

CQ CHATTER

DECEMBER 2022

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WOOD COUNTY AMATEUR RADIO CLUB

President	KG8FH/W8PSK	Jeff Halsey/Loren Phillips
Vice President	WE8TOM	Tom Leingang
Secretary	N1RB	Bob Boughton
Treasurer	KD8NJW	Jim Barnhouse
Board Member	WB8NQW	Bob Willman

Kick-off Banquet

Once again WCARC will start off the new year with the annual Kick-off Banquet. This year the event will be held at the Country Farmhouse restaurant, 117 E. Main St., in Wayne, OH. The banquet has been held there for the past several years and the food has been more than delicious. Festivities begin at 6:00 PM. Ordering will be off the menu.

Please let Bob - WB8NQW, blcksmth@reagan.com, know if you plan to attend at least two weeks ahead of time. This yearly get-together is always a good opportunity to have an eyeball QSO with Club members you have only talked to on the air. ■

Taking a Closer Look at Transistors after 75 Years

from ARNewsline

Unless you're a boat anchor enthusiast, chances are you owe a lot of your amateur radio success to the transistors that are the heart and soul of your rig and other station equipment. The IEEE's (Institute of Electrical and Electronics Engineers) Electron Devices Society has set aside much of the coming year to mark the transistor's 75th anniversary.

Considered by many to be the foundation of the electronics industry, the transistor was created at Bell Labs in New Jersey in 1947, sidelining vacuum tubes for most users of electronics. Its development garnered the 1956 Nobel

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Net Check Ins-I

Nov 8 **Traffic: 0**

KD8NJW (NCS)
KE8CVA
KG8FH
WB8NQW
KA8VNG
WD8LEI
KD8RNO
N1RB
WE8TOM (9)

Nov 15 **Traffic: 0**

WB8NQW (NCS)
KA8VNG
WD8LEI
WD8LIC
KD8RNO
KD8NJW
N1RB
WE8TOM
KE8CVA
KC8EKT
KG8FH
WD8ICP
N8VNT (13)

Brain Teasers

1. Which of the following statements is true of voice VOX operation vs. PTT operation?
 - a.) the received signal is more natural sounding
 - b.) it allows hands-free operation
 - c.) it occupies less bandwidth
 - d.) it provides more power output
2. On which HF/MF bands is a General Class license holder granted all amateur frequency privileges?
 - a.) 60 m, 20 m, 17 m, and 12 m
 - b.) 160 m, 80 m, 40 m, and 10 m
 - c.) 160 m, 60 m, 30 m, 17 m, 12 m, and 10 m
 - d.) 160 m, 30 m, 17 m, 15 m, 12 m, and 10 m
3. What percentage of power loss would result from a transmission line loss of 1 dB?
 - a.) 10.9 %
 - b.) 12.2 %
 - c.) 20.6 %
 - d.) 25.9 %

December Contests

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

Dec 2-4	<i>2200 to 1600 Z</i>	160 m
ARRL 160 m 'test		CW
Dec 10-11	<i>0000 to 2359 Z</i>	10 m
ARRL 10 m 'test		CW/SSB
Dec 10-11	<i>1300 to 1300 Z</i>	80 m to 40 m
ARI(taly) 40-80 m 'test		all modes
Dec 17	<i>0000 to 2359 Z</i>	80 m to 10 m
OK/OM DX RTTY 'test		RTTY
Dec 17	<i>0000 to 2359 Z</i>	160 m to 10 m
RAC(anada) Winter 'test		CW/SSB
Dec 17-18	<i>1400 to 1400 Z</i>	160 m to 10 m
Croatian CW 'test		CW
Dec 18	<i>1800 to 2359 Z</i>	80 m to 10 m
ARRL Rookie Roundup		CW

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Prize in physics for the trio (Shockley, Bardeen, Brattain) who created it and now, so many years later, its recognition is taking on new life. The IEEE's Electron Devices Society will be holding a series of meetings and conferences into 2023, devoted to the transistor and so many of the devices it inspired and made possible.

The first program is the IEEE International Electron Devices Meeting to be held on December 3rd through the 7th in San Francisco. There will also be plenty of written material to read about the transistor in the coming year. The IEEE Spectrum will be publishing technical articles about the transistor in the months ahead. ■

Net Check Ins-II

Nov 22 **Traffic: 0**
(NCS)

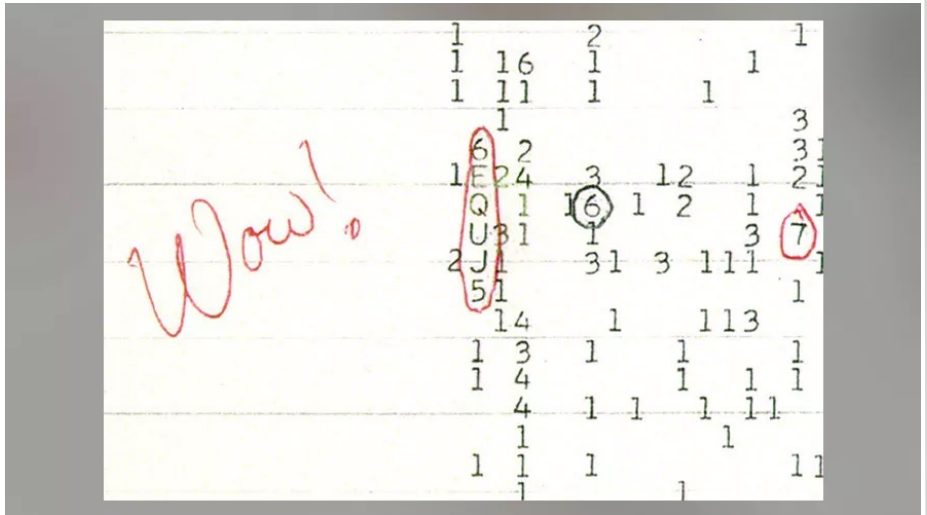
N1RB
 KE8CVA
 KG8FH
 WD8LEI
 KD8NJW
 WB8NQW
 WD8LIC
 KD8RNO
 KA8VNG
 WE8TOM **(10)**

Nov 29 **Traffic: 0**
(NCS)

KG8FH
 KE8CVA
 KC8EKT
 KD8NJW
 KE8QGV
 WB8NQW
 KA8VNG
 KD8RNO
 WE8TOM
 N1RB
 WD8LIC
 WD8LEI **(12)**

Famous 'alien' Wow! signal may have come from distant, sunlike star

by [Adam Mann](#), *Live Science*



"Wow!" signal printout. The comment on the side inspired the event's name. (Image credit: *Big Ear Radio Observatory and North American Astrophysical Observatory (NAAPO)*)

Researchers may have pinpointed the source of a famous supposed alien broadcast discovered nearly a half century ago. The prominent and still-mysterious Wow! Signal, which briefly blared in a radio telescope the night of Aug. 15, 1977, may have come from a sun-like star located 1,800 light-years away in the constellation Sagittarius. "The Wow! Signal is considered the best SETI candidate radio signal that we have picked up with our telescopes," Alberto Caballero, an amateur astronomer, told Live Science. SETI, the Search for ExtraTerrestrial Intelligence, is a group that has been listening for possible messages from otherworldly technological beings since the middle of the 20th century, [according to NASA](#).

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

WCARC Weekly Net

Tuesdays at 2100 all year
147.18 MHz 67 Hz PL

Net Control Roster

<i>Dec</i>	<i>6</i>	<i>KD8NJW</i>
<i>Dec</i>	<i>13</i>	<i>WB8NQW</i>
<i>Dec</i>	<i>20</i>	<i>N1RB</i>
<i>Dec</i>	<i>27</i>	<i>KG8FH</i>
<i>Jan</i>	<i>3</i>	<i>KD8NJW</i>
<i>Jan</i>	<i>10</i>	<i>WB8NQW</i>

NEXT MEETING

Business Meeting

Monday

December 12

TIME: 7:30 PM/7:00EB

PLACE:

Sheriff's Training Room

S. Dunbridge Rd. &

E. Gypsy Lane Rd.

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

wow from p. 4

Appearing during a SETI search at the Ohio State University's Big Ear telescope, the Wow! Signal was incredibly strong but very brief, lasting a mere 1 minute and 12 seconds, [according to a report written by its discoverer](#), astronomer Jerry Ehman, in honor of its 30th anniversary.

Upon seeing a printout of the anomalous signal, Ehman scribbled "Wow!" on the page, giving the event its name. The now-deconstructed Big Ear telescope looked for messages at the electromagnetic frequency of 1420.4056 megahertz, which is the location of an emission line of the element hydrogen.



2MASS 19281982-2640123, a sunlike star in the Sagittarius constellation (*Image credit: PanSTARRS/DR1*)

"Since hydrogen is the most abundant element in the universe, there is good logic in guessing that an intelligent civilization within our Milky Way galaxy desirous of attracting attention to itself might broadcast a strong narrowband beacon signal at or near the frequency of the neutral hydrogen line," Ehman wrote in his anniversary report.

Researchers have since repeatedly searched for follow-ups originating from the same place, but they have turned up empty, [according to a history from the American Astronomical Society](#). The Wow! Signal most likely came from some kind of natural event and not aliens, Caballero told *Live Science*, though astronomers have ruled out a few possible origins [like a passing comet](#).

Still, Caballero noted that in our infrequent attempts to say hello to E.T., humans have mostly produced one-time broadcasts, such as [the Arecibo message](#) sent toward the globular star cluster M13 in 1974. The Wow! Signal may have been something similar, he added.

Knowing that the Big Ear telescope's two receivers were pointing in the direction of the constellation Sagittarius on the night of the Wow! Signal, Caballero decided to search through a catalog of stars from the European Space Agency's Gaia satellite to look for possible candidates.

"I found specifically one Sun-like star," he said, an object designated 2MASS 19281982-2640123 about 1,800 light-years away that has a temperature, diameter and luminosity almost identical to our own stellar companion. Caballero's findings appeared May 6 in the [International Journal of Astrobiology](#).

While living organisms may exist in a wide variety of environments around stars

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quite dissimilar to our own, he chose to focus on Sun-like stars because "we're looking for life as we know it." Given his results, he thinks it "could be a good idea to search [the star] for habitable planets, and even civilizations."

"I think this is perfectly worth doing because we want to point our instruments in the direction of things we think are interesting," Rebecca Charbonneau, a historian who studies SETI at the Harvard-Smithsonian Center for Astrophysics and who wasn't involved in the work, told *Live Science*. "There are billions of stars in the galaxy, and we have to figure out some way to narrow them down," she added. But she wonders if looking for only Sun-like stars is too limiting. "Why not just look at a bunch of stars?" she asked.

Humans have only one data point, ourselves, when considering what types of technology aliens may have, or how they might use that technology, Charbonneau said. The concept of SETI itself appeared in the middle of the 20th century, shortly after militaries around the world began broadcasting messages using powerful electromagnetic instruments.

"I don't think it's a coincidence that the point in human history where we start putting intelligent signals in space is also the same point in history where we get the idea to look for intelligent signals from space," Charbonneau said. ■

Dayton Hamvention Getting Ready

The next Dayton Hamvention will be held from Friday, May 20, through Sunday, May 22, 2023. As has been the case for the past few years, the event will be held at the Greene County Fairgrounds in Xenia. Even though it is still over six months away, tickets are already on sale for the get-together. The fine folks on the Organizing Committee have promised a bigger and better exposition this year.

There will be the usual combination of commercial exhibits, a huge flea market and the usual bevy of educational and informative forums. Since it is only a two hour or so journey for hams in Wood County, the local attendance has typically been fairly strong and local hams like to use the event as a good excuse to get together.

If you want to keep up to date with what is going on with the Hamvention planning, please consult their website at: hamvention.org. ■

FOR SALE:

Xiegu G90 HF Radio.

Includes the cooling fan-stand. 20 watts.

Great for portable operation. \$300 for club members. Will be listing publicly at a higher price soon. Contact:

WE8TOM@we8tom.com

**WOOD COUNTY ARC
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