

Cracklin' Static

September 2017 Edition



Breakfast Meeting – Sat, Sept 2nd

Boomtown Casino Hotel
Events Center
I-80 at Exit 4 in Verdi

Breakfast Buffet – 7:30am - \$12
General Meeting – 8:00am

Featured Presentation

Ed Fong, WB6IQN – Jpole Antenna

SNARS NOON NET – Weekdays

12:00PM - SNARS Linked Systems
<http://snars.org/nets>

SNARS NET on DMR – Tuesday 8pm

DMR Talk Group: 31328 SNARS

SNARS Treasury – Ending Aug 31

Checking:	\$8,699.50
Savings:	\$5,245.24
PayPal:	\$3,238.31
Trust:	\$9,380.28
TOTAL:	\$26,563.33

SNARS Membership – Ending Aug 31

Technician:	117
General:	93
Advanced:	17
Extra:	103
SNARS Members	331
ARRL Members	218

President's Voice

Elections and Ham Swap



Your President Anthony Marcin, W7XM

Email: w7xm@snars.org | Telegram: @w7xm_nv

September is our nomination period for our yearly election of directors to the board of directors. This go around includes Jim Shepherd W6US, Berry Bettman, K6ST, Bill Jones, AE7OX and yours truly Tony Marcin, W7XM. To nominate a candidate please send an email to nominate@snars.org with the candidates Name, Call Sign. If you are able to ask the person you are nominating if they would accept to run that would be helpful. Each director serves a 2 year term which begins January 1 and ends Dec 31. Ballots will be sent out the month of November and returned to the secretary by no later than Dec 2nd 8:00am via the return envelope or in person at the December membership meeting at boomtown.

Reno Ham Swap

Our next Reno Ham Swap is schedule for September 23rd, 2017 at Cabela's again. We will be setup in the northwest corner of the parking lot. We give a big thank you to Cabela's for allowing us to use their parking again. Boomtown was not able to accommodate us this time due to a fully booked out Hotel as there are many events in the area going on. We are always grateful to Boomtown with our monthly meetings and the ham swaps in the past in their parking lot. We of course thank them again for arranging this for us with Cabela's. For information about the ham swap please visit <http://renohamswap.com>

50th Anniversary

We have hats and cups with our anniversary logo available for members to purchase. We will have them available at our September Breakfast Meeting. The cups are 8.00 and the hats are 10.00 each. We will also have on hand our new stickers with three options. If you are not able to attend this weekend we will have other opportunities for you to purchase these limited items.



PO BOX 7727 • Reno, NV • 89510
775.453.4142 • <http://snars.org>

Yearly Dues: \$40.00 Individual • \$50.00 Family

2017 Officers

President.....Anthony Marcin, W7XM
Vice-President.....Jim Shepherd, W6US
Treasurer.....Bill Jones, AE7OX
SecretaryRob Dunbar, NB6C
DirectorWes Vick, KG7QXE
DirectorJohn Byerly, N7ROJ
DirectorBarry Bettman, K6ST

2017 Staff

Cracklin Static.....Howie Holden, WB2AWQ
W7TA TrusteePeter DeBay, KE7VSR
KR7ENO Trustee.....Howie Holden, WB2AWQ
Control Operator.....Pat Sheehan, W7DED
Historian.....Jon Fox, KF7KTC
Tech Team LeadJohn Byerly, N7ROJ
Membership.....Anthony Marcin, W7XM
PIO.....Vacant
VE Coordinator.....Bill Nichols, NN7K
Meeting GreeterBill Jones, AE7OX
Noon Net ManagerWes Vick, KG7QXE
DMR Net ManagerAnthony Marcin, W7XM
Reno Ham SwapRob Dunbar, NB6C
WebmasterAnthony Marcin, W7XM

Cracklin Static Publication

Editor: Howie Holden - holden7471@msn.com
Cracklin' Static is the Newsletter of, and sponsored by the Sierra Nevada Amateur Radio Society. Opinions expressed herein are those of the editors and contributors and should not be considered as official expressions of the Club Officers, Staff or Club Members, or as endorsements by same.
Material for publication may be edited to enhance readability or to save space. We reserve the right to use whatever font size or line spacing may be required to publish this Newsletter. **Deadline for input to the newsletter is 1500 hours on the Sunday prior to the 1st Saturday of each month.**

SNARS Wide Area Linked System

147.030 + PL 123.0	Sparks, Fernley, Fallon	Online
147.210 + PL 100.0	Reno, Sparks	Online
147.150 + PL 123.0	Lake Tahoe, Truckee, Carson	Online
146.925 - PL 123.0	Lovelock, Fallon	Online
146.670 - PL 123.0	Winnemucca	Online
444.875 + PL 100.0	Yerington	Online
444.125 + PL 123.0	Reno Sparks	Offline

DMR Systems

444.925 + CC 1	Reno, Sparks	Online
444.825 + CC 1	Dayton, Fallon, Carson	Online
443.925 + CC 1	Lake Tahoe, Truckee, Carson	Online
443.950 + CC 1	Incline Village	Online
442.875 + CC 1	Sparks, Fernley, Fallon	Online
442.850 + CC 1	Downtown Reno	Online
441.950 + CC 1	Fallon, Fernley	Offline

*Visit <http://snars.org/dmr> for Talk Group Information

Fusion Systems

146.610 - PL 123.0	Reno, Carson, Dayton	Online
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IRLP/Echolink Systems

147.300 + PL 123.0	Reno, Sparks	Online
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Digital/APRS

145.050 - RNO	Reno, Carson, Dayton	Online
145.050 - ROSE	Lake Tahoe, Truckee, Carson	Online
144.390 - TOULON	Lovelock, Fallon	Online

Standalone Systems

147.390 + PL 100.0	Reno, Carson, Dayton	Online
443.075 + PL 123.0	Reno, Carson, Dayton	Online
927.0875 + PL 114.8	Reno, Carson, Dayton	Online

■ Online
 ■ Offline
 ■ Not Linked

Thank you to our Sponsors/Supporters



Thank you for hosting us for our monthly breakfast meeting



Thanks to Ham&HiFi for the door prizes they provide.



Jim Shepherd, W6US, nvjims@gmail.com

The Name of The Game

Programming Radios

The first challenge to new hams, and an ongoing problem to old timers, is programming a radio. In a total show of proprietary madness there are no standards for programming different radios. Even radios by the same manufacturer do not program the same way.

There are 3 basic ways to program most radios. Using a computer is the easiest as you can see all the information before you commit it to the radio's memory. Programmers from RT Systems and CHIRP use a similar channel entry system for all the radios that they can program. The individual programming software made by the various manufacturers varies from relative simple to very complex.

The second method available with most radios is to program it from the 'front panel'. Nothing is needed other than instructions and in some cases a mic with a keypad. Some radios require putting them into 'programming mode' by pushing several buttons at once and entering codes... Then you enter the channel information one field at a time and hope you did it correctly. Entering alpha labels is like texting on an old numeric keypad...

The third method is to clone the radio from another local ham who has the same model and a special clone cable. Until recently virtually all the VHF radios used by wildland firefighters were "Bendix Kings" and upon arrival at a fire they would get all their radios cloned with the frequencies to be used on the fire. We would clone several hundred radios on the first morning.

With any programming endeavor, it is necessary to get all of the information and the instructions ready before you start. You will need the following information: The transmit frequency, the tone used on that TX frequency, the receive frequency, the tone (if used) on that RX frequency, the bandwidth of the channel, the mode of the channel, the power level, the channel number in the radio, alpha label information formatted to fit in the display, scan status, group number, zone number, talk group, color, flavor, bank number, and any other special requirement as needed. You will need the instructions to be able to clear an old channel, be able to enter all of the above information, be able to make corrections, if necessary, and finally store all that information in the radio's memory.

Alpha labels are a good way of naming your channels so that you know exactly which is which. I can look at my radio and see 'ROSE' and know that I am on the Mt. Rose SNARS repeater. There is an art to abbreviating repeater names to fit the 6-8 spaces allowed length of the labels. While PEAVINE is for the VHF SNARS repeater, 'PEA UHF' is for the upcoming UHF addition to the system. Other repeaters on Peavine have other similar names. Obviously, Winnemucca Mountain is too long to fit, so it is just WMCA on my radios.

Tones are the most misunderstood and mis-programmed item that causes trouble. The tone on the transmit side is important to bring the repeater up. By tone, I am referring to any signal added to the audio that is being transmitted. It includes CTCSS, DCS, and all of the other digital headers that may be

part of the transmission to keep the repeater working. The vast majority of the repeaters across the US and Canada have these tones required to access them. The CTCSS tones are more popular and these are frequencies from 67.0 Hz to 250.3 Hz. They are injected at low levels into the transmitted signal and they are decoded and stripped off at the receiver. Some repeaters also put a tone on their output which will allow your radio to only open the squelch when it hears the signal from that repeater and not from other signals without that tone on the frequency. This helps keep your radio quiet as you drive around and go by other noise sources.

The tone on the receive side is very useful on the 146.610 on Ophir Peak. This radio is currently a dual mode digital and analog repeater, and when it is operating in digital mode, it does not have the 123.0 tone, so your radio does not open up for a noise sounding signal. If it is in analog mode, it will have the 123.0 tone so it will open your squelch. All the SNARS

analog repeaters have tone on the output except Toulon which does not. It was supposed to have been replaced this spring when the crew was up there which would have solved this and other problems.

If your radio has a list of tones to select from that is a big help as one of the more common programming problems is a CTCSS without the digit to the right of the decimal. Some radios will try to send the exact tone frequency as programmed which may or may not open the repeater depending upon the differences in the frequencies and the drifting of the radios due to temperature changes.

Spend some time reading your manual and practicing programming. On the way to a critical assignment for ARES or when you are lost in the backcountry is not the time to try and figure out how to program a new channel into your radio. Keeping the manual or a 'cheat card' with your radio can really save the day.



Mike Katz, N7MSK

Mike's Missives: Chapter Twenty-Nine

PART 97 -- 97.307 Emission Standards

In keeping with the principle of good amateur practice, it is important that the signal transmitted by an amateur station be "clean." But it is for more than on-the-air aesthetics – good signal quality reduces interference and problems on the bands, which in turn makes our operating time more enjoyable and easier.

The rules are clear about signal quality. No station should occupy more bandwidth than is necessary for the type of communication being conducted [(97.307(a))]. Your modulated signal must not exceed the band segments authorized for your license [(97.307(b))]. Spurious emissions must be reduced as much as possible and corrected if they are causing harmful interference [(97.307(c))]. The remaining paragraphs of 97.307 deal with specifications for various modes.

Weekday on the SNARS Linked System

- 147.030 + PL 123 – Sparks/Fernley
- 147.150 + PL123.0 – Lake Tahoe / Truckee
- 147.210 + PL 100.0 - Reno
- 444.875 + PL 100.0 - Yerington
- 146.925 - 123.0 – Lovelock / Fallon
- 146.67 – PL 123.0 - Winnemucca

Monday through Friday @ 12:00pm

Open to all amateur radio operators. A general informational net for the amateur radio community of Northern Nevada and Eastern California. Radio Checks and Questions are welcomed.

SNARS Weekly DMR Net – Tuesdays 8:00PM

SNARS Talk Group 31328

Open to Members and Guests. A general information net each week on DMR.



Nets on the SNARS Linked Systems

147.210 + 100.0 | 147.030 + 123.0 | 147.150 + 123.0
147.670 – 123.0 | 146.925 – 123.0 | 444.875 + 100.0

Bishops Storehouse Net	Monday @ 9:15pm
N. Western NV ARES Net	Monday at 7:00pm
Northern Nevada Preppers Net	Wednesday @ 8:00PM
Hospital Net	Friday @ 10:00AM

Nets on IRLP (GSR) System

Repeater: 147.300 + 123.0

Amateur Radio Newsline	Monday - 8:00PM
Nevada Skywarn Net	Wednesday - 7:00pm
Nevada State ARES Net	Thursday - 7:00PM

Nets on Simplex/HF

Jefferson Noon Net	7.204 LSB	Daily - 12:00pm
6 Meter Net	50.350 USB	Tuesday – 8:00pm
2 Meter Week Signal	144.250 USB	Wednesday - 8:00PM
2 Meter Simplex Net	146.500 FM	Thursday – 8:00PM
10 Meter Net	28.350 USB	Sunday – 2:00PM

OPEN HOUSE
SEPT 2nd, 2017 – 10:00AM

155 Glendale Ave, Suite 12

We need to make space for incoming inventory! If you're a ham (or anyone who likes to tinker with electronics), you should come to this event. You'll Find:

- Lots of free "stuff"
- Cheap project/repair units
- Donuts and coffee provided

NAME THAT RIG



(Answer on page 6)

SNARS CALENDAR

SNARS monthly meeting (breakfast!)

Saturday, September 2nd, 8:00 AM

Boomtown Casino Hotel, I-80 exit 4, Verdi NV

Board of Director's Meeting - SNARS

Wednesday, September 20th, 2017 6:00 PM - 7:00 PM

Washoe County Regional Emergency Operations Center,
5195 Spectrum Blvd Reno, Nevada 89512

FUN STUFF FOR SEPTEMBER

Looking for some excitement on the bands during August? There's something for everyone on the air!

ARRL EME Contest 0000Z, Sep 9 to 2359Z, Sep 10

<http://www.arrl.org/eme-contest>

ARRL September VHF Contest 1800Z, Sep 9 to 0300Z,

Sep 11 <http://www.arrl.org/september-vhf>

Classic Exchange, CW 1300Z, Sep 10 to 0800Z, Sep 11
and 1300Z, Sep 12 to 0800Z, Sep 13

<http://www.classicexchange.org/sep17/sep17cxann.html>

(Editor's note: Sorry, shameless plug, a favorite of mine!)

ARRL 10 GHz and Up Contest 0600 local, Sep 16 to 2400
local, Sep 17 <http://www.arrl.org/10-ghz-up>

The contests in **bold** may qualify for the ARRL club contest competition mentioned previously in Jim Shepherd's (W6US) article.

For a full list of contests, see:

<http://www.arrl.org/files/file/Contest%20Corral/2017/August%202017%20Corral.pdf>

If you're not into contests, there's always DX to chase, and September has some good ones! Some of the better DX operations coming up in September:

Sep 01 to Sep 10 **Algeria 7Y94I**

Sep 05 to Sep 22 **Mauritius 3B8**

Sep 06 to Sep 13 **Morocco CN2**

Sep 07 to Sep 15 **Botswana A25AL**

Sep 12 to Sep 28 **Cocos & Keeling VK9CGJ**

Sep 13 to Sep 25 **Niue E6AG**

Sep 14 to Sep 21 **Galapagos HD8M**

Sep 15 to Sep 20 **Svalbard JW**

Sep 16 to Sep 28 **Mauritania 5T5OK**

Sep 20 to Sep 26 **Palau T88XA**

Visit <http://www.ng3k.com/Misc/adxo.html> for current info and full lists!

SNARS VOLUNTEER OPPORTUNITIES

- Reno Ham Swap Sep 23, 2017 – Contact Rob Dunbar, NB6C - nb6c@snars.org

REQUEST FOR HELP FROM A NEW SNARS MEMBER RICHARD KD6BQ

(Editor's note: The following request, and potential help from club members could well assist some of our other members. I'd appreciate it if anyone who can help Richard to please also copy me on the reply so I can make said information available to the rest of the club via Crackin Static. Thank you!....Howie)

I'm a relatively new member of SNARS and I could use some help from club members. What I need from the club is information from any ham in Washoe County that has legally put up a crank up tower since 2004 with permits. If you know of any ham that has put up a tower with permits please e-mail me his or her callsign at KD6BQ@att.net. If you have put up a tower with permits in Washoe county please e-mail me and let me know the the permit number or any documentation you may still have.

What's going on, Why do I need this info?

I'm in the process of putting up a tower on my property in Washoe Valley. I've run into a snag with

the county. I have a US tower HDX572, 72 foot crankup. Even though I'm on 1.5 acres of unincorporated county here in Washoe Valley, the Washoe County Planning Department is trying to limit my tower height to 45 feet and has denied my permit. (although they did allow me to put in the concrete foundation).

The current county code reads: Section 110.324.20 (a):

"The retractable height of a private communication antenna is limited to the height limitation of the main structure allowed in the regulatory zone in which the antenna is erected with a bonus of up to 10 feet" (In my area that is 45 feet.) Notice the word "retractable" in the wording of the code (since 2004).

In the past the

planning department has interpreted this to mean that a

crankup tower that extends beyond 45 feet is permitted as long as it can be retracted below 45 feet when not in use. I know of at least 2 hams in the area that have put up crank up towers that extend way beyond 45 feet with permits under this previous interpretation of the code. The County Planning Department now wants to reinterpret the code to say the maximum height retractable or not is 45 feet. I have a hearing coming up with the county Board of Adjustment appealing their recent reinterpretation of the code. I have retained an Antenna Zoning Lawyer (Fred Hoppengarten) to assist me with the County.

I need information from any ham in Washoe County that has legally put up a crank up tower since 2004 with permits to demonstrate the previous interpretation of the code. If they could give me the permit number and

copies of any documentation they might still have that would be great help in my appeal.

I realize that many of the hams in the area live in areas where there are HOA's and CC&R's so there may not be many with towers but I just need a few more to bolster my case. I know two hams that have crankup towers with permits, K2RD in Galena and N7TR north of Reno. A few more would really help me demonstrate the previous interpretation used by the county before this year. Any advice or assistance you could give would be appreciated.

Thanks Richard KD6BQ

NAME THAT RIG

(from pg 5)

OK, most hams with a pulse have probably figured out this rig is from Heathkit. But what model??? Heath had jumped on the SSB bandwagon pretty quickly, and in 1963 came up with the "bright" idea that a single-band HF SSB rig would enable many a ham to get on to SSB without having to take out a second mortgage or surrender the XYL or the first-born. Thus they released in 1963 the Heath "Single-Banders", models **HW-12**, **HW-22**, and **HW-32**, for, respectively, 75, 40, and 20 meters. There was also an "A" version, released in 1966. These are strictly SSB in both operation and coverage, but at a very attractive price of just \$120 in kit form. They offered 200W PEP input, and decent receive specs, and ran off any standard Heath power supply like the HP-23 and variants. Heath also claimed it could be built in 15 hours. Nice rigs, nice price but they never REALLY caught on and were discontinued by the end of the decade.

ARES NEWS

RENO AIR RACES 9/11/2017 to 9/17/2017 **HELP STILL NEEDED!!!**

We have been asked again to help with security as follows during the Air Races, starting (from 0745-1700). If you would like to earn a free pass to the entire Air Race (a \$450 value), you must commit to work a minimum of 15 hours. You can break it up into 5 hour chunks or 10 hour chunks if you like.

1. General Admission Gates
2. Pit Gates
3. Ramp Access from the pits
4. Reserved Seating Grand Stands (Wed-Sun)

This year entertainment will include the Texas Flying Legends Museum racing four planes and performing with six planes (B-25J, TBM3E Avenger, P-40K, FG-1D Corsair, P-51 Mustang and MkIXe Spitfire); the USAF A-10 Thunderbolt II Heritage Team and the A-10 Heritage Flight Team; the USMC AV-8B Harrier flight demonstration; and much, much more (check the RARA website (<http://airrace.org/> for details). Come on out and help and have a lot of fun. Also bring along families and friends (16 years old minimum) to help out and they can receive a pass as well.

CONTACT: Rick Russell, KF7KEM, Washoe County Amateur Radio Emergency Service, Assistant Emergency Coordinator at dc-russell@charter.net.

SUMMER EVENTS CALENDAR 2017: Carson Valley, Tahoe, Reno, Plumas County

EVENT 2017	DATE	DATE END	SPONSOR/ORGANIZER	COORDINATOR	CONTACT
Tour De Tahoe	9/10/17		Tahoe Amateur Radio Assn	Paul McCaffee KI6OCB	paul.mcafee6243@gmail.com
Reno Air-Races	9/13/17	9/17/17	WC-ARES	Rick Russell KF7KEM	wa6mty@gbis.com
Edible Pedal 100		9/17/17	Sunrise Rotary Club	Bob Miller WA6MTY	wa6mty@gbis.com
Grinduro SBTS	10/7/17	10/8/17	Plumas ARC	Larry Trotter KI6YUK	dltrotter@sbcglobal.net
Nevada Day Parade	10/28/17		NV AREA NW DEC	John Abrott KD7NHC	jabrott77@gmail.com , cell 775 790-1739.
Indian Valley Leaf Peepers	TBD		Plumas ARC	Larry Trotter KI6YUK	dltrotter@sbcglobal.net

NOTE: Plumas ARC always have a need for operators. Go over to some beautiful country and help out the Plumas Amateur Radio Club

Bob Miller WA6MTY
Amateur Radio Emergency Service Emergency Coordinator
775 843-5952 www.wcares.us

RENO Ham Swap

Saturday, Sept 23, 2017

Cabela's - Northeast Parking Lot

8650 Garson Rd, Reno, NV

Seller Setup @6:30AM

\$10.00 Per Space

Open to Public @7:00AM

Free to Browse and Buy

Donuts / Coffee

\$2.00 Donation

Raffle Drawing @ 10AM

HT Radio and More

Talk-In Frequency 147.210 PL 100.0

DMR Talk Group: SNARS 31328

RenoHamSwap.com

Brought to you by the Sierra Nevada Amateur Radio Society -- <http://snars.org>



Board of Directors Meeting

August 16, 2017 – 6:00 PM

Washoe County Regional Emergency Operations Center
Board Room
5195 Spectrum Blvd, Reno

DRAFT MINUTES - To Be Approved on September 20, 2017

1. Call to order at 5:57 PM

Anthony Marcin, W7XM	Yes	Barry Bettman, K6ST	Yes	Rob Dunbar, NB6C	Yes
Bill Jones, AE7OX	No	John Byerly, N7ROJ	No	Wes Vick, KG7QXE	Yes
Jim Shepherd, W6US	Yes				

Visitors KG7PDC

2. Approval of Minutes

- A. NB6C moved to Minutes the agenda as presented. W6US seconded the motion and the motion passed.
- B. W7XM moved to approve the agenda as presented. NB6C seconded the motion and the motion passed.

3. Reports

A. President's Report -

- a. Visited Mt Rose to assess damage and temporary fix. Visited Ophir and Davidson sites. Churchill Amateur group is interested in doing some affiliation.

B. Secretary Report

- a. Status Report – Board of Directors election nomination for September. 4 seats up for 2018-2019 term.
- b. Change of Organization Type from Chapter 81 to Chapter 82 – NB6C will look over documents prepared by W7XM.

C. Membership Coordinator

- a. Currently 324 members.

D. Treasurer

- a. Banking balances as of July 31: Checking: \$8,915 Savings: \$5,245 PayPal: \$2,797 Trust Fund: \$9,380 for a total of \$26,337

E. Technical Committee - Report

- a. Need to go back up to Mt Rose and bring up filters and 440 analog repeater. Exchanging Fusion repeater with latest model. Planning to clean up Ophir site and reorganize. Installing camera on Davidson. Upgrade software for microwave link.

F. Control Operators / Trustee - Report

- a. No Report

G. Events

- a. Swap Meet September 23, 2017 at Boomtown.

H. Education Team

- a. Tech class starting October 3rd. Classes will be Tuesday and Thursday.

I. Noon Net

- a. Planning on going to a 5-day schedule until we get more people to help.

J. HF Team

- a. No Report

4. New Business

- A. SNARS 50TH Anniversary Celebration – taking ideas on what we should. Discussion is to piggy back on Nevada QSO Party.

5. Next Meeting

- A. The next meeting will be September 20, 2017 - Wednesday at 6:00PM - Washoe Regional Emergency Operations Center.

6. Public Comments

7. Adjournment at 7:07 PM by NB6C 2nd by KG7QXE