

# CQ CHATTER

NOVEMBER 2024

VOLUME B24 • ISSUE 9

## WOOD COUNTY AMATEUR RADIO CLUB

President	KG8FH	<u>Jeff Halsey</u>
Vice President	WE8TOM	<u>Tom Leingang</u>
Secretary	N1RB	<u>Bob Boughton</u>
Treasurer	KD8NJW	<u>Jim Barnhouse</u>
Board Members	WB8NQW/KE8QGV	Bob Willman/Roger Weith

### Minutes

#### *WCARC Meeting*

October 14, 2024

Jeff-KG8FH presiding

**Present:** Bob-WD8LIC, Jim-KD8NJW, Roger-KE8QGV, Bob-WB8NQW, Norm-KE8WTG, Tim-KF8BGD, Brooke-KE8EBN, Phil-W8PSK, Tom-WE8TOM, Doug-KD8VWU, Terry-KE8CVA, Larry-W4LAT, Dallas-K8DLF, Eric-WD8LEI, Jeff-KG8FH, Bob-N1RB.

**Call to order:** by KG8FH at 7:30 with Pledge of Allegiance.

**Minutes:** Motion to approve minutes of the the August meeting as published in

the September issue of CQ Chatter (LAT/VWU) was approved unanimously.

**Treasurer's Report:** Motion to approve (NQW/TOM) was passed unanimously.

#### Old Business:

- Bob (NQW) reported on the results of the surplus equipment sales. The grand total proceeds were close to \$600, and the storage space is now much less crowded. The only remaining pieces consist of cables of various types.
- Eric (LEI) reported on recent ARES activities. The Lucas County group is close to completion of the networking of

*continued on p. 6*

## Net Check Ins-I

**Oct 1** **Traffic: 0**

**WB8NQW (NCS)**

**WD8LEI**

**KE8QGV**

**KD8RNO**

**N1RB**

**KE8CVA**

**KC8EKT**

**KG8FH**

**KE8WTG**

**KA8VNG**

**WE8TOM (11)**

**Oct 8** **Traffic: 0**

**KD8VWU (NCS)**

**KB8QEW**

**KE8CVA**

**KC8EKT**

**KG8FH**

**KD8NJW**

**WD8LIC**

**KE8PJM**

**W8PSK**

**KA8VNG**

**KE8WTG**

**N1RB**

**WE8TOM**

**WB8NQW**

**N8VNT**

**WD8PIC (16)**

**Oct 15** **Traffic: 0**

**KD8NJW (NCS)**

**KE8CVA**

**KC8EKT**

**KG8FH**

**WB8NQW**

**KE8PJM**

**W8PSK**

**KA8VNG**

**KD8VWU**

**KD8RNO**

**N1RB**

**KE8QGV**

## Brain Teasers

1. May an Extra class operator answer the CQ of a station on 3.601 MHz LSB phone?

- a.) Yes, the entire signal will be inside the SSB allocation for Extra class operators
- b.) Yes, the displayed frequency is within the 75-meter phone band segment
- c.) No, the sideband components will extend beyond the edge of the phone band segment
- d.) No, US stations are not permitted to use phone emissions below 3.610 MHz

2. How many horizontal lines make up a fast-scan (NTSC) television frame?

- a.) 30
- b.) 60
- c.) 525
- d.) 1080

3. How does the VHF/UHF radio horizon compare to the geographic horizon?

- a.) It is approximately 15 percent farther
- b.) It is approximately 20 percent nearer
- c.) It is approximately 50 percent farther
- d.) They are approximately the same

# 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.

<b>Nov 2-4</b> <b>ARRL Sweepstakes-CW</b>	<i>2100 to 0259 Z</i>	160 m to 10 m <b>CW</b>
<b>Nov 9-10</b> <b>WAE(urope) DX 'test</b>	<i>0000 to 2359 Z</i>	80 m to 10 m <b>RTTY</b>
<b>Nov 9-10</b> <b>JIDX Phone 'test</b>	<i>0700 to 1300 Z</i>	160 m to 10 m <b>SSB</b>
<b>Nov 9-10</b> <b>OK/OM DX 'test-CW</b>	<i>1200 to 1200 Z</i>	160 m to 10 m <b>CW</b>
<b>Nov 9-10</b> <b>10-10 Int'l Fall 'test</b>	<i>0001 to 2359</i>	10 m <b>Digital</b>
<b>Nov 16-17</b> <b>LZ DX 'test</b>	<i>1200 to 1200 Z</i>	80 m to 10 m <b>CW/SSB</b>
<b>Nov 16-17</b> <b>ARRL EME 'test</b>	<i>0000 to 2359 Z</i>	6 m to 20 cm <b>all modes</b>
<b>Nov 16-17</b> <b>South American Integration 'test</b>	<i>1800 to 2100 Z</i>	80 m to 10 m <b>CW</b>
<b>Nov 16-18</b> <b>ARRL Sweepstakes-SSB</b>	<i>2100 to 0259 Z</i>	160 m to 10 m <b>SSB</b>
<b>Nov 23-24</b> <b>CQ WW DX 'test-CW</b>	<i>0000 to 2359 Z</i>	160 m to 10 m <b>CW</b>

## Net Check Ins-II

**Oct 15** **CONT**  
WD8LIC  
NM8W  
KE8WTG  
K8DLF (16)

**Oct 22** **Traffic: 0**  
N1RB (NCS)  
KE8CVA  
KC8EKT  
KG8FH  
WD8LIC  
WB8NQW  
W8PSK  
KE8PJM  
KE8QGV  
KD8VWU  
KA8VNG  
KD8RNO  
WE8TOM  
KE8WTG  
WD8ICP (15)

**Oct 29** **Traffic: 0**  
KG8FH (NCS)  
KE8CVA  
KC8EKT  
WB8NQW  
WD8LIC  
KE8QGV  
KD8RNO  
N1RB  
KE8WTG  
WE8TOM  
KD8VWU  
WD8ICP  
W8PSK (13)

# How Sony Mastered the Transistor

## Al Williams

When you think of Sony, you probably think of a technology company that's been around forever. However, as can be pointed out, it really formed in the tough years after World War II. The two people behind the company's formation were an interesting pair. One of them was a visionary engineer and one was a consummate businessman.

While it is hard to imagine today, securing a license to produce transistors was difficult in the early days. What's worse is, even with the license, it was not feasible to use the crude devices in a radio.

The devices were poor by today's standards, and while transistors would work at audio frequencies for hearing aids, getting them to work at AM radio frequencies was a challenge. The Sony founders had to decide whether to use alloy transistors or grown crystal transistors.

Western Electric did not want to share its crystal-growing technology, so in 1954, the team created an alloy transistor. However, it failed to work well at radio frequencies, so they shifted to growing crystals, which seemed more amenable to scaling. One of the team tried using phosphorous and indium doping and created a transistor that could work at higher frequencies. But there was a problem.

Despite the transistor's superior performance, they couldn't make another one. Common wisdom at the time was that phosphorus doping was a dead end, but it had worked once. It just took time to find the right

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Brain Teaser answers: (E) 1-c, 2-d, 3-a

## WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

### Net Control Roster

Oct	29	KG8FH
Nov	5	WB8NQW
Nov	12	N1RB
Nov	19	KD8VWU
Nov	26	KG8FH
Dec	3	KD8NJW

## NEXT MEETING

### *Breakfast Meeting*

Saturday, November 2

TIME: 9:00 AM

PLACE: Frisch's Big Boy  
E. Poe Rd. &  
N. Main St.  
Bowling Green, OH

## **10 meter Nets**

*Informal SSB group meets*

*Sunday @ 20:30 local on*

*28.335 MHz*

*Informal CW group meets*

*Tuesday @ 20:00 local on*

*28.050 MHz*

## **Fusion Net**

**Thursday**

**@ 19:30 local**

**on 442.125 MHz**

*Wires-X Operators*

*welcome*

**Informal net**

*minutes from p. 1*

all the major hospitals in Toledo. Eric mentioned that we in Wood County ARES have a direct link to this mesh through a tunnel node in downtown Toledo. He also mentioned that Ed Brown (District 1) has acquired 11 MTR-2000 analog UHF rigs, one apiece to each District 1 county ARES organization. The idea is to institute a regular ARES net in the District. The antennas above the roof of the Sheriff's Office have had their transmission lines rerouted to a more permanent fixture in the Training Room.

- Jeff made an appeal for more people to step up and put their hat in the ring for Club officers. The slate will be decided at the December meeting.
- Jeff announced the the 2025 Kick-off Banquet will be held on Monday, January 13, 2025. Bob (NQW) will

check to see if the Country Farmhouse restaurant in Wayne is available.

- Jeff reminded everybody that the Club is holding a foxhunt immediately after the November Breakfast Meeting on Nov. 2nd. The fox is Phil-W8PSK.
- Eric displayed an SWR scan of the multiband trap dipole on the roof to elicit comments. The higher bands are not resonating at the appropriate frequencies and some tips were offered as to how correct the situation.

**Adjournment:** moved and seconded (NQW/VWU) at 8:04 PM.

An excellent program on the construction of a multiband vertical for field work was presented by Bob-WD8LIC. ■

*Sony from p. 4*

way to do it. By 1955, they produced usable transistors, even though the yield was at around 5%.

Texas Instruments beat them to market with a transistor radio, the Regency TR-1, in 1954, but in 1955, Sony produced the TR-55. Of the five transistors inside, some were alloy transistors, and some were grown crystals. The factory had to hand-select crystal transistors to make each unit work. The radios were on sale for about 19,000 yen (the TR-1 cost about 50 bucks; recall that in 1954, that was nearly

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**It's Time to Renew  
Dues Payable to:  
WCARC, P. O. Box 534  
Bowling Green, OH  
43402**

**Regular: \$15  
Family: \$20  
Senior/Student: \$10**

# November Hamfests

**Nov 16-17** Allen County Amateur Radio Technical Society hamfest. Allen County War Memorial Coliseum, Fort Wayne, IN. **web:** [www.fortwaynehamfest.com](http://www.fortwaynehamfest.com)

## ***Sony from p. 6***

\$600 in today's money). Adjusting for inflation, in today's money, a Japanese teenager would shell out about \$850 for the TR-55.

The TR-55 wasn't the first Sony radio to have transistors. The [TR-52](#) was a prototype, but it had case problems and never made it into the hands of the public. The radio didn't make it to the United States until 1957. By then, Texas Instruments, Raytheon, and GE all had radios available, too.

It is a fascinating look into the history of an iconic electronics brand and a window into another world that, honestly, wasn't that long ago. One couldn't help but note similarities with Apple, who also had a businessman and engineer combination. Sony would go on to innovate in a number of areas, including optical data storage. ■

## ***Young Amateurs Invited to Enter "Dream Rig" Contest***

### ***from ARNewline***

Using their imagination and their devotion to amateur radio, young radio operators are once again being invited to

enter the *Dream Rig* contest sponsored by the *Intrepid DX Group*. Sel Embee, KB3TZD, a member of the group, tells what's involved.

Licensed amateurs who are 19 years of age and younger are being given the challenge to describe the role and the benefits ham radio brings to modern society. They're also being asked how more young amateurs can be inspired to get on the air. It's not an easy question, of course, but the sponsor behind the 5th annual "Dream Rig" essay contest, the Intrepid DX Group, knows something about big challenges itself. Through the years, the nonprofit group has been the force behind major DXpeditions and other radio activities around the world.

Young amateurs with US or Canadian radio licenses - who live in either country or in any of the US territories - are eligible. For details on ways to submit the essay and to see rules for the competition itself, visit the Facebook page of the Intrepid DX Group. Essays are due no later than the 30th of November.

Winners will be announced in December. ■



## ***Foxhunt on Tap after Breakfast Meeting***

For the first time since the Pandemic, the Club will hold a foxhunt for anyone interested in participating. It will take place immediately after the Club Breakfast Meeting on Saturday, November 2 at Frisch's.

If you are a first-time participant, here is a brief description of how it works: the Fox, in this case Phil-W8PSK, will operate a hidden stationary transmitter somewhere within the boundaries of Wood County.

He will begin with a check-in session on the K8TIH 2-meter repeater. After gathering the participants together, he will then move to a simplex frequency, such as 146.55 MHz, and begin with a series of one minute transmissions at high power (10 or 20 watts). It is customary for the Fox to drop a few arcane hints about his location in order to help the Hounds locate him. After about 5 minutes, he will repeat the process, while at the same time gradually reducing his power.

Usually after about half an hour, he will announce that he has been located by one of the super snoopers. The process continues until all the check-ins have found the den.

What to bring? A 2 meter HT with a directional antenna, such as a Yagi (many designs for the measuring tape variety

can be found on-line), or loop (again many designs are available on-line). An improvisation is to use the supplied Rubber Duck antenna, holding the HT and using your body as a reflector.

Another item that is useful for when you are closing in on the Fox is an easily manipulated signal attenuator. Normally when you are near the Fox, his signal becomes very strong and tends to overload the receiver, thus defeating any directional sensitivity. This piece of equipment allows you to reduce your receiver's sensitivity in the presence of a strong signal so that you can home in on the Fox's location even when you get close to him.

If you feel that you would like some demonstration-by-example, you can easily team up with one of the experienced hunters at the breakfast. A good video on the subject can be found at: <https://youtu.be/PN-c5DQFuhl>. Have fun!! ■

## ***On the First Saturday of Each Month***

**Join Mike (W8CJJ) and  
Mike (KC8MM)  
for breakfast  
Frisch's Big Boy—9 AM**



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**WOOD COUNTY ARC  
P.O. BOX 534  
BOWLING GREEN, OH  
43402**

