

News from



The GLORIOUS SOCIETY OF THE WORMHOLE

February 2022

Hello Worms

Jim Hansen pointed out that I had the wrong dates for the Dayton Hamvention. The correct dates are May 20 thru 22. Hopefully you did not make hotel reservations based on my incorrect dates.

Speaking of hamfests the Orlando Hamcation is in two weeks. It is also the national convention this year.

I again thank Alan in advance for all his fine work broadcasting ZOOM from the park. If Alan is in attendance, we will again try to broadcast the meeting on the repeater and video. We will meet at the regular meeting time of 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 at the Chamber building but if you go another 100 yards past you can park in the college parking lot which is a lot closer to the outside meeting area.

BRING YOUR CHAIR and lunch! There are a few picnic benches if you do not have a folding chair but they are not comfortable. We will not be cooking but we have access to the Chamber of Commerce building which has a microwave and a toaster oven so you can heat up/cook what you bring. Also bring your lunch and coffee if you want it. There will be water and cold drinks available.

As always before meetings there are members on the repeater so jump in there and chew the rag.

Zoom has enforce the 40 minute limit on the free accounts. We had the Wormhole cut off in the past. If that happens we may restart the meeting depending on where we are in the meeting.

Topic: Bill Williams' Zoom Meeting

Time: This is a recurring meeting Meet anytime

Join Zoom Meeting

<https://zoom.us/j/2737114584?pwd=d1BETHVOQ21vWWZXZ0lYQ0FIWWtldz09>

Meeting ID: 273 711 4584

Passcode: worm

For the meeting do not forget ... BRING YOUR CHAIR, lunch and coffee! We will have chips, cold drinks and water available.

- **SSB - SINGLE SIDE BAND***

Ralph WD0EJA

This mode became common in the late 1950's, early 60's. On your radio, you have Upper Side Band and Lower Side Band.

Remember, an Amplitude Modulated (AM) signal has 3 parts to it. It has the carrier. A steady radio frequency (example 7.200 Mhz).

Then, the sum of the audio to the carrier or Upper Side Band. Also, the difference of the audio to the carrier or Lower Side Band. Single Side Band is using only the Upper (USB) or Lower (LSB) side band. That means the carrier and one of the side bands is removed. There are no Side Bands generated if there is no audio or voice mixed in with the carrier.

By removing the carrier, there is no RF signal. However, if you add audio you get an RF signal plus or minus the carrier frequency, depending on which side band you select, LSB or USB. If there is no audio, there is no signal. This is accomplished by a circuit called a "Balanced Modulator". This will produce both side bands, but no carrier. Then there is a filter to select the side band desired.

You can not receive this signal the same as you would AM. It is a radio frequency that is changing to correspond to the audio. To hear it intelligibly, the carrier needs to be applied or mixed with the signal. This is supplied by the receiver. It will zero beat the signal and will leave the audio to hear.

This is why you can change the pitch of the audio to sound high like a mouse or deep like a real man.

The zero beat for USB is a little different than for LSB. This is because the USB is the sum of the carrier and audio, LSB is the difference.

LSB is interesting because when you raise the pitch of the audio, the signal lowers in frequency and vice versa. This mode has been used as a simple encryption device.

From this you can see that trying to get an SWR measurement on SSB is not practical since there is no signal until you put some audio to it.

This description is very basic. The circuitry is a little involved and none of us need to think that hard right now. Next article we will see what we can make up about FM.

73,
Ralph WD0EJA
BILAL Company
wd0eja@isotronantennas.com
Jan 2022

HAMSCI WORKSHOP 2022: THE WEATHER CONNECTION

This article from Jack K4WSB

Dr Tamitha Skov WX6SWW and Jim Bacon G3YLA are among the speakers at **HamSCI Workshop 2022: The Weather Connection**. Virtual participation is free of charge

Come join HamSCI at its fifth annual workshop March 18-19, 2022 at the U.S. Space and Rocket Center in Huntsville, Alabama. The HamSCI workshop is a hybrid in-person and virtual event that aims to bring together the amateur radio community and professional scientists.

The 2022 HamSCI workshop is organized by The University of Scranton in collaboration with The University of Alabama and NASA Marshall Space Flight Center. Support is provided by the National Science Foundation.

Dr. Tamitha Skov WX6SWW, a pioneer in the field of "Broadcast Space Weather", will focus on the ionospheric impacts of space weather.

Jim Bacon G3YLA, a recent recipient of the Radio Society of Great Britain Les Barclay Memorial Award to recognize those who have made excellent contributions to propagation research and understanding, will focus on the influences of Terrestrial Weather on radio propagation.

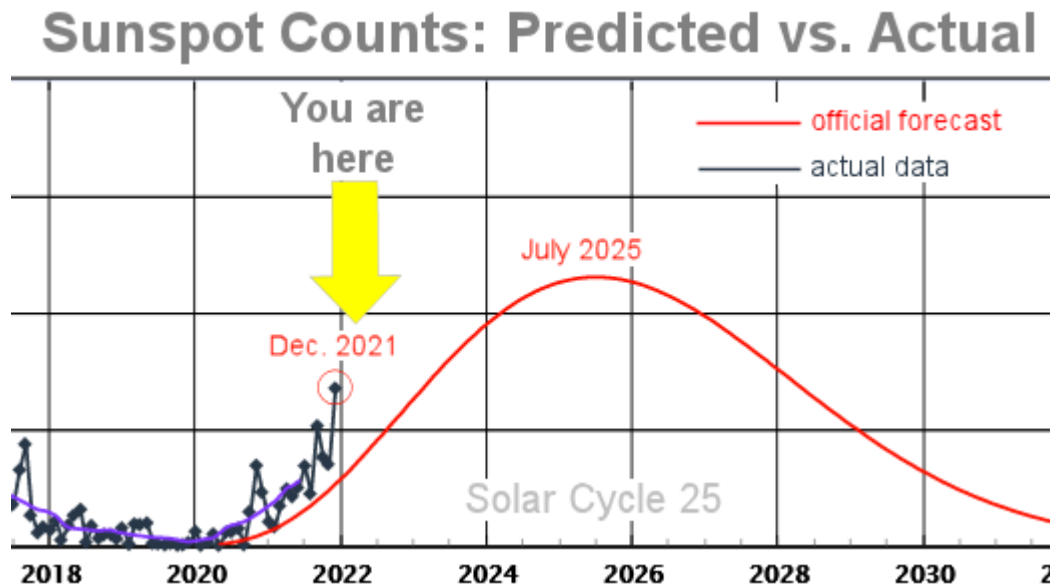
Further details of the event at: <https://hamsci.org/hamsci2022>

*SOLAR CYCLE 25 LOOKING GOOD *

spaceweather.com 1/11/2022

SOLAR CYCLE UPDATE: Solar Cycle 25 is shaping up to be stronger than expected. New sunspot counts confirm that the young solar cycle is outperforming official forecasts, with the rate of geomagnetic "storm days" nearly tripling in the past 12 months. See the data and learn more @ [Spaceweather.com](https://www.spaceweather.com).

Solar Flare Alerts: Sign up for [Space Weather Alerts](#) and get instant text notifications when solar flares are underway.



Above: Predicted vs. actual sunspot counts show that Solar Cycle 25 is strengthening faster than expected.

* CONFIRMED: LONGEST LIGHTNING BOLT- 477 MILES*

A bolt of lightning that stretched nearly 500 miles across three U.S. states has set a world record for longest flash.

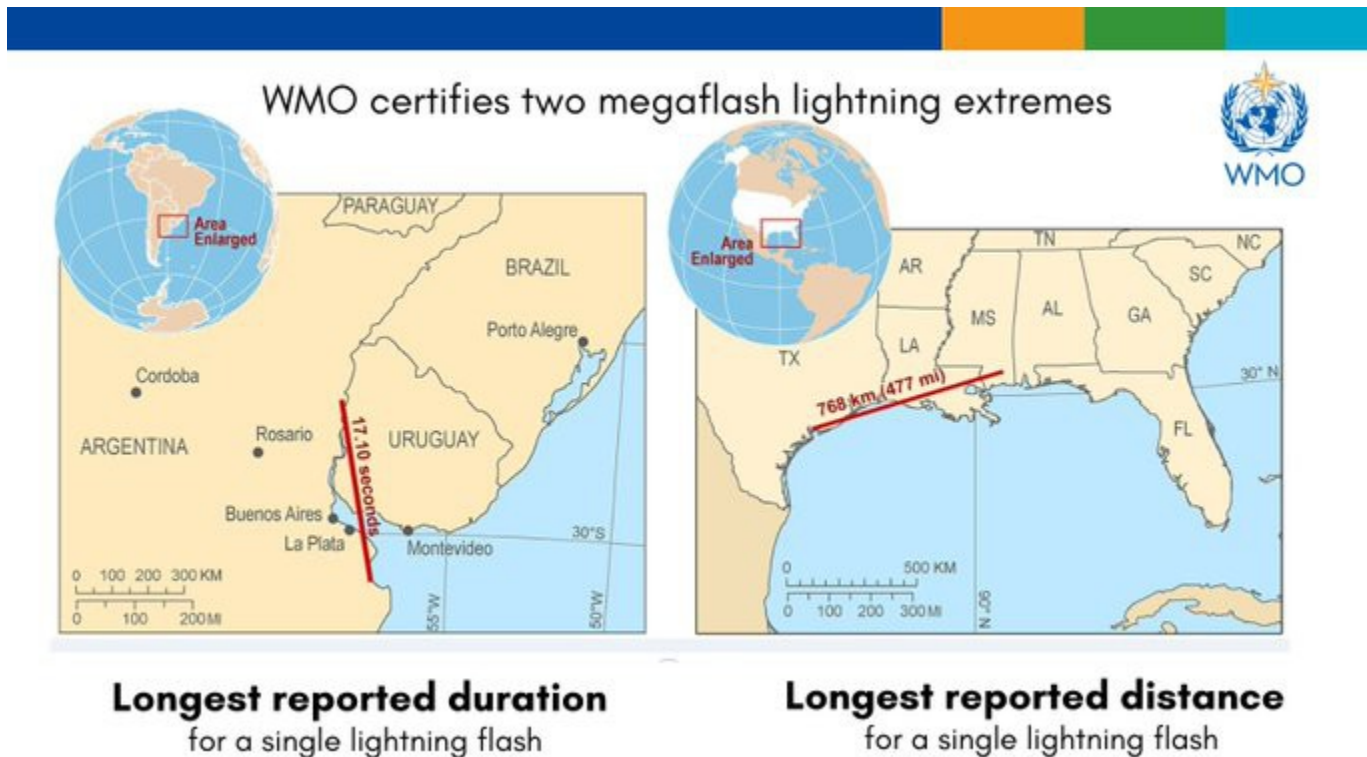
The single flash extended 477.2 miles across Texas, Louisiana and Mississippi in April 2020, the World Meteorological Organization said Monday. The previous record was 440.6 miles, set in 2018 in Brazil.

Also in 2020, a single lightning flash over Uruguay and northern Argentina lasted 17.1 seconds, nipping the old time record of 16.7 seconds.

Normally lightning doesn't stretch farther than 10 miles and lasts less than a second, said Arizona State University's Randall Cervený, who is the chief of records confirmation for the meteorological organization.

"These two lightning flash records are absolutely extraordinary," Cervený said in an email. Both were cloud-to-cloud, several thousand feet above the ground, so no one was in danger, he said.

These records, which are not linked to climate change, were spotted and confirmed thanks to new satellite tracking technology. Both regions are two of the few places in the world prone to the type of intense storms that can produce what are called "megaflashes," Cervený said.



***ONLINE TALK: TO THE MOON AND BACK ***

This article from Jack K4WSB

Online Talk: To the moon and back!: On February 2, Steve AG4W will be giving an online talk on Moonbounce (EME) communications, all are welcome to join the Zoom session <http://dlvr.it/SJ9NQ1> #hamradio #hamr #amateurradio



CLUB MEETING

We will again have a face to face club meeting in February. We will try to keep up on the 2M and also video concurrent on a video service. The meeting will be held at the Lurie Civic Building which is the new Greater Seminole Area Chamber of Commerce. It is located on the St Petersburg College campus in Seminole. Turn west at the light at 113th St N and about 92nd Ave N.

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

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 28.365 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 444.225 + 146.2	Hillsborough ARES/RACES	from Tampa
1930 146.850- 146.2	Wormhole	from St Petersburg
2000 53.150 -1MHz 146.2	Wormhole	from St Petersburg
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.

FOR SALE,

HAMFESTS

2022

- February 11-13** **Orlando Hamcation and NATIONAL Convention**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$15 in advance, \$20 at door. Talk-in 146.760 - PL 103.5 OR Fusion. Also D-Star on 146.820 -, all the information at www.hamcation.com or call 407-841-0874 There is also a AM low power Information Station on AM 610.
- February 19** Highlands County Hamfest, Sebring, First Baptist Church of Lake Josephine, 111 Lake Josephine Drive, 0800 to 1300, \$5 per person including tailgate, \$10 table inside, for more info contact Rick KF4Y at rbg695@hotmail.com or go to <https://www.highlandsamateurradio.com/index.cfm/p/calendardetails/v/56/title>
- February 25** Polk County EOC, **8th Annual TECHCON Convention**, Polk County Emergency Operations Center, 26571 Airport Rd, , for more info <http://arrlwcf.org/wcf-special-events/wcftechconference/>
- March 5** Charlotte County Hamfest, Punta Gorda, at Ridge Harbor, right off Rte 17 East, 5 miles east of town, follow signs. 0800-1400. \$7 including tailgating, Contact Dave Beck at a1steel@verizon.net in advance for info or tables. <https://www.prra.club/> Talkin on 147.255 136.5
- April 9** **TARCFest** TARC Clubhouse, 22nd St at the river, \$5 entry including tailgate, a few inside tables reserved in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>

May 20-22 Dayton Hamvention 2022, Xenia Fairground and Expo Center, vendor reservations and advance tickets now available. Tickets \$26 advance, \$31 at the door. <https://hamvention.org/>

May 28 **WormFest 2021, 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 20 **TARCFest** TARC Clubhouse, 22nd St at the river, \$5 entry including tailgate, a few inside tables reserved in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>

November 12 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> or email kc1yl@yahoo.com

December 9 & 10 **Plant City, the 2021 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, **at the Strawberry Festival grounds, admission \$10, 16x40ft tailgate space \$10, electric \$5, 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	Adventure Run, Honeymoon Island
Last 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/wcftechconference/
March	MS 150 Citrus Tour bike ride http://www.citrustour.org/register.php

March/April	MS Walks
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
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/
July 3/4	Midnight Run in Largo http://www.kiwanismidnightrun.com/
Third weekend in 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, 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

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-1X. 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