



News from

The GLORIOUS SOCIETY OF THE WORMHOLE

May 2023

Hello Worms

I got an email from the ARRL addressed to me but for the club ARRL members. The message is in the first paragraph below.

We will broadcast the meeting on the repeater and Zoom video. I am moving the directions to the meeting place and Zoom to the end of the newsletter, you all have seen them enough.

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.

MESSAGE TO ARRL MEMBERS

This Monday, May 1, ARRL will launch a survey for members, encouraging their participation as we consider a dues increase.

The survey will include some short questions about raising dues and modifying the way some membership benefits are bundled. The survey will also include an opportunity for members to share their feedback.

The participation of every member is important. Please encourage all the ARRL members in your radio club to complete the survey in May.

The survey will open on May 1 at www.arrl.org/take-dues-survey. This is a member-only page. Members need to be logged into the ARRL website to take the survey. Members who are not logged in may select the Login button on the top of the web page, and they will be prompted to enter their ARRL website username and password. If they have not logged in since April 2022, they should use these [Login Instructions](#).

Thank you in advance for urging all ARRL members to complete the survey.

73

Mike Walters, W8ZY

ARRL Field Services Manager

MAKING A SMALL CURRENT REGULATED POWER SUPPLY

Ralph Bilal

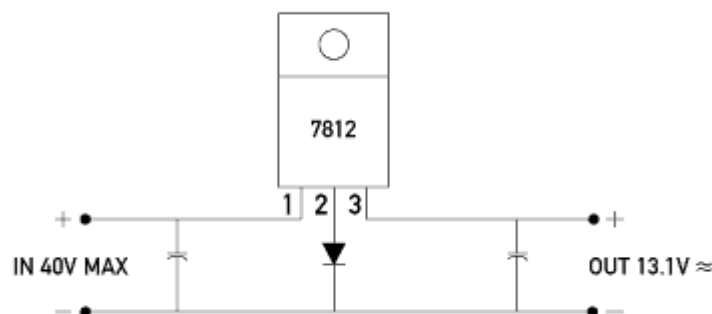
The last two articles were on a fixed voltage regulator and a fixed current regulator. However, there are times when a different voltage is needed. There are a couple of ways this can be done. This article will discuss one of the two ways.

For example, you want to use the regulator as a trickle charger for a 12 volt battery. Lawn tractors, generators and even cars and trucks that sit for a long time should have a charge on the batteries to keep it working year around.

Select a LM7812. You can use a wall wart that can handle at least .5 amps. If the wall wart claims 12 volts, it will probably be around 18 volts measured. Connect it to the LM7812 as in the schematic. Your output with lead #2 grounded will give you a slightly lower reading than 12 volt. This is not enough for trickle charging a 12 volt battery. Therefore, how can you raise it to 13.1 volts that is needed?

Simple, release lead #2 from ground. Then add a diode with the cathode to ground and anode to #2 lead. The forward direction of the diode will exhibit a resistance. This will increase the output voltage at lead #3. It will still be well regulated.

Depending on the diode used, will determine the output voltage. If it is not high enough, a second diode can be added in series with the first one.



(Input voltage should be 35 volts)

A wall wart power supply can be picked for just a few dollars surplus. The regulator can be bought for as low as 50 cents. 2 filter capacitors will vary in cost, but will most likely be under \$2.00 each.

The circuit can be built on a small board. You can use a fancy project box to house it, or a large shrink tube.

You can build the whole charger in less than an hour. It will save the batteries that sit unused throughout the winter to be ready for use in the spring.

73,

Ralph WD0EJA

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***GOOGLE DRIVE FILE COUNT NOW LIMITED ***

arsTECHNICA by Corbin Davenport Apr 3, 2023

Google has built its cloud storage systems to handle your entire digital life, including all your photos, videos, emails, and other files. However, there's now a limit to the number of individual files you can keep in [Google Drive](#).

Google placed a new limit on how many files you can store in Drive, seemingly without any warning — the earliest reports came from support threads in February 2023. The issue affected normal people storing many files in Drive, and a thread on Google's official issue tracker revealed how it affected some larger organizations. One person [said](#), "We have a business-critical operational system in the animal health space which is currently affected by this. This is causing major disruption for tens of thousands of users in-practice and their work on a daily basis." Another [said](#), "Suddenly [our customer] cannot upload the files to the Google Drive through our software based on Google API. This is a huge problem while the service is out of function now."

Google eventually started showing a more detailed warning to affected accounts, which explains that there is a new limit of five million files in Drive for every Google account. The company told *Ars Technica* that it's "a safeguard to prevent misuse of our system in a way that might impact the stability and safety of the system," and noted that it only affects files you create yourself — files shared from other accounts do not count towards the new limit.

Even though five million files sound like a lot of files, it's not difficult to hit that limit if you're backing up files from a few computers, or you're using Drive to manage logs and other automated data collecting. The only fix is to move some of your files to another Google account, or package them into a ZIP file or other archive that Google will only count as one file. You could also try another cloud service, or even [setting up a local NAS](#).

EDITOR: Anyone have more than 5M personal files in the cloud?

***AMAZON TO GROW ARTIFICIAL DIAMONDS ***

Bloomberg Technology by Ian King 4-5-2023

Amazon.com Inc. is teaming up with a unit of De Beers Group to grow artificial diamonds, betting that custom-made gems could help revolutionize computer networks.

De Beers's Element Six division will be working on the project with Amazon Web Services' Center for Quantum Networking, a unit that's seeking next-generation ways to transmit data securely over longer distances.

Quantum networking uses subatomic matter to deliver data in a way that goes beyond today's fiber-optic systems. The diamonds would be part of a component that lets the data travel farther without breaking down.

Conventional signal repeaters can't handle information in this form, known as qubits. Ultimately, this equipment could wind up in networks used by AWS, a provider of cloud computing services that accounts for the majority of Amazon's profit.

"We want to make these networks for AWS," said Antia Lamas-Linares, who runs the Center for Quantum Networking. She estimates the technology will be in use within "years rather than decades."

Amazon handles a huge chunk of the world's computing and information storage, so it wants to stay on top of any technology that may give it an edge over rivals Microsoft Corp. and Alphabet Inc.'s Google.

For Element Six, the hope is to find a new application for industrial diamonds, which are prized for their hardness and ability to work as a lens. Using them in quantum computing — a nascent technology that promises to make data more secure — could be a big opportunity.

The widespread use of quantum networking would require a massive amount of components, including specialized diamonds. Element Six recently opened a plant in Oregon that's capable of producing as many as 2 million units of such a component per year using a technique called chemical vapor deposition.

A diamond is the solid form of the element carbon. Its crystal structure makes it the hardest and most thermally conductive material occurring in nature. Diamonds also naturally pick up a limited number of impurities, such as nitrogen atoms, that give them color.

Those impurities can be an asset with human-made diamonds. By creating gems with exactly the same impurities – and shaping them to align in the same way — they can work as repeaters in a quantum-based network.

Ultimately, they also could help quantum computing have a wider impact. Such equipment will be needed to connect computers that are based on the same technology, allowing networks of quantum computers — long the realm of science fiction — to become a reality, Amazon researchers say.

HOMELAND NEEDS TO MITIGATE DRONES

WASHINGTON – The Department of Homeland Security (DHS) [Science and Technology Directorate](#) (S&T) released a [Request for Information](#) (RFI) seeking new and emerging counter-unmanned aircraft systems (C-UAS) technology and solutions capable of detecting, tracking, identifying, reporting, and countering low-observable, low-emission and non-emitting (dark) small UAS (sUAS). A live demonstration is planned for July 31 – August 11, 2023, in conjunction with the C-UAS Center of Excellence at Oklahoma State University in Stillwater, Oklahoma. A potential follow-up event may occur in mid-2024.

“S&T is interested in learning about the availability of C-UAS systems with a technical readiness level of five or greater that can detect, track, identify, and possibly mitigate drones that fly without emitting radio frequency communications,” said Shawn McDonald, S&T C-UAS Program Manager. “We’re also very interested in finding technologies that can surgically mitigate a single nefarious drone while in presence of other drones being flown by law enforcement, recreational users or the media.”

These technologies and solutions will test under the direction of the C-UAS program, which assesses C-UAS technologies both in laboratory and real-world operational environments to deliver critical C-UAS capabilities to DHS components.

This RFI is for participation in the live demonstration event only. DHS will not award a contract based on this RFI. Following evaluation of applications and selection, participating organizations will be required to enter into a Cooperative Research and Development Agreement (CRADA) with the U.S. government.

Industry, academic institutions, Federally Funded Research and Development Centers, and other government organizations interested in participating must submit their response to this [RFI](#) via email to cuasprogramsupport@hq.dhs.gov by 10:00 AM ET on May 5, 2023.

For more information about S&T's C-UAS portfolio, visit <https://www.dhs.gov/science-and-technology/counter-unmanned-aircraft-systems-c-uas>.

Editor: I plan to show up with a Remington 12 gauge that can surgically mitigate a single nefarious drone.

WINDOWS 10 UPDATE END ANNOUNCED

How-To-Geek by Corbin Davenport

Windows 11 arrived in October 2021, and since then, Windows 10 hasn't received much attention. Microsoft has now confirmed that there won't be any more major updates for Windows 10.

Microsoft published a blog post that explains Windows 10 support will end on October 14, 2025, which [we knew already](#). It also has a new piece of information: there will be no more new versions of Windows 10. Windows 10 22H2 will remain as the last version, which [arrived in October 2022](#), not long after [Windows 11 received its 22H2 update](#). It's not a surprise that Microsoft will leave it there — 22H2 was already such a minor update.

In a blog post, Microsoft said, “We highly encourage you to transition to Windows 11 now as there won't be any additional Windows 10 feature updates. If you and/or your organization must remain on Windows 10 for now, please update to Windows 10, version 22H2 to continue receiving monthly security update releases through October 14, 2025.”

The company also announced that a [Long-Term Servicing Channel](#), or LTSC, version of Windows 11 is in development. Microsoft currently offers several Windows 10 LTSC editions, which are aimed at embedded devices and PCs that need a stable software platform without frequent changes. Windows 10 LTSC does not include Cortana, Edge, or any Universal Windows Apps, and [a small community](#) has grown around using it on home PCs for a less bloated Windows experience.

If you're still on Windows 10, you have a little over two years left of security updates left — after that, you'll need to [switch to Windows 11 \(or desktop Linux\)](#) to remain secure.



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=d1BETHVOQ21vWWZXZ0lYQ0FIWWtldz09>
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 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

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
- *Heath Cantenna dummy load, 1 gal oil load, \$50

This stuff is from Ray KD4HUW

- *Icom AH-4 antenna tuner \$175.00
- *MFJ-616 Speech Intelligibility Enhancer \$90.00

Dean W8IM wants to make room in his closet.

352-255-1431 or w8im @arrl.net or the Wormhole and SPA*RC nets

- *Meade 2080AT -LNT refracting telescope, little used, original owner, original box, tripod, manual, some extra lenses, complete. \$100.00.

HAMFESTS

2023

May 19-21 **Xenia, Ohio, Dayton Hamfest**, tickets \$30 at the door, tailgate \$30, 10x10 booth \$705

May 27 **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> .

July 8 **Orlando**, K4KDI summer tailgate, South Conway Rd. Baptist Church 6099 South Conway Rd, all free, no talk-in, limited food

August 19 **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, license testing after, more info at <http://hamclub.org/>

October 21 **Bradenton**, MARCIFest 2023, 2113 Morgan Johnson Road, talkin 146.820 – 100.0, for more info goto <https://www.manatee-arc.org/> contact Michael Ryan K4CVL at 941-376-6453

December 8 & 9 **Plant City, the 2023 Tampa Bay Hamfest and West Central Florida Section Convention**, Friday and Saturday, at the Strawberry Festival grounds, admission \$10, 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 ;-)

2024

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.



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
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/
July 3/4	Midnight Run in Largo http://www.kiwanismidnightrun.com/
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

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