

There was another vehicle I could not show you and that was a converted school bus equipped with lights, sirens and lots of radios. Many police and fire but an amateur 2m/70cm rig included. Also included are a fax machine, computer, weather station, generator and cell phones.

You can learn more about the LARC by visiting their web site at www.hamgate.net/~larc/.

I hope you enjoyed this little tid – bit from WNY. It shows you what were doing up here when we're not shoveling snow. Which were quite good at by the way 73, Jim, N8GXR

Note: A special thank you to Joe Gearhart, WV2NY for providing the pictures in this article. Luke Calianno, N2GDU, W2SO club president, all club members who attended the two day event and the OEM.

Editor's note: Jim is a long time CARS member. He moved to the Buffalo NY area a few years ago, but manages to get to a few meetings during the year and for the past two years has driven down to the Cleveland area to help with the Diabetes Assn. Tour de Cure! Thanks Jim.

#### MATHER HAPPENINGS

By Steve Riley, N8IS

The William G. Mather Museum will sound it's antique steam whistles every hour from noon to 4 p.m. on July 2nd through July 4th. This whistle pull commemorates the July Fourth Holiday.

The museum is open 10:00 a.m. until 5:30 p.m. each day through August and noon to 5:30 July 4th. On September 4th & 5th the museum opens it's decks to people wanting to see the Air Show. Tickets go on sale August 2nd and proceeds benefit the museum. Anyone interested in tickets should call 216-574-9053.

If you have interest in operating the Club station at the Mather don't

hesitate to contact Toby WT8O or Bob W8GC.

#### From The V.P.

Field Day was a great success this year. The effort to put together and coordinate an eight alpha station was pulled off without a hitch. Thanks to all who participated, helped with set-up and tear-down, pitched in with the cooking chores, came as visitors to give support, and especially to Tom, WB8N, our Field Day manager who made it all happen.

Field Day was also a test of the equipment that will be used at the lighthouse stations in August. The two events CARS will be setting up stations for will be the ARLHS 2004 National Lighthouse-Lightship Week-end QSO Contest, August 7<sup>th</sup> and 8<sup>th</sup> and the International Lighthouse/Lightship Weekend August 21st and 22<sup>nd</sup>. At this time the locations have not been finalized, but weekend plans for yours truly include a lakeshore trip to check out several locations. Any suggestions would be welcomed and I can be contacted at wt8o@aol.com. We will discuss all final plans at the next meeting and post all information on the CARS website. The lighthouse events are really fun, the contesting atmosphere is casual and enjoyable.

Moving the Wednesday club net to 9:00 P.M. seems to have really helped increase participation. Once again: Gordon, W8GTK, does a great job as net chairman, we all appreciate his efforts. So once again, please make an effort to check into the club net now that the time is more convenient for the long summer days.

de Toby WT80

#### FOR SALE

Hy-Gain TH-5 broadband 5 element triband beam. Comes with BN4000 high power current balun. Excellent condition - New end caps, complete manual. Sells new @ \$760 - Asking \$ 200.00 Contact Carl K8AV, Phone: 216-328-0709 E-mail: cfwb@cox.net

#### **V P'S INTERVIEW**

Our interview this month is with **Bill Sarver**, **KC8YSV**.

**Toby**: How did you become interested in Amateur Radio, what got you started?

**Bill**: I became interested in ham radio when I was sixteen (1960). A friend of mine,K8PVD, got his novice license and invited me over to see his station. However, other things took priority so it was 43 years before I could get into the hobby.

**Toby**: How long have you been licensed and what class license do you currently have?

**Bill**: I got my Technician on December 8<sup>th</sup>, 2003. I passed the General in January, 2004 and passed the Code test in February, 2004. I took the CARS Extra class and passed the test in April, 2004.

**Toby**: What do you like about Amateur Radio?

**Bill**: Everything, starting with the people I have met. I am experimenting with building equipment and exploring different modes. I am going to help Steve, N8IS. on Field Day with RTTY; I have never done that. What a great hobby for learning new things!

**Toby**: What are your favorite bands to work?

**Bill**: I like to talk on 20 meters, it is fun for me to talk to people in other countries. I have reached Russia, Europe, and South America on 100 watts.

**Toby**: Do you collect QSL Cards? If so, how many confirmed countries do you have?

Bill: Not yet, I still haven't ordered my own.

**Toby**: What types of Awards or Recognition have you won or been awarded with?

**Bill**: I haven't been in the hobby long enough to get any awards. I have been rewarded with the smiles and enthusiasm of the children at the North Royalton Middle School the day we put on the Amateur Radio demonstration.

**Toby**: What other hobbies do you have besides Ham Radio?

**Bill**: Fishing and photography. I usually tell my wife, Pat,that the fish bounced out of the railroad crossing. I have a couple of photos that came out well, I'm still a film guy.

**Toby**: What would your dream station be? Where would it be?

**Bill:** I have a dream station now here at home, the only thing I would add would be a better antenna. It will probably be a SteppR vertical. In the near future, of course, the longer I am a ham my dreams will get bigger and my wallet will get smaller.

**Toby**: What type of work do you do? Or if retired, what did you do?

**Bill:** I worked for nine years at Waco Scaffold And Shoring Co., in Cleveland. I spent one year in Colorado in a business with a Navy buddy, but we drank more Coors and played more air hockey than we worked. With our first child on the way, Pat and I came home and I went to work for General Motors and retired after 30 years. Thirty years of the forty years I worked was in production, six in materials, three in accounting and one was just having a great time.

**Toby:** Thank you Bill for letting our members learn a little more about you.

#### THE RANDOM WIRE

By Tom Wayne, WB8N

#### **BUSY BUSY JUNE!**

This past month was indeed a busy month for CARS members!. We had our first picnic meeting in the park of the summer, we participated in the Diabetes Assn. Tour de Cure, and of course there was Field Day!

#### **TOUR de CURE**

The Cleveland Chapter of the American Diabetes Assn. once again asked us to do communications for them for this event. The only trouble was that the date they had set was that of Field Day. So, they kindly changed the date so that we would be able to participate. They have told us numerous times that they could not do the event without our help, and they are very appreciative of our help in the way of providing communications and also for being able to act as SAG wagons.

continued next page....

This year we had 16 CARS members and 2 non members participate: They are: Toby Koleman WT8O, Dave Kushman K8DAV, Steve Jones KC8DJV, Mary Chegelski KC8YLC, her husband Mike Chegelski K8EHP, Bob Check W8GC, Tina Check W8HBI, Kayla Check N8KAY, Steve Riley N8IS, Gary Dewey NI8Z, Bill Sarver KC8YSV, Terry Pillat KB8DTC, Ron Borkey K8VJG, Mike Baloch KB8UGT, myself, WB8N, Jim Glor N8GXR, who came down from Buffalo NY, just to participate in the event! The two non-members were Pam Miller KC0DSR and her husband Mike Miller KB0ZEM, and their two boys. Many thanks to all and hope to see most if not all of you at the Diabetes Assn. Walk America in October!

The event came off without a hitch. We had a couple of bike riders fall, but no serious injuries. I want to mention Jill Pupa of the Diabetes Assn. who worked hard in putting the event together and moved the date for us so that we could be of assistance to them!

#### **FIELD DAY 2004**

We went out Friday evening and began setting up our antennas and tents. No injuries this time! Saturday morning found us setting up our stations. Again, we ran 8 alpha, meaning we had 8 separate radio stations operating at any one time! We operated on 15, 20, 40, 6 and 2 meters, both cw and ssb, and also PSK31! Plus an effort at operating satallite. There may have been a band that I missed as well. I'm not sure if anyone worked 10 meters.

Steve, N8IS had been having back problems and his participation was limited because of that, but he was out there!

We had a great menu planned and between Carol, KC8TIE cooking in the kitchen and Ev, W8EYF doing the grilling, we ate great! We had visitors during the day and night, and some of them operated as well!

There were a couple of technical difficulties; Ron's rig's display went out on him, and Bob's rig blew it's finals, which put a damper on their operating.

But all in all, I think we did pretty well. The weather could not have been better! Low 70's and

sunny! In fact it got downright cold during the early morning hours!

After a hearty breakfast, it was back to operating again. By noon, most of us were pretty "Field Day'd" out and we began shutting things down and started to take down the antennas and tents. The worst part is tearing down and packing everything back up. It took me three days to unload my vehicle!

We never even made lunch on Sunday! So..... we have a bunch of frozen hamburgers left over. What are we gonna do with them?

#### JULY PICNIC MEETING IN THE PARK

We are gonna have hamburgers for everyone at the July meeting! We'll be cooking them on the grill and will also have cheese for those that want cheeseburgers. All you have to do is come early and partake! Bring along whatever side dishes you may want. We'll have the paper plates and condiments too!

We also have two of our members, George Pindroh, K8KR and Aaron Clark, KC8INE, who are going to tell us all about investigating UFO sightings! Wow...can't wait for that one!

There is a fox hunt planned for before the meeting as well. Bring your HT's and your fox hunting antennas along that night!

The July meeting promises to be one to remember, so make it a point to be there! Let's shoot for our largest summer meeting attendance record!

See ya at the meeting! 73 for now, de Tom, WB8N

## HAMFESTS COMING UP

NOARS	Wellington	July 11
Portage County	Randolph	July 25
Findlay ARC	Findlay	Sept 12
Hamfest Assn.	Cleveland	Sept 26
Medina 2 Meter	Medina	Oct 10

### A Visit to ARRL Headquarters

On June 9, 2004 I visited ARRL Headquarters with my wife Betty and a long time friend Gary KC2UBA. We arrived about 9:40am, I ask to see Bill NC1L with DXCC as I had talked to Bill and we had some DXCC questions to go over. I also dropped off cards for Tina W8HBI & Steve N8IS, Steve finally got around to sending in cards for his DXCC and Tina sent about 40 more cards for endorsement to her DXCC certificate.

This was the first visit to ARRL Headquarters for both Gary and myself, and he only lives a 50 minute drive from Newington, CT. The Tours of the Administrative Headquarters and the Maxim Memorial Station, W1AW, (two different buildings) were very enlightening, there are many displays of old radio gear and articles to see along with all the departments. I was very surprised to learn the ARRL has about 110 full time (very busy) employees.

Another surprise was the employees station in the main building, W1HQ which consists of employee owned gear brought in for the W1HQ stations use. They were also using a new ICOM 7800 which was on loan from ICOM as a demo, a new one was purchased and being tested in the lab when we visited. I am sure we will all see the results of the testing in a upcoming QST.

The W1AW station has a very impressive antenna farm covering all bands and modes from 160 up including Satellite. We used a 3 element 20 meter mono-bander at 125 ft while operating, Joe Carcia, NJ1Q, W1AW station manager spotted us on the cluster and we quickly had a pile up of European stations calling. We were instructed to use W1AW/90 while operating in celebration of ARRL's 90 anniversary There are several operating positions all with first class gear! We used a Yaesu FT-1000MP Mark V and Yaesu VL-1000 SS amplifier (same rig I have at home) and a Heil microphone & boom while operating.

Both Gary and I enjoyed the visit to ARRL Headquarters and can only say if your ever in the area stop at ARRL to see the wonderful displays and enjoy yourself for a day, the staff were all very good hosts and a joy to meet. Attached are 3 pictures from our visit.

That's all folks, 73 Bob W8GC



Gary KC2BUA & Bob W8GC on the front steps of W1AW building with 2 towers and several beams in the background



W8GC & KC2BUA on 20 meter SSB



one of the numerous display cases

#### NCDXF/IARU Beacon Network

As a member of the Northern California DX Foundation (NCDXF) I wanted to pass this Beacon information along, I am sure some of you are already aware of beacons in general and I hope you will find the Beacon project of interest. You will find Beacons on most bands including 6 meters.

The NCDXF, in cooperation with the IARU, constructed and operates a worldwide network of high-frequency radio beacons on 14.100, 18.110, 21.150, 24.930, and 28.200 MegaHertz. These beacons help both amateur and commercial high-frequency radio users assess the current condition of the ionosphere. The entire system is designed, built and operated by volunteers at no cost except for the actual price of hardware components, shipping costs, and so on.

This network is operational and a listener is be able to hear beacons from all parts of the world on a given frequency in a three-minute period. Alternatively, the listener can follow a single beacon through the bands and determine the best band open to that area.

Articles about the beacons have appeared in QST within the past few years and these

articles are available online at the IARU web site at **http://www.iaru.org/articles**/. These articles have a lot of interesting details about the beacons.

One can simply listen on the beacon frequencies and copy the CW callsigns of the various beacons to figure out where the band is open, however not every ham operator can copy calls at twenty-two words per minute and some beacons may be heard at too low a signal strength to catch the call. Because the beacons transmit at known times, it is easy to know which beacon one is hearing without actually copying the CW callsign. Since the beacons are running one hundred watts to a vertical, even a weak beacon signal may indicate a path with excellent propagation for stations using higher power and directive antennas.

To get all the history and latest information about the International Beacon Project go to **www.ncdxf.org/beacons.html**, Beacons are interesting as well as informative.

73, Bob W8GC



## **CARS 2004 Officers & Committees**

Audit

Toby WT8O \*\* Tina W8HBI, Gary NI8Z

**ARRL Liaison & media representative** 

Don KC8NIX \*\* Carol KC8TIE \*\* 216-524-4910

**CBARC Liaison** 

Dwaine K8ME 440-582-3462

Christmas Party 2004 Gary NI8Z \*\* Steve N8IS \*\* Tina W8HBI Tom WB8N

Community Education & School Programs
Dave KD8V \*\* 330-666-8721 Steve N8IS \*\*

216-328-0432, Tina W8HBI, Kayla N8KAY

**Dayton Bus** 

Terry KB8DTC \*\* 330-273-1043, Bob W8GC

**Diabetes events** 

Tom WB8N

**Elmer** 

George K8KR \*\* 216-941-5304

Field Day

Tom WB8N \*\* 440-232-4193, Aaron KC8INE Bob W8GC, Steve N8IS, Gary NI8Z

Fox Hunts

Mike K8EHP \*\* 216-252-6640 N8IS, N8TCP

**Ham License classes** 

Bob W8GC\*\* Gary, NI8Z \*\* Tom WB8N, Steve N8IS, Don KC8NIX, Ron K8VJG, Bruce N8DJX, George K8KR, Dave K8DAV

**Interference & Jamming** 

W8GC\*\*, NI8Z, N8IS, N8TCP, WB8N

Steve N8IS, Tina W8HBI, Kayla N8KAY

**Lighthouse events** 

Toby WT8O \*\* 440-572-1544, Bob W8GC Gordon W8GTK, Steve N8IS, Bruce N8DJX

Membership Tina W8HBI \*\* Bob W8GC\*\*

Museum Ship W. G. Mather W8WGM Bob W8GC \*\* Lin WD8SDP \*\* Steve N8IS Gary NI8Z, Bob W2THU, Mike K8EHP Mike KB8ÚGT, Bruce N8DJX Toby WT8O

**NET** 

Gordon W8GTK \*\*

**WO/Newsletter** 

Tom WB8N \*\* 440-232-4193

Program director

Toby WT8O \*\* 440-572-1544

**QSL manager-NO8A & K8ZFR** 

Tom WB8N \*\* 440-232-4193

Refreshments & 50/50

Carol KC8TIE \*\* 216-524-4910

50/50 Kayla N8KAY

**Sunshine** (welfare)

Dave KD8V \*\* 330-666-8721

Technical

Roy KB8VJF \*\* Bob W8GC \*\* Terry KB8DTC Vince N8OVW, Dave K8DAV, Tom WB8N Jack W8JAK, Jim WD8CHL, Steve N8IS

Gary NI8Z \*\* 216-642-8705

Web Master/e-mail

Dave K8DAV \*\* 440-243-3593, Bob W8GC \*\*

\*\* chairman or co-chairman

2004 Officers **PRESIDENT** 

Bob W8GC 216-524-1750

president@cars.org

VICE-PRESIDENT \*\*\*\*

Toby WT8O \*\* 440-572-1544 vice-president@cars.org

**SECRETARY** \*\*\*\*

Tina W8HBI 216-328-0432

secretary@cars.org

TREASURER:

Mike KB8UGT 216-663-2717

treasurer@cars.org

**Board Members** 

even year executive board 2 year term;

George K8KR 216-941-5304

Gary NI8Z 216-642-8705 Steve N8IS 216-328-0432

odd year executive board 2 year term;

Gordon W8GTK 330-225-6917 Terry KB8DTC 330-273-1043

Tom WB8N 440-232-4193

**K8ZFR** trustee

Tom WB8N 440-232-4193

NO8A trustee

Bob W8GC 216-524-1750

