



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

May 2024

Hello Worms

Before the meeting the radio will be on for information about and directions to the meeting but that will discontinue when the meeting starts. We will continue with Zoom for now but the 40 minute limit does make it awkward at times. The Zoom information is the same as all the other meetings and is listed towards the end of this newsletter.

In the meeting we will have donuts, water and soft drinks (probably only root beer). Bring your drink and lunch 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.

***NEW BATTERY TECHNOLOGY ***

The Beacon from West Mountain Radio by: Mark Siegesmund, W9WMR

There is increased chatter about the new rage for battery technology... Sodium Ion (Na-Ion) batteries are the next level up! We recently bought a Sodium Ion battery and ran it through a series of tests to determine how suitable it would be for amateur radio. This was a test of just one battery and it is still early in the development for Sodium ion batteries. It is being promoted as having a life span in the range of a Lithium battery without the concerns of spontaneous thermal events. Note that the Lead Acid battery data in this article are for sealed type that are not AGM.

The charge voltage is higher than we are accustomed to, and more importantly, the discharge voltage is considerably lower than the competitive technologies.

Battery Type	Charge Voltage	Discharge Min Voltage
Lead Acid	13.8V	10.5V

LiFePO4	14.5V	10V
Na-Ion	15.4V	6V

Most radios need 11.5V to transmit, meaning about half the Amp Hours in the battery are not usable just as it is. A battery booster will help this situation. The West Mountain Radio N8XJK Super Booster works down to 9V, thus providing 82% of the Amp Hours. Most radios need 11.5V to transmit, meaning about half the Amp Hours in the battery are not usable just as it is. A battery booster will help this situation. The West Mountain Radio N8XJK Super Booster works down to 9V, thus providing 82% of the Amp Hours. Na-Ion batteries require a 15.4 charge voltage, so most radios will need to be disconnected during charging. The radio can stay connected while charging the battery is charged to 15V, however, there is a small reduction in AH. Note that even when charged to 15.4V after charging the battery settles down to 14.8V. In our tests we were only able to get 96% of the rated AH even when charging as instructed. The discharge curve is also unique.

In order to simulate normal operating conditions we do a test that alternates between a 2A discharge (receive) and a 20A discharge (transmit), each for 30 seconds.

Perhaps the most attractive feature of this battery was the price. The retail price was \$85 for a 40AH battery and the weight was 11.75 lbs. It did cost us twice that due to overseas shipping. Here is a rough comparison chart.

Battery Type	Dollars per AH	Pounds per AH	Deep Cycles
Lead Acid	\$4.80	7 lbs	600
LiFePO4	\$7	0.28 lbs	3000
Na-Ion	\$2.13	0.29 lbs	3000

In summary this battery will take some getting used to. The battery can be used as-is using a Li charger set to 14.8V (the Epic can do this) to get 46% of the rated capacity (down to 11.5V). The WMR Super booster will bring this to 81%. Still a lower cost than a LiFePO4 but then there is a hassle of actually buying one. The characteristics will likely change as these batteries are available from more manufactures and are in mass production. If you want to find the battery we tested Google YC-NA-1240S.

ED Note: It is much cheaper than LofePo but looks a real pain to use. I did not put the charts they had. To see the complete article go to: <https://www.westmountainradio.com/pdf/Quarter-1-2024.pdf> Bill

*** ANNUAL ARMED FORCES DAY CROSSBAND TEST***

The Department of Defense will host this year's Armed Forces Day (AFD) Crossband Test, scheduled for May 11, 2024. This annual event is open to all licensed amateur radio operators and will not impact any public or private communications. For more than 50 years, military and amateur stations have taken part in this event, which is an interoperability exercise between hobbyist and government radio stations.

The AFD Crossband Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service (ARS), as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario that does not impact any public or private communications.

Military stations will transmit on selected military frequencies and will announce the specific ARS frequencies monitored. All times are ZULU (Z), and all frequencies are Upper Side Band (USB) unless otherwise noted. The frequencies used for the test will not impact any public or private communications and will not stray outside the confines of the exercise.

Additionally an Armed Forces Day message will be sent using M110 , RTTY and CW.

For a list of the participating military stations and frequencies and the list of stations sending the message with frequencies go to: <https://www.dodmars.org/mars-comex-information-website/armed-forces-day>

*** GOOGLE MAY CHARGE FOR SOME SEARCHES ***

arsTECHNICA by [Kyle Orland](#) - 4/3/2024

Google might start charging for access to search results that use generative artificial intelligence tools. That's according to [a new Financial Times report](#) citing "three people with knowledge of [Google's] plans."

Charging for any part of the search engine at the core of its business would be a first for Google, which has funded its search product solely with ads [since 2000](#). But it's far from the first time Google would charge for AI enhancements in general; the "AI Premium" tier of a Google One subscription [costs \\$10 more per month](#) than a standard "Premium" plan, for instance, while "Gemini Business" [adds \\$20 a month](#) to a standard Google Workspace subscription.

While those paid products offer access to Google's high-end "Gemini Advanced" AI model, Google also [offers free access to its less performant, plain "Gemini" model](#) without any kind of paid subscription.

Under the proposed plan, Google's standard search (without AI) would remain free, and subscribers to a paid AI search tier would still see ads alongside their Gemini-powered search results, according to the FT report. But search ads—which brought in a reported \$175 billion for Google last year—might not be enough to fully cover the increased costs involved with AI-powered search. A [Reuters report from last year](#) suggested that running a search query through an advanced neural network like Gemini "likely costs 10 times more than a standard keyword search," potentially representing "several billion dollars of extra costs" across Google's network.

Cost aside, whether there's a critical mass of market demand for this kind of AI-enhanced search is unclear. Microsoft's massive investment in generative AI features for its Bing search engine has [failed to make much of a dent in Google's market share](#) over the last year or so. And there has reportedly been [limited uptake for Google's experimental opt-in "Search Generative Experience"](#) (SGE), which adds chatbot responses above the usual set of links in response to a search query.

"SGE never feels like a useful addition to Google Search," Ars' Ron Amadeo wrote last month. "Google Search is a tool, and just as a screwdriver is not a hammer, I don't want a chatbot in a search engine."

Regardless, the [current tech industry mania](#) surrounding anything and everything related to generative AI may make Google feel it has to integrate the technology into some sort of "premium" search product sooner rather than later. For now, FT reports that Google hasn't made a final decision on whether to implement the paid AI search plan, even as Google engineers work on the backend technology necessary to launch such a service.

Google also faces AI-related difficulties on the other side of the search divide. Last month, the company [announced it was redoubling its efforts](#) to limit the appearance of "spammy, low-quality content"—much of it generated by AI chatbots—in its search results.

In February, Google [shut down the image-generation features of its Gemini AI model](#) after the service was found inserting historically inaccurate examples of racial diversity into some of its prompt responses.

*** TWO MASSIVE BREACHES EXPOSE YOUR DATA ***

Your editor and Malwarebytes Newsletter by Pieter Amtz

Your editor has merged two articles from the Malwarebytes Newsletter including a link to scan for your presence on the dark web..

UNITEDHEALTH GROUP has [given an update](#) on the February [cyberattack on Change Healthcare](#), one of its subsidiaries. In the update, the company revealed the scale of the breach, saying:

“Based on initial targeted data sampling to date, the company has found files containing protected health information (PHI) or personally identifiable information (PII), which could cover a substantial proportion of people in America.”

UnitedHealth also announced support for affected people.

On Wednesday February 21, 2024, Change Healthcare experienced serious system outages due to the cyberattack. The incident led to widespread billing outages, as well as disruptions at pharmacies across the United States.

The attack on Change Healthcare, which processes about 50% of US medical claims, was one of the worst ransomware attacks against American healthcare and caused widespread disruption in payments to doctors and health facilities.

Despite the ongoing investigation, which expectedly will take several more months of detailed analysis, UnitedHealth said it had decided to immediately provide support. The company says it continues to monitor the regular web and [the dark web](#) for any published data

AT&T has [notified US state authorities and regulators](#) about its recent (or not) data breach, saying 51,226,382 people were affected.

For those that have missed the story so far:

- Back in 2021, a hacker named Shiny Hunters claimed to have [breached AT&T](#).
- On March 20, 2024, we [reported](#) how the data of over 70 million people was posted for sale on an online cybercrime forum. The seller claimed the data came from the Shiny Hunters breach. However, AT&T denied (both in 2021 and in March, 2024) that the data came from its systems.
- On March 30, AT&T reset customer passcodes after a security researcher [discovered](#) the encrypted login passcodes found in the leaked data were easy to decipher.
- Finally, on April 2, 2024, AT&T [confirmed](#) that 73 million current and former customers were caught up the data leak.

Weirdly enough, in the data breach notification, AT&T says the date of discovery of the breach was March 26, 2024. AT&T has still not disclosed the source of the leak, but says the data appears to be from June 2019 or earlier.

Malwarebytes VP of Consumer Privacy, Oren Arar, describes the AT&T breach as “especially risky” because of the type of data that’s been exposed.

“SSN, name, date of birth—this is personal identifiable information (PII) that cannot be changed, and if scammers get their hands on it, it just makes their work in stealing people’s identities a lot easier. In addition, this exposed data was published on the internet – in a way that anyone could access it, and not on the dark web where you need some expertise to find it”.

Check your digital footprint

Malwarebytes has a new free tool for you to check how much of your personal data has been exposed online. Submit your email address (it’s best to give the one you most frequently use) to our [free Digital Footprint scan](#) and we’ll give you a report and recommendations.

SCAN NOW



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. Below is the Zoom information, same as last month. The ZOOM meeting is limited to 40 minutes so I will start it early and restart it to cover the whole meeting.

Topic: Bill Williams' Zoom Meeting
Time: This is a recurring meeting Meet anytime

Join Zoom Meeting

<https://zoom.us/j/2737114584?pwd=d1BETHVOQ21vWWZlYQ0FIWWtldz09>

Meeting ID: 273 711 4584

Passcode: worm



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 Bandon
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 440.0 +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: most from SK estate, make me an offer.

*Heathkit HD-1215 Phone patch \$15 looks ok

*Drake WV-5 wattmeter \$90 looks ok

*Wacom WP-604-C low band cans. Can be moded for 6M, talk to Bill

HAMFESTS

2024

May 17-19

Xenia, Ohio, Dayton HamVENTION, ARRL NATIONAL CONVENTION, tickets \$30 at the door, \$26 in advance, tailgate \$30, 10x10 booth \$705, TALKIN There is a 6M, 9 2M, 4 220, 7 440 and a 440 P25 talking radios surrounding the hamfest and roads to it.

<https://hamvention.org>

May 25

WormFest 2024, 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> .

June 22

Dade City, Pre-Field Day Hamfest, Dade City Masonic Lodge, 13642 21st Street South, no flyer found, no website, no fee found, talkin 147.135 +146.2, for more info call Gary Mentro at 813-713-9994

August 24

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/>

October 19

Bradenton, Marcifest 2024, Bible Baptist Church of Bradenton 2113 Morgan Johnson Rd., talkin 146.850 -100.0, admission \$5, tailgate \$5,

contact Michael Ryan at 941-376-6453, flyer here:

<http://manatee.startlogic.com/WP/wp-content/uploads/2023/09/MARCIFEST-2023-1.pdf>

December 13 & 14 **Plant City, the 2024 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 ;-)

January 11 ?? **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/>

February 7-9 **Orlando Hamcation**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$20 in advance, \$25 after Dec 21 and at the door. Talk-in 146.760 - PL 103.5 analog or Fusion. Also D-Star is on 146.820 -, all the information at www.hamcation.com or call 407-841-0874. There is also an AM low power Information Station on AM 610.



Last 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	MS 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
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/

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](mailto:ag4qx@arrl.net)