



News from

## The GLORIOUS SOCIETY OF THE WORMHOLE

November 2023

### Hello Worms

Last month I told you about NASA putting out bids for the de-orbit of the International Space Station. I suggested some of us could get together and submit a bid but no one stepped forward. I guess The Wormhole won't be going into space.

My six weekends volunteering at the haunted American Victory Ship has ended. Put a lot of people through and most had fun. A few got to the gangway and decided they really did not want to go in. A few ran back out the entrance after not being inside very long. They all were moving too fast for me to determine why they were leaving so soon. Had a few "cleanups in hold 4" too.

NOAA, the National Weather Service of the National Oceanic and Atmospheric Administration has issued a change in their prediction that Solar Cycle 25 would be weak and slow to develop. The revised forecast, published October 25, shows Solar Max coming sometime between January and October 2024. The International Sunspot Number and Solar Flux Units since Cycle 25 started is consistently above the original forecast. To see the graphs and what I just said in many more words goto: <https://testbed.swpc.noaa.gov/products/solar-cycle-progression-updated-prediction-experimental> .

For the last four or five meetings no one has been on the repeater to hear about the meeting so I will discontinue asking. The radio will be on for information about and directions to the meeting but that will discontinue when the meeting starts.

In the meeting we will have donuts, water and soft drinks (probably only root beer). Bring your coffee 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.

**\*UPDATING THE AMATEUR CODE\***

by Dan Romanchik, KB6NU

There have been several versions of the Amateur's Code since it was written by Paul M. Segal, W9EEA, in 1928. Here's the version that currently appears in *Ethics and Operating Procedures for the Radio Amateur, Edition 3, June 2009*:

The Radio Amateur is

**CONSIDERATE...** He never knowingly operates in such a way as to lessen the pleasure of others.

**LOYAL...** He offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/[her] country, through which Amateur Radio in his country is represented nationally and internationally.

**PROGRESSIVE...** He keeps his station up to date. It is well-built and efficient. His operating practice is above reproach.

**FRIENDLY...** He operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

**BALANCED...** Radio is a hobby, never interfering with duties owed to family, job, school or community.

**PATRIOTIC...** His/[Her] station and skills are always ready for service to country and community.

Well, now the IARU is updating *Ethics and Operating Procedures for the Radio Amateur*, and I'm part of the group that's working on the update. One of our tasks is to make the text more gender-neutral. The ARRL has a somewhat gender-neutral version of the Code, but really all they did was to replace "he" with "he/she."

That being the case, I've taken it upon myself to create not only a gender-neutral version of the Code, but to also clarify some of the language. Here's what I've come up with so far:

The Radio Amateur is

**CONSIDERATE...** The radio amateur never knowingly operates in such a way as to lessen the pleasure of others.

**LOYAL...** The radio amateur is loyal to and supportive of other amateurs, local clubs, and the IARU Radio Society in their country.

**PROGRESSIVE...** The radio amateur's station up to date, well-built, and efficient. Their operating practice is above reproach.

**FRIENDLY...** The radio amateur operates slowly and patiently when requested and offers friendly advice and counsel to beginners. They are also cooperative and considerate of the interests of others.

**BALANCED...** Radio amateurs realize that radio is a hobby and never allow it to interfere with their duties owed to family, job, school, or community.

**PATRIOTIC...** The radio amateur's station and skills are always ready for service to country and community.

Not only do I think that my version is clearer, I think that it is more parallel than the previous version.

I posted this to my blog and got some great feedback from my followers on LinkedIn and Mastodon. For example, Jesse, WB2IFS, pointed me to his version of the Code, which he published on his blog in September 2022. I particular like his rendition of "progressive:"

**PROGRESSIVE...**An Amateur is curious. An Amateur is enthusiastically and continuously learning new techniques, technologies, countries, and cultures with the understanding that everyone is an Amateur.

I got quite a few comments on Mastodon. Several folks wanted me to reconsider the use of the term "patriotic." Christopher, M0YNG, said, "I'm not a massive fan of "patriotic" and wonder if it could be more "humanity focused" rather than country[-focused]? Not sure on the words though." Javid, KE8DET, opined, "Patriotic is often conflated with, and co-opted by nationalism, which contains an inherent aspect of 'my country first.' This sits in opposition to amateur radio being a means to foster international good will."

Andreas, DJ3EI, had a number of comments, but this one I found to be the most appealing. He says, "The old Code requires 'operating practice ... [to be] above reproach.' I highly recommend [a change] to 'always be eager to try something new.' You'll enjoy! I certainly do! Learning+studying is one of the official goals of our hobby! Thus, we may become beginners on a regular basis, bound to make beginner's mistakes. An 'above reproach' angst only hinders."

Sam, N9MII, says, "Perhaps focus on safe and well-considered operation? As in something that doesn't spike all over the band and whatnot." I think that safety is something the Code is surely missing.

Onno, VK6FLAB, also weighed in. In his version of the Code, he changes the word "patriotic" to "supportive." He writes, "The Radio Amateur is SUPPORTIVE...knowledge, station and skills always ready for service to country and community." I'm not sure that's quite the right word, either, but the idea is that the radio amateur is ready to pitch in when needed.

As you can see, there's still some work to be done here. If you have any comments on this, please feel free to email me directly or to add a comment on my blog.

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (<https://KB6NU.Com/study-guides/>), and often appears on the ICQPodcast (<https://icqpodcast.com>). When he's not writing about amateur radio, he tinkers with electronics projects and operates POTA and works CW on the HF bands.

## **\*CISCO ZERO DAY BUG ALLOWS ROUTER HIJACKING\***

*The Register* by Jessica Lyons Hardcastle

Mon 16 Oct 2023 // 23:00 UTC

Cisco zero-day bug allows router hijacking and is being actively exploited. We'd say 'Hurry up and patch' but it hasn't written one yet. While you wait, disable HTTP.

Cisco users' weeks have started badly with a warning that a critical zero-day bug in the networking giant's IOS XE software that allows criminals to hijack devices has been exploited in the wild.

The vulnerability, [CVE-2023-20198](#), received a (im)perfect 10 CVSS severity rating from the networking giant, and Cisco is yet to release a patch.

"Cisco is aware of active exploitation of a previously unknown vulnerability in the web UI feature of Cisco IOS XE Software when exposed to the internet or to untrusted networks," the networking giant said in a Monday [security advisory](#).

"This vulnerability allows a remote, unauthenticated attacker to create an account on an affected system with privilege level 15 access," Cisco added. "The attacker can then use that account to gain control of the affected system."

Cisco says the flaw affects physical and virtual devices running its IOS XE software, with the HTTP or HTTPS Server feature turned on. The networking giant hasn't published a full list of devices that are at risk.

This means "any switch, router or WLC running IOS XE and has the web UI exposed to the internet is vulnerable," Qualys Threat Research Mayuresh Dani told *The Register*.

According to Dani, based on Shodan searches, around 40,000 devices have web UI exposed to the internet, and "a majority of those are listening on port 80."

Because there's no patch or workaround, Cisco "strongly recommends" that customers disable this feature on all internet-facing systems. This also echoes [guidance](#) from the USA's Cybersecurity and Infrastructure Security Agency on how to mitigate risk from internet-exposed management interfaces.

"To disable the HTTP Server feature, use the no ip http server or no ip http secure-server command in global configuration mode," Cisco's advisory recommends. "If both the HTTP server and HTTPS server are in use, both commands are required to disable the HTTP Server feature."

A Cisco spokesperson declined to comment on how many customers had been compromised or indicate the source of attacks.

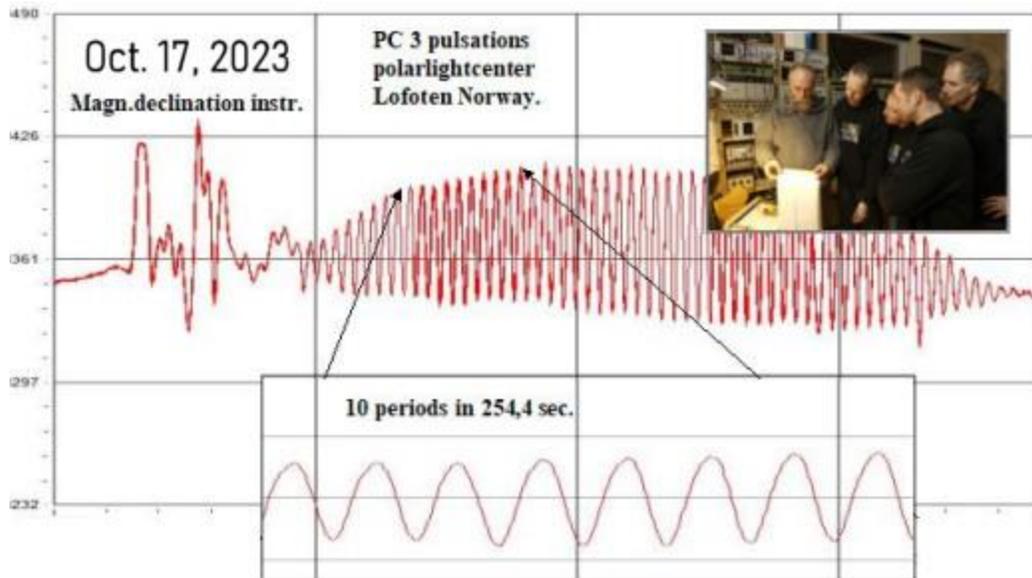
"We are working non-stop to provide a software fix and we strongly urge customers to take immediate action as outlined in the security advisory," the spokesperson told *The Register*. "Cisco will provide an update on the status of our investigation through the security advisory."

## **\* A PURE SIGN WAVE IN THE MAGNETOSPHERE \***

spaceweather.com 10/19/2023

In a quiet room, you can hear a pin drop. Norwegian citizen scientist Rob Stammes just heard a pin drop on Earth's magnetic field.

"It was very quiet when it happened," says Stammes, who runs [a space weather observatory](#) in Lofoten, Norway. On Oct. 17th, his magnetometer was monitoring Earth's magnetic field as it does every night, and the instrument's needle had settled itself into a straight line, indicating very low geomagnetic activity. Suddenly, Earth's magnetic field began to ring.



"A very stable ~25 second magnetic oscillation appeared in my recordings, and lasted for more than 20 minutes," he says. "It was fantastic to see the magnetic field swing back and forth by about 0.1 degrees, peak to peak."

This kind of pure tone is rare, but it has happened before. Researchers call it a "pulsation continuous" -- or "Pc" for short. Pc waves are classified into [5 types](#) depending on their period. The waves Stammes caught fall into category Pc3.

The "pin dropping" was a gentle gust of solar wind. Imagine blowing across a piece of paper, making it flutter with your breath. The solar wind can have a similar effect Earth's magnetic field. Pc3 waves are essentially flutters propagating down the flanks of our planet's magnetosphere excited by the breath of the sun.

Stammes is a longtime observer of Pc waves. Usually he catches them during Solar Minimum when "the room is quiet" for months at a time. "Recording one now so close to Solar Max is unexpected," he says. "Lately, my magnetometer traces have been too noisy for such delicate waves--so it came a surprise!"

Pc3 waves, which can only be heard in moments of quiet, can also bring the quiet to an end. The oscillations sometimes flow all the way around Earth's magnetic field and cause a "[tearing instability](#)" in our planet's magnetic tail. This, in turn, sets the stage for [magnetic reconnection](#) and geomagnetic storms.

That didn't happen on Oct. 17th, though. The pin dropped, the magnetosphere rang, and quiet resumed. Stammes is already listening for more. Stay tuned!

## **\* STUDY ON INTERNET USE: 40% ADDICTED \***

University of Surrey, Oct 2, 2023

Young people (24 years and younger) spend an average of six hours a day online, primarily using their smartphones, according to research from the University of Surrey. Older people (those 24 years and older) spend 4.6 hours online.

Surrey's study, which involved 796 participants, introduces a new internet addiction spectrum, categorizing internet users into five groups:

- **Casual Users (14.86%):** This group mainly goes online for specific tasks and logs off without lingering. They show no signs of addiction and are generally older, with an average age of 33.4 years. They are the least interested in exploring new apps.
- **Initial Users (22.86%):** These individuals often find themselves online longer than they initially planned and are somewhat neglectful of household chores but don't consider themselves addicted. They are moderately interested in apps and have an average age of 26.1 years.
- **Experimenters (21.98%):** This group feels uneasy or anxious when not connected to the internet. Once they go online, they feel better. Experimenters are more willing to try out new apps and technology, and their average age is between 22.8 and 24.3 years.
- **Addicts-in-Denial (17.96%):** These users display addictive behaviors like forming new relationships online and neglecting real-world responsibilities to be online. However, they won't admit to feeling uneasy when they're not connected. They are also quite confident in using mobile technology.
- **Addicts (22.36%):** This group openly acknowledges their internet addiction and recognizes its negative impact on their lives. They are the most confident in using new apps and technology. Their time online is significantly greater than that of the Casual Users.

Dr Brigitte Stangl, the lead author of the study at the University of Surrey, said:

"Our main aim was to clarify the difference between using the internet in a problematic way and being addicted to it. We found that the younger you are, the more likely you are to be addicted to the internet, and this tendency decreases with age.

"We also wanted to explore how the severity of internet addiction affects users' experience with new, high-tech applications like augmented reality."

The researchers found no link between gender and online behavior. Additionally, higher levels of addiction correlated with more confidence in using mobile technology, particularly a greater willingness to try out new apps.

The study also discovered that emotional experiences (the emotions felt while using an app) strongly predicted future behavior for all groups when interacting with augmented reality. In contrast, action experiences (navigating a website or playing a game) were mostly irrelevant for addicts.

Dr Stangl concluded:

"Our study underscores the need for tailored interventions and support for individuals at various stages of internet addiction. The findings will certainly influence the design and development of digital services and AR applications, ensuring they cater to the diverse needs of users in the current digital environment."

The study has been published in the [Journal of Travel & Tourism Marketing](#).

## **\* BRITISH SAY AIRCRAFT COULD FLY ON TRASH\***

*The Register* by [Brandon Vigliarolo](#)

Sustainable aviation fuels (SAFs) made from sources other than fossil fuels have the potential to reduce emissions by up to 80 percent, UK researchers have found.

Boffins from the National Centre for Atmospheric Science (NCAS) and the University of Manchester testing various blends of traditional jet fuel and SAF said preliminary data shows that airline travel might not such a guilty trip over pollution due to more efficient engine controls.

According to their research, emissions of ultrafine black carbon at low thrust were 45 percent less in number and 80 percent less in mass for every kilogram of blended SAF. It get better at higher-altitude flight, said Dr Paul Williams, an NCAS researcher based at the University of Manchester.

"While an aircraft is cruising there would be less non-volatile particulate matter produced, which in turn impacts contrail formation," Williams said. "This could have the potential to reduce the climate warming effects of aviation globally."

SAFs are primarily made from corn and other crops, but waste resources have also been converted into synthetic jet fuel. The US Department of Energy (DoE) lists wood mill waste, agricultural residues, fats and greases, municipal solid waste, and other less-than-appealing sources as possible base materials for SAF.

Crucially, SAFs can replace traditional jet fuel, meaning existing aircraft can use it without the need to rework their existing hardware.

Williams said the findings also point to improved air quality near airports, where much of the ultrafine black carbon from commercial jets settles as they idle at low thrust before takeoff. Williams told *The Register* that SAF/petroleum blends with lower aromatic content produce less soot, and those with lower sulfur content produce less volatile particles, which he said is consistent with other research into SAFs.

Aviation regulators in the US have committed to building a net-zero aviation system by 2050, which the US said will require a sharp uptick in SAF production. According to the DoE, while the US has enough resources to meet its goal of phasing out fossil fuels from the aviation industry by 2050, the UK might not have the same advantage.

A report from the Royal Society released earlier this year concluded that the UK would need to devote half of its existing farmland to SAF production, or more than double its renewable electricity supply, to meet net zero aviation goals.

"Producing enough SAF will be a challenge," Williams told us. He noted that there are several technologies in the pipeline that could help the aviation industry become sustainable, like hydrogen-fueled and electric aircraft, but those technologies are still in their early days of development.

"There are a lot of hurdles here, not just with generation and supply but the associated infrastructure," Williams said in an email. "I don't think there is the data yet to say whether aviation is on track or not."

Rolls-Royce and Easyjet tested the [world's first hydrogen aviation engine](#) late last year, but the test was stationary and no timetable for getting the engine flying has been established. Airbus has since joined the project, with plans to get a hydrogen-powered jet in service by 2035 it's hoped.

As for hybrid and electric aircraft, those are being [developed](#) as well, but delays abound, among them concerns that battery technology simply isn't efficient enough to make the weight trade-off worth it. Batteries are just too heavy to give electric airplanes enough range at the moment and

can be a serious fire risk if not properly managed, as Boeing found out when its entire fleet of 787 aircraft was briefly grounded after two aircraft had the worst kind of smoking on board. ®

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### **\*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 113<sup>th</sup> St N and about 92<sup>nd</sup> 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. 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.

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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

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### **\*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.

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### **\*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 <sup>RD</sup> 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 <a href="https://winlinkwednesday.net/reminder.html">https://winlinkwednesday.net/reminder.html</a>	

### **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 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

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**\*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,**

George W1AAG has the following:

- \*ASTRON 50 AMP MODEL VS-50 ( AMP & VOLT METERS) \$ 200.00
- \*HEIL PRO-SET PLUS HEADSET + (DUAL ELEMENT'S ) \$100.00

See Bill AG4QX for the following: most from SK estate, make me an offer.

- \*Heathkit HD-1215 Phone patch \$15 looks ok
- \*Drake WV-5 wattmeter \$90 looks ok
- \*Heath Cantenna dummy load, 1 gal oil load, oil a little low, \$50

Dean W8IM wants to make room in his closet.

352-255-1431 or w8im @arrl.net or the Wormhole and SPARC nets

- \*Meade 2080AT -LNT refracting telescope, little used original owner, original box, tripod, manual, some extra lenses, complete. \$100.00.

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**\*HAMFESTS\***

## 2023

- October 21** Bradenton, MARCIFest 2023, 2113 Morgan Johnson Road, talkin 146.820 – 100.0, for more info goto <https://www.manatee-arc.org/> contact Michael Ryan K4CVL at 941-376-6453
- November 11** Pinellas Park, **SPARCFest**, admission FREE, tailgate free, Freedom Lake Park, 9990 46th St N, Southeast corner of US 19 and 49<sup>th</sup> Street, Talk-in on 147.060+ no tone. VE testing at 0900. For more information go to <http://www.sparc-club.org/sparcfest.html>
- December 8 & 9** **Plant City, the 2023 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, at the Strawberry Festival grounds, admission \$10, 16x40ft tailgate space \$10, electric \$10, for information contact Bill Williams AG4QX, [chairman@fgcarc.org](mailto:chairman@fgcarc.org) or go to <http://www.tampabayhamfest.org> or you can just ask me, Jim or Dee at a meeting ;-)

## 2024

- January 13** **TARCFest** TARC Clubhouse, 22<sup>nd</sup> 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 9-11** **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](http://www.hamcation.com) or call 407-841-0874. There is also an AM low power Information Station on AM 610.
- May 25** **WormFest 2024**, Pinellas Park, admission FREE, tailgate free, Freedom Lake Park, 9990 46th St N, southeast corner of US 19 and 49<sup>th</sup> 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> .



Last full weekend January	Winter Field Day <a href="https://www.winterfieldday.com/">https://www.winterfieldday.com/</a>
Late January	Gasparilla celebration
Late February	West Central Florida Tech Conference <a href="http://arrlwcf.org/wcf-special-events/wcftechconference/">http://arrlwcf.org/wcf-special-events/wcftechconference/</a>
March/April	MS Walks
April	MS bike now named Suncoast Challenge <a href="http://www.citrustour.org/register.php">http://www.citrustour.org/register.php</a>
March/April	Mass Casualty Exercises
Late April	Southeastern VHF Society Conference, <a href="http://www.svhfs.org">http://www.svhfs.org</a>
Late April	Florida QSO Party
Mid May	March For Babies (was March of Dimes) <a href="https://www.marchforbabies.org/Registration/Events">https://www.marchforbabies.org/Registration/Events</a>
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 <a href="http://www.arrl.org/contests/announcements/fd/">http://www.arrl.org/contests/announcements/fd/</a>
Third weekend in August	International Lighthouse/Lightship Week <a href="https://illw.net/">https://illw.net/</a>
September	Run for All Children's
October, 3 <sup>rd</sup> weekend	JOTA, Scout Jamboree-on-the-AIR (around 14.280MHz)
Early December	ALS bike ride in Walsingham Park
December, Second weekend	Tampa Bay Hamfest <a href="http://www.fgcarc.org/">http://www.fgcarc.org/</a>

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### **\*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 AT arrl DOT net)