

The Short Circuit

<http://www.k6ox.club>



The official publication of the Antelope Valley Amateur Radio Club

November 2023

President's Corner

Andy Gippetti W2AJG



Pacificon 2023 has just completed and it was great to see that AVARC was represented will many of our members attending the conference up in San Ramon. It was a fun and educational experience and some of us left with new radios to show off.



October 19th was the 2023 Great California Shake Out annual earthquake drill. Members of the Antelope Valley Amateur Radio Club contributed to the drill and Brian Basura was able to get us a certificate for the club's participation from the state of California.



November is here already and the holidays are fast approaching which will change the dates for our next meetings. Because of Thanksgiving, our next meeting will be on Wednesday November 15th again at the Lancaster Elks Lodge. A short board meeting will be held on the same day prior to the meeting.

And also, our December meeting will on Friday December 15th also at the Lancaster Elks Lodge. That will be our holiday meeting/party but more about that next month. See everyone at the meetings.

73,
Andy W2AJG

Meeting Notice

Wednesday, November 15th, is the next meeting of the AVARC at the Lancaster Elks Lodge, on 240 East Avenue K. *Note that this month's meeting will be a week earlier than usual, due to the upcoming Thanksgiving Day holiday.* Talk-in is available on the Hauser Repeater (146.73 MHz, PL 100) if you need directions. Eyeball QSO starts at 7 pm, and the meeting starts at 7:30.

This will be a hybrid meeting, both in person and on the Zoom online video app. Current members should have received the meeting invitation link via the email announcement of the previous month's newsletter. If you are not a Zoom user, installation instructions can be found at: <https://zoom.us/signup>. Sign up for the free account, and it will then lead you to download and install the necessary plug-ins to join our meeting.

If you are a guest or former member, please send an email to meeting@k6ox.club, stating your name, callsign (if any), and interest in the Club, and we will send you the meeting invitation link.

This month's presentation will feature **Todd Hall**, Senior Meteorologist with the National Weather Service's Los Angeles office in Oxnard, California. He will be offering information about the Skywarn program, and how we can become involved. This will be an in-person presentation, so be sure to join us for a very interesting and informative program.



Todd Hall

From the VEEP

Loretta Smalls AJ6HO

Well, I finally did it. I finally had some success with the 10 GHz contest this past September. I won't lie to you folks, there were times I wished I never got into this hobby. When I blew the second capacitor on my Armadilla I just wanted to cry, throw my hands up and just give up. I thought to myself "What made me think I could do this?" A couple of years ago I got the Down East Microwave 10 GHz transverter and it took me this long to finally get her going after breaking her twice. I named her Armadilla after the movie 'Armageddon' with Bruce Willis throwing out unnecessary parts out of the Armadillo in the movie. The IC-905 10GHZ system has a larger dish so she is called 'Big Dilla'. The six foot dish I have on the roof will be 'Super Dilla'. Anyway, with a little help from the folks at the San Bernardino Microwave Society, and Larry K6HLH Armadilla and Big Dilla came together at last.

That day when it all finally came together, my heart was just about ready to burst. I got Armadilla to work and work really well and I did not even need a toggle switch. Now, with the IC 905, I have two 10 GHz machines and I was able to share that with a video at the last meeting. I now have a comms center that does 160 meters to 6 meters HF, V/UHF 2 meter 440, I have two 220 band radios, one radio for 900 MHz and the IC 905 that does 2meter, 440, and 1200 as well as 2.4 and 5.6 and 10

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From the Secretary's Desk



**Antelope Valley Amateur Radio Club/
K6OX
General Meeting
October 25, 2023 19:30 hrs
Elks Lodge 1625
240 E Ave K Lancaster, CA 93535**

Those present:

President Andrew Gippetti W2AJG
Vice President Loretta A Smalls AJ6HO
Master at Arms Thomas Kane KN6GLI
Board Member Brian Basura N6CVO
Board Member Dan Sherwood W6DAS
Trustee Keith Hoyt K6GXO
Ex Officio George Becker KC6UVM
Newsletter Editor Adrienne Sherwood WA6YEO

Others Present:

Mike K6YQO Mark W6WML and
Kathy Larry KI6BKP Allan KJ6ZYQ
John KN6WQN

On Zoom: Margie KG6TBR Paula
Gebault N6OQQ

Meeting called to order by President
Andrew Gippetti W2AJG at 19:36 hrs.

**The Presentation: Ridge Rally
by Paula Gebault N6OQQ**

Motion was made to approve previous
general meeting minutes with correction
made by Mark W6WML and seconded
by Larry KI6BKP. Motion was approved
by all and motion carries. The correction
was the ARRL % of members failed to
include the percent sign and it looked like
the number of members rather than a per-
centage of members.

Old Business:

There needs to be more folks to step up
as net control. We're not asking that you
do it every week, just be willing to take a
turn once in a while.

There are no other nominations for offi-

cers and board members. Treasurer David
Haberman who is not present did, by text
to President Andrew Gippetti W2AJG,
wish to remain as our club Treasurer.

New Business:

Margie Hoffman KG6TBR is on the board
for LAACARC and she gave us a brief
rundown of the last meeting of the Los
Angeles Area Council of Amateur Radio
Clubs of which we are a member. [https://
laacarc.org/](https://laacarc.org/).

No real change from the last meeting, other
than Hamfests are in danger of no longer
existing. This is mostly due to exorbitant
costs of permits, hotel bookings, and the
minimum number of hotel bookings to
which the organizers are on the hook for if
attendees cancel. Any Hamfests that are
going on will be posted on the ARRL web-
site, and QST magazine. I went to the
ARRL website and typed in my zip code
and within 250 miles and it came up with
several, QuartzFest being the very first one
in January of next year. [https://
www.arrl.org/hamfests/search](https://www.arrl.org/hamfests/search).

A motion was made to renew our mem-
bership with LAACARC for \$20 by Mike
Beckers K6YQO and seconded by Mark
Johnston W6WML. Motion was approved
by all present and motion carries.

Election Day right now. **A motion was
made** by to accept election of President,
Vice President and Treasurer by acclima-
tion by George Becker KC6UVM and sec-
onded by Adrienne Sherwood WA6YEO
and approved by all. Motion carries and the
positions of President and Vice President
remain the same. Elections for Board
Members begins with three nominees.

ELECTION:

Current:

President Andrew Gippetti W2AJG
Vice President Loretta A Smalls AJ6HO

Secretary Pat Okawa KJ6CJI

Treasurer David Haberman AK6DH

Master at Arms Thomas Kane KN6GLI-

Board Members Dan Sherwood W6DAS
and Brian Basura N6CVO

Trustee Keith Hoyt K6GXO (Appointed)

Club Historian Bob Holland KG6DHQ
(Appointed)

Short Circuit Editor Adrienne Sherwood
WA6YEO (Appointed)

Newly Elected:

President Andrew Gippetti W2AJG

Vice President Loretta A Smalls AJ6HO

Secretary Dan Sherwood W6DAS

Treasurer David Haberman AK6DH

Master at Arms Larry Mock KI6BKP

Board Members Brian Basura N6CVO
and Mike Beckers K6YQO

Future Presentations:

November 15 is Todd Hall with NOAA,
hopefully in person, to discuss the Skywarn
program.

December is the club Christmas Party and
member brag night.

January 24, 2024 (Wednesday) 2024 will
be the state of the club address.

February 28, 2024 (Wednesday) QSL card
night. Bring your QSL cards and show
them off.

March 27, 2024 (Wednesday) hoping to get
someone from the International Amateur
Radio Union to do a presentation on the
International HF World Championship con-
test. Last year it was in Italy.

April 24 perhaps get a speaker about Field
Day, and how to operate more successfully.

May 22 Hope to get someone from JOTA

June 26 No speaker all about Field Day.

Announcements:

The Acton Agua Dulce Amateur Radio
Club will hold a Technician Class next
year. For information see Brian Basura
N6CVO.

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Secretary's Desk...



(Continued from page 2)

Bud N1ROE and Brian N6CVO participated in a very successful JOTA event on Saturday October 21. The Scouts with the help of the hams did around 5 straight hours of nonstop GOTA action. Well done guys, well done. Thank you.

Next month on November 15 we will be conducting the board meeting and the club meeting on the same day. Board meeting will start at 17:30 and end just before the eyeball QSOs start at 19:00 hrs.

No in person testing. Go on line at Hamstudy.org. <https://hamstudy.org/>

Short Circuit articles are due by November 9.

The Elks Lodge is having a craft fair on November 18 from 0900 to 1400.

Motion was made to adjourn the meeting made by Mike K6YQO and seconded by Mark W6WML. Motion was approved by all and motion carries. Meeting adjourned at 21:25 hrs.

Step-by-Step Calibration for WSJT-X

by **Brian Basura N6CVO**

Recently I looked a bit closer at my WSJT-X setup, commonly used for FT-8, and was shocked to find that I was reporting received 10m WSPR frequencies around 42hz high ! Thats huge in a sub-band that is only 200hz wide and where some sites are using frequency discrimination to differentiate individual transmitters.

After a bunch of searching, I found the following website that goes step-by-step through calibrating WSJT-X and it's not hard. After following these steps I'm now getting sub-Hz receive accuracy. This is not only good for WSPR reports but also greatly improves your PSKReporter results for other modes such as FT-8, PSK31, etc. Testing and improving station frequency accuracy & precision by ve3bux

<https://tinyurl.com/5n6432h2>

I recommend all WSJT-X users do this procedure at least once and preferably on a regular basis. It's good to make sure we are posting accurate data.

Hopes this helps someone and 73,
BrianB N6CVO

Swap Shop

DRONE FOR SALE

DJI Mini 3 Pro (New, Still Sealed in Box)
Includes DJI Fly More Kit Plus



INCLUDED WITH DRONE:

- DJI RC Controller
- 3 DJI Intelligent Batteries
- DJI Charging Hub
- DJI Shoulder Bag
- DJI Wide Angle Lens
- Freewell ND Lens Filter Kit (6 pack)
- Freewell UV Lens
- Prop & Sensor Guard
- Illuminating LED Landing Legs
- Extra Propellers
- And more

\$600 or best offer

Contact: Andy Gippetti W2AJG
661-433-2106

FREE TOWER AND ANTENNAS

Free tower and two antennas.
Must be taken down in Lake LA and hauled off.
Other equipment for sale.
Call Matt Stewart, K6MES at (661) 406-7574
Licensed amateur radio operators only.

Swap Shop ads will be run at no cost to AVARC members. For more information, contact Short Circuit editor Adrienne WA6YEO at 661-480-5227 or wa6yeo@sbcglobal.net

Scout Troop 164 Learns About Amateur Radio from AVARC Members

by Bud Turner N1ROE

Throughout the month of October, Scout Troop 164 of Quartz Hill was introduced to the world of amateur radio. I'm Bud Turner N1ROE and I'm an AVARC Member, Scouts BSA Assistant Scoutmaster and Radio Merit Badge Counselor. Throughout the month, I was assisted by Antelope Valley Amateur Radio Club (AVARC) members Brian Basura N6CVO, Loretta Smalls AJ6HO, and Betsy Haslett AJ6AF as we presented the Scouts with all things RF. From base stations to HT's, WSPR to 100 watts, HF to microwaves, and SSB phone to WINLINK, the boys of Troop 164 got to experience a wide range of what amateur radio has to offer.

Troop 164 meets Monday nights in Quartz Hill and the AVARC team was able to bring their equipment and set up right at their meetings.

Monday, October 2 was the first evening. I gave a presentation on the basics of radio communications as described in the Radio Merit Badge booklet. My talk covered topics such as the differences between broadcast and amateur radio, radio waves and how they travel, the electromagnetic spectrum, the different services between 200 kHz and 3000 MHz, modulation (AM, FM, CW and digital) and block vs. schematic diagrams.

Afterwards, the boys got to see my old Heathkit tube radio along with some QSO cards that I had on display. They also got practical experience with Loretta's CW equipment trying their hand at sending and receiving morse code. Brian showed off his ARES go-kit which included VHF/UHF voice and digital capabilities, while I demonstrated how VHF/UHF repeaters work using my HT. Many of the Scouts remained after their meeting to watch me attempt a contact with other amateurs via the satellite repeater on the International Space Station (ISS) using my HT and Arrow yagi antenna.

The following Monday I continued my discussion to include the role of the FCC, the phonetic alphabet and expanded on propagation of HF radio waves. Our focus being on HF, Brian brought his muti-band QRP transmitter kits. He got on-the-air with a 20-meter WSPR rig and the boys were able to track the real-time propagation right on their smart devices. Loretta went to the other end of the spectrum by demonstrating microwave communications with her 10 GHz signal generator that she nicknamed the "Armadilla."

I used that evening as a shakedown to test my Jamboree-On-The-Air station. I set up my Yaesu FTDX10 HF rig fed into the ARRL EFHW antenna home-made kit which I strung between the building and a street light in the parking lot. My battery worked well but since it was after sunset, I wasn't able to use the solar panels so I just used my power supply plugged into an outlet on the side of the building. Several of the boys were able to make a few contacts but we were limited on time.

Troop 164 had its annual recruitment night the following Monday so we skipped that night which gave me time to get ready for Jamboree-on-the-Air!

Jamboree-on-the-Air (JOTA) is held every year on the third full weekend of October. This year the event was from October 20 through October 22, 2023. With the support of Troop 164, I decided to host my first JOTA station on Saturday, October 22nd at the Forrest E. Hull Park, also known as the "Dog Park", across from Paraclete High School in Lancaster on 30th Street West between West Ave L-8 and West Ave M.

The station was advertised to all the scout troops in the Antelope Valley District of the Western Los Angeles County Council (WLACC.) I arrived at the park at 7:30 am and was pleased to see Carol (KE6OZX) our troop's committee chair. With her help we got to work setting up the station.

First, I used my drone to fly the guy lines (nylon fishing line) up and over some trees and then hoisted my EFHW antenna about 20 feet up. Carol got the ground anchors drilled into the grass and I secured the guy lines with some orange paracord for visibility using a bowline and tautline hitch.

The light wind moving the trees pulled my hitch loose so I opted for my Nite Ize Figure 9 carabiner which did the trick. I used my Rig Expert antenna analyzer and checked the SWR of the antenna. I can't say enough good things about the EFHW antenna kit sold on the ARRL website. This antenna performs great across 10, 15, 20 and 40 meters.

Next, we got the folding table in place and set up the radio, Bioenno 120 watt folding solar panel and LifePo4 battery in a Powerwerx portable battery box. We were able to set up in the shade of a tree and had enough wire to keep the solar panel in the sun.

Finally, we got the feedline connected to the antenna and plugged the radio into the battery box. The solar charge controller was showing good current so I turned the radio on and the 3-D spectrum scope on the display lit up with signals all over the 10-meter band!

Brian arrived shortly before we were ready to kick off at 9:00 am. He was instrumental in managing the solar panel throughout the day as we moved the table and chased the shade around the tree. He also engaged several of the scouts with questions and, this being my first field exercise, provided valuable feedback regarding the station operation.

Scouts were already starting to show up so I put them to work setting up chairs and browsing my QSO card binder while I got the radio dialed in and started looking for contacts.

Once the radio was tuned up, I put a Scout in the "hot seat" and had him reach out to a JOTA station in Michigan calling CQ. Our first contact of the day!

From our location in Southern California to Washington, Maine, Alabama and over a dozen states in-between, we made contacts all across North America. As the propagation changed and we moved to 20 meters we contacted several stations in Canada and even made a few DX contacts in Bogota, Columbia and Tokyo, Japan.

I tried to keep my transmissions to a minimum, making sure the Scouts operated the radio and did most of the talking. They changed bands, spun the VFO dial when

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Scout Troop 164 Ham Radio...

(Continued from page 4)

changing frequencies, called CQ, answered calls, and engaged with other Hams and Scouts operating JOTA stations of their own.

We took a short break for lunch (thanks again to Carol for Chipotle) but the alarm on my watch reminded me of an ISS pass coming up. Scouts listened in as I made three contacts via the ISS repeater using my HT and Arrow antenna.

The final contact of the day was made by Noah, one of the Troop's newest Scouts. His family is from England and his father is stationed here at Edwards AFB for three years. Noah was able to contact Christopher (VE5CJB) in Saskatchewan who just happens to be from the U.K.! Noah's eyes lit up when VE5CJB told him that he hailed from Noah's home QTH. I introduced Noah to QSO cards and had him fill one out to send to Canada.

In all, it was a very successful first-run at JOTA in the Mohave Desert. By the end of the day, we had 13 Scouts from three different Troops visit the station. We operated on VHF, UHF, HF (10, 15 and 20 meters) and the Scouts were able to hold dozens of QSO's with other Scouts around the country and around the world. In total we logged 34 different stations.

The following Monday was our last evening at the Troop's regular meetings. I reported to the rest of the Scouts about our successes at JOTA and then turned the floor over to Brian. As the Assistant DEC of the High Desert Amateur Radio Emergency Service (ARES), Brian gave the Scouts an overview of how amateur radio is charged with providing emergency communications during times of need. Afterwards, Brian and Loretta provided the Scouts with a WINLINK demonstration and I briefly showed the APRS capabilities of my HT. At the end of the evening, the boys were introduced to formal emergency comms as Betsy checked into the Los Angeles County Disaster Communications Service (DCS) net.

I'd like to personally thank Brian, Loretta, Betsy, and Carol for their support in bringing amateur radio to the Scouts of Troop 164. I hope to plan more events in the future and will definitely be hosting another JOTA station next October. Since we finished our introduction to radio, I've had three Scouts ask me to be their Radio Merit Badge counselor and one has already earned his badge!

73,
Bud N1ROE

From the VEEP...

*(Continued from page 1)*

GH. Now all I need is folks to talk to on some of those bands. I spend hours scrolling through some of those SHF bands and hear no one. I worry that the FCC will eventually take those away if we don't start getting more folks on them. I think they have taken some of the 3 GHz frequencies away from us. <https://www.arrl.org/3-ghz-band>.

I do acknowledge that these SHF bands are not that easily accessible for many of us but as radios such as the IC 905 become more available, it might become easier for us to operate there, hopefully we won't have them taken away from us before we get a chance to do this. Next year in May the SBMS (San Bernardino Microwave Society) 2.4 and up contest will be held May 4 to May 5. This is a few months before the ARRL 10 GHz contest which is August 17 to 18 and again September 21 to 22 next year. <https://www.contestcalendar.com/contestdetails.php?ref=88> The next 10 GHz and up contest can be a great opportunity to have folks come over and experience getting on the air with microwave. I also would not mind having an SHF/microwave station for Field Day. I hope to add 24 GHz to my equipment, attach Armadilla to the six foot dish and hopefully do some EME.

With my what I consider to be major success on the microwave contest with the Armadilla and Big Dilla I am working on the math to get the feed horn

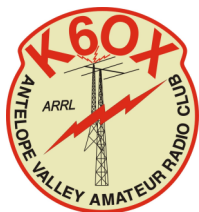


Scouts operate ham station at JOTA event

and waveguide assembly for the Super which is my six foot dish. I still have work to do on Big Dilla to get it more stable on the tri pod and I modified the tripod a little bit. With Big Dilla I used what I believe is a round exhaust filter or something that we found in the desert. I cut a hole on top of it and used that to put over the tripod to give the metal framework for the 36 inch dish more stability and it worked. All I need now is a way to enable pitch on it so I can angle the dish up or down. A compression coil might work along with a nut and bolt to turn it up or down. I think some old bed springs will work but I will need a few to give it strength.

Amateur radio is, after all, a hobby that challenges us to experiment, learn, build, and also accept failures as well as our successes. It makes me feel not so bad when I hear seasoned hams have had similar frustrating failures but look at them now. Real pros at this so it has encouraged me not to throw my hands up and give up. I was encouraged by the Scouts I met through Bud N1ROE and how interested they were in radio operations. I demonstrated the Armadilla to them using the RF Explorer Signal Generator, one of my favorite toys. I am certainly not qualified to give a talk on microwave operations but I do love showing off my equipment, and hope to do so on other events, maybe even get someone to coordinate and make contacts with other microwavers. That's what got me hooked. Still hooked, not just with microwave but hoping to dip my feet into D-Star. So keep building, and don't give up.

Humbly yours,
AJ6HO Loretta A Smalls
Vice President AVARC/K6OX



Antelope Valley Amateur Radio Club 2023 Officers

President	Andy Gippetti	W2AJG	433-2106
Vice President	Loretta Smalls	AJ6HO	350-7039
Secretary	Pat Okawa	KJ6CJI	718-3986
Treasurer	David Haberman	AK6DH	917-4594
Master-At-Arms	Tom Kane	KN6GLI	350-7039
Board Member	Brian Basura	N6CVO	268-6061
Board Member	Dan Sherwood	W6DAS	480-5227
Trustee	Keith Hoyt	K6GXO	533-4025
Ex Officio	George Becker	KC6UVM	478-0818



AVARC board meetings are held on the first Thursday of each month. All members are welcome to attend, although they should let the president or another officer know that they are planning to attend, as the meetings usually include a pot-luck dinner at the home of one of the officers.

The club net is on Wednesdays at 8:00, on the Hauser repeater (146.73 MHz PL 100). The net includes Amateur Radio Newslines, and all members and guests are invited to check in.

The Antelope Valley Amateur Radio Club K6OX
 Post Office Box 1011
 Lancaster, CA 93584-1011

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To ARS:



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