

## News from



## The GLORIOUS SOCIETY OF THE WORMHOLE

January 2019

### Hello Worms

Hi Worms,

I trust all the Worms had a wonderful holiday season. I normally frown at the politically correctness of today but from Thanksgiving to January 5 there are a bunch of special and/or holiday days. The guy on TV said 17 both religious and social. Lots of celebrating going on regardless of your persuasion. Having said all that HAPPY NEW YEAR!

Talk-in is on the Wormhole repeater system. For those coming to the meeting who cannot hit the repeater we will also monitor the Honeywell club repeater on 443.050 +141.3. Bring a folding chair for the meeting if you have one.

The first article this month is actually a newsletter from John Bee of Quicksilver Radio Products with his permission. I think he covers a lot of good stuff this month that I want to share. I don't think John's newsletter is published on a regular schedule or maybe it is and I just lose track of time. In any case it includes Special Pricing and Closeouts, New Products, Ham Radio News and Views, Technical Tips, and More. You can sign up for it on the website, top middle of main page. I recommend it.

**\*QUICKSILVER NEWSLETTER\***

Quicksilver Radio Products, December, 2018

I just want to take a minute to wish you and yours the very best for the Holiday Season. May it be filled with the joy and warmth that family and friends bring. I have many wonderful memories of my own childhood Christmastimes; many more of them when my children were young; and now we're making new ones as they have grown into adulthood. Seeing one's children mature into happy and productive people is truly one of the best gifts we can receive. Many of my customers are already Grandparents, and I'm sure that is another source of happiness, especially at this time of year.

2018 will mark the 16th straight year of growth for Quicksilver Radio. Without such great customers, this would never have been possible. It's always gratifying to hear either in person at a Hamfest, or by e-mail, that you enjoy my newsletters and find useful information on my Web Site. I truly appreciate your support, and your business. Having a job that I enjoy in a field that I love is something I'm thankful for every day.

As 2018 slides into 2019, it's natural to think about plans for the coming year. And I'd like to ask a favor of you -- please put Ham Radio on your list of New Year's Resolutions. Here are some ideas to consider:

1. If, by chance, you are not yet a licensed Ham Radio Operator, get your license this year. If you have not yet passed your General or Extra test, do it this year. Having trouble studying or passing? I have some tips on my Web Site that I think will be helpful. [Click here to see them](#)
2. Try something. A good friend of mine likes to say that there are 30 different kinds of Ham Radio, and there's something there for everyone. FM repeaters and HF SSB just scratch the surface. You already have a computer. New digital and sound card modes seem to appear weekly. A short while ago, no one had heard of FT-8. It's now, by many accounts, the most popular HF Digital mode. D-Star, DMR, Fusion, and other digital voice modes are growing by leaps and bounds. Have you tried 6 Meters yet? The Magic Band can yield some surprising contacts. How low can you go? There's some interesting action on our newest bands at 630 and 2200 Meters. At (literally) the other end of the spectrum, we have Ham Bands well into the GHz region. Microwaves are useful for more than making popcorn! Or maybe try some SSB or CW on 2 Meters or 70 Centimeters? Every Ham has full privileges on all of the bands above 30 MHz. Antennas for VHF and UHF are small and easy to

construct from hardware store parts. It doesn't have to be pretty -- an ugly antenna will radiate just as well. Use your imagination and try something different!

3. Do something. Set an achievable Ham Radio goal for the year -- and then work at it! Earn DXCC or WAS, maybe on a single band? Better your contest score by 10%? Get your CW speed up to 20 WPM? Reorganize and rewire the shack? Order a copy of the ARRL Handbook or Antenna Book, and start increasing your technical knowledge? Convert your paper logs to electronic format and start using Logbook of the World? One of my father's favorite sayings was "Whether you think you can or you think you can't, you're probably right." Just do it!!

4. Build something. Too many years ago, as I newly licensed Ham I got very involved in Packet Radio. With a double throw switch and some mic connectors, I built a box to allow either voice or data use by just flipping the switch. OK, not exactly cutting edge, but it worked and led me to build plenty of other handy gadgets over the years. Simple projects can also be a great way to teach new hams the basics of soldering and kit-building. String up that antenna you've been thinking about forever and see how it plays. Download a free antenna modeling program and learn how to use it to design and build your own BandBlaster. Order a kit and assemble it. Melt some solder and have fun! Once you start you'll be hooked.

5. Learn something. Microcontrollers like the Arduino, Raspberry Pi, and PICaxe are quite inexpensive. With a few LEDs and pushbuttons you can learn simple programming to get started. There are plenty of useful Ham Radio projects that you can find online. And if you have an idea for your own gadget, you'll have a lot of fun learning how to roll your own computer code.

6. Teach something. You know how to do things others don't, but would like to learn. Are you already familiar with programming microcontrollers? How about a club project to teach the basics to other members? Or a demonstration on using Anderson Powerpoles? Or properly installing coax connectors?

7. Become a "HAMbassador". Get just one person (or two, or three) interested in Amateur Radio. Offer to demonstrate Ham Radio at the Senior Citizens' center, Boy or Girl Scout meetings, the Rotary Club, or any similar organization. Groups like that are always looking for an interesting speaker or activity. A simple but impressive and effective demonstration is to bring an HT and ask for a "Roll Call". Notify your club in advance... all they need to do is reply with "This is (name, callsign) in (town)."

Remember that we're Hams because we enjoy talking to other people. The more Hams, the more contacts we can make.

8. Get involved! Join your local Radio Club. If you already belong, attend the meetings. Just about every club (not just Radio Clubs) has the same problem -- 10% of the people do 90% of the work. You don't need to volunteer for everything... select an area that interests you, and help with that. Even better, suggest an activity and then take the lead in organizing it. Something as simple as "I'm going to set up a portable station at the park on Saturday morning, everyone is welcome to come by" can be a great time. If you add "Free coffee and donuts" to your announcement, you'll draw a real crowd ;-)

9. Stay positive, ignore the negative. Don't listen to the cranky old farts who insist that "Ham Radio is dying". Or better yet, point them here where they'll find that the number of licensees is at an all-time high. Participation in contests remains strong, even at the bottom of the sunspot cycle. Manufacturers continue to introduce new models that we could barely dream of just a few years ago. Hamfests that are well-organized and well-run are thriving. Ham Radio has been evolving for over a century now, and it continues to do so. The Magic of Radio never goes away.

10. Most of all, resolve to have more fun with Ham Radio in 2019!

Once again, my sincere best wishes to you and your family for a happy, healthy, and safe Holiday Season and New Year.

Thanks and warm 73,  
John Bee, N1GNV  
Quicksilver Radio Products  
[www.qsradio.com](http://www.qsradio.com)

### **\*STATION GROUNDING\***

Ralph WD0EJA

We are certainly at risk from a lightning strike when we stick a piece of metal up just outside our home or on the roof. What is the safest way to install your antennas near your home?

Keep in mind, electrical discharges from weather can go from the sky to ground, or from the ground up. A direct hit is less likely than a partial hit from nearby lightning. We can not do much with a direct hit, but the partial discharges can be handled.

If you have a pole (metal) or a tower near your home, you will want to ground the structure to the earth. Using ground rod with a short heavy wire or braid to the bottom of your pole or tower.

For a tower, 3 ground rods are recommend close to the tower. However, not in the concrete base. In the dirt.

A pole or mast, one ground rod is sufficient.

You can get ground rods from 2 feet to 8 feet. Which one do you use?

Keep in mind, you are trying to dissipate a very high voltage. The earth can be referenced as 0 volts. When a storm comes in the atmosphere can get heavily charged, either negative or positive. Therefore, a discharge can go either way.

You want as much surface area in your grounding to conductible earth as possible. Depending on your type of soil will determine the type and size of your grounding system.

An eight foot ground rod in conductive soft soil may be sufficient. In some cases a 4 foot rod in harder, but conductive soil will work.

Remember, it is area of contact you want to maximize. A horizontal ground system is quite affective. Much like a radial system, except it does not need to be a tuned length and should be of heavy wire or rod.

Running a ground wire from your home to the grounding system of your antenna is a poor idea. You already have a coaxial cable entering your home to burn it down. You do not want to invite an electrical discharge into your home any worse than you have to. In most cases, it is best to use the grounding provided in your home for your equipment. Disconnecting during non-use is a good habit.

Your coax cable can be protected with coaxial lightning arresters. These can be placed at the tower or mast and grounded to the same ground system. For added safety you can put one near your home with its own ground rod.

If your antenna is roof mounted, grounding is still important. Use a heavy ground wire connected to the base of your roof mount. Do not lay it on the roof. Neatly run it over the side with stand-offs. Make sure none of it touches the building. This holds true for the coax also.

Lightning is unpredictable, but using a few techniques can make your home and station safer.

73,  
Ralph WD0EJA Bilal Company, [www.isotronantennas.com](http://www.isotronantennas.com)

### **\* SCAM SITES USING GREEN PADLOCK\***

*c/net* by Laura Hautala November 27, 2018

You may have heard you should look for the padlock symbol at the top of a website before entering your password or credit card information into an online form. It's well-meaning advice, but new data shows it isn't enough to keep your sensitive information secure.

As it turns out, fraudsters got wise and started adding the padlock, which until recently was a bright green in most browsers, to their websites too. That means a padlock is no guarantee that a website is safe.

That's according to data from cybersecurity firm PhishLabs, [first reported by security writer Brian Krebs](#), which shows that almost half of all fraudulent pages have a padlock -- meant to indicate that the site is secure -- next to the URLs of their websites. Scammers are taking advantage of the fact that many internet users rely on the padlock symbol to decide whether to trust a website, according to an October report from the Anti-Phishing Working Group.

"Phishers are taking advantage of unclear security messaging" around the symbol, the report's authors said.

The upshot is that there's no one trick to protect you from the dark side of the internet. You have to be savvier than ever to avoid scammers and check for more than one sign that a website is legitimate.

That means making sure the website's URL is correct and, whenever possible, typing the URL into the browser instead of following a link from an email. Tools like password managers and security software can also help: To stop you from being fooled by an extra convincing scam website, they'll warn you when a URL doesn't match the legitimate website or stop you from opening a scammy site to begin with.

"Awareness really is key," said Adam Kujawa, director of the research arm of cybersecurity company Malwarebytes. "It's up to the user to say, is this actually legit?"

The padlock has always been an imperfect symbol. It's there to tell you something that's specific, and also pretty technical, and that's hard to get across with a simple image.

The lock is supposed to tell you that a website sends and receives information from your web browser over an encrypted connection. That's all. You can tell a website has an encrypted connection because it starts with the letters https, not http. These days websites use an encryption standard called TLS. The secure connection makes it so nobody can read your web traffic as it travels through the internet's vast, global infrastructure.

The lock doesn't tell you anything about the legitimacy of the site. PhishLabs CTO John LaCour

Here's why an encrypted connection good thing: it makes sure that sensitive information like passwords and credit card numbers gets scrambled up so that only the website intended to receive it can read it. That's really important for things like online shopping or signing on to your bank's website.

That's also why it's still true that you should never enter your information if a website doesn't have a secure connection.

But lots of people don't know the lock means something so specific, said John LaCour, Chief Technology Officer at PhishLabs. "We've dumbed thing down to lock meaning 'safe'," he said.

Scammers who want to trick you into entering sensitive information can put a green padlock on their websites too, and they're doing it more and more. When PhishLabs began collecting data in early 2015, less than half a percent of phishing websites sported a padlock. The number climbed quickly, up to about 24 percent in late 2017 and now more than 49 percent in the third quarter of 2018.

It makes sense that scammers would be using the padlock more and more, LaCour said. That's because it's gotten easier and cheaper for website creators to use an encrypted connection, thanks to pushes from cybersecurity experts at Google, Electronic Frontier Foundation and other tech heavyweights.

Criminals can now easily obtain certificates that enable the padlock to show up and encryption to take place, and they can do it without revealing very much about who they are.

What's more, changes at major browsers like Chrome and Firefox have made sites without TLS encryption look much more dangerous to users, with a very visible warning that the site isn't secure. That provided extra motivation for criminals to show the padlock on their websites, LaCour said, and avoid looking obviously shady.

"The lock doesn't tell you anything about the legitimacy of the site," he said. "It only tells you that your data is encrypted as it's sent over the internet."

It's probably for the best that scammers are using encryption on their phishing websites, said Nick Sullivan, head of cryptography at Cloudflare, a company that, among other things, helps organizations encrypt their websites.

That's because sending valuable information that anyone could intercept and read is always a bad idea, even if your immediate problem is that you've just sent off your bank account information to a scammer in another country.

"There's nothing bad about phishing sites having encryption," Sullivan said.

## **\* ANDROID AD SCAM HIJACKS PHONES\***

*INFOPACKETS* by John Lister on December, 13 2018

22 Android apps are eating up data allowances to benefit scammers at the expense of phone owners, a security firm says. The apps are using smart phones to carry out fraud against online advertisers.

Sophos says it's found 22 offending apps with a total of two million downloads. They are each described as offering simple games or basic utilities such as keeping the phone's flash activated to act as a flashlight. While they work as described, which helps get good online reviews and build credibility, the scam is happening behind the scenes. (Source: [sophos.com](http://sophos.com))

The apps are used for click fraud, designed to scam advertisers. They work by retrieving, displaying and 'tapping' ads on pages created which were previously set up by scammers. The phone user never sees this happen as the pages are displayed in a hidden window that lies underneath whatever's visible on the phone screen.

Although there's no human being actually seeing the ad, it still racks up the number of clicks and views recorded by the scammer's website. They then get paid a per-view or per-click fee from the advertisers. Usually this works through a third-party ad network such as Google, putting an extra layer of distance between the scammers and the advertisers.

While the phone user isn't financially involved, they still suffer from two negative consequences. One is that the behind-the-scenes process eats up battery life, albeit in a way that's hard to isolate. The other is that the process of retrieving the ads uses up data (providing the user isn't connected to WiFi), which then eats into monthly data allowances. (Source: [birminghammail.co.uk](http://birminghammail.co.uk))

The apps were configured so that the click fraud was running almost constantly, even when the app itself was closed.

Rather cheekily, the click fraud sometimes disguised the details of the affected Android handsets and made it look like the ad views and clicks were coming from iPhones. Some advertisers pay more for traffic from Apple users as they believe they have bigger spending power.

Google has now removed the apps in question from the Play Store. Sophos recommends Android users check their phones and remove any of the following they find:

AK Blackjack - com.maragona.akblackjack

Animal Match - com.beacon.animalmatch

Box Stack - com.mobile.boxstack

Cliff Diver - com.mobile.cliffdiver

Color Tiles - com.maragona.colortiles

HexaBlocks - com.atry.hexablocks

HexaFall - com.atry.hexafall

Jelly Slice - net.kanmobi.jellyslice

Join Up - com.pesrepi.joinup

Just Flashlight - app.mobile.justflashlight

Magnifeye - com.magnifeye.android

Math Solver - com.mobilebt.mathsolver

Neon Pong - com.pesrepi.neonpong

PairZap - com.atry.pairzap

Roulette Mania - com.beacon.roulettemania

ShapeSorter - com.mobilebt.shapesorter

Snake Attack - com.mobilebt.snakefight

Space Rocket - com.pesrepi.spacerocket

Sparkle FlashLight - com.sparkle.flashlight

Table Soccer - com.mobile.tablesoccer

Tak A Trip - com.takatrip.android

Zombie Killer - com.pesrepi.zombiekiller



### \*CLUB MEETING\*

The next club meeting is February 2nd. We meet on the first Saturday every month at 11:00 Saturday morning at the Minnreg Building located at 6340 126th Ave N, Largo. Members are welcome to come in the rear area through the fence gate on the southeast corner of the property. Talk-in is on the Wormhole repeater system. For those coming to the meeting who cannot hit our repeater we will be monitoring the Honeywell club repeater on 443.050 +141.3. We will keep an eye peeled for you. We will take advantage of the cooking facilities with an after-the-meeting Social and Wormdog picnic.



### \*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. We are always looking for volunteers to be the net control operator. Anyone interested, talk to one your club officers.

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**\*LOCAL NETS\***

**MONDAY**

1730 147.030 + Receiver sites and tone info <http://www.qsl.net/wd4scd/> St Pete Yacht Club ARC

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 28.450 Clearwater	WCF section net	
1900 NI4CE system system	WCF Section VHF ARES	NI4CE
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	Tampa ARC net	from
2000 28.365 USB	simplex	Brandon ARS
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
2100 28.465 USB	10/10 net	from Orlando
1900 146.490 simplex simplex Net	3 <sup>RD</sup> Tuesday monthly, Hillsborough Co ARES	
<b>WEDNESDAY</b>		
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1930 52.020 simplex Petersburg	Suncoast 6'ers	from St
1930 NI4CE system system	WCF Section Digital Info Ne	NI4CE
2000 147.105 146.2 Tampa	Greater Tampa CERT net	from
2000 146.97- 146.2 Clearwater	Clearwater ARS	from

2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
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2100 NI4CE system affiliated	Tampa Bay Traders Net	non-
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### **THURSDAY**

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

1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
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2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
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**SATURDAY**

0730 3.940 (7.281 Alt.)+/- QRM WCF	WCF Section HF Net	from
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1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
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2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
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**SUNDAY**

0800 3.933	Florida Traders Net	non-affiliated
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1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
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1930 NI4CE system system	WCF Section Net	NI4CE
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2000 147.550 simplex County	550 Simplex Net	Pinellas
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2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
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2100 144.210 USB orientation	Clearwater ARS	vertical
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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 have all the information you need on a club roster and 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, all the following from Ray KD4HUW**

+Yaesu FT-857 with separation kit, MH-59 remote microphone, LDG FT\_Meter and LDG-YT tuner all for \$725.00  
+Icom AH-4 antenna tuner for \$175.00  
+Yaesu dual band Mobile Radio (ft-7900R) New-in-the-box (never opened) for \$265.00  
+Hustler antenna parts: Bumper mounting kit; 54" foldable mast with quick disconnect; Resonators RM-75, RM-40 and RM-15. All for \$75.00

**FOR SALE,** New MFJ TNC 1270X, never used in original box with manual and cables. \$30. Dean Sever W8IM

**FOR SALE,** Mosley TA-33M 10-15-20M beam with the 40M add on kit. Antenna is on the ground and in good shape. There are several parts that need replacement. The 40M kit is new in box. Antenna is broken down into six or seven foot sections so easy to handle. Asking \$250, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

**FOR SALE,** Cushcraft A4S 10-15-20M beam, on the ground. There are several parts that need replacement. Asking \$200, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

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**\*HAMFESTS\***

**2019**

**January 13**

**TARCFest,** TARC Clubhouse, 22<sup>nd</sup> St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>

- February 8-10** **Orlando Hamcation and State Convention**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$15 in advance, \$17 at door. Talkin 146.4760 - no PL or D-Star 146.850 -, all the information at [www.hamcation.com](http://www.hamcation.com) or call 407-841-0874
- February 22 & 23** Tampa, **5th Annual TECHCON Convention**, Hillsborough County Emergency Operations Center, 9450 East Columbus Drive, talk-in on 147.105 + 146.2, for more info goto <http://arllwcf.org/> or contact Darrell Davis at [kt4wx@arll.net](mailto:kt4wx@arll.net).
- March 3** Punta Gorda, Charlotte County Hamfest, Punta Gorda Boat Club, 802 West Retta Esplanade, talk-in on 147.255 + 136.5, <https://www.prra.club/hamfest.html>
- April 13** **TARCFest**, TARC Clubhouse, 22<sup>nd</sup> St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- May 25** **WormFest 2019**, Pinellas Park, **FREE**, Freedom Lake Park, 9990 46th St N, southeast corner of US 19 and 49<sup>th</sup> Street, Park opens at sunrise for vendor setup, hamfest starts at 0800. Talk-in on 146.850 - 146.2. For a map and directions see <http://www.TheWormholeSociety.org> .
- August 17** **TARCFest**, TARC Clubhouse, 22<sup>nd</sup> St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- December 13 & 14** Plant City, the **2018 Tampa Bay Hamfest is the West Central Florida Section Convention**, Friday and Saturday, at the Expo Building in the Strawberry Festival grounds, advanced admission \$9, at the door \$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 ;-)

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Mid January	Frogman swim in Tampa Bay. <a href="http://www.tampabayfrogman.com/">http://www.tampabayfrogman.com/</a>
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
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>
Early to Mid May	MS 150 Citrus Tour bike ride <a href="http://www.citrustour.org/register.php">http://www.citrustour.org/register.php</a>
Mid-May	Annual Armed Forces Crossband Test
Mid-May	Florida Hurricane Exercise
May, Memorial Day Weekend	Wormfest
Early 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>
July 3/4	Midnight Run in Largo <a href="http://www.kiwanismidnightrun.com/">http://www.kiwanismidnightrun.com/</a>
August	International Lighthouse/Lightship Week <a href="https://illw.net/">https://illw.net/</a>
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, 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 repeaters are both now dual mode Yaesu DR-1X. FM analog as always and now Yaesu Fusion, a C4FM/FM 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