



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

April 2026

Hello Worms

THE MEETING WILL NOW START AT 1000. Another organizations meeting is starting at 1230 meaning they arrive at 1200. Unfortunately that means our meeting after meeting that sometimes runs for hours will no longer be available. We could always go somewhere and get a cup of coffee.

Paul sent me corrections for CARS repeater information. That was the first and only correction I have received. Take a look at the repeater and net listings and let me know if anything need correcting.

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 there's a 3,400-year-old song? "Hurrian Hymn No. 6" is considered one of Earth's earliest melodies, dating back to the 14th century. It was inscribed in cuneiform on clay tablets, which were excavated by archeologists from the ancient city of Ugarit (which is now known as Syria). You can actually [listen to the tune](#) performed on a lyre by composer Michael Levy!

THIS MONTH'S STIFF – MAJOR EDWIN HOWARD ARMSTRONG

Entered Mortal Coil: 18 December 1890

Assumed Room Temperature: 31 January 1954

We radio amateurs (and the rest of the world, for that matter), owe a great debt of gratitude to this month's Dead Electrical Dude, Major Edwin Howard Armstrong. Howard's inventions form the basis for all modern radio communications devices. Indeed, the list of Howard's accomplishments is impressive. Unfortunately, Howard spent the latter part of his life in endless patent battles. In many people's opinion, including this writer's, these battles ultimately drove Howard to commit suicide. An in-depth discussion of the myriad legal wranglings is beyond the scope of this discussion. However, we will touch briefly on the landmarks of this pioneer's career and his troubles:

1913: Armstrong modified DeForest's triode amplifier tube circuit by feeding the output into the input, resulting in amplification of a radio signal thousands of times. If driven still further, the circuit acted as an oscillator. Armstrong termed this method of amplification as *regeneration*. DeForest sued in court and ultimately won via a faulty ruling after 20 years. However, the scientific community generally regards Armstrong as the true inventor of regeneration.

1917: Armstrong joined the Army's Signal Corps in World War I as a Captain, ultimately being promoted to the rank of Major. Armstrong developed the *superheterodyne radio circuit* as a solution to the problem of intercepting German tactical communications on the battlefield. Armstrong applied for a patent of the revolutionary superheterodyne circuit in 1919. All modern radio receivers utilize some version of this circuit.

1933: Armstrong applied for and was granted four patents on circuits that established wideband high fidelity *frequency modulation*, or FM. RCA and other manufacturers began using many of Armstrong's circuits after World War II without permission, resulting in an unbroken string of patent infringement litigation.

1954: Armstrong, in the pit of despair after being left by his wife following a violent argument, commits suicide by walking out of a 13th story window.

1967: Marion Armstrong, after many years of litigation, wins a legal settlement against Motorola. This was the last lawsuit. Marion and her lawyers won every suit that was pending after Edwin's death.

It is interesting to note that Armstrong was quite a fixture at RCA prior to the start of his patent troubles. Armstrong once climbed a radio tower on the corporate headquarters building and did handstands on the large globe on top in order to impress Marion; he loved heights and was temporarily banned from the property by the head of RCA, David Sarnoff. Sarnoff was annoyed at what he termed "damn fool" stunts. Sarnoff befriended Armstrong, and had earlier introduced the inventor to his secretary, Marion, whom Armstrong would later marry. Little did Armstrong know that Sarnoff would in later years figuratively stick a knife in his back for the sake of corporate profits and convenience.

Philip Neidlinger
KA4KOE

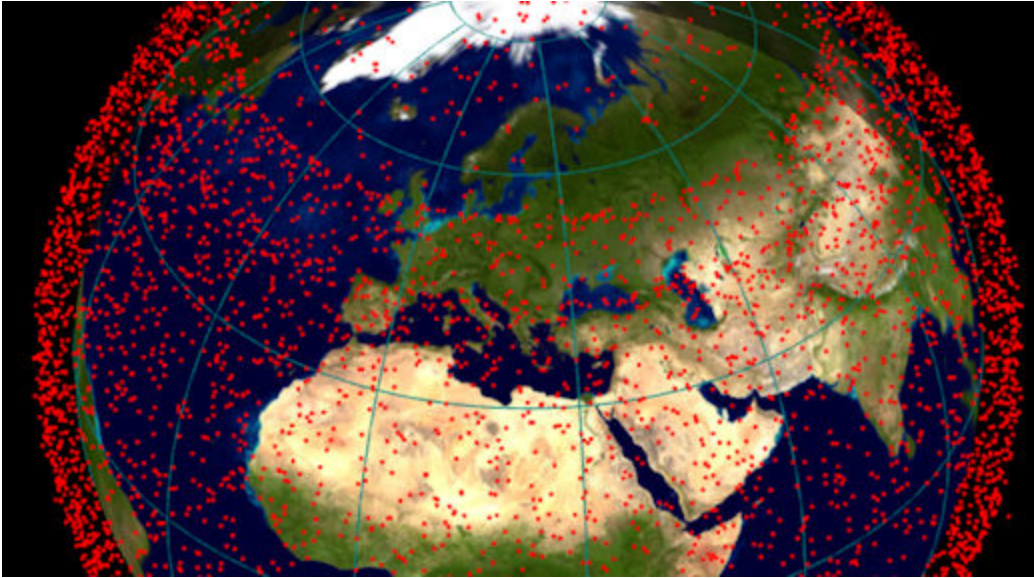
References: *Empire of the Air: The Men Who Made Radio*. If you can get a copy of this book, do so, as it is fascinating reading.

Postscript: The intent of this series of articles is to present biographical information in a humorous manner. However, Armstrong was such a tragic figure that no attempt was made in this article to be funny in any way. Sorry boys and girls, my heart just wasn't in it.

*** TEN THOUSAND STARLINKS***

spaceweather.com March 17, 2026

On March 16th, a Falcon 9 rocket lifted off from Vandenberg Space Force Base carrying 25 Starlink satellites. It was a routine launch for SpaceX, the 33rd of 2026. But those 25 Starlinks crossed a milestone. For the first time in history, more than 10,000 Starlink satellites were simultaneously circling Earth.



Click to view of dynamic plot of Low-Earth Orbit from [Heavens Above](#)

Consider where we started: When SpaceX launched its first operational Starlinks in May 2019, there were roughly 2,000 active satellites of all kinds orbiting Earth. Starlink alone now outnumbers the entire pre-2019 fleet five to one. The constellation has utterly transformed the orbital environment.

The numbers are sobering. Since 2019, more than 11,596 Starlinks have been launched. Of those, more than 1,500 have already reentered the atmosphere as SpaceX retires older satellites to make room for newer models. Each re-entry deposits about 30 kg of aluminum oxide into the upper atmosphere--an [uncontrolled chemistry experiment](#) on a planetary scale.

In case you're wondering how this might affect astronomy, consider this recent video of Comet Wierzchoś (C/2024 E1) from Gerald Rhemann:

With so many Starlinks circling Earth, the orbital environment is increasingly unstable. It's "an orbital house of cards," according to [a study](#) led by Sarah Thiele of Princeton University, which finds that a severe solar storm could kickstart widespread catastrophic collisions in as little as 2-3 days. SpaceX itself reported to the FCC that Starlink satellites performed roughly 300,000 collision-avoidance maneuvers in 2025 alone.

Meanwhile, Starlink internet is awesome. Enjoy it while you can.

Extra: Because satellite megaconstellations are an increasingly important aspect of space weather and amateur astronomy, we've decided to track them. Every day we will update Starlink Statistics, eventually adding other megaconstellations when they become important.

* FIREBALLS OVER TEXAS AND OHIO*

spaceweather.com March 24, 2026

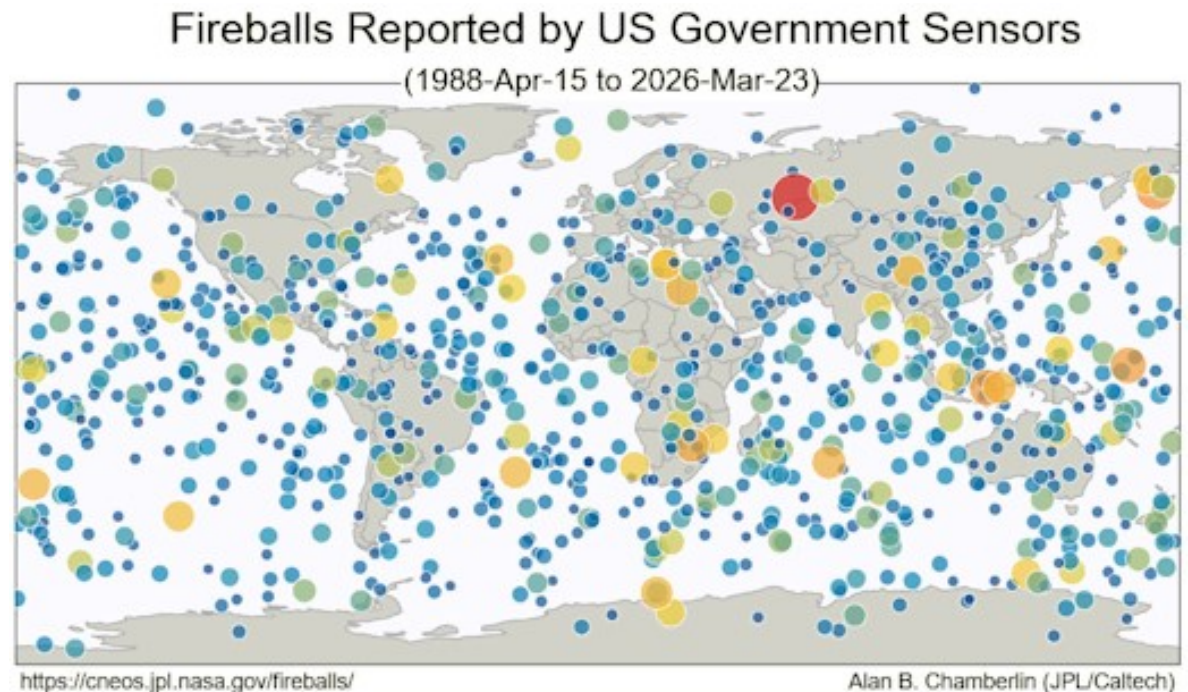
Is Earth under siege? If you've been reading headlines about space rocks falling over Ohio and Texas, you might be wondering what's going on. According to NASA, it's nothing unusual, yet still a little mysterious.

"Spring is fireball season," says Bill Cooke of the NASA Meteoroid Environment Office. "For reasons we don't fully understand, the rate of very bright meteors climbs 10% to 30% during weeks around the vernal equinox."

The Ohio and Texas meteors landed squarely in the middle of the season. Onlookers saw the Ohio fireball on March 17th only 3 days before the equinox. The Texas fireball appeared one day after the equinox on March 21st. Both were visible in broad daylight, with sonic booms and meteorites. One fragment reportedly punched through the roof of a home in suburban Houston.

"Meteorite falls--fragments that actually hit the ground--are more common in spring as well," says Cooke.

Although researchers have known about the



spring surge for 30+ years, no one is sure what causes it. There seems to be an intrinsic variation in the meteoroid population along Earth's orbit, with a roughly February-to-June peak in large, fireball-producing debris. The source of the extra debris is unknown.

Although the spring surge is real, it may not be required to explain these recent fireballs. Three decades of [data from US government sensors](#) shows that an Ohio-class fireball hits Earth roughly once a month, but almost all of them go unnoticed because they occur over oceans or remote regions. The Ohio and Texas fireballs are roughly consistent with these statistics.

Finally, we note that the Texas and Ohio fireballs did *not* come from the same place despite arriving during the same "spring surge."

"The two fireballs had completely different orbits," says Cooke. "Plus, the meteorites they produced are quite different. Ohio finds are probably eucrites, whereas the recovered Texas meteorite appears to be an ordinary chondrite."

So, nothing unusual--but still a little mysterious. Keep looking up.

CLUB MEETING and ZOOM

The meeting time is 1000 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 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	444.450 + 146.2	CARS Traders & Trivia Net	Echolink N4CLW-R Node 474277
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

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,:

From Jack Satterfield W4GRJ, contact at captjack@satterfield.org

USB Interface Navigator, Navigator Sound Card Modem, in excellent condition, includes cables for Yaseu FT-857 and other similar Yaesu radios. \$150 <https://timewave.com/support/Navigator/index.html>

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

*Yaesu FT-7900 with mic, manual and mounting bracket	\$200
*MFJ1783 Box Fan Antenna. 10 – 30m loop antenna with control box	\$300
*Yaesu FT-1500 with mic, manual and mounting bracket	\$175
*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

- April 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/>
- May 09** **EPARS Hamfest**, American Legion, 37745 Church Ave, Dade City, gate \$5, tailgate \$5, inside table \$10, talkin 146.880 (-.600) 146.2, contact Chris Bloxsom , AA4CB, PO Box 2199 St. Leo , FL 33574 or 224-221-5064 or aa4cb@yahoo.com, **Website:** <http://eparsonline.org>
- May 23** **WormFest 2026**, 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 22** **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 07** **EPARS Hamfest**, American Legion, 37745 Church Ave, Dade City, gate \$5, tailgate \$5, inside table \$10, talkin 146.880 (-.600) 146.2, contact Chris Bloxsom , AA4CB, PO Box 2199 St. Leo , FL 33574 or 224-221-5064 or aa4cb@yahoo.com, **Website:** <http://eparsonline.org>
- November 14** **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.
- December 11 & 12** **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@fgarc.org or go to <http://www.tampabayhamfest.org> or you can just ask me, Jim or Dee at a meeting ;-)

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| Fourth full weekend January | Winter Field Day https://www.winterfieldday.com/ |
| Late January | Gasparilla celebration |
| Late February | West Central Florida Tech Conference http://arllwcf.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