



THE MONTHLY PUBLICATION of the GREEN MOUNTAIN WIRELESS SOCIETY
AN ARRL SPECIAL SERVICE CLUB

KEY KLICK'S

VOLUME # 36 ISSUE #09-

SPECIAL EDITION - SEPTEMBER 2021

What is the AllStar Network?

[AllStarLink](#) is a network of Amateur Radio repeaters, remote base stations and hot spots that are accessible to each other via Voice over Internet Protocol (VoIP).

What is an AllStar Node?

- An AllStar "node" consists of a dedicated computer wired to a repeater, home station radio or low power "micronode".
- Radio amateurs can use any analog FM transceiver with DTMF pad to connect and link through nodes to other AllStar stations and repeaters anywhere in the world.

Some AllStar nodes may also offer access via the [EchoLink system](#) and/or [bridges to digital voice networks](#) such as DMR, DStar and System Fusion.

[AllStarLink.org](#) assigns node numbers to individual AllStar nodes, repeaters, bridges and hubs.

- Hubs are robust nodes that can accommodate many users at the same time, similar to EchoLink Conference servers.

Some popular hubs include the [WIN System](#), [DoDropIn](#), [the East Coast HUB](#) and [others](#).

The AllStar Link network currently has over 21,000 users and [over 17,000 nodes](#). Link to [Map of AllStar nodes](#).

Why Use AllStar?

- Members will be able to access our repeater and participate in nets via the AllStar or EchoLink networks when outside our coverage area.
- Our existing analog FM radios and repeaters can access the AllStar network. AllStar uses open-source non-proprietary software and hardware.
- AllStar's VoIP technology offers natural voice clarity superior to the synthesized sound of digital modes.
- Internet connectivity can enable repeater linking when needed for wide area and

INSIDE THIS SPECIAL ISSUE:

WHAT IS AllStar?	1
WHY USE ALSTAR?	1
CREDITS RIVER CITY ARCS	2
SHARI LINKS AND OVERVIEW	2
SHARI MODEL LIST	2
SHARI FEATURES	3
MORE INFO LINK	3
PI DAY FUN FACTS	3
147.045 REPEATER IN- FORMATION AND DIRECTION!!!	
BY Scott W1SBW . . .	4
WORLD WIDE RAGCHEW	5
LETTER FROM ED ...	5
THANK'S CONTRIBU- TORS/LOCAL DATES...	6

emergency communications.

AllStar micronodes such as [SHARI](#) or [ClearNode](#) offer a practical and economical solution to use a handheld radio around the home and for apartment or office-bound members with antenna limitations.



The above was copied from: <http://www.n6na.org/allstar/allstar-2>



*River City Amateur Radio Communications Society
Sacramento, California since 1976!*



SHARI

[https://hamprojects.info/shari/#:~:text=Support-,Overview,red\)%5D%20.%20SHARI%20RF%20output%20power%20is%20100%20to%20400%20milliwatts.,-SHARI%20is%20available](https://hamprojects.info/shari/#:~:text=Support-,Overview,red)%5D%20.%20SHARI%20RF%20output%20power%20is%20100%20to%20400%20milliwatts.,-SHARI%20is%20available)



Overview

SHARI (SA818 Ham Allstar Radio Interface) is a ham construction project designed by N8AR that implements a Raspberry Pi hosted Allstar node using a NiceRF SA818 embedded UHF (420 – 450 MHz) or VHF (144-148 MHz) radio module. SHARI is designed as a kit for construction and use in the amateur radio service by licensed amateur radio operators who can assure that their assembled SHARI kit meets FCC mandated operating requirements including RF frequency, deviation and required power levels at the fundamental and harmonic frequencies.

In order to create an Allstar node, SHARI plugs into two USB jacks on a Raspberry Pi3 or Pi4 for power, the Allstar interface and radio programming (a short M/F USB extender cable can be used if desired).

Front panel LEDs indicate the status of SHARI – [POWER (green), CONNECTION STATUS (blinking green), COS (yellow) and PTT (red)] . SHARI RF output power is 100 to 400 milliwatts.

SHARI is available in four models –

Pi3U – 70 cm for the Pi3 (420-450 MHz)

Pi3V – 2 meters for the Pi3 (144-148 MHz)

Pi4U – 70 cm for the Pi4 (420-450 MHz)

Pi4V – 2 meters for the Pi4 (144-148 MHz)

=====

Note that the two male USB plug locations are switched between the Pi3 and Pi4 models of SHARI so that access to the Ethernet jack on the Raspberry Pi is not blocked.

Features

Works with a Pi3 or Pi4 (USB connector positions swapped)

Uses the Cmedia CM119B or CM108B USB audio IC

Uses a NiceRF SA818 UHF or VHF embedded radio module

100 to 400 milliwatts RF output power

Small, portable with self contained radio and antenna

Kit includes PCB with all surface mount parts installed

Kit builder installs 8 through-hole parts, the radio module and completes final mechanical assembly

Rugged RFI-resistant metal enclosure

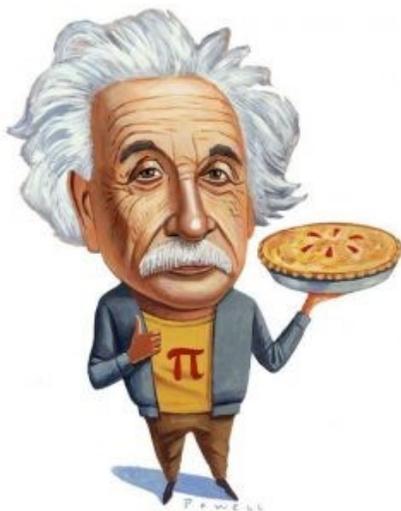
3D printed plastic end caps with all required holes provided

Radio settings changed using a program running on the Raspberry Pi

For further [information and schematic please see:...](https://hamprojects.info/shari/) <https://hamprojects.info/shari/> ED

PI DAY FUN FACTS

1. Famed mathematician and physicist Albert Einstein was, appropriately enough, born on Pi Day in 1879.
2. Pi Day was started in 1988 by physicist Larry Shaw at San Francisco's Exploratorium, where he was fondly known as the Prince of Pi.
3. Congress made Pi Day official in 2009. The U.S. House of Representatives designated March 14 (3/14) as Pi Day in a bid to draw attention to improving math and science skills.
4. The official Pi Day celebration time is 1:59 pm to make an appropriate 3.14159 when combined with the date.
5. Pi Day is not an international holiday since most of the rest of the world writes dates in the form of day/month/year. Under this format, the first three digits of Pi Day would be 31/4 representing April 31st or 3/14 which would be the third day of the fourteenth month. However, there is no April 31st or 14th month.
6. The Guinness World Record for reciting the greatest number of Pi digits was achieved by Rajveer Meena at VIT University in Vellore, India in 2015. He was able to recite an astonishing 70,000 decimal places of Pi. To maintain the sanctity of the record, Rajveer even wore a blindfold throughout the duration of his recall, which took 10 hours.



7. Pi has been known for over 4,000 years but it was the mathematician Archimedes of Syracuse who did one of the first calculations of pi. He knew his calculations were not exact but he came up with the value of pi as between $3 \frac{1}{7}$ and $3 \frac{10}{71}$.

8. Some people believe the ancient pyramids of Giza in Egypt were built on the principles of pi. Publisher and writer John Taylor first proposed this idea in 1859. He found that dividing the perimeter of the pyramid of its base by its height produces a number that is close to $2 * \pi$.

9. In 2008, a mysterious crop circle appeared in a barley field in Wiltshire, England which shows a coded image representing the first 10 digits of pi. Believers in extra-terrestrials argued it was made by mathematically-minded

aliens on a field trip to Earth, but skeptics said it was the work of humans with a fondness for figures and puzzles.

10. If you hold a mirror to a circle, it looks like a circle. If you hold a mirror up to 3.14, it spells PIE!

<https://gtpie.com/2019/03/fun-facts-pi-day/>

REPEATER INFORMATION

ALLSTAR NODE 525965 FOR W1GMW REPEATER ON BOARDMAN HILL FREQ.147.045 – OFFSET- 600 kHzTONE 100.0

This was done with a lot of time and planning from

N1BBQ W1AD W1SBW

Allstar connection is node # 525965

Echolink connection is WG1Q-R NODE # 682656

You will often find the repeater connected into the Worldwide Ragchew Amateur Radio group

Allstar Node 525960 is the Ragchew group you will find connections from all over the world connected here you might hear a QSO from the UK to Australia.

There is also Allstar node 525961 this is the USA HUB.

Also, within these connections come 2 repeaters from the UK.

Repeater GB3ZN Maintained by M0OMT Stu in the Northeast UK.

Repeater GB3DQ Maintained by John G1YDQ in the Southwest UK.

And from time to time you will hear DMR and FUSION audio

There are 2 DMR bridges connected in one here in the USA and one in the UK.

There is also a Broadcastify live feed from the .045 repeater

Go to Broadcastify .com

lisiten then browse feeds

On the map click on the state of Vermont

It brings you to a picture of the state

Scroll to the bottom of page

You will see all feeds in the state of Vermont

Scroll down to Rutland and choose

W1GMW 147.045 MHz Amateur Radio Repeater

It will bring you to the live feed

Click on play live and have a listen

There is a 20 second delay

There is an option on the live stream page for feed archives

So, if for example you miss out on the Monday night net you can go back and listen to it or any QSO that was made works well to check your audio after a QSO with someone.

This feed is Rx only no Tx

It's my hope that this system opens the world for people to make contacts all over the world I know some stations do not have HF capabilities.

Please contact me or anybody on this system questions or if you are interested in getting into allstar there is a lot of knowledge within this group and some very all-around good people.

So pick up your radio and put your call out, you might be surprised who comes back to you

ENJOY



World Wide Ragchew Amateur Radio Net

ALLSTAR NODE -CLOUD - 525960- RAG CHEW CENTRAL.... ECHOLINK ENABLED (561802) W1SBW-L

Info available at; <https://www.facebook.com/groups/863763217796177/>

ED NOTE: This is a fun lightly structured NET with contacts from around the world. It is heard every Sunday Morning on the 147.045 repeater.

As you might sense, this is all way above my field of knowledge. For further information, please contact Scott W1SBW either on the 147.045 repeater (-T 100). Swalletsr72 @ Yahoo.com (remove the spaces.)

Dear Readers

My apologies for the delay in getting this important, LOCAL! information to you.

I have published this short version of Key Clicks mostly to get the table on page #4 (kindly supplied to us by Scott W1SBW) delivered and help us all better understand what all the extra activity on the 147.045 repeater is about.

I won't profess to understanding much of this new technology but I will offer that I have found listening to the added activity on the .045 to be interesting and informative and at times a little funny. I have checked into the Sunday World Wide NET (a mid-morning net I can't remember the time) and for this old, non-techie person find it thrilling to think even I can participate and be involved with these folk from around the world. As with our Monday NET, you just put out your call sign and NC acknowledges you. You can offer a little info about yourself, or not, it is up to you.

I can quote 100,000 reasons for the delay!!! But none make up for the delay I have caused. Thank you all for your continued support and patience. (PS this issue has been typed with the help of a 6-week old kitten who has absolutely NO idea of what he is doing!!! ...well, I guess that makes two of us.

This publication has been paginated the way it is so that the information on Page #4 can be printed for you reference and record as a stand-alone. Thanks again. Please submit articles and reports to ED: AB1CH @ nfmra.org (remove the spaces)

73

Ann Mary

AB1CH

Editor Key Clicks for Green Mountain Wireless Society, Rutland VT.



gg80149915 www.gograph.com

MARK YOUR CALENDAR ~NETS:

EVERY MONDAY:

GMWS/ARES NET, 147.045, 7:30 PM ET

(MAY BE CONNECTED TO ALLSTAR NET)

GMWS/W1AD 10M NET 28.333 8PM(BANDS PERMITTING)

VERMONT RACES ZONE#3 NEWT 6:30 PM NFMRA 440 NETWORK

EVERY DAY:

VERMONT PHONE TRAFFIC NET, 3857 MHz, 7:30 PM

VT/NH TRAFFIC NET, 3539, 7:00 PM

All times are local

EVERY SUNDAY:

VERMONT PHONE EMERGENCY NET, 3976, 8:00 AM

ACARA ROUNDTABLE 147.36 (100 Hz) 8:00 PM

UPCOMING VE SESSIONS:

BURLINGTON AREA VE RALPH KD1R 802-878-6454

**GMWS FOR VE SESSIONS OR TESTING INFORMATION, PLEASE CONTACT
TIM W1VT OR FORREST N1BBQ**

NEXT REGULAR GMWS MEETING

TUES SEPT 14, 2021 ON ZOOM.

**PLEASE CHECK EMAIL LIST FOR INVITE AND FB
FOR INFO. GREEN MOUNTAIN WIRELESS SOCIETY
FB GROUP PAGE.**

MANY THANKS TO CONTRIBUTORS!!

**SCOTT W1SBW
and
FRANK W1AD**

CONTEST CORNER INFO:

Many people go to the ARRL Contest Calendar page to see what is playing for Ham radio contests and activities; but, there are plenty more activities in the hobby. Check out: <http://www.contestcalendar.com/contestcal.html>



PO BOX 84
Rutland VT 05702