

# The Short Circuit

<http://www.k6ox.club>



The official publication of the Antelope Valley Amateur Radio Club

May 2023

## President's Corner

**Andy Gippetti W2AJG**



On April 28 through the 30<sup>th</sup>, the Amateur Radio Emergency Service (ARES) High Desert District, held a mini pre-Field Day training camp out in Rosamond, CA. Several members from the Antelope Valley Amateur Radio Club also participated in this trial run of setting up HF antennas of all sizes and HF radio equipment to practice for emergency radio communications. All radio equipment was off the grid and powered with batteries and solar power. Some members even brought RV campers to the location so contacts could be made throughout the night. On early Saturday morning, members Brian N6CVO & Jed N6JED launched tracking Pico balloons that circumnavigated the earth. In the evening, conditions were just right to make some long distance contacts while sitting along the side of a large camp fire.

Brian N6CVO also demonstrated a functioning Tesla coil at night which produced an exciting light show. On Sunday morning, Adrienne WA6YEO made her customary favorite sourdough pancakes which everyone enjoyed. Except for very high temperatures during the day, the whole weekend was a successful, fun, exciting and educational experience for all who attended.

Our next AVARC in-person general meeting will be on May 25th at the Quartz Hill Library. This meeting will still be a hybrid face to face and Zoom meeting starting with greetings at 7:00 pm and the actual meeting starting at 7:30 pm. The agenda for this meeting will be a presentation from Michelle Thompson from the San Bernadino Microwave Society. The Quartz Hill Library's address is 5040 West Avenue M-2 in Quartz Hill.

73,  
Andy W2AJG

## Meeting Notice

Thursday, May 25<sup>th</sup>, is the next meeting of the AVARC at the Quartz Hill Library, 5040 West Avenue M-2. 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 plugins to join our meeting. If you are a guest or former member, please send an email to [meeting@k6ox.club](mailto:meeting@k6ox.club), stating your name, callsign (if any), and interest in the Club, and we will send you the meeting invitation link.

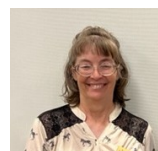
Our May 25 program will be with **Michelle Thompson W5NYV** who is not only with the San Bernardino Microwave Society, but is also part of the Open Research Institute, and chairs on the International Microwave Symposium. She will talk about the wide variety of opportunities and adventures in today's amateur radio. This optimistic and upbeat talk will cover both technical and non-technical aspects of the amateur radio and amateur satellite service and how everyone can get involved.



**Michelle Thompson W5NYV**

## From the VEEP

**Loretta Smalls AJ6HO**



Amateur radio seemed a bit frightening when I first got into it. It was all overwhelming when I first started out late 2018 when I picked up the manual for the Technician license. It seemed way over my head and I started to regret my choice of hobby but I really REALLY wanted to get into amateur radio, especially to do Morse code. So I plunged ahead and dove into the manual, studying the chapters, highlighting the things that gave me the most problems, knowing the questions with answers were in the back of the book. I won't lie, I did memorize them but I also wanted to study and get at least some understanding of what I was about to do.

It all began with a Google search for the nearest Amateur Radio Club followed with my first visit to the Antelope Valley Amateur Radio Club meeting in Quartz Hill. The first thing I learned was how warm and knowledgeable everyone there was, and that they were more than willing and able to help us through the learning and testing process. The more we went to the meetings and talked to folks, the less afraid I was and it was not long after I passed the Technician test I went on to get my Extra class. The club members made me feel like I could do anything, and I still feel that way today. You might say I have gotten a little cocky too, learning CW, various digital modes, learning better ways to set up antennas and so much more. Not an extraordinary amount of time after that, I got my husband Tom KN6GLI, the tall

*(Continued on page 3)*

## From the Secretary's Desk



**Antelope Valley Amateur Radio Club  
General Meeting at Quartz Hill Li-  
brary and Zoom  
April 27, 2023**

**Those Present:**

President Andrew Gippetti W2AJG Vice  
President Loretta A Smalls AJ6HO  
Treasurer David Haberman AK6DH Sec-  
retary Pat Okawa KJ6CJI Board Member  
Dan Sherwood W6DAS Board Member  
Brian Basura N6CVO Trustee Keith Hoyt  
K6GXO Ex Officio George Becker  
KC6UVM Short Circuit Editor Adrienne  
Sherwood WA6YEO Speaker Witham  
Reeve HAARP

**Others Present:**

Mike K6YQO Mark W6WML Betsy  
AJ6AF Allan KJ6ZYQ Larry KI6BKP  
Monroe NS6W Derek KN6ZCI John  
K7XE Larry K6HLH John KN6WQN  
Margie KG6TBR Raymond KN6DPI  
Allan KJ6ZYQ Steve K4VKE others  
may not have signed in.

**Meeting called to order** at 19:15 by  
President Andrew Gippetti W2AJG fol-  
lowed by the Pledge Of Allegiance and  
introductions.

**Motion was made** to approve previous  
general meeting minutes as taken by and  
published in the Short Circuit by Mike  
Beckers K6YQO and seconded by Larry  
Mock KI6BKP. All present approved and  
motion carries.

**Treasurer's Report:**

**David Haberman AK6DH**

Checking:	<As stated>
Deposits:	<As stated>
Expenses:	<As stated>
Cash on Hand:	<As stated>
Total:	<As stated>
Members:	57 which in-
	cludes 13 life members.
ARRL percentage:	82%

George Becker KC6UVM was reimbursed  
by the club for shirts to the amount of  
\$211.50.

**The Presentation:**

Dr. Witham Reeve had to begin his presen-  
tation a little early so we started him off  
right away but it was so worth it. A sum-  
mary of his presentation may be read on  
Page 5 in this issue.

**Old Business:**

Club shirts are in and for those who want  
their names and/or call signs embroidered  
on them will have to go to A.V Sports and  
Graphics and have it done for around \$2.50  
per letter. Vice President Loretta A Smalls  
AJ6HO will take Diana Feinberg AI6DH  
and Daria's shirts down there to have them  
embroidered.

There was no success in securing the  
Mountain High North Resort parking lot  
for our Field Day. According to Guest Ser-  
vices at the West Resort both the North and  
East Resorts have been closed for some  
time. She gave me the number for special  
events but I have had no response yet. We  
do have Rawley Duntley Park however,  
and all the permits and insurance has been  
submitted, but we will keep trying for the  
cooler area of Wrightwood.

**New Business:**

We do have this library for May and June  
starting at 17:30 hrs for test sessions. Just a  
reminder to those who have not yet come  
on board with Zoom, we are not always  
able to secure the library and we do not yet  
have a venue for our Board Meetings  
which are primarily on zoom. Download  
the zoom app on your computer or smart  
phone so that you can participate in the  
Zoom meetings.

We are on the lookout for other venues for  
our test sessions, board meetings, and our

Christmas Party. George KC6UVM men-  
tioned the ELK's Lodge and he will get  
back to us on that. Raymond KN6DPI also  
suggested Knight High School we just need  
to give him advanced notice.

**Presentations:**

See board meeting minutes.

**Announcements:**

Short Circuit articles due May 18.

Next board meeting May 8 via zoom 19:00  
hrs.

Next club meeting May 25 at Quartz Hill  
Library and via zoom with VE testing start-  
ing 17:30 hrs.

50/20 drawing was conducted and won by  
one of our newer members. Thank you all  
who bought tickets.

**Motion was made** to adjourn by Vice  
President Loretta A Smalls AJ6HO and  
seconded by President Andrew Gippetti  
W2AJG and approved by all. Motion car-  
ries and meeting was adjourned at 21:46  
hrs.

**Antelope Valley Amateur Radio Club/  
K6OX**

**Board Meeting**

**Via Zoom May 8, 2023 19:00 hrs.**

**Those Present:**

President Andrew Gippetti W2AJG Vice  
President Loretta A Smalls AJ6HO  
Treasurer David Haberman AK6DH Board  
Member Dan Sherwood W6DAS  
Board Member Brian Basura N6CVO  
Ex Officio George Becker KC6UVM

**Meeting called to order** by President An-  
drew Gippetti W2AJG at 19:02.

**Treasurer's Report**

**David Haberman AK6DH**

Checking: <As stated>

*(Continued on page 3)*

## From the VEEP...



*(Continued from page 1)*

guy to take his test and he got his technician license. Now we are a team.

I guess what I am trying to convey, is that for someone my age, getting into ham radio started out kind of scary but I have learned so much, and even got involved with a second club for microwave radio, the San Bernardino Microwave Society. Most of what they do is quite a bit over my head but I am figuring it out. I feel we are never too old to learn stuff, and the more I do the more I get those eureka moments although it does take me a little bit of time. It sure does feel great though when something clicks in my head and a project actually comes together, but I won't lie to you, I have had significant failures before that sought after eureka moment. One example is the Downeast Microwave Transverter that I got for 10GHz. By the time I got things figured out with that, I had broken two of the DC pull through connections, and also ruined several toggle switches trying to figure out how to connect the PTT to work with it. I did finally get it going and made several contacts with it. That is, after all, how we learn, and it does feel pretty great.

For all those who are new to the hobby, don't be afraid to jump in there and learn new things. There is a lot out there in the amateur radio world; Morse code, RTTY, FT8, even Radio Astronomy. For those who are part of the EMCOMM there is WinLink and the various VARA digital modes to pass traffic. Of course there is the voice too and some are happy just to talk on the microphone and that is fine too. Then there are those that are curious about what else is out there and that is when things get really interesting. Amateur radio is an ever evolving activity, new stuff is coming up all the time and there are lots of opportunities to collaborate with organizations like HAARP and NASA who have projects that involve ham radio operators. For example, NASA will be enlisting the

help of hams for the upcoming solar eclipses in October of this year and April of next year.

<https://science.nasa.gov/science-news/citizenscience/ham-radio-operators-we-need-your-help-during-solar-eclipses>

<https://hamsci.org/eclipse>

There are countless contests and activities going on, and they include HF, VHF, UHF and even microwave bands. Just about every mode too, CW, RTTY, other digital modes as well as voice. My favorite site to go to for contest information is

<https://www.contestcalendar.com/>

Of course we always have our own drills, Field Day and hopefully future club activities that will get more folks involved in the hobby, learn some new things and connect.

So let's see you all out there, and let's get involved with as many bands as we can. If we don't use them we will lose them.

73,

Loretta AJ6HO

## Secretary's Desk...



*(Continued from page 2)*

Deposits:	<As stated>
Expenses:	<As stated>
Cash on Hand:	<As stated>
Total:	<As stated>
Members	46 paid members and 13
life members	
Total	59
ARRL %	82%

**Motion was made** by to approve previous board meeting minutes taken by Vice President Loretta A Smalls AJ6HO and printed in the Short Circuit. Seconded by and approved by all and motion carries.

### Old Business:

Still no word about Wrightwood for Field Day so Tom and I are going up to the North Resort to see if there is someone up there we can talk to. I have some FD flyers I ordered from ARRL to pass out for our FD event.

We need NCOs, how about a posted schedule of NCOs like we do for ARES? It is hoped that a schedule will encourage more participation from current and new members alike.

Treasurer David Haberman will update us on the status of the official club Zoom account.

### New Business:

Diana AI6DF and Daria's shirts are done and they look great. Take your shirts to A.V Sports and Graphics on 10th St. West around \$2.50 per letter if you want your name and call sign embroidered on your shirt. I recommend it, it looks great. 42402 10th St. W. Suite A Lancaster, CA 93536 661-945-3144

George Becker KC6UVM will get information for us about using the Lancaster Elks Lodge for our Christmas party. This will be free to us because George is a member as long as we have insurance, which we do. There will be a \$100 security deposit but that is okay.

**A motion was made** by V.P Loretta A Smalls AJ6HO to have George present our Christmas date to the Lodge and get more information on what they will need from us to secure this room Motion was seconded by Board Member Dan Sherwood W6DAS and approved by all. Motion carries and

*(Continued on page 4)*



Pictures from ARES preField Day

Secretary's Desk...



(Continued from page 3)

George will see about securing the Ballroom at the Elks Lodge in Lancaster for us.

**Presentations:**

Our May 25 program will be with Michelle Thompson W5NYV who is not only with the San Bernardino Microwave Society, but is also part of the Open Research Institute, and chairs on the International Microwave Symposium. I would sure like to see more women get into ham radio, especially our younger women to get involved with more STEM activities. <https://www.openresearch.institute/> <https://ims-ieee.org/> <https://w6ife.com/>



June 22 We will have Ed Fong with Ed's Antennas <https://edsantennas.weebly.com/> and also about this year's Field Day which we hope will be up in Wrightwood. The International Microwave Symposium will be June 11-16 at the San Diego Convention Center. I will be there June 12 at the Hilton Bayfront Hotel Promenade area with my dish.



July 27 We had an ARES field day event at Jed's N6JED Rosemond property where we finally got the club antenna set up, and some folks camped out there and made radio contacts. Tonight we will share the what we learned from this event which includes Brian N6CVO PICO baloon launch and his Tesla Coil. This is also going to be post Field Day

discussions.

August 24 TBD but we are hoping to get someone from the recent Bouvet Island DXpedition to give a presentation about their event. Or we can switch with July. The 10 GHz and up contest in Aug 19-20 is also going on.

September 28 TBD Officer and Board Member nominations. The 10 GHz and up contest continues Sept 16-17.

October 26 TBD nominations continue and possible discussion about the microwave activities listed above.

November 16 TBD a week early due to Thanksgiving Holiday perhaps another member brag night.

December 15 Friday for our Christmas Party if we have a venue. If not then it will be December 14 Thursday either at the Library or via Zoom.

**Other Announcements:**

Badges are \$10 for pinned badges and \$12 for the magnetic badges.

Short Circuit articles are due by May 18 Next club meeting May 25 at the Quartz Hill Library with VE testing beginning at 17:30 hrs.

Next board meeting is June 12 19:00 hrs via Zoom.

**Motion was made** to adjourn by V.P Loretta A. Smalls AJ6HO and seconded by Treasurer David Haberman AK6DH.



---

---

## HAARP Presentation to AVARC by Dr. Witham Reeve on April 27 by Loretta A. Smalls AJ6HO

Dr. Witham Reeve gave us a fascinating glimpse into the High Frequency Active Auroral Research Program facility in Gakona AK. He has a B.S and M.S in Electrical Engineering from the University of Fairbanks Alaska and has lived his entire life in Anchorage Alaska. He manufactures electronic equipment used in radio astronomy, perfect for HAARP and other projects like Radio Jove.

The HAARP facility sits on permafrost, which must remain frozen throughout the year so the facility has special made heat distribution devices to help reduce or even try to prevent any thawing of the permafrost. The project started in the early 1990's by the Dept. Of Defense at a taxpayer cost of \$290 Million and operated by the Air Force. It was transferred to the University Of Alaska Fairbanks-GI (Geo-Physical Institute) in the mid 2015. It started out as an over the horizon radar facility but quickly became a scientific research facility once it got into the hands of UAF-GI. If you go to Google Maps you can find Gakona and the HAARP facility on the Glen Highway Tok cutoff. For more information on HAARP go to <https://haarp.gi.alaska.edu/>.

What is very interesting to Hams is that they often run research campaigns involving amateur radio. They have done it in the past and in fact a couple of our members, Dan W6DAS and Keith K6GXO have participated before. Witham does have a report on those activities and they can be found here; [https://reeve.com/Documents/Articles%20Papers/Reeve\\_LunarEchoExpWebArt\\_R1.pdf](https://reeve.com/Documents/Articles%20Papers/Reeve_LunarEchoExpWebArt_R1.pdf) The HAARP team may be running another campaign in May or August. If interested send Dr. Reeve a request to receive 'Notice of Transmissions' to [whitreeve@gmail.com](mailto:whitreeve@gmail.com).

HAARP is located 63 degrees N magnetic. Perfectly located to this kind of research, and I can personally say that the Aurora's in Alaska are magnificent, especially during the Winter. The Geomagnetic field connected to the outer magnetosphere does go directly over the HAARP facility. HAARP transmits powerful radio waves into a localized area of the Ionosphere above the facility, about 70 to 350 km, the D layer. This heats up the area of the Ionosphere to stimulate measurable activity. HAARP has conducted research using this method for Jupiter Bounce experiments, Moon Bounce, Asteroid Probing and much more. It also uses off site arrays as receivers such as the Long Wavelength Array in New Mexico, and also our own OVRO in Big Pine to record data. The Ionospheric Research Instrument at HAARP is transmit only equipment.

HAARP also conducts Citizen Science and public outreach during their 'Notice of Transmission' projects and that includes organizations like Society of Amateur Radio Astronomers, the ARRL, Radio Jove and others. The call sign for HAARP is W12XFX station class FX for experimental tests. They are authorized at lower frequencies max power 0.457 GW (+86.6 dBW) ERP at higher frequencies 3.63 GW (+95.5 dBW) ERP 46kHz maximum allowed bandwidth. They have 180 crossed dipole antenna assemblies 360 total dipoles in a 12x15 matrix. There are 360 transmitters 2.7 to 10 MHz at 10 kW per transmitter and a 3.6 MW maximum total transmit power. They are automatically and continuously tuned.

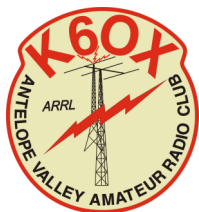
There is a lot of very interesting information on HAARP and to learn more visit the website posted above. There is also a publication out there which I do have and will bring to the next meeting. I acquired this publication through the HAARP website; scroll down to a photo of the publication 'Opportunities High Power High Frequency Transmitters to Advance Ionospheric/Thermospheric Research.' <https://nap.nationalacademies.org/catalog/18620/opportunities-for-high-power-high-frequency-transmitters-to-advance-ionosphericthermospheric-research> just a fair warning it was about \$50 and it may be on back order.

For those who want to get on the list for 'Notice of Transmissions' email Witham Reeve directly at [whitreeve@gmail.com](mailto:whitreeve@gmail.com). If we are fortunate enough to be able to participate in the HAARP project with ham radio you can submit for a QSL card at ;

To request a HAARP QSL card, send reception reports to:

HAARP  
P.O. Box 271  
Gakona, Alaska 99586  
USA

---



**Antelope Valley Amateur Radio Club 2023 Officers**

<b>President</b>	Andy Gippetti	W2AJG	433-2106
<b>Vice President</b>	Loretta Smalls	AJ6HO	350-7039
<b>Secretary</b>	Pat Okawa	KJ6CJI	718-3986
<b>Treasurer</b>	David Haberman	AK6DH	917-4594
<b>Master-At-Arms</b>	Tom Kane	KN6GLI	350-7039
<b>Board Member</b>	Brian Basura	N6CVO	268-6061
<b>Board Member</b>	Dan Sherwood	W6DAS	480-5227
<b>Trustee</b>	Keith Hoyt	K6GXO	533-4025
<b>Ex Officio</b>	George Becker	KC6UVM	488-6894



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

Place  
 Postage  
 Here

**To ARS:**



Amateur Radio is a National Resource

FIRST CLASS