



# 20/9 Amateur Radio Club News

## K8TKA

January 2013

Est. September 1952

WWW.QSL.NET/20over9



### From the President's desk..

Happy New Year Everyone! I hope this New Year is finding everyone in good health. I know many people are getting this wonderful flu that is going around, but good news is it does go away. With that, the Club is in good health going into 2013 and we want to continue to make it prosper even more. As many of you know, we now have a new home at the Austintown Senior Center for our Meetings. We also had our first Spaghetti Dinner in a while there at the beginning of December. It was a great time, great food and a great turnout! We are planning another one for spring. The Austintown Senior Center is a nice location, plenty of parking and a wonderful facility. They have a full industrial sized kitchen, ability to house speakers, PowerPoint presentations etc. We truly thank them for allowing us this opportunity to hold our meetings there. Since we do have an awesome place to have speakers, we will be having more of them. We had a nice presentation in November on the Community Shield program from the Highway Patrol and we will soon be having a program on NBEMS/FLDIGI, so watch for that as well. Do you have a presentation you would like to see given, a topic or idea for a presentation. Let us know, we would love to have more speakers off of what our membership would like to see. Feel free to contact me @ [kc8rjs@arrl.net](mailto:kc8rjs@arrl.net). Looking forward to a successful 2013,

73's  
George Meleski KC8RJS

### Meeting Notices: CHANGE FOR JANUARY

Officer's Meeting Monday January 7th 7PM

EMA Building 700 Industrial Rd Youngstown

\*\*\*General Club Meeting and WINTERFEST

Tuesday January 8<sup>th</sup> Meet @ 6PM – Eat @ 7PM\*\*\*

Austintown Senior Center 100 Westchester Dr.

Austintown

### Holiday Food Baskets

We thank everyone who helped this year with this great project. Even the slightest donations can make a difference. Thank You,

73's Dotti KC8SYF

### Vice President's "Making Connections"

Well as we begin a New Year 2013, we have a lot to look forward to in our club. First though, as a reminder, the January Officer's meeting has been moved to Monday January 7th at 7pm at EMA. This is due to New Years Day falling on the first Tuesday. So please come out and join us on Monday. During the meeting we will be going over a Calendar of Events for 2013. We have some great things happening this year. We have activities planned for just about every month and more to schedule. Tuesday the 8<sup>th</sup> is the normal club meeting and Winterfest. This will be held at the Austintown Senior Center. We will meet at 6pm and eat at 7pm.

This past year has shown us that our club is on the right track, we have had more members join, upgraded licenses of current members and found a new home for our meetings at the Austintown Senior Center. We have several speakers planned for the upcoming meetings in the spring and another Spaghetti Dinner. Lets continue to bring our club back to what it was before, a family club, who's members are what matter. There is so much Amateur Radio can offer. We look forward to sharing many of the exciting aspects of Amateur Radio throughout the year at meetings and events. This is who 20/9 always has been and always will be! I look forward to seeing each and everyone of you on Tuesday at Winterfest. If you need anything, have information to pass on, or would like information, never hesitate to call me. 330-651-3811

73's Dotti O'Neil-Meleski KC8SYF

### Radio Activity

20/9 "FRIDAY NIGHT NET"

on the K8TKA Repeater

Every Friday Night at 9:20PM on 147.315+

We still have some work to do, but watch for the continued improvement on the repeater!

[WWW.QSL.NET/20over9/](http://WWW.QSL.NET/20over9/)

### WINTERFEST

If you wish to participate, at WINTERFEST we will have a \$10.00 gift exchange. Men bring a gift for a man and women for women. This is always a fun time!

Menu: Tossed Salad, Roast Beef, Parsley Potatoes, Green Beans, Pasta, Dessert and Beverages.



## Skywarn

Wintertime doesn't generally bring much in severe weather aside from very cold air, freezing rain and sleet along with large amounts of snow. However, in the coming months Skywarn training will be here probably in March. Keep checking the Cleveland NWS site for postings of the dates and locations in the area for Skywarn training. This is a free service and amateur radio operators are highly encouraged to participate. We will publish the local ones here in your newsletter.

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### Amateur Radio Classes and Testing

Know someone interested in classes or would like to upgrade please give me a call and I can try to set dates and times, it's good to have more than a few people in classes but almost any number will do. For more information or books contact me at 330-799-4250 or by e-mail me at [kb8jvw@zoominternet.net](mailto:kb8jvw@zoominternet.net)

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### Upgrade, become a Volunteer Examiner

What we need are more Extras, I know that you don't get much for all the work, but you can then become a Volunteer Examiner. That's what I have been getting at all along. The club needs more Extra Class VE's, it's sometimes hard to get 3 together for a testing session. They are the only ones that can test Generals and Extras. It is very easy to do, you just have to read a short book and fill out a form. The only cost to you is a one time charge of \$2.00, and 3 or 4 hours of your time 2 or 3 times a year, that's it, the look on the faces of the people that pass more than makes up for any small inconvenience of your time. Call 330-799-4250, or email me at [kb8jvw@zoominternet.net](mailto:kb8jvw@zoominternet.net), or see me at the meetings.

**73's KB8JWV John**

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### Contesting

#### January

19-21 [January VHF Contest](#)

#### February

11-15 [School Club Roundup](#)

16-17 [International DX Contest – CW](#)

#### March

2-3 [International DX Contest – Phone](#)

#### April

21 [Rookie Roundup – Phone](#)



## Mahoning County ARES and District 5 has NEW Leadership

On Thursday January 3, 2013, Ohio Section Emergency Coordinator Matt Welch W8DEC, announced the appointment of Wes Boyd, W8IZC as the new Mahoning County Emergency Coordinator. Wes is from Girard, Ohio and was first licensed in 1962 and he has been a broadcast engineer since 1960. Wes's email is [W8IZC@arri.net](mailto:W8IZC@arri.net).

Matt also announced the appointment of Jim Aylward KC8PD of Ravenna, as the District 5 Emergency Coordinator. District 5 encompasses Summit, Portage, Trumbull, Stark, Mahoning, Columbiana, Carroll, and Tuscarawas Counties. Jim was first licensed in 2001 and has been the EC of Portage County since 2009. Jim's email is [aylwardjim@aol.com](mailto:aylwardjim@aol.com)

Congratulations to both of them. We wish them the best of luck in their new positions.



## ARRL Files Petition for Rulemaking with FCC to Create New MF Band at 472-479 kHz

At the 2012 World Radio Communication Conference (WRC-12), delegates approved Agenda Item 1.23: a 7-kilohertz-wide secondary allocation between 472-479 kHz for the Amateur Radio Service, with a power limit of 5 W EIRP (or 1 W EIRP, depending on location). Before this portion of spectrum is made available to radio amateurs in the US, the FCC must first approve its use and amend its rules to reflect the change. As such, the ARRL filed a Petition for Rulemaking on November 29, asking the FCC to amend Sections 2 and 97 of its rules and create a domestic Amateur Radio allocation at 472-479 kHz, conforming to the allocation status and limitations set forth in the international Radio Regulations.

“The subject of a low-frequency (LF) allocation, and/or a medium-frequency (MF) allocation in the lower portion of that range for the Amateur Radio Service has a long history at the Commission,” the ARRL pointed out in its *Petition*. “As yet, however, the Commission has not created either one.” Presently, the lowest domestic frequency allocation for the Amateur Service -- and the only MF allocation -- is at 1800-2000 kHz.

The ARRL also pointed out that there is an Amateur Radio allocation in all other areas of the radio spectrum, providing for experimentation in virtually all types of radio frequency communications. “Technical self-training and furtherance of radiocommunications development in the Amateur Service (which is in essence an experimental radio service) would be greatly enhanced by an LF allocation and an allocation in the lower

portion of the medium-frequency (MF) range,” the ARRL maintained. “It is now timely, in response to actions taken at the 2012 World Radiocommunication Conference (WRC) to create a new, domestic MF allocation at 472-479 kHz for the Amateur Radio Service.” The ARRL pointed out that while it is also desirable and timely to have an allocation in the LF portion of the spectrum, that matter was addressed in the *Notice of Proposed Rulemaking and Order*, just released in ET Docket 12-338 on November 20.

#### Background

The issue of a domestic LF and/or low MF allocation for the Amateur Radio Service first formally arose in connection with the FCC’s preparation for the 1979 World Administrative Radio Conference (WARC-79). To prepare for that WARC, the FCC issued a series of *Notices of Inquiry* in Docket 20271. It used the comments received in response to these as the basis for the United States’ WARC-79 proposal. Prior to that docket proceeding, the Commission had established an Advisory Committee for Amateur Radio, relative to WARC-79 preparations. The Advisory Committee stated, in a report issued May 18, 1976 at Page 50, as follows:

*There exists among some amateurs a keen desire to conduct experimentation and communication at low frequencies, as well as at vhf and uhf (sic). The FCC authorizes the operation of low power communication devices in the band 160-190 kHz under Part 15, Subpart D, of its rules. Despite the severe restrictions of one watt power input and a total length not to exceed 15 meters, experimenters have been successful in transmitting over paths of several hundred miles under favorable conditions. An amateur allocation with less severe restrictions in this band, which is now allocated to the fixed service in Region II but is little used outside of Alaska, would permit amateurs to resume experimentation in a portion of the spectrum which has not been available to them for more than 50 years.*

Notwithstanding this recommendation and the filing of extensive comments by the ARRL, a *Report and Order* terminating released in December 1978 concluded that the 160-190 kHz band could not be made available to the Amateur Radio Service due to concerns of interference to power line carrier (PLC) systems.

In October 1998, the ARRL filed a *Petition for Rulemaking*, seeking LF allocations for the Amateur Radio Service at 135.7-137.8 kHz and 160-190 kHz. The *Petition* noted, with respect to the 135.7-137.8 kHz band, that radio amateurs in other countries had already been accommodated in that segment, including Belgium, Finland, Norway and the United Kingdom. Other countries at the time permitted Amateur Radio experimentation at LF via special or experimental authority, including Germany, Iceland, Italy, Luxembourg and Australia. Allocations were pending at the time in France and Sweden. A 1997 CEPT recommendation was the basis for the specific interest in the band 135.7-137.8 kHz in Europe. The justification for the proposed allocation of 160-190 kHz in the ARRL’s *Petition* was the fact that numerous radio amateurs and experimenters were already using that band pursuant to Part 15 rules, which allows operation in that band at up to 1 W input power, but with significant antenna

size restrictions that severely restricted antenna efficiency and compromising most experimentation in that band.

The FCC issued a *Notice of Proposed Rulemaking* in May of 2002 in response to the ARRL’s *Petition*. The FCC also specifically found that “...this allocation appeared to be acceptable because the incumbent use of the 135.7-137.8 kHz band appeared to be very light, and thus a secondary Amateur Service allocation in this band would likely raise few interference concerns.” It was also noted that the use of LF frequencies generally by unlicensed devices was on an “unprotected, non-interference basis” and that PLC systems are permitted pursuant to Section 15.113 of the FCC’s rules to operate in the 9-490 kHz segment. Because of concerns related to potential interaction between PLC systems and amateur stations, the FCC did not propose to allocate the 160-190 kHz band to the Amateur Radio Service, and ultimately, in May 2003, the FCC declined to create the secondary allocation proposed by ARRL in *either* LF band, citing what the ARRL called in its 2012 *Petition* “generalized but technically unsubstantiated concerns in comments filed by the United Telecom Council (UTC) and by an IEEE committee about potential interference to PLC facilities.” Those issues are also to be revisited in ET Docket 12-338.

#### 472-479 kHz and WRC-12

The ARRL pointed out in its current *Petition for Rulemaking* that “[n]one of the Commission’s past concerns with Amateur Radio interaction with PLC systems operating at 160-190 kHz or 135.7-137.8 kHz -- however valid those concerns might have been at the time -- applies or has applied to the band 450-490 kHz.” An international allocation to the Amateur Radio Service at 472-479 kHz was adopted at WRC-12 with of 5 W EIRP for most of the world. The Final Acts of WRC-12 become effective on January 1, 2013.

“The allocation was made in fulfillment of WRC-12 Agenda Item 1.23, considering a secondary allocation to the Amateur Radio Service in the range 415-526.5 kHz,” the ARRL stated. “Studies conducted in support of the Agenda Item considered present and future uses by incumbent services (mobile, including maritime mobile and aeronautical radiolocation). Several frequency ranges for the allocation were considered. Ultimately, WRC-12 concluded that the range 472-479 kHz offered maximum protection to existing and future applications in these services, consisting primarily of broadcast data transmissions in the maritime mobile service and aeronautical non-directional beacons in the aeronautical radiolocation service. Several administrations -- including Germany, Sweden, the Netherlands, New Zealand and Monaco -- have already authorized Amateur Radio Service operation on the 472-479 kHz band beginning on or in advance of the January 1, 2013 implementation date of the WRC-12 Final Acts.”

In the United States, the 472-479 kHz band is part of the larger segment 435-495 kHz that is allocated on a primary basis to the Maritime Mobile Service (federal and non-federal users), and on a secondary basis for federal government aeronautical radio navigation. The ARRL stated in its *Petition* that it is not aware of any domestic assignments that would conflict with the allocation

of the band 472-479 kHz to the Amateur Radio Service, and there is almost no PLC operation in this band segment.

According to a 2002 article in *IEEE Transactions on Power Delivery* entitled "Evaluation of the Potential for Power Line Carrier (PLC) to Interfere With Use of the Nationwide Differential GPS Network" (Silva, Michael, Senior Member, IEEE and Whitney, Bruce, Member, IEEE), of the 28,816 PLC transmitters that existed in the United States in 1999, *only 20 operated anywhere in the band 450-490 kHz*. Of the 40 kilohertz-wide segment referred to in the article, only 7 kilohertz is proposed to be allocated to the Amateur Radio Service in the US.

"Therefore, even if any of those 20 PLC transmitters that operated *somewhere* in the 450-490 kHz in 1999 are still operational," the ARRL said, "and even if any of those which were operating in 1999 and which are still operational are presently operating in the small segment 472-479 kHz, it would surely be a simple matter indeed to retune those very few PLC transmitters less than 4 kilohertz, which is less than 1 percent of the available operating frequencies for PLC systems at LF and MF. So, very little adjustment would be required, if any would be called for at all, and it would be a simple matter indeed to do so."

The ARRL maintained that the 5 W EIRP maximum power specification recommended at WRC-12 for this band will not affect the utility of the allocation for radio amateurs: "Given typical antenna efficiencies in this frequency range, Amateur Radio stations operating in this band are likely to fall well within this limit. International footnote 5.80A (Geneva 2012) would impose a 1 W EIRP limit on US radio amateurs only when operating within close proximity to certain countries, including the Russian Federation. As a practical matter, only stations in the western part of Alaska, or certain maritime mobile amateur stations, could be affected by this limit."

As such, the ARRL, in its *Petition*, proposes to implement these power limits. "The utilization of narrow bandwidth emissions has proved satisfactory in extensive experimental operation in the vicinity of 500 kHz in the United States," it said. "With respect to this band, no reports of harmful interference to the primary services (or to PLC systems) from experimental amateur operation have been received. Any likelihood of interaction between amateur stations and PLC systems in this band will be exceptionally low."

The ARRL has sponsored an extensive course of experimentation in the MF spectrum near 500 kHz since 2006. In September 2006, a group of 23 amateur stations -- using call sign WD2XSH -- scattered throughout the US were permitted to operate in the band 505-510 kHz for a course of experimentation with propagation and interference testing. During the course of this experiment, the number of participating amateur stations increased to 42, and includes all geographic areas of the US, including Alaska and Hawaii. The frequency bands utilized were modified to include the entirety of 461-478 kHz and 495-510 kHz. Emissions, at power levels up to 20 W ERP, include 150 HA1A, 62H0J2B, 62H0F1B and 62H0G1D. This experiment is scheduled to continue through the end of the current license term, August 1, 2015. No reports of interference have been received. This is a

disciplined program of experimentation with regular reports and analysis of interference potential to other services (including PLC systems) and experimentation with equipment and antennas.

Should, for any reason, PLC systems deem it necessary to continue to utilize this small segment going forward, and to the extent shown to be necessary, the ARRL stated in its *Petition* that it would be willing to maintain a database of Amateur LF operation at 472-479 kHz and to provide it to the FCC in accordance with the spirit and intent of Footnote US2, the NTIA Manual and the Commission's Part 90 rules; however, the ARRL pointed out that Footnote US2 makes it clear "that PLC systems operating in this band are unprotected, and it would be difficult to imagine why any PLC system would need to continue to operate in this small segment in this area of the spectrum on an ongoing basis. Finally, it is noteworthy that PLC systems are used on transmission systems only, and not on distribution systems. It is unlikely therefore that any will be in close proximity to Amateur stations. PLC systems are obligated by the FCC's rules to 'adhere to industry approved standards designed to enhance the use of power line carrier systems.' This is intended to facilitate additional overlay uses of the same LF or MF spectrum."

The ARRL said that PLC systems are, or can be capable, of this through the "frequency agility of PLC transmitters (either using software-defined radio equipment or by simply notching small segments of the 9-490 kHz band available to them), and more especially by PLC system design in compliance with the immunity standard IEEE-1613. That standard sets a high bar for immunity of PLC systems, and if met, would virtually guarantee that there would be no interaction between amateur stations and PLC systems in this range, even of the latter were operated on a co-channel basis. Compliance with this standard is called for by Section 15.113 of the Commission's rules, and PLC devices sold to utilities and placed within substations since 2002 have been subject to this standard." Also, systems operating pursuant to certain standards utilize polite protocols "which will delay a PLC transmission if the channel on which the PLC system wishes to transmit senses that the channel is occupied. Given the above factors, and the very small number of PLC systems (if any) that might currently be operating in the narrow range 472-479 kHz, it is suggested that there will be virtually no interaction between the two uses."

The ARRL, in its *Petition*, offered a proposed change to Section 97.305(c) to permit use of RTTY and data emissions in this new secondary allocation (please see the appendix, located on pages 14-15 of the *Petition for Rulemaking*); as per the existing Section 97.305(a), radio amateurs would also be permitted to utilize CW emissions in the band. The appendix also proposes to permit General and Amateur Extra Class licensees access to the band. Technician class licensees would not be permitted to utilize the band. The maximum permitted power level for this band proposed in the appendix would be either 1 or 5 W EIRP maximum power, consistent with the international allocation made at WRC-12.

**\*\* Taken from the ARRL website. All rights are reserved to ARRL \*\***



## Comment Deadline Set in WRC-07 Implementation Proceeding

As previously reported, the FCC has proposed to amend its rules to implement the allocation decisions of the 2007 World Radiocommunication Conference (WRC-07) and to make certain other changes. Notice appeared in the December 27, 2012 issue of the Federal Register, which started the clock on a 60-day window for the submission of comments. Thus, comments are due no later than February 25, 2013, with reply comments due no later than March 27, 2013. While most of the 130-page Notice of Proposed Rulemaking and Order does not directly affect the Amateur and Amateur-Satellite Services, two sections of the document are of particular interest to amateurs.

Specifically, the FCC proposes to upgrade the Amateur Service allocation in the upper half of the 160 meter band (1900-2000 kHz) from secondary to primary, while deleting the existing allocation to the Radiolocation Service. This is possible, because the re-accommodation of radiolocation stations displaced by the expansion of the AM broadcasting band to 1705 kHz has been completed and there are no non-federal radiolocation stations licensed to operate in the 1900-2000 kHz band.

The FCC also seeks comments on whether, and how, an amateur low frequency (LF) allocation might be able to co-exist with Power Line Carrier (PLC) systems that are used by electric utilities to monitor and control the power grid. The Commission notes that while PLC systems do not have the status of an allocation, they carry “communications important to the reliability and security of electric service to the public.” WRC-07 created a new secondary allocation to the amateur service at 135.7-137.8 kHz that already has been implemented in a number of other countries. The ARRL will be preparing comments supporting both of these allocations. Individuals wishing to comment directly to the FCC should carefully read paragraphs 13-24 of the NPRM and follow the instructions contained in paragraph 175.

*\*\* Taken from the ARRL website. All rights are reserved to ARRL \*\**



## Senate Approves Second Term for FCC Commissioner Mignon Clyburn

*In June 2012, President Barack Obama nominated Mignon Clyburn to serve a second term as FCC Commissioner. On January 1, 2013, the Senate confirmed her nomination, paving the way to Clyburn’s first full term as one of five FCC Commissioners.*

“I am so pleased that the Senate has approved Commissioner Clyburn’s re-nomination to the FCC,” said FCC Chairman Julius Genachowski in a written statement. “Commissioner Clyburn is an excellent and dedicated public servant and has been a strong advocate in seeking to extend the benefits of broadband to all Americans. I look forward to continuing to work closely with

Commissioner Clyburn and congratulate her on her new term.”

Clyburn’s five-year appointment is retroactive to July 1, 2012, when her first term expired. No date has yet been announced for her swearing-in ceremony.

*\*\* Taken from the ARRL website. All rights are reserved to ARRL \*\**

## ARRL Sanctioned Hamfests

### 01/27/2013 | Tusco ARC Hamfest

**Location:** Strasburg, OH  
**Type:** ARRL Hamfest  
**Sponsor:** Tusco Amateur Radio Club  
**Website:** <http://www.tuscoarc.org>

### 02/03/2013 | Winter Hamfest at NEW LOCATION!

**Location:** Elyria, OH  
**Type:** ARRL Hamfest  
**Sponsor:** Northern Ohio Amateur Radio Society  
**Website:** <http://www.NOARS.net>

### 02/17/2013 | Mansfield Mid Winter Hamfest

**Location:** Mansfield, OH  
**Type:** ARRL Hamfest  
**Sponsor:** InterCity Amateur Radio Club  
**Website:** <http://www.w8we.org>

### 04/13/2013 | 59th Annual Hamfest

**Location:** Cuyahoga Falls, OH  
**Type:** ARRL Hamfest  
**Sponsor:** Cuyahoga Falls Amateur Radio Club  
**Website:** <http://www.cfarc.org/hamfest2013.html>

## Group Get-Togethers

Eat N Park events are not organized by the Club, they are just to get together and open to anyone who wishes to attend

1. **The First Saturday** of every month 20/9 Club Breakfast at the Korner Restaurant in North Jackson at 9:20 AM
2. **The Second Tuesday** of every month meet at the Eat N Park Restaurant in Boardman for breakfast.
3. **The Fourth Tuesday** of every month meet at the Eat N Park Restaurant in Boardman for breakfast.



### January Birthday's

Robert Meikle	WA8HQQ	3rd
Mary Pyne	KC8QMR	13th
Richard Hamaker	KB8YHC	18th
Ed Brannon	KC8VCQ	20th
Carl Wilgosz	WA8LMW	22nd
Bonnie Bennett		27th

### Happy Birthday To ALL!

*\*\* If your Birthday is not listed then it is not on our Roster. Please let us know so we may add you to our list. \*\**

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### Membership Dues

Dues are due for 2013, individuals are \$15 and families are \$20. Please include your mailing address, phone number, current email address, and date of birth for everyone listed. Also indicate if you want to receive the newsletter via email or by postal service. If more than one member of your family would like to receive the newsletter by email, just let us know. Dues can be mailed to 4939 East Radio Rd. Austintown, OH 44515, or brought in during any meeting or event.

### Keeping in touch

Please listen to the weekly nets for any changes to meeting locations, upcoming events, hamfests, or operational needs.

**The Friday Night Net** is a weekly resource to update club information. We are also using Facebook to not only reach out to new people but to improve our communication's with our members.

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### Contacting the 20/9 ARC

[K8TKAnews@hotmail.com](mailto:K8TKAnews@hotmail.com)

To mail to the club:

4939 East Radio Rd. Austintown, OH 44515

Check us out on Facebook where you can easily share information and thoughts, also check out our web page:

[WWW.QSL.NET/20over9/](http://WWW.QSL.NET/20over9/)

\*\*\*Have an idea for an article or activity or want to write your own article? Let us know. Only requirement is the article or activity be of a positive nature.\*\*\*

**Bring a friend or your family. No one is too young to get involved in Amateur Radio.**

### Club Officers 2013

**President:** George Meleski (KC8RJS) (Newsletter)  
[kc8rjs@hotmail.com](mailto:kc8rjs@hotmail.com) 330-651-3833

**Vice President:** Dotti O'Neil-Meleski (KC8SYF)  
[kc8syf@yahoo.com](mailto:kc8syf@yahoo.com) 330-651-3811

**Treasurer:** Rich Hamaker (KB8YHC)  
[KB8YHC@zoominternet.net](mailto:KB8YHC@zoominternet.net) 330-792-4019

**Secretary:** Jan Hamaker (KC8PUO) (Special Events)  
[kc8puo@zoominternet.net](mailto:kc8puo@zoominternet.net) 330-792-4019

### Trustees:

Dave Bresko (KA8PSH)  
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