

May 2013

The 20/9 Resonator



Dayton Hamvention May 17-19

www.20over9.org

Special Interest Articles:

K8TKA Repeater getting upgraded.

RF Exposure limits reviewed

FLDIGI/NBEMS presentation

Annual Armed Forces Day

National Weather Service Summer Outlook

ARRL Test Spurious Emissions at Dayton

Checking Out A Baofeng UV-5RA

HSMM-Mesh.org change

Upcoming Events

Repeater tower refit
End of May completion

Field Day
June 22nd-23rd

Upcoming Meetings

Officers Meeting:
Tuesday May 7th
Denny's Austintown

Club Meeting:
Tuesday May 14th
Austintown Senior Center
100 Westchester Dr

All Meetings are at 7:00PM

Contact us at:
www.20over9.org

330.651.8420

k8tkanews@hotmail.com

20/9 ARC
4939 East Radio Rd.
Austintown, OH 44515

President's comments

The heat is coming! We finally are cracking the hold of winter but with the way March and April went it was hard to believe we'd see highs routinely above 50° anytime soon. The ground has finally dried up from the cold rains we've had and some of you have had the opportunity to see how your antennas held up over the cold dark months.

With the thaw come new and unfinished projects. On our end we have a repeater tower to finish completion. As I update this we acquired probably the best possible antenna to get the repeater

coverage up along with a reduction in de-sense of weaker signals. We'll need some help to get this done with the current tower to be relocated to allow for the additional 20 feet of tower to be added along with the antenna which is 23 feet. We have had several contributions to the project already; tower from Rich KB8YHC, and Jack WD8BRJ, concrete and metal work from Dave KA8PSH, and hardline from Dave Mellott KE8KT, and contributions from several members to be able to afford the Andrews DB 224E, thank you Bob AB8OP, and Dotti KC8SYF, and several others

pledging support for the best we can get within reason. We are currently at 30ft after completion we should be about 73ft. AGL or a HAAT of 219ft giving us a line of sight radius of nearly 20 miles.

Tuesday's presentation will be on Digital Modes. Some of you have had experience and routinely use the mode for those who have not I will be presenting my setup and how to do the basic functions with DigiPan and FLDIGI which has become the choice software not only for digital mode QSO's but for EmComm operations within ARES. *Continued on page 5*

In the VP's Words

Spring has sprung and June is a short time away. Field Day is June 22nd and 23rd and we have a lot of items planned with the hopes we will have as good, if not better showing this year. Cathy Mellott N8TIS is handling the food planning this year for Saturday's Dinner and Sunday's Breakfast. We are back at the Paul Pogany Pavilion west of the main area of Austintown Township Park, same location from 2011, we have a nice pavilion for dining and shelter. There has been a lot of interest this year and we already have several people coming out this year that have not operated with us before on Field Day. The area we will be at is 350ft West to East and 700ft North to South but could extend to

nearly 1000ft across the pond. So there is plenty of space for everyone. We have a couple generators that can be used in more distant locations from the center. Most of our operations are usually powered by Bob's AB8OP's twin diesel generators he brings out year after year. There is still some work that needs to be done on the trailer. The work party that was scheduled in March was cancelled due to weather. Anyone who would be interested in lending a hand for some carpentry work and repair please contact any of the officers listed on page 5.

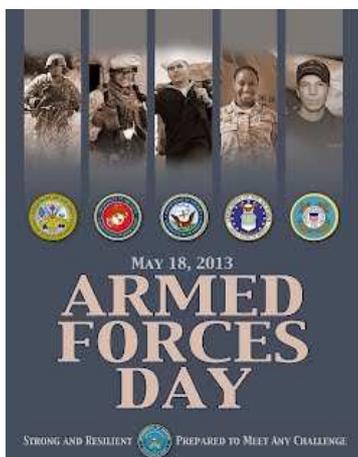
I was disappointed that we had to cancel our effort for Rookie Roundup in April. The weather was nice till the cold front came through before the

weekend, and even though the sun was out temps did not raise out of the high 40's to low 50's till mid afternoon. We are looking for a weekend contest before Field Day to setup at a local park and give the newer hams an opportunity to get a feel for HF operation. We will have a Field Day presentation at the Club Meeting in May. We hope to see everyone there.

Till next month,

73, Dotti KC8SYF

Annual Armed Forces Day Crossband Test May 11



In celebration of the 63rd anniversary of Armed Forces Day (AFD), the Army, Air Force, Navy, Marine Corps and Coast Guard are co-sponsoring the annual Military/Amateur Radio Crossband Communications Test. Although Armed Forces Day is traditionally celebrated on the third Saturday in May -- May 18 in 2013 -- the AFD Military/Amateur Crossband Communications Test will be conducted on May 11 to prevent conflict with the [Dayton Hamvention®](#), scheduled for May 17-19.

The annual celebration features traditional military-to-amateur crossband communications SSB voice and Morse code tests. These tests give Amateur Radio operators and short wave listeners an opportunity to demonstrate their

individual technical skills and to receive recognition from the appropriate military radio station for their proven expertise. QSL cards will be provided to stations making contact with the military stations.

Military-to-amateur crossband operations will take place on the dates and time in UTC on the frequencies [listed](#) for the Army, Air Force and Navy/Marine Corps and Coast Guard MARS stations. Voice contacts will include operations in single sideband voice (SSB); some stations will use CW to provide the opportunity to check in by Morse code. Depending on propagation and staffing, some stations may not operate the entire period. Participating military stations will transmit on selected military MARS frequencies and listen for Amateur Radio stations in the

amateur bands. The military station operator will announce the specific amateur band frequency being monitored. Duration of each voice contact should be limited to 1-2 minutes. The annual Secretary of Defense message will be transmitted via digital modes, including RTTY, PACTOR, AMTOR, PSK-31, MFSK and MT63 from certain stations.

Check the [MARS Armed Forces Crossband Test website](#) for schedules and frequencies of participating military stations, including a list of stations that will be transmitting the annual Secretary of Defense message. Instructions on how to copy and submit the message are also included.

<http://www.usarmymars.org/home/announcements>

HSMM-Mesh.org to become Broadband-Hamnet.org

HSMM-MESH name will change to Broadband-Hamnet™ and a firmware release is scheduled in the 2nd quarter. Some major changes will be included. The list below gives a bit of detail but some changes are already in place. For example Broadband-hamnet.org or Broadbandhamnet.org already brings up this site. HSMM-MESH.org will still work but the site will now answer to both. Other things to expect are:

SSID changes to Broadband-HamnetV1

Upgrade ALL is necessary as SSID and the actual format of data flowing will be changing. SSID minor level (V1) will roll when succeeding firmware requires another upgrade all. Interoperability with Ubiquiti hand loaded systems (simple web page config for Ubiquiti comes later)

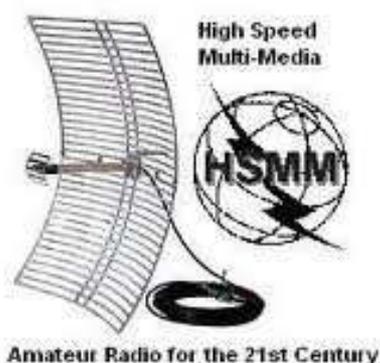
DNS changes from the Austin.TX.mesh style to local.mesh

More FAQs to be written, better documentation on the way

More mesh elmers have joined, more are needed. Over 1200 registered users on the forums, rising by nearly 100/month. Web site hits growing at an increasing pace, Google hits for hsmm mesh search terms growing.

QST article in July with more to follow.

73's Rick Kirchof, NG5V



Amateur Radio for the 21st Century

Radiosport listings

AGCW QRP/QRP Party
1300Z-1900Z, May 1

Araucaria VHF Contest
0000Z, May 4 to 1600Z, May 5

10-10 Int. Spring Contest, CW
0001Z, May 4 to 2359Z, May 5

ARI International DX Contest
1200Z, May 4 to 1159Z, May 5

7th Call Area QSO Party
1300Z, May 4 to 0700Z, May 5

Indiana QSO Party
1600Z, May 4 to 0400Z, May 5

New England QSO Party
2000Z, May 4 to 2400Z, May 5

CWops Mini-CWT Test
1300Z, May 8 to 0400Z, May 9

EUCW Fraternizing CW QSO Party
1000Z, May 11 to 2000Z, May 12

SKCC Weekend Sprintathon
1200Z, May 11 to 2359Z, May 12

CQ-M International DX Contest
1200Z, May 11 to 1159Z, May 12

VOLTA WW RTTY Contest
1200Z, May 11 to 1200Z, May 12

FISTS Spring Sprint
1700Z-2100Z, May 11

His Maj. King of Spain Contest, CW
1200Z, May 18 to 1200Z, May 19

Baltic Contest
2100Z, May 18 to 0200Z, May 19

Run for the Bacon QRP Contest
0100Z-0300Z, May 20

SKCC Sprint
0000Z-0200Z, May 22

CWops Mini-CWT Test
1300Z, May 22 to 0400Z, May 23

CQ WW WPX Contest, CW
0000Z, May 25 to 2400Z, May 26

MI QRP Memorial Day CW Sprint
2300Z, May 26 to 0300Z, May 27

www.contesting.com

Checking Out A Baofeng UV-5RA

c/o K0NR

In the Winter 2013 issue of [CQ VHF](#) magazine, I wrote about some of the VHF/UHF handheld radios available from China. In that article, I reported on the measured performance of a few of the Wouxun and Baofeng transceivers. One of the Baofeng UV-5R radios that I tested showed harmonic distortion that was a bit high on the 2 Meter band, around -40 dBc.

I recently got my hands on a [Baofeng UV-5RA](#), which is a newer

version of the same radio (firmware BFB297), so I wanted to check its performance. Like the two UV-5R models I checked, the power output, transmit frequency and receiver sensitivity were all quite solid on both bands. I was more interested in the harmonic distortion present in the transmit signal. On the 2 Meter band, the 2nd harmonic measured -48.4 dB relative to the fundamental which is pretty good. Similar to the other radios I measured, the performance in the 70 cm band is a lot better (-56.1 dB). This radio has significantly better

harmonic distortion than the older UV-5R radio. Of course, this is just a single sample, so performance of other radios may be different.

73, Bob K0NR



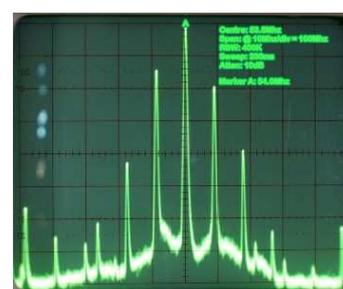
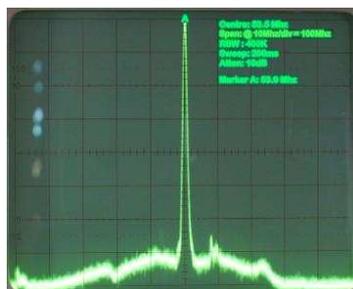
FCC to Reassess RF Exposure Limits

c/o CQ Amateur Radio

The FCC has issued a *Notice of Inquiry* seeking input on possible changes to its rules regarding exposure to RF radiation. Specifically mentioned for additional review is the current provision in the amateur radio rules which consider an amateur's home to fall under less-restrictive "occupational/controlled" exposure limits, while areas outside the amateur's property are subject to the stricter "general population/uncontrolled" limits. For specifics, see ET Dockets 13-84 and 03-137, on the FCC website, <www.fcc.gov>.

ARRL Laboratory: Get Your Handheld Radio Tested! c/o ARRL

New this year at the Dayton Hamvention the ARRL Laboratory will help you answer a question about your handheld, does your Handie-Talkie meet FCC Emission Standards? Meet an ARRL Test Engineer and volunteers who will measure the spurious emission of your handheld radio using a state-of-the-art spectrum analyzer. Does your HT have the potential to interfere with other radio services? Find out here! You'll also learn about other ways the ARRL Lab serves the Amateur Radio community with technical information services, trusted product testing and reviews, spectrum-protection engineering and its RFI/EMC program.



Examples of a good emission reading (left) and a very poor one (right).



**Skywarn Frequencies
In order of usage**
146.745- W8QLY PL110.9
146.910- W8IZC
147.000+ KB8N
147.570 Simplex

Check for updates on:
www.Mahoningskywarn.org

*"Once a net is in progress,
before you transmit your
info, take a moment to think
what you are going to say
before you key up."*

Social gatherings

The 1st Saturday of the month
20/9 Club Breakfast at the
Korner Restaurant in North
Jackson at 9:00 AM

We're on the Web!
See us at:
www.20over9.org

Skywarn® <http://www.mahoningskywarn.org>

Please remember when there is a Severe Weather Net on the W8QLY 146.745 repeater to listen before transmitting. If there is not a warning issued yet for Mahoning County but there is for neighboring ones, then the repeater will probably be in a loose net mode. This means transmissions are not being directed to net control, but if you're having a conversation try to keep it short and leave long pauses in case someone needs to bring up the net or someone has emergency traffic from one of the borders. Make sure to listen before speaking, because if there is a net in progress you do not want to interrupt. Also, if there is a question posed; let the net control operator handle all the traffic. This cuts down on unnecessary radio communications on the frequency during a need. Once a net is in progress, before you transmit your info, take a moment to think what you are going to say before you key up.

The only reports that they will want are:

1. **Tornado, funnel cloud, or wall cloud** (location and direction of travel)
2. **Hail of any size, severe size is 1 inch** and up so quarter size, please reference hail size with pocket change, if you can't do an actual measurement.
3. **Actual wind damage**, trees down (what size, healthy or dead), measured winds 45 MPH or more.
4. **Flooding** more than 1 foot of standing water or flowing water which might lead to flash flooding.
5. **Death or serious injury from the weather.**

There may be occasions where they may ask for other reports for the National Weather Service.

Keep an eye to the sky. All help is appreciated!

Here are some useful links to review from the NWS in Norman, OK. Online basic training, won't replace live training but it will familiarize you to the basics. While watching the presentation online keep in mind this is for Norman, OK area and not NE Ohio.

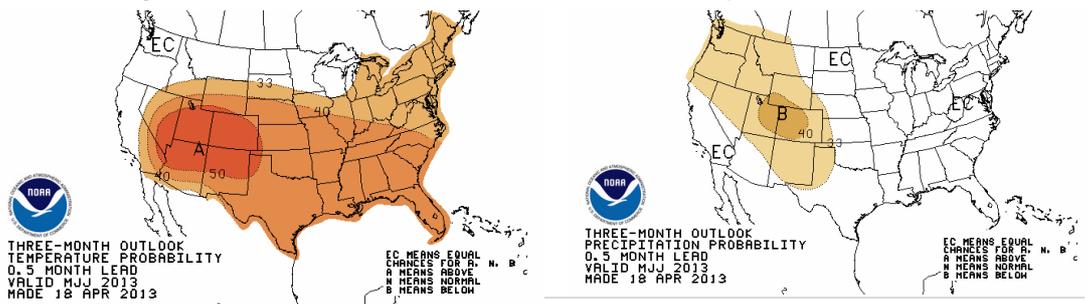
- <http://www.srh.noaa.gov/oun/?n=onlinespottertraining>
- <http://www.nws.noaa.gov/ocs/brochures/SGJune6-11.pdf>
- <http://www.srh.noaa.gov/oun/?n=spotter>
- <http://www.nws.noaa.gov/nwr/nwrbro.htm>

National Weather Service Summer Outlook May-July

For a large majority of the lower 48 states, above-average temperatures are expected this summer. Temperatures are expected to be the farthest above average from Texas westward through the central and southern Rockies to the West Coast from northern and central California to Oregon.

One pocket of the country, the Great Lakes region, is expected to see temperatures cooler-than-average this summer. This would include Chicago, Detroit and Buffalo, N.Y.

Drought conditions will continue in the west and central plains.



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Ham Radio classes and VE Exam Sessions

We are beginning to schedule the next set of classes, and in looking at many different approaches from other clubs and past attendance, I am willing to give Hamcram a chance for the Technician test. There are positives and negatives to this method but the results are hard to argue with. The big key is we, as a club, need to continue to work with newly licensed people to help them with better understanding and proper use. We lead by example. A long time ham described the technician test best, he called it a license to learn. I like to think of it as your white belt in Amateur

Radio. It's very possible to memorize every question and do little tricks to remember the answers, but immersion in the hobby makes understanding far easier. Sadly some groups that do the Hamcram sessions let newly licensed people loose without follow up. I will take responsibility on how well it works. I reviewed the material and it looks logical and easier to follow. Contact me if you know someone interested in this class method. We may even do this with General testing as well, the initial requirement would be called a license to learn. I'different, requiring the student to have reviewed the material prior to starting the

session. Then we would be able to begin the Hamcram, answer questions, and then have the test. This may be broken in to two days which may be more practical.

Testing will still be conducted by John KB8JVW with help from our pool of Volunteer Examiners. If you are ready to take a test, and it is before or after we've had a scheduled test session, please contact John and allow at least one week of notice so he can gather enough VE's to test with.

73, Dotti KC8SYF

Membership Dues

Dues still remain the same \$15 for an individual and \$20 for family. We will be adding a PayPal link to the website soon for membership as well until then you can come to a club meeting at the Austintown Senior Center or send a check to:

20/ARC K8TKA
 4939 East Radio Rd.
 Austintown, OH 44515

73, KB8YHC Rich Hamacker

Member Birthdays

Rick Albrecht		May 8 th
Jan Hamaker	KC8PUO	May 18 th
Roy Dyckman	KD8JMO	May 18 th
Patricia Resch		May 19 th
Roy Haren	KD8IJF	May 24 th
Lou Kovach	K8EAU	May 24 th
Cathy Mellott	N8TIS	May 31 st



Presidents column

Continued from page 1

I will have a quick PowerPoint to illustrate the basics and an antenna to show live signals during the break. There are simple interface kits that cost between \$10 to \$25 that you can build or just attach the signal wires to interface your computer to your radio. A lot of the modern radios come equipped with interfaces most just need an

interface cable you can either build or purchase. There is a growing use of FLDIGI on FM as well, so even if you don't have an HF radio you can still get in on some of the action with your HT.

Here's a link to review.

<http://www.w1hkj.com/beginners.html>

73, George KC8RJS