



MARS MONTHLY UPDATE

MAYFIELD AMATEUR RADIO SOCIETY

VOLUME 1, ISSUE 1
JANUARY 2025

WELCOME

Welcome to the first edition of the MARS Monthly Update. The goals are to improve communication, to raise the level of awareness of club activities, to provide amateur radio resources and to ultimately improve and grow the club in Mayfield.

The MARS Monthly Update is a tool the club will use to communicate with it's members and others in the amateur radio community. The club will continue to use Facebook, emails, phone calls, and text messaging, however, no single tool reaches everyone.

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WINTER FIELD DAY IS COMING!!!!!!!!

CQ, CQ, CQ.....Winter Field Day is coming soon, January 25th and 26th.

MARS is participating in Winter Field Day 2025.

When: Jan 25 10:00AM CST thru Jan 26 3:59PM CST

Where: Sedalia Vol Fire Dept. – Training Room

5414 State Route 97

Sedalia, Ky

Don't miss out. Please come out and join us.

ADDITIONAL INFORMATION

- MARS will have 3 stations setup for HF with 1 dedicated to digital.
- The club will be using winlink, PSK, and phone.
- Communications powered off grid.
- The training center is heated with restrooms.
- Breakout rooms for taking a nap if needed.
- Max the GSD will be there for security, except he thinks everyone is there to play with him.

MEALS

- Saturday Lunch – On your own
- Saturday Evening – Potluck/Carry In
- Sunday Breakfast – Breakfast Casserole
- Sunday Lunch – Chili and corn muffins

IMPORTANT:

If you plan to eat with us. Please let us know so that we can prepare enough food.

Contact: Cory Wentz (KD9ISM)
CWENTZ409@COMCAST.NET
(765) 210-9051

MARS MEETINGS

November Meeting Summary

- Finalized Christmas Party planning
- Winter Field Day Planning
 - Location: Sedalia Fire Dept.
 - Number of Stations: 3
 - Meal Planning
 - Need look at site for additional planning
- Need to schedule election of new officers soon
- Actions for Improving the club
 - Club calendar needs to be created and published
 - Club News Letter is needed to communicate to members, not all use Facebook.
 - Every club meeting should conduct a training session/presentation. Even if it is 5 or 10 minutes.
 - Schedule Elmer day at least once per quarter.
 - Schedule a couple club outings during the year. (Could be picnic)

MARS Club Meetings

When: 3rd Thursday of the month

Time: 7:00pm

Location: CFSB Bank
100 Dick Castleman BYP
Mayfield, KY

Next Meeting: Jan. 16, 2025

December Meeting Summary

- No meeting—held Christmas Party

January Meeting Topics

- Finalize Winter Field Day Planning
- Discussion Election of new officers
- Start Club calendar—possible Google Calendar
- Plan Elmer topics and get scheduled
- Review Mayfield Monthly Update for content

MARS CALENDAR

Jan. 04 – 8:00am -Breakfast at Wilma's Kountry Kitchen – WFD prep

Jan. 07 – 7:00pm – Murray Amateur Radio Club Meeting

Jan. 09 – 7:00pm – Fulton County Amateur Radio Club Meeting

Jan. 13 – 7:00pm – Paducah Amateur Radio Club Meeting

Jan. 16 – 7:00pm – Mayfield Amateur Radio Club Meeting

Jan. 25-26 – Club Event: Winter Field Day

MARS Member Corner

MARS Member Corner will be used to highlight things that the membership is doing related to Amateur Radio. Topics can range from something you built, some event you attended, a topic you are learning about and what you learn. Just about anything that may be of interest to the readers and possibly a resource. Since no one was asked to contribute for this first issue, I will start.

KD9ISM (Cory Wentz) **Home Built 6 element 2 meter Yagi**

Hey all, I was really getting frustrated because I could not reliably join the Murray Net on Monday nights nor the Fulton County Net on Sunday nights. I have a Comet vertical VHF/UHF antenna that is about 7 ft tall mounted on top of a 20 ft Harbor Freight telescopic flag pole. Works great for Mayfield and Paducah but not the others. I won't have my tower up until summer of 2025, so what to do for now?

I dug out an old project I had started several years ago, a 6 element 2 meter Yagi. Then I remembered why I moth balled this antenna, it was such a pain trying to put the parts together. So I am about ready to put this thing away again when I also remembered, HEY, I bought a 3D printer after retirement to solve these kinds of problems. So forward we went. I won't tell you all the details, this would become a book, but if you are interested we can sit down and talk.

Parts Source: over the years I have collected several large tv antennas. When everything went digital, people were giving them away, if you would just take it down. The beam of the yagi is the 1 inch square beam used on most old tv antennas, the elements (10 mm) are the elements from the tv antenna also. The issue was mounting the elements to the beam. Here is where the 3d printer comes in, I designed a part that would isolate the elements from the beam and after a couple tweaks to get a press fit, it looked something like the picture to the right. The only other part needed was an old project box that I made the connections from the two sides of the driven elements and run them through a choke. The project box (sorry no picture) contains the two driven elements, the choke, and the PL-239 connector for the coax led. The parts cost was less than \$20. The majority of the cost was the PL-239 connector and a toroid.

Antenna Design: I chose to use a very simple design for the Yagi, a single dipole for the driven element. I used the free Yagi Calculator by John Drew (VK5DJ) to create the design.



The design software asks for a few data points such as the center frequency, the dipole gap at the feed point, is the boom square or round and its size, the number of directors, square or round elements and size, isolated or bonded elements. Push the button and out comes a design for a yagi.

The calculated gain is 10.5 dBd and 12.7 dBi. The beam's estimated 3dB beamwidth is 47 degs. I built my yagi to print and the measured SWR is less than 1.2:1 from 144 to 148 Mhz. The total beam length is 6.3 ft.

Outcome: The Yagi is oriented vertically and a signal report for the Fulton Repeater and the Murray Repeater was good. Some noise but very readable. Both reports were with the antenna in my ham shack on the second story of my shop. The elevation would be about 13 ft. All in all, I am very pleased and when I finally mount it outside my building at about 30 ft., I think I will really be pleased. This really was a very simple project to build, the software told me where elements went and how long the elements needed to be. The tv elements were aluminum so I cut them with a tubing cutter. Made for very nice rounded ends. If you can get your hands on an old VHF tv antenna, grab it and build a beam for yourself.

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MARS Member Resources

MARS Member Resources will be used to highlight resources that the membership have or are aware of related to Amateur Radio. Resources can be anything from a capability or items that you have that support amateur radio to a supplier that has great parts at a reasonable cost. Just about anything that may be of interest to the readers and possibly a resource. Don't forget about personal knowledge or experience counts too. Since no one was asked to contribute for this first issue, I will start.

KD9ISM (Cory Wentz) 3D Printer and Some design experience

3d printers are everywhere now and have come down in price so that the average consumer can afford one. I purchased a 3D printer after I retired. As a retired engineer, it was something I had to have. I have always complained about the price of plastic parts I needed to buy. I know how much it costs to make them but WOW the purchase price is through the roof. I have owned a 3D printer for a little over a year and am by no means an expert. However, I am learning more each day. What do I use it for related to ham stuff?

Project boxes – I can now make project boxes of any size. Put screw holes and threads where they need to be. Create custom holes for custom connectors. I can create pillars inside the box to capture a toroid. All of that and print the box with a cover for 2 to 3 dollars. I had been paying 15 to 20 dollars and had to drill all my own holes and it was never the size I really wanted.

Other things I have made: SO-239 caps – \$0.64 /dozen, Wire winders – under \$1.00, Antenna parts for my Yagi – \$1.80, Dipole box w/ unun - \$2.00, the list goes on and on. There are already designs on the internet that are free from other hams, just download and print. **Point is, if there is some custom plastic part that you need, or even if it isn't custom. I can be a resource for you. I didn't buy that 3D printer to make money, I bought it to have fun. And what is more fun than sitting down with another ham and creating something.**

Local Area Nets

Name	Repeater	Time	Days	Frequency	Tone
FCARC Skywarn Net	K4CAY	7:30 pm CST	Sunday	145.270	100
MARS Net	KM4JZX	8:00 pm CST	Monday	145.110	179.9
MSUARC Net	K4MSU	9:00 pm CST	Monday	146.940	91.5
PARA Net	W4NJA	9:00 pm CST	Sunday	147.060	179.9
McCracken Co ARES Net	W4NJA	7:00 PM CST	Tuesday	147.060	179.9

If anyone knows of other local area nets that should be placed on this list, please provide the information for that net and email to: CWENTZ409@COMCAST.NET

Local Area Repeaters

Repeater	Location	Frequency	Tone	
K4CAY	Fulton, Ky	145.270	100	
KM4JZX	Mayfield, Ky	145.110	179.9	
K4MSU	Murray, Ky	146.940	91.5	
W4NJA	Paducah	147.060	179.9	

If anyone knows of other local area repeaters that should be placed on this list, please provide the information for that repeater and email to: CWENTZ409@COMCAST.NET

I will close this Update with two things:

1. Max was responsible for reviewing this document to check for typos, misspellings, and proper grammar.
2. A quote from a hero of mine.
*"If the women don't find ya handsome,
They should at least find ya handy."*
Red Green

73s and be Safe out there. Cory (KD9ISM)