News from

The GLORIOUS SOCIETY OF THE WORMHOLE

January 2024

Hello Worms

For the last four or five meetings no one has been on the repeater to hear about the meeting so I will discontinue asking.   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 coffee 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.

* A HIGH QUALITY 2.5 WATT AUDIO AMPLIFIER*

Ralph Bilal

It is cold outside. Would you like a simple, but useful indoor project? How about an audio amplifier to enhance audio on a hand held radio, electronic tablet, old computer, MP3 player and any other device that is lacking good audio quality.

You can dig out 3 to 4 transistors and bunch of resistors, capacitors and transformers. Or, you acquire one integrated circuit. A common one is the LM-380.

There are 2 versions, an 8 pin and a 14 pin. I am more inclined to use the 14 pin because it is rated at 2.5 watts (heat sinked) as compared to 1 watt for the 8 pin. Plenty of audio power.

Power requirements can be from 10 to 22 volts. Maximum current is 1.3 amp max.

Bandwidth is over 100 khz.

Pins 3, 4, 5, and 10, 11, 12 can be grounded to a copper foil for heat sinking.

Pin 2 is a non-inverting input. In other words it is in phase with the output signal.*

Pin 6 is an inverting input.   *Input impedance is 150K ohms.
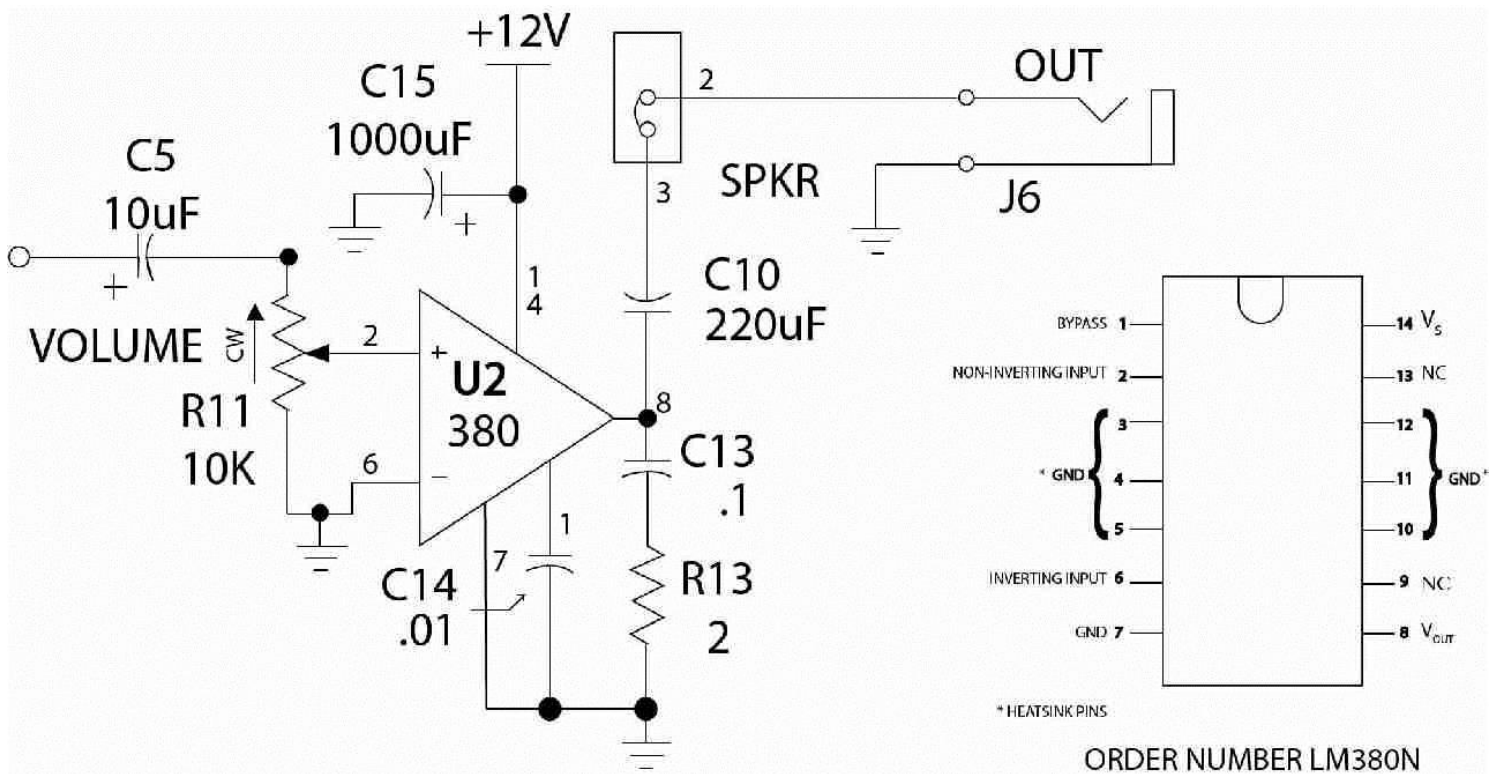
Pin 7 is ground.

Pin 8 is audio out. 8 ohms is best.

Pin 14 is the Vs or power source.

Below is one version of an audio schematic.

Of course, you are all pro's at making a simple well-regulated power supply using the 78 series regulators. A medium sized wall wart will do the job.

When it is too cold outside to fix your antenna, build yourself a LM-380 audio amp.

73,
Ralph WD0EJA
wd0eja@dialup4less.com
BILAL COMPANY

* WILL AI HELP US HAVE MORE FUN WITH AMATEUR RADIO? *

by Dan Romanchik, KB6NU

In this morning's email was a message from *Inc.* magazine with links to some articles in the magazine. At the top of the list was, "4 Unimaginable Ways A.I. Will Change Your Life Within the Next 5 Years, According to Bill Gates" (https://www.inc.com/minda-zetlin/4-unimaginable-ways-ai-will-change-your-life-within-next-5-years-according-to-bill-gates.html) Gates says that in the next five years, you will have your own artificial intelligence assistant, or agent, that will be a frequent voice in your ear and will help you with everything from deciding where to go on vacation to managing your friendships and more. Let's think for a minute about Gates '4 Ways and how they might help us enjoy amateur radio more.

1. You won't bother with software or operating systems anymore.

How cool would this be. You could simply tell your AI amateur radio assistant, "Hey, HAL. Let's operate 20-meter FT8 this afternoon," and the agent would set up the radio and begin looking for contacts. If the band wasn't open, it would come back and tell you, "I'm sorry, Dave, but propagation on 20 meters is terrible this afternoon. May I suggest 30 meters instead?"

2. Your agent will be a frequent voice in your ear.

Gates believes that most of us will wear at least one earbud most of the time so that our agents can talk to us whenever they need to. So, for example, it might be monitoring the activity on 6 meters and notify you when the band is open. Or, you might want it to notify you when a particular contest or operating event is coming up so that you don't miss it. "Dave," it might say, "remember that the 2-meter club net is at 8 pm tonight."

3. Your agent will get involved in your personal relationships.

We often don't think of amateur radio as having a personal aspect, but it really does. For example, don't we enjoy talking to some people more than others? Your personal agent could monitor your club's 2-meter repeater or 40-meter CW and notify you when your friends are on the air.

Gates also notes that you could have your AI assistant talk to your friends 'assistants and set up lunch for you. If those friends are also radio amateurs, you could also use that capability to set up an on-air sked.

4. It might even help you solve personal problems.

The article notes, "One of the most intriguing predictions Gates made is that your agent could also become your therapist" While many hams probably do need therapy, I'm not so sure how applicable this will be to amateur radio.

What I could see happening is using an AI assistant to help you choose your next rig or maybe help you troubleshoot a problem. Here are some scenarios:

- You ask your AI assistant what rig you should buy next. Since it already knows what bands you like to operate—and the state of your finances—it can analyze all the options and find a radio that meets your operating needs and fits into your budget.
- You might describe your backyard and the bands that you want to operate, and your AI Assistant could come back with antenna suggestions.
- You ask your AI assistant about a problem that you're having with your rig. It comes back with, "Dave, if you would just RTFM, you will find the answer on page 67 of the operating manual." Or, after scanning the appropriate online forums, it would tell you, "Dave, several other owners seem to be having a similar problem. Here's what they've done…."

All of this sounds kind of fun to me, but I can understand some of you having reservations. What do you think? Can you think of other ways an AI assistant would make amateur radio more fun for you?

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (https://KB6NU.Com/study-guides/), and often appears on the ICQPodcast (https://icqpodcast.com). When he's not trying to decide if artificial intelligence will help us have more fun with ham radio—or destroy humanity—he tinkers with electronics projects and works CW on the HF bands. You can email your AI comments to Dan at cwgeek@kb6nu.com.

* BANDWIDTH LIMITS REPLACE BAUD RATE ON HF*

The ARRL Letter, December 7, 2023

Bandwidth Limits Replace Symbol Rates on the HF Bands, Other Bands Open for Comment

The Federal Communications Commission (FCC) published new rules adopted last month that replace the symbol rate restrictions on the HF bands with a bandwidth limit of 2.8 kHz. **The new rules go into effect January 8, 2024.**

The bands and band segments affected by the rules change are those authorized for data transmission between 160 and 10 meters, exclusive of 60 meters (where no change was made).

In adopting a bandwidth limit in place of the baud rate limit the FCC agreed with ARRL that some limitation is necessary because "without a baud rate or bandwidth limit, data stations using a large amount of spectrum for a single emission could do so to the detriment of simultaneous use by other stations using narrowband emission modes."

ARRL has advocated for this change for a long time. The move opens amateur data communications to faster and more modern modes and restores the incentive for amateurs to experiment with and develop faster and more efficient data methods. Previously, ARRL obtained waivers to the symbol rate rules on a case-by-case basis to facilitate communications during situations like hurricane responses. These delays will now be removed, permitting drills to be conducted with the faster modes and more timely responses when needed.

The FCC also requested comment on removing similar symbol rate restrictions in the rules governing 135.7 - 137.8 kHz (2200-meter band), 472 - 479 kHz (630-meter band), and the very high-frequency (VHF) and ultra-high frequency (UHF) bands.

The VHF bands with baud rates are the 6-meter band, 2-meter band, and the 1.25-meter band. The single UHF band with a baud rate is the 70-centimeter band (420 - 450 MHz). The [Further Notice of Proposed Rule Making](#) (FNPRM) proposes to maintain the existing bandwidth limits in the Commission's rules for these VHF and UHF bands but seeks comment on whether they should be kept, and if so, whether the bandwidths should be changed. The Commission also sought comment on whether bandwidth limits should be adopted for application to the 2200 and 630-meter bands, and if so, what an appropriate bandwidth limit would be.

Public comments on these additional issues are sought in the FNPRM. The comment period is open until January 8, 2024. Replies to comments are due no later than January 22, 2024. If changes are later adopted, the rules will go into effect in the same manner as they did for the other bands -- after notice and publication in the *Federal Register*.

* MAC USERS TARGETED IN BROWSER SCAM*

INFOPACKETS   by John Lister on November, 27 2023

Mac users have been warned to watch out for bogus updates to the Safari and Chrome browsers. It's a scam to spread data-stealing malware.

The AMOS malware, also called Atomic Stealer, is particularly nasty as it targets data stored or transmitted by web browsers. This includes login details, passwords, and credit card numbers. It

also looks for cryptocurrency wallets, which give access to Bitcoin and other cryptocurrencies that can be stolen and turned into cash. (Source: malwarebytes.com)

The malware has been around since the spring when the scammers targeted people searching for popular apps. They used online ads to appear on Google search results page, then tricked users into downloading bogus copies of the app that actually housed the malware.

The new variant of the scam involves hijacking websites that have themselves been hit by malware. The scammers replace the website's legitimate content with bogus pages that warn users they need an update to Safari or Chrome.

The warnings pressure users either by saying they face a security threat or that they need to update the browser in order to view the page. The bogus pages look relatively plausible because they mirror official Apple and Google logos, design, wording and typography, though some of the icons are outdated on the Safari version. (Source: 9to5mac.com)

The scam does require some user action depending on the setup, including typing in an administrative password or giving permission to bypass a Mac security feature called GateKeeper.

As usual, it's a number game. At each stage of the scam, there's a good chance most users will avoid being fooled, leaving only a tiny percentage who actually install the malware and don't have it flagged up by security software. However, the scam is likely relatively inexpensive to pull off and a tiny percentage of a huge audience can still make for a lot of victims.

A key thing to remember with this particular scam is that Safari and Chrome both automatically update themselves, usually installing the update when the browser is next opened. While it's not a bad idea to occasionally check the browser is indeed up to date, users can do this in settings menus of the browsers themselves. There's never any need to use a website to update these browsers.

* NEW LAW REQUIRES FIVE YEARS OF SECURITY PATCHES*

INFOPACKETS by John Lister

Tougher rules mean digital device and software manufacturers will have to report security breaches more quickly. They'll also have to offer security patches for at least five years.

The rules come from the European Union. They technically only cover products sold in EU member countries, though in many such cases manufacturers change their behavior worldwide

to comply with the rules. The financial penalties for breaking the rules take into account global turnover.

The rules, which will become the Cyber Resilience Act, cover "products with digital elements." These include smart and connected devices, plus software with a security element such as a password manager, virtual private network or antivirus tools. (Source: insideprivacy.com)

The final version of the law will specify which products come under the rules. It will also designate some as being "important" or "critical", which will determine the precise requirements. The rules don't apply to any open-source software that is produced outside of any commercial activity.

Manufacturers and developers will need to build cyber security into the products from the beginning, including assessing the potential risks, and fully document security processes. They'll also have to issue security patches for five years and allow for automatic updates. This must be separate from any updates that fix performance issues or add new features.

They'll also need to tell national cyber security authorities about any breach within 24 hours of discovering it. For more severe breaches they'll need to tell users of the device or software.

The rules also mean anyone who imports products with digital elements from outside the EU will need to take adequate steps to make sure it is secure.

The maximum penalty for a breach is €15 million or 2.5 percent of global revenue for the year, whichever is higher. (Source: theregister.com)

While the rules have been under discussion since September last year, members of the European Parliament have now completed negotiations with the relevant departments of national governments. It will require a final approval vote which looks almost certain to pass. Once the law comes into force, businesses will have three years to fully comply.

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=d1BETHVOQ21vWWZXZ0lYQ0FlWWtIdz09
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	3RD 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 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

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,
George W1AAG has the following:
     *ASTRON 50 AMP MODEL VS-50 (AMP & VOLT METERS) $ 200.00
     *HEIL PRO-SET PLUS HEADSET + (DUAL ELEMENT'S) $100.00

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

January 13   **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 9-11   **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.

April 13   **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 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 **.**

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/

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/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, 3rd 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
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