

Allen County HamNews

Fort Wayne Radio Club Fort Wayne DX Association

Allen County Amateur Radio Technical Society

July 2021
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Ramblings from the Editor

June was a fun month for a number of reasons.

Hamfests. I was able to attend my first hamfest of 2021 up in Monroe, MI. The hamfest was well-attended and had a great tailgate section (including a few great deals!). Be sure to take note of the Auburn hamfest that is coming up on July 10th. Admission to the hamfest is free—and that includes free admission to the Auburn Cord Duesenberg Automobile Museum. The FWRC tailgate hamfest is also coming up in August—see the flyer later in this edition!

Field Day. In addition to the local Field Day events, I enjoyed operating from home as a 1E station. While I did not break any records, I had a bunch of fun testing the limits of SSB, battery power, 20w, and wire antennas.

Mobile HF. Check out Jim AC9EZ's article on operating mobile from North Dakota. I operated as W9HT "mobile 8" while I traveled to and from the upper peninsula in Michigan.

Enjoy this edition and catch you on the airwaves and at the upcoming hamfests!

73,

Josh, W9HT (mobile 8)

P.S. 6m has been open!



IT'S SUMMER
THE BANDS ARE OPEN!

CQ DX!

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

The Northeastern Indiana Amateur Radio Assoc.



AUBURN HAMFEST

Saturday, July 10, 2021

Auburn Cord Duesenberg Museum

1600 S. Wayne St. Auburn, IN 46706

OPEN 9 AM TO 2 PM • TALK-IN: 147.015 7:00 AM • LOAD-IN: 7 TO 9 AM

FREE Admission

6,000 SQ. FT. INDOOR DISPLAY SPACE (Not counting the huge Museum Area!)



FREE Parking

Supervised by the DeKalb County ARES Team.

Hourly Door Prize Drawings

NEED MORE INFO?

E-MAIL: W9OU@ARRL.NET

FREE AUBURN CORD DUESENBERG Museum

View an amazing collection of classic motor vehicles.

Indoor Vendor Tables: \$10 ea.

50% non-refundable deposit due with order.

Outdoor Sales - One raffle ticket purchase for each parking space.

Contact: W9OU@ARRL.NET

Raffle Prizes:



- 1st- ICOM ID-5100A Deluxe**
with touch-screen and internal GPS.
 - 2nd- MFJ-4225MV 25A power supply.**
 - 3rd- Powerwerx PowerpoleBag**
- Ticket Prices \$5.00 - Buy 2, get 1 Free!**

Hamsplatter

Fort Wayne Radio Club

P.O. Box 15127, Fort Wayne, IN



Carole's Corner July 2021

Hello everyone,

I can't believe how summer is flying by. Field Day has come and gone. It went smoothly at the Old Fort with the FWRC operating 3A. I haven't heard about scores yet, but a lot of operating went on including on 15, 10 and 6 meters which really opened up Sunday morning. Looks like the actions we took to mitigate co-site interference really payed off. I look forward to getting a full report on the club's Field Day performance shortly.

We also had our first summer banquet at the Old Fort on Field Day Saturday even-

ing. Charles Ward was our master chef and did a marvelous job as usual.

The July club meeting is at the Allen County Public Library, Main Branch (downtown) starting at 6:00 on Wednesday, July 14. The program for July is about telegraphy as used by the railroad back in the day. I understand it is quite different from the Morse Code that we use. Mark that meeting date and time on your calendar. Parking is free if you have a ACPL library card.

Everyone stay well, and I'll see you at the meeting.

73,

Carole WB9RUS



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Newsletter Editor

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FORT WAYNE RADIO CLUB MEETING MINUTES

16 June 2021

The June meeting of the Ft. Wayne Radio Club was held at the Allen County Public Library (downtown) on 16 June, 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 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 13) and all present 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 16 June, 2021, to wit:

Savings-
\$1,831.72

Checking-
\$5,469.77

Vanguard Money Market-
\$11,625.74

Al Burke commented on the June Foxhunt. Five teams, for a total of thirteen hunters, participated in the June hunt. The object of their hunt was Charles Ward, KC9MUT, the fox, whose lair was the bus parking lot at New Haven Senior and Junior High School. The first to find the fox were Steve and Linda Nardin, W9's SAN & LAN and their grandson Alex. Details of the entire adventure can be found in the soon to be published Foxhunt Chronicles.

Carole addressed the summer banquet initiative that the Board of Directors has been working on. The Board decided to restore the club's banquet tradition, disrupted by the Corona virus situation, by holding a Summer Banquet at the Old Fort

during Field Day weekend. It will occur on Saturday, June 26th at the Old Fort starting at 5:30 pm. Instead of fried and baked chicken, the club will provide hot dogs, hamburgers and cheese burgers prepared by our culinary master Charles Ward, employing his newly acquired grill/smoker. The club will also provide Carole Burke's Sauer-Kraut which has become a club favorite (for some reason that is simply incomprehensible to this Secretary). In addition the club will provide dinnerware and punch or iced-tea and coffee. Attendees should provide bring-in dishes or desserts as is usual practice for club banquets. (Meatballs and/or deviled eggs are strongly encouraged). Attendees should also bring chairs, and tables if desired, plus drinks of their choice (except nothing alcoholic).

Carole noted that she an AI were to meet with Tin Caps event coordinator Morgan Olson to work the details of the club Special Events station initiative that will occur at Parkview Field during a Tin-Caps game. It appears it will be at a home game on Sunday, July 11th while the Tin-Caps are hosting Lake County. Game time is 1:05 pm and it should last about three hours, depending upon the pitching. We will attempt to operate on 80 and 40 meters depending on the nature on antennas the Tin Caps will tolerate (most likely end-feds). Carole has arranged to do an on-the-air interview with Tin-Caps play-by-play announcer Mike Maahs (ESPN Radio, 1380) during one or two innings which will engender some amount of publicity for Ham Radio and the FWRC. We hope to have a good turn-out of club members for this event. Enjoy baseball and do a little Special Events Station operating!

Charles Ward was not able to attend tonight's meeting to discuss Field Day planning. But as he is the club's lead person regarding Field Day, he needs to develop a feel for the degree of club support during Field Day. Thus we will conduct an on-the-air Field Day planning session, via the 146.76 machine, on Tuesday, June 22nd starting at 7:00 pm. The expectation is that Charles will lead that session. We must get an esti-

mate of how many people will show up to support set up and operating so that we can decide what class to run. Hopefully we can also get an estimate of how many people will attend the Summer Banquet so we can purchase enough food for the hot dog/hamburger/cheeseburger/Sauer-Kraut portion of the feast. Steve Nardin will distribute a club-wide email with an announcement regarding the banquet and Al will ask Jay Farlow, W9LW, to post the announcement on the club web page.

Steve Nardin described the final version of the club QSL card that we will soon purchase. It features an aerial view of the Old Fort and will be used for QSL'ing whenever we participate in special event activities. The card design can also be personalized for the individual club member. Anyone interested should contact Steve (w9san@yahoo.com, (260)-482-4039) for more details.

Following the business meeting Steve presented a discussion on what we plan to do to reduce co-site interference during Field Day. This will involve the use of low-pass filters, grounds, and rf chokes on feedlines, power lines and control lines.

It should be an interesting experiment.

The meeting adjourned at 7:01 pm.

Respectfully submitted,

Al Burke, WB9SSE

Upcoming FWRC Meetings
6pm at the downtown ACPL
7/14
8/18
Stay tuned for more dates

New W9TE QSL Card Design for the Fort Wayne Radio Club


Your wait is almost over! The Fort Wayne Radio Club new "Centennial" QSL card design is almost here! We choose to use the actual Fort this time. Our original cards from years past had a drawing of the Fort on them. They were made before the present recreation of the Fort was built in the '70's.

Since we have been using the Fort for many years now for our Field Day operation, it was only fitting that we feature a picture of the Fort on the card.

Here is the proof of the W9TE card from QSL master, KB3IFH. Once it is approved, the club membership will be able to order their own versions of the card with their call signs on the front, and the background and other information of their own choosing on the back of the card.

Instructions on how to get your own version of the card will be coming soon! Stay tuned for more information!



W9TE			Allen County Grid: EN71	
Fort Wayne Radio Club PO Box 15127 Fort Wayne, IN 46885-5127 USA			SK CC Straight Key Century Club #20000	http://www.fwrc.info
CONFIRMING QSO WITH		DAY	MONTH	YEAR
UTC	MHz	RST	2-WAY	

PSE **QSL** TNX

KB3IFH QSL Cards

FIXED MOBILE

2021 IN QSO Party

OFFICIAL Results Posted

It's no surprise that our club was the top scoring club in Indiana. What is impressive is that 3 IN QSO Party plaques are coming to Allen County along with several certificates. Plaque winners are:

- ♦ **Fort Wayne Radio Club – 934,620 points with 21 logs submitted**
- ♦ **KR9U – top scoring multi-op Indiana station with 209,808 points**
- ♦ **N8KR – top scoring Indiana Rover station with 266,213 points**

Along with these awards are those Allen County stations receiving top scoring certificates:

- ♦ **W9GT – top scoring Allen County single op high power station with 175,973 points**
- ♦ **KU8T – top scoring Allen County single op low power station with 53,694 points**
- ♦ **AC9EZ – top scoring Allen County portable station with 44,712 points**
- ♦ **N9HZH – top scoring Allen County mobile station with 903 points**

It appears that the idea of our club reaching 1 million points during INQP is very possible! We can look forward to 2022 INQP and congratulations to all of our club members who participated this year for a job well done!

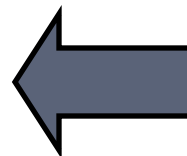
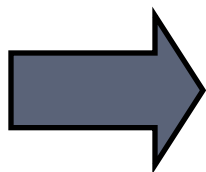
73,

Ken, N8KR

Save the date for the next

Indiana QSO Party:

May 7, 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 July 2021



Summer is upon us, and things are getting back to normal or near normal after the COVOD

-19 pandemic. Many of you are engaging in summer activities such as family gatherings, vacations, sporting events and so on that were all cancelled last year. Many of you participated in Field Day events that were held in Fort Wayne and surrounding counties. A lot of you plan to attend the upcoming hand-fasts in the area. All these things are a good sign that things are almost back to normal.

As of this writing, the Red Cross has not opened their facilities to outside groups, so ACARTS has not planned a July General meeting. There will be a July ACARTS board meeting at 7:00 p.m. on Tuesday, July 13th, at the Salvation Army so that we can start getting the club

back on track for future activities.

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. Plan on arriving around 5 with food served around 6. 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

Next ACARTS Board Meeting

July 13th at 7pm

ACARTS Officers 2021

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(1 open position)

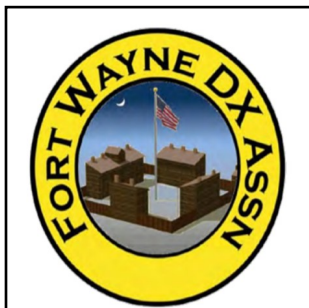
W9INX Trustee

Dave Lindquist W9LKH
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Sizzlin', smokin' and satisfying

ANNUAL ACARTS PICNIC

Saturday, August 7th
5pm, Jefferson Township Park



A Review of “Hollow-State Design”

Carl Luetzelschwab,
K9LA

This month’s column is a top-level review of a book titled Hollow-State Design (2nd Edition, 2014). It is writ-

ten by Grayson Evans TA2ZGE/KJ7UM.

Several years ago I subscribed to the monthly magazine Electric Radio (ER for short – visit <https://www.ermag.com/> for details). It’s all about vintage equipment, in which I am very interested. After browsing through the index of articles, I noticed that there has never been a review of my Novice receiver – the National NC-60 Special. Thus I wrote about using it during my Novice and early General days and resurrecting serial number 4-2922. This article appeared in the April 2021 issue of ER. I also noticed that the book Hollow-State Design was available from the ER bookstore and ordered a copy due to my interest in vintage equipment.

The title of the book is a play on words. Many designs nowadays are with transistors – in other words, they are solid-state designs. Hollow-state design refers to designs using vacuum tubes. But the author doesn’t refer to these as tubes – he prefers to call them thermatrons (which traces back to John Ambrose Fleming’s invention in 1904). He has an interesting image right up front in the book (see Figure 1) explaining why he prefers the nomenclature thermatron over the US nomenclature ‘tube’ or the UK nomenclature ‘valve’.

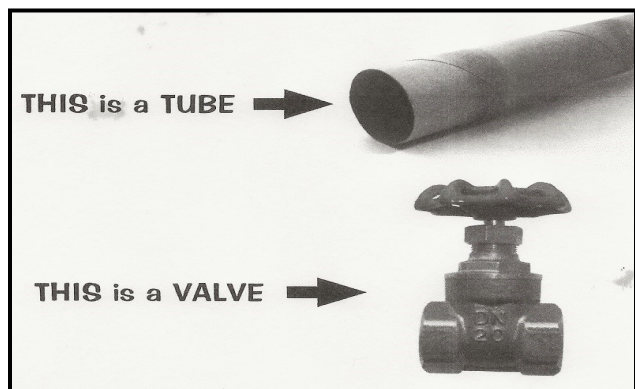


Figure 1

This is a big book – 277 pages that are 8 ½ by 11. It is divided into thirteen chapters. Chapter 1 is the introduction and the story of his life with

thermatrons. Chapter 2 lists his top ten reasons to use thermatrons.

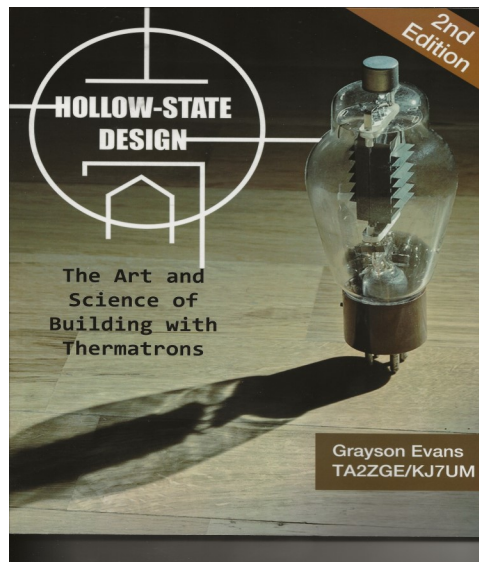
Chapter 3 discusses the insides of a Thermatron, and goes into detail on diodes, triodes, tetrodes and pentodes. He evens covers hexodes (four grids), heptodes (five grids), octodes (six grids), nonodes (seven grids) and voltage regulators. Chapter 4 talks about the numbering system and base types.

Chapter 5 is devoted to the characteristics of thermatrons, including plate and grid characteristics, dynamic characteristics, plate dissipation, inter-electrode capacitances and how to read data sheets. Chapter 6 is all about the filaments. Chapter 7 reviews thermatron building techniques and needed test equipment.

Chapter 8 is about designing with triodes, Chapter 9 is about designing with pentodes and Chapter 10 is about designing oscillators (both using an LC network and using a crystal).

Chapter 11 digs into the more unusual types of thermatrons: the acorn, the nuvistor, compactrons and others. Chapter 12 talks about getting to know a thermatron via measurements. Chapter 13 finishes the book with references for Chapters 3 thru 12.

This book is available through the Electric Radio Bookstore at <https://www.ermag.com/product-category/books/>. It is \$29.95 (plus shipping). Although I had tube courses during my sophomore year in college (1966-1967 time frame), I don’t remember much (and not doing any tube design didn’t help, either). I look forward to an in-depth reading of this book as I have a couple ideas for tube designs that have been running around in the back of my mind for quite some time.



Tuning Up

HF Mobile with Hamstick Antennas

Jim, AC9EZ

This year, I had the opportunity to operate Field Day as a class "1c" station (mobile), as my family and I were driving back from vacation in North Dakota on Field Day weekend. For this month's article, let's take a look at one of the most important aspect of an HF mobile station - the antenna.

A Little Theory: There are many different antennas used for HF mobile operations. 99% of those antennas, though, are actually verticals that use some form of "loading" to achieve a much shorter height than a "standard" vertical while still maintaining an electrical length that achieves resonance on the desired band.

Each variety of mobile antennas is a compromise in one way or another, whether it is radiation efficiency, physical height, or bandwidth. Since this was my first time operating HF mobile, I decided to go with the simplest (and cheapest) route available, the hamstick antenna.

Hamsticks are one of the most common hf mobile antennas in use. They usually consist of wire wrapped about a lower fiberglass section with an adjustable length stainless steel whip at the top of the fiberglass (known as a

"stinger"). The stinger allows the user to tune the antenna to a desired frequency.

All hamsticks require some sort of ground in order to work properly, just like a typical 1/4 wave vertical. For hf mobile operation, the ground situation is actually a little more complicated, since it involves the interaction of the metal body of the vehicle with the ground over which it travels. For simplicity's sake, we can just consider the metal body of the vehicle as the ground for the antenna. Many mobile operators use copper strap or the braid from coax cable to electrically "tie together" the various metal portions of their vehicles in order to provide the best ground possible. A side benefit of this improved "ground" is that ground loops and ignition noise are usually reduced - a pleasant addition if your rig doesn't have a good noise blanker installed.

My Mobile Installation: For my hf mobile installation, I took a slightly different approach to installing my hf mobile antennas. Since most grounding/bonding requires one to drill holes in a vehicle and since my family wasn't too keen on me drilling holes in the Dodge caravan, I decided to go the "no drill holes" approach.

Firstly, I purchased some hamsticks from US manufacturer Shark Antennas, including a full size 40m hamstick, a "mini" 20m hamstick, and a full size 6m hamstick. Secondly, I obtained a simple stainless steel bracket from Diamond Antenna (the Diamond CRM) that attached to the luggage rail of the roof rack on top of the van. A CB style 3/8 x 24 adapter to SO-239 (also known as a female UHF) adapter allowed the hamsticks to screw into the Diamond mount. Figure 1 shows the 20m hamstick mounted on the Diamond mount ready for action.



Figure 1

Next, I added four or five short pieces of #14 THHN wire as “radials” which attached to the stainless steel bracket via a machine screw and wing nut. These radials were then taped to the roof of the van. A length of RG-58 coax cable ran from the antenna mount through a window in the back of the van to the transceiver - a Yaesu FT-450d. Figure 2 shows some of the “radials”, as well as a close up of the coax cable and the mount.

For the coax cable, I wound several turns of coax and taped them in place, adding some ferrite beads to one length of the coax to help prevent common

used CW most of the time, as I didn't get much success calling cq or searching and pouncing stations on SSB. At the start of FD, I was operating in North Dakota. I started on 20m and continued on that band until dusk when we crossed into Minnesota. Throughout that evening, I operated on 40m until my LiFePO4 battery powering the rig ran out of charge. Sunday afternoon, I went back to 20m and continued to operate on 20m cw through MN and WI until the end of FD.

In total, my FD log shows 187 Qsos (163 after removing duplicates), all of which except one were made on CW. On 20m, I

Hungary, Finland, Belarus, and New Zealand - all on 20m CW. Conditions were surprisingly good on 20m CW late into the evening, as almost all of my dx contacts were made between 7:00 p.m. and midnight.

HF mobile operating is probably one of the hardest challenges I have faced in amateur radio in my 9 years of being licensed. Mobile antennas are very touchy when it comes to achieving a decent swr (under 3:1), and their bandwidth is narrow. Stations generally needed to be called twice or more before they came back with my full call. Still, I had a blast operating as “/m”, and I doubt I'll ever take another long car trip again without having some hf mobile set up on the car.

I hope you get a chance to try out hf mobile. See you in July!

73 de Jim, ac9ez



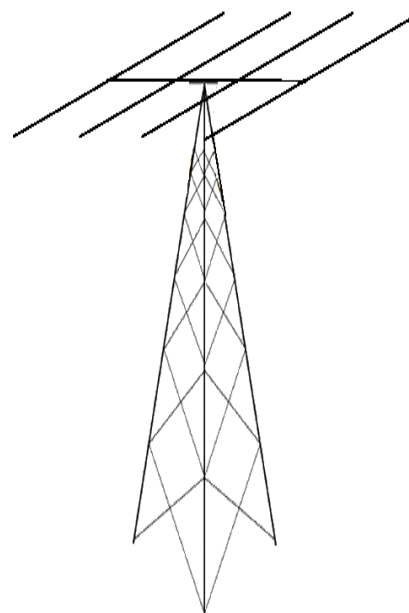
Figure 2

mode current. I'm not sure if the addition of this “choke balun” actually improved matters, but it was a good precautionary step.

For Field Day (FD), I worked stations on both 20m and 40m, logging contacts in a small notebook. Since my transmit power was fairly low (30 watts max), I

worked roughly 50+ ARRL sections, and between 20 and 30 sections on 40m. No dx entered the log, but I did work a few local stations like Steve, AC9XS and the NIARA club W9OU.

Outside of FD, I was able to work multiple dx entities, including Russia, Croatia, Slovenia,



The Wonderful SIMPLE Dipole

Ken, N8KR

While amateurs today are captivated with the end-fed multiband antenna, those looking for performance may wish to look back at the antenna most of us “old” hams began with: the dipole. Dipoles are built to be resonant on a specific band. Having resonance yields nearly 100% efficiency from the radio output to the antenna output. We all desire that perfect 1:1 swr and contrary to common belief, antenna tuners, whether in your radio or external are not really tuning your antenna; it’s simply fooling your radio making it believe it is transmitting into a perfect 50 ohm impedance when, in fact, the antenna will not radiate any better than its original, “untuned,” design. (I can use my big antenna *tuner* to match my 40 meter dipole to my radio on 160 meters. The tuner actually *lies* to my radio making it think that I have a resonant antenna. And while I have a perfect impedance match, my little 40 meter dipole will radiate little on the 160 meter band with its actual 30:1 swr!)

Our radios are looking for a 50 ohm (or so) impedance match with the antennas. The impedance of an antenna changes with frequency. The dipole design provides the transmitter a perfect match – 1:1 swr! That simply means 100 watts out from the transmitter is 100 watts at the antenna! And while many hams get concerned about anything over that, consider the following:

SWR	RADIO OUT	ANTENNA OUT	LOSS
1:1	100	100	0
1.2:1	100	99.2	.8
1.3:1	100	98.3	1.7
1.4:1	100	97.3	2.7
1.5:1	100	97	3
1.6:1	100	95	5
1.7:1	100	94	6
1.8:1	100	92	8
2:1	100	89	11

The above figures from a recent test do not take into consideration any losses from coax size, length or connectors. Generally, on HF, those losses are usually insignificant. Looking at these figures, an swr of 1.5 to 1 results in a 3% loss in power: 3 watts from a 100 watt transmitter! (BTW, if you were to use your internal radio’s tuner and get that 1.5:1 swr down to 1:1, your antenna will still radiate 97 watts!)

The resonant dipole does not depend on a tuner to work. In simplest form, divide 468 by the frequency you want to use, divide that by 2 and you have the length of each side of the dipole. Consider these simple dimensions:

- 15 meter dipole 21.300 mHz 11.0 feet each side or 22 feet total length
- 15 meter dipole 21.100 mHz 11’ 1” each side or 22 feet 2 inches total length
- 10 meter dipole 28.300 mHz 8’ 3” each side or 16’ 6” total length
- 10 meter dipole 28.100 mHz 8’ 4” each side or 16’ 8” total length

As you can see, there is little difference in length between the lower end of the phone band to the upper end of the cw band. Choosing a length in the middle affords an swr under 1.5:1 over the entire band! (Who needs a tuner?)



Photo: 40m and 80m dipoles during INQP/OHQP

Constructing the dipole is simple. It can be done without a 1:1 balun by simply soldering one wire to the center conductor of the coax and soldering the other end to the shield. Wire gauge can be from 20 gauge to 10 gauge. The larger the wire, the stronger the antenna with a tendency to be a little better broad banded. (I used 20 gauge for Indiana QSO party on my portable mast and 18 gauge at my temporary Florida qth.) Using a thin wire (and it does NOT have to be copper) works well and lends itself to the *stealth* characteristics. (I've seen hams hide dipoles under roof shingles, hang from trees, right above privacy fences, and even in attics! In my limited size lot in FL, I let the 80m dipole legs hang unnoticed by the flagpole and when it gets dark and people go to bed, I get out and stretch it out crossing our little street to a telephone pole and back behind the neighbor's house to a tree (with his permission)) 14 gauge is a good size to use, either stranded

(more flexible) or solid, insulated or bare. I use insulated wire with a color that is less noticeable. A dipole can have sloping legs (inverted vee) or can even have one or both legs bend in order to stay on your property. You can also have multiple dipoles fed with one feedline spaced apart from each other. (Fan dipole) Again, if they are resonant for the band intended, no tuner required.

The use of a 1:1 balun, while not necessary, will match the unbalanced coax to the balanced dipole. The balun can keep the feedline from becoming part of the antenna both in transmitting and receiving. It can also help keep unwanted rf out of the shack.

With more and consistent openings on 10 and 15 meters, consider trying out the simple dipole. You'll find it easy to build, simple to trim to your desired frequency, and great performance without the use of a tuner.



Photo: 17m and 30m dipoles during NV expedition



June 2021

The weather on Sunday, the 6th of June was quite pleasant with a clear sky and slight wind, perfect for our June hunt (or for invading the beaches at Normandy). Five teams showed up at the Cobin Memorial Park starting point.

Team one included Carole & Al Burke, WB9's RUS & SSE plus Jim & Annie Pliett, K9OMA & KA9YYI. Team two was powered by Bill Hopkins, K9WEH while team three included Brian Sears, KD9OKH, Ismar Chew, KD9OKH and Tim Mayer, KD2TCP, all from the Trine University Amateur Radio Club. Team four included Steve and Linda Nardin, W9's SAN & LAN plus their grandson Alex. John Lazaro, KD9NIV and (hopefully) soon to be licensed partner Willie formed team five to fill out the contingent of rabid hunters.

Charles Ward, KC9MUT served as the fox and his lair turned out to be the East Allen County School Bus-Barn complex parking lot at New Haven High School, (at 41.06407, - 85.01178). He buried a new version of the micro-fox under the base plate of a numeric keypad mounted on a stand in the parking lot. The new micro-fox is considerably smaller than the micro-fox we have used in the past and seems to have put out a weaker signal, but it served its purpose of blurring (a technical term) out a cw signal on 146.430 MHz every two and one half minutes.

The high power fox began transmitting at the normal start time of 13:30 and all five teams heard it. So everyone promptly got on the road and quickly separated. The initial signal bearing was due east (the dreaded New Haven scenario, east, where all RF fields go to die). The Nardin team drove down the By-Pass to 930 and then headed east towards New Haven. Unfortunately we elected to head east on Lake Ave. figuring to pick up Landin Rd. south into New Haven, and sure

enough when we got to Landin Rd. the signal bearing told us to head south. Unfortunately Landin Rd. was closed to south bound traffic for construction, so we wound up having to detour up to Maysville and then Stellhorn Rd. to pick up I-469 south and then into New Haven, quite a detour, and added time, but that's often the breaks when foxhunting.

We knew that Charles had a commitment to be at a wrestling camp with his school bus to pick up the New Haven team that afternoon so we figured he would not be too far away from his school bus and thus guessed that he would be over at the bus barn at New Haven High School. And sure enough there he was when we pulled into its parking lot. Unfortunately for us the Nardin team had gotten there first by virtue of taking the By-Pass / 930 route from the starting point and thus were first to localize and then located the micro-fox.

As mentioned above, the micro-fox itself was a new design that Charles had procured and was quite a bit smaller than the micro-fox we have normally used. It was buried beneath the base plate of a pipe holding up a security code keyboard device used to open the gate allowing entry/exit to the bus-barn complex. It didn't take us long to find the microfox.

We were followed by Bill, K9WEH and then our intrepid Trine University team of KD9OKH, KD2TCP and KD9QHL, Ismar, Tim and Brian.

A bit later John Lazaro and Willie showed up and localized the fox but were not able to find the micro-fox as they had to cut their hunt short in order to honor another appointment they needed to keep.

We wound up traveling over to the Culvers on Dupont for our well earned repast. As usual everyone enjoyed it.

The June foxhunt and year-to-date scores are shown at right.

Since the Steve, Linda and Alex team were first to find the microfox they will serve as the fox for the July hunt. It will occur on Sunday, July 11th starting at 1:30 pm. Mark it on your calendar and please join in on the fun.

Respectfully submitted,
Al Burke, WB9SSE

HUNTER	JUNE SCORE	YTD SCORE
WB9SSE	3	16.33
WB9RUS	3	15.33
K9OMA	3	15.33
KA9YYI	3	15.33
KC9MUT	6.2	25.2
W9SAN	5	18
W9LAN	4	17
ALEX	4	17
K9WEH	2	8
N9FEB	0	8
KD9NIV	0.5	5.5
WILLIE	0.5	2.5
ND9C	0	4
KD9OKH	1	4
KD2TCP	1	3
KW9S	0	2
KD9QQW	0	2
N9AMT	0	1
KD9SDY	0	3
KD9QHL	1	6

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

Special Report

Field Day 2021: Radio, Food, and Friends!



A FEW NOTES: FIELD DAY 2021

The FWRC once again participated in Field Day by putting up a 3A operation at the Ft. Wayne Old Fort in downtown Ft. Wayne on 26 and 27 June. There was an average of about twenty club members present during Saturday and Sunday for set up (and later tear-down) plus operation of our 20M phone station, our 20M cw station, our 40M cw station and our 6M/2M vhf station.

Two short towers were set up. One accommodated a 40M dipole at 30'; the other hosted a 3 element 20M yagi up at about 20' for the 20M phone operation, and it was augmented by a 170' end fed radiating up the River Greenway. A 20M dipole up about 12' satisfied the needs of the 20M cw station, and a 2M J-pole plus a 6M dipole on the 2nd floor of the blockhouse took care of the 2 and 6M stations needs. The weather was threatening all weekend so we were very conservative when it came to putting up towers.

The clubs gasoline powered generator supplied all of our power needs except for the 20M phone station. It operated on solar power.

Steve Nardin invested time and effort on our co-site interference remediation efforts employing low pass filters on all of the HF stations, ground rods and RF chokes on the feedlines to reduce the possibility of conduct-

ed currents on the outer conductor of the coax feedlines from getting into the receivers, EMI filters on the ac power lines, and ferrite beads on control, headphone, keying lines, etc. In addition the HF antennas were kept a far apart as practical with the two dipoles pretty much oriented orthogonal to one another. And we knew the three HF receivers employed had excellent overload performance. All in all, we just didn't have any noticeable co-site interference which is a marked improvement from previous years.

Propagation seemed good on 20 and 40 Meters the entire weekend. Propagation on 6 and 2 basically did not exist on Saturday, but on Sunday it really opened up.

The 2.4 GHz data network performed as expected and allowed each station to make use of the automatic logging software tool.

Preliminary analysis of the raw log data indicates the following:

20M phone contacts, 54

40M phone contacts, 3

20M cw contacts, 93

40M cw contacts, 232

6M phone contacts, 29

2M phone contacts, 2

Once all the dust settles our claimed score from operations at the Old Fort should be around 2000. We encourage anyone who operated Field Day from home to submit their logs with the club listed to increase our

aggregate club score. (If any questions regarding this procedure, contact Charles Ward, (260)-312-6338, kc9mut@gmail.com).

Saturday evening we conducted the club's first Summer Banquet intended to restart the club's Banquet (Spring and Christmas) tradition that had been interrupted by the Corona virus situation. So instead of fried and baked chicken the club provided hamburgers, cheeseburger and hot dogs prepared by our Master Chef Charles Ward, employing his industrial grade smoker/cooker. The club also provided drinks, tableware, condiments and other goodies as in the past. And banquet attendees brought in additional treats to compliment the meal such as Meat Balls (but of course), Sauerkraut, roll-ups, pasta salad, cheese and cracker munchies, water melon, cup cakes and some really luscious chocolate sheet cake. Nobody went away hungry.

We expect to have some hard numbers on claimed scores that can be reported out at the July club meeting.

So, another Field Day in the log book....

73,

Al Burke, WB9SSE

Field Day 2021

Photos courtesy of Jerry, KD9QHI





Field Day 2021

Photos courtesy of AI, WB9SSE



Field Day 2021

Photos courtesy of the editor



Ft. Wayne News de N8KR

The many members of the Ft. Wayne Radio Club who are also SKCCers are showing a lot of activity in the SKCC events. It's very common for Indiana to lead all other states in scoring for the monthly events . . . and the majority of those scores come from the Fort Wayne area members. Our last 2 hour event in June put us on top again with some nice individual scores from us. Ed – WA9BBN found a way to get on the air away from his main station where Rose – KA9GKE could operate . . . he went mobile with his Icom 7100 and the two sent in individual scores! Joe – WB9EAO likes to travel in the summer and often takes a portable radio and antenna with him. The June SKS found Joe in a very comfortable and relaxing “shack!”



Steve – AC9XS continues to burn up the bands with his newly acquired Kenwood TS-590S as he pursues his quest for SKCC Senator! Al – K9FW had 50 qso's during the two hour event and Jim – KD9GDY and Bill – W9SA each had 28 contacts. It's sad to think that Jim will soon be moving away but nice to know he'll keep Wisconsin on

the air. Jim – KR9U continues to add to his qso count towards SKCC Centurion with 31 q's in the 2 hour sprint. Talking with Brian – W9BGJ on the repeater revealed his work schedule changes allowing him to participate in evening events. Brian also is looking for area hams interested in operating QRP and even forming a local chapter of QRPers. Contact Brian if interested!

Finally, look for the **SKCC booth at the Auburn Hamfest July 10th**. The Auburn hamfest will again be at the ACD museum. Stop and visit the booth: take a break, sit down, relax, and visit with those around. It's a great place to hang out. July 10th is also the SKCC monthly weekend event with a special focus on working SKCC stations in the original 13 states as bonus stations.

If you're interested in SKCC, visit us at the booth in Auburn or contact Ken – N8KR at n8kr (at) arrl.net. If you need help getting on the air or with antennas, let him know as there are many willing helpers in the SKCC ranks. See you in Auburn!

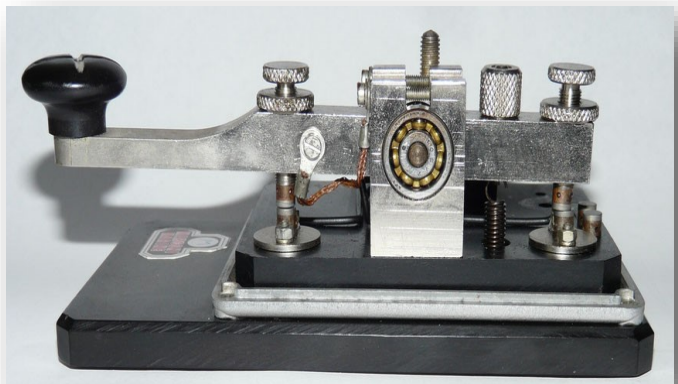


Photo: Your editor's favorite

J-36 bug



Cincinnati HamfestSM



2021 Cincinnati Hamfest and W8DXCC

Saturday, August 28, 2021

Hamfest 8 a.m. to 4 p.m.
W8DXCC Convention 1 p.m. to 6 p.m.



Free Parking

Food and Ice Cream Trucks Onsite

Air Conditioned Seating

Hourly Door Prizes

VE License Testing 9 a.m. to 11 a.m. **FRN Required**
(Registration: <https://CincinnatiHamfest.org/license-exams>)

The Eastside Vendors/Crafters will be onsite during our event.
Be sure to bring other friends and family so they can enjoy both events! The craft show is FREE to the public

Clermont County Fairgrounds
1000 Locust Street
Owensville, OH 45160

Pricing details and reservations:
CincinnatiHamfest.org

VHF 147.345+ (CTCSS 123.0) Primary
UHF 443.450+ (CTCSS 123.0)
(Both repeaters FM and C4FM capable)





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).

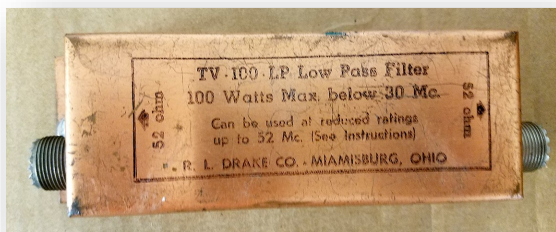
- Excellent condition "cootie" key. Just used to make the SKCC Triple Key Award. Heavy base. \$75.

For this item, please contact Al, K9FW at k9fw (at) frontier.com.



- 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

- Drake L-4B amplifier with L4PS and original manual. Amp has been gone through electrically and the power supply was upgraded with a new control board and caps from the Heathkit Shop in 2016. Cosmetics are excellent. Wired for 220VAC and includes cable with locking plug. Tested into dummy load on 80 meters. \$1100.00
- Drake TR-4 Transceiver. Gone through electrically. Cabinet has been professionally repainted, however, the nomenclature defining the plugs and adjustments on the lower cabinet were not finished. Tested into dummy load on 80, 40 and 20 meters with full output. Receives well on all bands. Comes with an original manual. \$350
- AC-4 power supply. Upgraded in 2015 with new board and caps from the Heathkit Shop. Tested along with the TR-4.. \$150
- MS-4 speaker. Good condition with some normal cabinet ware. \$125
- Vibroplex Standard Vibro Keyer. Good shape with cable and Drake plug installed. \$125
- Heil Classic 5 Studio Microphone. Excellent shape in original box. \$150
- Heil foot switch. \$20
- Collins 30L1 Solid state relay driver kit. \$10
- HiRes Communications P-1 "pecker" kit \$10
- HiRes Communications PDC-1 Peak Reading mod kit \$10. **All three are original with documentation and appear complete. Sell all three together for \$25**
- Drake R-4C receiver. 23K serial number. Just back from refurbishment by Ron Baker WB4HFN. His repair work record is included with the receiver. Includes 1.5 and .5 filters, 160 meter crystal, all 10 meter crystals and several SW listening crystals. Beautiful receiver. \$400

For any of these items, please contact Mike Stover, N9QR at n9qr (at) arrl.net or call 260-602-6193.

Your item could be listed here next month! Just send the editor an email with your listings before July 30th. See page 2 for contact information.

For Sale / Wanted Continued

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

- 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.

- 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

- Kenwood TS-50 HF mobile transceiver. Includes microphone, DC power cord, and copy of the manual. \$300
- MFJ-914 AutoTuner Extender. In good cosmetic condition and appears to work. Includes manual. \$40
- Signalink USB soundcard interface. 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.

Your item could be listed here next month! Just send the editor an email with your listings before July 30th. 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](mailto:tjbowman@frontier.com) or at 260-705-7128



Selected Contest Calendar for July 2021

RAC Canada Day Contest	0000Z-2359Z, Jul 1
SKCC Sprint Europe	1900Z-2100Z, Jul 1
IARU HF World Championship	1200Z, Jul 10 to 1200Z, Jul 11
SKCC Weekend Sprintathon	1200Z, Jul 10 to 2400Z, Jul 11
North American QSO Party, RTTY	1800Z, Jul 17 to 0559Z, Jul 18
CQ Worldwide VHF Contest	1800Z, Jul 17 to 2100Z, Jul 18
RSGB IOTA Contest	1200Z, Jul 24 to 1200Z, Jul 25
SKCC Sprint	0000Z-0200Z, Jul 28

This information comes from the WA7BNM Contest Calendar at contestcalendar.com and is gratefully acknowledged.

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

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.