News from

The GLORIOUS SOCIETY OF THE WORMHOLE

December 2019

Hello Worms

Well 2019 is certainly getting along. Thanksgiving is over and Christmas almost here. Next weekend is the Tampa Bay Hamfest. We can certainly use some volunteers, mostly to sit in a ticket booth and sell tickets. Fred has people scheduled for one hour although some will volunteer for longer or possibly two different times. Let me know if you can help. The Wormhole will have a club table and two selling tables for club members. If you have one or two items you may leave them on the tables but you must make sure those who are staying there know what you are asking and what you will take for each item. Also please don't just dump stuff on the table and walk away expecting others to take care of it all day. Sit for a while and let others walk around some.

Don't expect any turkey of pumpkin pie for the meeting but Wormdogs and burgers should fill you up. 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. Every meeting someone says they forgot their chair, see if you can avoid being the one this month ;-) I can say that the last six meetings no one has left a chair! Who said an old Worm can't learn a new trick?

* FIREFOX FIGHTING FINGERPRINTING*

We just did an informal survey around the office – we asked 10 people in various departments, technical and non-technical, to say the first thing that came into their head when we said, "*Browser tracking.*" (No one heard anyone else's answer, in case you're wondering how independent each reply might have been.)

All 10 said, "*Cookies.*" That's not surprising, because many websites these days pop up a warning to say they make use of cookies for tracking you across visits – the theory seems to be that you can't then later complain you didn't know. Cookies, therefore, are a well-documented part of online tracking, and the phrase "web cookie" can be considered everyday terminology now, rather than jargon – we encounter it all the time and have become used to it. Indeed, some sites openly and visibly allow you to choose to accept or reject their cookies……although there's an amusing irony that the most reliable way for a website to remember that you don't want cookies set is to set a cookie to tell it not to set any more cookies.

Because cookies are so closely connected with tracking, an increasing number of us are using privacy tools that limit the cookies our browser will remember, or that flush all our cookies periodically, or that warn us about the sort of cookies that are commonly associated with online tracking and targeted marketing.

Cookie usage is also carefully regulated by your browser, to stop privacy and security violations. For example, while you are browsing on nakedsecurity.sophos.com, your browser will prevent our website from seeing any cookies set by other sites, and vice versa, so one site can't read out any secrets set by another – this is known, for obvious reasons, as the same origin policy.

Sadly, web marketing companies have pretty much based their business model on keeping track of you for as long as possible, in as much detail as possible. For them, the same origin policy gets in the way of tracking you between sites, and regular cookie purges prevent them tracking you on the same site for years or months rather than just days or hours.

So, a minority of web marketers spend time hunting for brand new ways to detect that it's you again, even if you tell your browser to dump all officially stored data that's there to track you, and even if it's pretty obvious that you don't want to be tracked. You'll hear these tricks called by many different names, such as "supercookies", "cookie respawning", "evercookies", "undeletable cookies" and "browser

fingerprinting", and they often rely on collecting a whole raft of apparently incidental details about your browser – data points that give away very little on their own, but that, when combined, may end up identifying you with surprising accuracy.

For example, websites often include JavaScript code to check the size of your browser window, so they can decide which visual style to use – something you can see on this site by dragging the window narrower and narrower. (Note how the visual layout changes subtly when it gets down to 768 pixels wide.)

But what if a website records your current window size for nefarious purposes, such as tracking you? If you just happen to resize your browser window to unusual dimensions such as 1306×637 pixels, you'll present that very same weird screen size again when you refresh the page, *even if you clear your cookies in between*. The website operator won't be sure it's still you – but they can make a pretty good guess.

Worse still, they may be able to combine that apparently innocent detail with a bunch of other circumstantial evidence to lump you in with an ever-decreasing number of 'viable suspects." Other browser characteristics that fingerprinting tricksters have abused include details such as: whether you have an external monitor plugged in; which fonts you have installed; how much battery power you have left; which operating system and browser you're using; what time zone you're in; the exact pixel layout your browser chooses when rendering characters; and more. Fingerprinting tricks might even include minutiae such as the precision of the timer functions inside your browser and the accuracy of the mathematical formulae used in your browser's JavaScript engine.

With enough apparently harmless discriminators, an unscrupulous web tracking company may be able to put you into a bucket of 1,000,000 possible users – wait, 10,000 – wait, 1000 – wait, 63 – wait, 7 – wait, only ONE POSSIBLE USER MEETS ALL THE CRITERIA COLLECTED!

In other words, browser data points that would be individually unimportant may combine to give you a browser fingerprint that is unique, or perhaps puts you into a very small bucket of possible users.

The result, as with so many aspects of cybersecurity, has been a cat-and-mouse game between the browser makers and the browser fingerprinters. Firefox, in particular, has been vocal about the anti-fingerprinting code it's been building into its browser in recent years. Some of these countermeasures have involved throwing out features that, no matter how useful, were primarily being used for evil, not for good – such as getting rid of the "navigator.getBattery()" function that allowed rogue websites to

track the precise battery state of your computer, a data value that tends to change predictably over time.

Other countermeasures include deliberately reducing the precision of system data, for instance by adding random inaccuracies to it, or replacing it with a one-size-fits-all value. Examples from Mozilla's own list include:

- Canvas image extraction is blocked.
- Absolute screen coordinates are obscured.
- Window dimensions are rounded to a multiple of 200×100.
- Only specific system fonts are allowed.
- Time precision is reduced to 100ms, with up to 100ms of jitter.
- The keyboard layout is spoofed.
- The locale is spoofed to 'en-US'.
- The date input field and date picker panel are spoofed to 'en-US'.
- Time zone is spoofed to 'UTC'.
- All device sensors are disabled.

The downside of all this, of course, is that any websites that make legitimate and positive use of these details – for example to improve the accessibility of the site or boost the performance and playability of online games – are out of luck.

The upside is that every browser detail that gets "de-precisioned" is a setback for the Bad Guys, and thus a privacy win for the rest of us.

For those reasons, Firefox's latest tranche of fingerprinter blocking tools are easy to turn on……but they're not yet on by default, just in case hitting back at the crooks has an annoyingly negative effect on the rest of us. However, alert observers have spotted that Mozilla is planning to change that soon:

We are enabling fingerprinting blocking in the Standard mode of 72. We will revisit this decision based on the results of [our ongoing monitoring program], and may revert the change during the beta cycle for 72.

Simply put, by making us all look a bit less individual online, browsers can help to frustrate web tracking companies that are determined to keep tabs on us even when we clearly want to stay private.

Sometimes, it pays to lose your individuality and just be one of the crowd!

* WHAT IS IN A SWR METER *

Ralph WD0EJA

Almost every station uses a Standing Wave meter. Why use it? What is it measuring? How does it measure?

The term "Standing Wave" is quite accurate. Electrically this is what you are measuring. A wave that appears to be not moving up or down the coax.

To visualize, imagine you had a very long flexible spring. Do any remember the slinky? One end is secured to a post. The spring is stretched out and you are holding it. Now start oscillating the spring up and down. The wave you make will go to the end of the spring. If your speed of oscillation is not resonant with the length of the spring, the wave will return to you.

The return wave will be opposite the forward wave by 180 degrees. Looking at the spring from the side, it will look like the wave generated by you is actually standing still in one place.

If you change the frequency of the forward wave to a resonant value, the wave will appear moving from you to the post and going off to the wild blue yonder. Very little wave if any is returning to you, the source.

Similar happens electrically.

To measure how much RF energy returns we use a Standing Wave Meter.

You have the initial wave from the transmitter to the antenna. If the antenna is not resonant and impedance match is different the wave will return much like the spring. Our interest is, how much is returning?

The meter samples the energy going out. Since the wave coming back is 180 degrees out of phase, it is a simple matter of reversing the phase of the detecting circuit to measure the standing wave.

There are a variety of ways to do this.

Some SWR meters uses a toroid transformer. The center of the transmission line goes through the hole in the toroid. The windings on the toroid pick up a small amount of RF current. The windings are also center tapped and grounded at that point. One side of the windings is 180 degrees out of phase from the other side. Therefore, you can compare the currents to see how much standing wave is coming back to the transmitter.

Years ago the ARRL Amateur Radio Handbook had the "Moni-Match". For the transformer it used a #16 enameled wire that was inserted into 8 inches of RG/8 coax between the shield and inner insulator. A 100 micro-amp meter was used to measure what was on the wire. By reversing the wire to the meter you could measure the SWR. Of course, you need a fast switching diode for the meter to read the RF current.

Even though a SWR meter is a simple device, it tells you much about your feedline and antenna system.

73,
Ralph WD0EJA **BILAL COMPANY** DEC 2019

* HP SSDs WITH BUILTIN FAIL AT 32,768 HOURS *

Hewlett Packard Enterprise had issued a bulletin warning of failure of solid state drivers (SSD) not having firmware updated.

 Bulletin: HPE SAS Solid State Drives - Critical Firmware Upgrade Required for Certain HPE SAS Solid State Drive Models to Prevent Drive Failure at 32,768 Hours of Operation.

DESCRIPTION

IMPORTANT: This HPD8 firmware is considered a critical fix and is required to address the issue detailed be

PE strongly recommends immediate application of this critical fix. Neglecting to update to SSD Firmware Ve

 HPD8 will result in drive failure and data loss at 32,768 hours of operation and require restoration of data fr

backup in non-fault tolerance, such as RAID 0 and in fault tolerance RAID mode if more drives fail than wha

upported by the fault tolerance RAID mode logical drive. By disregarding this notification and not performing

recommended resolution, the customer accepts the risk of incurring future related errors.

HPE was notified by a Solid State Drive (SSD) manufacturer of a firmware defect affecting certain SAS SSD models (reference the table below) used in a number of HPE server and storage products (i.e., HPE ProLiant, Synergy, Apollo, JBOD D3xxx, D6xxx, D8xxx, MSA, StoreVirtual 4335 and StoreVirtual 3200 are affected).

The issue affects SSDs with an HPE firmware version prior to HPD8 that results in SSD failure at 32,768 hours of operation (i.e., 3 years, 270 days 8 hours). **After the SSD failure occurs, neither the SSD nor the data can be recovered.** In addition, SSDs which were put into service at the same time will likely fail nearly simultaneously.

To determine total Power-on Hours via Smart Storage Administrator, refer to the link below:

[Smart Storage Administrator (SSA) - Quick Guide to Determine SSD Uptime](#)

FROM YOUR EDITOR: If you purchased a new HP computer and registered it you should get a notice from HP. Since I never register anything that would not work for me. For more details and the list of SSD's and the HP platforms involved go to https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00092491en_us

SMART GADGETS SHARE DATA UNEXPECTEDLY

CLUB MEETING

The next club meeting is December 7th, D Day. 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.

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	WCF section 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	3RD Tuesday monthly, Hillsborough Co ARES simplex Net	

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, ICOM **IC-756 Pro**, HF and 6M, 100 watts, hand mic, power cord and manual, Local only. See George W1AAG

FOR SALE, MFJ-989C Versa Tuner V, 3 KW, with three continuously variable components--two variable capacitors and a roller inductor--you get the widest matching range and the most precise control over SWR possible, $200, Bill AG4QX at arrl dot net or see me at the meeting.

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 feet sections so easy to handle. Asking $300, 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 $250, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

HAMFESTS

2019

October 26   **Gulf Coast ARC Hamfest,** New Port Richey, Millennium Academy, 10005 Ridge Road, admission $6, tailgate free, Talk-In on 146.670 - no tone, For info contact Ralph McCullough , WA3YFQ 727-247-4790, no information on their website

November 9	Pinellas Park, **SPARCFest**, admission FREE, tailgate free, Freedom Lake Park, 9990 46th St N, Southeast corner of US 19 and 49th Street, Talk-in on 147.060+ no tone. VE testing at 0900. For more information go to http://www.sparc-club.org/sparcfest.html
November 16	**TARCFest makeup day for rained out hamfest,** 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/
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 **or go to** http://www.tampabayhamfest.org **or you can just ask me, Jim or Dee at a meeting ;-)**

2020

January 11	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/
February 7-9	**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 or call 407-841-0874
February 21 & 22	Punta Gorda, **5th Annual TECHCON Convention, Charlotte County Emergency Operations Center, 26571 Airport Rd, ,** for more info http://arrlwcf.org/ or contact Darrell Davis at kt4wx@arrl.net.
May 23	**WormFest 2020, 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 442.625 + or 146.850 – both**

Mid January	Frogman swim in Tampa Bay.
	http://www.tampabayfrogman.com/
Last full weekend January	Winter Field Day,
https://www.winterfieldday.com/	
Late January	Gasparilla celebration
Late February	West Central Florida Tech Conference
http://arrlwcf.org/wcf-special-events/wcftechconference/	
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	
Early to Mid May	MS 150 Citrus Tour bike ride
http://www.citrustour.org/register.php	
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
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, 3rd 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 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