

Socorro Amateur Radio Association

SARA News

www.socorroara.org

January 2017

Meetings

There are no minutes for the Dec meeting as there was a SARA Christmas Party at the Albrecht's home.

The agenda for the January meeting is located at: www.socorroara.org/sara/agenda/agenda.pdf

The January meeting will be at 1930 hours, Wednesday, 9 January 2017 at the Socorro County EOC on Neel Avenue.

January Special Days

1 Jan, New Year's Day
5 Jan, National Bird Day
16 Jan, Martin Luther King birthday
18 Jan, Thesaurus Day
26 Jan, Spouse's Day
28 Jan, National Kazoo Day

National Blood Donor Month

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

Many Thanks

To Kathryn and Bear (W5VZB) Albrecht for hosting the Dec 2016 SARA Christmas Party at their home in San Antonio.

BTW, Bear reports someone left a Farberware kitchen knife. Please contact Bear for the knife.

See page 7 for some pictures of the party.

No Nonsense Tech Study Guide

www.kb6nu.com/wp-content/uploads/2015/03/2014-no-nonsense-tech-study-guide-v20.pdf

SARA Officers

President: Jim Lommen, KC7QY
Vice President: Brad Smith, KD5JNI
Secretary: Bear Albrecht, W5VZB
Treasurer: Anneliese Bowman, AD6UY
Director: Luis Aguilar, WB5JMD
ARES DEC/Dir.: Al Braun, AC5BX
Newsletter Editor: Henry Newton, KC5WYA

Amateur Radio/Hamfest Winter Tailgate Swapfest

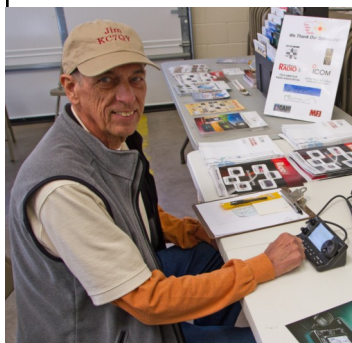
Sponsored by the 146.580 Simplex Group

Saturday, 28 Jan 10

See last page for more information

The President's Corner

Here we are in a new year already. I hope that Santa was good to all of you and that



you survived your New Year's celebrations with only limited consequences. Speaking of festivities, a big thank you to Kathy and Bear for hosting the SARA Holiday party. It was well attended

with good food and fellowship.

With a new year we can generally expect some changes. Henry Newton has decided that this will be his last issue as editor. Thanks to Henry for all he's done to keep the newsletter coming out each month. So we need a new editor volunteer. We will also have a discussion on the future of the newsletter at the January SARA meeting. Do we continue the letter? Should the format be changed? Does the letter need a President's Corner every month? These are things to think about.

Elsewhere in this issue is an update on the repeater site lease and call for members to help with alternate site evaluation. It took several iterations of lease review and revision to get it done but the lease is signed and finalized.

I noticed in the January QST that our past member, Sterling Coffee, N0SSC, wrote a review of a mobile logging app. I had come across a photo of Sterling recently which I have not been able to relocate. I think it had to do with his participation in YOTA (Youth on the Air) in Europe this summer or fall. Anyhow, I did an unsuccessful Google search in an effort to find that photo. I did however come across his Blog (N0SSC.com). His December posting had to do with what can attract young people to ham radio and where we are missing the boat.

Quoting from Sterling;

"I took a quick stock of my friends in ham radio. I have very few friends in the older generation; only a handful of what I call classic hams – those who enjoy DXing, ragchewing, listening to the bands, contesting, hanging out on repeater nets and the like. My friends are much younger, and they're doing **way** less of that stuff. Contesting still remains, but there aren't as many actually talking on radios." And then;

"Soooo...what are we millennials and younger doing?

We're doing things like FaradayRF, HamSCI, Collegiate Amateur Radio and other STEM Initiatives, YOTA, Phasing Line Podcast, High Altitude Ballooning and education, we're updating APRS and modernizing ham Radio networks and modernizing contesting. These are all new and novel things to help usher in a new generation of radio amateurs."

Guess I'm firmly ensconced as a "Classic Ham" at this point but having read this I'm drawn back to what TARA has been up to this year and their plans for next semester. Take a look at Skyler's TARA update in this issue to see what I mean.

Enough ramblings from this classic ham for this month.

Jim KC7QY



National Parks on the Air (NPOTA)

Much of the January 2016 SARA News was devoted to the then upcoming NPOTA, an event intended to have radio amateurs help celebrate the centennial for the National Park Service (NPS). Well, time flies like an arrow (fruit flies like a banana) and when you see this it will all be over.

As NPOTA began, I had great plans to participate – not so much as a chaser, but as an activator. It was going to be my excuse to visit NPS parks in New Mexico and nearby in neighboring states. Like so many plans, that really never got off the ground. That said, other New Mexicans did participate including a few SARA members. You will find two SARA members among the top 15 chasers for the last month (see accompanying figure). These same two SARA members are currently listed among the top 15 New Mexico hams for the entire year. We'll see what the results are after the final tally.


**2016 National Parks
ON THE AIR**
www.arrl.org/NPOTA

Throughout 2016 Amateur Radio is helping the National Park Service celebrate their 100th anniversary. Hams from across the country are activating NPS units, promoting the National Park Service and showcasing Amateur Radio to the public. This month's top 15 leaders in NM are:

Activator Leader Board		Chaser Leader Board	
Call Sign	Score	Call Sign	Score
KC5RUO	50	K5TA	261
A15P	33	WB2RIS	237
W5IL	33	W5IL	229
NM5AE	26	A15P	214
NM5RC	22	W5PDO	185
KE5AKL	20	K8TE	169
W5PDO	16	W5ABA	166
N5FO	11	W5RDL	163
A5VM	10	N15W	143
K1RAX	7	NM5WB	123
KF5THB	5	K1RAX	102
WD6DCD	5	KC7QY	261
K8TE	4	N5KUC	237
NM5DX/M	4	N9KW	229
WB7EGF	4	N5WMQ	214

Repeater Update and Call for Volunteers

At the October meeting there was an extended discussion of the terms presented by New Mexico Tech (NMT) for the lease of the repeater site. Following discussion the membership approved funding for the first year of the lease plus application fee and to establish a committee to investigate an alternate repeater site. The site lease agreement has been completed with funds paid. Now we need interested members to step up to form the committee.

The committee's task is to identify and evaluate alternate repeater sites with the intension of relocating the SARA repeaters. Having given this some thought, I see the task as determining:

- a list of candidate sites,
- coverage into the central areas of Socorro
- coverage outside of Socorro (what areas do we gain and what areas do we lose)
- site access (roads, trails, etc.)
- site security
- site access (who owns the site and what is involved in getting permission/access)
- utilities availability (power, phone, internet)
- set-up cost (tower, building/housing, control linking, etc.)
- operating cost (site rental, phone, power, internet, ?)

In other repeater news, Ed James, KA8JMW, has donated a laptop to replace the D-STAR server. Ray, N0RBT, has the laptop for set-up.

Jim KC7QY



TARA Update

Throughout the semester, as newly elected president of the New Mexico Tech radio club, I have been working hard on revamping the activities and involvement of the club. To open up the semester, we used existing club equipment to provide an exciting club fair. We had VHF equipment setup indoors as well as an HF dipole outside of the Fidel Main center. Through the fair and initial advertisement, we obtained 50 signatures for new members at the club.

After the club members were in and a meeting date was set, we began the first meeting with a small Fox-hunt. Although the operation was unsuccessful, we learned from the mistakes, and put on another successful Fox Hunt for a younger group at the Boys and Girls Ranch. At this time, the local hamfest was also arriving soon, and the perfect opportunity rose to get newly licensed hams in in the school. After going over a few questions through meetings, and teaming up with the NMT off road club for a study cram session before the exam, around 10 new license holders and upgrades were achieved.

At this point, we also had decided on the semester project to put our focus on. The main project included a 440MHz AllStar link and EchoLink enabled repeater for the top of the school. Through rigorous approvals through the Physics Department, and obtaining a network connection through the IT department, access to a highly elevated site for the repeater finally became a reality. After testing various designs, software and finding RF parts for the repeater at a decent price, we put together a simplex node and installed on the roof of the school. As of December 2016, the simplex node has been operational, and after the UHF duplexer arrives, we will be installing a 440MHz repeater in January.

Another side project throughout the semester included the Timber Peak Beacon. Building the beacon was a decision based on the available solar panel at the abandoned light-

ning research site. After the head of Langmur Labs at NMT hadn't even heard of the site, we decided it was pretty safe to take advantage of the unused power. Using an Arduino for the CW keying, and an old Baofeng radio with the microphone removed, we put together a small beacon in a box and hiked it up to the peak. Operating on 144.28, with the call KD0WHB/B, the beacon was reported as far north as Albuquerque and could be heard with a CW receiver easily around the town of Socorro 20 miles to the East. Surprisingly, the Baofeng Radio experiment has held up, and throughout the semester, the beacon has not been offline yet.

In the upcoming spring semester, we first plan to install the full repeater system in January. We also are working on setting up an HF antenna system outside of the radio room, and are planning on the logistics of the installation. Last, the club plans to move forward into digital communication modes and experiment with Software Defined transmitters / receivers, digital voice, and start thinking about the (hopefully) upcoming Geosynchronous amateur radio satellite payload and slowly acquiring parts for the 10/5GHz ground station to talk to the Phase IV Amsat project.

Skyler KD0WHB



Nets

Weekly Socorro ARES net at 19:30 hrs local Wednesdays on the SARA Repeater [146.68 (-)]

Weekly Tri-County ARES net at 19:30 hrs local Thursdays on the URFMSI system. All ARES stations are encouraged to participate, and non-ARES stations are welcome to check in. The Capilla Peak repeater is operating from a shortened tower and most will not be able to reach it from Socorro. NM5CL will ask for check-ins on the SARA 146.68 repeater.

The New Mexico D-STAR net takes place on Thursdays beginning at 20:00 hrs local on REF055A (W5MPZ and W5AQA should automatically tie into it). Hams from across New Mexico, Colorado, and El Paso have joined in from their local repeaters or DV Dongles for a lively roundtable discussion on a variety of D-STAR and other topics.

The Socorro County ARES Group meets on the first Sunday of each month in the Socorro County EOC, 198 Neel Ave. for the NM Section ARES & RACES HF net. All stations are invited to check into the net (3,939 kHz) at 19:30 local. The net provides a forum for the discussion of Amateur Radio support of all types of emergency communications including MARS, SAR, CAP and public service events. The purpose of Socorro ARES participation is for training and to establish emergency procedures in compliance with our agreement with Socorro County.

The "Gatherings" section looks like this:

There is a reasonable chance that you might encounter SARA members at the following venues:

Burger King: Coffee every Saturday ~8:00 to 9:30 hrs at Burger King.

Capitol Bar on the Plaza - Weenie Wednesdays (on the patio in good weather) beginning in late afternoon.

Twisted Chili - Friday Happy Hour beginning at 5:30 PM (on the patio in good weather).

Submissions to SARA News

Contributions and photos related to SARA and amateur radio are solicited for inclusion in *SARA News*. Text should be on the order of 200 to 300 words. Each month ham related ads to buy, sell or trade may be included. Material will be included on a space available and pretty much at the discretion of the editor. To be assured of consideration for the next newsletter, material must be received by the 25th day of the month. We would prefer to have submissions in digital form with text in the form of an MS Word doc, ascii file, or as text in an email message.

As the new newsletter editor, I welcome all comments and suggestions. Send email to sara_news@socorroara.org
Henry Newton, KC5WYA

Join/Renew Your SARA Membership

Are you a member? When does your membership expire? A list of SARA members is available online at socorroara.org/members.html. The list is updated - usually on a monthly basis.

If you do not receive your newsletter by email you might check the membership list on the SARA web page and then contact secretary@socorroara.org.

If you are a member seeking to renew or a ham new to the Socorro area, joining SARA is easy and inexpensive. Download a membership application (from socorroara.org/SARAFrm.pdf) and send it with a check for \$10 (\$15 for family memberships) to:

Socorro Amateur Radio Association
722 N. California St.
Socorro, NM 87801

or drop by the Socorro Radio Shack and say that you would like to join.

TARA “Go Fund Me”

I am a Freshman studying Electrical Engineering at the New Mexico School of Mining and Technology University, and am enthusiastic about radio frequency design and experimenting. As an FCC licensed Extra class ham radio operator (KD0WHB), I am always looking to improve on existing radio based systems and remain on the cutting edge of wireless technology. As the 2016 Amateur Radio Newline Young Ham of the Year, I am always working to promote the hobby and influence other students to obtain their own license.

For anyone who is new to the world of ham radio, this hobby was formed as far back as the early 1900's and was introduced by early wireless experimenters including Marconi, the first to send a signal across the atlantic. Although many people may claim the hobby is out of date, and uses old technology, this is not true, and amateurs should be known for keeping up with leading edge wireless technology.

I became president of TARA (Tech Amateur Radio Association) this Fall after bringing the club back to life. Through the weekly meetings, we influenced 10 students (KG5PYJ - KG5PYQ) to test and pass their amateur radio exam at the local hamfest. Different projects including building a linux-based APRS tracker, creating a foxhunt (hidden transmitter) activity for a local school, and the repeater project headed to the roof of the tallest building have inspired students to explore the possibilities of wireless.

As we dive deeper into various projects including the repeater we are soon placing on top of the school, the need for radio frequency test equipment has been on a large increase. Filter cavities for proper repeater

performance need sensitive tuning adjustments, receiver and transmitter analysis needs to be performed to ensure a proper setup, and alignment needs to be performed on certain radios to transceive into the amateur bands.

In addition to benefiting the club and fellow college students, a service monitor will also allow active hams in the community to experiment and test their own RF equipment. The Socorro Amateur Radio Association (SARA) does not currently own a service monitor, and currently all equipment tuning needs to be done through a few members occasionally in town.

A decent service monitor can be obtained for around \$1000-1500, which is out of the allocated budget by the student government. Donating to the cause will support education in wireless technology, and inspiration for other students in many following years to pass the license exam. The club will greatly appreciate any help towards the equipment, and it will be put to good use for many years to come.

I will personally mail a DVD containing a 440MHz repeater setup, construction, tutorial and demonstration (including internet linking) for any donation over \$50. This video will be complete once the repeater is installed after the holiday break in January 2017.

Thanks,

Skyler Fennell

KD0WHB

Editor's Note: at this writing the fund was \$510 of a goal of \$1000

[https://www.gofundme.com/rf-test-equipment-for-radio-club?
utm_source=internal&utm_medium=email&utm_content=CTA_view_campaign&utm_campaign=donation_receiptv5](https://www.gofundme.com/rf-test-equipment-for-radio-club?utm_source=internal&utm_medium=email&utm_content=CTA_view_campaign&utm_campaign=donation_receiptv5)

SARA Dec 2016 Christmas Party





Amateur/Ham Radio Winter Tailgate Swapfest



An ARRL Sanctioned Event
Sponsored by the 146.580 Simplex Group
Saturday, January 28th, 2017
Sunrise 'til Noon



– No Admission Charge – No Vendor Space Fee –
Look – Buy – Sell – Trade – Visit

New location for 2017:

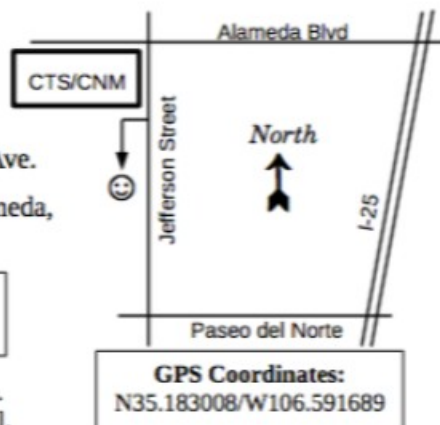
CNM Advanced Technology Center
4800 Alameda Blvd NE, Albuquerque NM

Southeast Parking Lot – Enter via Jefferson Ave.

CTS/CNM Entrance is 1 block South of Alameda,
then West off Jefferson.

Talk-In via the W5CSY Caravan Club Repeaters
145.330 – , 100Hz PL and 444.000 + 100Hz PL

Breakfast burritos and coffee will be offered on site.
Bring your own table/tailgate and lots of stuff to sell.



DRESS WARM!

This is an outdoor event. No indoor facilities are available.
For more information contact Gary, KH6JTM – 505-401-3390