

Socorro Amateur Radio Association

SARA News

www.socorroara.org

February 2017

Meetings

The minutes for the January meeting at www.socorroara.org/sara/minutes.

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

The February meeting will be at 1930 hours, Wednesday, 8 February 2017 at the Socorro County EOC on Neel Avenue.

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

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

February Special Days

4 Feb, USO Birthday
5 Feb, Superbowl Sunday
12 Feb, Lincoln's Birthday
14 Feb, Valentines Day
20 Feb, President's Day
22 Feb, George Washington Birthday
24 Feb, National Tortilla Chip Day
28 Feb, Mardi Gras (Fat Tuesday)
29 Feb, Leap Day (not again until 2020)

New Mexico QSO Party Sponsored by SARA

April 8, 2017 (8:00am-8:00pm MDT)

See page 2 for more information

New Antenna at Charter School

See page 3 and 4 for more information

No Nonsense Tech Study Guide

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



**Support the Socorro
Amateur Radio
Association**

The President's Corner

January was an interesting month. Getting 1.3" of rain early in the month was welcome.



Sure glad it didn't get cold enough to come as a foot and a half of snow though. SARA held its first Lab Night, thanks Bear for organizing and Reese for presenting. See the write-up elsewhere in

this issue. We also had a good turnout for the ARRL January VHF Contest. W7QQ/rover stopped in town Saturday evening and picked up several much welcomed VHF QSOs. Club turnout included Eric, KF5RCN; Robert, KG5GOL; Bill, NM5WB; Jim, WB5GWH; and Anand, AB9XC all contributing 2M FM contacts (sorry if I missed anyone). I managed QSOs with W7QQ/r through several grids as far south as Alamogordo on 6M, 2M, and 70cm SSB. Sunday evening Duffey, KK6MC/r, came in and worked most of the aforementioned SARA members on 2M FM from the Fairgrounds. I first heard him in Carrizozo on 2M SSB while I was beamed south. The contest ended with the two rovers with their drivers and Penny and me meeting at the Springs for a post contest get together. An enjoyable finale.

Also in January we got the new Off-center-fed (OCF) dipole up at the Charter School. Look for Jon's write-up is elsewhere in this issue. The antenna shows fairly good SWR (under 2.5 or so) on 40, 20, and 10M and easily matched with the antenna tuner. Typical of OCFs, 15M SWR was above 5.

Now that February is upon us it's time to start thinking about SARA elections coming up in May. We need to post a list of candidates by the April meeting. Don't all volunteer at once but I plan to step down as President after two terms. I'll be looking to get a nominating committee formed at the February meeting.

Techfest is coming up February 25th in Albuquerque. The announcement went out to the SARA mailing list a couple of weeks ago. Registration is limited and filling fast so sign up soon if you want to attend. The 'Fest is a full day of technical presentations aimed at featuring what new interesting in Ham Radio.

Jim KC7QY

2017 NM QSO Party 8 April 2017 Sponsored by SARA

Hams across the state, nation, and world are gearing up for another enjoyable New Mexico QSO Party! Whether you're brand-new to contesting, enjoy chewing the rag, chase counties, are looking for a unique club activity, or just want to have some fun, the New Mexico QSO Party is your ticket to great fun on the air. The object is simple: New Mexico stations contact as many New Mexico counties, states, and countries as possible. Stations outside of the Land of Enchantment make contact with as many New Mexico counties as possible.

See www.newmexicoqsoparty.org/wp/

Attention New Mexico amateur radio clubs: Rally up your members and participate in the New Mexico QSO Party, either as individual participants or as a group at your club station! There are two special awards intended exclusively for clubs: The first is a special plaque that will be awarded to the New Mexico club with the highest aggregate score submitted by all of its members who get on the air for the QSO Party. Another special plaque will be awarded to the New Mexico Club whose members activate the highest aggregate number of New Mexico counties. It doesn't matter what operating category your members participate in, or for how long; each entrant just needs to clearly mark their club name in their individual logs and your club will be automatically entered. See complete details in the New Mexico QSO Party rules packet.

Socorro Chile Harvest Triathlon

Planning already is underway for the 2017 Socorro Chile Harvest Triathlon. The adult triathlon is scheduled for Saturday, 5 August, with the race starting at 7:30 a.m. The youth triathlon will be the previous day, Friday, 4 August, starting at 6:00 pm.

As they have done for every previous race, the organizers are asking for SARA's help in operating a radio network to support this race. We'll need 7-8 operators on the Saturday and at least two on Friday. Over the years, we have received compliments on the help we provide to the race director and other volunteers during this event. In addition, we often receive thanks from the participants, who appreciate our contribution to making this a safe and fun race for everyone involved.

At this time, the organizers plan to return the bike path to the route used in 2015 and previous years, eliminating the somewhat-hectic three-way intersection seen in 2016. Final details are being worked out, and we'll have a new route map ready for all operators.

Mark your calendars, and plan to be part of this highly-visible public-service activity that shows the participants and the community the value and importance of Amateur Radio.

Dave Finley, N1IRZ

Charter School Antenna Installation

The Cottonwood Valley Charter School recently underwent a complete rebuild as the old modular classrooms were removed and 6 new double classroom buildings were constructed. Only one of the older modular units remained and was the last to receive an upgrade.

Once completed, space was allocated for the Ham Radio Class and for the station to be reinstalled. During the remodeling all of the equipment from the previous station was



Charter School Antenna Installation, continued from page3

stored in the clubs storage area in the EOC across the street.

Recently the station was reinstalled but installation of the antennas had to wait until new siding was added to the old modular classroom building. During that period it was decided to replace the old G5R dipole antenna with a new one. This was because the G5 antenna's open transmission line would not work well with the new metal siding.

A new OCF dipole was purchased from MFJ and on January 16 a crew consisting of President Jim Lommen, KC7QY, class instructor Jon Spargo, KC5NTW and club members Ananda Pravinkumar, AD9XC and Bill Heller, KG5NDN installed the new antenna. (See pictures). After installation there were some initial questions about SWR and matching.

A couple of days later Jim and Jon returned with Jim's antenna analyzer and were pleasantly surprised that, with the station's antenna tuner, the antenna could be used on 40, 20, 15 and 10 meters. Since then Jon and the class have made contacts, mostly on 40 meters, before each class so that the students would have a chance to talk to other hams.

Work is proceeding on building a new 2 meter antenna which should be finished and installed within the next week or so. If you'd like to check out the new station and antenna, swing by the Charter School any Tuesday afternoon at 3 p.m. and try making a contact or two! Just look for the building in the middle of the school compound with the antenna hanging on it!

Jon Spargo. KC5NTW



Illegal Drone Transmitters Could Interfere with Air Traffic

In what it calls an "extremely urgent complaint" to the FCC, ARRL has targeted the interference potential of a series of audio/video transmitters used on unmanned aircraft and marketed as Amateur Radio equipment. In a January 10 letter to the FCC Spectrum Enforcement Division, ARRL General Counsel Chris Imlay, W3KD, said the transmitters use frequencies intended for navigational aids, air traffic control radar, air route surveillance radars, and global positioning systems.

"This is, in ARRL's view, a potentially very serious interference problem, and it is respectfully requested that the products referenced...be investigated and removed from the marketplace immediately and that the importers be subjected to normal sanctions," ARRL's letter said. Some of the transmitters operate on frequencies between 1010 and 1280 MHz. "These video transmitters are being marketed ostensibly as Amateur Radio equipment," the League said, "but of the listed frequencies on which the devices operate, only one, 1280 MHz, would be within the Amateur Radio allocation at 1240-1300 MHz." Even then, ARRL said, operation there would conflict with a channel used for radio location.

ARRL said the use of 1040 and 1080 MHz, which would directly conflict with air traffic control transponder frequencies, represented the greatest threat to the safety of flight. The use of 1010 MHz, employed for aeronautical guidance, could also be problematic.

ARRL cited the Lawmate transmitter and companion 6 W amplifier as examples of problematic devices being marketed in the US. Each costs less than \$100 via the Internet. The device carries no FCC identification number."

The target market for these devices is the drone hobbyist, not licensed radio amateurs. The device, due to the channel configuration, has no valid Amateur Radio application,"

ARRL told the FCC. "While these transmitters are marked as appropriate for amateur use, they cannot be used legally for Amateur Radio communications." In the hands of unlicensed individuals, the transmitters could also cause interference to Amateur Radio communication in the 1.2 GHz band, ARRL contended.

The League said it's obvious that the devices at issue lack proper FCC equipment authorization under FCC Part 15 rules, which require such low-power intentional radiators to be certified.

"Of most concern is the capability of the devices to cripple the operation of the [air traffic control] secondary target/transponder systems," ARRL said. "These illegal transmitters represent a significant hazard to public safety in general and the safety of flight specifically.

"The surge in sales of drones has been dramatic. The FAA has predicted that combined commercial and hobby sales will increase from 2.5 million in 2016 to 7 million by 2020. In Exhibit A of the January 10 letter, "Illegal Drones Threaten Public Safety," the League noted that some of the drones and associated equipment it has come across "are blatantly illegal at multiple levels," with some drone TV transmitters described as "particularly alarming." "Rated at 6 times over the legal power limit, and on critical air navigation transponder frequencies, these devices represent a real and dangerous threat to the safety of flight, especially when operated from a drone platform that can be hundreds of feet in the air," the exhibit narrative asserted.

ARRL, 12 Jan 2017



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.



SARA Lab Night

The first Lab Night was held Wednesday, 25 January. We had about 11 attendees including three TARA members. The activity for the evening was an attempt to re-align the duplexers for the ARES portable repeater. The session leader was Reese Janca, KD7GSB, SARA member and owner of Green Lion Engineering. Reese provided test equipment and went through the alignment procedure. After a bit of fiddling with getting the needed coax adapters the duplexers were scanned and found to be quite far off on the receive side. A problem noted when TARA borrowed the duplexers in an effort to get their repeater (on loan from Green Lion) on Workman up temporarily before the end of Fall semester.

One issue that Reese pointed out is that duplexers are shipped from the factory with phasing harnesses cut specifically for the intended use frequency pair. In the end it appears that the harness is in bad condition resulting in poor rejection on the receive side.

Lab Night will be held again the fourth Friday of the month (22 Feb). Thanks to Bear for initiating this effort and to Reese for the leading the January session.

Jim KC7QY



2017 New Mexico TechFest

an ARRL-sanctioned Operating Specialty event

sponsored by

Rocky Mountain Ham Radio, New Mexico

Saturday, February 25, 2017

New Mexico Veterans' Memorial Event Center
1100 Louisiana Blvd. SE, Albuquerque, NM 87108



Join fellow amateur radio operators from around the Land of Enchantment for a day of quality presentations, demonstrations, and instruction provided by some of New Mexico's most experienced technical hams on a variety of emerging and relevant technical topics within amateur radio today. The New Mexico TechFest is designed to provide a unique opportunity for all hams interested in the technical aspects of our hobby to advance and expand their technical knowledge and to facilitate technical discussion, collaboration, and ideas with one another.

Prizes: Ham-specific and presentation-related prizes will be drawn throughout the TechFest event.

Refreshments and Snacks: Coffee, water, and light snacks available.

Technical Demonstrations: Tables will be provided for attendees to set up and conduct informal technology and project demonstrations between presentations, during lunch, and at the conclusion of the event. (Sales and promotions not permitted.)

Event Schedule and Presentation Lineup: See TechFest website.

Registration: Admission \$10. Pre-registration is required to attend.

TechFest Website: www.rmham.org/wordpress/new-mexico-techfest

Mark your calendars, spread the word, and join us for TechFest 2017!

Call for Presentations: The New Mexico TechFest seeks high quality presenters and presentations on emerging and relevant amateur radio technical topics, techniques, and applications. Hams interested in being a TechFest presenter should submit a summary/abstract of their proposed presentation by January 15 for consideration. See TechFest website for more submission details.