



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

December 2024

Hello Worms

The Chamber of Commerce building is now clear of the hurricane distribution stuff so we will meet inside once again.

Before the meeting the radio will be on for information about and directions to the meeting but that will discontinue when the meeting starts. If we can the Zoom will be on but it is problematic

In the meeting we will have donuts, water and soft drinks (probably only root beer). Bring your drink of choice and lunch if you want. We will not be cooking but we have access to the Chamber of Commerce kitchen which has a microwave and a toaster oven so you can heat up/cook what you bring.

***DO YOU KNOW ***

November gets its name from being the 9th (from the Latin novem meaning "nine") month in the calendar of Romulus in 750 BC Rome. It kept its name even after being moved in later centuries to be the 11th month. In the Southern Hemisphere it's the seasonal equivalent of May to those of us in the Northern Hemisphere and vice versa.

FTC VOWS TO END FREE TRIAL SCAMS

INFOPACKETS by John Lister on October, 30 2024

American consumers and businesses should soon find it much easier to cancel subscriptions, "free trials" and other ongoing payments. The FTC has added what it's dubbed the "Click to Cancel" rule that means it must be as easy to cancel such arrangements as it is to start them.

The regulation is formally known as the "Rule Concerning Recurring Subscriptions and Other Negative Option Programs." In this case "negative" means the provider will start or continue to take payments unless the user expressly cancels the arrangement.

The FTC has been working on the changes for five years after exploring complaints from customers who felt misled. In some cases they were unaware that they would be charged automatically, for example with a free trial automatically converting to a paid subscription.

In other cases, they found it extremely difficult to cancel an arrangement, often finding it involved a lengthy phone call or even sending registered mail to a specific hard-to-find address.

The updates to the rule mean providers will now have to be truthful and not misleading when setting up such arrangements, including making it clear when payments will start and how customers can cancel. This must be "clear, conspicuous and available to your customers before they enroll." Key details will also have to be shown at the precise moment the user signs up, including when they are clicking a button or submitting a form online.

Businesses will also need to get explicit proof that the user consented to the arrangement and keep this proof for three years. This could be a signature or a clearly marked checkbox that says the customer has read and understood the agreement.

Finally, customers must be able to cancel in the same way they signed up. For example, if a customer signed up online by clicking a button or submitting a form, they must be able to cancel the same way without having to "talk" to a customer service agent or chatbot. (Source: bbc.co.uk)

Customers can't be forced to cancel by phone unless they signed up that way. A business that offers phone cancellation can't charge extra for doing so (or use a premium rate number) and must take phone calls during normal business hours. (Source: ftc.gov)

*** THE BEST WAY TO OPERATE HF***

Ralph WDOEJA

TO BALUN OR NOT TO BALUN?

That is a question many have had. Why consider a balun? What is it? Where do you install it? What does it do?

Whoever made up the word had quite an imagination. It comes from "balanced" to "unbalanced".

Why consider a balun?

Most radios have 50 ohm impedance outputs. Coax is normally close to 50 ohms. No problem so far. However, sometimes the antenna has a mind of its own and may not be 50 ohms, but 300 or 400 ohms. This is the case with certain loops. Therefore, you make a transformer at the antenna to solve the mis-match.

Some choose to use a ladder line rather than coax. Then the balun or transformer is at the transmitter end, usually through a tuner. The ladder lines range from 200 ohms to 600 ohms. This will feed a high impedance loop antenna. It can also feed a low impedance dipole by feeding it differently using a "DELTA" connection. This is where the dipole is one solid wire. The ladder line is connected at a point to the left of center and to the right of center. At the point where the impedance of the dipole matches the ladder line impedance.

Most installations are, radio, 50 ohm coax then 50 to 70 ohm antenna. Why use a balun?

It is due to the nature of RF on wire. "Skin Effect". RF traveling along a wire appears on the surface of the wire. Sort of like floating along.

Coax has a center conductor with RF floating on the outside surface of the wire. The other side is the shield. The RF is floating along the inside of the conductive shield. This is perfect for good cancellation allowing the coax not to radiate until it gets to the antenna.

However, sometimes when it gets to the antenna, the skin effect makes a problem. Instead of going to the shield side of the antenna, it takes advantage of the skin effect and goes down the outside of the shield of the coax. Then it says howdy to you while your operating. Giving you a little RF burn when you touch your equipment. Or, causing havoc in the station. Coming through speakers not even turned on, light up light bulbs, activating alarm systems and the list goes on. The amount of RF coming back on the shield depends much on the length of coax. Normally it is a fraction of the total power.

What can you do? A balun.

You can either construct or purchase a 1:1 balun. Some are called isolation transformers.

This puts a high reactance component between the shield side of the antenna and the shield of the coax. There are a variety of ways to do this.

Coiling the coax is an easy way to do it. There are toroid configurations and there are ferrite beads. Most of these will work well. However, caution is needed with the toroids and ferrite beads. It needs to be large enough to handle the RF power of the transmitter.

The coil of coax is quite affective. Listed below are some suggestions on coil size per frequencies.

FREQUENCY (MHz) RG/8, 58, 59, 8X, 213

3.5-30 MHz 10 FT, 7 TURNS, FORM=5 3/8"

3.5-10 MHz 18 FT, 9-10 TURNS

14-30 MHz 8 FT, 6-7 TURNS

Wind the indicated length of coaxial feed line into a coil (like an inductance coil) and secure so it holds its form. The balun is most affective when the coil is near the antenna.

So, to balun or not to balun? You will know when you fire up your radio.

73,

Ralph WD0EJA

BILAL COMPANY

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GOOGLE OWES \$2.5 TRILLION TRILLON TRILLON

INFOPACKETS by John Lister

Google has confirmed it currently owes \$2.5 decillion dollars in an unpaid fine in Russia. It doesn't plan on paying any time soon.

The fine stems from a judgment in 2020. The government run Russian news site RBC reported on the fine this week and Google has confirmed that the details are correct.

The penalty was for restricting the YouTube channels of two Russian media outlets, with those companies successfully suing Google for civil penalties under Russian law.

Further penalties were added for similar bans of Russian media sites in 2022 following the invasion of Ukraine. At that time Google said that the channels had broken rules against denying, minimalizing or trivializing violent events and that the invasion came under that description.

The original fine was just 100,000 roubles, which today is the equivalent of just over \$1,000 USD. However, Russian law means the penalty doubles for each week Google fails to pay up.

The current total of the fines is \$2.5,000,000,000,000,000,000,000,000,000,000, or 2.5 trillion trillion trillion. Ironically, if Google fails to pay for a further four years, the amount will reach \$1 googol, which is a huge number (1 followed by 100 zeros) that inspired the name of the company.

Google confirmed the fines in its latest quarterly report, noting "We have ongoing legal matters relating to Russia. For example, civil judgments that include compounding penalties have been imposed upon us in connection with disputes regarding the termination of accounts, including those of sanctioned parties."

Even leaving aside the ludicrous numbers, there's no real prospect of the companies collecting on the fines as Google has no meaningful presence in Russia. Its local subsidiary went bankrupt after Russian authorities took control of its bank accounts following the restrictions on state media.

This severely limits its operations in Russia. Although people there can use free services such as YouTube and the search engine, Google neither sells nor delivers ads in the country.

*** THE ULTIMATE SAMICH***

From Ed Pearson

Definitions:

You will likely question the spelling of the word that is defined as two pieces of bread with something in the middle. I've consulted with a noted linguistic expert, Larry The Cable Guy. He is extremely fluent in SouthEast and Nebraska dialects. Samich is the proper spelling.

History:

During the depression in the 1920's, surviving was a challenge. Both food and money were scarce. One common item was a peanut butter and pickle samich. The recipe has been refined to use the most appropriate ingredients.

Parts List:

You will need three key ingredients. Do not substitute with generics. The first is Pepperidge Farm Butter Bread. It's a wide loaf with a large crease down the middle and rather dense texture which is essential during assembly. The second ingredient is Mt. Olive Bread & Butter Chips. They have a taste that perfectly balances the peanut butter. The third ingredient is the peanut butter. The preferred brand is Jiff Creamy Reduced Fat. It's a perfect match for the pickles.

Assembly:

These steps are critical so do not deviate. The first step is preparation of the bread. Place the bread on a paper plate and note that the crease down the top of the loaf creates a notch along the top of the bread. Take a butter knife and crease the bread down the middle starting at the notch. DO NOT cut it in half. Now flip the bread over so that the groove is on the underside. This will act as a hinge and pickle juice gasket. On the right half, smear out a thick layer of peanut butter, 1/4" or 6mm to the edges. On the left half, place a pickle slice touching the top edge of the bread. Proceed to lay down additional layers with 50% overlap until the last one touches the lower edge. Now, carefully fold the peanut butter side over and onto the pickle side. Press down lightly to hold the pickles in place.

User Manual:

Now it's ready for consumption. Hold the samich with the groove on the bottom and horizontal much like a taco. This will keep the juice from running out. The crease acts as a gasket and allows the juice to soak into the bread. Now tilt your head

sideways and start eating. Periodically, turn your head the other way so as not to get a sore neck. You will likely want to make another as the stomach can't just stop after one samich.

MUNCH A BUNCH AND HAVE A NICE DAY.

Editor note: Thanks Ed, just in time for Thanksgiving.

*** 6G TESTED 9000 TIMES FASTER THAN 5G***

ZME SCIENCE by Tibi Puiu

Imagine downloading an entire library of 4K movies in seconds. That kind of future is one step closer, thanks to a groundbreaking experiment led by scientists from University College London (UCL).

They have set a new world record in wireless data transmission, sending information at a blistering speed of 938 gigabits per second (Gb/s). To put that into perspective, this is more than 9,000 times faster than the best average 5G download speeds in the UK.

Today's wireless technology — whether it's the Wi-Fi in your home or the 5G network on your smartphone — operates in crowded frequency ranges. These ranges, usually below 6 gigahertz (GHz), are now severely congested, limiting the speed of communication. The research team at UCL tackled this problem head-on by expanding their system to use a wider range of frequencies, spanning from 5 to 150 GHz.

Their approach combined two cutting-edge technologies: advanced electronics and millimeter-wave photonics. For the lower part of the frequency spectrum, from 5 to 50 GHz, they used traditional digital-to-analog converters that send data using radio waves. However, these converters struggle at higher frequencies. So for the upper part of the spectrum, from 50 to 150 GHz, the team introduced a novel photonics-based system. This technique used lasers to generate radio signals, allowing them to push data transmission into previously unused high-frequency ranges.

By merging these two technologies — radio waves at lower frequencies and lasers at higher frequencies — the team created a wide-band transmission system capable of sending enormous amounts of data. The resulting high-bandwidth system has been described by Liu's team as a "super-highway" for data transmission. This bandwidth, 145 GHz wide, is more than five times

the size of the previous world record, making it a groundbreaking leap in the development of next-generation wireless technology.

With speeds like 938 Gb/s, users in densely populated urban centers or at large events like concerts could experience mobile internet that never slows down, no matter how many people are on the network. For example, a 4K movie that takes 19 minutes to download on current 5G networks could be downloaded in just 0.12 seconds using this technology.

Professor Izzat Darwazeh, co-author of the study, believes this is just the beginning. “The beauty of wireless technology is its flexibility in terms of space and location,” he said.

The researchers are already in contact with smartphone manufacturers and network operators, and it’s clear that the work they’ve done could serve as a foundation for 6G technology. But, as Liu noted, other approaches are competing to define the next generation of wireless networks.

At its core, this research addresses a stubborn bottleneck: the “last few meters” of data transmission. While optical fibers can carry information across continents, wireless networks must handle the last stretch between your device and the network, which is where speeds often falter. By supercharging this final link, UCL’s team is closing the gap between what’s possible with fiber optics and what’s achievable through the air.

“Our new approach combines two existing wireless technologies for the first time, high-speed electronics and millimeter wave photonics, to overcome these barriers. This new system allows for the transmission of large amounts of data at unprecedented speeds, which will be crucial for the future of wireless communications,” said Liu.

Looking ahead, the need for faster and more reliable wireless communications is only going to grow. As more devices connect to the internet — whether smartphones, autonomous vehicles, or smart home systems — the demand for bandwidth will continue to skyrocket.

While the technology has only been demonstrated in the lab so far, commercial testing could begin soon. If successful, we may see this new wireless system incorporated into consumer devices and networks within the next three to five years.

The findings appeared in the [*Journal of Lightwave Technology*](#).

*** WHAT IS APRS***

You may have heard or read the term APRS. This four letter acronym isn't self-explanatory but is popular and important enough that we should cover the basics of what it is and how it's used. Do you need APRS? Unlikely. Do you want it? Maybe. Planning to buy a new VHF/UHF radio and wonder if this is a feature worth paying for? Read on.

APRS is a big topic with way more detail than we can present here so we'll give you a general idea of what it involves along with some research links to answer these questions yourself.

For starters, APRS stands for Automatic Packet Reporting System. What makes APRS a specialized form of packet is what info is transmitted. APRS supports four data types, including Position/Objects, Status, Messages and Queries. The position packets contain latitude and longitude, a symbol (Object) to be displayed on a map, plus optional fields for altitude, course, speed, radiated power, antenna height above average terrain, antenna gain, and voice operating frequency.

While APRS can send packets over greater distances on HF bands, it is more commonly used with VHF FM (2m) radios to share data of interest in the local area such as GPS coordinates, weather, alerts, announcements, and such.

APRS info and messages can be directly between hams but more commonly, packet data is collected by local repeaters (gateways) and sent to the APRS Internet System (APRS-IS) for retrieval anywhere by anybody with a web browser. Meaning your unlicensed spouse can see where you are located (technically, your transceiver) at any given time. It is not a one-way system; APRS both transmits and receives packet data.

Also unlike normal packet radio, APRS blindly sends out data addressed to no one in particular (unconnected). Two things to know about this system: 1) no error correction (clean, strong signals are required), 2) someone or something must be monitoring for it to be useful (another APRS ham or internet gateway).

In addition to several good references below, an excellent resource worth reading right now: [Intro to APRS \(PDF file link\)](#), a presentation prepared by John Gorkos AB000 of the Joplin Missouri Amateur Radio Club. It discusses what the system is not, the significant info you can get through it, what you can do with it (note two separate sections for this), and suggests next steps for getting involved with APRS.

Given all the possibilities above, the primary use of APRS in ham radio is to have a transmitter location reported to a central database periodically so that others can see where a mobile or portable ham is located.

This makes APRS particularly useful for public service events and emergency communication (EmComm) situations where managers can easily ack mobile resources who have messaging capabilities.

There are numerous web services for viewing APRS maps and data but the main one (and simplest) is <https://aprs.fi/#!lat=27.893&lng=-82.5074>. Click this link and you will be taken to a local map showing locations of ham APRS transmitters in your own area

In North America all APRS data is transmitted on 144.390 MHz. See the global map to find out what your frequency might be where you are in the world. Just tune your VHF radio to your global frequency to hear the packet squeal, if you are wondering what it sounds like.

APRS requires not only a 2m FM transceiver but also a computer with display and TNC radio-computer interface, plus (normally) a GPS receiver. Radios with APRS features built in cost more than ordinary mobile or handheld transceivers, mainly because they have a 2nd independent channel (one for APRS), and a GPS receiver, packet functionality, and usually a larger display. However, APRS can be added to an old or cheap radio using external modules. It's not as clean or simple to have attachments but there are retrofit options. Three add-on solutions are linked in the references below; a web search will find even more. APRS is also a cool way to track an inanimate object such as a weather balloon. Some hams do this for fun and for experimentation by putting an APRS transmitter on a balloon to see where it goes (and where to retrieve it after landing).

If APRS interests you at all, click on the references below. There is a lot more to APRS than what we shared here. Be advised that not all agree with each other on all points so you'll have to sort through it yourself.

Some useful references:

Official site of APRS creator Bob Bruninga, WB4APR <http://www.aprs.org/>

G4ILO excellent write-up <http://www.g4ilo.com/aprs.html>

Official APRS User's Guide <https://aprs.fi/doc/guide/guide.html>

CLUB MEETING and ZOOM

The meeting time is 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 double parking is fine since we will be

able to find the owner to move his vehicle if necessary. Alternately if you go another 100 yards past you can park in the college parking lot. We cannot run Zoom and a computer presentation at the same time. Below is the Zoom information, same as last month. The ZOOM meeting is limited to 40 minutes so I will start it early and restart it to cover the whole meeting.

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



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 440.0 +162.2	Hillsborough ARES/RACES	from Tampa
1930 146.850- 146.2	Wormhole	from Pinellas Co
2000 53.150 -1MHz 146.2	Wormhole	from Pinellas Co
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. If you want to see anything here and you are coming to the meeting let the seller know, maybe he can bring it.

FOR SALE,

See Bill AG4QX for the following: make me an offer.

*ICOM IC-W32A , 2m and 440 HT, AA battery pack	\$25
*Heathkit HD-1215 Phone patch looks ok	\$10
*Drake WV-5 wattmeter looks ok	\$75
*Cushcraft A4S, 10/15/20 4 element beam	\$250
*Cushcraft AV-12AVQ, 10/15/20 vertical	\$125
*Cushcraft A50-#S, 6m beam	\$125
*Cushcraft A-#WS, 17/12 WARC beam	\$250
*15000 V neon sign transformer currently used for Jacobs ladder	\$30

Ed Pearson at has the following for sale. Contact him at Arctic.Eddie@Verizon.net

Xiegu G90 HF transceiver, 20W, auto-tuner, desktop stand, digital interface, not used much and only for WSPR at 5W. New around \$400, asking \$200.

Time Wave DSP-599zx digital audio filter. A separate small box with audio in and out RCA sockets on back. Programmable for filter specs. Also not used much and just for HF. New around \$100, asking \$20.

Welz Power Meter SP-825, HF to 1300MHz, dual power heads on remote cables, selectable output readings. New about \$150, asking \$40.

HAMFESTS

2024

November 2

Dade City, East Pasco ARS Fall Hamfest, flyer at

<https://eparsonline.org/2024/wp-content/uploads/2024/08/EPARS-2024->

[HAMFEST-november.jpg](#), admission \$5, tailgate \$5, indoor table \$10, talkin 146.880 146.2 analog or C4FM

- November 2** Apopka, Bahia Shriner's Tailgate, Bahia Shrine Center, 3101 E. Highway 436, no talkin, no hamfest on website, Den Ardinger , KT3S, 164 Sheridan Ave Longwood, FL 32750 or call 407-332-0405 or Email: dba327@hotmail.com
- November 9** **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. Website has not been updated yet.**
- December 7** Ocala, Silver Springs Radio Club Hamfest, First Christian Church 1908 E. Fort King St, Talk-In: 146.610 -123.0, admission \$10, tailgate including one admission \$20, Contact: Elbert Wilkinson , KQ3K, 940 NE 50th St. Ocala, FL 34470, 352-843-0509 or kq3k@outlook.com
- December 13 & 14** **Plant City, the 2024 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, at the Strawberry Festival grounds, admission \$13, 16x40 ft tailgate space \$10, electric \$10, 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 ;-)
- January 18** **TARCFest** TARC Clubhouse, 22nd St at the river, 8AM-1PM, \$5 entry including tailgate, a few inside tables must be reserved in advance, talkin on 147.105 +146.2, license testing after, more info at <http://hamclub.org/>
- February 7-9** **Orlando Hamcation**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$20 in advance, \$25 after Dec 21 and at the door. Talk-in 146.760 - PL 103.5 analog or Fusion. Also D-Star is on 146.820 -, all the information at www.hamcation.com or call 407-841-0874. There is also an AM low power Information Station on AM 610.
- April 12** **TARCFest** TARC Clubhouse, 22nd St at the river, 8AM-1PM, \$5 entry including tailgate, a few inside tables must be reserved in advance, talkin on 147.105 +146.2, license testing after, more info at <http://hamclub.org/>

May 16-18 **Xenia, Ohio, Dayton Hamfest**, tickets \$30 at the door, tailgate \$30, 10x10 booth \$705

May 24 **WormFest 2025, Pinellas Park, admission FREE, tailgate free, Freedom Lake Park, 9990 46th St N, southeast corner of US 19 and 49th Street, 33782. Park opens at sunrise for vendor setup, hamfest starts at 0800. Talk-in on 146.850 – 146.2. All FREE! For a map and directions see <http://www.TheWormholeSociety.org> .**

August 23 **TARCFest TARC Clubhouse, 22nd St at the river, 8AM-1PM, \$5 entry including tailgate, a few inside tables must be reserved in advance, talkin on 147.105 +146.2, license testing after, more info at <http://hamclub.org/>**



Fourth full weekend January	Winter Field Day https://www.winterfieldday.com/
Late January	Gasparilla celebration
Late February	West Central Florida Tech Conference http://arriwcf.org/wcf-special-events/wcftechconference/
March/April	MS Walks
April	MS bike now named Suncoast Challenge http://www.citrustour.org/register.php
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.arri.org/contests/announcements/fd/
Third weekend in August	International Lighthouse/Lightship Week https://illw.net/

September	Run for All Children's
Mid October	The Great Shakeout https://www.shakeout.org
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, the Vice President position is open, Treasurer is Jim KD4MZL, Paul KA4IOX is the Secretary, Dee N4GD is the Repeater Trustee and Mike KV0OOM is our 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-2X. 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