

CQ Chatter

NOVEMBER 2019

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WOOD COUNTY AMATEUR RADIO CLUB

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

Minutes *WCARC Meeting* October 14, 2019

Bob-W8NQW, presiding

Present: N1RB-Bob, KD8NJW-Jim, K8LL-Stan, KE8CVA-Terry, KD8RNO-Lynn, W8PSK-Phil, KC8IFW-Wil, Wd8JWJ-Bill, WB8NQW-Bob, WD8ICP-Chuck, WD8LEI-Eric, WB8VUL-Hoot

Meeting called to order: at 8:05 pm with Pledge of Allegiance.

Minutes of August business meeting as published in September CQ Chatter were approved (JWJ/NJW).

Treasurer's Report: was presented and approved unanimously (CVA/LL).

Old Business:

- Bob reviewed the Club's activities for the Ohio Courthouses On The Air (OCOTA) special event on Saturday, August 24th. Operation took place on HF bands with the newly built NVIS antenna and via Wires-X utilizing the K8TIH Fusion repeater. Bob had slide

presentation of the photo shots that Craig (NM8W) took of the Courthouse and showed a sample of the QSL certificate that was exchanged with 22 contacts during the event. Chuck (WD8ICP) added that it would have been good for the organizers to have specified preferred operation frequencies.

- Bob reported on the foxhunt that took place immediately after the September breakfast meeting—there were four participants, and Terry (KE8CVA) was the first hound to find the fox.
- Eric (WD8LEI) reported that plans are afoot for mounting EMA antennas on the roof of the Courthouse annex. Plans are to cover UHF, VHF and HF bands as well as provision for setting up a mesh network. He used one of the Courthouse photos to illustrate the location. Feedlines are currently being installed leading down to the EOC itself. He would like suggestions on what sort of HF antenna should be mounted.

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Net Check Ins

Oct 8

Traffic: 0

WB8NQW (NCS)
KG8FH
WD8JWJ
WD8LEI
KD8RNO
W8PSK
N1RB
K8BBK
KD8NJW
KE8CVA
KC8EKT
KC8NKC (12)

Oct 15

Traffic: 0

WB8NQW (NCS)
K8BBK
KE8CVA
KC8EKT
KG8FH
KD8RNO
N8VNT
KD8NJW
W8PSK (9)

BRAIN TEASERS

1. Which of the following HF bands have frequencies available to the Technician class operator for RTTY and data transmissions?
 - a.) 10 meter, 12 meter, 17 meter, and 40 meter bands
 - b.) 10 meter, 15 meter, 40 meter, and 80 meter bands
 - c.) 30 meter band only
 - d.) 10 meter band only
2. Which Q signal indicates that you are changing frequency?
 - a.) QRU
 - b.) QSY
 - c.) QSL
 - d.) QRZ
3. Which of the following is a likely cause of irregularly fading of signals received by ionospheric reflection?
 - a.) frequency shift due to Faraday rotation
 - b.) interference from thunderstorms
 - c.) random combining of signals arriving via different paths
 - d.) intermodulation distortion

November Contests

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

Nov 2-3	<i>1200 to 1200 Z</i>	160 m to 10 m
Ukrainian DX 'test		CW/SSB
Nov 2-4	<i>2100 to 0259 Z</i>	160 m to 10 m
ARRL Sweepstakes		CW
Nov 9-10	<i>0000 to 2359 Z</i>	80 m to 10 m
WAE DX 'test		RTTY
Nov 9-10	<i>1200 to 1200 Z</i>	160 m to 10 m
OK/OM DX 'test		CW
Nov 16-17	<i>1200 to 1200 Z</i>	80 m to 10 m
LZ DX 'test		CW/SSB
Nov 16-18	<i>2100 to 0259 Z</i>	160 m to 10 m
ARRL Sweepstakes		SSB
Nov 23-24	<i>0000 to 2359 Z</i>	160 m to 10 m
CQ WW DX 'test		CW
Nov 30-Dec 1	<i>1200 to 1159 Z</i>	160 m to 10 m
Russian WW Multimode 'test		all modes

November Hamfests

November 16-17 Allen County AR Technical Society Hamfest & Indiana Section Convention. Allen County War Memorial Coliseum, Ft. Wayne, IN

web: <http://www.fortwaynehamfest.com>

December 1 L'Anse Creuse ARC Hamfest. Madison Place, Madison Hts, MI.

web: <http://www.n8lc.org>

Traveling the Country with Amateur Radio

By N1RB

Many WCARC members are aware that Loren Phillips, W8PSK, is absent from Bowling Green for relatively long periods of time every winter. You see, Phil is an avid RV'er, who takes just about any opportunity he is presented with to jump in his Dodge Ram Roadtrek and hit the road.



W8PSK and his Roadtrek

Phil's regular check-ins to the K8TIH net on Tuesdays abruptly end at or near the beginning of December each year and don't resume until the beginning of April the next year. This is because each winter, he visits his two children, who live in the southwestern part of the country. A typical winter trip will first take him to Phoenix to stay with son Steve and then on to San Diego to visit with daughter Beth. After spending the holidays with family, Phil then travels up the central California coast to spend over two months at Los Osos/Morro Bay to soak up some sunshine, take a few short tours and renew old acquaintances. Of course, the routes he takes coming

and going can vary a lot, from, for example, taking the Natchez Trace from Tennessee to Mississippi, or in visiting the Alamo and other sights in Texas along the way.

But these are not the only trips he takes---each year Phil usually convenes with other roadtrekkers who have an annual get-together. Last year the event took place at Algonquin Provincial Park in north-central Ontario. He has also been known to enjoy visits to Holmes County, Ohio, to patronize Der Dutchman restaurant and other purveyors of fine Amish cooking. This past summer for example, he took a four week-long tour of the Rocky Mountains with Beth, and visited Steve, K8BBK, at his Adirondack vacation home in upstate New York. Also, this fall he took a trip to the UP of Michigan to soak up some of the foliage.

Since his RV is a 1994 model, Phil has put a lot of miles on the old wagon; 328,000 miles to be exact. What would fascinate most hams, however, is that Phil has a complete VHF/UHF station, a digital station, and a 500W HF station mounted in the Roadtrek so that he can enjoy ham radio as he travels the highways.

First let's look at the antennas: The HF antenna (next page-right) is a Hustler single coil whip mounted on the right rear of the vehicle. Band changing requires screwing in the appropriate coil for that frequency. The UHF/VHF antenna (next page-left) is a Diamond dual-band SG7900 whip mounted on the left front hood.

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WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

Net Control Roster

Nov 5	K8OVO
Nov 12	WB8NQW
Nov 19	N1RB
Nov 26	KD8VWU
Dec 3	KD8NJW
Dec 10	K8OVO
Dec 17	WB8NQW

NEXT MEETING

Breakfast Meeting

Saturday

November 2

TIME: 9:00 AM

PLACE:

Frisch's Big Boy

N. Main St. &

E. Poe 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

Oct 22 **Traffic: 0**

WB8NQW (NCS)
N8VNT
K8BBK
KE8CVA
KC8EKT
WD8LEI
KD8RNO
W8PSK
KG8FH (9)

Oct 29 **Traffic: 0**

KD8NJW (NCS)
K8BBK
KE8CVA
KC8EKT
KG8FH
WB8NQW
WD8LEI
W8PSK
N8VNT
N1RB
KD8RNO
KA8VNG
KE8CUZ
KE8NDF
WD8JWJ (15)

Roadtrek—from p. 4

It is of course extremely interesting to take a look at what is connected to these antennas on the inside, and how Phil manages to include all of the necessary equipment in such a confined space. If you see it you may notice some other kinds of anten-



nas attached to the outside of the vehicle; they include a CB antenna for the Radio Shack CB radio inside (used to monitor traffic conditions as reported by truckers) and a wireless booster for internet on the rear of the Roadtrek. The antenna farm obviously represents a great deal of installation work, but the



Hustler HF antenna equipment installed inside is also especially impressive. The HF system is based on an ICOM IC-706 Mark IIG transceiver with remote control head. Its output is amplified by an Ameritron ALS-500 linear amplifier feeding into an LDG-600 Pro II auto-tuner. The above equipment is mounted behind the driver's seat and underneath the fold-down dinner table.

Roadtrek—*from p. 6*

The transceiver is controlled from the driver's seat by the remote head, and the amplifier by an ALS-500 RC remote band



HF transceiver, PA and autotuner

switcher. Thus all HF functions can be controlled directly by the driver.

Next, we take a look at the control center, namely the driver's seat. Apart from the remote heads mentioned earlier, an overview of the equipment complement includes two Yaesu FTM-400XDR dual-band transceiver control heads, one of which is used for APRS and normal VHF/UHF operation, and the other which is used for Yaesu Fusion with WIRES-X. The actual transceiver units are mounted below and to the right of the driver's legs.

The APRS system is employed all the time when Phil is on the road so that family and friends can track his progress during a particular trip. The dual transmit/receive of the FTM-400 allows for regular voice operation even while the APRS beacon is active. This is the topmost FTM-400 that you can see in the picture on the right. Immediately below the Yae-

su is the control head for the ICOM. Under that is another Yaesu FTM-400XDR that is used for digital operation using the Yaesu CFM Fusion system with Wires-X. Operating as a portable digital node with *direct* mode HRI-200 emulation, this transceiver can be connected to the Lenovo X220 laptop that is located at the right of the picture. Internet connection is maintained with a Verizon "hot spot" router. Phil also carries along a Yaesu FT2-D HT which he can use for Wires-X communications as a satellite to the FTM-400XDR in Wires-X *access* mode for use outside the Roadtrek, say on a hike for instance.

Other amateur equipment that is visi-



View from behind the driver's seat

ble includes an LDG M-600 output wattmeter, two Yaesu microphones, one for each of the FTM-400XDR units, and the Ameritron ARI-500 remote bandswitching unit for the PA.

The only rub with this set up is if Phil has a passenger---the laptop must be removed from the passenger seat, but it is a very quick changeover.

continued—on p. 9

minutes— from p. 1

- During the preceding month, Phil (W8PSK) and Bob (N1RB) painted the repeater antenna towers on top of Offenauer West. There is still a question about when it will be possible to remove the Club's antennas atop the Administration Building.
- Phil also reported that Jim (K8JU) has purchased new ventilation fans to replace those in place on the Mater transmitters as the old ones are noticeably noisy. Jim and Phil want to set up a work party to go to the repeater site to check the power output of the transmitters and install the fans. Phil would like to complete this by mid-November as he is leaving town on Nov. 20th.

New Business:

- Bob once again made a plea for volunteers to fill next year's officer slate. Upon observing a tepid response, he mentioned that he may have to do some "arm twisting".
- The search continues for a new location for the kick-off banquet. After discussion, the consensus appeared to be the Country Farm House in Wayne. The venue has an appropriately sized separate meeting space and food is reasonably priced. Details will follow.

Adjournment: at 8:15 (LEI/CVA) ■

New Antenna Uses Saltwater-Plastic Instead of Metal
from ARRL Letter

A new antenna that uses saltwater and plastic instead of metal could make it

easier to build VHF and UHF networks, an *IEEE Spectrum* [article](#) asserts. Author Michelle Hamson says, "Being able to focus the energy of a radio signal toward a given receiver means you can increase the range and efficiency of transmissions," in her article, "*New Antenna Uses Saltwater and Plastic to Steer Radio Beams.*" According to the article, beam-steering or [beamforming](#) on a large scale is one of the key underlying mechanisms behind the rollout of 5G networks. The configuration of the saltwater antenna allows 360° beam-steering and works for frequencies between 334 and 488 MHz.

In a recent publication in *IEEE Antennas and Wireless Propagation Letters*, Lei Xing and her colleagues have proposed a new saltwater-based antenna that achieves 12 directional beam-steering states, and one omnidirectional state.

The proposed design consists of a circular ground plane, with 13 transparent acrylic tubes that can be filled with (or emptied of) salt water on demand. One tube is located in the center to act as a driven monopole. Surrounding it are 12 parasitic monopoles, the article explains. The 12 remaining monopoles, when filled with water, work together to act as reflectors and give the broadcasted signal direction. "The attractive feature of using water monopoles is that both the water height and activating status can be dynamically tuned through microfluidic techniques, which has a higher degree of design flexibility than metal antennas," explained Xing ■

Roadtrek—from p. 7

With all the wonderful ham gear in his Roadtrek, there is no limit where Phil can



It's easy to give Phil a shout

communicate to---locals on the air with UHF/VHF, regular HF skip work across the country and around the World, or essentially noise-free digital QSOs with anybody anywhere using the Yaesu Wires-X system. You can of course follow along the route that Phil is taking by logging in to www.aprs.fi, or any similar APRS route-tracking site, and searching for **W8PSK-9**. If you happen to see an RV that has the rear window emblazoned with the decals shown above, be sure to give Phil a shout on simplex. ■

Try Your Hand

The WCARC Tuesday night net on 147.18+ and 444.475+ MHz has been in continuous operation for well over 30 years now. To achieve this record, a lot of dedicated operators have volunteered to act as net control station/operator (NCS). We try to maintain a roster of at least five people in rotation so that no individual will have to serve more often than once a month.

FOR SALE

AM and FM radio along with several shortwave bands.
It works well, just don't need it anymore.

Asking \$85.00 OBO

Chuck-WD8ICP

419-601-9188 or dicken@bgsu.edu



If you think you might be interested in volunteering to help the Club as a net control operator, please contact Bob-N1RB, at boughton@bgsu.edu for details. A standard script is provided for all operators if so desired (you can also ad lib if you wish), and the roster for each month is published in CQ Chatter. All that is needed is a long lasting set of vocal cords and the ability to take down the check-in list accurately so that it can be reported for publication in CQ Chatter. ■

**WOOD COUNTY ARC
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