APRIL 2023

VOLUME B23 • ISSUE 2

WOOD COUNTY AMATEUR RADIO CLUB

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

Dayton Hamvention Coming Soon

This year the Dayton Hamvention will be held on May 19th through the 21st (Friday through Sunday). The location is still the Greene County Fairgrounds in Xenia.

This hamfest is the granddaddy of them all, having been started in the early 1950s. One feature that is attractive to many is the gigantic flea market. The new venue in Xenia is spacious and easy to navigate.

If you wish to purchase tickets by mail (\$26) the deadline is an April 30 postmark. Otherwise the ticket cost is \$30 at the door. Consult hamvention.org for more details.

Enormous Metal Sculpture Becomes an Antenna

Bryan Cockfield

HAICE

Those who have worked with high voltage know well enough that anything can be a conductor at high enough voltages. Similarly, amateur radio operators will jump at any chance to turn a random object into an antenna. Flag poles, gutters, and even streams of water can be turned into radiating elements for a transmitter, but the members of this amateur radio club were thinking a little bit bigger when <u>they hooked up their</u> transmitter to this giant sculpture.

For those who haven't been to the Rochester Institute of Technology (RIT) in upstate New York, the enormous metal

continued on p. 6

Net Check Ins-I

Mar	7	Traffic: 0
	WB8NQW	(NCS)
	WD8LEI	
	KD8NJW	
	KD8RNO	
	N1RB	
	KA8VNG	
	WE8TOM	
	KE8CVA	
	KC8EKT	
	KG8FH	(10)
		. ,

Mar	14	Traffic: (
	N1RB	(NCS)
	KE8CVA	
	KG8FH	
	KC8EKT	
	WD8LEI	
	KD8NJW	
	WB8NQW	
	KD8RNO	
	KA8VNGH	
	WE8TOM	
	KE8CUZ	
	KE8WTG	(12)

Brain Teasers

- 1. When using a transceiver that displays the carrier frequency of phone signals, which of the following displayed frequencies represents the lowest frequency at which a properly adjusted LSB emission will be totally within the band?
 - a.) the exact lower band edge
 - b.) 300 Hz above the lower band edge
 - c.) 1 kHz above the lower band edge
 - d.) 3 kHz above the lower band edge
- **2.** Which of the following digital modes is designed for meteor scatter communications?
 - a.) WSPR
 - **b.)** MSK144
 - c.) Hellschreiber
 - d.) APRS

3. What causes intermodulation in an electronic

- a.) too little gain
- b.) lack of neutralization
- c.) nonlinear circuits or devices
- d.) positive feedback

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 <u>never</u> open to contesting.

Apr 1-2	1400 to 0200 Z	160 m to 10 m
-		
Louisiana QSO Party		all modes
Apr 1-2	1400 to 0200 Z	160 m to 10 m
Mississippi QSO Party		all modes
Apr 1-2	1400 to 0200 Z	160 m to 10 m
Missouri QSO Party		all modes
Apr 8-9	1400 to 0200 Z	160 m to 10 m
New Mexico QSO Party		all modes
Apr 8-9	1800 to 2359 Z	160 m to 10 m
Georgia QSO Party		all modes
Apr 15-16	0700 to 0659 Z	80 m to 10 m
YU (Serbia) DX 'test		CW/SSB
Apr 15-16	1300 to 2200 Z	160 m to 10 m
Nebraska QSO Party		all modes
Apr 15-16	1600 to 0400 Z	80 m to 10 m
Michigan QSO Party		all modes
Apr 15-16	1800 to 1800 Z	160 m to 10 m
Ontario QSO Party		all modes
Apr 15-16	1800 to 1800 Z	160 m to 10 m
North Dakota QSO Party		all modes

Net Check Ins-II

Mar	21 KG8FH KE8CVA WD8ICP KC8EKT WE8TOM N1RB KD8RNO KD8NJW WD8LIC WB8NQW KE8WTG KA8VNG	Traffic: 0 (NCS)
Mar	28 KD8NJW KC8EKT KE8CVA WB8NQW WD8LEI KA8VNG KD8RNO KE8QGV N1RB WE8TOM N8VNT	Traffic: 0 (NCS) (11)

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

NASA Help Wanted: Ham Radio Operators Please Apply

Al Williams, <u>Hackaday</u>

NASA has been recruiting citizen scientists lately, and their latest call is looking for help from ham radio operators. They want you to <u>make and report radio</u> <u>contacts</u> during the 2023 and 2024 North American eclipses.

From their website: Communication is possible due to interactions between our Sun and the ionosphere, the ionized region of the Earth's atmosphere located roughly 80 to 1000 km overhead. The upcoming eclipses (October 14, 2023, and April 8, 2024) provide unique opportunities to study these interactions. As you and other HamSCI members transmit, receive, and record signals across the radio spectrum during the eclipse, you will create valuable data to test computer models of the ionosphere.

The upcoming eclipses are in October of this year and in April 2024, so you have some time to get your station in order. According to NASA, "It will be a fun, friendly event with a competitive element." So if you like science, space, or contesting, it sounds like you'll be interested. Right now, the big event is the Solar Eclipse QSO Party. There will also be a signal spotting challenge and some measurements of WWV, CHU, AM broadcast stations, and measurements of the ionosphere height. There will also be some sort of very low-frequency event. Details on many of these events are still pending.

Hams, of course, have a long history of experimenting with space. They routinely <u>bounce</u> <u>signals off the moon</u>. They also let radio signals bounce off the <u>trails of ionized gas</u> behind meteors using special computer programs.

Tuesdays at 2100 all year 147.18 MHz 67 Hz PL **Net Control Roster** Mar 28 **KD8NJW** Apr 4 WB8NQW 11 Apr N1RB Apr 18 KG8FH Apr 25 KD8NJW May **WB8NQW** 2

NEXT MEETING

Business Meeting

Monday April 10 TIME: 7:30 PM/7:00 EB PLACE: Sheriff's Training Room E. Gypsy Lane Rd. & S. Dunbridge 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

Grant Will Advance FreeDV HF Technology

from ARNewsline

A major open-source ham radio technology for HF digital voice has received a major grant to advance its development. The FreeDV Project, an open-source software initiative created by an international team of hams, has received \$420,000 from Amateur Radio Digital Communications (ARDC). The team plans to use that money to help bring FreeDV into the mainstream.

According to an ARDC press release, the goal is to "open the path to widespread adoption of a truly opensource, next-generation digital voice system for HF radio."

Some of the funds will go towards the hiring of digital signal processing developers to work alongside FreeDV volunteers to improve the readability of digital voice carried over SSB under poor HF conditions. The plan is to improve low signal-to-noise ratio operation and improve speech quality. The team also hopes FreeDV can also be embedded in some more commercial radios. Towards that end, specialists will work alongside some commercial HF radio engineers.

The FreeDV website mentions some versions of the technology that are already in use, including the special version in use over the QO-100 *continued on p. 7*

enormous from p. 1

behemoth is not a subtle piece of artwork and sits right at the entrance to the university. It's over 70 feet tall and made out of bronze and steel, a dream for any amateur radio operator. With the



Giant sculpture antenna

university's permission and some help to ensure everyone's safety during the operation, the group attached a feedline to the sculpture with a magnet, while the shield wire was attached to a ground rod nearby. A Yaesu FT-991 running on only 5 watts and transmitting in the 20-meter band was able to make contacts throughout much of the eastern United States with this setup.

This project actually started as an inside joke within the radio club, as reported by Reddit user [bbbbbthatsfivebees] who is a member. Eventually the joke became reality, as the sculpture is almost a perfect antenna for certain ham bands. By the way, for those who are still wondering if you really can use a stream of water to transmit radio waves, it is indeed possible.

April Contests-cont.

Apr 16	1200 to 2000 Z	160 m to 10 m
Quebec QSO Party		all modes
Apr 29-30	1200 to 1200 Z	80 m to 10 m
UK/EI (GB/Ireland) DX 'test		CW
Apr 29-30	1300 to 1259 Z	160 m to 10 m
Helvetia 'test		all modes
Apr 29-30	1600 to 2159Z	40 m to 10 m
Florida QSO Party		all modes

April Hamfests

April 15 Cuyahoga Falls ARC hamfest. Emidio & Sons Banquet Center, Cuyahoga Falls, OH. **web:** <u>www.cfarc.org</u>

May 7 Lucas County ARES swap fest. Toledo speedway Racetrack, Toledo, OH. web: <u>www.lucasares.org</u>

FreeDV from p. 6

geostationary satellite. FreeDV is also being employed to overcome poor propagation through experimental combinations of internet and HF radio. FreeDV encompasses the Codec 2 speech codec/modem is open source.

FOR SALE: MFJ-998 Legal Limit Autotuner

NEVER Used (Hooked up once)

Asking: \$500.00

Contact: jhalsey@woh.rr.com

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

