

News from



The GLORIOUS SOCIETY OF THE WORMHOLE

January 2022

Hello Worms

I suspect most of us did not realize the first Saturday in January is New Years day. I know I didn't. Had I known I would have asked if the club wanted to change to the second Saturday but since I didn't know we will forge ahead. We will again hold a face to face meeting for January. I also suspect that most of the members will not have a hangover in the morning anyway.

I thank Alan in advance for all his fine work broadcasting ZOOM from the park. If Alan is in attendance, we will again try to broadcast the meeting on the repeater and video. We will meet at the regular meeting time of 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 is a few parking spots at the Chamber building but if you go another 100 yards past you can park in the college parking lot which is a lot closer to the outside meeting area.

BRING YOUR CHAIR and lunch! There are a few picnic benches if you do not have a folding chair but they are not comfortable. We will not be cooking but we have access to the Chamber of Commerce building which has a microwave and a toaster oven so you can heat up/cook what you bring. Also bring your lunch and coffee if you want it. There will be water and cold drinks available.

As always before a regular meetings there are members on the repeater before the meeting time so jump in there and chew the rag.

Zoom has MAY enforce the 40 minute limit on the free accounts. We had the Wormhole cut off. If that happens we may restart the meeting depending on where we are in the 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

For the meeting do not forget ... BRING YOUR CHAIR, lunch and coffee! We will have chips, cold drinks and water available.

A NOTE FROM MIKE OUR WEBMASTER

We switched MailChimp Accounts in November. This became necessary because of a change in the MailChimp free account rules due to MailChimp being purchased by Intuit - Constant Contact. The newsletter will be coming from the new account and there may have been a loss of one or two contacts in the process. Anyone who does not get the Newsletter can put themselves on the list again by going to the website and using the MailChimp signup form on the front page.

***MICROSOFT USING COURTS TO DISRUPT HACKERS ***

INFOPACKETS by John Lister

Microsoft has taken control of websites - or rather their domain names - believed to be used by Chinese hackers. It's the latest example of a tactic that overcomes the usual problems of dealing with an international online threat.

According to Microsoft, the "Nickel" group is based in China and is a "nation-state actor": in other words, it at the very least has the backing of the Chinese government. It uses a variety of tactics to try to spy on victims and intercept their data.

Targets include government agencies and human rights groups. Microsoft somewhat understatedly says there's "often a correlation between Nickel's targets and China's geopolitical interests."

It might seem odd that Microsoft is pursuing action against hackers in a somewhat political situation. However, it had two big goals in doing so. The first is that a more secure Internet makes it more likely people will be confident using its various online-based services. The second is that making it harder for hackers to operate makes it less likely there'll be successful exploitations of Microsoft software, particularly business tools.

Given the political situation and the natural lack of cooperation, disrupting the hackers or bringing them to justice through China's legal system isn't a realistic option. Instead, Microsoft is taking advantage of the fact that many domain names, particularly .com, are allocated and registered in the US and thus subject to its legal system.

In this latest move, Microsoft persuaded a federal court to give it control of the domains, which have now been reconfigured to point to Microsoft's own secure servers. Although the compromised websites themselves still exist, they won't be reachable through the domain name. (Source: arstechnica.com)

According to Microsoft, it's now filed 24 such lawsuits covering 10,000 domain names controlled by "ordinary" cyber criminals and almost 600 controlled by hackers backed by a nation state. (Source: microsoft.com)

The move follows a previous tactic where a US court gave Microsoft control of infrastructure used by a Russian cyber criminal gang. This let it discover an algorithm which the gang was using to generate new domain names to register and abuse.

Microsoft says it was then able to produce a list of six million names that the gang would try to register in the next two years. Microsoft passed on this list to domain registrars around the world who blocked them from being registered.

***AUDIO QUALITY ON SSB ***

Ralph WD0EJA

Single Side Band voice communication has been a benefit to the HF spectrum. It uses less band width than AM. Therefore more stations can use the band. At least that is what it should do.

The Single Sideband transmitters are designed with a relatively narrow band width. The pass band filters on the radios are anywhere from 3 KHz to 1.8 KHz. Where as the AM modulation is around 6 KHz.

This means that the SSB filter only allows a portion of what we can hear. In an auditorium the speech quality is restricted to about 300 to 3,000 Hz. With a Digital Signal Processor they notch out the frequencies that tend to cause feed back. This allows for more audio power to be delivered. When music is played the DSP is normally bypassed.

SSB utilizes audio best between 300 and 3,000 Hz. However, due to other noises on the band some choose to set the low end at 500 Hz. This allows the human voice to penetrate better. Once you are set up for your voice characteristics you will be understood better even at a low a signal strength.

A second important factor is keeping the audio distortion out. Most transceivers are designed to maintain this. However, if you use an amplified microphone or a miss-matched one, you can have a distorted audio out of the transceiver.

Where distortion becomes a more common problem is when an amplifier is used. Over driving the amp will not only cause excessive bandwidth and interference, but the audio can experience distortion. Possibly not a lot, but not the quality that it should be.

Much of the digital audio communications are very distorted. Many are used to hearing this poor audio. However, it is to no one's advantage to have this poor audio on the HF bands.

Scrutinize your audio by having several others listen to it and check the band width. Get your audio clean and clear. You will enjoy the hobby much better.

73,
Ralph WD0EJA
wd0eja@isotronantennas.com
Bilal Company
Dec 2021

*** AM RECEPTION***

These two items from the ICOM website were sent out on the TARC reflector by Jack K4WSB.

The ST-4003W is Windows software, which allows you to set the radio's time from your PC's time by connecting the radio to the PC.

- Compatible radios (as of November 2021)
- IC-705
- IC-7100
- IC-7300
- IC-7600
- IC-7610
- IC-7850/IC-7851
- IC-9700

Use a USB cable to connect the radio to your PC.

The USB port type differs depending on the radio, so please check the radio's port type before preparing the cable.

- Before downloading this software, please thoroughly read the “[ST-4003W INSTRUCTIONS](#)” for installation details and what is required for the installation.

To download the software please visit: [ST-4003W Time Adjustment Software Download Page](#).

In addition to our news announcing time adjustment software for selected Icom Amateur radios, **Icom** has also announced a new GPS tool for Android OS devices called the **ST-4002A**.

The ST-4002A is available to download **FREE** from both the Icom website and GooglePlay. It will automatically allow you to input GPS location data from an Android™ device to your transceiver.

The software is compatible with:

- IC-7100
- IC-9100
- IC-9700
- ID-4100A/E
- ID-5100A/E

For more information and to download the software/app, please visit:

[ST-4002A GPS tool Download Page](#).

[ST-4002A GPS tool Download from GooglePlay](#).

***TOYOTA OWNERS PAY \$8/MO TO USE KEY FOB ***

arsTECHNICIA by Tim DeChant

Automakers keep trying to get a piece of that sweet, sweet subscription income. Now, it's Toyota's turn.

Nearly every car company offers some sort of subscription package, and Toyota has one called Remote Connect. The service offers the usual fare, letting owners use an app to remotely lock their doors, for example, or if they own a plug-in vehicle, to precondition the interior. But as some complimentary subscriptions for Remote Connect come to an end, Toyota owners are getting an unexpected surprise—they can no longer use their key fob to remote-start their vehicles.

In terms of technology, this remote-start feature is no different from using the fob to unlock the car. The fobs use a short-range radio transmitter to send the car a signal that is encrypted with rolling codes. The car then decrypts the signal and performs the requested action, whether it's to lock or unlock the doors, beep the horn, or start the engine. RF key fobs have been around since the 1980s, and GM added a factory-installed remote-start option in 2004 (no subscription needed).

Key fob remote start has nothing to do with an app, nor does the car or the fob communicate with any servers managed by Toyota.

Toyota has been offering factory-installed remote start on 2018 and newer vehicles equipped with Audio Plus or Premium Audio. To use it, owners have to be within 50 feet of the vehicle and double-press the fob's lock button before holding the lock button down for a few seconds.

Yet recently, as 2018 Toyotas have passed their third birthday, owners have been discovering that the fob's functionality is dependent on maintaining an active Remote Connect subscription. Vehicles equipped with Audio Plus receive a free three-year "trial," while Premium Audio vehicles receive 10 years. Once those subscriptions expire, though, the key fob remote start stops working. Toyota didn't change the rules, though that detail was buried in the fine print. When the time comes, Toyota simply cuts off access to one of the functions on the key fob already in the owner's possession. To get the feature back, owners have to pony up \$8 per month or \$80 per year.

But if you have a Toyota built before November 12, 2018, you won't have to pay, even though key-fob remote start for those vehicles was also tied to Remote Connect. Toyota said it has "enhanced" those cars so that owners can use the feature without a subscription.

Why the cutoff? It may seem like an arbitrary date, but it happens to be when Toyota stopped building cars with 3G chips. As telecoms sunset their 3G networks, owners of older Toyotas will have no way to subscribe to or use Remote Connect services. Since key fob remote start doesn't require an Internet connection, Toyota just flipped a switch and gave it to everyone in that group.

It's a nice gesture, but it reinforces the fact that there's no technical reason to include RF-powered key fob features in a remote services package.

***NASA ENTERS SOLAR ATMOSPHERE ***

NASA December 14, 2021

For the first time in history, a spacecraft has touched the Sun. NASA's Parker Solar Probe has now flown through the Sun's upper atmosphere – the corona – and sampled particles and magnetic fields there.

The new milestone marks one major step for Parker Solar Probe and one giant leap for solar science. Just as landing on the Moon allowed scientists to understand how it was formed,

touching the very stuff the Sun is made of will help scientists uncover critical information about our closest star and its influence on the solar system.

"Parker Solar Probe "touching the Sun" is a monumental moment for solar science and a truly remarkable feat," said Thomas Zurbuchen, the associate administrator for the Science Mission Directorate at NASA Headquarters in Washington. "Not only does this milestone provide us with deeper insights into our Sun's evolution and its impacts on our solar system, but everything we learn about our own star also teaches us more about stars in the rest of the universe."

As it circles closer to the solar surface, Parker is making new discoveries that other spacecraft were too far away to see, including from within the solar wind – the flow of particles from the Sun that can influence us at Earth. In 2019, Parker discovered that magnetic zig-zag structures in the solar wind, called switchbacks, are plentiful close to the Sun. But how and where they form remained a mystery. Halving the distance to the Sun since then, Parker Solar Probe has now passed close enough to identify one place where they originate: the solar surface.

The first passage through the corona – and the promise of more flybys to come – will continue to provide data on phenomena that are impossible to study from afar.

"Flying so close to the Sun, Parker Solar Probe now senses conditions in the magnetically dominated layer of the solar atmosphere – the corona – that we never could before," said Nour Raouafi, the Parker project scientist at the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland. "We see evidence of being in the corona in magnetic field data, solar wind data, and visually in images. We can actually see the spacecraft flying through coronal structures that can be observed during a total solar eclipse."

For more go to <https://www.nasa.gov/feature/goddard/2021/nasa-enters-the-solar-atmosphere-for-the-first-time-bringing-new-discoveries>



CLUB MEETING

We will again have a face to face club meeting on December. We will try to keep up on the 2M and also video concurrent on a video service. The meeting will be held at the Lurie Civic Building which is the new Greater Seminole Area Chamber of Commerce. It is located on the St Petersburg College campus in Seminole. Turn west at the light at 113th St N and about 92nd Ave N.

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	St Pete ARC daily net	St Petersburg
1900 144.210 USB	CARS, vertical polarization	Clearwater
1900 147.135 +146.2	Zephyrhills ARC	Zephyrhills
2000 147.165+ 136.5	Brandon ARS	from Brandon
2000 50.135	Pinellas ARK	Pinellas County
2030 NI4CE system	EAGLE Net, NTS traffic net,	NI4CE system
2030 145.450	Pinellas ARK	Pinellas County

TUESDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 50.200 USB	6M net	Brandon ARS
1900 28.365 USB	10M Net	Clearwater
1900 NI4CE system	WCF Section VHF ARES	NI4CE system

1930 145.170 & 442.4 both pl 156.7	Pinellas ACS net	Clearwater
1930 444.900 +141.3	Sheriff's Tactical ARC	Tampa
2000 NI4CE system	WCF Skywarn net	NI4CE system
2000 147.105+ 146.2	Tampa ARC net	from Tampa
2000 28.365 USB	simplex	Brandon ARS
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 28.465 USB	10/10 net	from Orlando
1900 146.490 simplex	3 RD Tuesday monthly, Hillsborough Co ARES simplex Net	

WEDNESDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 147.165 + 136.5	Humpday Net	from Brandon
1930 52.020 simplex	Suncoast 6'ers	from St Petersburg
1930 NI4CE system	WCF Section Digital Info Ne	NI4CE system
2000 147.105 146.2	Greater Tampa CERT net	from Tampa
2000 146.97- 146.2	Clearwater ARS	from Clearwater
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 NI4CE system	Tampa Bay Traders Net	non-affiliated
0000-2359 HF Winlink	Winlink Wednesday Net https://winlinkwednesday.net/reminder.html	

THURSDAY

1800 146.52 simplex	Hillsborough ARES/RACES	North Tampa
1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 444.750 +146.2	Fusion net	from Tampa
1915 224.660- no tone	St Pete ARC	from St Petersburg
1930 146.6385 -127.3	Lakeland ARC	from Lakeland
1930 444.225 + 146.2	Hillsborough ARES/RACES	from Tampa
1930 146.850- 146.2	Wormhole	from St Petersburg
2000 53.150 -1MHz 146.2	Wormhole	from St Petersburg

2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
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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
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2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
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SATURDAY

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

0800 3.933	Florida Traders Net	non-affiliated
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1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
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1930 NI4CE system	WCF Section Net	NI4CE system
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2000 147.550 simplex	550 Simplex Net	Pinellas County
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2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
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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.

FOR SALE,

HAMFESTS

2022

- January 8** **TARCFest** TARC Clubhouse, 22nd St at the river, \$5 entry including tailgate, a few inside tables reserved in advance \$15, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- January 15 New Port Richey, Millennium Academy, 10005 Ridge Road, talkin 146.67 +146.2, see the website for info <http://gulfcoastarc.com/hamfest/> or contact contact Barry Keaveny , N2NVP, 727-277-5794, **Email:** keavbv@msn.com
- 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.
- February 25** Polk County EOC, **8th Annual TECHCON Convention**, Polk County Emergency Operations Center, 26571 Airport Rd, , for more info <http://arllwcf.org/wcf-special-events/wcftechconference/>
- April 9** **TARCFest** TARC Clubhouse, 22nd St at the river, \$5 entry including tailgate, a few inside tables reserved in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- May 10-12 Dayton Hamvention 2022, Xenia Fairground and Expo Center, vendor reservations and advance tickets now available. Tickets \$26 advance, \$31 at the door. <https://hamvention.org/>
- May 28** **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. All FREE! For a map and directions see <http://www.TheWormholeSociety.org> .
- August 20** **TARCFest** TARC Clubhouse, 22nd St at the river, \$5 entry including tailgate, a few inside tables reserved in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>



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://arrlwf.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/
Third weekend in 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 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