

SOCORRO AMATEUR RADIO ASSOCIATION

SARA NEWS

WWW.SOCORROARA.ORG

OCTOBER 2017



MEETINGS

The minutes for meetings are at
www.socorroara.org/sara/minutes.

The agenda for meetings is located at:

www.socorroara.org/sara/agenda/agenda.pdf

The October 2017 meeting will be at the Socorro County EOC on Neel Avenue on October 11.

SARA REPEATER

SARA supports a VHF repeater located on Socorro Peak immediately west of Socorro. The repeater is “open”. The auto patch is currently inoperative.

146.68 (-)

100 or 123 Hz required

123 Hz on output

SARA also supports a UHF D-STAR module ‘B’ operating at 444.500 MHz + 5.000

Registration instructions are at

www.socorroara.org/sara/repeaters/D_STAR_Gateway.pdf

CLUB OFFICERS

President: T. Reese Janca KD7GSB

Vice President: Brad Smith KD5JNI

Secretary: Bear Albrecht W5VZB

Treasurer: Luis Aguilar WB5JMD

Director: Jim Lommen KC7QY

ARES DEC /Director: Al Braun AC5BX

Newsletter Editor: Anneliese Bowman AD6UY

COMING EVENTS

SARA Hamfest Oct 21 8 am

SARA HAMFEST MAILERS

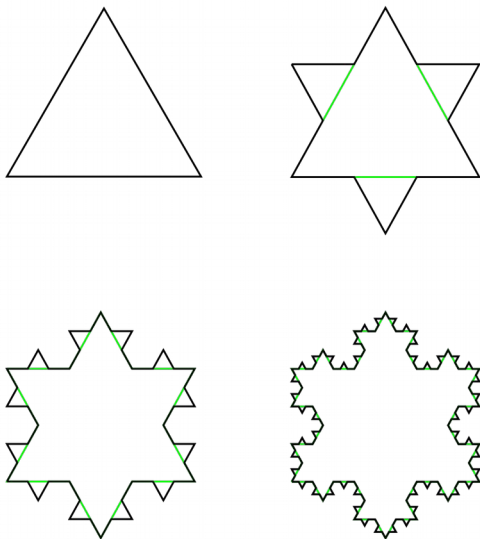
On Thursday, 28 Sep 2017, a group of seven volunteers peeled 4000 labels and affixed them to 2017 Hamfest postcards.

Those who “licked and stuck” were: Al Braun (AC5BX), Sandy Braun (KB5YIX), Henry Newton (KC5WYA), Melissa Newton, Howard Peavy (K9PV), Glen Mauger (WB5OAF), Luis Aguilar (WB5JMD, and Doug May (KF5AVG).

Henry Newton took the cards to the NM Tech Post Office at 8:00am on Friday. At least one card was reported delivered in Albuquerque on Sat, 30 Sept. and was postmarked Socorro.

THE KOCH SNOWFLAKE ANTENNA ANNELIESE BOWMAN, AD6UY

The Koch snowflake is a one of the earliest fractals described. It's easier to see how it develops than to describe it with words:



Theoretically after infinite iterations the boundary is infinite and the area is $\frac{8}{5}$ of the original area of the triangle. Wikipedia has a lot more detail on the Koch snowflake and its variations.

https://en.wikipedia.org/wiki/Koch_snowflake

Using the fractal to design an antenna may allow us to squash a long element into a small space. Others can explain better than I can.

https://www.ijareeie.com/upload/june/6_Design%20and.pdf

There are easier ways to do some of these things but this Instructables article is OK:

<http://www.instructables.com/id/Fractal-Antennae/>

And a few more links:

https://www.ijareeie.com/upload/2015/july/91_Design.pdf

<https://piers.org/piersproceedings/download.php?file=cGllcnMyMDE1UHJhZ3VlfDJQXzEyXzE2MTgucGRmfDE1MDIwNDEzMDEwMDM0Mw==>

http://eprints.uthm.edu.my/4737/1/Ong_Hui_Niang.pdf

HAM RADIO SUPPORT FOR PUERTO RICO

As usual amateur radio operators have stepped up to help with communications in Puerto Rico. They have been calling hospitals so assess their needs, installing repeaters, and passing health and welfare traffic.

A VHF repeater installed on a mountain top in El Yunque National Forest covers about 60% of the island.

The ARRL has more information:

<http://www.arrl.org/news/ham-radio-volunteers-in-puerto-rico-install-repeater-work-with-hospitals-and-reunification>

CNN had coverage of the ham radio response:

<http://www.cnn.com/2017/09/27/us/puerto-rico-maria-ham-radio-operators-trnd/index.html>

Thanks to all who have helped in the various disasters!

SOLAR!

Jim Boswell, KA5SIW, shares these pictures of his solar-powered station:



D-STAR REPORT, 8 OCTOBER, 2017

By Ray Calkins, N0RBT

The SARA D-STAR repeater went online spring of 2012. After the initial interest, usage waned and the system became neglected. The server kept on working and I periodically remoted into it. With time, this became more infrequent. Recently, there has been renewed local interest in D-STAR. Socorro County Emergency Services has obtained 1.2 GHz repeaters for data and multiple mobile radios, these should be online soon. Other regional hams have D-STAR radios, there are now several club members with systems. Due to the renewed interest, I attempted to remote into the system, but was unable. Several of us have since made trips up the mountain and have begun to breathe new life into the D-STAR system.

Neglected, the D-STAR server hung on a process and lost registration. Since that time, we carefully reviewed the various checklists to ensure the system

was ready for re-registration. This accomplished, the system is now pending re-registration and should be up by the time you read this, barring any unforeseen circumstances. The last user to show up on the system was N7JEI on 09/30/17 at 20:21:37 UTC.

The original install used CentOS 5 as the operating system, as required at the time by Icom. This last March, CentOS 5 was declared end of life with no further official support. The final update files moved to an archive, impeding server restoration. The system now has the final updates in place. There is no recommended process to upgrade from CentOS 5 to a newer version, we may want to consider a reformat/reinstall.

Over the past several months, the patents encumbering D-STAR have expired and there are now multiple manufacturers making compatible hardware. D-STAR decryption on the reception side exists for the inexpensive RTL-SDR software defined radio receivers. Used hardware is also readily available at reasonable prices. With the increased user base and additional capability coming to the mountain, there has never been a better time to explore D-STAR!

Many thanks to Bear, Brad and Skyler for their hard work restoring the system and roofing the garden shed.

ARRL BOARD NAMES AWARD WINNERS, RECOGNIZES CLUBS

From the ARRL web site

Meeting July 19-21 in Connecticut, the ARRL Board of Directors announced the winners of the 2017 Hiram Percy Maxim Award and the Philip J. McGan Memorial Silver Antenna Award. It also recognized two clubs for their exemplary service.

The Board designated 19-year-old Skyler Fennell, KD0WHB, of Denver, Colorado, to receive the 2017 Hiram Percy Maxim Memorial Award, the League's top honor for a young radio amateur. Fennell has been actively involved in a wide range of Amateur Radio activities and community service, establishing two clubs, mentoring other students, and using Amateur Radio to aid the community. Among other

accomplishments, he built an AllStar link node providing internet from his house and assembled and put on the air a repeater to support his college community. He also built his own APRS transceiver to track public service event support vehicles, plus a 900-MHz cross-band link to stay in touch, even when the operator is outside the vehicle.

Fennell has given many presentations on Amateur Radio at hamfests -- including Hamvention -- and youth gatherings. He has also volunteered in schools to demonstrate the benefits of Amateur Radio. The Maxim award is presented to an ARRL member under age 21 whose accomplishments and contributions to the Amateur Radio and local communities are of the most exemplary nature. It carries a \$1,500 stipend and an engraved plaque.

Congratulations Skyler!

LIGHTNING PROTECTION

Recently we have had some rather spectacular weather. Ma Nature has been throwing lightning and thunder around with abandon. I hope we're all safe! Here are some references on staying safe.

<http://www.arrl.org/lightning-protection>

<http://www.bwcelectronics.com/articles/WP30A190.pdf>

<http://harriscountyares.org/training/WEA/WEA-101.pdf>

