

# CQ CHATTER

MARCH 2024

VOLUME B24 • ISSUE 1

## 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* February 12, 2024

**Jeff-KG8FH** presiding

**Present:** N1RB-Bob, KD8NJW-Jim, KC8PFP-Rex, Gary Border, WB8NQW-Bob, KC8IFW-Wil, KE8QGV-Roger, WD8LEI-Eric, KG8FH-Jeff, WE8TOM-Tom, WD8LIC-Bob

**Meeting called to order:** by KG8FH at 7:30 with Pledge of Allegiance and introductions.

**Minutes:** of the December meeting as published in the January issue of CQ

*continued on p. 6*

### Changes in Meeting Sked

Because of a conflict with the previously scheduled April business meeting, and the anticipated involvement of WCARC with solar eclipse activities on April 8, the **April business meeting has been changed** to a 9 AM **breakfast meeting** on the prior Saturday, April 6th. Also note that the **March Club meeting has been switched** to a **business meeting**, to be held on **Monday, March 11th**, at 7:30 PM. After that, the meetings follow the usual schedule: breakfast meeting on the first Saturday of the month, and business meeting on the second Monday of the month. To clarify any possible confusion, the schedule for the two months after April is: Breakfast on May 4, Business on June 10. ■

## Net Check Ins-I

**Feb 6**      **Traffic: 0**  
**WB8NQW**      **(NCS)**  
**WD8LEI**  
**KE8QGV**  
**KD8RNO**  
**N1RB**  
**WE8TOM**  
**KE8WTG**  
**KC8EKT**  
**KD8VWU**  
**KG8FH/M**      **(10)**

**Feb 13**      **Traffic: 0**  
**N1RB**      **(NCS)**  
**KC8EKT**  
**KG8FH**  
**KD8NJW**  
**WB8NQW**  
**KE8QGV**  
**KD8RNO**  
**N8VNT**  
**WE8TOM**  
**KD8VWU**  
**KE8WTG**  
**WD8LEI/M**      **(12)**

# Brain Teasers

1. What determines the frequency of an LC oscillator?
  - a.) the number of stages in the counter
  - b.) the number of stages in the divider
  - c.) the inductance and capacitance in the tank circuit
  - d.) the time delay of the lag circuit
2. How is an LED biased when emitting light?
  - a.) in the tunnel effect region
  - b.) at the Zener voltage
  - c.) reverse biased
  - d.) forward biased
3. Why is the primary winding wire of a voltage step-up transformer usually a larger size than that of the secondary winding?
  - a.) to improve the coupling between the primary and secondary
  - b.) to accommodate the higher current of the primary
  - c.) to prevent parasitic oscillations due to r resistive losses in the primary
  - d.) to ensure that the volume of the primary winding is equal to the volume of the secondary winding

# March Contests

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

<b>Mar 2-3</b> <b>ARRL DX 'test-SSB</b>	<i>0000 to 2359 Z</i>	160 m to 2 m <b>SSB</b>
<b>Mar 9-10</b> <b>Oklahoma QSO Party</b>	<i>1500 to 2100 Z</i>	80 m to 10 m <b>all modes</b>
<b>Mar 9-10</b> <b>Idaho QSO Party</b>	<i>1900 to 1900 Z</i>	160 m to 10 m <b>all modes</b>
<b>Mar 9-10</b> <b>EA (Spain) PSK63 QSO Party</b>	<i>1200 to 1200 Z</i>	160 m to 10 m <b>PSK</b>
<b>Mar 9-10</b> <b>Tesla Memorial HF 'test-CW</b>	<i>1800 to 0559 Z</i>	80 m to 40 m <b>CW</b>
<b>Mar 10-11</b> <b>Wisconsin QSO Party</b>	<i>1800 to 0100 Z</i>	160 m to 10 m <b>all modes</b>
<b>Mar 16-17</b> <b>Africa All-mode DX 'test</b>	<i>1200 to 1200 Z</i>	160 m to 10 m <b>all modes</b>
<b>Mar 16-17</b> <b>Russian DX 'test</b>	<i>1200 to 1200 Z</i>	160 m to 10 m <b>CW/SSB</b>
<b>Mar 16-17</b> <b>Virginia QSO Party</b>	<i>1400 to 2359 Z</i>	160 m to 10 m <b>all modes</b>
<b>Mar 30-31</b> <b>CQ WW WPX 'test-SSB</b>	<i>0000 to 2359 Z</i>	160 m to 10 m <b>SSB</b>

## Net Check Ins-II

**Feb 20**      **Traffic: 0**

KG8FH      (NCS)  
WB8NQW  
KE8NEC  
KD8NJW  
NM8W  
N1RB  
KD8RNO  
WE8TOM  
KE8CVA      (9)

**Feb 27**      **Traffic: 0**

KD8NJW      (NCS)  
WD8LIC  
N1RB  
KD8VWU  
WE8TOM/M  
WD8ICP  
KG8FH/M  
WB8NQW  
KE8CVA

(9)

**Mar 5**      **Traffic: 0**

WB8NQW      (NCS)  
KE8CVA  
KG8FH  
KD8NJW  
KD8RNO  
N1RB  
WE8TOM  
KE8QGV  
WD8ICP  
KD8VWU      (10)

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

## Decoding JS1YMG: First Ham Radio Station On The Moon

*Maya Posch, Hackaday*

When Japan's SLIM lunar lander made a rather unconventional touch-down on the lunar surface, it had already disgorged two small lunar excursion vehicles



Japanese Lunar Lander

from its innards: LEV-1 and LEV-2. Of these, the LEV-1 is not only capable of direct to Earth transmission, but it also has been [assigned its own amateur radio license](#): JS1YMG, which makes it the first Ham radio station on the Moon. LEV-1 receives data from LEV-2, which is transmitted to Earth using its 1 Watt UHF circular polarization antenna as Morse code at 437.410 MHz. Although the data format hasn't been published, Daniel Estévez (EA4GPZ) [has been sleuthing around](#) to figure it out.

Using captures from the 25 meter radio telescope at Dwingeloo in the Netherlands, Daniel set to work

*continued on p. 6*

## WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

### Net Control Roster

<i>Mar</i>	<i>5</i>	<i>WB8NQW</i>
<i>Mar</i>	<i>12</i>	<i>N1RB</i>
<i>Mar</i>	<i>19</i>	<i>KG8FH</i>
<i>Mar</i>	<i>26</i>	<i>KD8NJW</i>
<i>Apr</i>	<i>2</i>	<i>WB8NQW</i>
<i>Apr</i>	<i>9</i>	<i>N1RB</i>

## NEXT MEETING

***Business Meeting***

Monday March 11

TIME: 7:30PM/7:00EB

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***

*minutes from p. 1*

Chatter were approved unanimously (NQW/LIC).

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

**Old Business:**

- Jeff requested a report on the status of the UHF repeater transmitter from the Technical Committee. Bob (NQW) reported that there has been no change --the oscillator module does not work and efforts are being made to find a suitable replacement.

**New Business:**

- On February 8th, a group of antenna enthusiasts (WB8NQW, WD8LEI, N1RB and KG8QP) went to the Courthouse Annex roof and assembled, mounted and tested the Diamond HF vertical antenna. More work needs to be done in tweaking the SWR of the vertical, and also in suspending the trap dipole from the towers that are available there. Eric (LEI) displayed pictures of the activities, courtesy of WB8NQW (see below).
- Jeff reminded everybody that the TMRA Hamfest will be soon upon us, on Sunday, March 17th. Table reservations (one display and the other sales) have been made and we are awaiting confirmation. Bob (NQW) requested volunteer assistance for sorting and transporting Club equipment that will be

for sale to the hamfest site. A sign-up sheet was circulated.

- Eric announced that the EMA Director, Jeff Klein will be present at the March business meeting to discuss preparations for the April eclipse. He also gave an overview of the Lucas County AREDN hospital mesh that is under development. Eric plans to activate an uncoordinated 2 meter repeater during the eclipse on 147.55/145.55 MHz -PL tone frequency 103.5 Hz.

**Adjournment:** motion to approve (Lei/NJW) @ 8:45 PM. ■

*decoding from p. 4*

deciphering what he knew to be telemetry data following a [CCSDS](#) standard. After some mixing-and-matching, he found that the encoding matched PCM/PSK/PM with a symbol rate of 64 baud and 2048 kHz subcarrier. The residual carrier is modulated in amplitude with Morse code, but initially this Morse code made no sense.

Fortunately a few fellow hams pitched in and figured out that the amplitude signs for the Morse code were inverted. By inverting the amplitude, suddenly the Morse code looked a lot more clear, with the LEV-1's call sign and what looked like hexadecimal data following it. Each of the frames is also followed by a CRC-16, which should make it possible to start decoding the data transmitted in each frame. ■



# March Hamfests

**March 10 Northern Ohio ARS hamfest.** Lorain County Community College, Elyria, OH web: [www.noars.net](http://www.noars.net)

**March 17 Toledo MRA Hamfest.** Owens Community College, Perrysburg, OH web: [www.w8hhf.org](http://www.w8hhf.org)

## Antennas Erected for EMA Office

In order to provide direct connection between the Wood County EMA Office and Columbus in case normal modes fail, WCARES has erected two antennas which cover the 75m and 40m State ARES frequencies that are monitored in Columbus. A crew consisting of WB8NQQ, WD8LEI and N1RB took advantage of the mid-February warm weather to put up a vertical and soon, a trap dipole (pictures on p. 9). ■

## County EMA Director on Eclipse Preparations

Jeff Klein, KG8QP, in his position as Wood County Emergency Management Director, will attend the March WCARC Business Meeting. The date is Monday, March 11, at 7:30 PM, in the Sheriff's Training Room. Jeff will be on hand to discuss detailed plans of how emergency agencies are preparing for the anticipated influx of astronomy enthusiasts at the Solar eclipse on April 8th. The role of amateur radio will be a major topic. ■

## *IT'S TIME TO RENEW YOUR MEMBERSHIP*

**Dues Payable to:  
WCARC, P. O. Box 534  
Bowling Green, OH 43402**

<b>Senior/Student:</b>	<b>\$10</b>
<b>Regular:</b>	<b>\$15</b>
<b>Family:</b>	<b>\$20</b>

## **Wood County Skywarn Training**

***March 18, 2024 @ 6 PM***

Simpson Gardens Bldg.  
1291 Conneaut Ave.  
Bowling Green, OH 43402



## 2024 NOARS Winter Hamfest

Announcing the 2024 Winter Hamfest at Lorain County Community College, 1005 North Abbe Road, Elyria, OH, on Sunday, March 10, 2024. Doors open at 9:00 AM EST. VE testing will be available starting at 9:00 AM. Pre-registration is preferred, but walk-ins are welcome. [See flyer for details.](#) Please note that we are back at the same venue as previous years.

Please pass this information on to your membership. Questions can be addressed to [winterfest@noars.net](mailto:winterfest@noars.net) or call 216-256-9624 before 9 PM on weekdays.

73,

Carl W8KRF  
Hamfest Chair



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# Antenna Party at the EMA Courthouse Site

*Photos courtesy of WB8NQW*

Putting the final touches on with N1RB and WD8LEI



WD8LEI with vertical installed



KG8QP and N1RB admiring the result



operating position in EMA office

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**WOOD COUNTY ARC  
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BOWLING GREEN, OH  
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