

Allen County HamNews

Fort Wayne Radio Club Fort Wayne DX Association

Allen County Amateur Radio Technical Society

June 2021

Volume 22

Issue 6

In this edition:

From the Editor

Page 2

Carole's Corner

Page 3

FWRC Minutes

Pages 4

INQP & Sprint

Results

Pages 5-7

ACARTS President's Column

Page 9

Playing Around

Pages 12

Multi-Band

Antennae

Pages 13-14

Foxhunt

Chronicles

Pages 15-16

Contest Calendar

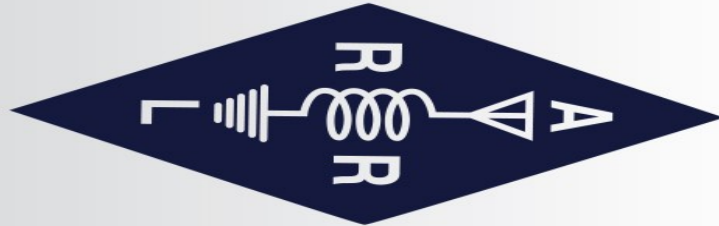
Page 16

For Sale/Wanted

Pages 18-20

Letter to the Editor

Page 22



2021

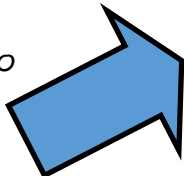
FLY DAY



arrl.org



This list doesn't show everything in HamNews! Be sure to check out the flyers in this edition for upcoming local ham radio events!



From the Editor

Another month has gone up in smoke! As the image in the next column indicates, Field Day is almost upon us. Refer to the flyer later in this newsletter for more details.

I made a slight change to the contest calendar this month. Instead of listing dozens of minor contests, I only included a handful of major contests and other activities that I thought would be of general interest to you. If you miss the longer version of the contest calendar, please drop me a line.

What are your ham radio plans for the summer—a new radio, a new antenna, an old radio resurrected, a new mode, an old mode, public service, an old antenna, a mini dx-pedition, or just operate along as usual? Consider writing about your plans for the July edition of HamNews!

73,

Josh, W9HT

P.S. Catch you on the airwaves!



Allen County HamNews

HamNews is a monthly publication of the Fort Wayne Radio Club, the Allen County Amateur Radio Technical Society, and the Fort Wayne DX Association.

Articles are written by members and friends of each of the three clubs. New submissions for HamNews are always welcome. Please submit your information to the editor within two days of the end of the month for inclusion in the next edition.

For any questions, please contact the newsletter editor.

HamNews Editor
Josh Long, W9HT
drjoshlong (at) gmail.com

Hamsplatter

Fort Wayne Radio Club

P.O. Box 15127, Fort Wayne, IN



Carole's Corner June 2021

Hello everyone,

I can't believe this is the end of May already. I hope everyone has had a good spring so far. Al and I finally got to take a trip to Dayton to meet our new Great Granddaughter. Of course, she is beautiful. What else, she is a Burke!

Our next meeting is Wednesday, June 16, 2021 at the Downtown Library Meeting rooms A and B starting promptly at 6:00 PM. The topic this month is Field Day and our proposed picnic. I hope I see everyone there.

73,

Carole WB9RUS



FWRC Officers 2021

President

Carole Burke, WB9RUS
(260) 637-1989
Wb9rus(at)comcast.net

Vice President

Paul Prestia, KA3OPZ
(260) 485-9632
Phixer(at)gmail.com

Secretary

Al Burke, WB9SSE
(260) 637-1989
Aburke55(at)comcast.net

Treasurer

Bob Streeter, W8ST

Communications Manager

Charles Ward, KC9MUT
(260) 749-4824
Kc9mut(at)yahoo.com

Directors

Steve Nardin, W9SAN
(260) 482-4039
W9san(at)arrl.net

Clarke Derbyshire, KG9FM
(260) 485-6255
Cderbyshire(at)comcast.net

Bill Hopkins, K9WEH

Stuart Hall, KD9LFW

Newsletter Editor

Josh Long, W9HT

FORT WAYNE RADIO CLUB MEETING MINUTES

19 May 2021

The May edition of the Ft. Wayne Radio Club meeting was held at the Allen County Public Library (downtown) on 19 May, 2021. We made use of meeting rooms A & B which provide room for up to 126 people in a Corona virus compliant environment. (We have also reserved the venue for the June, July and August meetings. Note that all meetings will start promptly at 6:00 pm because the library closing time has been established as 8:00 pm.

Club President Carole Burke, WB9RUS welcomed the attendees (about 18) where-in all introduced themselves by their name and call-sign. Following introductions we executed the pledge of allegiance ceremony according to our usual practices.

Treasurer Bob Streeter, W8ST provided the current club banking account balances as of 19 May, 2021, to wit:

Savings-	\$1,831.67
Checking-	\$5,762.77
Vanguard Money Market-	
\$11,225.64	

Al Burke, WB9SSE and Steve Nardin, W9SAN reported that fourteen items of microwave test equipment from the Adolph Wozniak estate have been donated to the Electrical Engineering department at Purdue, Fort Wayne, thus clearing out considerable space at our Robison Park re-

peater site where we had been storing the items. Steve has also been able to sell several items of ham radio equipment that the club had accrued. Contact Steve (w9san@arrl.net, (260)-482-4039) to see what other items of ham radio related equipment remain. Plans are that we will bring some of the more interesting items to the Auburn Hamfest (10 July, 2021 at the Auburn-Cord-Duesenberg museum).

Al Burke reported on repeater status. All machines are operating normally.

Al also reported on the May Foxhunt. There were four hunters split between three teams for this one. Carole and Al Burke plus Jim and Annie Pliett, K9OMA and KA9YYI served as the fox and hid out at Forest Park Elementary School, Jim's alma-mater. Charles Ward, KC9MUT was first to find the microfox and thus will serve as the fox for the June hunt. Details regarding the May hunt can be found in the Foxhunt Chronicles for May.

Carole reported that plans are afoot for a club picnic, tentatively scheduled for Saturday, 18 September. The location has yet to be determined, but (and this is important if you like hamburgers), we are planning to employ Charles Ward as the cook. So mark your calendars and stand-by for further information

The Fort Wayne Safety Fair is scheduled to occur on 25 September at a location as yet undetermined by the organizers. It seems likely that the FWRC

will not participate this year.

Steve Nardin reported that the club QSL project is finishing up. We hope to be able to show the new QSL card which will feature an aerial view of the Old Fort during Field Day at the June club meeting. The club will likely purchase about 1000 QSL cards featuring the W9TE call sign to be used during Special Event activities. It will be possible for club members to purchase cards with their callsign featured too. Details at the June club meeting.

Following the business meeting, Capt. Sophia Rosales-Scatena of the Fort Wayne Police Dept, Public Information Department, provided an in-depth discussion of how the FWPD is interacting and communicating with the public during these times of increased disharmony between the public and our men and women in blue. Her presentation was well received.

The meeting concluded about 7:40 pm.

Respectfully submitted,

Al Burke, WB9SSE

Upcoming FWRC Meetings
6pm at the downtown ACPL
6/16
7/14
8/18

Another Record CLUB Score for INQP 2021?

Last year the Fort Wayne Radio Club set an all-time record high score in the club category of the Indiana QSO Party with a staggering **737,223** points with logs submitted by 28 club members! Wondering if any Indiana club could even come close to that score, the FWRC went at it this year to try to set the bar even higher. With 5 fewer logs submitted this year, we had one very big surprise: KR9U multi-op. Jim (KR9U) and Dave (KC9ZH) had 840 qso's, (75% cw) for a whopping 241,600 point addition to our score. Jack, W9GT, led the Allen County high power single op category with 174,560. Jack was without his big tower and yagi and relied on his G5RV. Ken, N8KR, decided to operate rover on county lines. While his moves to the three locations cost him 3 hours of operating time, the double whammy of 2 for one contacts put 1419 qso's in the log for 266,213 points. While these 3 high scores were significant in achieving a high club score, it is the addition of all of our other scores that take us *over the top* for a record breaking score! Here's the list of operators and reported scores:

Call	Score	Call	Score
W9KMH	660	WA9BBN	17,856
WB9NOO	506	W9HT	43,200
W9SA	33,312	W9SAN	4,949
W9GT	174,560	K9BLI	4,200
KU8T	54,359	N8KR	266,213
KR9U	241,280	K9FMX	2,822
KC9UR	1,710	KJ9R	7,227
K9EA	51,708	AC9XS	465
AC9EZ	44,712	KD9ODP	800
K9FW	2,310	KD9NRT	800
KD9GDY	32,928	KB9OZI	n/a
N8II	n/a	N9HZH	n/a
KD8VMU	n/a	W8HOM	n/a
NE9EE	n/a		

953,265

Now that's a great score! Looks like we set another new record!

Jim, AC9EZ, included a brief summary of his portable operation. "This year's INQP was quite a learning event and made for a memorable first-time Portable activation. Due to a wedding for which we were playing music, I decided to operate as a "backyard" portable entry this year, as I didn't have enough time for a full-bore Low Power entry. The initial plan was to run two doublet antennas, with an end-fed halfwave as a backup. My first qso was NE9EE at 11:03 a.m. on 80m ssb. After working 16 stations on 80m, I switched to 40m, only to discover that neither of my doublet antennas would tune on 40m! Thusly, I spent between an hour working on the doublets to try to get on 40m. The backup efhw had a near 2:1 swr or higher on both 40 and 20 meters, so I fell back on plan C. Plan C was to take down a partially functional G5RV I had built (fed by a random length of 450 Ohm window line), do a quick soldering job to put it back into working order, and hoist it into place (as supported by a tree limb 28 feet above ground). The final station configuration saw me use the G5RV as my main antenna on 40 and 20 meters, with a few quick excursions on 80m. The 172 foot long doublet was used entirely on 80m. All told, due to the wedding and the antenna troubles, I lost about 3 hours of operating time. Still, my score was boosted by a great run on 40m ssb in the evening, great conditions on 20m, and lots of IN counties activated and on the air. Overall, it was a fun event, and a lot was learned!"



VHF SSB/CW 2M Sprint Classic: The Dust Has Settled!

Ken, N8KR, reports: "As a result of hours of research for county-line operations, I found three suitable sites: the Pisgah Marsh boardwalk on the Kosciusko/Whitley county line, a private site on North County Line Road bordering DeKalb and Noble counties, and ending up at Lake of the Woods on the county line of Steuben and Lagrange counties. I was greeted by the DNR police at the Pisgah Marsh DNR site and quickly got his approval for my 2.5 hour stint. The setup, as seen in the picture, included a 28 foot fiberglass military mast (4 foot sections) supporting 1/2 wave dipoles cut for 80 and 40 meters. I cut the 40 meter dipole for the middle of the band which allowed operation on both phone and cw with an swr less than 1.6 to 1. The 80 meter dipole was tuned for the cw portion of the band so I had to rely on the tuner in the radio for ssb. I had also cut a 20 meter dipole but decided to tune the existing wires for the higher band. The drive to site #2 was over an hour so I planned to stop in Kendallville for lunch and to pick up some snacks for the rest of the day. The drive from site #2 to Lake of the Woods was less than 10 minutes. After a quick set up, I finished with only two slight problems: the garage door at my operating site went up and down when transmitting on 40 meters . . . a quick unplugging of the garage door solved that problem, and my led battery lamp blew a bulb putting me in the dark with the exception of the laptop....I managed to find another light and I was back at it. Rig included my TS-590sg, N1MM logging software with the K1EL USB cw interface, Heil headset, and Drake external tuner. All operating was done inside my vehicle. My best rate was my first 1 hour and 48 minutes at Lagrange/Steuben: 444 qso's! I had a great time and found county-line operating lots of fun!"



Saturday, April 24th, was a blustery, rainy day. But no amount of wet weather could dampen the intentions of many regional VHF enthusiasts, as they geared up for the first annual VHF SSB/CW 2M Sprint Classic contest.

The Sprint Classic is a contest that encourages VHF weak signal operations, using the traditional modes of ssb and cw. Stations were awarded points based upon the number of contacts made and the total number of grid squares worked (each grid square was a unique multiplier).

The action started at 1300z - 9:00 a.m. eastern - with the contest ending 9 hours later at 2300z. Band conditions were not favorable, due to a lack of wide-spread tropo openings. However, band conditions aside, contest entrants reported working stations as far as Hamilton, IN, Lemont, IL, Cecil, OH, and all the way to Rudolph, Wisconsin! (maybe Santa's sleigh brought some good propagation to WI?)

After the dust settled, submitted scores were checked, submitted logs reviewed, and winners tabulated. Table 1 lists the scores for stations who received a score placement. Table 2 lists participants who did not submit a score summary by callsign and grid square.

Table 1			
Callsign	Category	Score	Placement
K9EA	Base Station - High Power	165	First Place <i>and</i> "Legacy" Award winner
AC9XS	Base Station - Low Power	21	First Place <i>and</i> "Rookie" Award winner
NY1V	Base Station - Low Power	18	Second Place
W9SAN	Base Station - Low Power	13.5	Third Place
W9HT	Base Station - QRP	22	First Place
W9TSB	Base Station - Low Power	4.5	Fourth Place
KC9IPR	Base Station - Low Power	3	Fifth Place
AC9EZ	Base Station - Low Power	84*	Log Checker
* Not eligible for any awards/placement due to being Contest Log Checker			

Table 2	
Callsign	Grid Square
WA9BBN	EN71
N8KR	EN71
KB9OS	EN71
WB9ENB	EN71
KC8ZJL	EN71
N8OXQ	EN71
K9MRI	EN70
KB9PFY	EN71
W9DZ	EN61
WD9UDW	EN71
WB9LYH	EN54
KE8GON	EM79
WB8LNG	EM79
W9DLP	EN61
N9KKF	EN61

As part of the event, category winners were awarded a special award in recognition of their winning achievement. These special awards were sponsored by MFJ Enterprises, and DX Engineering. Two unique awards were given to the top score from a “Legacy” station (an amateur licensed more than 25 years), and to the top score from a “Rookie” station (an amateur licensed in the past 3 years). Those two awards were won respectively by Dan, K9EA (licensed for 67 years), and Steve, AC9EX (licensed 10 months). Congratulations, fellas!

A big thank you goes out to MFJ Enterprises, DX Engineering, and the Fort Wayne Radio Club, for their sponsorship and support of this contest. The support of these great organizations added a great aspect to the event.

Also, a big tip of the hat goes to the Northeastern Indiana Amateur Radio Association for their support in posting contest information to their club website at w9ou.org.

Finally, I would like to thank all participants in the contest. Without you folks, a contest would not be possible. Thank you for tuning in your radios and handing out some points for the event!

2 meters has a lot to offer, and the ssb/cw modes can really unlock the great potential that is hidden in the 2 meter band. I hope you all enjoyed experiencing the fun that weak signal operation offers on this highest of our VHF band privileges. Until next year’s event, 73, stay well, and keep your ears open for 2 meter weak signal activity!

Jim Danielson AC9EZ
VHF SSB/CW 2M Sprint Classic contest adjudicator

CQ Sprint 2022



ANNUAL TAILGATE HAMFEST

—

**FRIDAY,
AUGUST 20**

—

Stay tuned for more
details in upcoming
editions of
HamNews!

State of the Arts

Allen County Amateur Radio Technical Society

P.O. Box 10342, Fort Wayne, IN

ACARTS President's Message for June 2021



Last month I stated that things were getting back to normal and that ACARTS

would probably be resuming meetings soon, maybe as early as June. This will not be the case. The Red Cross has not yet opened their facilities to external groups. They expect the facilities to be available late summer or fall. It could be sooner if the COVID-19 numbers continue to improve, and the related restrictions continue to be removed. The Red Cross will let us know when the room is available for our meetings. The Salvation Army available for our board meetings, however, there are restrictions such as logging-in and temperature checks in place. These restrictions are expected to be removed soon and we will be able to resume un-

restricted board meetings. There is no point in rushing an in-person board meeting when we will not be having a general meeting. Most board functions can be handled by e-mail.

One activity that ACARTS will be holding is the annual picnic. The Jefferson Township Park pavilion is reserved for Saturday, August 7th. The picnic will be open to members of ACARTS, the Fort Wayne Radio Club, and the Fort Wayne DX Association, along with their guests. We will need volunteers to bring needed items, arrive early to help clean and arrange the tables, take the trash to the dumpster at the conclusion of the evening, etc. I will begin taking reservations in mid-July, so we know how much food to purchase. Let me know if you have any ideas for any activities that could go along with the picnic.

73,

Dave Lindquist, W9LKH

ACARTS Officers 2021

President

Dave Lindquist W9LKH
260-485-6135
w9lkh(at)comcast.net

Vice President

Jim Boyer KB9IH
260-489-6700
kb9ih(at)arrl.net

Secretary

Chris McCullough W9TSB
260-312-2750
kd9lrw(at)gmail.com

Treasurer

Howard Pletcher N9ADS
260-747-5252
n9ads(at)arrl.net

Station Manager

Jim Sampiere KD9NPL
260-999-8132
Kd9npl(at)gmail.com

Fundraising Manager

Fred Gnegnagel KC9EZP
260-704-7801
kc9ezp(at)gmail.com

Directors at Large

Bob Erb N9PWM
260-466-7772
roberterb(at)hotmail.com

Steve Shannon K9SKS
260-704-5353
k9sks(at)aol.com

(1 open position)

W9INX Trustee

Dave Lindquist W9LKH
260-485-6135
w9lkh(at)comcast.net

2021 FM Simplex Contest Summary

What a difference a year makes. Last year at contest time we were in the early days of the COVID-19 pandemic. We were in the middle of lockdowns, restaurants were closed, professional sporting events were cancelled. In other words, there was nothing to do. The FM VHF, UHF Simplex contest was a great way to spend a Saturday evening. There were record numbers of participants and log submissions. It was a fun evening for all.

This year was a different story. There were very few participants and logs submitted. There were not that many people on the simplex channels at the start of the contest and they soon worked all the other participants that were within their range. There were not four rover stations to follow throughout the evening. Many gave up after the first hour. A few stuck around longer and even for the full three hours. This is a sure sign that the pandemic is slowing, and people are getting back to normal activities.

Even though activity was minimal, we did have winners. In the Base category, Steve Nardin, W9SAN, took first place. Steve has been an avid participant in the contest for the last few years and has come very close to winning the last couple of years.

In the Portable category, Jim Danielson, AC9EZ claimed the top prize. Jim has been a participant in the contest for several years and has entered both Base and Portable categories in the past, winning the Portable category a couple of years ago. This year, Jim added to his portable operation by operating in several townships as a portable. This is allowed in the contest rules and gives additional multipliers.



The Rover category was won by Josh Long, W9HT. Josh has entered the contest the last couple of years with this being his first winning effort.



Many thanks to all of the participants and those that submitted their logs. Maybe by next year, things will be back to normal and we can have more people participating and having a Saturday evening of radio fun. Congratulations to the winners! 73 de W9LKH

Sizzlin', smokin' and satisfying

ANNUAL A CARTS PICNIC

Save the date!

Saturday, August 7th



Playing Around in the 2021 ARRL International DX Contests

Carl Luetzelschwab,
K9LA

This year I set some goals for my participation in the two ARRL DX Contests in February (CW) and in March (PH). Here are some comments about my results.

CW Weekend

My goal for the CW event was to work as many countries as possible running 100 Watts on 80 meters, 40 meters and 15 meters using my 8 meter quarter-wave vertical with elevated radials, and my 40 meter inverted-vee at 40 feet on 40 meters and 15 meters.

As would be expected with modest antennas, running barefoot and being around solar minimum, 40 meters was my best band of the three. Even with an amplifier on 80m, it can be tough with a modest antenna. And 15 meters was not very active due to the low sunspot count.

I ended up with 2 countries on 80 meters, 47 countries on 40 meters and 4 countries on 15 meters for a total of 53 countries. Check out the tabular results. My daytime operating times weren't too productive on 15 meters. My operating times in the evenings on 80 meters and 40 meters were from sunset to about 10 PM. My operating times in the morning were from about 5:30 AM (when the cat gets up) to sunrise.

Overall, getting a bit over halfway to DXCC at solar minimum with 100 Watts to modest an-

tennas isn't bad. Just think what it will be like when Cycle 25 really gets going (assuming it does!).

PH Weekend

My goal for the PH event was to see how many countries I could work on 75 meters using the aforementioned vertical but with an amplifier. Due to my Commander HF-1250 amp (1000 Watts out) needing some repair work, I used the AL-811H amp (about 450 Watts out) that we used in Syria back in 2001 at YK9A (needless to say, this is a well-travelled amp).

I only worked 19 countries, and most were Caribbean, Central America and South America. I did work 6 Europeans (GM, 9A, I, G, EA and HB), KH6, JA and VK. I never heard KL7 or ZL – two that I thought I would work.

What was most memorable about the PH contest was Sunday morning before sunrise. JH7XMO had a great signal, but I couldn't work him. There weren't many calling him, but darned if I could get through. Once he said "the Kilo station again" and once he said "the Alpha station again", but he never got my full call. I didn't feel too bad about this, as many others couldn't work him – K4IU, N2RK, K0YR, K9NW (at K9UWA's station), W7QDK and others. They all called JH7XMO in vain. Maybe JH7XMO had a noise problem.

I did run across a station in Arizona trying to work a DX station. The DX station just couldn't get the last letter of the Arizona station's suffix. So the Arizona station used several different phonetics to try to get that last letter across. The last letter was M, and he used Mexico, Mike, Moscow and microphone. I had to chuckle at this, because it probably confused the DX station even more.

80 meters	40 meters	15 meters
GW, P3	4O, 9A, CO, CT, D4, DL, E7, EA, EA8, F, FM, FY, G, HA, HB, HC, HH, HI, HP, JA, KP2, KP4, KH6, I, IS, LU, LZ, OK, OM, P4, PA, PJ2, PY, S5, SP, TK, UA, UR, V3, VP5, VK, XE, YO, YU, YV, ZF, ZL	CE, CX, HK, TG

Countries worked in the CW weekend

Tuning Up

Multi-band Antenna Designs

Jim, AC9EZ

There are many different kinds of multi-band antenna designs nowadays, and all of them have one thing in common: Cover the most number of HF bands possible with the least amount of wire and expense possible. In this month's article, let's take a look at some of the more popular multi-band HF antennas now in use by radio amateurs.

Design #1) The G5RV (and its derivations)

Probably one of the most common multi-band antennas in use today is the G5RV. The classic G5RV (designed many decades ago by British amateur G5RV) was originally intended for single-band operation on the 20m band. As time wore on, amateurs discovered that they could use the G5RV on multiple bands with the addition of a wide-range tuner. Today, several variations have been developed of the G5RV, the most famous of which is the ZS6BKW, which uses a specific length of antenna and "tuned feeder" balanced line to achieve low SWR on parts of multiple bands.

Advantages: Easy to build at home; increased signal strength due to the addition of gain (similar to an extended double

zepp at the expense of some increased deep nulls); Easy installation; multi-band abilities with the addition of an external tuner (assuming low loss in the feed line).

Disadvantages: Deep nulls that can make copying stations in certain directions impossible; Requires a wide-range tuner to cover every band; Extremely high SWR on some bands (like 30m); Higher risk of high-losses occurring in the feed line, resulting in a low effective radiated power;

Design #20 The Off-Center Fed Dipole (and its derivations)

The Off-Center Fed Dipole (or OCF dipole) is actually an old design that has been updated since its inception as the "Windom" antenna in the 1920s by Loren Windom, 8GZ (later W8GZ and a general in the U.S. Army). The Windom antenna used a single wire feeder that connected to a dipole antenna. The feed point of the Windom was done at an "off center" point, instead of the exact middle of the antenna, creating a "short" and "long" leg to the dipole. This arrangement meant that hams could use the now "off-center fed" antenna on multiple bands, so long as those multiple bands were even harmonics of each other (e.g. 80m, 40m, 20m and 10m). Eventually, the single-wire feeder was replaced with coax cable and the "Windom" antenna morphed into the "Off-Center Fed dipole." Today, OCF dipoles are fed with 50 Ohm coax which connects to the antenna's feed point through either a 4:1 or a 6:1 impedance transformer, depending on the manufacturer/home brewer and

the antenna's height above ground. The most popular derivation of the OCF dipole is the Carolina Windom (which technically is not a Windom but an OCF dipole that uses a resonant 1/4 wavelength of coax to pick up operation on a non, even-harmonic band such as 15 or 17 meters).

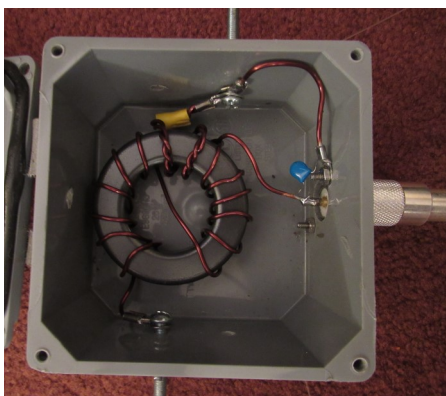
Advantages: Multi-band use without the need for an external tuner (at least for most of the bands); Length equal to a traditional dipole antenna; Broadside radiation pattern on lower bands of operation, similar to a dipole; Low cost to build/repair; Easy to put up

Disadvantages: High amounts of common-mode current, caused by the off-center feed point; Requires good common mode chokes (due to the off-center feed point); Does not cover non, even-harmonic bands like 30m, 17m, or 15m (unless the antenna is a Carolina Windom); Difficult to build the 4:1 or 6:1 transformer for beginning antenna home brewers.

Design #3) End-fed Antennas (9:1 end-feds, end-fed half waves, and random wires)

The end-fed antenna is a bit of a hybrid antenna, mixing design ideas with an early antenna known as the "Zepp" (used on Zeppelin airships in the early 1900s) and the "random wire" or "long wire" antenna (simple wire antennas fed at one end). All end-fed antennas require a main radiator (the "antenna"), an impedance transformer (using a 9:1, 49:1, or 64:1 ratio), and coax cable to act as a "counterpoise". 9:1 end-fed antennas use a semi-random

length of wire for the main radiator that is not a 1/4 or 1/2 wave multiple on any particular band. A counterpoise wire is usually used in addition to the coax cable. 49:1/64:1 end-feds, known as end-fed half-waves or EFHW, use a length of wire equal to 1/2 wavelength on the lowest band of operation. Recommended counterpoise lengths are usually 0.05 wavelength's long, although many folks only use their coax cable as the only counterpoise. Both end-fed designs use some type of impedance transformer wound on a ferrite toroid (a type 31 mix is common). EFHW end-feds are resonant on all even-harmonically related bands, whereas 9:1 end-feds are resonant on pretty much every band. SWR values for either antenna will be less than 3:1 on most resonant frequencies. Figure 1 shows a home made 49:1 transformer installed in an outdoor enclosure box.



Advantages: Easy multi-band use with less than 3:1 swr on most bands (if using the 9:1 variety); Easy installation; Low cost to build/maintain; Performance similar to simple dipole antennas

Disadvantages: Large amounts of common mode current if not choked off by current chokes; Difficulty in building impedance

transformer for new antenna builders; Installations and swr values vary depending on length of antenna radiator/coax cable/counterpoise chosen; Main lobes of radiation differ, depending on radiation feed line, antenna radiation, and height of antenna.

Design Idea #4) The 43-foot Vertical

The last antenna we will look at is the 43-foot vertical. In reality, the 43-foot vertical is nothing more than an end-fed antenna that has been installed in a "vertical" configuration with a 4:1 impedance transformer at its feed point. Instead of using one or two "counterpoise" wires like a traditional end-fed, the 43-foot vertical uses a traditional ground plane of 8, 16, or more radials, similar to a typical 1/4 wave vertical antenna. The 43 foot length is not anything particularly special, other than that it is a non-resonant length on any particular band (e.g. it is not a 1/4 wave or a 1/2 wave on any particular band). On 20m, 43 feet is roughly a 5/8 wavelength tall, giving a very low takeoff angle for antenna radiation. On 40m, the 43 foot length is about 1 1/3 times longer than a 1/4 wave vertical. A 4:1 impedance transformer is connected at the vertical's base with the purpose of lowering the antenna's feed point impedance closer to the industry standard of 50 Ohms for the feed line and for the transceiver. An external tuner is required on some bands of operation. Some companies sell an additional coil that can be inserted at the vertical's base to allow the antenna to load up well on 80m and 160m.

Advantages: Low take off angles on every band 20m and below, great for dx; Simple to

erect; Very few moving parts, increasing durability; Use on multiple bands; Ability to chase DX on 80m/160m effectively with the low take off angle; Small horizontal footprint in space-constrained properties.

Disadvantages: If purchased commercially, very high cost (several hundreds of dollars); Requires the use of a 4:1 transformer (possibility difficult to be built for beginner homebrewers); Not desirable takeoff radiation angles on bands higher than 20m; No amount of noticeable gain on any particular band; Requires some kind of tuner to be used on multiple bands

These are only a few of the many multi-band antennas now available to today's ham. Many of these antennas can be built by the antenna home brewer on a budget, but others may prefer to purchase these antennas to eliminate any "guess work" in assembly. All of these antennas have one thing in common - multiple available bands of operation with one length of wire. Whichever antenna design is used, keep in mind that any multi-band antenna will be a compromise in performance, space, and cost. The "best" multi-band antenna is the one that gets your signal on the air and a contact in your log!

73 de Jim, ac9ez



May 2021

The weather on Sunday, May 2nd was quite pleasant with a clear sky and slight wind, perfect for our May hunt. And three teams showed up at the Cobin Memorial Park starting point.

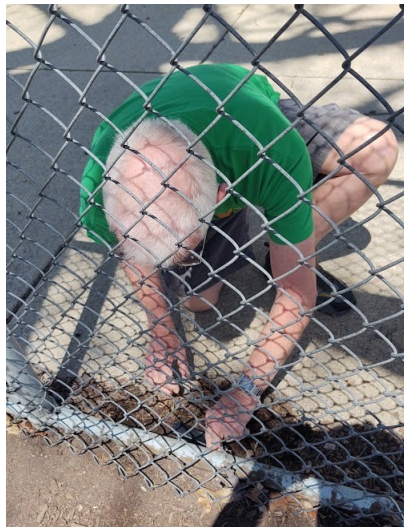
Team one consisted of Charles Ward, KC9MUT. Team two consisted of Mike Palmer, N9FEB, up again from Indianapolis, and team three included John Navaro, KD9NIV and his driver Willie. Veteran fox hunters Steve and Linda, W9's SAN & LAN, and their grandson Alex were unable to participate in this one.



Carole and Al Burke, WB9's RUS & SSE plus Jim and Annie Pliett, K9OMA and KA9YYI performed the roll of the fox. They placed the high power fox off the alley-way behind the Forest Park Elementary School (at the corner of Forest and Alabama

Avenues). It consisted of a 50 watt transceiver that took its input on uhf and transverted that signal to the vhf fox frequency (146.430 MHz). It drove a simple Ringo ranger antenna mounted on a tripod.

The microfox consisted of the standard microprocessor controlled 10 milliwatt unit that has been used for our foxhunts for several years. It transmits a modulated CW signal on the fox frequency for one minute every two and a half minutes. It was buried beneath the mulch along the playground's northern fence along Forest Ave. (@ 41.0942848,-85.1199232).

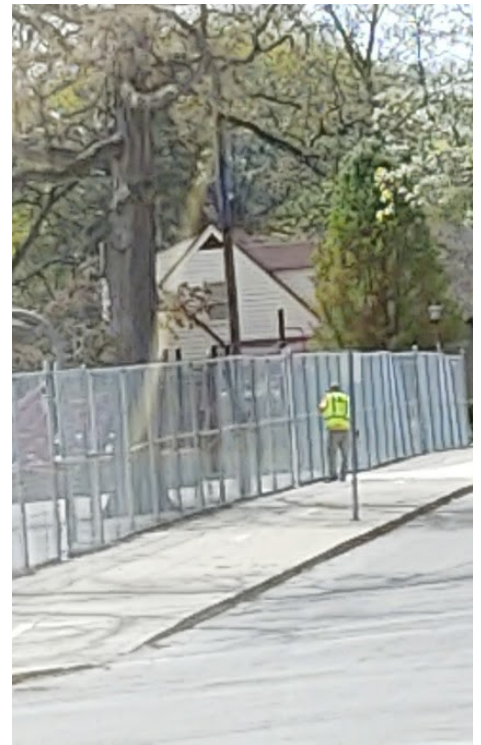


The fox teams van was parked on Forest Ave. east of Florida Dr. with a sight view of the school playground. A uhf handheld was used to transmit to the high power fox located behind the school.

The fox began transmitting at the normal start time of 13:30 and all three teams heard it. So they all got on the road and quickly separated. Apparently the signal bounced around a bit because Charles at first got diverted to Lakeside Park, and John and Willie were roaming around downtown Ft. Wayne for

a while.

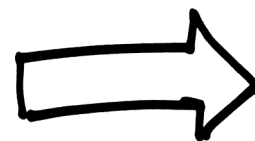
The first hunter (Charles) localized the fox and was on foot by 15:00 and he found the microfox about ten minutes later.



John and Willie showed up about 15:30 and found the fox shortly after that. Mike Palmer had to return to Indianapolis early so was not able to finish the hunt.

We wound up traveling over to the Hall's Prime Rib Restaurant on State St. for the after-the-hunt refreshments. That place has excellent prime rib and yummy onion rings among other tasty delights. We enjoyed it.

The May foxhunt and year-to-date scores are shown on the following page:



HUNTER	MAY SCORE	YTD SCORE
WB9SSE	2.33	13.33
WB9RUS	2.33	12.33
KA9YYI	2.33	12.33
K9OMA	2.33	12.33
KC9MUT	4	19
W9SAN	0	13
W9LAN	0	13
ALEX	0	13
K9WEH	0	6
N9FEB	0	8
KD9NIV	2	5
WILLIE	2	2
N9DC	0	4
KD9OKH	0	3
KD2TCP	0	2
KW9S	0	2
KD9QQW	0	2
N9AMT	0	1
KD9SDY	0	3
KD9QHL	0	5

Since Charles was first to find the microfox he will serve as the fox for the June hunt. It will occur on Sunday, June 6th. Why not join in on the fun?

Respectfully submitted,

Al Burke, WB9SSE

Upcoming Foxhunt Dates
June 6
July 11
August 8
September 19
October 3
November 7
<i>Stay tuned to HamNews, local nets, and the club websites for updates!</i>

Contest Summary for June 2021	
SKCC Sprint Europe	1900Z-2100Z, Jun 3
Kentucky QSO Party	1400Z, June 5 to 0200Z, Jun 6
SKCC Weekend Sprintathon	1200Z, Jun 12 to 2400Z, Jun 13
ARRL June VHF Contest	1800Z, Jun 12 to 0259Z, Jun 14
All Asian DX Contest, CW	0000Z, Jun 19 to 2400Z, Jun 20
West Virginia QSO Party	1600Z, Jun 19 to 0400Z, Jun 20
ARRL Kids Day	1800Z-2359Z, Jun 19
SKCC Sprint	0000Z-0200Z, Jun 23
ARRL Field Day	1800Z, Jun 26 to 2100Z, Jun 27
<i>This information comes from the WA7BNM Contest Calendar at contestcalendar.com and is gratefully acknowledged.</i>	



**The most popular on-the-air operating event
in amateur radio. Gear up and get in on all the
action and fun!**

**Participate in your local
ARRL Field Day June 26-27, 2021
Open to the Public.**

Many clubs will be hosting Field Day stations!
For example, the Fort Wayne Radio Club will
be down at the Old Fort in downtown Fort
Wayne. You can find information on other
locations at: <http://www.arrl.org/field-day-locator>

www.arrl.org/FieldDay



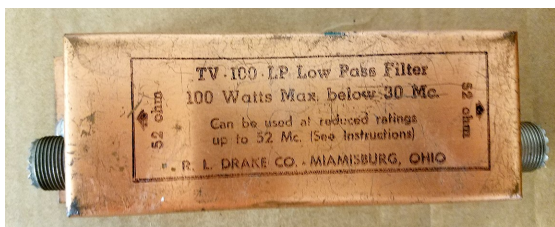
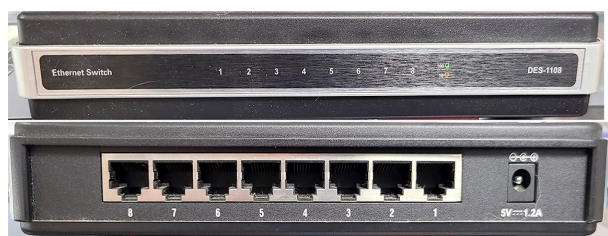
For sale and wanted listings in this section are provided to members of the Fort Wayne Radio Club, the Allen County Amateur Radio Technical Society, the Fort Wayne DX Association, and to other local hams free of charge! Listings can be renewed upon request to the editor (see pg. 2 for contact information).

- FREE” double wide rack, no rust and nicely painted

Please contact Jim Mast, W8HOM at 260-447-1225.

- Cushcraft ARX-2B 2 meter Ringo Ranger II - 7 dB gain omnidirectional antenna. Good condition, but missing one of the three 20” ground radials. \$40
- Cushcraft AR-6 6 meter Ringo Ranger - 3 dB gain omnidirectional antenna. Fair condition - worked fine last time it was used. \$20
- Siltronix FS-301 HF SWR Bridge/Watt Meter - \$35
- Drake TV-100 30 MHz low pass filter – 100 watt - \$4
- Maha MH-C800S NICAD charger (holds 8 individual AA cells) - \$5
- DLINK DES-1108 8-port 100 MB/s ethernet switch - \$5
- Book: Amateur Antenna Tests and Measurements by Harry Hooton W6TYH - \$2
- Book: Microwave Transistor Amplifiers Analysis & Design by Guillermo Gonzalez - \$2
- Book: Transmission Line Transformers by Jerry Sevick W2FMI - \$2

For any of these items, please contact Don, WB8HQS at don.gagnon (at) frontier.com or text to 260-403-1548.



For Sale / Wanted Continued

All items from this listing are from Lester Lee, KA9LTP (SK) for his wife, Tammy.

- Yaesu FT-950. This radio was owned by Dick Byers, W9RRB. It was purchased by his good friend, Lester Lee, KC9LTP. Both are now SK and Lester never had a chance to use the radio. "Cream puff". Asking \$850
- FT-2900 VHF mobile transceiver. Another "Cream puff" . Asking \$150
- FT-1030A Yaesu Power Supply, 30A peak, 25A continuous. "Low Mileage". Asking \$150 each.
- Astron 35A Power Supply, no meters. Asking \$125.

For any of these items, please contact Jack, W9OWO at 269-585-0408.

- Ten Tec Omni VII. Includes auto tuner, Heil desk microphone and stand, 963 power supply, and manuals. \$1000 or open to interesting trade offers.
- MFJ-914 AutoTuner Extender. In good cosmetic condition and appears to work. Includes manual. \$40
- Signalink USB soundcard interace. Includes cable for a later Ten Tec radio. \$75
- Ten Tec 963 13.8 VDC/25 amp continuous power supply. \$50
- MFJ-4225MV adjustable 9-15 VDC/22 amps continuous/ 25 amps max surge power supply. \$50
- MFJ low pass filter. Free with the purchase of one of the above items!

For any of these items, please contact Josh, W9HT. See pg. 2 for contact information.

- For Sale: Kenwood TS-520S Vintage HF Transceiver – Good condition, 160-10 meters, \$300 or Best Offer

Please contact Gary, KB9TUI at kb9tui (at) gmail.com or call 260-450-0980

Your item could be listed here next month! Just send the editor an email with your listings before June 29th! See page 2 for contact information.

For Sale / Wanted

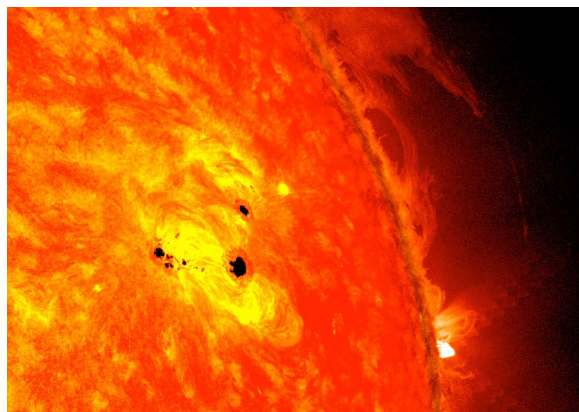
Continued

- For Sale: CW paddles kit. Assembled and works well. This kit was reviewed in the December edition of QST. \$25
- Morse Tutor Board. Assembled and works well. Includes manual. This kit was reviewed in May edition of QST. \$30
- Pair of FRS/GMRS handheld radios. Bought new in the fall, only used once. \$40

For any of these items, please contact Terry K9FMX at tjbowman (at) frontier.com or at 260-705-7128



Still Wanted: More sunspots before Field Day. Will pay top dollar! Contact the editor.



Area Nets					
Daily			Tuesday		
8:00 AM	3.535	Daily (QIN) Indiana Section CW net	7:30 PM	147.150+	21 Repeater Group Net (97.4 PL)
8:30 AM	3.940	Daily Indiana Traffic Net	8:00 PM	50.580 USB	FWRC 6-Meter SSB Net
6:00 PM	3.940	Daily Indiana Traffic Net	9:00 PM	146.940-	Allen Co. ARES Training Net (141.3 PL)
6:30 PM	146.880-	IMO (alternate is 146.760)	Wednesday		
7:00 PM	147.015+	Tri State Two Meter Net	7:00 PM	146.760-	FWRC YL Net
8:00 PM	3.535	Daily (QIN) Indiana Section CW net	8:00 PM	145.270-	Whitley Co. ARES (141.3 PL)
Week-days			8:00 PM	50.580 FM	FWRC 6-Meter FM Net
9:00 AM	3.820	Little Red Barn Net	9:00 PM	146.940-	Help and Swap Net (141.3 PL)
Sunday			Thursday		
8:00 PM	444.550+	Whitley Co. ARC Sunday Night Net (141.3 PL)	8:00 PM	D-STAR	Indiana D-STAR net (Note 3)
8:30 PM	1.965 & 146.910-	"No-Name" Net also on EchoLink Node number 519521	8:00 PM	50.580	AM 6-Meter AM Net
9:00 PM	145.53 simplex	Northeast Indiana Packet Net 1200 baud (Note 2)	8:30 PM	145.510 simplex	Allen County ARES Digital Operations Team Training Net (Note 4)
Monday			Saturday		
8:00 PM	224.780-	Fort Wayne 224 Net	8:00 PM	146.685-	Huntington ARES(141.3 PL)

1. All times local time. **Any changes or corrections should be submitted to the newsletter editor at drjoshlong (at) gmail.com.**
 2. NEIPN is direct accessible via any BPQ Chat Node (or through Node hopping etc.) via other packet frequencies in this area and other areas through other nodes (it is locally direct accessible on 145.53 in NC & NE Indiana/NW Ohio and SE Michigan using KA9LCF-11, KC9VYU-11, N9LCF-11, N9PXO-11, K9BIF-11) Most BPQ Nodes use an SSID of -11.
 3. Reflector REF024B.
 4. Net starts using BPSK-31 and switches to BPSK-250 after roll call to pass traffic etc. NBEMS suite of software (FLDIGI, FLMSG, and FLAMP) is preferred.
 5. Indiana HF Traffic Nets Web Site: <http://www.inarrl.org/index.php/public-service/indiana-nts>

Fort Wayne area repeaters (updated as of 5/1/21)							
Frequency	Offset	Tone/Notes	Callsign	Frequency	Offset	Tone/Notes	Callsign
145.330	-0.6 MHz	--	W9FEZ	443.100	+5 MHz	DMR	K9MMQ
146.880	-0.6 MHz	--	W9INX	443.275	+5 MHz	P25	K9MMQ
147.255	+0.6 MHz	--	W9INX	442.6375	+5 MHz	--	N9MTF
146.760	-0.6 MHz	--	W9TE	444.800	+5 MHz	--	W9FEZ
146.910	-0.6 MHz	--	W9TE	442.99375	+5 MHz	D-Star	W9TE
146.940	-0.6 MHz	141.3 FM C4FM	W9TE	444.250	+5 MHz	141.3	W9AVW
224.780	-1.6 MHz	--	W9FEZ	444.8750	+5 MHz	141.3	W9TE
				53.3300	-1 MHz	--	W9FEZ

Letter to the Editor

Hi,

I am President of the Paulding County Ohio Amateur Radio Club. I was wondering if you could add our net to your list of "area nets" in your newsletter?

Our net is held every Monday evening at 19:00 on the clubs KE8FJX repeater. Frequency is 147.135 with a tone of 141.3.

The second Monday of every month (same time, freq, and tone) is our ARES net.

Many of your members might know "Cork" (W8DHG). He has been checking in from the home every Monday evening.

Please spread the word. Any and all are welcome to check in and to use the repeater any time. It is a good high profile repeater.

Thanks and 73,

Fred Pieper, N80XQ



FWRC Membership Application

Name: _____ Call Sign: _____
 License Class: _____
 Street address: _____ City: _____
 State: _____ ZIP: _____ Phone #: (_____) _____
 Email address: _____ ARRL Member? _____

(ARRL membership helps the club maintain ARRL affiliation)

May we list your name, call & email address in our membership roster & on our club web site?

Fort Wayne Radio Club dues:

Regular membership	\$20.00 / year
Family membership ¹	\$30.00 / year
Student membership ²	\$5.00 / year
Associate membership ³	\$20.00 / year

(Memberships for July-December are ½ the stated amounts)

Please attach a check to this form (paying by check is strongly encouraged) made out to:

Fort Wayne Radio Club (check number _____) and bring to a club meeting or mail to:

Fort Wayne Radio Club

P.O. Box 15127

Fort Wayne, IN 46885-5127

Please list all names and calls on an attached sheet.

K-12 or full time student.

Unlicensed member.

ACARTS Membership Application

Name: _____ Call Sign: _____
 License Class: _____
 Street address: _____ City: _____
 State: _____ ZIP: _____ Phone #: (_____) _____
 Email address: _____ ARRL Member? _____

(ARRL membership helps the club maintain ARRL affiliation)

May we list your name, call & email address in our membership roster & on our club web site?

ACARTS dues:

Regular membership	\$12.00 / year
Additional family members ¹	\$6.00 / year
Student membership ²	\$6.00 / year
Associate membership ³	\$6.00 / year

(New regular memberships are \$1.00/month)

Please attach a check to this form (paying by check is strongly encouraged) made out to:

Allen County Amateur Radio Technical Society (check number _____) and bring to a club meeting or mail to:

A.C.A.R.T.S.

P.O. Box 10342

Fort Wayne, IN

Please list all names and calls on an attached sheet.

K-12 or full time student.

Unlicensed member.