



News from



The GLORIOUS SOCIETY OF THE WORMHOLE

September 2022

Hello Worms

OK, I am really late this month. No excuse, I was just calendar challenged. I looked at my calendar tonight and just realized this is the first Saturday of the month.

The latest on the website access: Linda, Mike's wife and Ian are working with GoDaddy to gain access. Every time they do all that GoDaddy asks for GoDaddy asks for more or the same thing in a different way. They are working it and hopefully it will happen. Related to that Mike KV00M has volunteered to take over as webmaster as long as it stays uncomplicated meaning not taking up all of his time. Thank you Mike!

We also do not have access to the Wormhole MailChimp mailing list yet. Jim KD4 MZL has approached MailChimp to try but I have little hope for that. I am using an old list with the current membership added. I know there are about 25 to 35 less on the list now but I am adding as I think of someone or someone asked why they are not getting it. I sent 83 email newsletters last month and got 11 "Delivery Failure" messages due to bad email addresses. If you do not get this newsletter me know ;-)

I am sending this Newsletter as an email and a PDF. I write it in 2019 Word but assume that if I sent it as a Word doc many could not open it. Let me know what you think.

We will meet face to face for those who wish to do so. If Alan is in attendance or we meet inside, we will broadcast the meeting on the repeater and video. We will meet at the regular meeting time of 1100 on Saturday morning at the Lurie Civic Building on the St Petersburg College campus in Seminole. Turn west at the light at 113th St N and about 92nd Ave N. It's the first building on the north side. Here is a link to a Google map : [Google Maps](#) . There are a few parking spots in front the Chamber building but if you go another 100 yards past you can park in the college parking lot which is a lot closer to the outside meeting area. Double parking is fine since we will be able to find the owner to move his vehicle if necessary. Below

is the Zoom information. I only have one Zoom meeting I use for everything , same link and same passcode as every month ;-)

Topic: Bill Williams' Zoom Meeting
Time: This is a recurring meeting Meet anytime

Join Zoom Meeting
<https://zoom.us/j/2737114584?pwd=d1BETHVOQ21vWWZXZ0lYQ0FIWWtldz09>

Meeting ID: 273 711 4584
Passcode: worm

We currently have two net controls but would like three or four, If you are interested in being a net control station for once or twice a month let me or Dee or George know. Or you can talk to them on the weekly net.

BRING YOUR CHAIR your coffee your lunch and a show-and-tell is you have one! There are a few picnic benches if you do not have a folding chair but they are not comfortable for most of us. We will not be cooking but we have access to the Chamber of Commerce building which has a microwave and a toaster oven so you can heat up/cook what you bring. We will meet inside if the weather is or looks like it will be bad or if the ground is too wet.

UNIVERSITY CLASS – PHYSICS OF HAM RADIO

ARRL Letter August 18, 2022

Rice University in Houston, Texas, is offering a new class, "Physics of Ham Radio," beginning on August 22, 2022. The class is primarily aimed at teachers, but Rice undergraduates and post-grads are also welcome. Classes will meet in person, but virtual participation is possible by request. The class teaches the basics of electromagnetic waves, simple circuit and antenna theory, radio propagation, GPS theory and operation, the ionosphere, the magnetosphere, and space weather. The midterm is the Technician class Amateur Radio Service license exam. The second half of the course covers GPS and space weather topics, along with one general electrical circuit lab and safe solar eclipse observation techniques. The class is taught by Professor Patricia Reiff, W5TAR, and will use the fifth edition of [The ARRL Ham Radio License Manual](#). The cost of 3 hours of academic credit is \$1,200 (discounted from \$8,900) or, for professional development hours only, \$150. Some partial scholarships for the academic

credit version are available thanks to NASA's HEAT program. For detailed information, visit [The Wiess School of Natural Sciences](#), and for questions, contact [Dr. Reiff](#).

EDITOR: The cost above is not a misprint.

* 5 MALICIOUS CHROME EXTENSIONS*

McAfee Labs website blog authored by Oliver Devane and Vallabh Chole

A few months ago, we blogged about [malicious extensions](#) redirecting users to phishing sites and inserting affiliate IDs into cookies of eCommerce sites. Since that time, we have investigated several other malicious extensions and discovered 5 extensions with a total install base of over 1,400,000

The extensions offer various functions such as enabling users to watch Netflix shows together, website coupons, and taking screenshots of a website. The latter borrows several phrases from another popular extension called GoFullPage.

Apart from offering the intended functionality, the extensions also track the user's browsing activity. Every website visited is sent to servers owned by the extension creator. They do this so that they can insert code into eCommerce websites being visited. This action modifies the cookies on the site so that the extension authors receive affiliate payment for any items purchased.

The users of the extensions are unaware of this functionality and the privacy risk of every site being visited being sent to the servers of the extension authors.

The 5 extensions are

Name	Extension ID	User
Netflix Party	mmnbenehknklpbendgmgngedaignppnbe	800,
Netflix Party 2	flijfnhifgdcbhglkneplegafminjnhn	300,

FlipShope – Price Tracker Extension	adikbhfjdbjkhelbdnffogkobkekkej	80,0
Full Page Screenshot Capture – Screenshotting	pojgkkmkfincpdkdgjepkmdekcahmckjp	200,
AutoBuy Flash Sales	gbnahglfafmhaehbmdjedfhdmimjcbcd	20,0

RESONANCE - SERIES AND PARALLEL

Ralph WD0EJA

Our radios are packed full of resonant circuits of both kinds. Our antennas are resonant circuits of both kinds. To understand a few basic characteristics of these circuits will give us a good understanding of how our stations work.

RESONANCE IN SERIES CIRCUIT

Consider a resistor, capacitor and inductor (coil of wire) connected in series with a source of alternating current (RF). One side of the AC source is at the inductor (L), the other side at the resistor (R) and the capacitor (C) in the middle. The frequency can be varied over a wide range.

At some low frequency, the capacitive reactance X_C (resistance of the capacitor) will be much greater than the resistance R. R normally is low because it is mainly the resistance of the wires in the circuit. The inductive reactance X_L , will be low compared to the X_C . On the other hand, at some high frequency X_C will be very low and X_L , will be very high. R stays the same. Either extreme the current will be low (little power consumption), due to the net reactance being high.

At some intermediate frequency, the X_C and X_L will equal and the voltage drops across the coil and capacitor will be equal and 180 degrees out of phase. Therefore, they cancel each other completely and current flow is determined wholly by R which is normally very low. At that frequency the current has its largest possible value. This means that power consumption is at maximum. At this point where $X_C=X_L$ is said to be resonant.

Most antennas react as a Series Resonant Circuit. Therefore, you want to cancel the reactances (X_C and X_L) to resonate the antenna. This commonly applies to most varieties of dipoles, verticals and the Isotron (had to throw that in). The 2 values, X_C and X_L , are good to know to understand our antenna systems.

If your antenna is in a tight location, or is not as straight as it should be, one or both of the reactances will change. This means the antenna will not tune like it should. Can it be fixed?

Yes, quite easily. You will need to know the 2 values, X_C and X_L of the antenna. Without coax, you can use most analyzers at the antenna to get this reading. With coax connected, you can use a Noise Bridge at the antenna to find these values.

Once you know, it is a simple matter of adding or reducing the value of one of the reactances to make it equal at the frequency you want. Lengthen the antenna to increase X_L and lower X_C or shorten the antenna and lower X_L and increase X_C . Or, you can add the component (capacitor or coil) to the circuit or antenna to equalize the reactance.

Knowing these values can allow you to get an antenna to work in tight and restrictive locations. Much of this compensation can be done at the radio. This is basically what a tuner is doing. Keep in mind that most of the correct values should be at the antenna. The Tuner can be used to make a reasonable adjustment. You can also add the values needed at the antenna if you know what they are.

Next article will be on the parallel configuration.

73,
Ralph WD0EJA
BILAL COMPANY
wd0eja@isotronantennas.com

CLUB MEETING

We will again have a face to face club meeting in September. We will try to keep up on the 2M and also video concurrent on a video service. The meeting will be held at the Lurie Civic Building which is the new Greater Seminole Area Chamber of Commerce. It is located on the St Petersburg College campus in Seminole. Turn west at the light at 113th St N and about 92nd Ave N.

CLUB NETS

Check in on the club net Thursdays at 1930 and 2000 (or at the end of the 2M net). 2M at 146.850 – with a tone of 146.2. Our 6M net runs after our regular 2M net on 53.150 – 1MHz offset 146.2 tone.

LOCAL NETS

MONDAY

1830 147.060+ no tone	St Pete ARC daily net	St Petersburg
1900 144.210 USB	CARS, vertical polarization	Clearwater
1900 147.135 +146.2	Zephyrhills ARC	Zephyrhills
2000 147.165+ 136.5	Brandon ARS	from Brandon
2000 50.135	Pinellas ARK	Pinellas County
2030 NI4CE system	EAGLE Net, NTS traffic net,	NI4CE system
2030 145.450	Pinellas ARK	Pinellas County

TUESDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 50.200 USB	6M net	Brandon ARS
1900 28.365 USB	10M Net	Clearwater
1900 NI4CE system	WCF Section VHF ARES	NI4CE system
1930 145.170 & 442.4 both pl 156.7	Pinellas ACS net	Clearwater
1930 444.900 +141.3	Sheriff's Tactical ARC	Tampa
2000 NI4CE system	WCF Skywarn net	NI4CE system
2000 147.105+ 146.2	Tampa ARC net	from Tampa
2000 28.365 USB	simplex	Brandon ARS
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 28.465 USB	10/10 net	from Orlando
1900 146.490 simplex	3 RD Tuesday monthly, Hillsborough Co ARES simplex Net	

WEDNESDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 147.165 + 136.5	Humpday Net	from Brandon
1930 52.020 simplex	Suncoast 6'ers	from St Petersburg
1930 NI4CE system	WCF Section Digital Info Ne	NI4CE system
2000 147.105 146.2	Greater Tampa CERT net	from Tampa
2000 146.97- 146.2	Clearwater ARS	from Clearwater
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 NI4CE system	Tampa Bay Traders Net	non-affiliated
0000-2359 HF Winlink	Winlink Wednesday Net https://winlinkwednesday.net/reminder.html	

THURSDAY

1800 146.52 simplex	Hillsborough ARES/RACES	North Tampa
1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 444.750 +146.2	Fusion net	from Tampa
1915 224.660- no tone	St Pete ARC	from St Petersburg
1930 146.6385 -127.3	Lakeland ARC	from Lakeland
1930 444.225 + 146.2	Hillsborough ARES/RACES	from Tampa
1930 146.850- 146.2	Wormhole	from St Petersburg
2000 53.150 -1MHz 146.2	Wormhole	from St Petersburg
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

FRIDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 3.830 LSB	Brandon 80M Net	from Brandon
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

SATURDAY

0730 3.940 (7.281 Alt.)+/- QRM	WCF Section HF Net	from WCF
--------------------------------	--------------------	----------

1830	147.060 no tone	St Pete ARC daily net	from St Petersburg
2030	NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
SUNDAY			
0800	3.933	Florida Traders Net	non-affiliated
1830	147.060 no tone	St Pete ARC daily net	from St Petersburg
1930	NI4CE system	WCF Section Net	NI4CE system
2000	147.550 simplex	550 Simplex Net	Pinellas County
2030	NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100	144.210 USB	Clearwater ARS	vertical orientation

FOR SALE / WANTED

Anyone having something for sale or who might be looking for an item let me know. I will not print phone numbers or email addresses unless specifically told to since this newsletter might end up on the web. The exception is when I get the information off the web. If you are a member of the Wormhole then you can ask club members for the persons contact information. If you are not a member ... why not? OK, if you are not a member you can contact me at the email address at the end of this newsletter, I will give you the information to contact the person involved.

FOR SALE,

Nothing is currently listed for sale.

HAMFESTS

2022

October 15 Bradenton, 2nd Annual Manatee Amateur Radio Club Swapfest, 2113 Morgan Johnson Rd, Talk-In 146.820 – 100.0, info Michael Ryan , K4CVL ,941-376-6453, mryan5200@gmail.com, no info on website

November 12 Pinellas Park, **SPARCFest**, admission FREE, tailgate free, Freedom Lake Park, 9990 46th St N, Southeast corner of US 19 and 49th Street, Talk-in on 147.060+ no tone. VE testing at 0900. For more information go to <http://www.sparc-club.org/sparcfest.html> or email kc1yl@yahoo.com

December 9 & 10 **Plant City, the 2022 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, **at the Strawberry Festival grounds, admission \$10, 16x40ft tailgate space \$10, electric \$5, for information contact Bill Williams AG4QX, chairman@fgcarc.org or go to <http://www.tampabayhamfest.org> or you can just ask me, Jim or Dee at a meeting ;-)**

Mid January	Adventure Run, Honeymoon Island
Last full weekend January	Winter Field Day https://www.winterfieldday.com/
Late January	Gasparilla celebration
Late February	West Central Florida Tech Conference http://arllwcf.org/wcf-special-events/wcftechconference/
March	MS 150 Citrus Tour bike ride http://www.citrustour.org/register.php
March/April	MS Walks
March/April	Mass Casualty Exercises
Late April	Southeastern VHF Society Conference, http://www.svhfs.org
Late April	Florida QSO Party
Mid May	March For Babies (was March of Dimes) https://www.marchforbabies.org/Registration/Events
Mid May	Annual Armed Forces Crossband Test
Mid-May	Florida Hurricane Exercise
Late May	Dayton Hamfest
May, Memorial Day Weekend	Wormfest
First weekend in June	Museum Ships on the Air

Fourth weekend in June	Field Day
http://www.arrl.org/contests/announcements/fd/	
July 3/4	Midnight Run in Largo
http://www.kiwanismidnightrun.com/	
Third weekend in August	International Lighthouse/Lightship Week
https://illw.net/	
October, 3 rd weekend	JOTA, Scout Jamboree-on-the-AIR (around 14.280MHz)
Early December	ALS bike ride in Walsingham Park
December, Second weekend	Tampa Bay Hamfest http://www.fgcarc.org/

YOUR WORMHOLE OFFICERS

Bill AG4QX is President and editor of this newsletter, Treasurer is Jim KD4MZL, Paul KA4IOX is the Secretary, Dee N4GD is the Repeater Trustee and Mike K4ZPE is both our club Vice President and webmaster.

YOUR WORMHOLE REPEATERS

53.150 -1Mz PL 146.2

442.625 +5Mz PL 146.2

146.850 - 600Kz PL 146.2

The Wormhole 2M and 440 repeaters are both now dual mode Yaesu DR-1X. FM analog as always and Yaesu Fusion, a C4FM digital mode.

The Wormhole website is at: <http://www.TheWormholeSociety.org>.

West Central Florida Section website: <http://www.arrlwcf.org/>.

The ARRL website is at: <http://www.arrl.org/>

This newsletter is written for The Glorious Society of the Wormhole, an ARRL affiliated amateur radio club located around the Seminole section of Pinellas County Florida. Anyone wishing to be added or removed from The Glorious Society of the Wormhole mailings please write to me at the address below and thy will be done.

73,
Bill Williams
AG4QX

[ag4qx AT arrl DOT net](mailto:ag4qx@arrl.net)