



SIERA BEACON



Carson Valley, NV

March 2019

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



DX Contest Opportunity This Weekend!

by Ed Eggert K3VO

Here is a chance to work foreign countries or as we say a DX station. The **ARRL Phone DX Contest** is March 2-3rd for 48 hours. On Saturday and Sunday, foreign stations will have worked all the big US stations and will be happy to give you a contact. I suggest 20 meters during day light hours and maybe even 15 if the band opens. In the evening, when the sun goes down, go to 40 meters. You will be surprised how you can work HI and stations in the Caribbean on 40 in the evening and Alaska. On 20 meters, look for European stations in late morning or early afternoon. Africa also will come in then. Late in the afternoon Australia and Japan might be heard.

When I hear a foreign station, I call *CQ contest* or *QRZ*. After a contact, I give out my call one time phonetically. This is why I like short call signs. So I would just say *Kilowatt three Victor Oscar*. If he comes back, he will give me a report 59 and the power he is running. I then say *QSL from K3VO and I am 59 Nevada*. Nothing more than that unless he asks for a repeat. The report is always 59 no matter how weak either one may be. If he has my call incorrect, I correct it when I give the report to him.

If you wish, we can have a spotting net on our repeater to help everyone make contacts. If conditions are halfway decent, 100 watts and a dipole will make many contacts. On a spotting net, for example, one would say *this is K3VO* and G2FFF is calling CQ at 14.214. G2EEE would be a station in England.

To get a QSL card for many of the DX clubs on the air, they will automatically usually send a card to your QSL bureau. We can go over this after the contest.

Our next General meeting will be held Saturday, March 2nd, at 1 p.m., at the United Methodist Church, 1375 Centerville Lane, in Gardnerville.

Gordon Moseley KC7CA will tell us about Amateur Radio in WW2. He has a pair of WW2 Walkie Talkies, just like the one John Wayne used, and will tell us how they worked and how successful they were.



Ed Fong's J-Pole Design

For the first time, SIERA presented a speaker by SKYPE at its February meeting. We could see our speaker and he could see us and field our questions.

Ed Fong, WB6IQN, who designed the TBJ-! Antennas, talked about the antenna he developed for FEMA. They requested something that would have the gain of a vertical, wouldn't have radials, and would tune in to the 2-meter and 440 bands. They later asked to add the 220 band.

In great detail, Ed told us how he designed a J-Pole that would accommodate their needs and how, with his schematics, HAMS could have this same capability. He also noted that the \$100 Chinese hand-helds and this antenna would be an easy way to get into amateur radio. Because of its size, it would be portable enough for outdoor recreation.

For more information about Ed's products, check out his website: <https://edsantennas.weebly.com/>. All proceeds from the sale of this antenna go to support his group, UC Santa Cruz-Santa Clara Valley.



Pony Express Relays

by Robert Nelson WA3PAD

We are planning to be up on the Austin Summit again this year for the Pony Express Re-ride and hopefully will have three or four operators so we can be up around the clock. We did a dry run at our local Winter Field Day and several of us spent a very cold night out on the Desert National Wildlife Refuge (near Las Vegas)

far from everything with a permit. We weren't sure that would work because of the shutdown, but the Ranger came by and assured us that he was working and all was well. We had over twenty hams participate. We won't know how we did in the scoring until the results come out, but the event was fun and good training in surviving in cold, isolated conditions. The photos show the overall campsite. Only two of us stayed the full time and you can see me up early making coffee.

We have been trying to figure out how to get the trailer-mounted tower up on Austin Summit, but as of now we probably won't try because of the very bad dirt road and the difficulty in turning the trailer around up there. With it cranked all the way up, we might be able to reach border to border. You can see from the photos how isolated we were. In the far distance, you can see the Nevada State Prisons, which are lighted up in the night photo. I don't think that I would like to try to escape way out there.

The big tent was a great help in getting out of the very cold wind, but we won't have that for the Pony Express Re-Ride. The dipoles are set up for 40 and 75 meters and are what I used last year in Austin. You can see Frank, N7ZEV in the red plaid jacket, and Linda, KC7IIT with her back to the camera, in the photo of the tower. They are both planning to come to Austin.



Upcoming Rallies and Races:

Pony Express: Tom Tabacco KE7NCJ has most of the communications posts for the Pony Express Re-Ride covered. The exceptions are the "dusty playa" part between Grubbs Wells and Dry Creek Ranch and also what has been referred to in the past as "Massieland." The Pony will come east to west through Nevada from June 17-19. If you're interested in participating in a fun adventure, email him at: smokey@pyramid.net.

Wild West Marathon, Lone Pine, CA, May 4: This is a point-to-point running marathon and they require radio coverage along the route in the area of the Alabama Hills and foothills of the Sierra Nevada. Please contact Keith W6KRF on this Facebook page: <https://www.facebook.com/SIERA-282008572132940/> OR John Shepherd at johnshepherd@earthlink.net.

2019 Tri-State Rally, November near St. George, Utah. Any SIERA members interested in helping with the Nevada Rally in November? Check out this Facebook page: <https://www.facebook.com/groups/RallyNevada2019/> or contact: Brad Denham - Sandy, Utah [KF6PSL kf6psl@gmail.com](mailto:KF6PSL@kf6psl@gmail.com)

International Shortwave on 40 Meters

by David DeAngelis

There is an old saying: "40 meters is always open to somewhere," If you tune through this band and don't hear anything, then something is broken. If you have taken the opportunity to tune around the 40-meter band in the early morning or in the evening, you may have noticed that there are more than just ham signals occupying the band. Although the frequency range of 7000kHz to 7100kHz is allocated exclusively to ham radio world wide, the occasional shortwave broadcast station can be heard in this range. The rest of the 40-meter band, from 7100kHz to 7300kHz is available to amateurs only in North and South America. The rest of the world uses this frequency range for international broadcasting. In fact, several broadcasters beam programs intended for reception in North and South America in this frequency range, which can make finding an interference free frequency in this range a serious challenge.

My original intention in approaching this topic was to present a list of stations that can be heard on this band. After some snooping around on the Internet, I was able to locate a list of shortwave broadcasters listed by frequency. Single-spaced, the collection for the frequency range of 7120kHz to 7300kHz was seven pages long! If you would like to investigate, the list can be found on Glen Hauser's World of Radio website: <http://www.eibispace.de/dx/freq-b18.txt>



The list contains stations from every continent except Antarctica. The stations with the strongest signals here at my location all seem to be located in Asia. China Radio International occupies several frequencies on 40 meters beaming different parts of the world. On one recent morning (8:30AM PST), signals on 7245kHz beaming Africa and 7265kHz beaming eastern Europe were both in the +15db to +20db over S9 range. Other Asian stations utilizing the 40-meter band include: Voice of Vietnam; PBS Xinjiang; Myanmar Radio; Voice of Korea; Voice of Tajik; IRIB Voice of I.R.Iran, and All India

Radio among others. The African continent is represented by the likes of Radio Hargaysa in Somalia, Voice of Broad Masses from Eritrea, Radio Republic of Sudan, and Voice of Nigeria to name a few. European based broadcasters include: Radio Vatican; Radio Romania International; Hamburger Lokalradio from Germany; and Radio France International. Broadcasts originating from North America include: Sound of Hope; Adventist World Radio; Voice of America; and Trans World Radio. It should be noted that shortwave broadcast stations located in the US are prohibited from beaming their broadcasts to the US, but that doesn't mean that their broadcasts cannot be heard in the US.

In addition to legitimate broadcast stations, clandestine broadcasts from Nippon no Kaze and Furusato no Kaze and Russian Spy Numbers stations can also be found on the 40-meter band.

Since the international broadcasters are not shy about using multi-megawatts of power, and strong long distance paths do not occur often in the solar minimum, these stations can be used as an indicator of propagation conditions.

If the thought of chasing exotic DX on the International Broadcast bands interests you, or, if you would just like to tune around outside the ham bands, Glen Hauser's World of Radio website at: worldofradio.com provides a wealth of information, including a schedule of English language broadcasts. Other shortwave listening links can be found at: www.dxing.com/swllink.htm.

If you prefer to just jump in, more international broadcasters can be found in the vicinity of 2300-2495kHz; 3200-3400kHz; 3900-4000kHz; 4075-5060kHz; 5900-6200kHz; 7200-7600kHz; 9400-9900kHz; 11600-12200kHz; 130570-138700kHz; 15100-15800kHz; 17480-17900kHz. Other allocations at 18900-19020kHz, 21450-21850kHz, and 25600-26100kHz are not heavily used. Since most broadcasters are government owned, you may also find some stations broadcasting outside, but close to, the allocated bands.

ARRL Legal Services for Hams:

Battling City Hall? Ken D'Alessandro N7KD can help. As an attorney working with the ARRL, he has advised many hams with county and HOA hassles. According to Ken, the 70-foot design procedures are illegal. He said towers fall vertically within 30 feet of their bases. (Remember the antenna collapse during Field Day a few years ago?) While lattice towers may pose a problem, verticals and ground units won't. Ken knows how to convince county and HOA officials that hams are an asset and towers won't necessarily create a disaster despite all their worst-case scenarios. If you're having a problem with regulators, contact Ken at: ken@patentforce.com.

Elmers Wanted:

Ed Goldberg KE7EAA needs a physically fit Elmer to help him: My rooftop solar and my new Tesla power wall is up and running. I now have uninterruptible electrical power. My energy bill has dropped to \$15.00 in Dec., \$15.00 Jan., and \$26.00 this month due to snow on panels. Now all I need to do set up my shack, move my antennas, set digital modes and packet, and I will be able to participate more in emergencies. Do you know someone who could climb ladders and help me reroute my coax and antennas. I cannot physically do that kind of work anymore and have balance problems walking in gravel and uneven surfaces. I have three antennas that need setting up. I have an antenna analyzer of sorts. (Don't know how to use it.) The one antenna I hung on my fence won't tune with a manual tuner and needs to be set up correctly. Contact me at ke7eaa@icloud.com



For Sale - Still:

Yaesu FT-1000 mp 100-watt transceiver
1.8 thru 29 Mhz
Includes all filters plus Inrad roofing filters
LED light bar installed. (replaces CFL back light)
9 Mhz buffered IF output installed.
High Stability temperature compensated master Oscillator installed.
Dual receivers, offers split operation for DX contacts

Internal Antenna tuner installed.

Yaesu DNR (Dynamic Noise reduction), Plus IF shift and Contour controls.

Has been my "daily driver" for 7 years. Works perfect.

Look up reviews on EHAM.

Price, \$1,500

Contact: Jim Marshall, 775-392 3734, k6lr@arrl.net

Joann and Larry Minihan NS6P have completed their move over to Heybourne Meadows (new homes north of Chichester) and are putting some items up for sale. "Local hams, please make an offer I can't refuse." Send your offer to Larry Minihan NS6P : llmini@aol.com

Miscellaneous Ham Gear For Sale Best offer for all items lump sum only!!

12-Misc length coax jumpers. 1' to 4'

16-Misc coax connectors

02-Cigarette adaptor chargers

01-RG coax wire stripper

02- Ameco TV-Stereo Filters

01-Daiwa CS401 4 position coax switch

03-Daiwa CS201 2 position coax switch

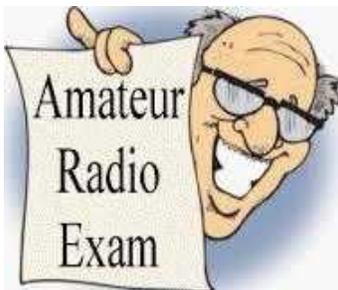
01-Roof adjustable antennae base

- 01-standard brass manual key
- 01-Bencher keyer paddle
- 01-Swan SWR-1 SWR/Power meter
- 01-Daiwa CN-801 SWR/Power meter
- 01-Philmore stereo headphones SP9DL
- 01-Yaesu mobile hand mic.
- 01-MFJ pocket CW Reader
- 01-Yaesu MD-1 Dynamic Desk Mic
- 01-Heil Sound HM-10 Super Cordiod Desk Mic
- 01-Astatic 10-D Desk Mic with extension
- 01-Heil ProSet with DX Cartridge
- 01-Tigertronics SignalLink soundcard with cables
- 01-Yaesu Standard Desk Speaker



Ella Peart, who works with Jeff Cauhape K7BCV, wants to sell this shortwave radio and an assortment of tubes. Contact her at:

dpeart58@gmail.com.



ARRL Licensing Exam: SIERA offers licensing exams on the third Saturday every odd month at 9 a.m. at Station 51 Fire Station at 777 South Stewart St., Carson City. 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: March 16.

Speaking of licenses, just a friendly reminder to check the expiration date on your license to make sure you don't miss renewing with the FCC. If it expires, you will need to take the exams all over again. Also, whenever you move, notify the FCC of your new mailing address.

Membership: Debbie Williams reported that SIERA now has 67 members. Eighteen are women, 27% and 15% of those have a general or higher license. Of the men, 54% have a general or higher. Also, welcome to Ken D'Alessandro N7KD to SIERA.

DCART News:

New HAM Station at 911 Dispatch:

Our DCART station position at Dispatch is going to be relocated to a custom module office next to the receptionist's new custom module office (still at Dispatch). The new radios and the one supporting power supply, laptops and new radios will be placed there as well as rerouting the cables and wiring. The receptionist's office should be ready by next week and ours is ordered. Maybe another month to complete our office and relocate our radio equipment. We will need to preplan our work around guidelines while in transition. Our March DCART meeting is planned for the 911 Conference Room. Those interested in CM11 training can work with that unit. Other training will be planned that evening, though not on our 911 current station equipment. We will wait until the new office and the new radios are ready for hands on training.

2019 January Alpine/Douglas ARES Comment:

Douglas County Amateur Radio Team (DCART) members reported time for the following activities: nets, meeting, taking and giving classes, studying digital modes (FLdigi and Winlink), packet operations, working on and programming radio equipment, working with nets and radio equipment at the hospitals and Nevada Division of Emergency Management, planning for the June Pony Express Reride through Nevada (KE7NCJ), and the Tonopah NV ARES Leadership meeting (KD7NHC and N7TNX). The ARES Connect process is in place though we are working through a lot of questions. Members should establish your accounts, sign up for events and keep me posted on how things are going. DCART welcomes new member Tom Seeley, W4FLL. We will update our membership listings within a couple of weeks. DCART does not have a web site just now. We are looking into setting up one through the County.

A Day Like No Other:

I still receive updates and wide information from my Emergency Management part of my life. The Case Study of the Las Vegas Shooting pdf is very profound and has a section on communications. You should read it as I could not find a way to summarize findings. Points we have noted in previous training include having your cell phone charged and carry appropriate charging cords and your small power supply. Hospital staff members, amid all the communications coverage difficulties, realized that Wi-Fi signals were strong and downloaded commercial-off-the-shelf radio apps for their smart phones. Using these apps, staff members could create talk groups and stay in constant contact with the command center and other employees wherever they were located despite intermittent loss of outside Internet. My source link takes me to Google drive for the PDF. See if it works for you.

<https://drive.google.com/file/d/1CxbLHiWJwL9ZRbWddbaPv15NN6YiNFEC/view>

[A Day Like No Other](#) is a special report from the Nevada Hospital Association of one of the worst mass-casualty incidents to occur in our nation's history: the shooting in Las Vegas

on Oct. 1, 2017. This case study is not an after-action document, but instead a consolidated discussion of events, actions taken, lessons learned, observations and hospital experiences that resulted from the Las Vegas mass shooting. The report concludes: "There were many heroes that night. Their ingenuity, teamwork and hard work cannot be overstated. The human spirit was alive and well."

Space weather can be beautiful when it causes the well-known aurora lights, but it can also be deadly if it affects services during an emergency. In this five part series, you will get an overview of three types of space weather, how they can affect communications, the power grid and other critical infrastructure, and how to prepare. Space weather affecting the Earth is monitored and reported daily by the National Oceanic and Atmospheric Administration (NOAA) Space Weather Prediction Center (SWPC). NOAA SWPC rates space weather on an intensity scale from 1 to 5. A 1 event can cause minor damage such as minor degradation of radio signals. An event with a rating of 5 causes extreme to catastrophic damage. An example of an extreme event is a radio blackout lasting hours or longer.

The three types of monitored space weather are:

Solar Flares (Radio Blackout) (<https://www.swpc.noaa.gov/phenomena/solar-flares-radio-blackouts>) hit Earth with no warning and typically impact over-the-horizon communications.

Sar Radiation Storms (<https://www.swpc.noaa.gov/phenomena/solar-radiation-storm>) give approximately 10-20 minutes notice. Satellites are the most vulnerable systems.

With a Geomagnetic Storm (<https://www.swpc.noaa.gov/phenomena/geomagnetic-storms>) typically there are 15-96 hours of warning before impact with earth's atmosphere, but they can cause the greatest damage. These types of space weather will be explored further in the next few weeks to provide more clarity on how they can affect emergency operations and the jobs of first responders.

NOAA provides emergency management specific predictions, (<https://www.swpc.noaa.gov/communities/emergency-management>) and the Federal Emergency Management Agency provides space weather preparedness information at Ready.gov. space weather <https://www.ready.gov/space-weather>

Sheila Clement, KA7AJQ
ARES EC Douglas and Alpine Counties

BREAKFAST AND LUNCH GATHERINGS

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

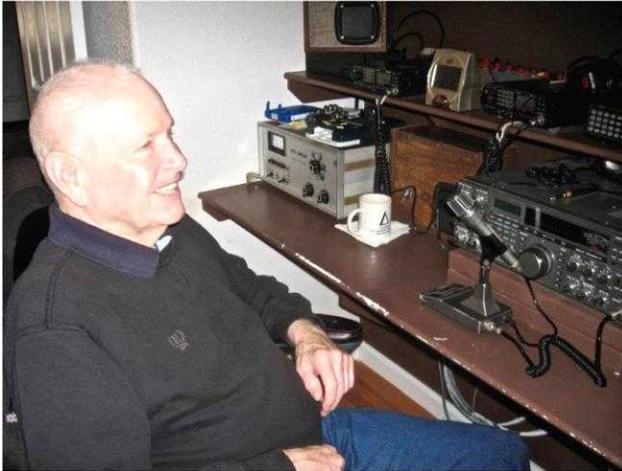
11:15 a.m. lunch every Wednesday at Jethro's on Kimmerling in Gardnerville.

Happy Birthday to:

Jeremie Cathy
Natalie Sherrick
Jay Mazure
Rick Sweeney
Bill Hooper



WT6B's The Watering Hole



The Watering Hole is the place to go for getting answers to your amateur radio questions, that is. Every Wednesday from 7:30 to 8 p.m. on 147.330, Brad Smith WT6B holds a stimulating round table among those who check in. Of course, there are regulars who always have an interesting question or two. And many of SIERA's newer members and even a visitor or two will call in to add to the discussion. This program is so popular, in fact, recently, one of the listeners pleaded with Brad to extend it to an hour. If you have a problem making things

work in your station, or have a question about HF propagation, radio protocol, or ... well, anything pertaining to amateur radio, tune in and join this growing group of curious hams and partake of hundreds of years of experience available to you.

Nets Available in Carson Valley and Beyond:

The SNARS Noon Net daily on 147.150.

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

BARC Nightly Net, 8 pm on 146.655 pl 131.8, ragchew and pre-check-in at 7:30 p.m.

DCART Net, Mondays at 6:30 p.m. on 147.270.

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.

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

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

"questions and answers pertaining to amateur radio."

SKYWARN at 7 p.m. Wednesdays.

NV ARES Net Thursdays at 7 p.m. Echolink conf server NV-GATE

152566 IRLP Western Reflector Ch8:9258

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

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

RARA Rural Amateur Radio Assn., Fridays at 8 p.m. on 147.180 pl 123

ARES HF Net, Saturdays at 7 a.m. on 3965kHz (+or- QRM).

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

- High Stability temperature compensated master Oscillator installed.
- Dual receivers, offers split operation for DX contacts
- Internal Antenna tuner installed.

- Yaesu DNR (Dynamic Noise reduction), Plus IF shift and Contour controls.
- Has been my "daily driver" for 7 years. Works perfect. Look up reviews on EHAM.

General Meeting Minutes for February 2, 2019

Call to order

1:00 p.m.

Membership

Membership 21 members out of 67 registered members were present. Linda Hooper (Bill's wife), Deren, a new technician tested during the Board Meeting.

Business

Planning for Monthly Refreshments and Presentations

Five members volunteered to bring refreshments through July:

| | |
|-----------------------------|-------|
| <i>Julia Cameron</i> | March |
| <i>Jim Marshall</i> | April |
| <i>Sharen Yee</i> | May |
| <i>Kirby Mays</i> | June |
| <i>Sue Cauhape</i> | July |

Gordon Moseley volunteered to show some WWII era backpack radios and explain their operation at the March meeting.

Radio Basics 101 class

Jim Marshall's Radio Basics class has been much appreciated by his students. It will be on hiatus until spring, at which point he will announce the new schedule.

Technician Class License Instruction

Four people are currently enrolled in the WNC class for earning a Technician Class license, being taught by ***Jeff Cauhape***.

Beacon Newsletter

David DeAngelis is the retired librarian who has been using his reference skills to provide articles on various Ham-related topics for the newsletter. He asked that any member who would like to know more about a particular area—let him know. He will research and publish materials about it in a future Beacon.

Legal advice for antennas

New member ***Ken D'Alessandro*** used to work with ARRL on legal issues dealing with antennas and support structures. He offered to consult with SIERA members who have legal issues related to Amateur Radio operations. He and other SIERA members shared fascinating tales about their experiences with towers, antennas, and Home Owner Associations (HOAs), and creative strategies for preventing problems.

Pony Express Re-Ride

Tom Tobacco has had a good response to his request for Pony Express volunteers. ***Bob Nelson*** and friends took Austin Summit last year, and will staff it again this year for 24 hours. Every section is now covered except the Roberts Creek ranch area, and Grubbs Well to Dry Creek Ranch. Check the Pony Express Re-Ride information available at

<http://www.cvhams.com> for the most recent information. Contact Tom for further information or to volunteer (smokey@pyramid.net).

Presentation by Ed Fong

Between 2:00 and 3:30, Ed Fong connected from California, using Skype, to talk about how multi-band J-pole antennas are built. **Jeff Cauhape** deftly used two computers, one to display the notes on the large screen, and the other to display the video and audio from California. Ed was able to see the SIERA club members, and answered questions from them.

Ed Fong has a doctorate from USC, and has published several articles in CQ and various ARRL publications on dual band (VHF/UHF) and now tri-band (2 meters, 1.25 meters, 70 centimeters) antennas that he has invented and sells.

Adjournment

The meeting adjourned at 3:30 p.m.

Check us out on Facebook: <https://www.facebook.com/SIERA>

If you have a photo and news to share, an announcement that can't wait for the Beacon, or a radio to sell, send an email to: scauhape2002@yahoo.com. We'll get it on Facebook for the world to see.



Remember, send your photos and news to:
scauhape2002@yahoo.com.

