Madison County Amateur Radio Club

QSO

www.w9vcf.org

October 2025

The March meeting will be held October 6, 2025

In this Issue:

From the President

A couple of years ago I attended a forum at Hamvention in Xenia, Ohio on “How to have a great club.” Here is a few of the things that was shared by Brian KY4BDP and Chris KY4CKP from the Lake Cumberland Amateur Radio Association. 1) A great club makes everyone feel welcome, from newly licensed operators to veteran hams with decades of experience. 2) Mentorship is essential for helping newcomers find their way in the hobby. Experienced members should offer guidance on setting up equipment, mastering new techniques, and making their first contacts. 3) Minimize "boring" meetings. Separate club business from the general meeting to avoid long, tedious political discussions. Focus on educational presentations, hands-on projects, and social time to keep members engaged.

I learned a lot from this forum. However, I also found that many of the things that was discussed, our club was already doing. This has reassured me that our club is on the right track when it comes to having success and growing our club. We have a strong community of hams who are willing to participate and a willingness to engage in club projects.

Let’s all continue to work together to make amateur radio great again!

Tim

KD9PSR

73

Tim

KD9PSR

Vice-President Message

I hope everyone is excited about the POTA at mound state park on October 11. This is a great time to try different antennas or a new radio. Also Mounds is where the Run The Mounds happens on November 2 at 13:00. We still need operators; the net is going good.

Dale

N9OLC

Madison County Amateur Radio Club

200 North Delaware Street, Anderson IN 46016 Madison County EMA

MCARC General Meeting was not held due to Labor Day

Tech Committee Report: October 2024

Spiral Multi-Band Antennas for Amateur Radio**

Unlocking Multi-Band Capabilities with Spiral Antennas

This month, we delve into the fascinating world of **spiral multi-band antennas**, a versatile solution for amateur radio operators seeking multi-band operation with a compact and efficient design. Understanding spiral antennas can expand your communication capabilities.

What are Spiral Multi-Band Antennas?

Spiral antennas are **planar, electrically small antennas** that utilize a spiral conductor pattern to achieve broad bandwidth and multi-resonance. Their characteristic spiral shape allows them to operate effectively over multiple frequency bands, making them ideal for multi-band amateur radio setups.

Key Features:

- Wide bandwidth with a single radiator
- Compact and lightweight design
- Directional radiation patterns
-Shorter especially on lower frequency bands

Drawbacks

-Can be difficult to hang do to the pattern
-Requires multiple impedance circuits

How Do They Work?

The spiral pattern (archimedean or logarithmic) creates multiple resonant frequencies. As the antenna's dimensions are scaled, different frequency bands are naturally covered. The antenna's geometry causes it to radiate circularly polarized waves, which can be advantageous in certain propagation conditions.

Types of Spiral Antennas

- **Archimedean Spiral**: Most common in amateur applications, characterized by equal spacing between turns.

- **Logarithmic Spiral**: Offers broader bandwidth and better impedance matching.

-**80 m Frame antenna**: Has a mixture of bandwidth but has higher voltages at resonance frequencies.

Advantages for Amateur Radio Operators

- **Multi-Band Operation**: Covering bands such as 160 m,80 m,40 m, 20 m, and 10 m even VHF/UHF with one antenna.

- **Space-Saving**: Ideal for limited space environments or portable operations.

- **Ease of Construction**: Can be built from simple wire or printed circuit boards.

- **Resilience**: Less affected by nearby objects compared to traditional dipoles.

Construction Tips

Materials Needed:

- Conductive wire or PCB material

- Non-conductive support (e.g., plastic or wooden base)

- Feed connector (e.g., SO-239 or BNC)

Basic Steps:

1. Determine the desired frequency bands.

2. Calculate the spiral dimensions based on the lowest operating frequency.

3. Wind the wire in a spiral pattern, maintaining consistent spacing.
4. Attach the feed point at the center or end, depending on design.
5. Mount the antenna at an appropriate height for optimal performance.

Here are some other considerations:

- **Impedance Matching**: Use baluns or matching networks to ensure proper impedance. (1:1 Balun at the feed point!)

*There can be high voltage at resonance on this antenna. (Need for a HVT capacitor)

- **Grounding**: Proper grounding enhances performance and safety.

- **Testing**: Use an SWR meter or VNA to fine-tune the antenna for each band

Spiral multi-band antennas are a convenient way to save space and still get to those harder to reach bands.

Resources & Further Reading

- **Books**: "Antenna Theory: Analysis and Design" by Constantine A. Balanis

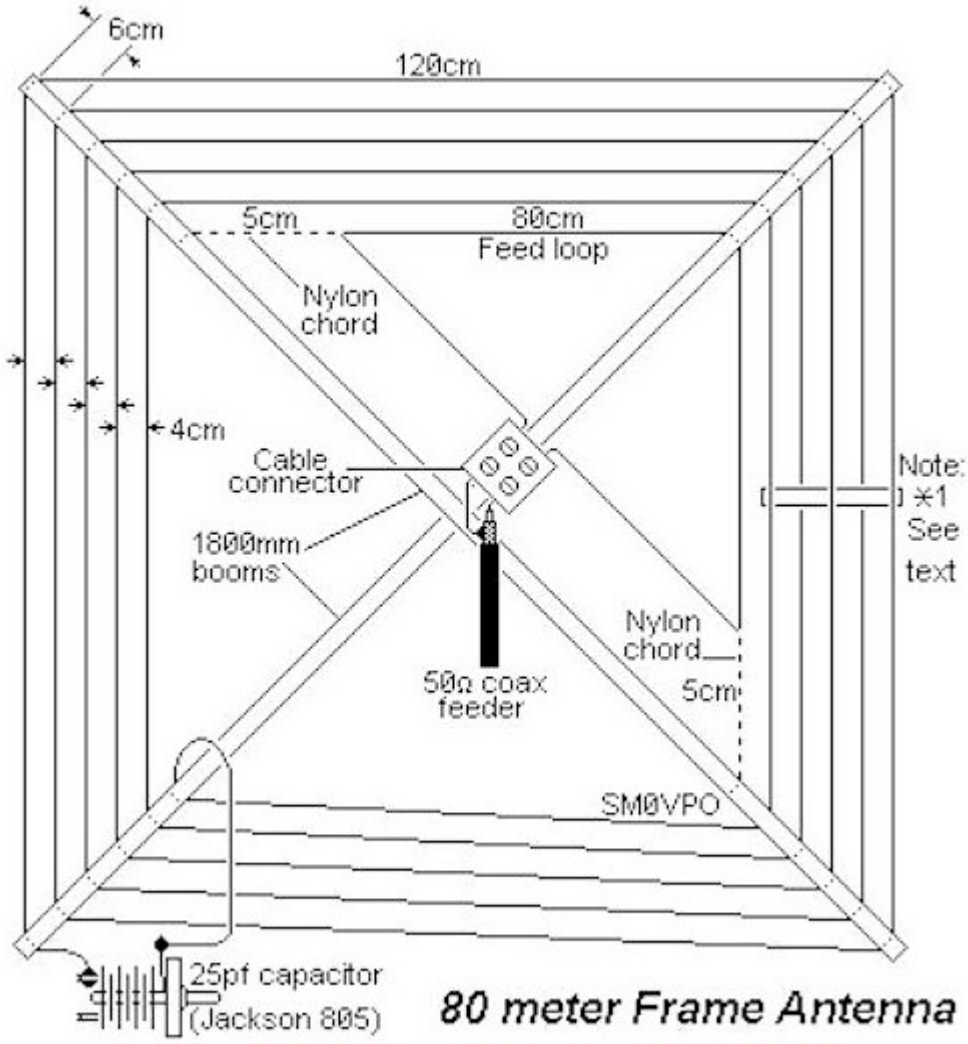
- **Online**: [QRZ.com - Antenna Resources](https://www.qrz.com)

- **DIY Guides**: [AmateurRadio.com - Spiral Antennas](https://www.amateurradio.com)

QST magazine October 2025 page 33.

An Exponential spiral antenna

Here is an example:



The original design by Harry Lythall (SM0VPO)

Till next month

73 and happy experimenting!

Greg K9ALC

-FOR SALE-

HAVE AN HAM RELATED ITEM FOR SALE? ADVERTISE HERE!! E-MAIL w9vcf.mcarc@gmail.com with your Item, asking price and preferred contact info!!

EVENTS

Every Wednesday	MCARC 2M Net 8:00 PM - 145.390 pl 151.4 Followed by an informal ragchew on 28.465
Every Thursday	Donut Meeting 09:00 AM at the EOC
Every Saturday	Breakfast at Anderson Grill 09:00 AM at 2038 S Scatterfield Rd, Anderson
October 6th	MC ARC Meeting at the EOC, 7pm
October 18th	POTA, Mounds Park 11a to 2pm
October 21st	VE Testing at the EOC 7pm
SPECIAL EVENTS	
October 3rd	Elmer Appreciation 0000z-2359z 7.010 14.040 21.040
October 4th	U.S. Navy B'day 1400z-2359z Battleship Iowa website for frequencies
October 11th	Collins Radio 92nd Anniversary 1400z-1700z 14.263
October 18th	ARRL Day in the Park 1400z-1900z 146.640 PL 77hz
October 31st	BOO! 1300z-0500z 14.273

Have something to contribute to the newsletter?

- Participated in any recent contest?
- Have an interesting QSO?
- Try an experimental antenna?
- Get a new piece of equipment you'd like to offer a review about?

We'd love to hear about it. You are more than welcome to write a piece about something above or something else you feel worthy of sharing. If you would like to write a piece for the newsletter, please submit your article, along with any pictures that you'd like included to the club email, w9vcf.mcarc@gmail.com.

Also, if you have anything for sale that you would like to advertise in the club newsletter, please send it to the above email.

Thank you, Gary - W9GNR

Madison County Amateur Radio Club

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Officer Contact Information

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Meetings are at the Madison County EOC
200 N Delaware Street
Anderson, IN 46016

HAMFESTS

10/04/2025 - Shelbyville Tailgate

Location: Shelbyville, IN

Type: ARRL Hamfest

Sponsor: Blue River Valley Amateur Radio Society

Website: http://www.brvars.com

10/18/2025 - Hamtober Fest

Location: Lynnville, IN

Type: ARRL Hamfest

Sponsor: Tri-State Amateur Radio Society in Evansville Indiana

Website: http://hamtoberfest.com