Socorro Amateur Radio Association

SARA News www.socorroara.org August 2018

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 August meeting will be at the County Emergency Management Conference Room at 198 Neel Avenue on August, 8 2018.

Club Officers

President: Skyler Fennell, KD0WHB
Vice President: Brad Smith KD5JNI
Secretary: Ray Calkins, N0RBT
Treasurer: Bill Heller, KG5NGN
Past President: James Boswell KA5SIW
ARES DEC /Director: Al Braun AC5BX
Newsletter Editor: Anneliese Bowman AD6UY
Suggestions or submissions: ad6uy@powerc.net

SARA Repeater

SARA supports a VHF repeater located on Socorro Peak immediately west of Socorro. The repeater is "open". The autopatch 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

Coming events

Alamogordo Amateur Radio Club Hamfest
Sept. 1 2018
Otero County Fairgrounds
7 am to 3 pm

ARRL/TAPR Digital Communications Conference Sept 14, 2018
Albuquerque, NM
Sponsor: ARRL & Tucson Amateur Packet Radio
Website: http://www.tapr.org/dcc

09/21/2018 Rocky Mountain Division Convention (Duke City Hamfest)
Location: Albuquerque, NM
Type: ARRL Convention
Sponsor: New Mexico Hamvention, Inc.
Website: http://dukecityhamfest.org

Ham Radio Gear Used in Rescue of Thai Boys in the Cave

https://hackaday.com/2018/07/11/ham-designed-gear-used-in-thailand-cave-rescue/

Weather!

San Antonio got hit by massive runoff from the Magdalena and Chupadera Mountains recently. We should all remember to take the Skywarn training classes.

https://www.weather.gov/abq/skywarn_sked

Other weather resources:

Radar loop of rainfall:
https://radar.weather.gov/radar.php?rid=ABX&product=N1P&overlay=11101111&loop=yes

National Weather Service Albuquerque Office
https://www.weather.gov/abq/

Socorro Forecast:
https://forecast.weather.gov/MapClick.php?lat=34.059865198628636&lon=-106.89880368299782&site=abq&unit=0&lg=en&FcstType=text

Weather Underground KONM:
https://www.wunderground.com/weather/us/nm/konm

FCC Cites Baofeng Importer for Illegally Marketing Unauthorized RF Devices

From ARRL

http://www.arrl.org/news/fcc-cites-baofeng-importer-for-illegally-marketing-unauthorized-rf-devices

08/02/2018
The FCC has issued a Citation and Order (Citation) to Amcrest Industries, LLC(formerly Foscam Digital Technologies, LLC), an importer and marketer of popular and inexpensive Baofeng hand-held transceivers, alleging that the company violated FCC rules and the Communications Act by illegally marketing unauthorized RF devices. The FCC asserts that Amcrest marketed Baofeng model UV-5R-series FM hand-held radios capable of transmitting on "restricted frequencies." The Baofeng models UV-5R and UV-5R V2+ were granted an FCC equipment authorization in 2012 to operate under Part 90 Private Land Mobile Radio Service (Land Mobile) rules.

"Under § 2.803 of the Commission's rules, an entity may not market a device that is capable of operating outside the scope of its equipment authorization," the FCC Citation said. "RF devices that have been authorized under Part 90 rules, such as the model as issue, must operate within the technical parameters established in those rules." The FCC also maintained that the UV-5R 2+ is capable of operating at 1 W or 4 W, while the Part 90 Equipment Authorization limits the power output to 1.78 W.

Amcrest conceded that the units were capable of operating on restricted frequencies but told the FCC that, per discussions with the manufacturer, were "only capable of operating at 1 W, the FCC said. The company instructed the manufacturer to fix the problem and later confirmed with the manufacturer that all Amcrest inventory on order and in the future would operate only on 145 – 155 MHz and 400 – 520 MHz.

While the Citation does not mention Amateur Radio, the UV-5R series radios can be programmed in a channelized configuration to function on 2-meters and 70-centimeters. According to the Citation, Amcrest had added a warning in its user manuals and marketing and sales materials implying that the UV-5R V2+ could operate on unauthorized and restricted frequencies, including Part 87 Aviation Services frequencies, Part 80 Maritime Services frequencies, and frequencies reserved for federal government use. The FCC said Part 90 radios that permit the operator to use external controls to program and transmit on frequencies other than those programmed by the manufacturer are "generally prohibited."

Amcrest told the FCC that it had ceased marketing four models in the Baofeng UV-5R series “a few years ago,” but it did not remove them from its website until last February. Numerous online retailers continue selling UV-5R series radios for less than $25, with some ads indicating that these are “ham” equipment.

Amcrest Industries, LLC, which owns and operates Baofengradio US, is an import, distribution, and marketing company based in Houston, Texas. It also sells hand-held transceivers under its own label. “While we recognize Amcrest’s efforts to date to achieve compliance with the Commission’s rules, the company must nonetheless ensure the version of the UV-5R V2+ it is marketing operates only on frequencies specified in its Equipment Authorization,” the FCC said in its Citation. The FCC directed Amcrest “to take immediate steps to come into compliance with the Commission’s equipment authorization rules and cease marketing unauthorized RF devices in the United States.” Amcrest could face fines of nearly $20,000 per day if it fails to comply.

IRC Taking D-STAR to the Next Level

Ray Calkins, NORBT

When Icom pushed D-STAR, they advanced amateur radio to the cutting edge, leveraging internet connectivity to create a trunked radio network. The roots of D-STAR began thirty years ago, when Japan's Ministry of Posts and Telecommunications, in conjunction with the Japan Amateur Radio League, began an investigation into finding a new way of bringing digital technology to amateur radio. D-STAR debuted in 2001 as a result. Unfortunately, over the ensuing decades, adoption of D-STAR has been hampered by expensive hardware hobbled by restrictive patents for proprietary vocoder chips and expensive gateway hardware. A growing number of ircDDB gateways are being built using inexpensive Raspberry Pi computers.

D-STAR is fine as far as it goes, but ircDDB has taken the concept and run with it. As I write this, the stats on www.ircddb.net show there are presently 691 online gateways running ircDDB exclusively, 100 online gateways running D-STAR exclusively and 95 online gateways running both ircDDB and D-STAR. If the SARA D-STAR repeater were to upgrade with an ircDDB install in conjunction with the existing D-STAR software, it would quadruple the nodes accessible to users.

Adding the ircDDB plug-in to Icom G2 will not remove any D-STAR functionality.

Here’s the new features the upgrade would give us.

Realtime updates of the ip address of gateways
Realtime reporting of the last transmission of stations on ircDDB connected gateways (great for debugging routing questions)
Ability to callsign route to/from non-Icom (G2) gateways (that support ircDDB – as of today, 688 gateways reporting to ircDDB vs 271 which only have G2).
Access to STARnet Digital — see videos
Realtime status and map presentation.
D-RATS is supported across the ircDDB network

Not only does ircDDB run on non-D-STAR hardware, both client and server, it also works concurrently with Icom's D-STAR gateway system. This gives the ability for a D-STAR repeater to access a much larger network and implement additional features without changing the existing D-STAR system. All that's needed is a software install.

IrcDDB keeps with amateur traditions; it is open source, well documented and uses commodity hardware. No proprietary vocoder chips are required. No secret decoder rings, either.
The ircDDB network is around three times the size of the D-STAR network and growing. IrcDDB interfaces to other operating modes and networks such as APRS.

If you are already using D-STAR, the commands are almost identical to that found on Icom and DVAR systems.

D-STAR, despite having unique identifiers and "last gateway used" capability, does not allow callsign to callsign routing. You can do that with ircDDB.

Away from your radio? There's an app for that. You can use your Android tablet or phone to connect to the network, including connecting to remote reflectors using ircddbremote.

Lastly, ircDDB allows the creation of a homebrew repeater. Consider the expense that could be involved if the D-STAR system was destroyed by a lightning strike or fire. Wouldn't it be nice if we could build our own using readily available, inexpensive hardware?

Bottom line: how much is this going to cost? Absolutely nothing. Will it break the existing system? No, the existing system will be fully backed up and verified prior to beginning the install.

Links:
http://www.ircddb.net
http://download.prgm.org/dl5di-soft/opendv/documentation/ircddbgateway/ircDDBGateway-ENG.pdf
http://www.pa7lim.nl/ircddbremote/

The apps for Android and iOS are here:

https://play.google.com/store/apps/details?id=com.pd7l.ircddbremote

https://itunes.apple.com/us/app/ircddb-remote/id930678750?mt=8

One Ham's Bucket List
James Kocsis, WA9PYH

Some thoughts on radio activities worth trying before you say your last 73.

Okay, you've finally realized that you're not getting any younger and you've thought about what you want to do before you head out for that big "hamshack in the sky." The phrase in common use today to describe your situation is "Bucket List" — a list of things you want to do before you kick the bucket. I've seen bucket lists for other interest groups — car enthusiasts, bicyclists, sports fans, travelers, even a movie by the same name — but none for hams. One list even had getting a ham radio license on it!

The situation is literally a case of woulda-shoulda-coulda for opportunities in the past and a list in your head of things you still want to do in the very near future. I looked back on my 45+ years as a ham and realized that I've had a lot of fun, but wish that I would have acted on several things that I wanted to do but for some reason didn't. I've composed a list of things that some hams may have wanted to do but may not have done. Now is the time to quit dreaming about them and start doing. Below is a list with some things that I have either done or wanted to do. You can use it as a guide to form your own list or use it as is.

The rest of the article can be found here:
http://www.arrl.org/news/one-ham-s-bucket-list