



SIERA BEACON



Carson Valley, NV

September 2018

"HAM radio is not a hobby. It's a way of life." - Carlos Beltran, XE1MW

URGENT MESSAGE FROM ARRL

The Fed's are planning to cut funding for WWV, WWVH and WWVB. These are the NIST time standards for the US and most of the world. WWVB is the source of timing for 50 million watches and clocks that receive these signals for correct time. They will all stop working! Please sign the petition against taking away these time standards. Here's the link to the ARRL article and petition: <http://www.arrl.org/.../concern-rising-within-amateur-radio-c...>

Repeater Replacement



SIERA did a quick turn-around in fixing the NV7CV repeater. During a July thunderstorm, lightning hit close to the repeater, knocking out the power and damaging the NV7CV antenna. One of the loop elements was twisted in a vertical orientation, sending signals into the sky. Jim Marshall K6LR found a new Telewave antenna for half the cost that he estimated in a report to the Board.

On Monday, August 20, Jim, Dale Andersen KV7S, and David Granish KI6EWK installed the new antenna in just a few hours. You can watch a slideshow of David's photos on the SIERA Facebook page: <https://www.facebook.com/SIERA>. Thanks Jim, Dale, and David for returning the NV7CV repeater to normal and much clearer amateur use.

Elections Coming Up!



We'll be holding elections in December, but it's time to start thinking about who we'd like to have on our Board for 2019. One member, Sue Cauhape, KI7CTT, is stepping down as Secretary. We will also need a Field Day Coordinator and a Post-Holiday Party Coordinator. We thank Bob and Debbie Williams for their work in these two positions. If you want to serve on the Board and bring fresh energy and ideas to the mix, please let the Nominating Committee know.

Happy Labor Day Weekend: Because so many people may be out of town during this weekend, the September General Meeting will be held the following Saturday, **September 8**, at 1 p.m., at the United Methodist Church, 1375 Centerville Lane, Gardnerville. Ed Eggert, K3VO, will talk about CW. To get yourself all warmed up for Ed's presentation, here's a link to the ARRL Morse Code Practice Files site: <http://www.arrl.org/code-practice-files>.

SIERA Meets SOTA:

Mark A. Sandler, K7MAS, activated his SOTA station on Monument Peak August 16th and contacted seven Nevada hams on 146.520 Simplex. Three of those reached were SIERA members Bob Williams, K7VOC, Sue Cauhape, KI7CTT, and Brian Freitag, KE7JIO in Silver Springs, NV.



Visiting Tahoe from Bellevue, WA, Mark was staying at the condos on Kingsbury when he first checked his 2-meter from there by contacting KI7CTT. He told her that he wanted to do SOTA contacts on the peaks in the area. When she heard him again the next day, he was on Monument Peak, first using the NV7CV repeater to announce his SOTA activation then switching over to Simplex. That's when the real fun began. The four other contacts were mobiles passing through the area. Between K7VOC and KI7CTT, Mark got a good geography lesson concerning Carson Valley, Johnson Lane, and Silver Springs.

From his webpage on QRZ: <https://www.qrz.com/db/K7MAS>), Marks says:

"Thank you to all of my many contacts during SOTA Activations. I appreciate each and every SOTA contact, as it takes much preparation and work to be in position on mountain tops to make SOTA QSO's.

My current Ham Radio gear is mainly based on my interest in outdoor / remote locations radio operation. It includes Elecraft K2 + many K2 Accessories, Elecraft KX3, Yaesu 817D, Yaesu 857D & Yaesu 897, and Alinco DR-235MKIII for the 220 MHz Band. At times I use an old reliable Kenwood TS-830S, my first HF radio."

Nevada QSO party is Oct 12 - 14, 2018

We will be circling the wagons for a camp out and BBQ back at the junction of Nye, Lander, and Churchill counties near Burnt Cabin Summit. Come out for the day or camp with us for the weekend. Either way, it promises to be another fun event. We will need volunteers to set up the antennas and flip burgers. RSVP is required. Contact Greg KG7DMI@frontier.com

The Arizona <https://www.azqsoparty.org/>, South Dakota <https://sdqsoparty.com/>, and Pennsylvania <http://www.nittany-arc.net/pqpdf/paqso17rules.pdf> QSO parties will run concurrently with the Nevada. This means we can work all four parties at the same time.

The California QSO party is the weekend before the Nevada QSO party. <http://www.cqp.org/>. CQP is the largest QSO party in the country and guaranteed to be lots of on-air action. We are in a prime location! Close enough to work everyone with 100w and a wire. You will be surprised how many stations have never worked Nevada. That makes you the rare DX. <http://nvqso.com/>

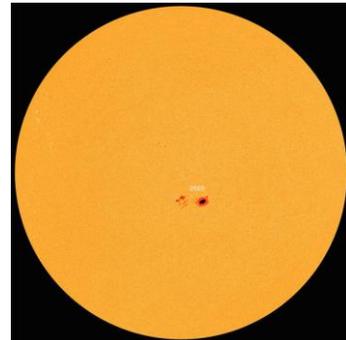
WATERING HOLE: Top Hat Design

One of many topics on the August 22nd "Watering Hole" with Brad Smith WT6B involved using capacitive hats (or top hats) instead of inductors on top of antennas to make them resonant. Paul Gulbro WA6EWV went a step further after the net closed and provided this link to a PDF article that gives pages and pages of graphs, math examples, and drawings of how "top hat" capacitors work. Here's the link: <http://rudys.typepad.com/files/chapter-3--1.pdf> Thank you, Paul, for adding so much more to the discussion.

(Editor's rave: Brad's *Watering Hole* is the perfect place to ask questions, any questions, about whatever puzzles you about amateur radio. SIERA has hundreds of years of accumulative experience and knowledge building and trouble-shooting radios, antennas, and peripheral components. Please, don't be afraid to take advantage of this wonderful resource.)

David's Tech Talk: Some Thoughts on the Extended Solar Minimum

On August 13, spaceweather.com reported, "The sun has been without sunspots for 45 of the past 48 days. To find a similar stretch of blank suns, you have to go back to 2009 when the sun was experiencing the deepest solar minimum in a century." This got me to thinking about what I was doing amateur radio-wise in 2009. So, I dug out my logbooks for that time period. I had to check the written logs because I started a new electronic log when we moved here in 2011. To my surprise, (where IS my memory now-a-days?) I found that I had ceased HF operations in 2007 when HF conditions were actually better than they are now. A closer examination revealed that in the few months before closing down, signal reports I received were noticeably weaker than those I had been getting a year before, and also, fewer stations were being worked.



At that time I was splitting my HF activity between SSTV and sitting in on DX and worked-all-states nets. These nets work by having a prearranged and well advertised meeting time and frequency. Each sponsoring organization follows slightly different procedures, but what generally happens is that at the advertised start time a designated net control station or two will start taking check-ins whose calls will be added to a list. After collecting the list, those stations will be given the opportunity to make calls to other stations on the list. The point is that the calling station would have the opportunity to make the contact on a relatively clear frequency devoid of pile-ups and other interference. To continue in the tradition of comparing ham radio to fishing, this method of making contacts is often referred to as "shooting fish in a barrel." However, in defense of this practice, I found that I was able to check in then half-listen and complete paperwork or other computer tasks until I received a call, or it came my turn to make a call. If I were out scouring the HF bands for contacts, it would have required my full attention.

Based on my personal experience, if you are searching the HF bands for signals and are hearing only static, one reason could be that people are losing interest because of declining conditions. I have clear memories (sometimes) of having this same discussion back in 2007. At that time the consensus was that declining HF activity was due to a combination of solar conditions and the increasing competition provided by The Internet.

In addition, at that time, new licensing was also in a decline. So all these factors contributed to my decision to turn off the HF radio. All was not lost though, I spent the following few years on VHF rag chewing with a local group of hams.

Since I have been spending most of my time lately hunting Maidenhead LOC Grids in the lower portions of several HF bands, I thought I would give the dial a turn to see what I could hear in the SSB portions. I'll admit there WAS a lot of static. But, I found activity there as well. I found a SOTA operation (Summits On The Air), a couple of Special Event stations with pile-ups, The Noontime Net, and a few – very few – stations engaged in rag chewing contacts. Utilizing a spectrum display (if your radio has one) certainly streamlines searching for signals, but it is not the same as manually scanning for signals. In short, there are things that you can hear that the spectrum display might miss. Listening can give you clues about band conditions. Even if you can only hear one side of a conversation, it can help you make a determination of overall band conditions.

It also helps to know when and where to listen, and I don't mean just using the band plan to pick a frequency. Choosing the proper band is a skill that requires the Ham to process many factors. So let's file that for a later discussion – BUT – in general, daytime QSO's are possible to distances of 100 to 300 miles on 80 meters and 40 meters, 300 to 700 miles on 20 meters. Higher frequencies – 17, 15, 12, and 10 meters require a Solar Flux number of approximately 75 for reliable communications. For longer distances, an operator should consult the ARRL Propagation Charts at www.arrl.org/propagation for up-to-date information. For nighttime activities 80 and 40 meters are the best bet at this point in the solar cycle.

Now for the bad news: The solar minimum conditions mentioned at the top of this article occurred in 2009. This was almost a year after the appearance of a reversed-polarity sunspot that ushered in the start of Cycle 24. We are still in the tail end of Cycle 24 with no new sunspots in the immediate forecast. The solar minimum at the start of Cycle 24 was the deepest minimum in a century. There is no reason not to expect an extended minimum at the end of Cycle 24. -- David DeAngelis K1SCN

According to SpaceWeather.com. - posted Sunday Aug 26

"New sunspot AR2720 is not only large, but also strange. Its magnetic polarity is reversed. The North and South ends of its enormous magnetic field are backwards compared to the norm for sunspots in the current solar cycle, decaying Solar Cycle 24. What does this mean? AR2720 may be the first big sunspot of the next solar cycle, Solar Cycle 25, popping up now in the middle of solar minimum. Solar cycles always mix together at their boundaries. The slow transition between Solar Cycle 24 and Solar Cycle 25 appears to be underway."



ARRL Licensing Exam: SIERA offers these exams on the third Saturday every other month at 9 a.m. in the Shepherd of the Sierra Lutheran Church behind the Best Buy on Hwy 395. Bring a photo ID, a copy of your license if you're upgrading, and \$15. Contact: Greg Moore at KG7DMI@frontier.com for more information.

The next Licensing exam: Sept. 15th.



Chuck Gervy KI7PGI, Mary Nunn KI7VGI, Mike Yee KF7UGW, and Kirby Mays KI7ZXV for earning their General licenses. Chuck also went on to earn his Extra license.

Thank you, Jeff Cauhape, K7BCV, for teaching the classes that have brought so many new Hams in SIERA. Jeff will be taking a break from teaching for at least the Autumn semester at Western Nevada College. Check the Beacon for when he resumes in Winter or Spring.

Breakfast and Lunch Gatherings

11:15 a.m., every Wednesday at Jethro's on Kimmerling in the Ranchos.

8 a.m., every fourth Saturday at the Tail Dragger Café at the Minden-Tahoe Airport.

DCART NEWS

DCART Webpage: http://webpages.charter.net/douglas_dcart/

Radio Support for the Donnell Fire in Alpine County

After speaking with Paul, WA6EWV, Bryce, KI7NIK, and Jeff, KF6NKR, and looking at the geography, and speaking with the CA Red Cross personal (also a ham), I think it best to refer the Red Cross to the Tuolumne ARES. The TCARES (tcares.net) already are in touch back to Sacramento through all of their repeaters, EchoLink etc. As formal EC for Alpine County, I gave my permission and encouragement for them to use their closer ARES resources to this fire.

Paul Gulbro WA6EWV suggested a workaround Plan B with special linking the 147.24 to Conway with use of EchoLink, a powerful connection possibility (as long as the Internet is up). This incident brings up the point of figuring out communications for the "rest of Alpine county." With the Death Ride event we pretty well know this end.

SET (Simulated Emergency Training) October 6, 2018

During the August DCART meeting, Sheila Clement KA7AJQ outlined various tasks and preparations members needed to do for the upcoming Simulated Emergency Test (SET) in October. Anyone interested in joining DCART can speak to Sheila about the process to become part of this vital community service to the Douglas County 911 Center. Here is what she emailed to members:

- An opportunity to staff & exercise our 911, CM11, and home stations.
- A chance to exercise our reverse 911 call out.

- An opportunity to use the state ARES scenario with state contacts and participation.
- We can exercise our DCART planning frequencies.
- **We need an exercise plans chair person in order to pull this off (I plan another knee replacement Sept 18th. Can help until mid Sept)**
- Sept meeting opportunity for SET planning

Packet Radio - resolved to work on our resources to communicate especially within Douglas County. Important for Winlink operations.

Winlink - a worldwide radio email service that uses radio pathways where the internet is not present.

- Provides users email with attachments, position reporting, weather and info bulletins and is well-known for role in emergency and disaster relief communications.
- DCART members plan to learn and train to use for our operations.
- Members should register on the winlink.org site to get your password for further operations.
- ICS & other forms are available on the software.
- California ARES operations for shelter and government use Winlink extensively. Our Sacramento Valley ARES site, sacvalleyares.org often has Winlink information.
- Sept 17 DCART Meeting - John, KD7NHC, plans Winlink training.

C.A.R.L.A. (California Amateur Radio Linking Association)

- Go to website carlaradio.net often for proper use guidelines and repeater outages review
- Systems 18 and 24 are programmed into our 911 radios
- Can use for reaching into CA as well as local communications.
- CA Red Cross could request interface on system

EchoLink - Software allows licensed Amateur Radio stations to communicate worldwide over the Internet, using streaming and audio technology. echolink.org

- Register - free
- Can load on tablets, phones, computers
- Can use local IRLP repeaters to connect
- narri.org NARRI website shows statewide repeaters and VOIP nodes

Sheila, KA7AJQ

ARES EC for Douglas and Alpine Counties

ACTION FOR ALL WINLINK OPERATORS: on September 5 and on November 15 (the drill dates), please flood the NTS/RRI system with traffic by sending test welfare Radiograms to your friends and family in all 50 states. You might give your friends and family a heads up and ask them to tell you when they receive your message from the Radiogram system. You should practice sending a live Radiogram before the September 5 exercise to get the hang of the template and delivery options. One surprise is that unlike other forms, the Winlink template does not travel as an attachment to your Winlink email. The form template converts your message to Radiogram-speak characters formatted perfectly for the NTS/RRI system.

<http://radio-relay.org/about/>

Contact Robert Freeburn K6RJF with any questions.

Happy Birthday to:

Sheila Clement
Julia Cameron
Mary Nunn
Michael Whitten
Phyllis Hogan
Bob Yandow
Jere Schultz



Nets Available in Carson Valley and Beyond:

The SNARS Noon Net daily on 147.15.

Daily Carson & Eagle Valley net, 6 p.m. on 28.435 MHz USB

DCART Net, Mondays at 6:30 p.m. on 146.655 pl 131.8

TARA Net, Mondays at 7:30 p.m. on 147.240.

SIERA VHF Net, Tuesdays at 7:30 p.m. on 147.330.

SIERA HF Net, Tuesdays at 8 p.m. on 3982kHz.

Brad Smith's (WT6B) Watering Hole, Wednesdays at 7:30 p.m. on 147.330,

"discussing questions and issues pertaining to amateur radio."

Plumas County Net, Tuesdays at 7:30 p.m., on 145.470.

BARC (Bishop) Nightly Net, 8 p.m. on 146.940 pl 103.5

(website: <http://www.n6ov.com/newsletter.html>)

SKYWARN at 7 p.m. Wednesdays and the **NV ARES** is 7 p.m. Thursdays. Both operate on the EchoLink conference server NV-GATE: 152566 EchoLink and can go onto your smart phones, tablets and computers.

SNARS Hospital Net, Fridays at 10:00 a.m. on 147.030 or 147.150 +123 PL

(SNARS Linked Repeaters: <https://snars.org>)

RARA Rural Amateur Radio Asso., Fridays at 8 p.m. on 147.180 (+) MHz pl 123

ARES HF Net, Saturdays at 7 a.m. on 3965kHz.

RARA, Rural Amateur Radio Association, Saturdays 7:30 a.m. on 3965kHz

New Hams Net, Sundays at 1 p.m. 146.760 (-) pl 123

National Traffic Service Net, Sundays at 6:15 p.m. on 3945kHz.

General Meeting, August 4, 2018:

Called to order: 1:00 p.m.

Introductions: Herbie Mayes KI7ZVX is a new ham. During introductions, it was announced that Mike Yee, who took and passed the exam that day, and Mary Nunn are the newest Generals.

Secretary's Report: Sue Cauhape told the group that no more hard copies would be made for the meetings since everyone has an email and making five copies would be too expensive. Ed Terlau asked her if when she saves the Beacon file to PDF for easier emailing that she make sure there are no locks that would prevent cutting and copying text and photos. (Later that day, she sent the August 2018 Beacon as a PDF to Ed as a test. He replied that it worked well for him.)

Treasurer's Report for August 2018:

Checking Account

Starting Balance	\$ 2717.63
Deposit	
Membership	139.00
Withdrawal	
#1219 Jim Marshall Mailings and QSL Cards	<38.70>
#1220 Sue Cauhape Banner	<96.39>
# 1221 Debbie Williams Trailer equipment	<472.68>
Total withdrawal	<607.68>
Ending Balance	\$ 2248.95

Saving Account

Starting Balance	\$ 4069.50
Dividends	0.17
Ending Balance	\$ 4069.50

Grand Total \$ 6318.62

David Granish and Ben Echavarría moved to approve and seconded.

Membership: William Rose

Business:

Hats: Jeff said that all the SIERA caps are gone. It was agreed to buy another ten hats and sell them for \$15. The embroidery shop next door to Batteries Plus in Carson City was suggested as a good place to have group and individual embroidery done. Jeff will investigate further.

September Meetings: Because the meetings will fall on Labor Day weekend, it was agreed that the meeting be delayed to following Saturday, Sept. 8. Sheila Clement will ask the coordinator at the church if that day is good for use of the room.

Booth Table Banner: J.D. Fowler wanted to know if SIERA would consider getting a 4 by 6 foot banner to use in a booth. Mike Yee offered to donate PVC pipe to use to support it.

Available Board Positions: With the annual election coming up in December, openings in Board positions were announced. They are Secretary, Post-Holiday Party Coordinator, and Field Day Coordinator. Sue Cauhape assured those interested in the Secretarial position that training would be available.

Repeater Antennas: Because the antennas for the NV7CV repeater were damaged in a recent lightning strike, Jim offered three options for repair/replacement.

1. Replace it with a Telewave Antenna for \$1300
2. Replace it with a Tesco antenna for \$518
3. Find a welder who can reconnect the aluminum pieces back together.

J.D. Fowler motioned and Ben Echavarria seconded to buy the Tesco antenna for \$518. While the welding would be the cheapest option, it probably wouldn't hold up in the high winds at the site.

Equipment for Sale: Dorothy Uebele has two towers and two dual antennas for sale for \$100 each. Please contact either Mel Hogan or Jim Marshall for information.

Brad Smith moved and Ben Echavarria seconded that the meeting adjourn. Meeting adjourned officially at 1:40 p.m., but a social period and soldering workshop followed as the presentation with Ed Eggert and Jeff Cauhape presiding.

Meeting Adjourned at 1:40 p.m.



SIERA members have been great sending in information about their events and news about other members. The Beacon appreciates any news items you have. It's easy to submit them, too.

If you have photos and/or can write a short description of whatever you're doing, send it to the Beacon at scauhape2002@yahoo.com. We'd all like to hear about your adventures and discoveries with amateur radio.