CQ Chatter

APRIL 2019 **VOLUME B19 •ISSUE 2**

WOOD COUNTY AMATEUR RADIO CLUB

President	**WB8NQW**	**Bob Willman**
Vice President	**KD8VWU**	**Doug Perez**
Secretary	**N1RB**	**Bob Boughton**
Treasurer	**KD8NJW**	**Jim Barnhouse**

Plans for Repeater Move Proposed

As reported earlier, BGSU is finally getting serious about the demolition of the Administration Building, where the K8TIH 147.18 MHz/444.475 MHz transmitters are currently located.

After hemming and hawing since 2011, the University projects a date of some time in 2020 for the razing. As a result, a meeting of the Technical Committee was held on March 14, to discuss the issue and to make plans for moving the transmitter set to Offenhauer Hall, where the receivers are located.

The move entails relocation of the two GE Master transmitters, along with the relay rack that contains them. Since both locations are in the 11th story penthouses of their respective buildings, and are not fully accessible by elevator, the move will necessitate navigating two fairly long flights of stairs with the equipment.

The repeater xmtr/rcvr equipment is currently operating in a split-site configuration, which means duplexers are not needed. However, after the move, they will be located at the same site and duplexers will need to be used.

The Committee has spent some time over the past three years acquiring and tuning the required duplexers. They are currently in place at the Offenhauer site, so it is hoped that the transmitter installation there will be “plug-and-play”.

Under the leadership of Bob-WB8NQW, the Committee approved a list of “to-do” items, and identified equipment that needs to be obtained beforehand.

The initially projected date for the move is the week after the Dayton Hamvention, which falls after May 19th. This period immediately follows Commencement Exercises at BGSU, so there should be minimal population of the two sites. It is hoped that the down time should last for less than one or two days if all goes well. Repeater users should be on the alert for notification of the exact projected down-time as this date approaches. ■

Net Check Ins

Mar 5 *Traffic: 0*

WB8NQW (NCS)
KE8CUZ
K8BBK
KE8CVA
KC8EKT
KG8FH
K8JU
KD8RNO
WD8LEI
KD8NJW
N1RB
N8VNT
K8OVO (13)

Mar 12 *Traffic: 0*

N1RB (NCS)
K8BBK
KE8CVA
KG8FH
WB8NQW
WD8LEI
K8JU
KD8NJW
KD8RNO
KE8CUZ (10)

Brain Teasers

1. Which of these connector types is commonly used for RF connections up to 150 MHZ?

a.) octal

b.) RJ-11

c.) PL-259

d.) DB-25

2. What is the capacitance of three 100 microfarad capacitors connected in series?

a.) 0.30 *μF*

b.) 0.33 *μF*

c.) 33.3 *μF*

d.) 300 *μF*

3. What pro-sign is sent to indicate the end of a formal message when using CW ?

a.) SK

b.) BK

c.) AR

d.) KN

April Contests

The contest lineup for the month of April is given below. Please note that the WARC bands (60, 30, 17 and 12 m) are never open to contesting.

Apr 6-7	*1400 to 0200 Z*	80 m to 10 m
Mississippi QSO Party		**all modes**
Apr 6-7	*1400 to 2000 Z*	160 m to 10 m
Missouri QSO Party		**all modes**
Apr 6-7	*1400 to 2200 Z*	80 m to 10 m
Florida State Parks OTA		**all modes**
Apr 6-7	*1500 to 1500 Z*	160 m to 10 m
SP (Poland) DX 'test		**SSB/CW**
Apr 13-14	*1200 to 1200 Z*	160 m to10 m
OK/OM (Czech/Slovak) DX 'test		**SSB**
Apr 13-14	*1400 to 0200 Z*	160 m to 10 m
New Mexico QSO Party		**all modes**
Apr 13-14	*1400 to 2000 Z*	160 m to 10 m
Texas State Parks OTA		**all modes**
Apr 13-14	*1800 to 1800 Z*	160 m to 10 m
North Dakota QSO Party		**all modes**
Apr 13-14	*1800 to 2359 Z*	160 m to 10 m
Georgia QSO Party		**all modes**
Apr 14	*1800 to 2359 Z*	80 m to 10 m
ARRL Rookie Roundup		**SSB**
Apr 20-21	*0600 to 0559 Z*	80 m to 10 m
WAP China DX 'test		**SSB/CW**
Apr 20-21	*1200 to 1159 Z*	80 m to 10 m
YU (Serbia) DX 'test		**SSB/CW**

Rads on a Plane

by Tony Phillips-from radsonaplane.com

Many people think that only astronauts have to worry about cosmic radiation. Not so. Ordinary air travelers are exposed to cosmic rays, too. On a typical flight over the continental USA, radiation dose rates in economy class are more than 40 times higher than on the ground below. Cosmic rays penetrate the walls of aircraft with ease. This has prompted the International Commission on Radiological Protection (ICRP) to classify pilots as occupational radiation workers–just like nuclear power plant engineers.

Flight paths forming basis of the radiation study (2015-2017)

Since Jan. 2015, **Spaceweather.com** and the students of Earth to Sky Calculus have been monitoring cosmic rays in airplanes. Our method is simple: We board planes carrying the same cosmic ray payload we routinely fly to the stratosphere on space weather balloons. Inside the airplane we measure X-ray, gamma-ray and neutron dose rates along with GPS altitude, latitude and longitude.

Three years after our first flight, our data set is impressive. We have 14,183 GPS-tagged radiation measurements collected during 67 flights over 2 oceans and 5 continents. We have spent 236.4 hours onboard planes taking data. If you accumulated that into a single flight, it would amount to 9.8 uninterrupted days on a plane.

This substantial data set is allowing us to explore how radiation varies with altitude around the globe. It's not the same everywhere. The Arctic, for example, differs sharply from the equator, and there are interesting departures from "normal" near the South Atlantic Anomaly. We're also discovering how Earth's natural magnetism shields travelers from radiation: there's a strong correlation in our data between dose rate and the geomagnetic field around the airplane.

Best of all, we can now predict dose rates for flights that haven't even taken off yet. Using the data from 2015-2017, we're building an empirical predictive model and actively testing it against new flights in 2018. Early results show that it works well over the continental USA, and we are beginning to check international flights, too.

Stay tuned for updates! ■

What's in a Chirp?

by Onno, VK6FLAB via QRZ news

On Thursday, the 3rd of July, 2008, at 6 minutes to 7 at night a developer called Dan, KK7DS, started to scratch an itch and published the results. The next

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WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

Net Control Roster

Apr 9	*K8OVO*
Apr 16	*WB8NQW*
Apr 23	*N1RB*
Apr 30	*KD8VWU*
May 7	*KD8NJW*
May 14	*K8OVO*

NEXT MEETING

Business Meeting

Monday

April 8

TIME: 7:30 PM/7:00 EB

PLACE:

Sheriff's Training Room

E. Gypsy Lane Rd. and

S. Dunbridge Rd.

Bowling Green, OH

10 meter Net

informal group

meets

Sunday

@ 20:30

on 28.335 MHz

Fusion Net

Thursday

@ 19:30

on 442.125 MHz

67 Hz PL on FM

discussion of all

things digital

Net Check Ins

Mar 19 Traffic: 0

N1RB (NCS)
KE8CUZ
KC8IFW
WD8ICP
K8BBK
KE8CVA
KG8FH
WD8LEI
WB8NQW
KD8NJW
KD8RNO
K8JU
K8OVO
WD8JWJ **(14)**

Mar 26 Traffic: 0

KD8VWU (NCS)
KE8CVA
KC8EKT
KG8FH
WD8JWJ
KD8NJW
WB8NQW
N8VNT
N1RB
K8JU **(10)**

Brain Teaser answers: (G) 1-c, 2-c, 3-c

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morning, before breakfast Dan added more. Since then about a hundred people from around the globe have contributed to that project.

Some people made little changes, others made large contributions over many years. In all, on average, the project saw a change every 29 hours over more than a decade of contributions.

On the 16th of July, less than two weeks into the project, it got a name, CHIRP. It's been translated from US English to Spanish, French, Hungarian, Italian, Dutch, Polish, Brazilian Portuguese, Russian and the Queen's English. From the beginning of talking to a single Icom IC-92 radio, CHIRP today supports 27 different Icom radios, 36 different brands of radio, hundreds of different radios in all, with new ones being added every couple of months or so.

The software runs on anything that will run Python, that includes Windows, OS X and Linux, and it does it with an extremely modest footprint and it's free, free in cost and free as in Open Source. If you're not familiar with CHIRP and you have a radio, then it's time to get to know this tool. It makes it simple to program your radio, to configure settings and to make backups of your current channel listings. I should mention that this is not just for hand held radios, there are plenty of HF base station radios supported.

When you run CHIRP, it presents you with a window where you have a spreadsheet view of the channels in your radio. You can download the channels from your radio or upload new ones. Changing a frequency is as simple as clicking on the frequency and typing a new one, with a full-human-sized keyboard, rather than the poor excuse for a dial-pad your radio has. If your radio supports it, you can supply a human readable name, configure offsets, CTCSS, and tuning step size, the mode and several other properties.

If you're unsure where to get started, CHIRP even comes with a list of frequencies to get you on your way.

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April Hamfests

Apr 13 Cuyahoga Falls ARC. 65th annual hamfest. Emidio and Sons Party Center, Cuyahoga Falls, OH . **web:** http://www.cfarc.org

April Contests-cont.

Apr 20-21	*1300 to 2200 Z*	160 m to 10 m
Nebraska QSO Party		**all modes**
Apr 20-21	*1600 to 0400 Z*	80 m to 10 m
Michigan QSO Party		**all modes**
Apr 20-21	*1800 to 1800 Z*	160 m to 10 m
Ontario QSO Party		**all modes**
Apr 27-28	*1300 to 1259 Z*	160 m to 10 m
Helvetia (Switzerland) DX 'test		**all modes**
Apr 27-28	*1200 to 1200 Z*	80 m to 10 m
SP (Poland) DX RTTY 'test		**RTTY**
Apr 27-28	*1600 to 2159 Z*	40 m to10 m
Florida QSO Party		**all modes**

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You can create different configurations for different types of operations. For example, if you're into SOTA, you can make a configuration file that has all the relevant SOTA frequencies, but when you head back home and want to use the local repeater network, you can build a set for that. If you visit a different state, another country, or if you want to copy your channels from one radio to another, you can with CHIRP.

If you want to get started, there's a Beginners Guide, a list of frequently asked questions and you'll find information about what cables to use, specific errors and

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issues you might encounter, and if you're a software developer, you'll find information on how to contribute.

If you want the ability to program your radio on any computer, you can download a boot-able CD that will run CHIRP without installing it and if you need help, there's an active mailing list, going back to 2008, an up to date wiki, issue tracker, and of course, you can download the source-code, if that's your fancy. CHIRP makes all that possible because one amateur wanted to scratch an itch. ■

Dayton Hamvention Coming Soon

The annual Dayton Hamvention (**www.hamvention.org**) will be held this year from May 17th through the 19th (Friday through Sunday). As in the past couple of years, the venue is the Greene County Fairgrounds and Exposition Center, in Xenia. From past experience, there is ample remote parking with frequent shuttle buses to and from the fairgrounds.

Although in past years, the ARRL has been prominently represented, this year will mark the addition of the ARRL EXPO and National Convention. All major equipment and accessory manufacturers worth their salt will have a booth at the show. There is a full schedule of forums that are presented, which cover a myriad of topics, ranging from new equipment intros from various manufacturers, to DX and contesting, to nets and traffic handling, and to amateur satellite communication, to mention but a few.

One of the major attractions is of course the flea market, which is located in the infield of the racetrack. Unfortunately, for the past two years the weather has not cooperated by causing very wet/muddy conditions. The organizers have assured us that they are prepared for this contingency, and so the flea market should provide an experience that rivals the variety and participation that was found back when the event was held a Hara Arena. All in all, Hamvention is singular event, and it is well worth it for any ham to attend. ■

Recipe Corner

editor's note—in keeping with the long tradition started by Hoot-WB8VUL, a previous editor of CQ Chatter, we are reinstating the recipe column. If you have any favorites that you would like to share, drop me a line at: boughton@bgsu.edu.

Peanut Butter Popcorn Balls

(submitted by WB8NQW)

4 quarts	popped popcorn
1-1/2 cup	sugar
1-1/2 cup	light corn syrup
1-1/2 cup	peanut butter
1-1/2 tsp	vanilla

Keep popcorn warm in a 250 degree oven. Mix sugar and corn syrup together in a heavy saucepan. Bring to a full boil. Boil 30 seconds, stirring constantly.

Remove from heat and beat in peanut butter and vanilla. Pour syrup over popcorn, stir to mix well. Shape using popcorn ball maker, if available. Makes 16 balls. ■

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