

# The Wave Bender

April 2014

## FROM THE PRESIDENT



Well spring is finally here! March came in like a lion and was a bear most of the time, but it's going out like a lamb with some warmer temps and sunshine. With spring here I'm looking forward to our outdoor events coming up this spring and summer.

We should all be thinking field day and what we can do to make it bigger and better than the last one. I know Steve KC8SOY and Chris KD8ELY would welcome all suggestions and ideas. See Steve or Chris about helping out with set ups, checking in, and the information table. Sign up sheets will be at the meetings.

Also, the sign up sheet for clean up on Rt. 446 will be going around. The date will be tentatively May 10. We will need about 10 volunteers for that.

Everybody have a safe and happy spring. Get outdoors and enjoy!

See you at the meetings,  
73, Roy KD8IJF

Well, it finally happened ...!

I've sent soooooo many e-mails that my cursor overheated!! Check it out for yourself.. This is what happens when you overuse your mouse: Click HERE <http://www.flamingcursor.com/>



**Officer's Meeting:** April 15, 7:00 P.M. At Eat 'n Park, 8051 Market St., Boardman.  
**Regular Meeting:** Feburary 18, 7:00 P.M. Davidson's, 3636 Canfield Rd. in Cornersburgh  
**Speaker:** Ohio Section Manager Scott Yonaly, N8SY  
**Topic:** Amateur Radio Websites

### 2014 Officers:

President:	Roy Haren, KD8IJF	<a href="mailto:kd8ijf@wrarc.net">kd8ijf@wrarc.net</a>
VP:	Joe Wojtowicz KD8RCC	<a href="mailto:kd8rcc@wrarc.net">kd8rcc@wrarc.net</a>
Secretary:	Kevin Stein, KD8NXS	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>
Treasurer:	Maureen Stein, KD8NXS	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>
Trustees:	Steve Fabry, KC8SOY	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>
	Chris Monske, KD8ELY	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>
	Harry Harker, KD8PQK	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>

### Appointed Positions:

Social:	Maureen Stein, KD8NXS	<a href="mailto:kd8nxs@wrarc.net">kd8nxs@wrarc.net</a>
Publicity:	Joe Wojtowicz, KD8RCC	<a href="mailto:kd8rcc@wrarc.net">kd8rcc@wrarc.net</a>
Newsletter/Web:	Jane Avnet K8JAA	<a href="mailto:k8jaa@wrarc.net">k8jaa@wrarc.net</a>
Facebook/Badges/logo Design:	John Fabry, KC8SPF	<a href="mailto:kd8spf@wrarc.net">kd8spf@wrarc.net</a>

<http://www.wrarc.net/>

## WRARC FIELD TRIP CONFIRMED



For those of you who haven't heard yet, I'm pleased to announce that we received confirmation from Tim Duffy, K3LR, who has graciously agreed to host our club members for a tour of his "shack" and antenna farm. In case you've never heard of K3LR, you have most likely have driven by it at one time or another.

The station and antenna farm is located right off Interstate 80 East past the rest stop as you enter Pennsylvania from Ohio. They have a number of amateur radio operators in their teams that work the station. It is very active in the weekly emergency response network tests on 75 meters, a member of ARES and RACES and also an Official Emergency Station and Official Relay Station as appointed by the American Radio Relay League (ARRL). K3LR is also on the air with the weekly D-Star net for Western PA.

Over the past 20 years, it has been part of more than 75 Multi-Multi team operations with over 120 operators participating in international contesting events. The extensive competitions test the capabilities of the station and its operators to effectively communicate with other amateur radio stations around the world.

Every fall, amateur radio stations and operators from around the world operate along with the K3LR Multi-Multi Team in one of the largest sporting events (more than 30,000 people) around the world. The CQ WorldWide DX Competitions (Phone in October and CW in November). The K3LR Team also operates in the ARRL International CW and Phone DX competition every year (February and March).

For those of you who would like to literally get a "birdseye" preview K3LR, you can go to YouTube (<http://www.youtube.com/watch?v=OMzdTQzJjSc>) for a very interesting remote-controlled HD helicopter view of the antenna farm and a very interesting view hovering over one of the highest antenna radials. The YouTube clip was filmed last October, so you also get a great view of Interstate 80 and the fall foliage of western Pennsylvania. You may also want to visit his website at [www.K3LR.com](http://www.K3LR.com).

The field trip is scheduled for Tuesday, June 17, 2014, starting at 7:30pm EDT. We plan on having dinner and our regular meeting at Davidson's Restaurant, Canfield, OH at 6:00pm EDT and then heading out to K3LR for the open house. He said there's plenty of parking. Stay tuned for more information as we get closer to the date.

73, Joe Wojtowicz, VP

### THINGS THAT ARE GOING ON WITH THE WORLD WIDE DX

If you did not hear, I had a major computer virus. I had to rebuild the OS and thanks to having backups I was able to get just about everything back. This was the FBI virus that came in on a Java update. Watch your computer!!! Thanks to DXKeeper I have it set to upload to E-QSL automatically.



A friend told me about a program that emulates DOS. It is called DOSBox. It operates with Win 7 & 8, Mac and Linux. It will allow you to run old programs.

Things are going well with the ARRL 100 year WAS. I have worked everything to date. You have to be on LoTW in order to get the 100 Year WAS award. There is a lot of activity on the bands. They are up and down a little more that I have seen before, but they still are working well. This could last for another year before it starts to fall.



I am doing a Tech class then a General class. Anyone that wants to upgrade please get hold of me ASAP.

I'll go QRT for now, see you on the airways.

73 AB8AA

## SAD NEWS - CLARK JONES

YOUNGSTOWN, Ohio (WKBN) — Dennis O'Hara, interim department head for the Mahoning Co. Emergency Management and Communications Agency confirmed that former department head Clark Jones passed away Sunday night.

O'Hara said that Jones was going through health issues.

Jones resigned Jan. 23 after serving with the EMA office for around 14 years.

The Mahoning County Fire Chief's Association honored Jones on Jan. 26, thanking him for his service.

According to an email from Wes there are no further details, and there will be NO visitation.

Clark was a good friend.



## YOUNGSTOWN HOME, GARDEN &amp; CRAFT SHOW

The Home & Garden show is history, and it was a success for WRARC. Thursday afternoon, March 27, some members got together and put the booth together. The show was Friday, March 28, Saturday, March 29, and Sunday, March 30. We had a couple inches of snow the night of the 29th. I thought March was supposed to go out like a lamb.

A family of Hams submitted a membership application. When you see Dave, KD8SDZ, Jo, KD8SNW, and Devon, KD8SNV, Wilms at a meeting, make them welcome. We got some students for both the Tech. and General classes, we reconnected with some old friends, and made some new ones. We all had fun working in the booth, and visiting the other vendors.

Thanks to the members who showed up and spent time in the booth. Special thanks to those members who came out all four days, and to John KC8SPF who was kind enough to secure the booth for us.

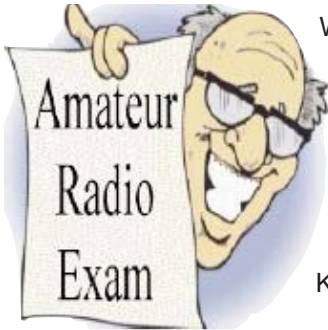
Those who came out and signed in were: Allan Avnet AB8AA, Bonnie Scott KD8TIK, Chris Monske KD8ELY, Cory Beight KD8STJ, Darrin Cannon N8DMC, Dave Beatty KC8WY, Dave Ruck N8YMZ, Dennis Marko KD8SNA, Donna Haren, Harry Harker KD8PQK, Jane Avnet K8JAA, Jim Jickess KB8QDZ, Joe Wojtowicz KD8RCC, John Fabry KC8SPF, Maureen Stein KD8NXS, Nina DiPietro, Rebecca Davis, Rosemary Marko, KD8TII, Roy Dyckman KD8JMO, Roy Harren KD8IJF, Russ Williams NR8W, Steve Fabry, KC8SOY, and Wes Boyd W8IZC.

Some of these folks helped set-up on Thursday, and spent the three days the show lasted working the booth, some were only able to stop by and say HI. Any and all help is greatly appreciated. for us.





## SPECIAL MARCH TEST SESSION



WRARC's Extra class is over. After our special test session we now have two new Extra class Hams. Congratulations to Stan KB3WPD and Joe KD8RCC. We always open our test sessions to any Ham who might like to get a new license or upgrade. Leeanne Childers, KD8WTD, is now a Technician. Good work, and congratulations.

The VEs who came out to help Al Avnet AB8AA, contact VE for the ARRL test session were: Dave Beatty, KC8WY; Roy Haren, KD8IJF; Pete Finamore, N8XOE; Sam DiRocco, W8SDD; Darrin Cannon, N8DMC; Bob McCully, AB8OP; Jane Avnet, K8JAA. Thanks for your help.

## SPECIAL CLASSES

## CLASSES STARTING

TECHNICIAN CLASS  
APRIL 2

GENERAL CLASS  
MAY 7  
FOR INFO & BOOKS CALL AL  
330-549-3051



At our February meeting we had six visitors that showed an interest in becoming Hams. Because of this interest, we decided to hold a special **Technician Class** starting April 2 at ITT. The book used during the class costs just \$22.

When the Technician Class finishes we will start a **General class** on May 7 also at ITT, for any Ham interested in upgrading. Just \$26 for the book needed for the class.

There is no charge for either of these classes, just \$15 for the FCC test given when these classes finish.

If you know anyone, who might be interested, have them contact Al to make a reservation and to purchase text books, at 330-549-3051 or by email [ab8aa@arrrl.net](mailto:ab8aa@arrrl.net).

## WHAT'S COMING UP?

- |              |                                                                                                                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April 15     | Meeting at Davidson's - 7:00 P.M. SM, Scott Yonally, N8SY                                                                                                                                                                 |
| May 7        | General Class - 7:00 P.M. at ITT.                                                                                                                                                                                         |
| May 20       | Meeting at Davidson's - 7:00 P.M.                                                                                                                                                                                         |
| June 17      | Meeting at Davidson's - 7:00 P.M.                                                                                                                                                                                         |
| June 18      | Test Session at ITT at 6:30 P.M.                                                                                                                                                                                          |
| June 28      | Test Session at our Field Day Site - 10:00 A.M.                                                                                                                                                                           |
| June 28 - 29 | Field Day at Elser Airport again this year<br>Contact Steve KC8SOY, Chris KD8ELY, or Darrin N8DMC to volunteer for a station or to help - Contact Maureen KD8MXS with what you'll be bringing for our Field Day Pot Luck. |
| July 11 & 12 | Tour of the Valley - contact Roy KD8IJF to Volunteer.                                                                                                                                                                     |
| July 15      | Our Annual picnic                                                                                                                                                                                                         |



No trees were killed in the distribution of this newsletter  
However, a large number of electrons were terribly inconvenienced.

**WRARC Communications Unit Net Friday Nites 8:00P.M.**

145.270, PL -110.9

Net Control will be rotated

Join us for the WRARC Friday night Net 9:00 P.M.

145.270, PL -110.9

**Upcoming Net Control Operators**

Apr. 04 Steve KC8SOY

Apr. 11 Al AB8AA

Apr. 18 Cory KD8STJ

Apr. 25 Joe KD8RCC

May 2 This could be you

May 9 Dennis KD8SNA

May 16 Chris KD8ELY



Contact Steve, KC8SOY to take a turn at Net Control

330-774-6346

Ask The Elmer Net Right after the Friday Night Net

KC8SOY Moderator

**Mahoning County ARES® Nets**1<sup>st</sup> Monday 8.30 PM ET W8QLY Repeater - 146.745 (PL 110.9)

&amp;

3<sup>rd</sup> Monday 8.30 PM ET W8QLY Repeater - 146.745 (PL 110.9)

We thank MVARA for the use of their repeater

W8SGT is facilitating The Ohio HF net every Tuesday - 7:00 PM

The net is run from the State of Ohio EOC on the

Ohio ARES Admin frequency 3875 kHz LSB

moves to 7240 Khz after 20-min.

All are welcome to check in.

The Ohio ARES/OES Digital Emergency Net held every Tuesday at 8:00PM.  
held on 3585 kHz USB.

Please note all digital communications are Upper Side Band.

<http://www.http://ohden.org/> for net details. Net Manager Gary NJ8BB**COLUMBIANA COUNTY DIGITAL NET**

Wednesdays 8:30 pm - 9:30 pm

145.510 MHZ SIMPLEX

NBEMS/FLDIGI is being used training on the message handling  
capabilities of FLDIGI/FLMSG. Start with BPSK-125 other modes may be used for testing

First Wednesday of the Month Mahoning County Skywarn Net

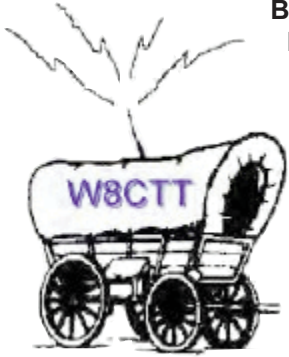
is held on the W8QLY repeater 146.745 (-) at 8:30P.M.

Thanks &amp; 73

All of our members (and others) look forward (hopefully) to getting this newsletter every month, so keep sending those articles, jokes, and suggestions!

Thanks goes out to this month's contributors; KD8IJE, AB8AA, KD8NZF, KC8SOY, KC8PQK, KC8UNR, KC8ELY, W8IZC, KC8PD, KB8UUZ, W8DEC, N8SY, W5YI, the ARRL and the World-Wide Web.

## TIDBITS FROM AREA CLUBS

**Bus Trip to Hamvention® 2014**

I'll say it again - The best deal at the Dayton Hamvention® is in Akron, Ohio! On Saturday, May 17, the Pioneer Amateur Radio Fellowship (PARF) is again offering a day trip to the Dayton Hamvention®. Just \$65 gets you a trip down, and back, and your Hamvention® ticket as well! Bus leaves at 5:30 AM, from the Akron Baptist Temple, and will pull up to the Hara around 9:00 AM. After a fun-filled day at the Hamvention®, we stop at the Golden Corral in Columbus for dinner, then arrive back in Akron shortly after dark. For more information, contact Joy Spencer KA8TDF at KA8TDF@arrrl.net or call 330-745-5115.

73, John, KD8MQ  
Editor, Alliance NL.

**Stark County VHF QSO Party**

The Stark County VHF QSO Party sponsored by: The Alliance Amateur Radio Club will be held on April 26th, 2014 from 12:00 PM - 4:00 PM. Mode: 2 Meter FM Simplex. This is the Alliance ARC's 5th running of this event. Our previous years have resulted in a lot of 2 Meter activity, and a lot of fun. ? The purpose of this contest is to:

- Provide an opportunity for local Amateurs to enhance their station and operating skills.
- Simulate emergency conditions (with NO repeaters).
- To enhance utilization of the 2 meter band and simplex operation
- To have fun.

We've tried to keep the rules as simple as possible, without sacrificing clarity. If you see anything that leaves you scratching your head, please let me know. You can email me at 2mcontest@w8lky.org, or call me at 330-936-5021.

Let's do our best to stay safe out there. I'm talking especially to the mobile operators. Obey the rules, of the road, and let's make this a good day for everyone. Thanks again for your interest. We look forward to working you in the 2014 Stark County VHF QSO Party.

73, John Myers, KD8MQ

**The Univ of Akron ARC plans to launch a high altitude balloon** (UA-HABP2), with repeater on Saturday, April 12, 2014 at around 11am EDT. Payload includes a cross band repeater, slow scan television, and telemetry. The repeater will have a coverage area exceeding 200 miles for a majority of the two to four hour flight, reaching a maximum altitude projected to be 80,000 feet. Everyone is encouraged to join in! A hand held is all that is needed to receive the balloon, dual band capability allows repeater use if desired. Launch location subject to change closer to launch date. Please check our Twitter feed and habp.w8upd.org website for updated launch info as well as real time tracking when launched.

**Quick info:**

What: U of A High Altitude Balloon Launch  
 Where: Launch: Delaware, OH; Receivable over all of Ohio.  
 When: 11am-noon EDT Saturday, April 12th, 2014  
 FM Repeater (input) 438.050 MHz  
 FM Repeater (output) 145.600 MHz (Split of 292.45Mhz Rpt In-Out) (TX 2w)  
 Location Telemetry (RTTY 45) 145.700 MHz (TX 70mw)  
 Image+Location Telemetry (SSTV Robot 36) 145.775 MHz (TX 70mw)

**Contact for questions:**

Email: w8upd@googlegroups.com  
 Phone: 330-879-8873  
 Website: habp.w8upd.org (launch updates and ways to provide feedback via this site)  
 Twitter: w8upd\_habp  
 Ustream: w8upd

Website for club info and project details: <https://wiki.w8upd.org>

W8UPD - The University of Akron Amateur Radio Club *Continued page 7*

## AREA CLUBS - CONTINUED FROM PAGE 6

04/12/2014 - Cuyahoga Falls Amateur Radio Club (CFARC) - 60th Annual Hamfest, Electronics & Computer Show - Location: Emido and Sons Party Center - 48 E. Bath Rd. - Cuyahoga Falls, OH -

Website: <http://www.cfarc.org> -

Contact: Ted Sarah W8TTS -

Email: [hamfest2014@cfarc.org](mailto:hamfest2014@cfarc.org)

-----  
If you miss one of our test sessions, or you can't wait, SAARA has test sessions every odd numbered month, 3rd Saturday, 1:00 P.M. at the EMA in Lisbon. Contact James Beal N8RAK at 330 303 5793.

**The March edition of the NWS Aware Newsletter has been posted at the following link:**  
**<http://www.nws.noaa.gov/om/Aware/pdfs/14mar-aware.pdf>**



**Please feel to pass on this link or to reprint Aware. If you have suggestions for future topics, comments or compliments, please send them to [Melody.Magnus@noaa.gov](mailto:Melody.Magnus@noaa.gov) Melody Magnus, Managing Editor.**

Here are the two Morse code training programs that I like. They are all free downloads.

Start here to learn Morse Code

Great contest simulator

Build your speed

<http://www.dxatlas.com/MorseRunner/>

<http://www.rufzxp.net/>

73 de Bill WB9LBI

At exactly 9:47 am, the planet Pluto will pass directly behind Jupiter, in relation to the Earth. This rare alignment will mean that the combined gravitational force of the two planets would exert a stronger tidal pull, temporarily counteracting the Earth's own gravity and making people weigh less. Yea Sure, April fool!

#### I.S.S. Astroviewer

Check out this website - <http://iss.astroviewer.net/> It not only shows you where the current orbit of the International Space Station in real time, it also shows you (using Google Maps) the area that it is flying over. Really interesting!

#### Looking for a Fox?

It's that time again. The 2014 fox hunt season is upon us. The first Alliance ARC Fox hunt is scheduled for Wednesday, April 22nd at 6:30 PM. The hunt will be on 147.525 MHz. The starting line is at the old Buds plaza on Union ave, at Hartshorn St. about 3/4 mile South of the Castle. The address is 1900 S. Union Ave (Rt 183), Alliance, OH 44601 - GPS coordinates are: 40.902709, -81.105327. The hunt frequency will be 147.525 MHz. We will be monitoring 145.37 (No PL). The Alliance Fox hunts are always on the 4th Wednesday of the month during Daylight Saving time. Good luck & 73, John, KD8MQ



#### SPECIAL EVENT STATION IN OHIO..

04/19/2014 - 2nd annual Earth Day event. Powered only by the sun. 1500Z-2000Z - W8PRC, Cleveland, OH. Parma Radio Club. 21.285 14.235 7.185. QSL. Parma Radio Club - 7811 Dogwood Ln, Cleveland, OH 44130. Beautiful QSL photo of the earth. Help us celebrate our marvelous planet [parmaradioclub.webs.com](http://parmaradioclub.webs.com)

#### EARTH DAY WALK AND RIDE

From 10 AM to 2 PM on April 26th Earth Angel Farm, and The Garrett Wonders Memorial Fund will be holding the first Earth Day Walk & Roll bike ride and walk. The Start will be at the Sunside Trail Head for The Western Reserve Green Way on St. Rt. 305 in Champion Township. There will be food, refreshments, and Earth Day activities! This is a free event designed to raise awareness for Earth Day the Western Reserve Greenway for both walkers and cyclists. Choose your own distance and enjoy Mother Nature, and the Beautiful Western Reserve Green Way! (from the April edition of OSW "FreshAir".)

Peace, Jay Wonders

### +++ INTERESTED IN BECOMING AN ARRL EMPLOYEE? +++

ARRL is looking for two good people to fill staff openings. Summaries of these openings follow:

**ARRL Seeks Candidates for Contest Branch Manager:** The ARRL is seeking candidates for the position of Contest Branch Manager. This individual will be responsible for all aspects of ARRL's contest program. Applicants should have at least 5 years of experience in personnel, software, and process management in a non-profit environment and as an active Amateur Radio contesting participant. A bachelor's degree is preferred. Details are on the ARRL website.

**ARRL Seeks Principal Software Engineer:** The ARRL is seeking an experienced software engineer who can work independently, as part of a small development team and with contractor teams, to design and develop database applications and interfaces to external services and systems. The position will be the primary software engineer for the Logbook of The World (LoTW) system. Candidates must possess strong C++ programming skills on Linux/Unix platforms, as well as experience in all phases of project management, from architecture to production system release.

For more information and for instructions on completing and submitting an application, visit the ARRL Employment Opportunities web page at <http://www.arrl.org/employment-opportunities>.

### UPDATES PLEASE!

Over the last few months, it seems that some of the WRARC members have not been getting the important e-mails that are sent out. Please - check with Maureen, our Treasurer and make sure you have a valid e-mail address on file. There is nothing worse then sending out an email to (your call)@wrarc.org and wondering if you get it at all. So, please send your current & working e-mail address to KD8NXS@wrarc.net - and don't forget to tell Maureen who the e-mail is from.

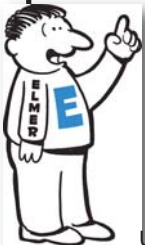
AND - while we are on the subject: Check your Amateur Radio License - Is your mailing address up-to-date? If not - you could lose your ham license and not even realize it. If the FCC tries to send you a letter, and it bounces back - they can cancel your license. What a hassle ! - So, check your license now - make sure you have your current address - and make sure it's not expired.... You can re-new 90 days or less than your expiration date. You can re-new online, or if you're an ARRL member - you can get an automatic reminder sent to you with all the paperwork needed to renew for FREE. You worked hard to get your license, don't let it lapse.

PCARS NL

**If you have been voting for politicians who promise to give you goodies at someone else's expense, then you have no right to complain when they take your money and give it to someone else, including themselves**

**Thomas Sowell**

Challenge WRARC Elmers with your Questions - [questions@wrarc.net](mailto:questions@wrarc.net)



Avnet, Allan AB8AA

Beatty, Dave KC8WY

Fabry, Steve KC8SOY

Haren, Roy KD8IJF

Monske, Chris KD8ELY

Webster, Robert WR8RW

Williams, Russ NR8W

Antennas, radio setup, mobile,  
grounding, classes, anything  
anything

Yaesu FT8900, FT8800, Mobile  
???

Mobile installations

erecting antennas

Electrician, tele-data, Amateur Extra

[ab8aa@wrarc.net](mailto:ab8aa@wrarc.net)

[kc8wy@wrarc.net](mailto:kc8wy@wrarc.net)

[kc8soy@wrarc.net](mailto:kc8soy@wrarc.net)

[kd8ijf@wrarc.net](mailto:kd8ijf@wrarc.net)

[kd8ely@wrarc.net](mailto:kd8ely@wrarc.net)

[wr8rw@arrl.net](mailto:wr8rw@arrl.net)

[nr8w@wrarc.net](mailto:nr8w@wrarc.net)

If you don't ask, you don't learn

Used with permission

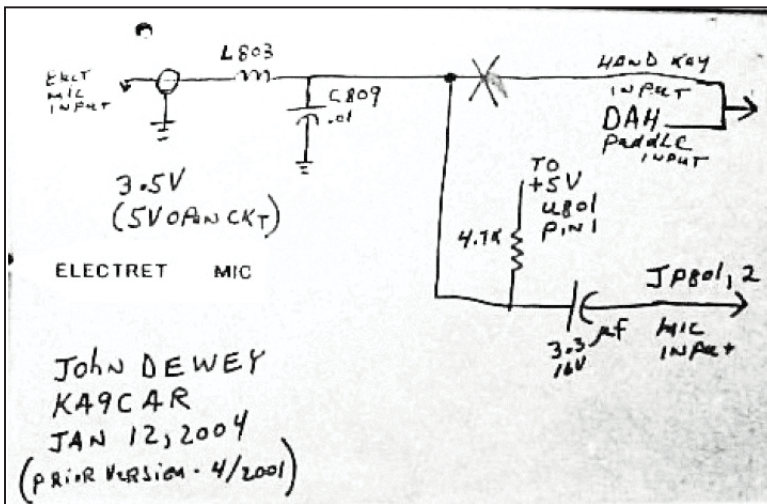
Articles from members for the Wave Bender are encouraged. They must be received by the editor three days before the end of the month. Please send your articles to: [k8jaa@arrl.net](mailto:k8jaa@arrl.net), and put WRARC on the subject line of your email. You may also send your articles to the editor: Jane Avnet, 2050 E. South Range Rd., New Springfield, OH 44443



# TIPS & TRICKS

Use a short bungee type cord as a quick mic hanger for mobile setups. Worked on my ICOM mic, but I know there are different mic hangers on the different brands.

cory Beight KD8STJ  
<kd8stj@gmail.com>



I use an electret "Computer" headphone / (electret) microphone for my regular QSO mic on my Kachina 505DSP. There are two features to this modification:

1. It uses the (cw) KEY jack. While this eliminates the straight key jack, this is not a problem for me, as I do not use a straight Key. If you want to still use one occasionally you should note that the "DAH" paddle contact is the same as the KEY in.

2 K1ND pointed out to me that there is a regulated 5 volt source on the PC board in the control head. According to the schematic this is used only by the microphone pre-amplifier. What better source for power for the electret microphone!

Here are the modifications I made:

1. Cut the foil for the key jack, to separate it from the dah, but leave L803 and C809 to maintain RF protection on the input.
2. Make the new connections by soldering the component leads to the edges of the surface mount L and C. In a similar fashion solder a wire to pin 1 of U801 the 5 volt regulator.

I found that a value of 4.7k provided adequate bias for a standard computer microphone. If you decrease this value, it will provide more voltage to the microphone but also lower the audio frequency resistance to ground. The 3.3 uF cap was picked to be at least 10 times the value of the series input capacitor C803 (.1 uF) inside the Kachina. I used the 3.3 because it was on hand, a 1.0 should be adequate. The electret microphone requires DC+ on the audio line. However, the Kachina has a microscopic 5k pot on the audio line that could be damaged by DC+. This capacitor blocks DC from that pot. One of the techs at Kachina told me I needed to block the DC this way.

NOTE: I previously was doing something very similar using a resistive voltage divider on the 12 volt supply. I did not realize that the lack of regulation on that line was causing problems in my radio, until after I switched to using the 5 volt regulated supply, and some annoying problems went away.

From the Kachina Reflector, adapted from a writeup by John, KA9CAR.

How To Test Batteries Without A Meter -

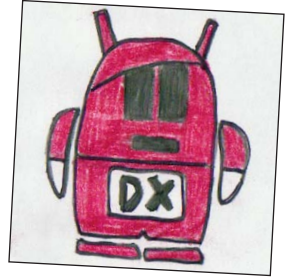
<http://www.jewsnews.co.il/2014/03/01/how-to-test-batteries-east-without-a-meter/>

More page 10

## EsSense App for Sporadic E

The Android app 'EsSense', which was launched in December, has been received well by the VHF community

Since then several hundred European operators have downloaded the app; they are using it to literally "stay tuned" at all times and greatly enhance their DX power. Many thanks to all users for their useful feedback - this was a great help to fix bugs and further improve the app.



Now that EsSense has reached a mature level it's time to expand the functionality to other regions: The latest version (0.10) now also supports North and South America, Middle East and Africa! (East-Asia, Oceania, Australia coming soon).

EsSense can be downloaded for free from the Google Play store at:  
<https://play.google.com/store/apps/details?id=net.gooddx.essense>

Good DX! 73, Allard PE1NWL - GOUDA, Netherlands

## 2014 PREPAREDNESS SUMMIT TO HIGHLIGHT IMPORTANCE OF AMATEUR RADIO



The Preparedness Summit is the largest public health preparedness conference in the United States. The 2014 event will take place April 1-4 in Atlanta, with some 2000 preparedness professionals expected to attend the multidisciplinary event. This year, the Preparedness Summit is highlighting the importance of Amateur Radio, and special event station N4P will operate from the Exhibit Hall. N4P will be on the air from 1700 until 2330 UTC on Wednesday, April 2, and from 1500 until 2030 UTC on Thursday, April 3. Stations contacting N4P will receive a special QSL card. On VHF and UHF,

N4P will monitor the 146.88 W4BTI repeater, the 442.875 MHz K4RFL repeater, and the D-STAR 440.6875 B-Node operating as KK4OIO. On HF SSB, look for N4P on 28.365 MHz, 21.365 MHz, 14.265 MHz, and 7.265 MHz. N4P also will be on EchoLink.

The National Association for County & City Health Officials (NACCHO) offered Amateur Radio licensing webinars in February and March. Testing will be administered April 3 at the Preparedness Summit. NACCHO is offering an in-person review session at the Summit on April 2, the evening before the examination. The webinars have been recorded and are available via the Summit website.

<http://www.arrl.org/news/view/2014-preparedness-summit-to-highlight-importance-of-amateur-radio>

## ARRL TEACHER'S INSTITUTE



ARRL runs a Teacher's Institute each year and it is a terrific opportunity for local public school teachers. ARRL will pay for their transportation, housing, and food for those that attend. In addition teachers get graduate credit for attending which can be used to help meet their requirements for professional development for the year. Applications are being taken through May 1 and more information is available at <http://www.arrl.org/teachers-institute-application>.

Maybe one or two of our members might know quite a few teachers that are looking for workshops over the summer. The Teacher's Institute will be running several times, June 23-26 in Dayton and July 22-25 in Newington, CT. There is also a session July 8-11 in Newington but it is the Part II session and I believe it has a prerequisite of part I.

## ARRL



**Public Service: Amateur Radio Played Role in Missing Airliner Response**  
Following the mysterious disappearance on March 8 of the Malaysian Airline Boeing 777-200ER jetliner with 239 passengers aboard, the airline's Emergency Management Centre (EMC) at Kuala Lumpur Airport provided hotel accommodations for passengers' next of kin. Malaysian Amateur Radio Transmitters' Society (MARTS) President Mohd Aris Bernawi, 9M2IR, said his organization was asked to provide a link between the airport and the hotel.

MARTS quickly set up a station, led by Zanirul Akhmal Zanirun, 9M2PRO, with Azizi Samsuri, 9W2ZZE, as the airline's team leader. The Negeri Sembilan Amateur Radio Club (NESRAC) provided volunteers for the station at the EMC. MARTS set up a cross-band VHF/UHF link to avoid any unnecessary interference to and from public service communications, and later added an HF link.

During the callout, 11 Amateur Radio volunteers were at the EMC, and 23 volunteers were at the hotel. 9M2IR, who oversaw the entire process, said MARTS -- an IARU member-society -- was pleased to be able provide the communication link as the search for flight MH370 continues. -- Thanks to Jim Linton, VK3PC, Chairman IARU Region 3 Disaster Communications Committee

### Technology: Hams' Experimental VLF Signals Heard in the UK, Europe

In what's believed to be a "first," a very low frequency (VLF) signal from a ham radio experimenter in New York was heard across the Atlantic. Bob Raide, W2ZM, was transmitting on 29.499 kHz under a Part 5 Experimental license, WH2XBA/1. His very slow-speed (QRSS) CW signal was initially detected in the UK just before 0000 UTC on March 3 by Paul Nicholson, an SWL, and later by Mike Dennison, G3XDV, and Markus Vester, DK6NM, in Germany. Nicholson also copied a 29.501 kHz transmission from Dex McIntyre, W4DEX, in North Carolina, operating as WH2XBA/4.

The plate tank circuit in the WH2XBA/1 VLF transmitter. [Bob Raide, W2ZM, photo]

"In recent weeks a number of amateur tests have been running from the USA to Europe around 74 kHz and at 29.499 kHz using several hundred watts to large antennas," blogged Roger Laphorn, G3XBM. He said that signals on 74 kHz were "well copied," but that "the surprise" was detecting the 29.499 kHz signal. "As far as I know, these 29.499 kHz VLF signals are the first amateur VLF [transmissions] to span the Atlantic -- fantastic results by well-equipped stations using suitable receivers and good software."

Warren Ziegler, K2ORS, who is on the Experimental license as WH2XBA/2, told ARRL that he and several other radio amateurs have obtained Part 5 licenses to experiment on 500 kHz and on 137 kHz. Ziegler, who has been a participant in the ARRL-sponsored experimental operations on 500 kHz as WD2XSH/23, said Raide wanted to be the first to span the Atlantic on VLF, which he defined as between 3 kHz and 30 kHz, so Ziegler applied for and received the WH2XBA Experimental grant, and included Raide and four others on the license.

The loading coil for the WH2XBA/1 VLF antenna system. [Bob Raide, W2ZM, photo]

"I was ready," Raide told ARRL. His transmitter has a 3CX3000A7 tube in the final, running grounded grid and generating 800 W. The effective isotropic radiated power (EIRP), however, was estimated to be approximately 1 mW. To operate on 10,000 meters, Raide has a 90 foot vertical antenna using a reconfigured Zepp, fed via a huge loading coil that is 4 feet tall, more than 1 foot across and comprised of some 2000 feet of #14 wire. He employs a few thousand feet of "chicken wire" for his radial system.

The transmission consisted of "XBA" sent at a rate of 120 seconds (2 minutes) per dot and 360 seconds (6 minutes) per dash of CW. In the UK Nicholson copied the signal on software using a PC sound card with a preamplifier ahead of it. His antenna is a pair of orthogonal loops, each 20 meters square, at ground level, transformer coupled to the preamplifier. Read more <<http://www.arrl.org/news/hams-experimental-vlf-signals-heard-in-the-uk-europe>>. -- Thanks to Warren Ziegler, K2ORS, Bob Raide, W2ZM, and Joe Craig, VO1NA

Media: NPR's "All Things Considered" Segment Includes Spark Gap Morse from ARRL

As part of its series of vignettes exploring a "counterfactual" history, "What if World War I had *Continued page 12*



## ARRL - CONTINUED FROM PAGE 11

never happened?" NPR afternoon news magazine "All Things Considered" aired a segment on March 11 to explore how history would have unfurled, if the assassination of Archduke Franz Ferdinand had not been not successful.

"They needed a sound of a telegraph relaying the message of the failed assassination attempt," said ARRL Media and Public Relations Manager Sean Kutzko, KX9X. "They wanted it to be as authentic as possible, so we explained that in 1914, it would have been relayed via spark."

Sean Kutzko, KX9X, sends Morse code on a spark transmitter in the ARRL Museum. [Becky Schoenfeld, W1BXY, photo]

The ARRL Lab has a working spark transmitter, so Kutzko got the desired text from NPR, which he sent by hand and recorded. "They said it was 'perfect,'" he reported. "It was a real thrill being able to help NPR; I used to work at NPR affiliates in Illinois and Indiana in the 1990s, so being able to help the network was exciting."

The final result? Well, if you wanted to hear the spark Morse code on the air, you had to listen closely and quickly; it was soon voiced over by a faux voice dispatch relating the faux news. NPR's "All Things Considered" segments are available on the NPR website.

Hams Detect Signal from Retired NASA Deep-Space Probe: Radio amateurs from AMSAT-DL (Germany) and Bochum Observatory detected the beacon signal of the retired NASA International Cometary Explorer (ICE) deep space probe on March 1 and 2. After some changes to the ground equipment and aligning the receiving antenna to the predicted position in the sky, the beacon signal could positively be identified due to its frequency, the position in the sky, and the frequency shift due to Doppler shift. They used a 20 meter radio telescope. Launched in 1978 as the International Sun-Earth Explorer 3 (ISEE-3), ICE was the first spacecraft to detect the "solar wind" approaching Earth. In 1982, the spacecraft was renamed the International Cometary Explorer and diverted to the Moon, where its gravitational pull placed ICE into a heliocentric orbit. Support for the ICE mission was terminated in 1997, although the spacecraft transmitter was left on. It was last detected by NASA's Deep Space Network in 2008. -- Thanks to AMSAT-DL

HRD Software Acquires Rights to SAM Callbook CD, Database: HRD Software LLC has acquired the rights to the SAM Callbook CD and database, begun in the early 1990s by RT Systems before begin purchased by VIS. HRD has said it will honor the current subscriber base and continue to ship the monthly CDs. It will also develop a Windows interface for the Callbook and plans to incorporate the Callbook data into the Ham Radio Deluxe logbook. HRD also has announced its release of the preview/beta 2.1 version of Ham Radio Deluxe 6.2.

Technology: KickSat CubeSat to Deploy Smallest Earth-Orbiting Satellites

A Sprite satellite. [<https://flux.org.uk/projects/hacksat/hardware.html>]

When the third SpaceX ISS resupply mission launches on March 16 from Cape Canaveral, it will carry the 3U KickSat CubeSat into orbit. NASA TV is scheduled to broadcast the launch live. If all goes according to plan, KickSat, in turn, will release 200 "Sprite" satellites -- each about the size of a small cracker -- into Earth orbit. Zac Manchester, KD2BHC -- a Cornell University PhD student in aerospace engineering -- is heading up the project, which was funded via Kickstarter.

The tiny Sprite spacecraft will be single-function, short-lifespan units operating on 437 MHz. Each is essentially a double-sided printed circuit board measuring 3.5 cm × 3.5 cm, incorporating a microcontroller or two, radio, and solar cells. Each can carry single-chip sensors, such as thermometers, magnetometers, gyroscopes, and accelerometers. All Sprites operate on the same frequency -- 437.240 MHz -- and use Code Division Multiple Access (CDMA). Transmitters run 10 mW output.

Zac Manchester, KD2BHC, holds the 3U KickSat assembly prior to vibration testing last fall.

When KickSat reaches its appropriate attitude and orbit, a command signal from the ground will trigger deployment, and the Sprites will be released as free-flying spacecraft. The Cornell ground station in Ithaca, New York, will monitor telemetry and sensor measurements from the individual

*Continued page 13*



## ARRL - CONTINUED FROM PAGE 12

Sprites, with assistance from several other Amateur Radio ground stations around the world.

Due to their low orbit, the Sprites can remain in orbit for as long as 6 weeks in a best-case scenario, depending on atmospheric conditions.

KickSat is being planned as a technology demonstration mission for the Sprite spacecraft. It's being launched through NASA's Educational Launch of Nanosatellite (ELaNa) program. Read more <<http://www.arrl.org/news/kicksat-cubesat-to-deploy-smallest-earth-orbiting-satellites>>.

## LOCAL ARES ACTIVITIES



March was another busy month for Mahoning County ARES. Several members upgraded license class from Tech to General, and others passed NIMS 100 and/or 700.

Over the last 2 months ARES has met with several county Fire Departments, ranging from the Damascas/Beloit area, to Boardman and the last one March 13th with the Austintown FD.

We also were able to be present at the Mahoning Skywarn program on March 19th.

We have had several meetings with Mahoning County acting Emergency Management Director Dennis O'Hara, and for several Saturdays in a row, assisted his agency with testing of the county's tornado/disaster warning sirens.

Several ARES members will be assisting Crisis Response International, which is conducting a Technician class license class for members of that group. Those classes will be every Monday eve in April at the Victory Christian church on 422 in Coitsville. This is a non club activity and open to anyone interested in amateur radio.

ARES is hoping to have a Early May program on a "warm Saturday morning", at a local park or recreation area. We hope to have an antenna school, basic HF radio testing facility, and even an antenna building and operating challenge. Along with this we hope area amateurs will join in the fun, and possibly learn some operating skills for emergency communications and/or ARRL Field Day.

We are also updating our "telephone call tree" and will be conducting a test of that list later in April.

Don't forget the Cuyahoga Falls Hamfest Sat morning April 12. See you there.

## APRIL FOOLS

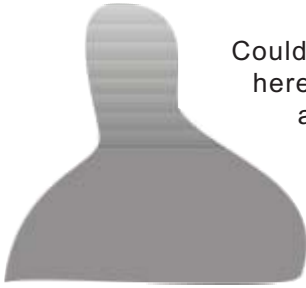
Q: What Is April Fools' Day?

A: An observance which takes place in many western countries every April 1, traditionally known as April Fools' Day or All Fools' Day (aka Poisson d'Avril — "April Fish" — in France). It's a day when humor reigns and harmless pranks, practical jokes, and hoaxes are socially sanctioned. Customary practices range from simple tricks played on friends, family, and coworkers to elaborate media hoaxes concocted for mass consumption.

## Theories of origin:

The origins of April Fools' Day are obscure. The most commonly cited theory holds that it dates from 1582, the year France adopted the Gregorian Calendar, which shifted the observance of New Year's Day from the end of March (around the time of the vernal equinox) to the first of January.

According to popular lore, some folks, out of ignorance, stubbornness, or both, continued to ring in the New Year on April 1 and were made the butt of jokes and pranks on account of their foolishness. This became an annual tradition which ultimately spread throughout Europe and other parts of the world.



Could this be YOU? This is the Wave Bender. We have plenty of room for YOUR article here! If something is of interest to you, odds are that we all will enjoy your thoughts and activities! Have a favorite radio? Have some reminiscing to do? You are warmly invited to contribute! Don't worry about writing or formality- we'll help you with that. Consider this- Wally wrote a story about an interesting flight and is now one of the top read columnists. Could be your article goes here next month!!

### SPACE WEATHER NEWS FROM MARCH 30, 2014

<http://spaceweather.com>

**X-FLARE:** The magnetic canopy of sunspot AR2017 erupted March 29, producing an impulsive X1-class solar flare. Ionizing radiation from the flare produced electrical currents in Earth's upper atmosphere and a ripple in Earth's magnetic field detected by magnetometers across the dayside of our planet. Read more about this rare "magnetic crochet" and the possibility of more X-flares this weekend on today's edition of <http://spaceweather.com>.

**SOLAR FLARE ALERTS:** Would you like a call the next time the sun erupts? X-flare alerts are available from <http://spaceweathertext.com> (text) and <http://spaceweatherphone.com> (voice).

### SPECIAL EVENT STATIONS TO MARK INTERNATIONAL MARCONI DAY

A few dozen special event stations will take to the air April 26, 0000 UTC to 2359 UTC, to commemorate International Marconi Day. Among them will be GB4IMD, in Cornwall, England, OE14M, in Vienna, Austria, IY0IMD in Italy, VO1AA, on Signal Hill in St Johns, Newfoundland, VK2IMD in Australia, and WA1WCC on Cape Cod, Massachusetts. All stations planning to participate are urged to register. A list of registered participants is on the International Marconi Day 2014 website.



International Marconi Day is a 24 hour Amateur Radio event held annually to celebrate the birth of Guglielmo Marconi on April 15, 1874. International Marconi Day is held each year on a Saturday close to Marconi's birthday, with Amateur Radio stations on the air from around the world, including some Award Stations operating from historically significant sites.

The event is not a contest; it is an opportunity for amateurs around the world to make point-to-point contact with historic Marconi sites using HF communications techniques similar to those used by Marconi, and to earn an award certificate for working or hearing a requisite number of Marconi stations. — Thanks to The Daily DX; International Marconi Day.

For more information, visit: <http://g4usb.net/IMD/the-award/award-classes/>

### EXERCISE FOR PEOPLE OVER 60

Begin by standing on a comfortable surface, where you have plenty of room at each side. With a 5-lb potato bag in each hand, extend your arms straight out from your sides and hold them there as long as you can. Try to reach a full minute, and then relax. Each day you'll find that you can hold this position for just a bit longer. After a couple of weeks, move up to 10-lb potato bags. Then try 50-lb potato bags and eventually try to get to where you can lift a 100-lb potato bag in each hand and hold your arms straight for more than a full minute. (I'm at this level).

After you feel confident at that level, put a potato in each bag.

**The wise man, even when he holds his tongue, says more than the fool when he speaks.**



MARCH MEETING



# April 2014



		1 	2 Skywarn Net 8:30 P.M. 146.745	3	4 WRARC Net 9:00PM 145.270 Followed by the Ask the Elmer Net	5 Happy Birthday KC8SOY 
6	7 ARES Net 8:30 PM 146.745 PL 110.9	8 Ham Breakfast Eat'n Park Boardman 8:30 A.M.  Board Meeting Eat'n Park Boardman 7:00 P.M.	9		10 WRARC Net 9:00PM 145.270 Followed by the Ask the Elmer Net	11 Happy Birthday N8YMZ 
12	13	14 WRARC Meeting 7:00P.M.	15  Happy Birthday KD8NXR 	16	17 WRARC Net 9:00PM 145.270 Followed by the Ask the Elmer Net	18
19	20 ARES Net 8:30 PM 146.745 PL 110.9	21 Eat'n Park Boardman 8:30 A.M. Ham Community Breakfast	22 	23	24 WRARC Net 9:00PM 145.270 Followed by the Ask the Elmer Net	25
26	27  Happy Birthday N8GLK 	28  WaveBender Articles Due	29	30	5/1 WRARC Net 9:00PM 145.270 Followed by the Ask the Elmer Net	5/2