



Madison County Amateur Radio Club

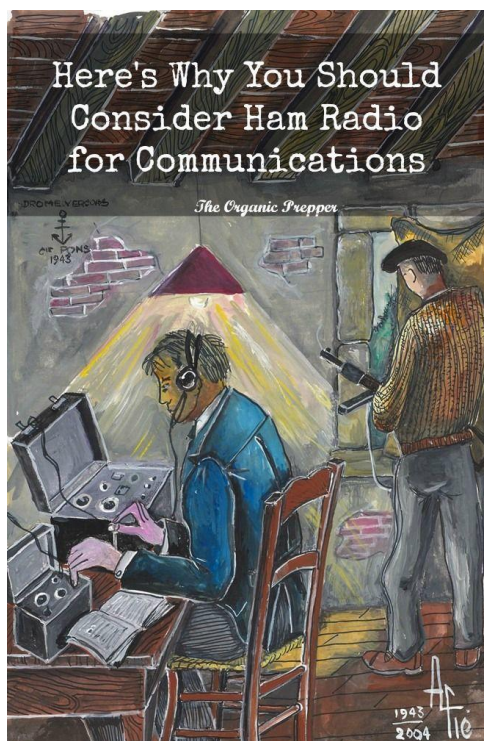
QSO

www.w9vcf.org



JUNE 2025

The June meeting will be held June 2, 2025



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From the President

Well, another year at the Dayton Hamvention was memorable. Although I didn't spend as much money as I have in the past, I was able to attend several of the forums. Each of these presentations were well worth any expense and the time invested to attend this annual event. I'm already planning for next year's excursion to Zenia, Ohio.

The month of June is a busy time for our club. I hope everyone is making plans to participate in our outreach opportunities. We still need some volunteers to work the booth at the Pendleton June Jamboree, the 3rd thru the 7th from 5:00 pm to 9:00 pm each night. This event is located at Pendleton Falls Park. June 28th is the Orestes Street Fair. We will have a booth there from noon until 9:00 pm.

The White River Run is June 14th, and we could use some help. Generally, we start around 7:00 am and we're finished around 10:00 am. The White River Run is a great training exercise where we learn to work as a team in the field. We have another POTA activation, which is the ARRL Kids Day event on June 21st. We will share the details of this at our next club meeting on June 2nd. Don't forget ARRL Field Day is June 28th. We plan to discuss the details of Field Day at our Monday meeting. I look forward to seeing you then.

Let's make amateur radio great again!

73

Tim

KD9PSR

Vice-President Message

Well June is here and that kicks off festivals here in Madison co. The first big one is June jamboree will be having a radio there for HF. The white river run is another one that operator will be needed. And as always a pesky storm might even happen. But the Madison co. Hams will be there

Dale

N9OLC



Madison County Amateur Radio Club
200 North Delaware Street, Anderson IN 46016 Madison County EMA
Club Business Meeting – May 5, 2025

- Call to order 7:00 pm – Dale Bloomer, VP – N9OLC

REGISTRATION:

Call Sign	Name	Call Sign	Name
W9BLY	Don Billey	K9RLE	Lynn Edens
W9GNR	Gary Sherman	KD9VVK	Walter Hestand
KD9RZG	Charlie Dixon	KD9USK	Chris Mannon
KD9SZJ	Paula Dixon	KE9XF	David Sargent
KE9APA	Aiden Paul	W9DO	Dennis Owen
KE9CBI	Andrew Paul	N9DR	Doug Rose
WA9CGA	Rick Wisely	W9MWM	Mark Mace
KC9DJU	Mike Cook	N9VZL	Ferrin Nice
N9IKE	Ike Jones	AK9JS	Jeff Stewart
KD9PZR	Tony Poitras	KE9BCZ	Scott Mercer
WA9RCY	Harry Burkhart	WA9JWL	Frank Dick
K9ALC	Greg Hunt	WA9QEK	Kenny Olvey
K9DYR	Jeff Dyer	N9OLC	Dale Bloomer

Guests: Jean Sherman; Cory Birkdale

ATTENDANCE – 28... including 2 guests

- Pledge of allegiance
- Questions regarding minutes of executive meeting / Treasurer's report Motion to accept by Greg Hunt (K9ALC), second by David Sargent (KE9XF) – Motion approved

- Treasurer's Report...

April Beginning Balance - \$ 2801.02

Expenses - \$ 160.40

Deposit - \$ 136.00

Ending Balance \$ 2776.62

Repeater Fund – Beg Balance \$ 1272.61

Deposit \$ 22.00

Ending Balance \$ 1294.61

Motion to accept by Mike Cook (KC9DJU); Second by David Sargent (KE9XF) - Motion Approved

- Present By-Laws changes regarding delinquent dues (Vote in June) – Tabled
(Language on printed versions was confusing... incorrect sections were ~~striketrough type~~)
- Discussion / Report from Indiana QSO Party – Dale Bloomer (N9OLC) and Aiden Paul (KE9APA)
Saturday... good time... neither radio would transmit... full factory resets on both radios... going to have training class on those radios...
Over 6000 points collected
Operators included Jeff Dyer (K9DYR), Gary Sherman (W9GNN), Charlie Dixon (KD9RZG), Dennis Owen (N9DO), Aiden Paul (KE9APA), Don Billey (W9BLY), Dale Bloomer (N9OLC)
- Thursday donut meetings canceled May 8th & 15th
(Sheriff's Office uses EOC the first Thursday each month until 9:00 am.
Please do not come early on these dates)
- ARRL Podcast Reminder (Sunday evenings 20:30 Hrs on the 145.39 Repeater)
- Summer Field Day (June 28th)
 - Covered all upcoming events through June and into July...
 - Talked about Foxhunt – Greg Hunt has agreed to have a Foxhunt...
 - August 23 – antenna building class... Materials will be listed... we can help financially if someone needs the help.
 - Sept 6 – Shadyside Park – Fox Hunt
 - Aiden (KE9APA) talked about NCI Hamfest... MCARC Awarded a year's membership in the National Amateur Radi Alliance because of Aiden's presentation and participation
 - Social media is going well... need more content... Pictures, video, Present Website...

- Steve Riley (WA9CWE) – Had surgery last night – doing well – feels better than he has in a long time.
- License plates for trailers – permanent plates are available for trailers less than 3000 pounds.
- Presentation: Dennis Owen (N9D0) (Digital modes)
- Dayton Hamvention May 16th – 18th
- Adjourn - Motion by Scott Mercer (KE9BCZ), Second by Gary Sherman (W9GNR)

Respectfully Submitted,

Don Billey
W9BLY

Tech Committee Report: June 2025

Revolutionizing Long-Distance Communication: Meteor Burst Transmission Using VHF Frequencies

In a remarkable leap forward for radio communications, amateurs are increasingly turning to meteor burst transmission (MBT) using Very High Frequency (VHF) bands to achieve long-distance, rapid, and reliable data exchange. This innovative approach leverages natural phenomena—meteors entering Earth's atmosphere—to facilitate communication in ways previously thought impossible over such vast distances. Remember, ionosphere hopping occurs generally below 30 MHz in the HF (high frequency band).

What is Meteor Burst Communication?

Meteor burst communication exploits the ionized trails left by meteors burning up in the Earth's atmosphere. When a meteor vaporizes, it leaves behind a trail of ionized particles capable of reflecting radio signals. These fleeting ionized columns enable VHF radio waves to 'bounce' over the horizon, covering distances of up to 1,000,000 kilometers (about 620,000 miles) — far beyond the line-of-sight limitations of conventional radio systems.

Advantages of VHF in Meteor Burst Transmission

VHF frequencies, typically ranging from 30 to 300 MHz, are particularly well-suited for meteor burst communication. Their wavelength characteristics allow for effective reflection off meteoric ion trails, making them ideal for this purpose. Key benefits include:

- ****Extended Range:**** Meteor trails can reflect signals over hundreds to thousands of kilometers, enabling communication across remote or inaccessible regions.
- ****Low Power Requirements:**** Because signals are reflected by ionized trails, transmitters can operate at relatively low power levels.
- ****Rapid Deployment:**** VHF-based MBT systems can be quickly set up, making them useful for emergency response, Ham Radio events.

Applications and Recent Developments

Meteor burst communication has found applications in various fields:

- **Emergency and Disaster Response:** Providing reliable links when traditional infrastructure is compromised.
- **Military and Secure Communications:** Ensuring covert, long-range communication without reliance on satellites.
- **Scientific Data Transmission:** Facilitating the transfer of atmospheric and space weather data from remote observation sites.

Recent advancements include the integration of digital signal processing techniques, improving the reliability and data rates of meteor burst links. It is possible to transmit data on a FM frequency into a shower and transmit distances equal to ionospheric distances of HF.

Challenges and Future Outlook

Despite its advantages, meteor burst communication faces challenges:

- **Unpredictable Meteor Activity:** The sporadic nature of meteors means that the availability of ionized trails is intermittent.
- **Limited Data Rates:** The fleeting ionization trails restrict high-bandwidth applications.
- **Environmental Factors:** Atmospheric conditions can influence reflection quality and signal strength.

Nevertheless, ongoing research aims to mitigate these limitations, with promising developments in adaptive modulation and real-time meteor detection systems as well as utilizing SDR technology and software.

Conclusion

Meteor burst communication utilizing VHF frequencies offers a compelling solution for long-distance, rapid, and reliable radio links, especially in scenarios where traditional infrastructure is unavailable or impractical. As technology advances, it holds the potential to become a vital component of global communication networks, bridging gaps across oceans, remote terrains, and disaster zones.

*For more insights into cutting-edge communication technologies, stay tuned to our monthly Tech articles.

Until next month 73

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
June 2nd	MC ARC Meeting at the EOC, 7pm
June 17th	VE Testing at the EOC 7pm
June 3 rd – 7 th	Pendelton June Jamboree 5pm – 9pm
June 14 th	White River Run
June 21 st	ARRL Kids Day POTA
June 28 th	Orestes Field Day
June 28 th – 29 th	Summer Field Day
SPECIAL EVENTS	
June 6 th – 7 th	Battle of Midway 1200z – 2300z 7.225 14.300
June 6 th	D-Day 0000z – 2359z 14.275
June 6 th	Hank Williams 1700z – 0000z 3.390 7.225 14.300 28.400
June 6 th – 8 th	Museum Ships 0000z – 2300z 7.044 7.272 7.268 14.044 14.262 14.320
June 14 th – 29 th	Audie Murph's 100 th B'day 0000z-2359z 7.270 14.270 21.300 28.350

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

P.O. Box 3044

Anderson, Indiana 46018

Officer Contact Information

President	Tim Bailey	KD9PSR	kd9psr@gmail.com
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Activities	Aiden Paul	KE9APA	Azac20@comcast.net
Trustee	Doug Rose	N9DR	n9dr@arrl.net
Technical Committee Chair	Greg Hunt	K9ALC	Rwilco.85@gmail.com
Newsletter Editor	Gary Sherman	W9GNR	w9gnr@arrl.com

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