

# CRACKLIN' STATIC



## **SIERRA NEVADA** Amateur Radio Society

Serving the Amateur Radio Community since April 16, 1968

<http://www.snars.org>

**RENO, NEVADA**

**JANUARY 2017**

### **PRESIDENT'S VOICE**

Happy New Year! Will keep this short and simple this month and invite everyone to join us this Saturday for your Monthly Breakfast at Boomtown. We will talk a little bit about our plans for the Reno/Tahoe Hamfest and our need to look at a different date to hold the event and to recap our normal monthly financials and what we have been up to.

Hope to see everyone this Saturday!

73

Tony, W7XM

**Monthly Breakfast Meetings Sponsored by**



**BOOMTOWN**  
CASINO ★ HOTEL  
RENO, NV

## SNARS meeting Saturday January 7



**7:30 AM Boomtown Casino Hotel, I-80 exit 4, Verdi NV, in the Banquet/Conference Center.**

**This month: stuff!**



### SNARS, P.O. Box 7727, Reno, NV 89510

Membership: \$40 Individual, \$50 Family

#### OFFICERS 2017

President.....Tony Marcin.....W7XM  
Vice President..... Jim Shepherd.....W6US  
Treasurer.....Bill Jones.....AE7OX  
Secretary.....Rob Dunbar.....NB6C  
Director.....Wes Vick.....KG7QXE  
Director.....John Byerly.....N7ROJ  
Director.....Barry Bettman.....K6ST

#### STAFF 2016

By Laws Review Committee.....vacant  
Club Public Information Officer.....vacant  
Control Operators Manager.....W7DED  
Cracklin' Static Editor.....WB2AWQ  
Meeting Greeters.....AE7OX  
History Archivist.....KF7KTC  
Station Licensee for KR7ENO.....WB2AWQ  
Control Operators FOR KR7ENO.....WB2AWQ  
Station Licensee for W7TA.....KE7VSR  
Tech Committee Chair.....N7ROJ  
Chief VE Examiner.....NN7K  
Membership Chairman.....N2MOO  
Program Chairman.....vacant  
Web Master .....W7XM  
Facebook Page Administrator.....W7XM  
Events (ARES) Coordinator.....WA6MTY  
Education Team Chair.....W7XM  
Reno Ham Swap.....NB6C  
Field Day Co-chair.....KS6A  
Field Day Co-chair.....W6US  
Audit.....vacant  
Noon Net.....KG7QXE

### CRACKLIN' STATIC PUBLICATION

E-mail..... [holden7471@msn.com](mailto: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 in order to publish this Newsletter.

**Deadline** for input to the newsletter is 1500 hours on the Sunday prior to the 1st Saturday of each month.

**Cracklin' Static** is e-published in Adobe PDF Format. It may be enjoyed at the SNARS web site.

### Amateur Radio License Testing 2016

**SNARS**, Third Saturday of February, April, June, August, October and December. Testing will be at the REOC located at 5195 Spectrum Blvd., be there at 9 AM sharp! ..... Bill Nichols... NN7K  
**SIERA CLUB:** Silver State Charter High School, 788 Fairview Dr, Carson City..... 3rd Saturday of January, March, May, July, September, and November

.....Dale Anderson, [kv7s@charter.net](mailto:kv7s@charter.net)

**Elko Area:** Third Saturday of January, April, July, October.

11:00AM, Northeast Nevada Regional Hospital, 2001 Errecart Boulevard, Elko, NV [w7gk\\_1@yahoo.com](mailto:w7gk_1@yahoo.com)

### SNARS Repeater System Frequencies

#### I-80-Mt Rose Linked System (W7TA)

Reno, Sparks, Carson City (Ophir Peak) 443.075 + 123.0 Normal Operation  
Lovelock, Black Rock Desert (Toulon Peak) 146.925 - 123.0 Normal Operation  
Winnemucca 146.670 - 123.0 Normal Operation  
Reno, Sparks (Virginia Peak) 147.030 + 123.0 Normal Operation  
Carson City, Tahoe, Truckee (Mt Rose Knob) 147.150 + 123.0 Normal Op  
Reno, Sparks, North Valleys (Peavine Peak) 147.210 + 100.0 Normal Operation  
Yerington, Wellington (Lobdelle Peak) 444.875 + 100.0 Normal Operation

#### IRLP/EchoLink System (W7TA)

Reno, Sparks (GSR) 147.300 + 123.0 Connected to/Status:

#### Standalone Systems, Ragchew Repeaters (W7TA)

Reno, Sparks 52.580 - 114.8 Normal Operation  
Reno, Sparks, Carson City, Dayton (Ophir Peak) 147.390 + 100.0 Normal Op  
Reno, Sparks 927.1125 - 114.8 Normal Operation  
Reno, Sparks, Carson City (Ophir Peak) 146.610 - 123.0 Not Linked, off air

#### Digital/APRS Systems (W7TA)

Reno, Sparks, Carson City (Ophir Peak) 145.050 - RNO Normal Operation  
Carson City, Tahoe, Truckee (Mt Rose Knob) 145.050 - ROSE Normal Op  
Lovelock, Black Rock Desert (Lobdelle peak) 144.390 - TOULON Normal Op

#### Portable Repeaters (KR7ENO)

Portable System 147.000 - 123.0 Special events only

#### DMR Digital Mobile Radio

Reno-Sparks 444.925 + CC1 DMR System  
Reno, Carson, Dayton 444.825 + CC1  
Lake Tahoe, Truckee 443.925 + CC1

#### C4FM Digital Repeater – YAESU OFF THE AIR

#### D-Star (N7NDS) NARRI

Reno-Sparks-Carson (Mt Davidson) 444.625 + (Module B)  
Reno-Sparks-Carson (Mt Davidson) 145.175 - (Module C)

# THE NAME OF THE GAME

Jim Shepherd, W6US [nvjims@gmail.com](mailto:nvjims@gmail.com)

## Ham Radio Safety

Not too long ago, the average new ham started his on-the-air experience with a homebrew rig. There was a power supply that provided 200-600 volts DC to the tubes and the radio had a lot of exposed components that were hot, both electrically and with thermal heat. It was stressed in all the classes, by Elmers, and in the construction documents about the dangers of this high voltage and the "one hand rule" was drilled into all hams. As their stations progressed, amplifiers with several thousand volts, open wire feed lines and other hazards increased, and they had a continuing education in electrical safety.

Then came affordable transistors, and the voltages dropped into a range that were intrinsically safe from shock hazards. Generated RF could still give nasty burns and some of these components were hot enough to require cooling, but the biggest real hazards were the 120 Vac household power, a direct short across the power supply, and the heat/sparks generated by that short. Hams are now starting their career with a battery powered handheld radio which presents very minimal hazards unless it is grossly misused. Concern was registered with the distracting use while operating a motor vehicle which resulted in our current law here in Nevada.

Once it was discovered that generally antennas worked better the further they were installed above the ground, the race was on for heights. Initially, antennas were attached to existing structures, and we started to see falling injuries. A fall from the roof of a single story house will be at least 8' and will result in serious injury or death. Unfortunately, the height of the roof is a little low for most antennas, and they need higher supports. Trees are good, and they can be rigged without having to climb, however sending lines over their tops have hazards for those downrange. The area behind the tree should be cleared and guarded while the line is being strung.

Ground erected pole supports are another way to get some height. There are two major hazards that need to be considered. Contact with powerlines is a fast way to earn a listing in the Silent Keys column in QST. Virtually all new antennas come with a warning sticker advising of this hazard, yet every year people ignore this and pay the penalty. Never install an antenna closer to the powerline

than the antenna is tall without an installed guy that will prevent it from falling in the direction of the powerline. The other hazard is the pole falling on you.

Towers are the Cadillacs of the antenna supports, and the hazards increase. Tiltover towers allow you to work on the antennas at ground level which is much safer. Crank up towers should only be worked on in the fully lowered position and even then all the climbing rules apply as these are still 10-20 feet tall when down. Guyed or self supporting towers will require climbing and these present hazards to those on the ground as well as the climber. These safety rules apply to work on mountain top repeater sites as well as to home installations.

All people who are in the drop area, an area with the radius equal to the height of the tower, must wear a hardhat unless they are in an enclosed space like a building or a vehicle with a hard roof. Hard hats are very inexpensive and every ham should have one. Besides tower work, they can help identify you as an emergency worker during a communications incident. If you go to a repeater site, always bring your hardhat as there may be loosened hardware on the tower or ice in the winter that can fall at any time as well as the chance that you may be asked to help as ground crew for a tower climber or even transit the drop zone on your way from the shelter to your car. Besides that, birds like to perch on antennas--- need I say more?

Only properly trained personnel will climb towers. Tower climbing certification is a 2-4 day class taught by certified instructors. It spends most of the time teaching and practicing rescue of an injured climber. The proper equipment which includes a full body harness, hardhat, a fall arresting lanyard and a work positioning/fall restraint device, must be used when working above 4.5 feet off the ground. A second qualified climber must be present and have the rescue equipment available. Old "climbing" belts are for hanging on the wall in your shack, not for tower work. Hanging in a belt gives you about 5 minutes before you die due to the compression of your guts into your diaphragm restricting your breathing. Free climbing must never be attempted. The climber will have at least one piece of protection attached between their harness and the tower at all times, they are never unattached. Due care is used to prevent items from being dropped, but it does happen. The climber will usually yell

out, the size and weight of the item will determine the volume—a 16” adjustable wrench will be definitely be announced with greater vigor than a ¼” washer. Falling parts may bounce off the tower and land surprising distances from the base. This is why there is a large “drop area” where hardhats are required. Climbers will intentionally drop items after announcing their intentions and aiming for a clear area, but beware of deflection off the tower. Ropes are the most common items dropped in this fashion.

Towers need to be inspected to make sure they are assembled correctly. Bolts need to be torqued to the proper tightness to achieve the strength that was engineered. Putting them in loosely can cause them to break. If the tower has flanges between the sections, the bolts need to be installed so they will fall out if they become loose. Proper grounding is a must, but no substitute for clearing the area when the thunderclouds build...

Soldering is another hazardous activity in which we engage. While advancing age or poor genes have blessed

some of us with having to wear glasses, everyone should wear eye protection while soldering. Shorts and flip-flops are not a particularly good fashion statement while using the soldering iron as drips and splatters do occur. Most solder that we encounter is lead based, so don't eat while handling soldered items and be sure to wash up after this activity. Ask any older ham about the “American Beauty” soldering iron, and they will usually have some good war stories....

Finally, beware of tripping hazards. That tangle of coax and power leads on the floor of your shack, or the exposed radials around your vertical in the back yard can lead to a nasty fall. That ground rod sticking 18” out of the ground with the mashed over top can inflict painful wounds when you scrape your leg against it—put an empty plastic water bottle, plastic Champagne cork, or an old tennis ball on top of it. You will also need to flag all lines and wires that are head high or lower in an area where someone may be walking.

Enjoy your hobby and Be Safe this New Year!

## **MIKE'S MISSIVES CHAPTER TWENTY ONE**

### **PART 97 – FCC License examinations**

97.519 Coordinating examination sessions.

- (a) A VEC must coordinate the efforts of VEs in preparing and administering examinations.
- (b) At the completion of each examination session, the coordinating VEC must collect applicant information and test results from the administering VEs. The coordinating VEC must:
  - (1) Screen collected information;
  - (2) Resolve all discrepancies and verify that VE's certifications are properly completed; and
  - (3) For qualified examinees, forward electronically all required data to the FCC. All data forwarded must be retained for at least 15 months and must be made available to the FCC, upon request.
- (c) Each VEC must make any examination records available to the FCC, upon request.
- (d) The FCC may:
  - (1) Administer any examination element itself;
  - (2) Readminister any examination previously administered by VEs, either itself or under the supervision of a VEC or VEs designate by the FCC; or
  - (3) Cancel the operator/primary station license of any licensee who fails to appear for readministration of an examination when directed by the FCC, or who does not successfully complete any required element that is readministered. In an instance of such cancellation, the person will be granted an operator/primary station license consistent with completed examination elements that have not been invalidated by not appearing for, or by failing, the examination upon readministration.

## **Ham&HiFi OPEN HOUSE!**

**Saturday January 14 from 8 -12 noon .....**

**Lots of stuff from our estates and the closing of our retail store for sale and for free !**

**Coffee and doughnuts provided !**

**Come one and all ! 155 Glendale Ave Suite 12 Sparks NV 775-386-2506**

## THE SNARS NOON NET

The Noon Net is on 147.030 +and 147.150+, PL 123.0, and 147.210 + and 444.875+, PL 100.0 . The net is held weekly at 1200, Sunday afternoon. This is a Q&A and information net for newly licensed hams and all hams wishing to ask question about different aspects of Ham Radio. It will give new hams in particular a venue for getting on the air in a controlled net moderated by a ham with experience. The net is open to all hams. Questions will be answered and discussed by the more experienced hams on the Net.

### Weekly nets on the SNARS repeater systems

**SNARS Noon net (daily, 12:00 PM, see below)**  
 147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**The Morning Net (Monday – Friday at 10:00 AM)**  
 147.300 + 123.0

**Bishops Storehouse Net (Monday nights at 9:15 PM)**  
 147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**North Western Nevada ARES Net (Tuesday nights at 7:00 PM)**  
 147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**State SATERN Net (Tuesday nights at 8:00 PM)**  
 147.300 + 123.0

**State SKYWARN Net (Wednesday nights at 7:00 PM)**  
 147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**Northern Nevada Preppers Group Net (Wednesday nights at 8:00 PM)**  
 147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**State ARES Net (Thursday nights at 7:00 PM)**  
 147.300 + 123.0



### NAME THAT RIG



(Answer on page 6)

Jim	Rosima	KD7DPW
Robert	Thomasson	KE7NCQ
Thurman	Turner	K7TTX
Jon	Whipple	KI7JAB
Michael	Vonada	KG7ENF
Terry	Widaman	KI7IRA
Roger	Rustad	KF6ROG

Total Membership 318

## SNARS CALENDAR

**SNARS monthly meeting**  
 Saturday, January 7<sup>th</sup>, 8:00 AM  
 Boomtown Casino Hotel, I-80 exit 4, Verdi NV

**QCWA Nevada Chapter meeting**  
 Saturday, January 14, 11am – 12 noon  
 Famous Dave's Bar-B-Que, 4925 Kietzke Ln, Reno, NV

**Board of Director's Meeting - SNARS**  
 Wednesday, Dec 17<sup>th</sup>, 2016 6:00 PM - 7:00 PM  
 Washoe County Regional Emergency Operations Center,  
 5195 Spectrum Blvd Reno, Nevada 89512

## WELCOME NEW SNARS MEMBERS

### New Members for December 2016

David	Barnard	AE6NA
Jennifer	Brand	KI7IRJ

### FUN STUFF FOR JANUARY

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

Jan 7 1800 to Jan 8 2359 ARRL RTTY Roundup Dig  
[www.arrl.org/rtty-roundup](http://www.arrl.org/rtty-roundup)

Jan 7 1800 to Jan 7 2359 Kids Day Contest Ph  
[www.arrl.org/kids-day](http://www.arrl.org/kids-day)

Jan 14 1800 to Jan 15 0559 North American QSO Party, CW  
[www.ncjweb.com/NAQP-Rules.pdf](http://www.ncjweb.com/NAQP-Rules.pdf)

Jan 21 1800 to Jan 22 0559 North American QSO Party, SSB  
[www.ncjweb.com/NAQP-Rules.pdf](http://www.ncjweb.com/NAQP-Rules.pdf)

Jan 21 1900 to Jan 23 0359 ARRL January VHF Contest CW Ph Dig  
[www.arrl.org/january-vhf](http://www.arrl.org/january-vhf)

Jan 27 2200 to Jan 29 2200 CQ 160-Meter Contest, CW  
[www.cq160.com/rules.htm](http://www.cq160.com/rules.htm)

For a full list of contests, see:

<http://www.arrl.org/files/file/Contest%20Corral/January%202017%20Corral-RevA.pdf>

If you're not into contests, there's always DX to chase!  
Some of the better DX operations coming up in December:

- 2017 Jan01 2017 Jan07 Qatar A70X
- 2017 Jan02 2017 Jan05 United Arab Emirates A65TG
- 2017 Jan02 2017 Jan11 Maldives 8Q7AZ
- 2017 Jan03 2017 Jan21 Laos XW4XR
- 2017 Jan07 2017 Jan30 PE & Marion Is ZS8Z
- 2017 Jan11 2017 Jan25 Cyprus SBA ZC4SB
- 2017 Jan20 2017 Mar03 Guinea Bissau J5UAP
- 2017 Jan20 2017 Mar03 Senegal 6W2SC
- 2017 Jan22 2017 Feb02 Ivory Coast TU5MH
- 2017 Jan23 2017 Jan30 Falkland Is VP8

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

## (NOT JUST) BLACK FRIDAY EQUIPMENT SALE REDUX

The Comstock Memorial Station is still attempting to pay off a very expensive 13 day maintenance session in June. Tax deductible donations always welcome. Still two items left:

- ELECRAFT K3 HF 100W Transceiver
  - S/N 4391
  - KIO3, KPA3, KRX3
  - 500Hz filters in Main, Sub RX, 1800Hz filter in Main
  - Minor cosmetic flaws on the case
  - \$2,400 – Current Model New = \$3,800

\* \* \* \* \*

## ARES NEWS

February 18<sup>th</sup> is my next One Day Ham Cram (Test Question Review and final exam)  
Everyone interested must go to [www.snars.org/classes](http://www.snars.org/classes) and sign up so I can have enough handouts. You MUST sign up by February 17<sup>th</sup>!

### 2017 Communications Event Schedule

EVENT 2017	DATE	DATE END	SPONSOR/ORGANIZER	COORDINATOR	CONTACT
Reno 5000 -1	4/3/17		Dolan Auto Group	Bob Miller WA6MTY	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>

- ROHN HDBX 32' Self-Supporting Tower
  - Holds 18 Square Feet of Antenna
  - With top plate, thrust bearing and rotor plate
  - Dismantle (on the ground) and haul
  - \$700.00

PAYPAL OK if you pay their fees.  
All equipment in good working condition when last used.

Tom Taormina, K5RC  
Comstock Memorial Station, W7RN  
Storey County ARES, KS7AA  
[www.w7rn.com](http://www.w7rn.com)  
[775-847-7929](tel:775-847-7929)

*Editor's note: This is first quality stuff, and helps a worthy organization which has long been a big part of Northern NV Amateur Radio culture.*

## NAME THAT RIG (from pg 5)

The Hallicrafters Company introduced the SX-16 receiver in 1937. Boasting 11 tubes, plus a crystal filter for crowded band conditions, .54 Mc to 60 Mc coverage in six bands plus Amateur band spread, and excellent sound from a push-pull audio stage capable of driving a large Hi-Fi speaker, the SX-16 was an instant hit with both the Ham crowd and the shortwave listeners. But it was immediately outdone by the SX-17, alleged to be a special model of the SX-16, built for the FBI, but with significant over-run production. The SX-17 added one additional RF stage (why, who knows??) and a limiter stage. The two receivers looked identical, in the classic Hallicrafters 1930s tech look, and both models are widely sought after by collectors. Yours truly has a -16, currently in restoration-limbo. Early Hallicrafters receivers do not handle modern line voltages well, and often suffer burned out, hard to find parts.

Silver State 50/50 race	5/20/17		Silver State Striders	Steve KS6A	<a href="mailto:ks6a@sbcglobal.net">ks6a@sbcglobal.net</a>
America's Most Beautiful Bike Ride	6/4/17		Tahoe Amateur Radio Assn	Paul McCaffee	<a href="mailto:paul.mcafee@att.net">paul.mcafee@att.net</a>
Pony Express Re-Ride	6/5/17	6/15/17	SIERA		<a href="http://www.cvhams.com/contact.php">http://www.cvhams.com/contact.php</a>
FIELD DAY	6/24/17	6/25/17	SNARS		<a href="mailto:holden7471@msn.com">holden7471@msn.com</a>
Reno 5000-2	6/25/17		Dolan Auto Group	Bob Miller WA6MTY	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>
Death Ride	7/8/17		Tahoe Amateur Radio Assn	Paul McCaffee	<a href="mailto:paul.mcafee@att.net">paul.mcafee@att.net</a>
Tahoe Rim Trail	7/14/17		Tahoe Mountain Milers	Bob Miller WA6MTY	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>
Round Valley Walk/Run	TBD		Plumas ARC	Larry Trotter KI6YUK	<a href="mailto:dltrotter@sbcglobal.net">dltrotter@sbcglobal.net</a>
Running With the Bears	TBD		Plumas ARC	Larry Trotter KI6YUK	<a href="mailto:dltrotter@sbcglobal.net">dltrotter@sbcglobal.net</a>
Reno 5000-3	8/27/17		Dolan Auto Group	Bob Miller WA6MTY	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>
Tour De Tahoe	9/10/17		Tahoe Amateur Radio Assn	Paul McCaffee	<a href="mailto:paul.mcafee@att.net">paul.mcafee@att.net</a>
Reno Air-Races	9/13/17	9/17/17	WC-ARES	Rick Russell KF7KEM	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>
Edible Pedal 100	9/17/17		Sunrise Rotary Club	Bob Miller WA6MTY	<a href="mailto:wa6mty@gbis.com">wa6mty@gbis.com</a>
Grinduro	10/7/17		Plumas ARC	Larry Trotter KI6YUK	<a href="mailto:dltrotter@sbcglobal.net">dltrotter@sbcglobal.net</a>

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](http://www.wcares.us)

\* \* \* \* \*

## SNARS – AN ARRL SPECIAL SERVICES CLUB

You probably all know SNARS is an ARRL Special Services Club. Right. So what does that mean?

### First, what is a Special Service Club?

From the ARRL website: "A club that exists to go above and beyond for their communities and for Amateur Radio is what defines a Special Service Club (SSC). They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs and actively pursue technical projects and operating activities." Also, the club has to be an ARRL-affiliated club.

On the SSC application from the ARRL, there is a certification which must be made, stating:

"As an ARRL Special Service Club, we have met our agreement to develop our skills in the specified areas during the past two years in accordance with the guidelines in the Active Club On-Line Primer. With this application we apply for renewal as an ARRL Special Service Club for the year to come. We have worked closely with our Affiliated Club Coordinator throughout the year. Recently we have discussed our successes and problems during the past year, reviewed our current strengths and weaknesses and agreed on an acceptable program for the coming two years."

Then the club has to provide detailed information covering the following areas:

### New Ham Development and Training

Purpose: Develop an effective, coordinated program of public relations, recruiting, training and ongoing

assistance targeted to prospective and newly licensed hams in your community.

### Public Relations

Purpose: Establish an effective Amateur Radio presence in your community, including contact with local media and coverage of your activities; Public Information Officer appointment.

### Emergency Communications

Purpose: Club members should become skilled in communicating effectively during communications emergencies and be prepared to assist when needed; Official Emergency Station appointment and participation in ARES.

### Technical Advancement

Purpose: Continuing education in the technical aspects of Amateur Radio to ensure that your club members are technically competent, familiar and comfortable with

modern radio-electronics technology; Technical Specialist appointment.

### Operating Activities

Purpose: Active participation as a club in one or more major operating or operating support activities to ensure that your club maintains a high level of operating skill.

### Miscellaneous Activities

Purpose: Every active club has its special interests and activities that make it unique, that give it special personality. List three of these activities.

Application for SSC is not automatically granted. Each application is individually scrutinized by the ARRL. FYI SNARS has been an ARRL Affiliated club since 1977, and is current with its affiliation and SSC approval, which must be updated and reviewed every two years.

## FEATURED PRODUCT

**This package is an unbeatable deal!  
Here are some features:**

- **Vertical antenna (80-2 meters)**
- **150 watt PEP capacity**
- **25' counterpoise w/ winder**
- **Jaw-mount bracket (for horizontal or vertical mounting)**
- **PL-259 connector**

**SNARS PRICE: \$89.95**

**REGULAR PRICE: ~~\$99.95~~**

**Ham&HiFi**

**155 Glendale Ave  
Suite 12  
Sparks, NV 89431  
775-386-2506  
www.hamandhifi.com**

## ABOUT US...

**We carry a variety of new products such as antennas, mag mounts, switches, coax cable, connectors, and more.**

**We also have a wide selection of both vintage and modern ham gear, which you are more than welcome to peruse at your leisure. From Collins to Elecraft, you never know what we'll have on our racks!**

**If you're looking for anything particular, give us a call and we'll add you to our "wanted" list. The next time we find that specific piece, we'll give you a call *before* it's listed for sale anywhere else!**

## WE BUY EQUIPMENT

**We are always buying used equipment whether it's ham gear, high fidelity audio, tubes, or test equipment. Whether it's vintage tube equipment or the latest product on the market, working or not, near or far, we would love to hear from you. Give us a call for more information!**

EDITOR'S NOTE: THERE WAS NO SNARS BOARD MEETING IN DECEMBER.