



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

October 2025

Hello Worms

Not a very big newsletter this month. If anyone sees an article or writes one that is appropriate to this newsletter (which is almost anything) send it or a link. I can use some help doing this every month. I had two newsletters that geve me permission to copy but both have stopped this year.

I am again working the American Victory haunted ship every weekend till Halloween. If you come I will be the person that lets you on board. <https://www.americanvictory.org/events/>

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.

Happy 250th birthday to the US United States Navy.

DID YOU KNOW

Veterans Stadium, where the Philadelphia Eagles once played, had a stadium courtroom and jail to handle the team's notoriously rowdy fans. However, one of the judges for said courtroom reported that 95% of the "inmates" were actually not from the city itself!

THIS MONTH'S STIFF – CHARLES PROTEUS STEINMETZ

The Mighty Midget

eHam.net created by Philip Neidlinger, KA4KOE

Entered Mortal Coil: 9 April 1865

Assumed Room Temperature: 26 October 1923

Good things often come in small packages. I'm sure we've all heard this old saying quite a few times. In this particular instance, Proteus immigrated to the United States on July 1, 1889, as a result of the repression of radical thinkers and writers in his former home of Breslau, Germany.

Steinmetz was only four feet tall. Apparently, this was the result of a physical deformity acquired at birth, which he may have inherited from his father, Karl, who was also crippled. Steinmetz's middle name, Proteus, is also the Greek god of mythology who could assume any shape or size.

Steinmetz was a brilliant electrical engineer. A common problem around the turn of the century was that no one really fully understood how generators or electric motors worked in detail. Often, an electrical device was built with no definitive engineering design work being performed by the manufacturer. If the gadget ran well and didn't go boom, then it was marketed. However, this process was often hit or miss at best. Needless to say, the whole process had a lot of overhead built into it.

What Proteus did to help out with this sad state of electrical affairs was to codify and explain the laws governing alternating current via the use of complex numbers. During a seminal lecture given to the International Electrical Congress in 1893, Steinmetz explained his calculations and thoughts to a group of engineers, who basically had very little understanding of the material being presented. Proteus co-wrote a "*Theory and Calculation of Alternating Current Phenomena*" with Ernst J. Berg in 1897. The engineering world didn't digest this little tome either. The apparent problem at the time was that engineering schools were not requiring an adequate amount of advanced mathematics instruction in their curriculums. Proteus met this problem head on, and wrote textbooks to educate the engineers so they could understand what in the heck he was talking about!!! The poor chaps didn't have the proper tools to begin with!

Charles was a longtime employee of General Electric, and was considered a major asset to the company. Without Proteus' numerical calculations, it would have been impossible to construct the electrical generators at the first power plant in the United States, located at Niagara Falls. The modern power generation and distribution industry would not be what it is today without Proteus' pioneering work.

Steinmetz's other achievements included an explanation of the laws governing hysteresis in magnetic materials and the invention of the metal halide high-intensity discharge lamp, which is a ubiquitous "fixture" along our roadways. In all, the Mighty Midget held over 200 patents.

Proteus was a pugnacious individual, but he had a heart of gold. There is a story about Steinmetz that may not be true, but anyway it goes like this...

"Here's an interesting anecdote, as told by Charles M. Vest, President of the Massachusetts Institute of Technology, during commencement on June 4th, 1999. "In the early years of this century, Steinmetz was brought to General Electric's facilities in Schenectady, New York. GE had encountered a performance problem with one of their huge electrical generators and had been absolutely unable to correct it. Steinmetz, a genius in his understanding of electromagnetic phenomena, was brought in as a consultant - not a very common occurrence in those days, as it would be now. Steinmetz also found the problem difficult to diagnose, but for some days he closeted himself with the generator, its engineering drawings, paper and pencil. At the end of this period, he emerged, confident that he knew how to correct the problem. After he departed, GE's engineers found a large "X" marked with chalk on the side of the generator casing. There also was a note instructing them to cut the casing open at that location and remove so many turns of wire from the stator. The generator would then function properly. And indeed it did. Steinmetz was asked what his fee would be. Having no idea in the world what was appropriate, he replied with the absolutely unheard of answer that his fee was \$1000. Stunned, the GE bureaucracy then required him to submit a formally itemized invoice. They soon received it. It included two items: 1. Marking chalk "X" on side of generator: \$1. 2. Knowing where to mark chalk "X": \$999."

In his spare time, Proteus like to grow unusual plants in his greenhouse; the uglier the better. He was almost never seen without one of his favorite Blackstone panetella cigars. Another story about the inventor relates to his reaction to GE's new anti-smoking policy, to which he replied, "If the cigar goes, Steinmetz goes!"

Steinmetz never married. Apparently he was afraid he would pass his disability on to any offspring. However, children loved him, and he helped out those less fortunate than himself whenever possible. The man was genuinely loved by those who knew him.

*** MICROSOFT GIVING FREE SECURITY UPDATES ... SORT OF***

Infopackets by John Lister on September, 24 2025

Windows 10 users can now sign up for free security updates from Microsoft after it removes standard support in October. It's an option for people who can't or won't upgrade to Windows 11.

Officially Microsoft will no longer update Windows 10 as standard after October 25, the system's end of life date (it originally debuted back in July of 2015). This means no technical support, no new features and no security patches. (Source: [windowscentral.com](https://www.windowscentral.com))

As we've covered, that went down particularly badly with people whose machines don't meet the hardware specifications for Windows 11. This includes the need to have a hardware security feature called a TPM, which can rule out computer that are otherwise perfectly powerful enough to run the system.

No Payment Necessary

As was widely predicted given the sheer proportion of people who have yet to switch to Windows 11, Microsoft has made multiple backtracks on the way the end of life deadline works. It previously announced a paid plan to get security fixes for a year for \$30. This is the first time such an "extended security updates program" has been available to home users.

It later decided to waive the charge for people who agreed to do one of things: back up some files to Microsoft's OneDrive cloud service, or spend 1,000 points from its reward program. Given the deadline is next month, it's unlikely there will be any more concessions unless the number of people still on Windows 10 is so significant that it creates a serious security risk.

Users can now sign up for the Extended Security Updates by opening the Windows settings menu and selecting Update & Security. The offer to enroll should be there. If not, users will need to update Windows 10 to the latest branch and version. Clicking on "Enroll now" will bring up a new series of menus in which users can choose their option: back up files, redeem points or pay the fee.

Settings Backup Sufficient

Contrary to some reports, users don't need to back up all their files, or even any documents, to choose the first option. The requirement is only to back up Windows settings. This is information such as preferred screen resolution and a list of installed apps which may be useful if the user reinstalls Windows or switches to a new machine.

The redeeming points option is only available to users who have signed up to the rewards program and earned 1,000 points. Although points are available for buying software from the Microsoft Store or from playing certain Xbox One games, the easiest method is carrying your searches in Bing or through the Windows taskbar search box. Users will need to temporarily set Bing as their default app. In most cases, carrying out 10 searches a day for 20 days will be enough to qualify for the free updates.

(Source: [microsoft.com](https://www.microsoft.com))

As things stand, Microsoft has only committed to offering the consumer version of Extended Security Updates for a year. That could always change based on Windows 10 and 11 use levels next October.

*** MUF AND LUF: KEY CONCEPTS FOR HF COMMUNICATION***

By ICO Optics / September 26, 2025

MUF is the highest frequency that can support reliable ionospheric communication over a specific path, while LUF is the lowest frequency that can pass through the atmosphere without being absorbed too much to be useful. These two limits set the usable range for high-frequency (HF) radio transmissions and decide if a signal reaches its destination or just fades away.

When you understand MUF and LUF, you can pick the best frequency for the conditions. Go too high, and your signal just shoots through the ionosphere into space. Too low, and it gets swallowed up before it travels anywhere. Both limits keep shifting with the time of day, solar activity, and atmospheric changes, so it's always a moving target for anyone relying on HF propagation.

If you know how MUF and LUF work, you can make smarter choices and improve signal quality and reliability. This knowledge turns guesswork into strategy, making long-distance communication a lot more consistent and efficient.

In HF communications, you need to pick a frequency that actually works. The Maximum Usable Frequency (MUF) sets the top, and the Lowest Usable Frequency (LUF) sets the bottom. Both limits change with ionospheric conditions, path length, and your station gear.

The **Maximum Usable Frequency** is just the highest HF frequency that lets you talk between two points via ionospheric propagation at a certain time.

If your signal goes above the MUF, it slips through the ionosphere and disappears into space. That means no contact.

Several things affect MUF:

- **Critical Frequency (f_o) is the highest frequency that bounces straight back to Earth if you send it straight up. If you go above that, the wave just keeps going upward.** Angle of incidence of your signal
- **Path distance** between stations

The basic formula is: $MUF = \{ f_o \} \times \sec(\theta)$
]where θ is the angle of incidence.

Most operators stay about 15–20% below the MUF to avoid losing the link if the ionosphere suddenly changes.

The **Lowest Usable Frequency** is the lowest HF frequency that still gives you reliable communication between two points.

If you go below the LUF, signals get too weak because of absorption, especially in the **D layer** of the ionosphere, and background noise.

Several things push the LUF up or down:

- Noise at the receiver
- Transmitter power and antenna efficiency
- Solar activity, which boosts D-layer ionization and absorption

During high solar activity, the LUF can climb, making the lower HF bands pretty much useless for long-haul contacts.

If you improve your antennas or crank up transmitter power, you might lower the LUF a bit, but nature still sets the main boundaries.

MUF and LUF set the **usable frequency window** for a given HF path. You only get through if your frequency sits between those two. Go above the MUF, and your signal is gone into space. Go below the LUF, and you're just fighting noise and absorption. Operators keep an eye on MUF and LUF to pick the most efficient frequency for the time, season, and solar conditions. That's how you get steady, long-range HF links with less signal loss.



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
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

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
Late January

Winter Field Day <https://www.winterfeldday.com/>
Gasparilla celebration

Late February	West Central Florida Tech Conference http://arrlwcf.org/wcf-special-events/wcftechconference/
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