



News from



The GLORIOUS SOCIETY OF THE WORMHOLE

August 2018

Hello Worms

Hi Worms,

The work on installing the 6M repeater is on going. A work party convened on Friday the 27th and got quite a bit done. The heat on the roof and unanticipated complications with mounting one of the Unistruts took too much time to finish the planned work. Another work party is not scheduled yet but will be by the meeting this Saturday.

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 if you have one.

*** NOT BIG BROTHER BUT LOTS OF LITTLE BROTHERS
WATCHING ***

BBC NEWS By Jane Wakefield Technology reporter 14 April 2018

For two months in early 2018, technology journalist Kashmir Hill let innocent household items spy on her. She had turned her one-bedroom apartment into a "smart home" and was measuring how much data was being collected by the firms that made the devices. Her smart toothbrush betrayed when she had not brushed her teeth, her television revealed when she had spent the day bingeing on

programs, and her smart speaker spoke to the world's largest online retailer every day.

It was like living in a "commercial, surveillance state" with "not a single hour of digital silence", she said. Image copyright Gizmodo Image caption Kashmir filled her home with smart gadgets Ms Hill, who reports for the technology news website Gizmodo, gave a TED talk describing her experience.

Her colleague Surya Mattu had built a special wi-fi router to monitor the devices listening to her life. They found that she was giving away a lot of information. "The Amazon Echo [a smart speaker] talked to Amazon servers every three minutes and the TV was sending information about every show we watched on Hulu, which was in turn shared with data brokers." But perhaps more worrying than the data she could track, was the vast amount that she could not. "With the other data I don't know ultimately where it was shared," she said.

The lack of transparency about what happens to the huge amount of consumer data that is sucked out of smart devices and social networks every day has been in sharp focus in the last few weeks. Facebook remains under intense scrutiny after it was revealed that up to 87 million Facebook users may have had their profile information accessed by marketing firm Cambridge Analytica without their knowledge.

But while some consumers are prepared to part with their data for the convenience of access to free services such as Facebook and Google, Ms Hill did not feel this was true of her smart experiment. "My smart home was not convenient. Things didn't work, the smart coffee was horrible, Alexa didn't understand us and my take-away was that the privacy trade-off was not worth it."

Facebook may currently be in the spotlight, but it is by no means the first to be caught out over the mishandling of user data. In 2017, smart TV manufacturer Vizio agreed to pay \$2.2m to settle a lawsuit brought by the US Federal Trade Commission over charges that the company installed software on 11 million of its smart TVs to collect viewing data, without informing customers or seeking their consent. In addition, it also gathered each household's IP address, nearby wi-fi access points and postcode, and shared that information with other companies to

target advertisements at Vizio TV owners. And in August 2016, in a particularly intimate example of data misuse, hackers at the Def Con security conference revealed that Standard Innovation's We-Vibe smart vibrators transmitted user data - including heat level and vibration intensity - to the company in real time.

"It is interesting that the issue has coalesced around Facebook but it is a much wider issue," said Ms Hill. "We use platforms on our smartphones and social networks that introduce us to third-party apps and we haven't yet come to terms with what this means, and how much responsibility the companies have to vet these apps and keep us and our data safe."

That is all about to change in Europe with the introduction of the General Data Protection Regulation (GDPR), which promises consumers far greater control over their data. Currently the situation in the US is very different. Citizens do not have the right to access the information that companies have stored on them.

However, California, which is home to most of the biggest tech giants, is currently considering a law that would give users access to their data and let them ask firms not to sell it. For Ms Hill, the changes in Europe cannot come soon enough.

"I absolutely hope that GDPR has a trickle-down effect on the US," she said. Meanwhile, she is not willing to totally abandon her smart home experiment. "We will keep the Echo and the smart TV. I don't love all this stuff but it is going to stay in our home. "What I hope is that we can make better products in future - devices with privacy protections built-in."

COURT SAYS PARENTS HAVE RIGHT TO DEAD DAUGHTERS FACEBOOK

BBC NEWS, 12 July 2018

Germany's highest court has ruled that the parents of a dead daughter have the rights to her Facebook account under inheritance law. The Federal Court of Justice

(BGH) said online data should be treated the same as private diaries or letters, and pass to heirs.

The case involves parents of a 15-year-old girl killed by a train in 2012. They sought access to her Facebook account to try to determine whether the death was suicide. Aside from emotional closure, the parents also wanted to know whether the train driver was entitled to compensation - as would be the case in the event of a suicide.

Facebook had refused access to the account after their daughter's death, citing privacy concerns about the girl's contacts. Under its current policy, the company only allows relatives of the dead partial access to the account, allowing them to change the page into an online memorial or to delete it entirely.

A lower German court backed the parents in 2015, supporting the claim that Facebook data was covered by inheritance law as the equivalent of private correspondence. But in 2017, an appeals court backed Facebook and overturned the ruling, on the grounds that any contract between the girl and the company ended with her death and could not pass on to the parents.

The case went to the BGH, and her parents have now reportedly taken over the account. Judge Ulrich Hermann said it was common to hand over private diaries and correspondence to legal heirs after death, and there was no reason to treat digital data any differently. Moreover, the court added that the parents had a right to know who their child, a minor, had spoken to online.

In recent years, Facebook has come under increasing scrutiny in Germany - in particular over fake news on the platform. The company introduced new tools in Germany to combat fabricated stories, shortly before the government approved plans to levy heavy fines on social media firms if they failed to remove inappropriate comments and content quickly.

*** NEWEST CHROME A LITTLE SLOWER ***

INFOPACKETS by John Lister on July, 18 2018

Google is updating the Chrome browser to give it better defenses against major security threats. It comes at the price of reduced performance and a larger memory footprint.

The changes are to address two security bugs labeled Meltdown and Spectre by researchers. They take advantage of a flaw in almost every computer processor built since 1995, which is (as of this day) 100% of all computers, tablets, smartphones, laptops - and anything else that uses a processor.

The flaw is in regard to a processor feature, which is designed to speed up a computer's response time. It works by using spare capacity to guess what tasks are likely to be asked by the user (or programs) to perform next, and then carries out the calculations in advance. This is referred to as speculative computation, or speculative execution.

Unfortunately this process meant some data that's meant to be kept completely isolated could be seen by rogue software - including information such as passwords or personal details. One such threat came from an open web page in a browser, which was then able to access data from another open page.

Site Isolation Limits Risk

After tests among business users, Google is now rolling out a Chrome security feature named Site Isolation. It deals with what happens when two open tabs in Chrome share information, for example when one page opens up a new tab through a pop-up window.

Until now, Chrome has allowed two tabs connected in this way to share the same "process", meaning the computer's processor treats them as a single task to which it can allocate resources.

With Site Isolation, this will now only happen if Chrome is absolutely certain that both tabs are from the same website, removing the risk of a rogue site accessing data from a legitimate one. (Source: chromium.org)

Rollout For The 99 Percent

The downside is that adding Site Isolation will make Chrome a little less efficient, as this means it will need to run more processes. In turn, that will mean the browser will use somewhere between 10 and 13 percent more memory, which may

mean that Chrome and other computer applications are slower to respond. Google says it's working to reduce this impact. (Source: googleblog.com)

The update will now be rolled out to 99 percent of Chrome users across all operating systems except for the Android operating system (which Google is still working on). The remaining one percent will still get the update, but Site Isolation will be disabled, with Google using it as a control group to check the impact on performance.

* SPACE WEATHER AND FLYING SPIDERS*

spaceweather.com July 20, 2018

Did you know that spiders can fly? Biologists call it "ballooning." Spiders spin a strand of silk, it juts into the air, and off they go. Airborne arachnids have been found as high as 4 km off the ground. Originally, researchers thought spiders were riding currents of air, but there's a problem with that idea. Spiders often take flight when the air is calm, and large spiders fly even when air currents are insufficient to support their weight. It's a mystery.

Scientists from the University of Bristol may have found the solution. In a paper published in the July 5th edition of *Current Biology*, they proved that spiders can propel themselves using electric fields.

"We exposed adult Linyphiid spiders (*Erigone*) to electric fields similar to those which naturally occur in Earth's atmosphere," explains the paper's lead author, Erica Morley. "Spiders showed a significant increase in ballooning in the presence of electric fields." [A remarkable video](#) of their experiment shows one spider flying when the fields were switched on, then sinking when the fields were off again.

The electric fields spiders use for propulsion are part of Earth's global atmospheric electric circuit (GEC)—a planet-sized circuit of electricity that researchers have known about since the 1920s. In a nutshell, thunderstorms help build up a charge difference between the ground and the ionosphere 50 km overhead. The voltage

drop is a staggering 250,000 volts. This sets up electric fields linking Earth to the edge of space. Cosmic rays ionize Earth's atmosphere, turning it into a weak conductor that allows currents to flow through the GEC.

Spiders evolved inside the global electric circuit, so it's no surprise that they have learned to tap into it. But how? Peter W. Gorham of the Dept. of Physics and Astronomy at the University of Hawaii notes that "the complex protein structure of spider silk includes charge-bearing amino acids glutamic acid and arginine, which might be generated in a charged state as part of the spinning process."

Researchers have long wondered about the role of electricity in spider flight. Charles Darwin may have been the first. He wrote about it during his voyages on the HMS Beagle (1831-1836). One day, the ship was 60 miles off the coast of Argentina when the deck was inundated by ballooning spiders.

"The day was hot and apparently quite calm," Darwin wrote. Yet "I repeatedly observed the same kind of small spider, either when placed or having crawled on some little eminence, elevate its abdomen, send forth a thread, and then sail away horizontally, but with a rapidity which was quite unaccountable."

He was particularly struck by spiders using multiple strands of silk that splayed out in fan-like shapes. Instead of tangling as they moved through the air, the strands remained separate. Were they repelled by an electrostatic force? Darwin wondered in his writings. The work of Erica Morley and her collaborator Daniel Robert closes the loop on a train of thought almost 200 years old.

All of this raises the possibility that spiders may be affected by space weather as electric fields are perturbed by cosmic rays and solar activity. Research groups have demonstrated connections between space weather and atmospheric electricity on a variety of time scales:

- **Days:** Coronal mass ejections (CMEs) from the sun can sweep aside cosmic rays as they pass by Earth, causing temporary reductions in atmospheric ionization as large as 30%. Our own [spaceweather.com/Earth to Sky](http://spaceweather.com/Earth-to-Sky) cosmic ray balloons have measured these events.
- **Months:** Measurements at the Reading University Atmospheric Observatory in the UK have shown that voltages can fluctuate $\pm 15\%$ as Earth dips in and out of the heliospheric current sheet (a huge corrugated magnetic structure centered on the sun) every ~ 27 days.

- **Years:** During the 20th century, fair weather atmospheric voltages at sites in Scotland and the UK decreased by factors of ~25% due to a long-term decrease in cosmic rays. That slow trend is now reversing itself as cosmic rays intensify again.

Could the migration patterns of ballooning spiders be affected by space weather?

"It's entirely possible, but we simply don't yet know," says Morley. "The experiments we have carried out are mostly lab-based, which helps eliminate confounding variables. A next step in the project is to take this all into the field and look for patterns. Factoring in solar activity could be very interesting."

MORE FROM *spaceweather.com*: **SOLAR MINIMUM DEEPENS** Jul. 30, 2018:

The sun has been without sunspots for 32 of the past 33 days. To find a similar stretch of blank suns, you have to go back to 2009 when the sun was experiencing the deepest solar minimum in a century. Solar minimum has returned, bringing [extra cosmic rays](#), long-lasting [holes in the sun's atmosphere](#), and strangely [pink auroras](#). **Free:** [Aurora alerts](#).

*** MICROSOFT OFFERS \$100k BUG BOUNTY PROGRAM***

SECURITYWEEK By [Eduard Kovacs](#) on July 18, 2018

Microsoft on Tuesday announced the launch of a new bug bounty program that offers researchers the opportunity to earn up to \$100,000 for discovering serious vulnerabilities in the company's various identity services.

White hat hackers can earn a monetary reward ranging between \$500 and \$100,000 if they find flaws that impact Microsoft Identity services, flaws that can be leveraged to hijack Microsoft and Azure Active Directory accounts, vulnerabilities affecting the OpenID or OAuth 2.0 standards, or weaknesses that affect the Microsoft Authenticator applications for iOS and Android.

The list of domains covered by the new bug bounty program includes login.windows.net, login.microsoftonline.com, login.live.com, account.live.com, account.windowsazure.com, account.activedirectory.windowsazure.com, credential.activedirectory.windowsazure.com, portal.office.com and passwordreset.microsoftonline.com.

The top reward can be earned for a high quality submission describing ways to bypass multi-factor authentication, or design vulnerabilities in the authentication standards used by Microsoft. OpenID and OAuth implementation flaws can earn hackers up to \$75,000.

The smallest rewards are offered for XSS (up to \$10,000), authorization issues (\$8,000), and sensitive data exposure (\$5,000).

“A high-quality report provides the information necessary for an engineer to quickly reproduce, understand, and fix the issue. This typically includes a concise write up containing any required background information, a description of the bug, and a proof of concept. We recognize that some issues are extremely difficult to reproduce and understand, and this will be considered when adjudicating the quality of a submission,” Microsoft wrote on a page dedicated to its [new bug bounty program](#).

The tech giant currently runs several bug bounty programs that offer hundreds of thousands of dollars for a single vulnerability report. This includes the speculative execution side-channel program, which offers up to \$250,000 and which the company launched following the disclosure of Meltdown and Spectre; the Hyper-V program, which also offers up to \$250,000; the mitigation bypass bounty, with rewards of up to \$100,000 for novel exploitation techniques against Windows protections; and the Bounty for Defense, which offers an additional \$100,000 for defenses to the mitigation bypass techniques.



CLUB MEETING

The next club meeting is August 4TH. 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 the 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. 442.625 + with a 146.2 tone or the 2M side at 146.850 – also with a tone of 146.2. 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 system	WCF Skywarn net	NI4CE
2000 147.105+ 146.2 Tampa	Tampa ARC net	from
2000 28.365 USB ARS	simplex	Brandon
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
2100 28.465 USB	10/10 net	from Orlando
WEDNESDAY		
1930 146.30 simplex net from Tampa	Hillsborough ARES/RACES	
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
1930 146.850- & 442.625+ both pl 146.2 Petersburg	Wormhole	from St
1930 146.6385 -127.3 Lakeland	Lakeland ARC	from
1915 224.660- no tone Petersburg	St Pete ARC	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 Pinellas County	550 Simplex Net	
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, 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 feet sections so easy to handle. Asking \$400, 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 \$300, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

FOR SALE, 13 element, 14.5 ft 220 beam. Wormhole property, \$20, contact Bill AG4QX or any other officer. **Free to any Wormhole member or other club.** Pickup at Bill's house.

HAMFESTS

August 18 **TARCFest**, TARC Clubhouse, 22nd St at the river, \$4 entry plus \$3 to tailgate, inside tables \$15 in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>

November 3 **LARC Hamfest**, Lakeland, Revolution Church of Lakeland, 7315 Kathleen Road, Talk-In on 146.685 tone 127.3, For info contact Kevin Rought , N4KWR 863-393-4336
<http://lakelandarc.org>

November 10 **SPARCFest**, 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>

December 7 & 8 **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 ;-)**

Mid January	Frogman swim in Tampa Bay. http://www.tampabayfrogman.com/
Last full weekend January	Winter Field Day, http://www.sparhams.org/index.php
Late January	Gasparilla celebration
Late February	West Central Florida Tech Conference http://arrl.wcf.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	March For Babies (was March of Dimes) https://www.marchforbabies.org/Registration/Events
Late April	Florida QSO Party
Early to Mid May	BikeMS Citrus Tour bike ride http://www.citrustour.org/register.php
Mid-May	Annual Armed Forces Crossband Test
Mid-May	Florida Hurricane Exercise
Late May	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, 3 rd weekend	JOTA, Scout Jamboree-on-the-AIR (around 14.280MHz)
Early December	ALS bike ride in Walsingham Park
December, first full weekend	Ride & Run With The Stars in Fort DeSoto 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

442.625 + PL 146.2

146.850 - 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 repeater crew updated the software on May 3, 2016.

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