



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

June 2025

Hello Worms

The meeting is this weekend. I hope to see you there.

There seems to be a lack of hamfests in June and July or maybe a lack of communications. Not sure which. If you know of a hamfest within about 100 miles let me know so I can get it listed.

Bring your drink of choice and lunch to the meeting 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.

UPDATE:

Due to me being calendar challenged; the June Newsletter went out a week early so this is version 6a.

I will start running Philip Neidlinger's (KA4KOE) monthly articles in eHam.net, the Dead Electrical Dudes. I am starting with #12, Andre Marie Ampere.

The meeting is this weekend... really, I am pretty sure. I hope to see you there.

Bring your drink of choice and lunch to the meeting 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.

DID YOU KNOW

Did you know wombat feces is cube-shaped? Known for being adorably cute, the wombat is known for producing around 80 to 100 pieces of excrement each night and no one knew why it was cube-shaped. Then, in 2018, researchers found that the Australian animal's intestines are made up of stretchy and some stiff sections, that create the cubing during the digestive process.

DID YOU KNOW #2

An ostrich's eye is bigger than its brain. I know some people with the same condition.

*** NEW YAESU RADIO ***

Yaesu has a new radio on the way and most dealers are taking reservation money. The FTX-1 Field and Optima does HF, 6M, 2M and 70cm all mode. Both come with a battery for 6W QRP. The Optima also has a 100 watt amp for base use. <https://www.yaesu.com/product-detail.aspx?Model=FTX-1%20Series&CatName=HF%20Transceivers/Amplifiers>

*** THIS MONTH'S STIFF: ANDRE MARIA AMPERE ***

eHAM.net by Philip Neidlinger

Andre Maria Ampere entered mortal coil: 20 January 1775 and assumed room temperature: 10 June 1836. After enjoying a brief sabbatical, here is yet another treatise churned up from the dank depths of my twisted mind. Maria makes it an even dozen dudes for our ongoing saga of the pioneers who have made our modern electronic world possible. I doubt if any of us will make a contribution to science so epic as to have a fundamental unit of measure named after us, or perhaps some element or natural phenomenon. “Hey Professor Smith! It measures out to 0.932 Neidlingers!!! Only +3.2% from our calculations!” *Yeah...in my wildest dreams!* To recap, for those of you who have tuned in late, here is a list of our past honorees on this internet website; Messrs. Maxwell, Tesla, Armstrong, Marconi, Ohm, Volta, Hertz, Morse, DeForest, Fessenden, and Henry. So, without further delay, I present our current dude, Mr. Andre Maria Ampere.

Maria can accurately be described as a child-computing prodigy. How many of us can claim to have mastered the calculus while only in our early teens? Maria had a paper rejected for publication by the Academie de Leon at age 13 as he used infinitesimals in his calculations: he was totally ignorant of the use of the differential calculus at the time and subsequently enlisted the services of a monk to tutor him in this complex subject. He learned the new math quickly. Impressive.

A series of tragedies then befell the Ampere family. Andre's sister died from an illness in 1792. Later, his father lost his head to the executioner's guillotine. Understandably, the young intellectual's world was shattered by these events, and he went into a deep funk for the better part of 18 months. It took the love of a woman to snap him out of his destructive reverie. The girl's name was Julie. The couple wed in 1797 and had a child. Unfortunately, Julie died in 1803. Ampere remarried in 1806, and had another child, Albine. But fate was not kind to Andre, as he and Jenny were legally separated at the time of Albine's birth. He subsequently gained legal custody of the child. His children, however, did not bring much joy to the scientist, and he was quite distressed by their behavior in later years. Andre was a singularly unhappy man.

Despite this personal baggage, Ampere made steady progress in his career, progressing steadily from a humble position as a mathematics professor to a recognized scholar. He was elected to the *Institut National des Sciences* in 1814 for a paper on partial differential equations. Of course, Ampere's claim to immortality was assured with the 1826 publication of the paper “*Memoir on the Mathematical Theory of Electrodynamic Phenomena, Uniquely Deduced from Experience*”, which described the properties of electric current, its relationship to magnetism, and how these properties could be demonstrated by a series of experiments. He also established experimental verification of Avogadro's Number, an important constant in the field of chemistry. For Maria's discoveries, the unit of electrical current, the ***Ampere***, designated by the letter **A**, was named in honor of him.

Philip Neidlinger, PE

KA4KOE

*** TWO SURPRISES IN THE SKY, GEOMAGNETIC STORM ***

..AND A CHINESE ROCKET PLUME: During the storm, auroras appeared over more than a dozen US states as far south as New Mexico. There was also something more. A white plume bisected the sky, puzzling observers who at first thought it might be a strange form of STEVE. Mike Lewinski photographed the display from Crestone, Colorado:



"The aurora was rippling low on the northern horizon when suddenly a bright streak of light, reminiscent of a rocket re-entry, appeared high in the sky and flowed down to the horizon," Lewinski says.

This plume was not an aurora, and it was not STEVE. We believe it is related to a rocket launch in China. About an hour before the plume appeared (5:39 UTC), Chinese launch startup Landspace launched the ZhuQue-2E rocket from the Jiuquan Satellite Launch Center (4:12 UTC). It carried 6 satellites to orbit including a synthetic aperture radar and multiple space science spacecraft. The white streak may have been a de-orbit burn, or perhaps a circularization burn for the deploying satellites.

ZhuQue-2E is a new type of rocket powered by liquid oxygen and liquid methane. This "methalox" technology was developed by Landspace, and their ZhuQue-2 series of methane rockets are the first to reach orbit ahead of other companies like Elon Musk's SpaceX. Methalox offers several advantages over traditional rocket fuels like kerosene and hydrogen. Methane is more easily stored, burns cleaner, and can be produced on Mars

*** MPJA HAS CLOSED THEIR DOORS***

Marlin P. Jones & Associates, also known as MPJA closed their doors on May 23rd. All remaining stock has been sold to Skycraft Surplus. Interestingly on their website www.mpja.com, they have a listing of their stock and the overseas supplier so that you can order it directly. The catch? \$50 minimum per line item and a minimum of a two line order. Not sure what I would do with \$100 worth of electronic stuff. Or you can go over to Skycraft Surplus to see if your favorite little device is there. www.skycraftsurplus.com

*** LICENSE FREE 2 WAY RADIO PROJECT SUMMARY ***

QRZ.COM has a NEWS article about the Global Project License Free 2 Way Radio. I think you will agree it is interesting reading.

概要： 加賀谷康雄氏（JP1MFV / KashiwaFX886）が開始した#LicenseFree2wayRadio シリーズは、160 カ国以上の免許不要無線通信規制を記録しています。これは、ソーシャルメディア（主に X/Twitter）を通じて公式規制データを収集、分析、共有する、OSINT ベースの公益プロジェクトです。

主な特徴：

- 官報、周波数計画、電気通信法から得た正確なデータ
- 一貫したタグを使用して共有: #LicenseFree2wayRadio と国タグ (例: #Taiwan、#France)
- X (Twitter) 経由で検索可能なデータベースとして整理

投稿にアクセスする方法：

1. <https://twitter.com> をご覧ください
2. 検索バーに「#LicenseFree2wayRadio from:KagayaYasuo」と入力します。
3. 特定の国を検索するには、国タグを追加します (例: 台湾): #LicenseFree2wayRadio 台湾 from:KagayaYasuo

価値と影響：

- 一貫したフォーマットで世界中に広くカバー
- 透明性とアクセスを重視
- 世界中の愛好家、教育者、研究者によって使用されています
- 世界規模のゼロコスト知識共有イニシアチブ

理想的な用途：

- アマチュア無線家、CB/PMR446/FRS/GMRS ユーザー
- コミュニケーション規制研究者
- 文化と技術の比較研究

正確性と連携に関するご注意： #LicenseFree2wayRadio のコンテンツに関して、誤り、古い情報、解釈の相違などご指摘がありましたら、各国の周波数割当表や技術基準文書などの一次資料へのリンクまたは引用をご提供ください。お問い合わせ

わせ先 : JP1MFV@gmail.com

本シリーズでは、検証可能な公式情報に基づく訂正のみを行っております。ご理解とご協力を賜りますようお願い申し上げます。

Maybe Bill can read this, but here it is for the rest of us...

Overview: The #LicenseFree2wayRadio series, started by Yasuo Kagaya (JP1MFV / KashiwaFX886), documents license-free radio communication regulations in over 160 countries. It is an OSINT-based public interest project that collects, analyzes, and shares official regulatory data through social media (mainly X/Twitter).

Main Features:

- Accurate data from the Official Gazette, Frequency Plans, and Telecommunications Act
- Shared using consistent tags: #LicenseFree2wayRadio and country tags (e.g. #Taiwan, #France)
- Organized as a searchable database via X (Twitter)

How to access the posts:

1. Visit <https://twitter.com>
2. Type "#LicenseFree2wayRadio from:KagayaYasuo" in the search bar.
3. To search for a specific country, add a country tag (e.g. Taiwan): #LicenseFree2wayRadio Taiwan from:KagayaYasuo

Value and impact:

- Wide global coverage with a consistent format
- Emphasis on transparency and access
- Used by hobbyists, educators, and researchers worldwide
- Global zero-cost knowledge sharing initiative

Ideal for:

- Amateur radio operators, CB/PMR446/FRS/GMRS users
- Communications regulation researchers

- Comparative studies of cultures and technologies

Note on accuracy and alignment: If you have any concerns about the content of #LicenseFree2wayRadio, such as errors, outdated information, or differences in interpretation, please provide a link or citation to the primary source, such as a frequency allocation table or technical standards document for each country. Contact: JP1MFV@gmail.com

This series only makes corrections based on verifiable official information. We appreciate your understanding and cooperation.

MICROSOFT FOUND PASSWORD STEALING MALWARE ON 394k PCs

PC MAG by Jibin Joseph

The malware often hides behind fake CAPTCHAs and has been used to commit financial fraud. Microsoft took down 2,300 domains that ran it and updated Defender to identify it. Microsoft has taken down approximately 2,300 domains used to distribute password-stealing Lumma malware to 394,000 Windows PCs.

Cybercriminals have used Lumma to hack passwords, credit cards, bank accounts, and cryptocurrency wallets. They often hide the malware behind fake CAPTCHA tests on dummy websites. For example, in March, Microsoft found Lumma on a parody Booking.com website, and the hackers' goal was to steal login credentials and conduct financial fraud.

Other ways to install Lumma include phishing, malvertising, and Trojan apps. In phishing attacks, you might receive an urgent email asking you to confirm a booking. Malvertising involves fake ads that appear in search results for keywords like "Notepad++ download" or "Chrome update." And if you download a cracked or pirated app, the malware can be silently installed after you launch it.

Lumma was created by a Russian developer and sold via Telegram and other chat forums. Cybercriminals who purchase the malware can customize it before deploying it. Microsoft has identified at least six versions of Lumma Stealer.

Between March 16 and May 16, Microsoft found the malware on around 394,000 Windows PCs. Subsequently, with the help of the Justice Department and other industry partners, Microsoft took down 2,300 domains that facilitated its spread.

REVIEW: HOT SHOWERS TO GO

The Verge Tech Review by Thomas Ricker

Hot water is like internet connectivity for most *Verge* readers: you just expect it to be there. But that's unlikely to be the case this summer when tent camping at a music festival or road-tripping into the great unknown. That's where BougeRV's battery-powered shower comes in.

The \$310 “Portable Propane Outdoor Camping Water Heater” from BougeRV is not only optimized for search engine discovery, it also delivers a luxurious spray of hot steaming water to the unwashed, be they human, canine, or stubborn pots and pans. Charge up the battery, attach a propane canister, drop the pump into a jug of water, and you're ready to get sudsing.

It's so useful and flexible that I've ditched my plans to install a permanent shower cabin and expensive hot water system inside my adventure van, even if I don't completely trust it.

My current portable shower consists of an 11-liter water bag, a manual foot pump, and a spray nozzle. To make it hot, I have to heat water on the stove or hang the bag in the sun for several hours, yet it still costs over \$150. For \$310, the BougeRV heated shower seems like a bargain.

The BougeRV system can produce a maximum heat output of 20,500 BTUs — about half of a typical residential gas water heater. It measures 15.75 x 6.7 x 14.57 inches (40 x 17 x 31cm) and weighs 13.2 pounds (6.21kg), making it compact and fairly lightweight with two big handles for easy carry. The hoses and cabling make it a little unwieldy — capable of chaos inside a small space unless handled with care.

Assembly starts with screwing in an easy to find one pound (454g) propane canister that attaches at the rear of the unit. That's the size BougeRV recommends, but you wouldn't be the first to instead run a hose from your RV's existing propane tank to the pressure regulator on the water heater. Two quick-connect water hoses — labeled blue and red for idiot-proof attachment — route the water from your chosen receptacle, through that gas furnace, and out through the showerhead. The long 2.5m (8.2 feet) shower hose allows for flexible placement of the heater.

The small water pump measures just 2.24 inches (5.7cm) across, so it easily fits through the opening of standard jerry cans. The pump is electrically powered by the BougeRV unit, which is powered by its rechargeable battery, an AC wall jack, or 12V adapter that plugs into the cigarette jack of your vehicle or solar generator.

For the whole review go to: <https://www.theverge.com/reviews/673318/bougerv-water-heater-review-shower-portable>

BRAIN CHIPS COMING

Valve co-founder and CEO Gabe Newell, the company behind *Half-Life* and *DOTA 2* and *Counter-Strike* and preeminent PC game distribution platform Steam, has long toyed with the idea that your brain should be more connected to your PC. It began over a decade ago with in-house psychologists studying people's biological responses to video games; Valve once considered earlobe monitors for its first VR headset. The company publicly explored the idea of brain-computer interfaces for gaming at GDC in 2019.

But Newell decided to spin off the idea. That same year, he quietly incorporated a new brain-computer interface startup, Starfish Neuroscience — which has now revealed plans to produce its very first brain chip later this year.

Starfish's first blog post, spotted by Valve watcher Brad Lynch, makes it clear we're not talking about a complete implant yet. This bit is the custom "electrophysiology" chip designed to record brain activity (like how Neuralink can "read your mind" so patients can interact with computers) and stimulate the brain (for disease therapy), but Starfish isn't claiming it's already built the systems to power it or the bits to stick it into a person's head.

"We anticipate our first chips arriving in late 2025 and **we are interested in finding collaborators for whom such a chip would open new and exciting avenues**," writes Starfish neuroengineer Nate Cermak (bolding theirs), suggesting that Starfish might wind up partnering with other companies for wireless power or even the final brain implant.

But the goal, writes Starfish, is a smaller and less invasive implant than the competition, one that can "enable simultaneous access to multiple brain regions" instead of just one site, and one that doesn't require a battery. Using just 1.1 milliwatts during "normal recording," Starfish says it can work with wireless power transmission instead.

Here's the chip's current spec sheet:

- Low power: 1.1 mW total power consumption during normal recording
- Physically small: 2 x 4mm (0.3mm pitch BGA)
- Capable of both recording (spikes and LFP) & stimulation (biphasic pulses)
- 32 electrode sites, 16 simultaneous recording channels at 18.75kHz
- 1 current source for stimulating on arbitrary pairs of electrodes
- Onboard impedance monitoring and stim voltage transient measurement

- Digital onboard data processing and spike detection allows the device to operate via low-bandwidth wireless interfaces.
- Fabricated in TSMC 55nm process

Neuralink's N1, for comparison, has 1,024 electrodes across its 64 brain-implanted threads, a chip that consumed around 6 milliwatts as of 2019, a battery that periodically needs wireless charging, and the full implant (again, not just the chip) is around 23mm wide and 8mm thick. The Elon Musk-led company has reportedly already implanted it in three humans; while some of the threads did detach from the first patient's brain, he still has functionality and [has been giving interviews](#).

Starfish says it could be important to connect to multiple parts of the brain simultaneously, instead of just one region, to address issues like Parkinson's disease. "there is increasing evidence that a number of neurological disorders involve circuit-level dysfunction, in which the interactions between brain regions may be misregulated," Cermak writes.

Editor: I am waiting for the dual band radio chip.

FOREVER CHEMICALS FOUND IN POPULAR BEERS

Sciencealert by Jess Cockerill

Humans love beer: worldwide, we can go through more than [187.9 million kiloliters](#) (49.6 billion gallons) of it in just one year.

But new research adds this beloved beverage to the [long list](#) of products [found to contain](#) PFAS (polyfluoroalkyl substances), aka 'forever chemicals'.

PFAS earned that nickname because they don't readily break down in the environment. It's estimated that there are [around 12,000 different types](#) of forever chemical, and while health effects are mostly unknown, two in particular – PFOA ([perfluorooctanoic acid](#)) and PFOS ([perfluorooctanesulfonic acid](#)) – are linked to [adverse health outcomes](#), including [increased risks of cancer](#) and [birth defects](#).

A team of scientists from the US nonprofit [Research Triangle Institute](#) used [methods employed by the Environmental Protection Agency](#) to suss out how PFAS gets into beer, and at what levels.

"As an occasional beer drinker myself, I wondered whether PFAS in water supplies was making its way into our pints," [says](#) toxicologist Jennifer Hoponick Redmon.

It turns out, quite a lot. The team measured PFAS at levels above the [maximum limit](#) set by the EPA, [which some argue](#) is still not set high enough to protect people from these chemicals.

While breweries do usually have their own water filtration and treatment systems, these are not necessarily designed to remove PFAS. Up to seven liters of water can be used to make just one liter of beer, and whatever PFAS contaminants are in that water will probably still be there when you crack open your cold one.

Editor: For the complete article go to: <https://www.sciencealert.com/forever-chemicals-found-in-popular-us-beers-above-epa-limits>

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 Bandon
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 440.1 +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
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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

HAMFESTS

2025

- 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/>
- November 8** **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 12 & 13** **Plant City, the 2025 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 ;-)

2026

- January 17** **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/> Date not confirmed .

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|-----------------------------|--|
| Fourth full weekend January | Winter Field Day https://www.winterfieldday.com/ |
| Late January | Gasparilla celebration |
| Late February | West Central Florida Tech Conference |
- <http://arrlwc.org/wcf-special-events/wcftechconference/>

March/April	MS Walks
April	MS150 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.arrl.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/

North American QSO Party

Mode	Contest Weekend
CW	2nd full weekend January 1 st full weekend August
SSB	3 rd full weekend January 3 rd full weekend August
RTTY	last Saturday February 3rd full weekend July



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](mailto:ag4qx@arrl.net)