

# ARKANSAS DIAMOND



PRESIDENT David Eichenberger.....W5WUP

www.arkansasdiamondarc.com...web site

ARKANSAS DIAMOND RADIO CLUB NEWS LETTER VOLUME NO. 39 DATE 4/11/2024

We would like to thank again the  
**Downtown Church of Christ**  
For allowing us to use their  
Fellowship Hall for our  
Thursday Night

Bring a can of food as a donation  
Dues time ----\$10 one \$15 family--

## Testing

There is a change on the  
General

We are set for testing  
this Thursday Night if  
you're ready,we are,. You  
will have to have a  
1. FRN from the FCC  
2. An email Address  
3. \$15 For the ARRL

## Club Officers

David (W5WUP) is the Club President, Conway County  
ES Training & Resource Officer, County Emergency Coordinator  
for ARES/RACES/AUXCOM.

Roger (KF5SDE) is the Club Vice-President and the  
Deputy Communications Officer for Conway County ES/911.

Stewart (KD5LBE) is in charge of membership  
and the quarterly newsletter.

Steve (KF5DIF) is the Director of Conway County Office of  
Emergency Services/911

Jim (AF5EI) the Club Treasurer and the Communications Officer  
for Conway County ES/911

## Local Nets

**Morrilton Monday Night**  
**146.685 141.3 Tone**  
**7:30**

**146.51 No tone**  
**no offset Thursday**  
**8:00 PM**

**State Net**  
**146.330 pl 114.5**  
**Tuesday 7:30 pm**

**Conway**  
**146.970 pl 114.5**  
**Thursday 7:30 pm**

.....

## Free Food

.....

**Not up now**  
**443.875 pl 79.5**  
**444.10 114.8**

The new Arkansas Diamond Radio Club  
address is  
P.O. Box 1262, Morrilton, AR 72110.



### Greetings from the Pres David W5WUP

By the time you read this the Eclipse will have passed.

As the Eclipse approaches some of our members worked to set up HAM Radio communications at the Conway County OEM Office and at the Morrilton North Fire Station. The volunteers for situational awareness communication support, from within our group, are demonstrating that we CARE about our community. More to come in that area.

We are very fortunate that members from other clubs, with energy and knowledge, are integrating into our group and bringing their skills and experiences to share with us. Chris Gimbert and Eric Corin, from the Faulkner County Amateur Radio Club, have spent numerous hours setting up a field day quality station, on generator power, beside the North Fire Station, including every band from 160 meters down to 70 cm. Chris



### The Arkansas Diamond Radio Club (KE5FSY) of Morrilton News Letter

**This bulletin is published 4 times a year for the promotion of HAM radio. Ham radio is for enjoyment and is the emergency back bone of communication for the communities. When all else fails we will be there, we have in the past and will be in the future.**

**Editors are KD5LBE Stewart Nelson**

**All HAM related stories are welcome.**

live streamed the eclipse from that location to The Glenda Project severe weather research YouTube channel.

As we move forward into 2024 with our Club, my hope is that we continue to attract and educate new Ham Radio Operators and bring more new technologies into our SHACKS. I have a lot to learn about all the various modes of operation that have evolved since I was licensed in 1992.

Please bring your ideas and thoughts to our next ADARC Meeting. Also, if you feel inclined to write an article for Stewart to include in the News Letter you are invited to share it.

73s for now

### MORE FROM W5WUP

Greetings from the W5WUP

**Whiskey 5 Whiskey United Poppa**

It has been very hectic leading up to this weekend. (I think the WHISKEY needs to be bourbon!)

To All, we managed to get a semi-permanent dual band UHF/VHF antenna on top of OEM in Downtown Morrilton this afternoon. Now Jim has the ability to hit most, if not all, of the relevant repeaters in Conway, Perry, Faulkner, and Pope Counties.

Later this afternoon, Roger and I managed to complete the setup and first deployment of the first Radio Go Box that we constructed with the vision and support of Steve Beavers. I also loaded the repeater list into the IC-7100 to give us immediate access to the majority of the repeaters we need to access in real emergency events. Daniel Weatherly, N5DDW, is working on a standard list for state-wide repeaters that we will load into both IC-7100s for future deployment.

I think we have established an effective communication network, should we need to utilize it, during this event.

As a reminder, we WILL have the Monday Night Net, unless we have a real event scenario that we are supporting with SITUATION AWARENESS communications.

### MORE FROM W5WUP

Next Thursday night will be our April stated meeting night.

We eat at 5, and meet at 6.

The agenda will be:

1. After Action Brief by Steve Beavers
2. Moving the location of our Quarterly Meetings
3. Monthly club activities during non-meeting months
4. An overview of Antenna design and analysis – Daniel Weatherly – At one of our future TECH Nights we will ask Daniel to do a more in depth presentation.

Future topics for TECH NIGHT will be on the table for suggestion. We need to know what YOU want to learn about.

I'll close with a comment from the Faulkner County:

*The best plans all go out the window when you take the first punch in the face!*

We will monitor and adjust!



### Ham Radio Stories by Roger KF5SDE

I had just finished mowing the lawn on Saturday. After putting my stuff away, I decided to see what was going on in the Ham Radio World. I fired up my Icom 746 pro and opened the dxsummit.fi spotter site on the computer. I found a station in Aruba and as usual listened to a few qso's before trying to make contact. The station was doing a contest, so I decided to move up the dial and found another station on another island in the Caribbean. I didn't listen before making my call and he came back to me right away. In the exchange he told me

I was contact number 1908. What could I do? I told him he was 001. By accident I am in the contest. I filled in his information in my logbook including the numbers we exchanged. It was a nice DX. I then went back and worked the station in Aruba. He was my number 002. As I was moving up the 15 meter band I make another contact within a minute. I found many stations working the contest like it was summer field day. The only difference was the pileups were not as severe. I ended up working 11 stations within 40 minutes. They were in 7 different countries. Let me tell you this was a lot of fun. Had I known I could do this, my lawn would not have been mowed. I would have been in the ham shack racking up DX contacts.

My next task was to do the right thing and submit a log to the contest site. First, I had to learn what contest I was working. One of the stations indicated we were working the CQ DX WPX contest. I found that on their QRZ page. I googled this and found the contest website and found instructions to submit my log. Of course, they wanted the log submitted in the cabrillo format. The good news is they had a link to a free logging application that made it easy for me to convert my paper log to cabrillo. I did that and uploaded my file to their website. Within their website they were able to indicate any errors I had. They also had a way I could easily edit my log to satisfy their requirements. The submittal process was smooth not like Winter Field Day. I have never been successful at submitting a log for Winter Field Day.

This was an exciting 40 minutes for me. If you have not tried contesting, I recommend you do so. You may not be disappointed.

73 from Roger KF5SDE



by Neil Spector

## MORE FROM ROGER KF5SDE

A Tribute to the Late Robert G. Heil from  
MARCH 1, 2024—TODAY THE AMATEUR RADIO WORLD mourns the loss of one of the most beloved amateur radio operators in recent memory, Dr. Robert G. Heil, K9EID, who passed away after a year-long battle with cancer, on February 28, 2024. Bob was one of the true innovators in the field of amateur radio, manufacturing all manner of microphones, competition headsets, and a vast array of mostly audio related accessories for the radio amateur. It's probably fair to say that at one time or another, every ham on the air today has at least at one time used a Heil Sound device. But he was also an innovator in the world of live sound audio and is widely credited for creating the way that all live sound is done for modern rock concerts the world over. He created unique sound systems for bands such as The Grateful Dead and The Who. He invented the Heil Talk Box in 1973, which was frequently used by star-level musicians such as Joe Walsh (WB6ACU), Peter Frampton, and Richie Sambora—as well as Alice in Chains, Aerosmith, Slash, Pink Floyd, and many others. Most of us know and remember him for all his many contributions to amateur radio, of course. In the late 1970s, he branched out from the live music and sound reinforcement world into that of HAM radio, endeavoring to improve what he considered to be sound problems in the common amateur radio gear of the era. Bob's audio background was long and deep, with a great deal of applied science and theory learned from audio legends Paul Klipsch and Donald Leslie, as well as in relation to the Bell Labs Fletcher-Munson curves (the “equal loudness” concepts that became integral to how Bob approached audio devices for the ham radio market). In the early 1980s he started working with Yaesu and Icom

in Japan, assisting their design engineers to make dramatic improvements in transmit audio in the modern transceivers then coming into the US market. Radios prior to this, if they had any transmit audio EQ at all, it was very basic. Bob's input led to all HAM radio transceiver manufacturers adapting highly configurable multiband parametric EQ systems that we all use on a regular basis today.

## More Ham Stories James AF5BA

I think I remember you requesting eclipse day photos. I set this up around 8 am. It's my FT-817 (5 watts) and hamstick vertical. Notice the measuring tape counterpoises. I focused on 20 meters SSB only and made contacts from ND to FL and TX TO PA. There were tons of special event stations. The eclipse was awesome. A special event for my family too. We never saw any sign of an increase in vehicle traffic, so I'm wondering if the predicted number of possible people who were expected to flood the area, did not happen.



# Special article from Daniel Weatherly N5DDW

## Azimuthal maps and antenna patterns

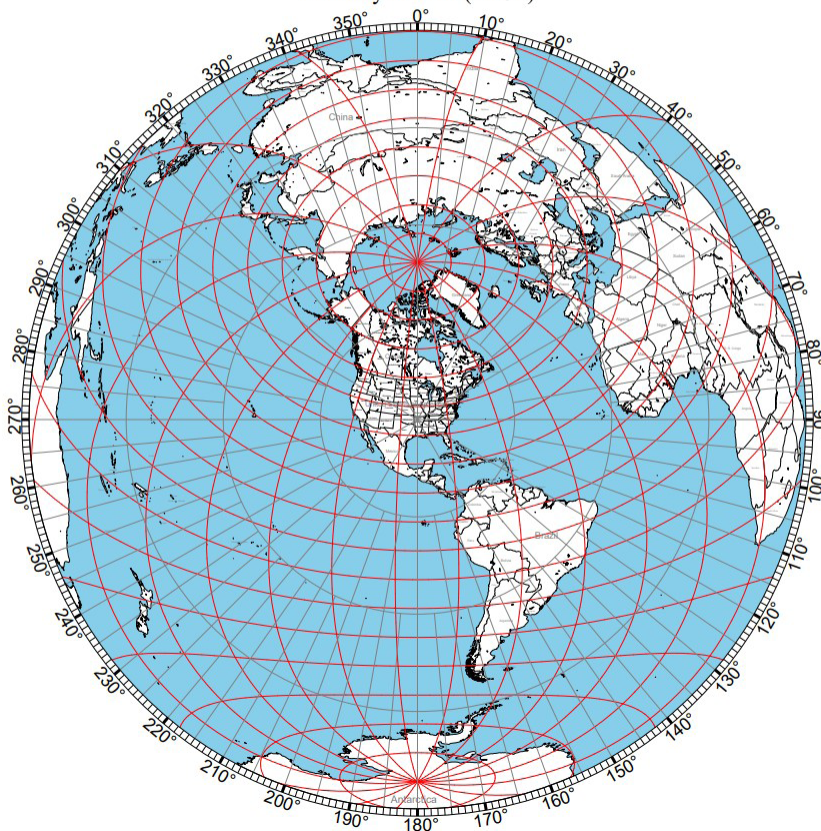
When I was new to the hobby, someone told me that Europe is not east of us, and I realized I had never thought about it to that level of detail. Most of the maps that we are presented with in school show Japan to the west, and Europe to the east, Australia to the south-west, etc. But when we talk about radio waves, they want to follow the shortest path. If we took a globe and a string, and stretched it between France and Arkansas, and made the string as short as it could be, it would pass through Maine to get there. To get to Germany it would pass through Ohio. Going the other way, the path to Japan would go through Montana. To Australia would be almost due west as you left Arkansas.

There is a map for this called an Azimuthal map. You can generate one of varying distances at <https://ns6t.net/azimuth/> to hang on your wall. I suggest you start with your gridsquare in the location field. Mine is EM35. For distance 15000 km is a good number to show most of the globe and see Australia (max is slightly more than 20000). Here is a map I generated with those numbers:

### Azimuthal Map

Center: 35°30'0"N 93°0'0"W Radius: 15000 km

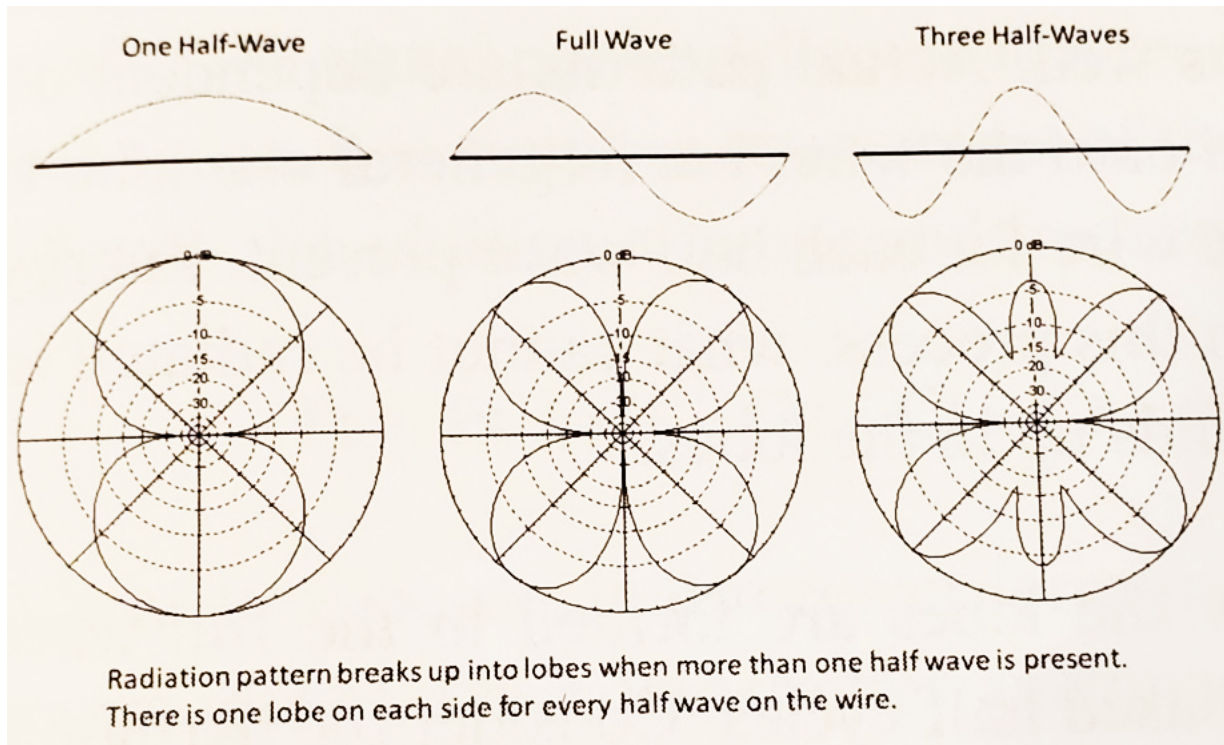
Courtesy of Tom (NS6T)



This is why many maps that show airplane routs show them as curves. They are not really flying in a curve, but when you project the straight path onto a flat map, it stretches the line into a curve.

As a radio operator this kind of map can help explain who you might pick up with a given antenna setup. For example, I have a long dipole strung up north to south in my yard that's 136ish feet long. At 7.2MHz, the antenna is a full wave-length so it will produce 4 lobes and 4 nulls. The lobes will be in a clover pattern meaning that I have gain to the north-east, south-east, north-west, and south-west. Looking at the map, this means I have gain towards Europe! And Japan! And South America! On that frequency.

My QSO map confirms this pattern.



Africa on the other hand is not good at 7.2Mhz at all. There is a null to the east and west, and Africa is mostly to the east from here. Africa is good at 3.9MHz though which is ~one half wave length giving me broadside direction to the east and west. And Africa is west of me. It is also very good on 18.1MHz which is the 17 meter band.

Any odd multiple of half waves in my antenna length will have some radiation to the east-west, plus more to the other lobes, but an even number of half waves of my antenna length would not and be poor for Africa from my QTH with a N-S dipole.

Knowing the actual directions to other places on the globe, and how your antenna pattern changes with length and frequency can help you plan for, or explain why you can get to some locations and not others. As the diamond club starts up our monthly tech/learning/show-and-tell nights, this is a topic that we can cover in more detail.

Daniel Weatherly  
N5DDW

**Arkansas Diamond  
Membership  
KE5FSY**

|                    |        |                    |             |
|--------------------|--------|--------------------|-------------|
| Alexander, C A,    | KF5DIE | Karolczak, M J     | KF5UDD      |
| Alabach, R A       | KF5SDE | Lawrence, J R      | KI5DBS      |
| Armstrong Sr., C O | KE5YPZ | Leach, S M         | KI5ZLU      |
| Beavers, R D       | KF5MAD | Martin, R D        | KI5ZKC      |
| Beavers, S L       | KF5DIF | Martin, T G        | K5TGZ       |
| Boswell, M K       | KA5MGL | Maupin, T J        | W5APA       |
| Bougher, T         | NONE   | Mc Caig, W L       | N5RWW       |
| Carroll, G H       | N5GC   | Mc Dearmon, E B    | KC5EIK      |
| Cate, R D          | KI5GUJ | Milligan, L B      | KG5UFT      |
| Cate, W N          | K5EEF  | Mooney Jr., W M    | W5WMM       |
| Clarkson, S L      | KG5DAD | Moorman, K A       | KI5QJS      |
| Coran, E W         | N5EWC  | Moorman, M H       | KC5MM       |
| Cossey Jr., G O    | K5GOC  | Neal, R            | KF5IYY      |
| Cullipher, J L     | N5JLC  | Nelson, S P        | KD5LBE      |
| Curtis, B A        | W5ATC  | Parish, D K        | KD5WDJ      |
| Donnell, H L       | KF5EST | Peters, G E        | KI5HOV      |
| Drinkwater, E C    | KG5AUV | Scott, J B         | K5NWS       |
| Dube, J T          | KF5ESP | Scott, M B         | N5MBS       |
| Eichenberger, F E  | KF5IJA | Stovall, M J       | AF5BA       |
| Eichenberger, D.   | W5WUP  | Stricklin, E R     | AG5EI       |
| Engbrecht, R S     | KF5ODT | Taylor, J J        | AF5EI       |
| Fosse, W T         | KG5ZTI | Taylor, J M        | KF5DIH (SK) |
| Hradesky, A P      | K5PMO  | Tudor, C W         | N5EH        |
| Hardesky, M A      | W5PMO  | Weatherly, D D     | N5DDW       |
| Huett, D R         | WB5RUH | Wiedower Sr., J E  | AC5RT       |
| Hunwick, F W       | KA5WWW | Wiedower, Jr., J E | KD5YZD      |
| Isbell, D K        | KI5KBH | Wilken, J D        | W5JDW       |
| Johnson, N D       | KC5BBC |                    |             |