

Next Meeting: Friday July 22 6:30 PM at the MCL Cafeteria in Kettering .

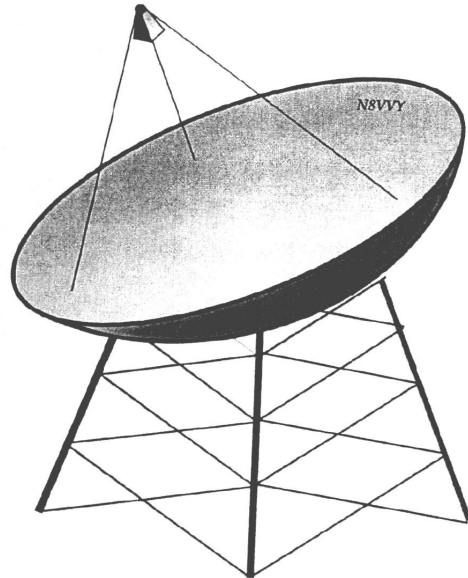
Meeting is always the 4th Friday of the month except for when impacted by holidays

# ANOMALOUS PROPAGATION

Summer 2022

Newsletter of the **Midwest VHF/UHF Society**

Editor: Jim Bacher, WB8VSU



Annual membership is:

\$12.00 for newsletter by Email

\$16 if newsletter by USPS

\$240 Life Membership by email

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Tipp City, OH 45371



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[www.mvus.org](http://www.mvus.org)

Summer 2022

Beacons: 1296.079 W8KSE EM79ur Dayton, OH---- 2W to Big Wheel at 800' AGL.  
MVUS Skimmer -. <http://www.reversebeacon.net/dxsd1/dxsd1.php?f=0&c=w8kse&t=de>

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# De N8ZM

Well, the monthly deadline for Anom Prop has snuck up on me again, but it's OK, after 30-plus years of writing this column, I'm beginning to become accustomed to the monthly step up in my stress level. It only lasts until I get started typing, as by then I have given some semi-serious thought to what I want to say. Where is this train of thought going? Damned if I know!

A look at several of the hamfest calendars out there show quite a few coming up in the next 2-3 months, so if you have recovered from Hamvention, it's time to get out there again.

As a reminder, the annual MVUS picnic and election of officers is scheduled for August 27th at Yeagley Acres, near Wilmington, OH. If past events are any indicator, we'll have great food, great discussions, great tech activities, and just an all-around good time. Daun and Karen have again agreed to allow us to invade their home, well, the garage anyway, and we will have the usual grilled meats, sides, and beverages, all provided by MVUS. It means more grocery shopping for me but I've always had to do most of it anyway. The fun starts around noon, and we'll eat when you guys tell me to quit measuring stuff and fire up the grill. AND, if you have any devices or gadgets that you'd like to have checked out, especially at RF-like frequencies, let me know ahead of time so I can arrange to have the necessary test gear on hand. I think we could go to about 10 GHz with enough advance warning.

The feature article this month is about the possibility of starting up some activity on the 5 GHz band. Trevor Clarke, K8TRC, has done a little bit of digging and feels that it would be fairly simple to put together a weak-signal setup for that band. Given that we have already been moved lower in our 3 GHz allocation, and are likely to lose even that eventually, keeping active on 5 GHz is needed to help forestall losing that band as well. The mesh-networking folks have already moved much of their activity there, and adding the weak signal group to that can't hurt. And given what I have seen W8BYA and others do with 10 GHz, there is ample opportunity for some amazing contacts.

The next meeting is July 22, at the MCL Cafeteria at 6:30. There will be no Friday evening meeting in August due to the picnic.

de N8zm.

# Let's get on 5GHz!

Author: Trevor R.H. Clarke, K8TRC

I'm constantly in search of a new project. I probably spend more time fiddling with new circuits and antennas than I spend on air! My recent thoughts have turned towards higher frequencies. 10GHz is booming in the Midwest right now and I'll probably work on some gear for that band but I noticed there's a distinct lack of activity on 5GHz and I aim to change that.

5GHz is an attractive band because it's relatively easy to work with on the electronics side, certainly no harder than 10GHz. It's also very close to the 5GHz WiFi allocation so there should be many inexpensive options for mixers, amplifiers, etc. I posted to the MVUS email reflector and received some great feedback with interest in the band and some great links and information from Jeff Kruth (WA3ZKR) and Zack Widup (W9SZ). Zack even mentioned that's he's active in EN50 with his 5760 gear.

I propose that MVUS design some standard 5GHz gear that is functional, easy to assemble, and inexpensive so we can encourage more activity in the Midwest. A transverter from a common IF and a beacon are the obvious choices, perhaps both functions in a single device. W9SZ sent a link to "A Simple Low-cost 5760 MHz Transverter for the Rover"<sup>1</sup>. I did a little searching on Mini-circuits and found a few devices that are inexpensive and could be useful for a transverter or beacon:

ROS-480+ surface mount VCO, linear tuning 386-480MHz., \$26 in lots of 10 or more

ZX90-12-63-S+ 12X Multiplier, Output Freq 4500 - 6000 MHz, \$50 in lots of 1

JSW2-63DR+ Reflective SPDT, SMT Solid State Switch, 5 - 6000 MHz, 50Ω, \$4 in lots of 20

I also purchased a lot of 10 "HMC218MS8ETR MMIC Double Balanced Mixer 4.5 - 6 GHz" for about \$20 with shipping. This inexpensive mixer seems ideal for a transverter.

What can you do? If you have more information on potential devices then send it to the MVUS reflector. If you want to lend your design knowledge, let me know and we'll coordinate some designs. If you want to test some gear, I'll keep you on a list of guinea pigs.

Trevor Clarke – K8TRC

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<sup>1</sup> Wade, Paul (W1GHZ) "A Simple Low-cost 5760 MHz Transverter for the Rover: Revision B", March 2016, [http://www.w1ghz.org/MBT/5760\\_MHz\\_Transverter\\_Update\\_March\\_2016.pdf](http://www.w1ghz.org/MBT/5760_MHz_Transverter_Update_March_2016.pdf)

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If you want to pay by PayPal you can send your renewal to Either Tom Holmes, N8ZM or Jim Bacher, WB8VSU and we will get your renewal to Joe.

Tom's PayPal account is: [tholmes@woh.rr.com](mailto:tholmes@woh.rr.com)

Jim's PayPal account is: [wb8vsu@arrl.net](mailto:wb8vsu@arrl.net)

# MVUS Annual Meeting and Picnic

## Saturday August 27

The August MVUS meeting will be the annual picnic, measurement event and election of officers. The normal monthly meeting at MCL will not be held in August. The picnic will be on Saturday August 27 starting at about 11 AM at Daun Yeagley's home (10 AM for setup). Daun's GPS and street address:

39.506953, -83.862522  
1353 Gurneyville Rd  
Wilmington Oh 45177

- Bring a side dish or dessert for maybe 6 people. Burgers, brats and drinks courtesy of MVUS.
- Bring a couple of chairs as well.
- **If you want any testing done**, contact N8ZM at [tholmes@woh.rr.com](mailto:tholmes@woh.rr.com). He needs to know what you want to test and the frequency range. Preamps, antennas, power amps. SWR bridges, power supplies, meters, whatever. Just let Tom know so we can have the right test gear available.
- Adapters for anything other than N, PL259, or SMA would be helpful. Anything up to 6 GHz is easy, above that advanced notice is definitely needed.
- If you need additional details contact Tom Holmes or Jim Bacher.