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Central Ohio Amateur Radio Emergency Service Bulletin



EC NOTES Kevin O'Harra, KD8IIB ARRL EC—Franklin County

Hello again. I hope all is well with everyone. I am realizing that I have an anniversary of sorts this month. One year ago on October 14th I was named as Emergency Coordinator for COARES. The first few months were especially tough, but with help, I survived. I would like to extend a special thanks to the Leadership Team members for their support, guidance, and assistance, not only during those first few months, but ongoing. I also owe a huge thanks to all the COARES members. Without your support, event participation, willingness to go above and beyond, and for putting up with me this past year, you have helped make COARES the fantastic group it is.

October brings another of our major events, the Columbus Marathon, on the 18th. We also have a few of our smaller events this month. If you are able to assist with the marathon, and haven't already signed up, please do ASAP. We need approximately 60 hams for course assignments, along with other positions. Last report we had less than 30 signed up. Kal Dworkin and Jim Birk are coordinating this event. If you have any questions, contact either one of them, or myself. Crop Walk happens on October 11th. Frank K8OVP is coordinating it. October also brings a FCEM&HS full scale exercise on the 22nd. Contact Kal once again for this event. We also have a tentative Bolton Field exercise on the 30th.

One more thing. Mark December 12th on your calendars for our annual Christmas party. We will once again have a joint party with Franklin County CERT members. More information on this as it gets closer.

Kevin KD8IIB

COARES Mission

To provide emergency communications to central Ohio, public safety, emergency, health, government and relief agencies in times of disaster.

To keep our skills sharp, we provide communication support for many public service events.

Next Meeting

Wednesday Oct 14th at 7:30pm

Franklin County Emergency
Management and Homeland Security

5300 Strawberry Farms Blvd
Columbus, OH 43230

***Don't forget! Renew your membership
in Kroger Community Rewards!***

Just visit

***www.krogercommunityrewards.com
and click on "Columbus" and "Enroll".***

The code for COARES is "84947".
You must re-enroll each year during
the month of April.

Bulletin Contents:

- 2 Contact info and COARES repeaters**
- 3 Columbus Marathon**
- 4 Cross Band Repeating**
- 5 Ham of the Year Leaderboard**
- 6 Events**

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Weekly Nets & Meetings

The COARES net meets Wednesday evenings at 8:00pm local time on the 147.06+ repeater, except for the third Wednesday of each month which is reserved for our General Meeting, held at the office of Franklin County Emergency Management and Homeland Security.

COARES Assistant Emergency Coordinators

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COARES Repeaters

Primary: K8DDG/R
147.060 +.600
444.800 +5.00
94.8 Hz CTCSS

Secondary: AA8EY/R
147.090 +.600
94.8 Hz CTCSS

UHF: WB8INY/R
444.275 +5.00
94.8 Hz CTCSS

The COARES Bulletin

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Publishing Schedule

The Bulletin is published the second week of each month. All items for the bulletin must be submitted by the end of the first week of each month.

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Emergency Services, Inc.
is a 501 (c)(3) non-profit organization.
Contributions are tax deductible.

A Reminder

Always check the COARES primary repeater (147.060 MHz) whenever a situation arises that might result in an emergency activation of COARES. This includes, but is not limited to, tornado, flood, blizzard, hazardous materials spill, terrorist attack, fire, search and rescue (missing person), aircraft/mass casualty, setting up emergency shelters, or a declared state of emergency.

COARES
NETS

Net	Day	Time (local)	Frequency
Central Ohio ARES	Wednesday	8:00 pm	147.060 (+) (94.8 PL)
Central Ohio Severe Weather Net	Tuesday (Mar ~ Oct)	7:30 pm	146.760 (-) (123.0 PL)
Central Ohio Traffic Net	Daily	7:15 pm	146.970(-) (94.8 PL)
Southwest Columbus Ham Radio Club Net	Friday	8:30 pm	145.23 (-)
Amateur Radio Club at Ohio State University	Sunday	8:00 pm	442.6(+)(114.8PL)
CRES ARC Sunday Night Net	Sunday	9—10 pm	146.67(-) (131.8 PL)
Delaware County Net	Monday	8:00 pm	145.170 (-)
Hocking Valley ARC Net	Wednesday	9:00 pm	147.345 (+)
Lancaster / Fairfield County ARC Net	Monday	9:00 pm	147.030 (+)
Madison County "Get Together" Net	Tuesday	8:00 pm	147.285 (+)
Newark ARA Net	Tuesday	9:00 pm	146.880 (-)

COARES
NETS

2015 Nationwide Children's Hospital Columbus Marathon

Submitted by Jim Birk, KD8HVX

Sunday October 18 COARES will again provide emergency communications support for the Columbus Nationwide Children's Hospital Marathon. We will need as many operators as possible to cover the 1/2 marathon and the full marathon. Participation requires registration through the Marathon's online registration system. The URL below will take you to the COARES registration page where you can use your username and password from last year or create a new one. To help us with planning, please register as soon as possible.

REGISTER ONLINE: <http://www.columbusmarathonvolunteer.com/radio>

On the right hand side of the "**COARES Ham Radio**" page, press the "**Volunteer**" button, this will take you to the "**Become A Volunteer**" page where you may login using last year's username and password or create a new registration profile.

Date	Shift Time	Availability
10/18/2015	6:00am - 4:00pm	56 / 60

If you cannot remember your password, press "Forgot your Password?" where you can enter an email address where an email will be sent to you that will permit you to change your password.

If you cannot remember your username or this is your first registration, create a new profile using the "**REGISTER NOW**" button on the left hand side of the "**Become A Volunteer**" page and follow the prompts filling in the boxes with appropriate information. The recommended **USERNAME** is your EMAIL address, but that is not a requirement.

"T" shirts

We no longer submit a list of names and shirt sizes or pick up the shirts. Instead the information is taken directly from your registration profile and the shirts are sent via courier, those will be the only shirts available for distribution. With this procedure I will not be able to get extras or make exchanges, so be sure to enter the correct size when setting up your profile, edit your existing profile if necessary.

For questions regarding **registration** please contact Jim Birk BIRKJ@COLUMBUS.RR.COM

For questions or requests regarding **assignments** please contact Kal Dworkin KA8RLC@COLUMBUS.RR.COM

Cross Band Repeating

Submitted by Andy Elliott, K8LE

Cross band repeating has received some attention lately at COARES, at least partly due to a recent study conducted by volunteers in the Hospital Antenna & Radio Testing Program. The study took place earlier this year, and it was designed to find answers to the question, “how can I communicate if I arrive at a hospital for a drill or emergency situation and find that the rooftop antenna is not functional?” Volunteers found that at several hospitals, none of the “usual” backup antenna solutions (J-Pole or magmount antenna) worked, nor did an HT on 2m or 70cm. At five hospitals, the only successful alternative was cross band repeating! You can find the details of this study on the COARES website, “Hospital Emergency Backup Antennas”.

Cross band repeating is a way to extend the communications range of an HT. If you choose a radio with cross band repeat (CBR) capability, you may pay a little more but you will have much more capability certain emergencies situations or public service events. The radio equipped with CBR capability can actually function as a repeater, with a transmitter and a receiver that are linked together but able to operate on different frequency bands, typically 2m and 70cm.

In full duplex (two way) cross band repeating, the mobile radio can be set up to receive a signal on 70 cm from an HT and to retransmit it on 2m to the main repeater, and to receive a signal on 2m from the main repeater and retransmit it on 70cm (to the HT). The HT used with full duplex CBR can be dual band or UHF-only. (This is the commonly used configuration for CBR, but it can also be set up to work the opposite way, VHF on HT to UHF on CBR).

This capability can be utilized when trying to communicate from within a hospital, for example, when the rooftop antenna is inoperative. Using full duplex (two way) CBR, the ham at the hospital transmits on 70cm simplex with the low power and inefficient antenna of the HT, to the dual band mobile CBR radio in the nearby vehicle. The 70cm signal received at the mobile radio is repeated on 2m, with higher power and with a better antenna, with the result that the signal from the HT can activate the main repeater on 2m. The response from the 2m main repeater is received by the CBR radio, which retransmits the signal on 70cm simplex. The ham in the hospital (in this example) hears the response on 70cm. The 70cm simplex frequency of 433.00 MHz has been found to work well as there is less noise on this frequency in the hospital environment. (If the ham in the hospital can hear the main 2m repeater, half duplex (one way) CBR can be used – which places fewer demands on the mobile CBR radio). **This also avoids any issues regarding the lack of identification when the CBR retransmits the signal from the main repeater, back to the HT.**

In addition to the hospital situation, there are other situations where cross band repeat operation may be useful. A dual band mobile radio configured as a *simplex* CBR can be very useful in an emergency or public service event. The CBR radio translates back and forth between a 2m simplex channel and a 70cm simplex channel. Using this capability, a low power 70cm HT can work through a mobile CBR station to communicate with a 2m simplex net, taking full advantage of the mobile’s high power capabilities. Any dual band or 70cm HT can be used in this scenario. Some examples:

- A ham communicating on a 2m simplex net needs to be on foot (or bicycle) away from the mobile rig (e.g. a public service event). By configuring the mobile rig as a CBR, the ham can communicate with the 2m simplex net using a low power 70cm HT.
- Operating in a group using HTs outside of normal repeater range (search/rescue, disaster, emergency).

Continued page 5

Continued from page 4

- A parked mobile station configured as a CBR and located on high ground can be used to provide a 70cm simplex link into low-lying areas with poor simplex coverage.

In some of the situations described above, simplex CBR is discussed. The same scenarios can be used when communicating with a 2m net on the main repeater, using either full duplex (two way) CBR or half duplex (one way) CBR. If the 2m signal from the main repeater can be heard on the HT, half duplex CBR can be utilized (easier on the mobile), as long as the ham with the HT has an HT capable of simultaneous operation on 2m and 70cm.

Full duplex places heavier demands on the mobile radio configured as a CBR because it will be working much harder, since it retransmits *all* the 2m conversations from the main repeater. The CBR is transmitting when your HT is using the system, and it is transmitting when the main repeater is operational. This means that you need a lot of battery power, and the CBR can get very warm. Use the lowest required power level.

As with standard repeaters, cross band repeaters should be set up with a receive CTCSS tone on the frequency used by the HTs. This should be done so that other stations on nearby frequencies do not inadvertently trigger the cross band repeater. This is important when the cross band repeater is working into a larger main repeater net.

Several COARES members have CBR capability on their dual band mobile radios. The Yaesu FT8800r/8900r radios are the most popular within COARES. The Kenwood TMV71A is also preferred, and it provides automatic CW identification on the downlink side to the HT, which is nice for full duplex use (and satisfies FCC regulations). Several ICOM models (2720H/2820H/2730A) are also available as well as Alinco (DR-635T), Baofeng and Wouxun, etc. There is no common setup for all manufacturers. Consult your owner's manual for instructions for your specific radio. If you are considering the purchase of a new dual band mobile radio, consider one with CBR capability!

(Before operating a CBR, make sure you are familiar with the FCC regulations which govern repeaters and remote bases).

Special thanks to Patrick, KD8ION, for reviewing this article!



This year we have a new points system that recognizes members for time and activities put towards the COARES club.

2015 Ham Of The Year Leaderboard

Rank	Points	Call	Name
1	85	KD8PHG	Richard Wynkoop
2	64	KD8RTP	John Buck
3=	63	KD8IIB	Kevin O'Harra
3=	63	KD8ION	Patrick Gibson
5	61	KD8WQY	Denny Waltermire
6	57	KA8RLC	Kal Dworkin
7=	49	Kb8YVI	Phillip Moore
7=	49	KD8SYT	Lynne Moore
9=	47	KA8CEJ	Wayne Walls
9=	47	K6HRU	Bruce Lent

COARES ACTIVITIES FOR 2015

Oct	Event	Time	Location	Coordinator/Net Control
7th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Kevin O'Harra, KD8IIB
11th	Crop Walk	12:00 pm—3:00 pm	Scioto Audubon Metro Park Maier Place Pavilion 400 W Whittier St. Columbus, OH 43215	Frank Huffman, KD8OVP
14th	In-person Meeting	7:30 pm	Franklin Co. EM & Homeland Security	Kevin O'Harra, KD8IIB
18th	Columbus Marathon	6:00 am—2:00 pm	TBD	Kal Dworkin, KA8RLC Jim Birk, KD8HVX
21st	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Kal Dworkin, KA8RLC
22nd	FCEM&HS Full Scale Exercise	TBA	Columbus Area	Kal Dworkin, KA8RLC
28th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	John Buck, KD8RTP
30th	Bolton Field Exercise	TBA	Bolton Field	Kal Dworkin, KA8RLC
Nov	Event	Time	Location	Coordinator/Net Control
4th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
11th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
18th	In-person Meeting	7:30 pm	Franklin Co. EM & Homeland Security	Kevin O'Harra, KD8IIB
25th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
26th	Turkey Trot	9:00 am	Groveport OH	TBA
Dec	Event	Time	Location	Coordinator/Net Control
2nd	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
5th	2015 Jingle Bell Run/Walk	7:00 am—?	Hyatt Regency, Columbus	Richard Wynkoop, KD8PHG
12th	Annual Christmas Party	TBD	Franklin Co. EM & Homeland Security	Kevin O'Harra, KD8IIB
16th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
23rd	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open
30th	Wednesday Night Net	8:00 pm	147.060(+) (94.8 Hz PL)	Open

Newsletter Contributions

This bulletin cannot happen without members contributing photos, stories, tips or articles. If you have something you'd like to contribute, or for corrections, please send them to the bulletin editor: Reuben Yau, W1YAU pittbug@gmail.com

COARES One Call Now

Please remember to notify our One Call Now Administrator (KD8IIB - Kevin O'Harra) for any changes to your phone numbers or email addresses that would affect how you are notified in the event of an emergency callout. Also, any new members that would like to be included in an emergency callout, please contact Kevin with your info.

Please see the article in the April 2015 bulletin that explains this system in greater depth.