

News from



The GLORIOUS SOCIETY OF THE WORMHOLE

April 2021

Hello Worms

The Wormhole face to face meeting for April is cancelled. We will again have a meeting on the repeater at the regular meeting time of 1100 on Saturday morning. Like the regular meetings there are members on the repeater long before the meeting time so jump in there and chew the rag. We will again have everyone on ZOOM for picture only, no voice during the meeting. All voice will be on the radio ... that's what we do. But at least we could see each other. I will start ZOOM about 1030 so everyone can have a half hour for chatting and leave it on afterward for more of the same.

While I don't think it is settled yet time was getting close so I applied for the ARRL hamfest sanction and it was approved on Monday. We are in the ARRL hamfest list already but I think we are too late to get into QST. I hope Pinellas Park opens up the park in time. To be fair to everyone it must be cancelled a couple of weeks before.

During the meeting I will take a pole about a face to face meeting in May, maybe I should say mask to mask. If to meet and if we meet where. If you have an opinion let me know.

After the meeting I thought we could have a flea market for those who have money left after Christmas or maybe work a trade. Or maybe you don't have any money left and need to sell something you have but have not used for years! If you have something to sell be ready to show it. If small enough to pick up you can hold it in front of the camera. If too large or heavy you can have a picture to show while you

talk or if using a usb camera you can move the camera to show it. In any case have a price and contact information available. For those only on radio we can still hear your description and price.

Bill Williams is inviting you to a scheduled Zoom 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

***NEW FCC \$35 FEE NOT BEING COLLECTED YET ***

The ARRL Letter March 25, 2021

The majority of the FCC's revised Part 97 rules (adopted in December 2020) establishing new application fees become effective on April 19, but the new amateur radio application fees will *not* become effective on April 19. The FCC announced on March 19 that the amateur radio application fees, including those associated with Form 605 filings, would not become effective until the "requisite notice has been provided to Congress, the FCC's information technology systems and internal procedures have been updated, and the Commission publishes notice(s) in the *Federal Register* announcing the effective date of such rules."

The \$35 fee, when it becomes effective, would apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications, as well as applications for a special temporary authority (STA) or a rule waiver. All fees will be per application. Administrative updates, such as a change of mailing, email address, or name, are exempt.

It is expected that such fees will not become effective before summer 2021. The FCC

has stated that amateurs will have advance warning of the actual effective date, because it will publish such date in the *Federal Register*.

ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM, said VECs and Volunteer Examiner (VE) teams will not have to collect the \$35 fee at exam sessions. Once the FCC application fee takes effect, new and upgrade applicants will pay the \$15 exam session fee to the VE team as usual, and pay the \$35 application fee directly to the FCC via the [Fee Filer System](#) or [License Manager System](#). Somma said this information was provided in a [VE Newsletter](#) distributed this past week. "Further news and instructions will follow when we have them," she said.

* CAPTURE AREA *

What is it? Does it mean the bigger the antenna the more performance it will have.

A very large antenna that has not been resonated can receive and transmit very poorly. If you resonate the antenna by a tuner or other technique, it will become quite affective. The size of the antenna will have an affect.

Not everyone can put up BIG antennas. Therefore, how can you determine if the antenna has sufficient capture area?

Keep in mind, this is an "area", not length. A wire has little area per foot. Making long skinny antennas will give the capture area needed. However, at the same time it needs to be resonant somehow or it will not perform well and your radio will reject it.

So, do you want to use sheets of 4'X 8' plate steel for this "area"?

If you want you could, but there is a better way to determine if the antenna has enough capture to be affective.

Start with a very small resonant circuit. A capacitor and inductor in series. I am referring to components you would find on a circuit board. The circuit is resonant just like an antenna. Why would you not put this on your 60 foot tower? Because it would not impress anyone that tries to see it. It would not be impressive to anyone trying to hear it either, why?

A series resonant circuit using small components is certainly doing the same thing electrically as the big antenna. Except for one value that you can measure. Radiation resistance. A small circuit will have a radiation resistance close to zero ohms. This means it is close to a dead short. Or, it means the circuit will have to operate at a very high current. This plummets efficiency.

Try making the circuit bigger. Use a bigger coil and an air spaced capacitor. You are also increasing the radiating area of the antenna. If you measure the radiation resistance, you will find it has increased. It will also start to radiate more efficiently.

Keep increasing the physical area of the resonant circuit and you eventually achieve 25, 50, 100 ohms and higher. When you start to get radiation resistance readings at resonance of these values, the antenna becomes quite efficient.

For example, you make the coils and capacitor large enough to develop 50 ohms of radiation resistance. This is convenient since most radios match to 50 ohms. If you do this using only an inductor and large plated capacitor your efficiency can be figured as: **radiation resistance ÷ radiation resistance + pure resistance**

Since your pure resistance is the resistance of the coil (using an ohm meter), it will be very close to zero or just a fraction of an ohm. This puts your efficiency almost to 100%.

Making the antenna bigger will offer little improvement since your efficiency is maxed out.

So, how big do you make it to have this 50 ohm radiation resistance?

It is sales pitch time. The sizes of the Isotrons are based on having enough "Capture Area" to develop 50 ohms of radiation resistance or more to provide a fully efficient antenna. It will be evident initially at the receiver, it will come alive. Putting the antenna in a good location will offer good transmit performance.

73,
Ralph WD0EJA
BILAL COMPANY
MARCH 2020

* FCC FINES ROBOCALLERS \$225M*

CNBC Tech Kef Leswing

The Federal Communications Commission fined two Texas-based telemarketers a record \$225 million on Wednesday for making automated sales phone calls, or robocalls, in 2019.

The marketers, under the business names Rising Eagle and JSquared Telecom, used robocalls to falsely sell short-term health insurance plans. They made about one billion robocalls, according to the FCC.

The fine, originally proposed last summer, is one part of an expanded effort to rein in automated sales calls the FCC announced on Wednesday. It's the largest fine in the commission's history.

Robocalls are a daily annoyance for many Americans, and they have been rising in recent years, with some estimates showing that [billions are made per month](#). The number of spam calls received in the U.S. rose 26% in the last year, [according to Robokiller](#), an anti-spam call app.

The FCC recommends that people don't answer calls from unknown numbers because of the problem. [iPhones even have a built-in feature](#) that can send them to voicemail. Often, the scammers pretend to be affiliated with a legitimate company or organization, like the IRS, [Apple](#), or [Amazon](#).

Efforts to control the problem have been slowed by [legacy technology](#) in the telephone system which allows scammers to fake local phone numbers, and a [business model](#) where only a very small number of victims need to be scammed in order for the robocaller to make money.

The FCC also announced that it has formed a "Robocall Response Team" with 51 FCC employees which will coordinate anti-robocall efforts. The FCC is reaching out to the FTC, DOJ, and state attorneys general to tackle the issue.

The FCC sent cease-and-desist letters to companies that have violated FCC rules and are suspected to be helping to carry out robocalls. Scams affiliated with these

companies, according to the FCC, include IRS imposter calls, calls that pretend to be from Apple, false COVID-hardship programs, and fictional refunds from Amazon.

“Also, today’s cease and desist letters should serve as a warning sign to other entities that believe the FCC has turned a blind eye to this issue. We certainly haven’t and we’re coming for you,” FCC Acting Chairwoman Jessica Rosenworcel said in a statement.

The FCC has fined telemarketers over \$450 million in recent years.

Lawmakers from both parties have also tried to control the robocall plague. In December 2019, Congress passed [the TRACED Act](#), which increases potential fines for a single robocall to \$10,000. It also requires major carriers to update their systems to make it more difficult to falsely spoof numbers that show up on Caller ID.

GLOBAL SHORTAGE IN CHIPS REACHES CRISIS

The Guardian by Mark Sweney

Consumers are facing price rises and shortages of products from TVs and mobile phones to cars and games consoles as a global shortage in semiconductors grows. The shortage in chips, the “brain” within every electronic device in the world, has been steadily worsening since last year. Initially the problem was only a temporary delay in supplies as factories shut down when the coronavirus pandemic first hit.

However, although production is back to normal, a new surge in demand driven by changing habits fueled by the pandemic means that it is now reaching crisis point.

Car manufacturers investing in tech-heavy electric vehicles, the boom in sales of TVs and home computers and launch of new games consoles and 5G-enabled mobile phones have all driven demand. Even the mighty Apple, a \$2T company and the world’s biggest buyer of semiconductors spending \$58B annually, was [forced to delay the launch of the much-hyped iPhone 12](#) by two months last year due to the shortage.

“Chips are everything,” says Neil Campling, media and tech analyst at Mirabaud. “There is a perfect storm of supply and demand factors going on here. But basically, there is a new level of demand that can’t be kept up with, everyone is in crisis and it is getting worse.”

Ford recently cancelled shifts at two car plants and said profits could be hit by up to \$2.5B this year due to chip shortages, while Nissan is idling output at plants in Mexico and the US [General Motors](#) said it could face a \$2B profit hit.

Last month, Sony, which along with other console makers has struggled with stock shortages over the last year, said it might not hit sales targets for the new PS5 this year because of the semiconductor supply issue. Microsoft's Xbox has said it forecasts supply issues continuing at least until the second half of the year.

However, the most telling example of the semiconductor crisis has come from Samsung, the world's second-largest buyer of chips for its products after Apple. Earlier this week, the company said it might have to [postpone the launch of its high-end smartphone due to the shortage](#), despite also being the world's second-largest producer of chips. "It is incredible that [Samsung](#) sells \$56B of semiconductors to others, and consumes \$36B of them itself, finds it may have to delay the launch of one of its own products," says Campling. Samsung's co-chief executive, Koh Dong-Jin, who also heads its mobile business unit, highlighted a significant issue saying that there is a ["serious imbalance"](#) in the pecking order of who is getting the limited supplies of chips.

Car manufacturers, who cut chip orders as vehicle sales fell last year, found themselves at the back of the queue when they tried to reorder when the market rebounded. The entire global car industry buys about \$37B worth of chips, with the biggest players such as Toyota and Volkswagen spending more than \$4B each, making them relative minnows for semiconductor suppliers. "The worst affected have been autos because they were last to the party; if [Apple](#) is spending \$56B a year and growing who are you going to keep supplies going to first?" says Campling.

The chip shortage looks set to persist for some time yet. It can take up to two years to get complex semiconductor production factories up and running, and manufacturers are in the process of significantly raising prices for the second time in less than a year.

"There is no sign of supply catching up, or demand decreasing, while prices are rising across the chain," says Campling. "This will cross over to people in the street. Expect cars to cost more, phones to cost more. This year's iPhone is not going to be cheaper than last year."

EDITOR: No mention of amateur radio equipment but I have to assume there is and will be some effect.

CLUB MEETING

There will not be a face to face club meeting on April 3rd due to the virus. We will meet again on the 2M repeater at the regular meeting time with a video to video concurrent on ZOOM. Our normal meeting place is no longer available.

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

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

1830 147.060+ no tone Petersburg	St Pete ARC daily net	St
1900 144.210 USB Clearwater	CARS, vertical polarization	
1900 147.135 +146.2 Zephyrhills	Zephyrhills ARC	
2000 147.165+ 136.5 Brandon	Brandon ARS	from
2000 50.135 County	Pinellas ARK	Pinellas
2030 NI4CE system	EAGLE Net, NTS traffic net,	NI4CE system
2030 145.450 County	Pinellas ARK	Pinellas
TUESDAY		
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1900 50.200 USB ARS	6M net	Brandon
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 RD Tuesday monthly, Hillsborough Co ARES	

WEDNESDAY

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
2100 NI4CE system affiliated	Tampa Bay Traders Net	non-

THURSDAY

1800 146.52 simplex Tampa	Hillsborough ARES/RACES	North
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1900 444.750 +146.2 Tampa	Fusion net	from
1915 224.660- no tone Petersburg	St Pete ARC	from St

1930 146.6385 -127.3 Lakeland	Lakeland ARC	from
1930 444.225 + 146.2 Tampa	Hillsborough ARES/RACES	from
1930 146.850- 146.2 Petersburg	Wormhole	from St
2000 53.150 -1MHz 146.2 Petersburg	Wormhole	from St
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
FRIDAY		
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
SATURDAY		
0730 3.940 (7.281 Alt.)+/- QRM WCF	WCF Section HF Net	from
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
SUNDAY		
0800 3.933	Florida Traders Net	non-affiliated
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1930 NI4CE system system	WCF Section Net	NI4CE

2000 147.550 simplex County	550 Simplex Net	Pinellas
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
2100 144.210 USB orientation	Clearwater ARS	vertical

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, Comet GP-1 2M/440 MHz base antenna, \$50, Ralph W4TNY,
w4tny@tampabay.rr.com, 727-409-0468

HAMFESTS

May 29 **WormFest 2021, 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. For a map and directions see <http://www.TheWormholeSociety.org> .**

June 12 Dade City, Pre-Field Day Gathering, Dade City Masonic Lodge No. 48, 13642 21st Street South, Talk-In 147.135 + 146.2 & 146.52, For info Gary Mentro, N3OS, 813-713-9994 or n3os@arrl.net, fee unknown, no website

- June 12 Orlando, K4KDI Tailgate, South Conway Baptist Church, 6099 S Conway Rd, talk-in unknown, fee unknown, no website, For in Jack Moyer, K4KDI 407-443-1963
- August 21 **Tampa, TARC Fest XLV**, TARC Clubhouse, 7801 N. 22nd S, t22nd St at the river, no other details yet, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- December 10 & 11 Plant City, the 2021 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, at the Strawberry Festival grounds, admission \$10, 16x40ft tailgate space \$10, electric \$5, for information contact Bill Williams AG4QX, chairman@fgcarc.org or go to <http://www.tampabayhamfest.org> or you can just ask me, Jim or Dee at a meeting ;-)
- February 11-13 Orlando Hamcation and NATIONAL Convention**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$15 in advance, \$20 at door. Talk-in 146.760 - PL 103.5 OR Fusion. Also D-Star on 146.820 -, all the information at www.hamcation.com or call 407-841-0874 There is also a AM low power Information Station on AM 610.



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| Mid January | Adventure Run, Honeymoon Island |
| Last full weekend January | Winter Field Day, |
| https://www.winterfieldday.com/ | |
| Late January | Gasparilla celebration |
| Late February | West Central Florida Tech Conference |
| http://arllwcf.org/wcf-special-events/wcftechconference/ | |
| March | MS 150 Citrus Tour bike ride |
| http://www.citrustour.org/register.php | |
| March/April | MS Walks |

March/April	Mass Casualty Exercises
Late April	Southeastern VHF Society Conference, http://www.svhfs.org
Late April	Florida QSO Party
Mid May	March For Babies (was March of Dimes) https://www.marchforbabies.org/Registration/Events
Mid-May	Annual Armed Forces Crossband Test
Mid-May	Florida Hurricane Exercise
May, Memorial Day Weekend	Wormfest
First weekend in June	Museum Ships on the Air
Fourth weekend in June	Field Day http://www.arrl.org/contests/announcements/fd/
July 3/4	Midnight Run in Largo http://www.kiwanismidnightrun.com/
August	International Lighthouse/Lightship Week https://illw.net/
October, 3 rd weekend	JOTA, Scout Jamboree-on-the-AIR (around 14.280MHz)
Early December	ALS bike ride in Walsingham Park
December, Second weekend	Tampa Bay Hamfest http://www.fgcarc.org/

YOUR WORMHOLE OFFICERS

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

YOUR WORMHOLE REPEATERS

53.150 -1Mz PL 146.2
442.625 +5Mz PL 146.2
146.850 - 600Kz PL 146.2

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