**The HIARC Bulletin**

May 2021 Edition

**The Official Bulletin of the Harris-Intersil Amateur Radio Club**

**Club Meetings:** Second Thursday of each month at Meemaw’s Barbecue on Babcock Street between Palm Bay Road and Port Malabar Road. Supper is at 5:30 PM, business is at 6:30 PM. Prizes at 7:00 PM. Our programs start at 7:15 PM. Meeting ends by 8:00 PM. As some members have allergies, we kindly ask that you refrain from wearing fragrances thanks.

**Club Station:** Building 15, Room 321.  E-mail Butch for access.

**Repeaters:** K4HRS,145.47 Mc, tone 107.2 cycles, elevation 170 feet, Melbourne. Works good with a sensitive receiver.

**HIARC Web Site:** <www.qsl.net/hiarc>.

**Officers:** President: Francis (“Butch”), WA4AQV

Treasurer: Open

Secretary: Open

Repeater Chairmen: Open

Program Chairman: Open

Field Day Chairman: Open

Sunshine Chairman: Open

Club Jester: Ken N8KH

**Membership:**

Just come to the meetings at present.

**Annual Events:** Annual swapfest at the October meeting. Field Day the fourth full weekend in June.

**Selected Hamfests:**

* Stuart, 2021: Cancelled this year.
* June 12, 2021: PCARS Quarterly Tailgate at the Melbourne Fire Department Training Center, 1980 Hughes Road, Melbourne FL. Starts about 9 AM lasts till about 11 AM. Friendly get together. Usually lunch after at TBD location. Talk in and going to lunch discussion is on the 146.61 MHz repeater no tone.

**Ham Radio Lunches:**

* Every Friday, 11:00 AM till 1:00 PM or so, Golden Corral on Palm Bay Road in Palm Bay. Around 8 to 10 people recently and growing.
* Once a month, the Saturday after the PCARS meeting, Sarno Restaurant and Pizzaria, 11:00 AM. This is at the corner of Sarno Road and Croton Road.

**Thursday March 11 HIARC Meeting**

Our next HIARC meeting is this Thursday May 13 in the Babcock Street Meemaws Barbecue Banquet Room at 5:30 PM for dinner, 6:30 PM for business and 7:15 PM for the program. The program will be “A DX’pedition To The South Pole” with pictures and recordings.

**Bill Dahmke WA4EMU Silent Key**

Our Treasurer Bill WA4EMU passed away on Thursday April 22. His family was with him. He was a long-term Harris engineer who liked trout fishing and morse code. He was a member of PCARS and the HIARC Field Day Chair.

The service for Bill WA4EMU will be at 11:00 AM Friday May 21 at Holy Name Catholic Church, 3050 N Highway A1A in Indian Harbor Beach, FL. This is about 1/3 of a mile south of Eau Gallie Boulevard. HIARC will be sending flowers.



Bill Dahmke WA4EMU

**HIARC Treasurer**

Nominations are open for the office of HIARC Treasurer at the May meeting or by contacting me. A treasurer is essential if we are to have a HIARC treasury. It’s easy to do.

**Field Day**

If you are interested participating or chairing Field Day please attend the May 13 club meeting. We will do the planning then.

**Amateur Radio Support For Hurricanes**

Hello fellow amateurs,

We are preparing for this year’s hurricane season by assembling volunteer amateur radio operators to be part of the L3Harris Emergency Response Team (ERT). This supports the L3Harris Global Security Operations Center (GSOC) by providing a backup means of reporting emergencies to public safety, information on impending local barrier island bridge closures, shelter information, weather information, etc., before, during and after a hurricane. Hopefully this year we won’t have to worry about this but it’s essential to be prepared. When normal communication infrastructure such as cell phones fail, amateur radio can be the ONLY means to communicate.

If you are an interested badged L3Harris employee let me know by May 7th. Participants will receive an updated L3Harris access badge signifying that you are part of the ERT and able to access the amateur radio room in Building 15 as well as a letter signed by the Brevard County Sheriff again verifying that you are part of the ERT. This letter would allow you through law enforcement checkpoints post storm to gain access to the L3Harris facility in the event of a shutdown if necessary.

Thanks,

Robin Padden, NT7F

[Robin.padden@l3harris.com](mailto:Robin.padden@l3harris.com)

**The End Fed Half Wave Antenna**

It seems odd from a circuit standpoint. We expect to see two terminals to drive amateur antennas, but yes, it is possible to feed a half wave dipole antenna on its end!

If the half wave dipole wire is thin the driving impedance may be about Z = 1500 +j0 ohms. The typical omni toroid pattern of a dipole does result or nearly so. There are many possible matching networks to get to 50 ohms such as a tapped parallel resonant circuit, L network, or a quarter wave stub such as the J pole uses.

An example commercial end fed half wave antenna is the Ringo Ranger Antenna:

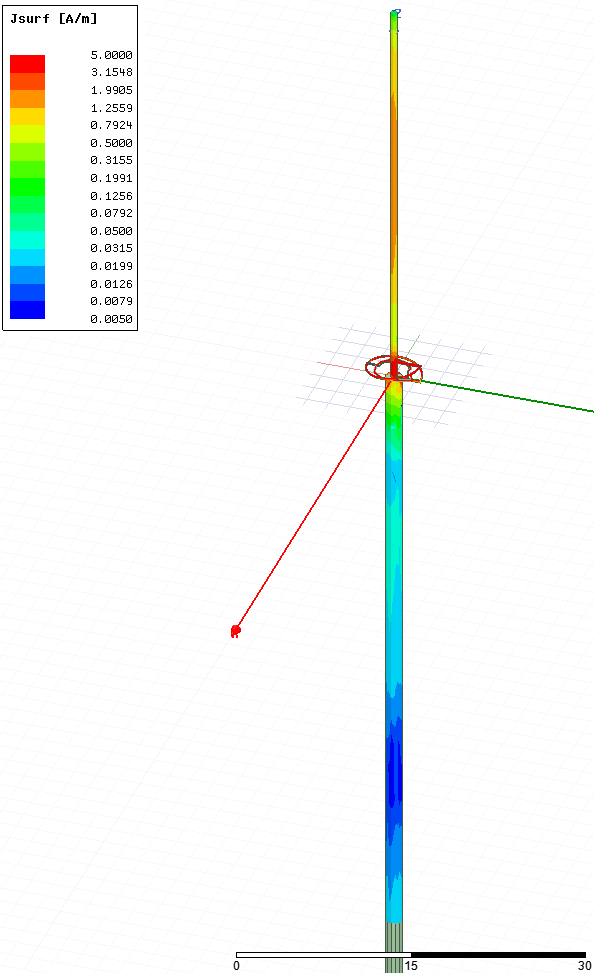


**Ringo Ranger AR2 Antenna**

The Ringo Ranger antenna is an omnidirectional vertical polarized antenna series that emerged about 1971 and was made by Les Cushman. Manufacturer is MFJ these days <https://mfjenterprises.com/products/ar-2?_pos=1&_sid=eb1cec5be&_ss=r> . There are versions for many bands 10 meters through 70 centimeters.

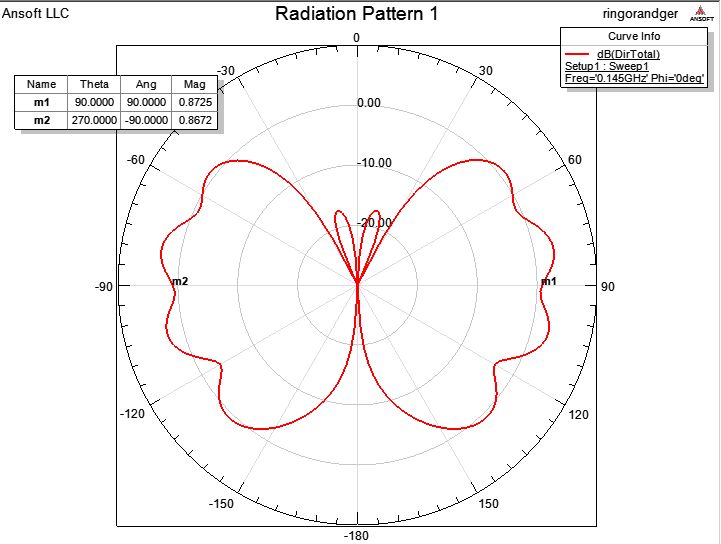
There was to my recollection an 11 meter Ringo version to my but the Consumer Product Safety commission now requires that 11 meter antennas be insulated on the surface to 27 KV for safety if the 11 meter antennas contact powerlines. If you buy a 10 meter Ringo behave yourself and do not retune it to 11 meters.

The Ringo antenna series uses a tapped one turn coil for a matching network. Some parallel capacitance is provided by a coaxial capacitor as the dipole tube inserts into a plastic sleeve insulator and extends into the mast a bit.



**A heat map of the current flows on a two meter Ringo Ranger**

With a 72 inch mast here is the radiation pattern for a two meter Ringo Ranger:



**Elevation cut radiation pattern of a Ringo Ranger AR2 atop a two wavelength / 162 inch tall mast. Looks like a cute butterfly.**

The realized gain on the horizon was a useful +0.9 dB in this instance. Analysis showed that the realized gain and radiation pattern did vary a little with mast height and feedline length and was the cause of a little ripple in the radiation pattern shape. This is not problematic. Most VHF UHF omni antennas vary a little with the mast height and feedline dress. I like the Ringo antenna design for the simplicity, DC ground and compact size. It gets good reviews on eHam. Ringo antennas use a UHF connector which is common to amateur radio. Try auto parts store dielectric grease all over and in the UHF connector to keep water out. UHF connectors are not waterproof.

The end fed half wave monopole provides useful ground independence. Electrically shorter monopoles are not ground independent and typically require radials.

**Harris Amateur Radio Club QSL’s**

Here is a look at our QSL cards from the past:



**Back When Harris was Radiation In the 1950’s**

**The Moon Was On Everybody’s Mind Back Then!**



**Around 1970**