
The Short Circuit

<http://www.k6ox.club>



The official publication of the Antelope Valley Amateur Radio Club

May 2021

President's Corner

George Becker KC6UVM

It has been said that April's showers bring May's flowers. Instead of showers, our community got more winds and high heat. That is the Antelope Valley for you. We went from winter to summer with about a week's worth of spring. There seemed like way too much wind to safely get a mast and wire antenna up in the back yard over the last couple of months.

Living in a rental property can be difficult as far as putting up HF antennas that will do the job. There are no plans to dig big holes in the ground for a tower or permanent mast. Since becoming a ham in the early nineteen nineties, the personal interests have been in the VHF/UHF bands with a foray from FM modes to SSB and weak signal. There has been an interest in working satellites, but the setup and operation ranged from the complicated consisting of a dual azimuth rotator, electronics/software control, high gain long beam antennas (such as from M Squared). Or stand outside in the weather using a handheld satellite antenna (from Arrow Antenna), duplexer and handy talky. The middle ground could be a pair of 2m/440cm eggbeaters from M Squared plus an outdoor rated duplexer. To keep it as simple as possible, the eggbeaters can be attached to a cross beam then mounted to a mast would be the middle ground. And the birds

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Meeting Notice

This month's meeting will be held on **Thursday, May 27, 2021 at 7:30 PM**, via the Zoom online video app. Current members should have received the meeting invitation link via the email announcement of the December 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 meeting will feature **Chris Mattia W6AH**, who will be talking about portable power solutions for EmComm. You can read more about Chris elsewhere in the Short Circuit. Be sure to mark your calendars and plan on joining us for this very interesting and timely presentation.



Chris Mattia W6AH

From The Veep

Andy Gippetti W2AJG

Chris Mattia (W6AH) decided to get his ham radio license as the Thomas Fire was ripping through his home town of Ventura California.

Over the next 8 months, he began operating with ARES LAX in both the NW and NE districts. After upgrading to General he started regularly operating on HF and experimenting with digital communications, antenna building, and portable operations. 9 months to the day after the Thomas Fire broke out, he passed his Amateur Extra exam.

As a teacher and professional video based training, Chris looked for ways to help others Amateurs obtain and upgrade their licenses so he became a VE with both W5YI and ARRL, began helping to teach classes with various groups, and created the website **WaveTalkers** <http://wavetalkers.com>. Chris now operates with both the Ventura ARES/ACS and ARES LAX NW / NE districts.

During the 2019 Baker2Vegas Race, Chris Mattia - W6AH (Ventura ARES & ARES LAX) provided EmComm support for the Medical Radio Network (MRN). On the morning of the

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From the Secretary's Desk



AVARC/K6OX
 General Meeting Via Zoom
 April 22, 2021 19:30 hrs

Those Present:

President George Becker
 KC6UVM Vice President Andy
 Gippetti W2AJG
 Treasurer Matt Stewart K6MES
 Secretary Loretta A Smalls AJ6HO
 Board Member Dan Sherwood
 W6DAS Board Member David
 Haberman AK6DH
 Trustee Keith Hoyt K6GXO
 Short Circuit Editor Adrienne
 Sherwood WA6YEO and Minnie.
 Ex Officio Mike Beckers K6YQO
 CONGRATULAIONS DAVID
 ON GETTING YOUR EXTRA
 CLASS LICENSE.

Others Present:

Margie KG6TBR Brian N6CVO
 Mark KJ6WML Mark KK6SMD
 Jed N6JED
 Brian KE6SGE Ron NY2B A.E
 Larry KI6BKP Yoshio KE6ACH
 Betsy AJ6AF

Meeting called to order by Presi-
 dent George Becker KC6UVM at
 19:31 hrs.

**Motion to approve the minutes
 of previous club meeting** as taken
 by Secretary Loretta A Smalls
 AJ6HO made by Mike Beckers
 K6YQO and seconded by Board
 Member David Haberman
 AK6DH. Minutes were approved
 by all present.

Treasurer's Report by Matt
 Steward K6MES

Checking:	<as stated>
Cash on Hand:	<as stated>
Total:	<as stated>
Total Members:	47
ARRL %	77.8%

**This time we started out our club
 meeting with the presentation
 first.** Our speaker this evening is
 Dr. Mark Chun KK6SMD who is
 Asst. Section Manager for the
 ARRL LAX. He is also with the
 Amateur Radio League for the
 American Red Cross and he is here
 to discuss NVIS operations.

NVIS is Near Vertical Incidence
 Skywave, which he used in the mili-
 tary. NVIS is a way of using the
 Ionosphere to communicate region-
 ally. It is all about the angle of at-
 tack. What makes an NVIS antenna
 system different from a DX antenna
 is the angle of attack. NVIS anten-
 nas will have a steeper angle of at-
 tack, where your radio signals
 bounce off of the Ionosphere.
 Somewhere around a 61 degree an-
 gle. This allows us to communicate
 to folks in San Diego, L.A. Basin,
 and even San Francisco and parts of
 Nevada.

A DX antenna will have less of an
 angle, around 30 degrees and this
 will cause a 'skip' zone, or a dead
 zone and you may not be able to
 make any local or regional contacts.
 But a DX antenna will bounce off
 the ionosphere in such a way as to
 make long distance contacts. For
 emcomm work however, NVIS is
 the way to go.

Mark describes just such an NVIS
 antenna that he built for 40 meters
 to communicate with hams in the
 Sacramento area when the Oroville
 Dam was about to collapse in 2017.
 This NVIS system allowed them to

get on the ground details of what
 was happening.

The antenna can be a mere 10 to 15
 feet up and the wire length to
 whichever band(s) you are going to
 use. For 80 meters it would proba-
 bly be a half wave dipole about 120
 ft. 60 ft for each leg. For NVIS work
 the most practical would be 80, 40,
 120, are bands that are more reflec-
 tive off the ionosphere so those are
 the bands to hit on for NVIS opera-
 tions.

Depending on what time of day,
 NVIS operators are commonly re-
 ferred to as 'cloud warmers' since
 we are essentially warming up the
 clouds in the ionosphere with our
 transmissions.

A great analogy that Dr. Chung gave
 us was think of it like holding a gar-
 den hose straight up in the air. The
 water from the hose will fall all
 around you and the surrounding ar-
 eas. Point that hose at a less steeper
 angle, and the water will hit spots
 further away but you will not get the
 ground around you wet at all. That
 really brought it home for me any-
 way, and I thought it was pretty neat
 stuff. For example I did not know
 that manure can make great reflec-
 tive material. Those of us with
 horses will have no problem finding
 that kind of material HI HI.

Dr. Chung encouraged us to conduct
 NVIS drills with our club as it is
 that important in the event of com-
 munications failures, including the

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President...

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could be worked inside in the comfort of my shack.

Now the HF bands are another “bird” of a different color. Hi hi. Hams tend to plan and design an antenna to fit the space. If you own a large property, do not have a HOA to worry about and live where there is space between you and your neighbor, you might be better off. Then, there is everyone else. We have limitations to overcome to get our 100 watts out and above the noise floor. Then, the KISS principle still applies.

There have been attempts in the past at making HF antennas. One attempt was a couple of Slinkies, a balun and a pair of trees to string the Slinky antenna out on. The Slinky dipole was mounted low that Field day and being close to the ground when the antenna was transmitting, the antenna behaved as an NVIS antenna and was resonant around 75 meters. Made a few contacts on QRP.

Another wire antenna that went up during the last couple of field days (Before COVID, aka B.C.) when the club was at Rawley Duntley Park, was an off center fed wire dipole antenna. This antenna consisted of 14-gauge wire bought at a local hardware store and another balun. Those two field days, it seemed to work best in 40 and 20 meters.

The home HF antenna will consist of about 130 foot of wire, a balun and a connection to a ground wire array. To save time in re-engineering the wheel, this antenna is someone’s product/design. There are three or four ways to set the antenna up in the back yard and

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Secretary’s Desk...



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downing of repeaters. Thank you Dr. Chung for an excellent presentation, and it helped us get a much better understanding of NVIS. Much more information then can fit in a newsletter, so again, thank you Mark.

For more on NVIS go to: <https://www.qsl.net/wb5ude/nvis/> and <http://www.arrl.org/news/nvis-research-paper-available>. There are a host of other links including YouTube videos. I had a little trouble finding the Ionospheric Prediction map but I did find [this one](https://www.sws.bom.gov.au/HF_Systems/6/5); https://www.sws.bom.gov.au/HF_Systems/6/5. The Greater Los Angeles ARRL home page has solar activity and propagation chart <http://www.areslax.org/> and NOAA <https://www.swpc.noaa.gov/products/predicted-sunspot-number-and-radio-flux>.

Old Business:

We will be zooming along for now, but there are discussions about having an in person meet up some time in the near future. More and more of us are getting our vaccines so we see no reason not to pursue a location for an in person meet up.

We still have our reservation for the Rawley Duntley Park, no cancellation yet, so we are hopeful for our day in the park on Field Day June 26-27, 2021.

Anyone who wants to volunteer as net control for our Wednesday night nets on Hauser are more than welcome.

New Business:

No new business was discussed tonight. So many things are on

hold due to Covid restrictions, including a field trip to the Owens Valley Observatory in late September. As soon as I hear word from Mark Hagan I will jump on that asap and start planning the tour and lectures if they are doing both.

We also discussed holding in person test sessions as well, it is the lack of venue at this time. For now the test sessions are on line and the link is via GLAARG at <https://glaarg.org/>.

Announcements:

Short Circuit articles are due by 5/16.

Next exam via GLAARG.

Next Board Meeting is Monday May 10 via zoom at 7:00 P:M All are welcome.

Next Club Meeting is Thursday May 27 7:00 P:M for eyeball qso and 7:30 P:M for the start of the meeting. Our guest speaker is Chris Mattia W6AH on portable power solutions.

Future Presentations:

May 27 will be Chris Mattia W6AH on Portable Power Solutions

June 24 we will go into detail about our field day 2021 activities including our event call sign and logging in contacts with ARRL.

July 22: Dennis Kidder W6DQ on the San Bernardino Microwave Society and activities at the Owens Valley Observatory.

August 26: Dennis Swink KJ6NQG will discuss DCS.

September 23: First round of elections and a possible speaker from

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Secretary's Desk...

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DX Engineering.

October 28: Elections speaker not yet scheduled.

Other Items:

Members that checked in tonight;
21

No 50/50 drawing.

Meeting was adjourned at 20:32 hrs.

73 all
DE AJ6HO

AVARC/K6OX
May 10, 2021 Board Meeting
1900 hrs via ZOOM

Meeting was called to order by President George Becker KC6UVM at 19:07 hrs.

Those present were;

President George Becker KC6UVM
Vice President Andy Gippetti W2AJG
Secretary Loretta A Smalls AJ6HO
Board Member David Haberman AK6DH
Board Member Dan Sherwood W6DAS
Trustee Keith Hoyt K6GXO.

Motion to approve minutes from previous board meeting made by David Haberman AK6DH and seconded by Loretta A Smalls AJ6HO approved by all present.

Treasurer's Report; Matt Stewart K6MES not present today so we will table the report for tonight and stand with the treasurer's report from the

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From the Veep...



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race, the Stage 7 Medic Station needed to be switched over to emergency power and have that power maintained for approximately 15 hrs.

In this presentation, W6AH will walk through the basics of getting a station on the air and keeping a station on the air with a focus on emergency and solar power. Topics covered will all take an EmComm approach and cover: Battery choices, Discharge Curves, Radio Power Requirements and Duty Cycle, Power Adapters, Solar Panel Types, Solar Charge Controllers, Connecting an EmComm Solar Power System, and the results of the Stage 7 MRN Radio Support.



When aboard the SV Callinected, Chris operates an SDG 2000 that uses the backstay of the Peterson 44 as its antenna.

73,
Andy W2AJG

President...

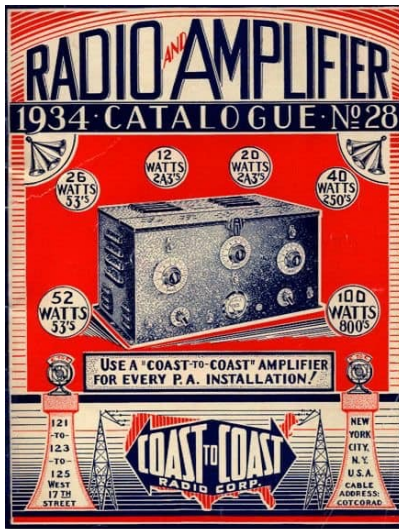
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experiment with different configurations. There really has not been much interest in contesting or decorating the wall with QSL cards on my part. A wire antenna was put out at a previous residence but after hearing the QRN on 80 meters, I QSYed up to another frequency, mode and band. With the public service work for ARES/RACES, there is an opportunity to get out on HF with a purpose for community service.

Our next Club (Zoom) meeting will be 5/27/2021, Thursday evening beginning with a virtual eyeball QSO at about 1900 and the meeting beginning roughly about 1930. Andy, W2AJG will have more to talk about in his column about our guest speaker Chris Mattia W6AH speaking about portable power solutions.

73,

George KC6UVM



Secretary's Desk...



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club meeting on April 22, 2021.

Old Business:

Although some libraries are open with limited capacity, it appears the Quartz Hill Library has still not opened up any meeting rooms for larger gatherings. For example the Lancaster Library has opened for select in person services such as browse the collection, check out items, and use the computer.

Our permit for Rawley Duntley Park has not been rescinded as of this date so there is a good chance our field day may be back to normal.

New Business:

Our new CW net which was on Thursday evenings at 19:00 hrs is conflicting with Zoom meetings and other nets going on so we will pick a differ-

ent day. It may be on a Saturday so we will let you know as soon as we find the right niche for our CW net.

Future Presentations:

See listing on the club meeting minutes.

Announcements:

Next club Zoom meeting is May 27th 19:00 for eyeball QSOs and 19:30 for the meeting. Our guest speaker is Chris Mattia W6AH on portable power solutions.

Next exam via GLAARG on line but we have been discussing resuming in person testing. We just need to find a venue.

The meeting adjourned at 19:47 hrs
73 all,
Secretary
Loretta A Smalls AJ6HO

Swap Shop

Electronic equipment racks

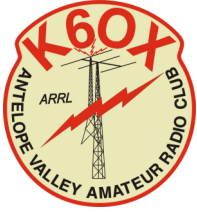
Two 19" enclosed relay racks, one 6' and one 7'. If you know of anyone in the club that wants one, or both, all they have to do is pick them up.

One rack has one or two old repeaters in the rack.

Bob, WA6MMI, 661-305-8855

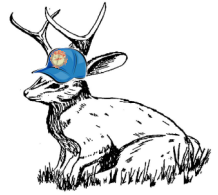
Swap Shop ads will be run at no cost to AVARC members. Contact Adrienne WA6YEO, Short Circuit editor at 661-264-1863 or email wa6yeo@sbcglobal.net





Antelope Valley Amateur Radio Club 2021 Officers

President	George Becker	KC6UVM	488-6894
Vice President	Andy Gippetti	W2AJG	433-2106
Secretary	Loretta Smalls	AJ6HO	350-7039
Treasurer	Matt Stewart	K6MES	264-4629
Master-At-Arms	Gary Mork	WA6WFC	948-8317
Board Member	David Haberman	AK6DH	917-4594
Board Member	Dan Sherwood	W6DAS	264-1863
Trustee	Keith Hoyt	K6GXO	533-4025
Ex Officio	Michael Beckers	K6YQO	805-906-9555



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:

