



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

August 2025

Hello Worms

Bring your drink of choice and lunch to the meeting if you want. We will not be cooking but we have access to the Chamber of Commerce kitchen which has a microwave and a toaster oven so you can heat up/cook what you bring.

DID YOU KNOW

Did you know it's illegal to own just one guinea pig in Switzerland? Guinea pigs are highly social critters that prefer the company of other guinea pigs. That is why it's illegal to own just one of these adorable pets in Switzerland. Also, if one of your guinea pigs passes away and you're not ready to commit to another, the Swiss government will also allow you to rent a guinea pig as a companion to your remaining pet.

THIS MONTH'S STIFF – KENNELLY-HEAVISIDE COMBO SPECIAL

Does the average radio enthusiast realize that the theories of Messrs. Kennelly and Heaviside established a foundation for worldwide HF (and below) communications today? My first guess would be no. We concern ourselves with solar fluxes, A- and K-Indices, sunspot numbers, solar wind velocities, and geomagnetic storms as they pertain to talking, via the ham radio bands, with Cousin Bubba-Joe, who is located a few states over and deep down in the heart of inbred land. Finally, lets not forget how much time your significant other will graciously allocate for radio play time before disciplinary rolling pin deployment; no need to even turn the sucker on if the bands are deader than the aforementioned Dudeser anyway, I digress.

A lot of head scratching was going on after the first successful radio tests by Marconi and others. The signals were often received beyond line of sight even considering knife-edge diffraction and atmospheric effects. The ranges observed were far in excess of the calculations. So, what other unexplained mechanism was at work?

As is often the case in the scientific community, different researchers postulate explanations for observed natural phenomena at approximately the same time. Messrs. Kennelly and Heaviside were indeed figuratively scratching their heads more or less simultaneously over the radio signal range question. The scientific community at large was loathe to consider a reflective layer in the lower reaches of the so-called ether because the concept seemed to violate the laws of physics pertaining to the speed of light. Without getting into a whole mess of equations that I am incapable of understanding, much less explaining, the reflection hypothesis required that the waves exceed the speed of light while inside the layer versus the hard vacuum of dark, cold, inhospitable, alien-infested space. The issue was solved when it was later discovered that electromagnetic radiation had a phase velocity and a group velocity. Again, don't ask me to explain this concept. Now, let's get back to our Dudes

In 1902, Mr. Heaviside, who bears a striking resemblance to Marvel Comics Wolverine, was a self-made electrical engineer, physicist, ginger, and mathematician. He theorized that an ionized layer of gas existed high above the Earth that served to reflect radio waves back to the ground. In that same year, Kennelly also predicted that a layer existed. Something was indeed afoot as Marconi successfully received signals transmitted from England while at Newfoundland. The theoretical zone of ionized atoms above the Earth was subsequently referred to as the Kennelly-Heaviside Layer. The glory, unfortunately, would ultimately go to British scientist Edward V. Appleton, who experimentally proved the layers existence in 1923. In 1947, Appleton received the Nobel Prize in Physics for his work. The rarefied area is now known as the E-Region. Additional layers were added as one wasn't good enough as the kiddies started playing around with stuff above MF.

What else did our pair accomplish in their lives other than make educated musings about invisible layers above Terra Firma? Both were heavily involved in the scientific communities of late Victorian Era society.

Wolverine attended a school for girls run by his mother in his early years. A bout of Scarlet fever had left him partially deaf. The young, red-headed Oliver dropped out of school at age 16 but continued studying on his own. Fortunately for Heaviside, his uncle, Charles Wheatstone (a bridge is named after him) sponsored the eclectic lad's studies in the German and Danish languages as well as mathematics, electricity, and telegraphy. Later, as an employed telegrapher, Heaviside became familiar with the problem of transmitting messages over long distances as the information would be distorted and weakened by the various reactances present in the hard-wired circuits. Wolverine analyzed the problem mathematically and devised a working solution, thereby making possible long distance telegraphy and telephony. Mr. Heaviside also advanced the concept of electrical reactance and made significant contributions in the area of advanced mathematical analysis. Unfortunately, due to his difficult early

childhood and other factors, the scientist gradually lost his marbles, became a recluse and used boulders for furniture in his home. Yes.boulders. Now on to Mr. Kennelly.

Kennelly enjoyed a storied career and participated in the current wars between Edison and Westinghouse, vis--vis DC vs. AC. While on Edisons team, the boys dreamed up public demonstrations of ACs supposed greater danger by electrocuting dogs, thereby convincing officials that it should be used in that nifty new tool of the penal system; the electric chair. Kennelly also published papers on the use of complex numbers, impedance, and alternating current theory. The canine torturer later served on the professorial staffs at Harvard University and the Massachusetts Institute of Technology.

Both Dudes contributed more to their fields of study than is described herein. The curious and learned reader is encouraged to perform further independent reading. Until next time, my friends, I remain

Respectfully Yours,

Philip A. Neidlinger, PE, KA4KOE
Richmond Hill, Georgia USA

*** MOTHS FOLLOW THE MILKY WAY***

spaceweather.com

MOTHS FOLLOW THE MILKY WAY: Astronomers come in all shapes and sizes--even invertebrates. [A new study](#) published in *Nature* reveals that Australian moths can see and decipher the night sky. They pay particular attention to the Milky Way and seem capable of navigating using the Carina nebula as a visual landmark.

Every spring in southeast Australia, billions of Bogong moths take flight under cover of darkness. It's the beginning of an epic migration as much as 1,000 kilometers long. Their destination: a small cluster of caves in the Australian Alps--places the moths have never visited before, yet somehow navigate to with remarkable precision. Their compass, it turns out, is the night sky itself.

Reaching this conclusion required the researchers to do something you probably don't want to think about too closely: They attached the moths to tiny little tethers. Moths could lift off and pick a direction, but not escape.

The experiment unfolded inside a special moth planetarium (pictured right). Star patterns were projected onto an overhead screen, while the ambient magnetic field was nulled by Helmholtz coils, guaranteeing that the participants could not "cheat" using magnetic navigation. When shown a normal star field, the moths oriented in the correct direction. But when the stars were scrambled into random patterns, they lost their bearings.

To dig deeper, the researchers recorded activity from visual neurons in the moths' brains as a projected night sky rotated overhead. Neurons fired most strongly when the stars aligned with the moth's inherited migratory heading. Some neurons were tuned to the brightest region of the Milky Way (especially near the Carina nebula) suggesting that this band of starlight is a visual landmark.

Clouds produced the next revelation: Bogong moths remained oriented even when stars were hidden. In those cases, they relied on Earth's magnetic field instead, revealing a dual-compass system similar to that of migratory birds. When both stellar and magnetic cues were removed, the moths became disoriented again.

In recent years, scientists have discovered that many creatures are guided by the stars. In addition to humans, the list includes migratory songbirds, possibly seals, dung beetles, cricket frogs, and now Bogong moths. The list of lifeforms guided by magnetism is even longer, ranging in size from microbes to whales.

*** WHAT IS MICROSOFT PRIVACY DASHBOARD?***

How-To-Geek by Gaurav Shukla

- Microsoft Privacy Dashboard is a web-based tool to manage and view data collected about you.
- You can view, download, and delete the activity data collected about you.
- The dashboard allows control over personalized ads and promotional communications from Microsoft.

As the modern world thrives on data, everything you do online, from web searches to conversations with AI chatbots, is collected. And unsurprisingly, Microsoft gathers a ton of information as you use its apps, devices, and platforms.

As data collection grew online and online privacy became a myth, companies like Microsoft faced significant pushback from consumers and intense scrutiny from regulators. So, to address some of these concerns about data privacy, Microsoft [released a little-known web tool](#) called the Privacy Dashboard in 2017. This tool enables you to view and manage data that Microsoft has gathered about you. It's claimed to be the one-stop shop for all your Microsoft-related data and privacy needs.

So, if you want to see what kind of data Microsoft is collecting about you, a lot of it can be found on the Privacy Dashboard. However, as it has been available for several years, the tool has undergone several changes, including the addition of new Microsoft products that gather data about your activity on them and the removal of company products that are no longer operational.

As of July 2025, the dashboard includes information about the data collected regarding your location, browsing, search, app activity, and Copilot usage. It also mentions which apps can access your Microsoft account data, the suggestions Microsoft makes when you contact other people on its services, and your search and news interests that the company has gathered and uses to personalize both products.

Moreover, it features controls that let you set whether the company personalizes the advertisements shown to you or whether you receive promotional communications from Microsoft.

Another notable part of the dashboard is the privacy checkup tool. Unfortunately, it's more of an account security checkup than a proper privacy checkup. Sure, it gives a link to learn how to change privacy settings in Windows and tweak three of Microsoft 365's privacy options, but the rest of it is intended to push you to use the [Edge web browser](#). Google and even Meta's privacy checkup tools are significantly better than this.

The capabilities of the Privacy Dashboard aside, it's reasonably intuitive to use. It can be found in your Microsoft account settings. Simply navigate to the [privacy section in your account settings](#), and you'll reach the tool.

It lists the data Microsoft has collected about your activities on various apps and services. You can view, download, or delete the data, including your individual activities, as needed. Some of the data you'll see includes things like your Bing searches, your website visits on Edge, your location data, and a Microsoft-generated list of your interests.

In other highlights, Microsoft Privacy Dashboard includes an option to remove access to the apps connected to your Microsoft account. There are also links to help documentation on how to manage your privacy settings in various Microsoft products.

Remember, you'll only see the data for Microsoft apps, products, and services that you're using. If you're concerned about the data Microsoft collects about you, the Privacy Dashboard is just one of the resources that can help. It can show you which data is being collected and help you delete it. But it doesn't give the option to stop the collection. For that, you'll need to visit the individual privacy sections of the various Microsoft products and services you use. This step is crucial if you don't want the company to gather data about your use of its apps, services, and devices.

For example, to stop data collection through Windows, you'll need to visit the "Privacy & security" options in your computer's Settings app. Similarly, for Edge, Xbox, Microsoft 365, Teams, Bing, OneDrive, Outlook.com, and Copilot, the only way to stop data collection is to access the specific app's, website's, or device's privacy options. Microsoft has a helpful page describing [how to access the privacy settings](#) of most of its products and services.

Changing the privacy settings and disabling any available options won't completely stop data collection, but it can help minimize the amount of data collected.

CLUB MEETING and ZOOM

The meeting time is 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 are a few parking spots in front the Chamber building but double parking is fine since we will be able to find the owner to move his vehicle if necessary. Alternately if you go another 100 yards past you can park in the college parking lot. We will not be offering a ZOOM of the meeting

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

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 440.1 +162.2	Hillsborough ARES/RACES	from Tampa
1930 146.850- 146.2	Wormhole	from Pinellas Co
2000 53.150 -1MHz 146.2	Wormhole	from Pinellas Co
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

FRIDAY

1830 147.060 no tone	St Pete ARC daily net	from St Petersburg
1900 3.830 LSB	Brandon 80M Net	from Brandon
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

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
2030	NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
SUNDAY			
0800	3.933	Florida Traders Net	non-affiliated
1830	147.060 no tone	St Pete ARC daily net	from St Petersburg
1930	NI4CE system	WCF Section Net	NI4CE system
2000	147.550 simplex	550 Simplex Net	Pinellas County
2030	NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100	144.210 USB	Clearwater ARS	vertical orientation

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. If you want to see anything here and you are coming to the meeting let the seller know, maybe he can bring it.

FOR SALE,

See Bill AG4QX for the following: make me an offer.

*ICOM IC-W32A , 2m and 440 HT, AA battery pack	\$25
*Heathkit HD-1215 Phone patch looks ok	\$10
*Drake WV-5 wattmeter looks ok	\$75
*Cushcraft A4S, 10/15/20 4 element beam	\$250
*Cushcraft AV-12AVQ, 10/15/20 vertical	\$125
*Cushcraft A50-#S, 6m beam	\$125
*Cushcraft A-#WS, 17/12 WARC beam	\$250
*15000 V neon sign transformer currently used for Jacobs ladder	\$30

HAMFESTS

2025

August 23

TARCFest TARC Clubhouse, 22nd St at the river, 8AM-1PM, \$5 entry including tailgate, a few inside tables must be reserved in advance, talkin on 147.105 +146.2, license testing after, more info at <http://hamclub.org/>

November 8

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. Website has not been updated yet.

December 12 & 13

Plant City, the 2025 Tampa Bay Hamfest and West Central Florida Section Convention, Friday and Saturday, at the Strawberry Festival grounds, admission \$13, 16x40 ft tailgate space \$10, electric \$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 ;-)

2026

January 17

TARCFest TARC Clubhouse, 22nd St at the river, 8AM-1PM, \$5 entry including tailgate, a few inside tables must be reserved in advance, talkin on 147.105 +146.2, license testing after, more info at <http://hamclub.org/> Date not confirmed .

Fourth 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/wcfttechconference/>

March/April

MS Walks

April

MS150 bike now named Suncoast Challenge

<http://www.citrustour.org/register.php>

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
Late May	Dayton Hamfest
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/
Third weekend in August	International Lighthouse/Lightship Week
	https://illw.net/
September	Run for All Children's
Mid October	The Great Shakeout https://www.shakeout.org
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/

North American QSO Party

Mode	Contest Weekend
CW	2nd full weekend January 1 st full weekend August
SSB	3 rd full weekend January 3 rd full weekend August
RTTY	last Saturday February 3rd full weekend July

YOUR WORMHOLE OFFICERS

Bill AG4QX is President and editor of this newsletter, the Vice President position is open, Treasurer is Jim KD4MZL, Paul KA4IOX is the Secretary, Dee N4GD is the Repeater Trustee and Mike KV0OOM is our 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-2X. 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