THE NUGGET

The Newsletter of the Mother Lode DX/Contest Club

December 2024 **Volume 29 Number 12**

TEN YEARS OF SS – NINE GAVELS….WILL THERE BE A 10TH?

It's hard to believe that our club has been participating seriously in the ARRL Sweepstakes for 10 years now.

This all began, ironically, when I took over as the NCCC President, in 2015. In our first general meeting, Dean, N6DE, was one of the speakers and the topic was something like, "Can NCCC Win in SS?" In short, the answer was a resounding NO, mostly based on the huge number of logs the Potomac Valley Radio Club was able to submit every year. For PVRC, I considered this like "shooting fish in a barrel". In the 2014 Sweepstakes, PVRC's point total, after log checking, was 18,828,792. They had 276 logs. NCCC did come in at second place with a respectable 13,457,554 points and 178 logs…nearly 100 logs fewer than PVRC. With that kind of log total, no club could compete with PVRC. And, who wants to be in second place?

As someone who actually likes Sweepstakes, I wanted to compete as a club, but I also wanted to win as a club. It was later in 2015 that I brought up the idea of MLDXCC competing in the Medium Club Category….and we did….big time!

Here are the Medium Club totals from 2014, the year prior to MLDXCC entering SS:

CLUB	POINTS	LOGS
Southern Cal Contest Club	4,600,526	46
DFW Contest Group	4,403,175	50
Frankford Radio Club	3,863,200	45
Contest Club Ontario	3,304,110	48
Arizona Outlaws Contest Club	3,271,798	45

As you can see by the numbers, the scores were much closer and the competition was tight. The strategy is also quite different from the Unlimited Club category, primarily due to the 50-log total. Here's what the 2015 SS totals looked like after log checking:

CLUB	POINTS	LOGS
Mother Lode DX/Contest Club	3,968,346	47
Southern Cal Contest Club	3,491,852	41
Arizona Outlaws Contest Club	3,417,206	47
Contest Club Ontario	3,151,264	50
DFW Contest Group	2,680,896	33

As you can see, the competition was fierce. MLDXCC won and it felt good to actually compete in a close contest. So how did the *Little Club that Could* win the gavel in the 2015 ARRL Sweepstakes?

Well, we got together as a club and our members recruited their friends who enjoyed competing in SS, from NCCC, most residing in the Bay Area, but well within our 175 mile circle. We could not have done it without having these guys joining our club to compete and we will never forget that. In return, we all encouraged MLDXCC members to participate in NCCC's focus contests.

After that, MLDXCC continued to win every year up to 2023.

Will we win the 2024 ARRL SS? Read on:

Here's where we stand in the raw (prior to log checking) totals for the 2024 Sweepstakes, and thanks to Stu, K6TU, for tallying the raw log data:

CLUB	CW LOGS	CW TOTAL	SSB LOGS	SSB TOTAL	TOTAL LOGS	TOTAL
MLDXCC	21	1,571,302	17	1,841,714	38	3,413,016
ARIZONA OUTLAWS	17	1,641,088	16	1,501,846	33	3,142,934
SCCC	15	1,300,172	14	984,464	29	2,284,636
SOUTH EAST CONTEST CLUB	20	1,463,140	8	691,746	28	2,154,886
GRAND MESA CONTESTERS	13	798,498	11	1,067,044	24	1,865,542
WESTERN WASHINGTON DX	15	973,684	10	751,716	25	1,725,400

Just like 2015, the competition continues to be fierce and, as it has over the years, the nail biting continues! Note that all of the log-counts have gone down.

With the Arizona Outlaws club only 270K behind us in the raw scores, they could end up winning once log checking is done. As has been the case now for several years, the Arizona Outlaws always beat us in CW, but we win the contest in the Phone competition.

With that said, MLDXCC's "ears-to-the-ground" intelligence is telling us that we are in the lead with log checking nearly complete. It is possible that one of the clubs competing in the Unlimited category may, with log verification (checking each club's verification list for out-of-circle or nonmembers) end up in the Medium Club category and possibly win the category.

Here's a look at the raw log data for the Unlimited category in 2024:

CLUB	CW LOGS	CW TOTAL	SSB LOGS	SSB TOTAL	TOTAL LOGS	TOTAL
POTOMAC VALLEY RADIO CLUB	112	7,933,706	105	5,980,342	217	13,914,048
SOCIETY OF MIDWEST CONTESTERS	67	4,793,046	57	3,293,538	124	8,086,584
YANKEE CLIPPER CONTEST CLUB	52	3,489,226	40	2,498,622	92	5,987,848
MINNESOTA WIRELESS ASSN	49	2,621,994	62	3,150,794	111	5,772,788
FRANKFORD RADIO CLUB	50	2,999,424	42	2,300,328	92	5,299,752
FLORIDA CONTEST GROUP	33	2,258,066	21	1,107,310	54	3,365,376
CONTEST CLUB ONTARIO	32	2,123,322	19	1,069,904	51	3,193,226

As you can see, PVRC was shooting fish in a barrel again, as they have over many years. I don't say this in a bad way but, really, how much fun is it to compete without any competition? You still get a gavel, I suppose. It is interesting to see that the log counts have gone down somewhat. PVRC, for instance, had 276 logs in 2014 compared to 217 logs in 2024.

The third category in Sweepstakes is the Small Club category, which limits clubs to a total log count of 10. As with the Medium Club category, a club can win the Small Club category by relying on multi-op station logs, which PL259 has done successfully for many years.

CLUB	POINTS	LOGS
PIZZA LOVERS 259	1,609,686	10
BELLA VISTA RADIO CLUB	703,636	8
RADIO AMATEURS OF NORTHERN VERMONT	661,088	6
SASKATCHEWAN CONTEST CLUB	655,136	10
GREAT PLACES CONTEST CLUB	605,766	6

Congratulations to PL259. They'll have a solid win thanks to their Multi-Op strategy.

I want to say thanks to all of our operators who participated in what – hopefully – will be our tenth consecutive win in the ARRL Sweepstakes.

Below is a list of the 2024 raw scores. Please, everyone, pat each other on the back and don't forget our NCCC Bay Area friends.

2024 Sweepstakes Phone

CALL	CLASS	Q'S	SECTIONS	SCORE
WC6H	Single Op	1,565	84	262,920
W7RN(WX5S)	SO Unlimited	1,436	85	244,120
W1SRD	SO Unlimited	1,017	85	172,890
K8TR(@W4UAT)	Single Op	992	84	166,656
NC6R	Multi-Op	955	83	158,530
N6RK	Single Op	939	84	157,752
N6ZFO	SO Unlimited	800	84	134,400
KE8FT	Single Op	779	84	130,872
W1RH	SO Unlimited	707	85	120,190
WD6T(@W6YX)	SO Unlimited	507	72	73,008
K6TQ	Single Op	301	89	53,578
K6ST	SO Unlimited Limited-Ant	171	67	22,914
W6LP(KE5JTS)	Single Op	149	49	14,602
K6OK	SO Unlimited	100	65	13,000
AF6SA	Single Op	106	58	12,296

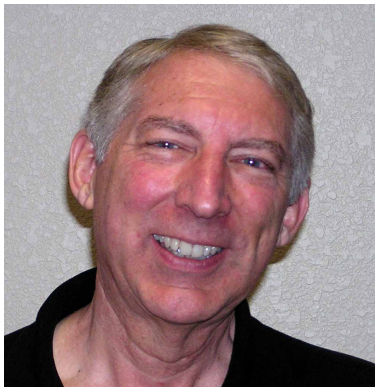
ARRL Sweepstakes CW

CALL	CLASS	Q'S	SECTIONS	SCORE
WC6H	Single Op	991	84	166488
W1SRD	SO Unlimited	894	85	151980
N6ZFO	SO Unlimited	824	85	140080

N6RK	Single Op	745	80	119200
KH6TU(AD6E)	Single Op	656	85	111520
K6OK	SO Unlimited	640	84	107520
W1RH	SO Unlimited	638	84	107184
NZ6Q	Single Op	552	85	93840
WX6V	SO Unlimited	506	84	85008
WX5S(@NW6P)	SO Unlimited	468	84	78624
W6EU	Single Op	402	79	63516
N6XI	Single Op	311	71	44162
K6ST	Single Op	138	66	18216
AF6SA	Single Op	103	58	11948
K8TR	Single Op	105	50	10500

There are so many of you who deserve a personal thanks, but I want to single out Bill, N6SFO. Bill is moving into PVRC territory and will, I'm sure, be a major contributor to their contest efforts, as he has for MLDXCC and NCCC. We will really miss Bill, as a friend and as a regular big point generator in MLDXCC's Sweepstakes effort. When K1KI and I started up the New England QSO Party, guess who played a major role in our first contest? Yes, it was Bill, N6ZFO. Have fun on the beautiful East Coast, Bill!

Last, but not least, it's always nice to see Alan, KH6TU, enter on behalf of MLDXCC every year. Alas, even though the 175 mile circle has expanded to 250 miles, Hawaii is still a bit beyond that and therefore Alan's logs don't count in the total. Nevertheless, he gives the PAC section to virtually all of our in-circle members.



Bob, W1RH

DELETED COUNTRIES

Malaya

Malaya, specifically British Malaya were a group of faction states brought under control of Britain in the 1700 and 1800s. They were protectorates with local rulers under the rule of the crown. The states were the following, the Straits Settlements, the Federated Malay States and the Unfederated Malay States.

In 1948 the Federation of Malaya was formed containing 11 states, and became dependent in 1957. In 1963 it joined with Sarawak and Singapore to form the Federation of Malaysia.

As with many British territories trade was first established with the locals then a British garrison was brought in to protect the trading company. Eventually Britain subdued the locals and established their hegemony. This happened up and down the peninsula. There was some push back from the Sultan of Kedah but other conflicts in the region required his forces help. He negotiated trading partnerships with a British merchant. Britain even wrestled with the Dutch taking their colonies in the early 1800s.

The principle exports of this region was first tin and eventually rubber. Rubber was of particular interest to the Japanese in WWII since synthetic rubber had not yet been developed. They held the region during WWII.

After WWII Britain lost its grip on the region and the Malayan Union was formed which eventually became Malaysia. Singapore, Sarawak and Northern Borneo (Sabah) were included in the federation. Singapore, which was always self-governing was expelled in 1965.

Thanks to the Southern California DX Club Newsletter

Tube of the Month

Vacuum Resistors

In the days of large wire arrays like the rhombic, big gun stations rarely had room for more than one. For antenna to be directional, it needed to be terminated with a non-inductive resistance. Globar resistors were available, but they could be damaged if they were allowed to get wet. One solution was to use special vacuum tubes containing a resistor made by electroplating a carbon film on a form that was placed in a strong vacuum. The most common value of these 9-inch units was 200 ohms at 200 watts. Antenna terminations were often 800 ohms, so four units in series would dissipate 800 watts and could be packaged into a small unit. Ladder line is used to feed the array and it is very low loss. If the feed point was placed in the center of the antenna, equal feed lines could be swapped with a switch and make the direction change 180 degrees. The other feed line would be terminated with the resistors.

Each unit was sold with a pair of clamping mounts.

Visit the museum at N6JV.com
Norm N6JV

Antenna of the Month

Gary, NA6O
January, 2025

Fan (Parallel) Dipole

Those who must live with simple wire antennas are always searching for a way to get as many bands as possible with a single feedpoint. We've looked at things like off-center fed dipoles which may work ok though it has issues with common-mode current and some unpredictability as to what bands may actually work, plus the fact that a tuner is mandatory. And then there's the G5RV which may be ok in some situations, and also some fairly nutty end-fed wires that leave many users rather dissatisfied. But I'm quite convinced that the most compromise-free choice is the fan, or parallel, dipole, which is simply a set of dipoles cut for different bands, all connected to a common feedpoint (Fig. 1).

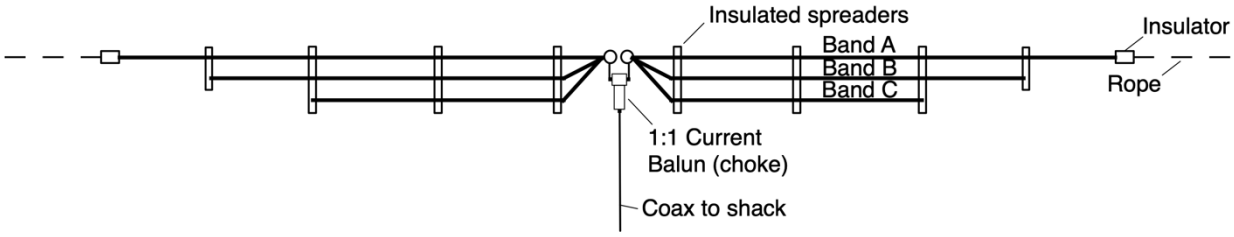


Figure 1. Plan for a basic fan, or parallel, dipole.

Advantages and Disadvantages

The main advantage of a fan dipole is that it's… a plain old dipole. That means it's balanced so you don't have to battle with excessive common-mode current on the feedline as you would on an off-center fed design. It's also highly predictable when it comes to the radiation pattern, which is primarily driven by how high you install it. Finally, it's impedance at resonance on all selected bands typically will be in our very friendly range of about 50 to 75 ohms without the need for any transformers or odd feedlines, again height-dependent.

The main drawback is that you can't realistically expect to access more than about four bands on a single fan. There are several reasons for this. First, the various lengths of wire do interact and an overly-complicated array becomes very difficult to tune. Second, the SWR bandwidth may be slightly reduced on some bands. Third, certain band combinations are not recommended because they may produce an undesirable feedpoint impedance. An example would be where the frequencies are rather close (12 and 10m).

Here are some common combinations which you may also find in commercial products such as those from Alpha Delta:

- 80, 40, 20, 15 (via third harmonic of 40) using 3 dipoles
- 40, 30, 20, 15 (via third harmonic of 40) using 3 dipoles
- 40, 20, 15 (via third harmonic of 40), 10 using 3 dipoles

Construction

Most commonly we hang the shorter wires under the longest one via insulating spacers. Spacing between wires really isn't critical. A few inches is acceptable and commonly used. The longest wire needs to be the strongest and is firmly anchored and tensioned at each end. Spacers can be made of things like small PVC pipe, acrylic,

or Lexan strips with holes for each wire. With close spacing, the higher frequency dipoles tend to be longer than expected (10-15%), so be sure to start out with excess wire to trim off. Also, the SWR bandwidth on those higher bands is reduced somewhat. If you want lots of separation, run each wire to a separate tie point. Some comparative data is presented in Ref. 1.

You can potentially add all kinds of dipole enhancements including loading coils or bent ends to shorten things up, inverted-vee format, or my famous third-harmonic capacity hat that was discussed in a recent Antenna of the Month article (Fig. 2). Traps are possible but tuning such a contraption could be frustrating.

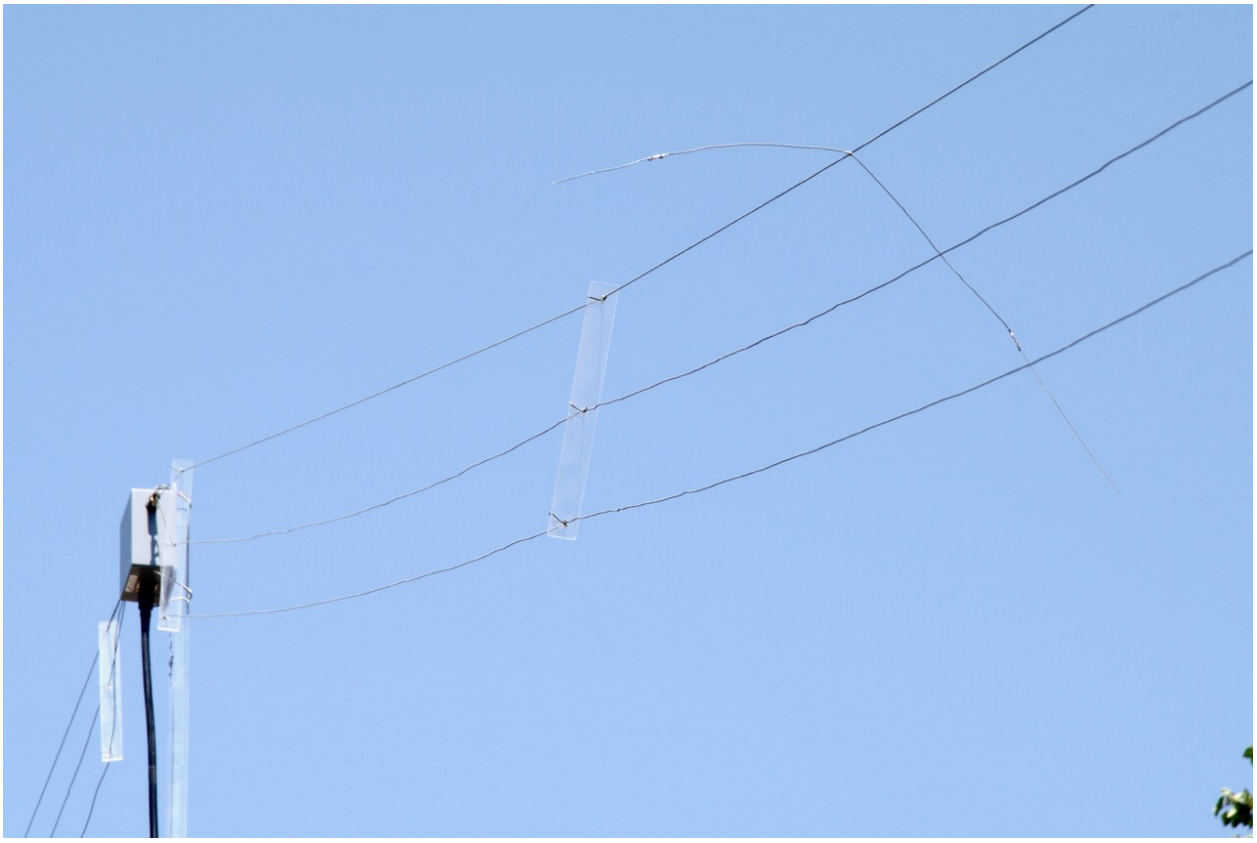


Figure 2. Closeup of my backyard fan dipole (40/30/20/15m) with a 15m hat. Wire is Teflon-insulated 20 ga. Spreaders are 1/8-inch acrylic strips about an inch wide. It's been up for 12 years.

At the feedpoint, always use a good common-mode choke. K9YC [Ref 2] has all the design information if you want to make one that is fully optimized to reduce receive noise and improve the radiation pattern.

Tuning and Typical SWR

A good antenna analyzer is highly recommended when tuning. Begin with the lowest frequency band first and work progressively to the highest frequency band. Expect to go through all the bands at least twice to walk them in to desired resonant frequencies. I prefer to fold the ends of wires back on themselves and twist them when tuning. That way, it's easy to "add" wire if needed. Figure 3 shows the SWR of my 40/30/20/15m installation. SWR bandwidth (2:1) was at least 200 kHz on each band. I ran it for many years at 500 W and even though it's quite low (only 15 ft up!) it was effective enough and trouble-free for my DXing and casual contesting activity in an HOA community.

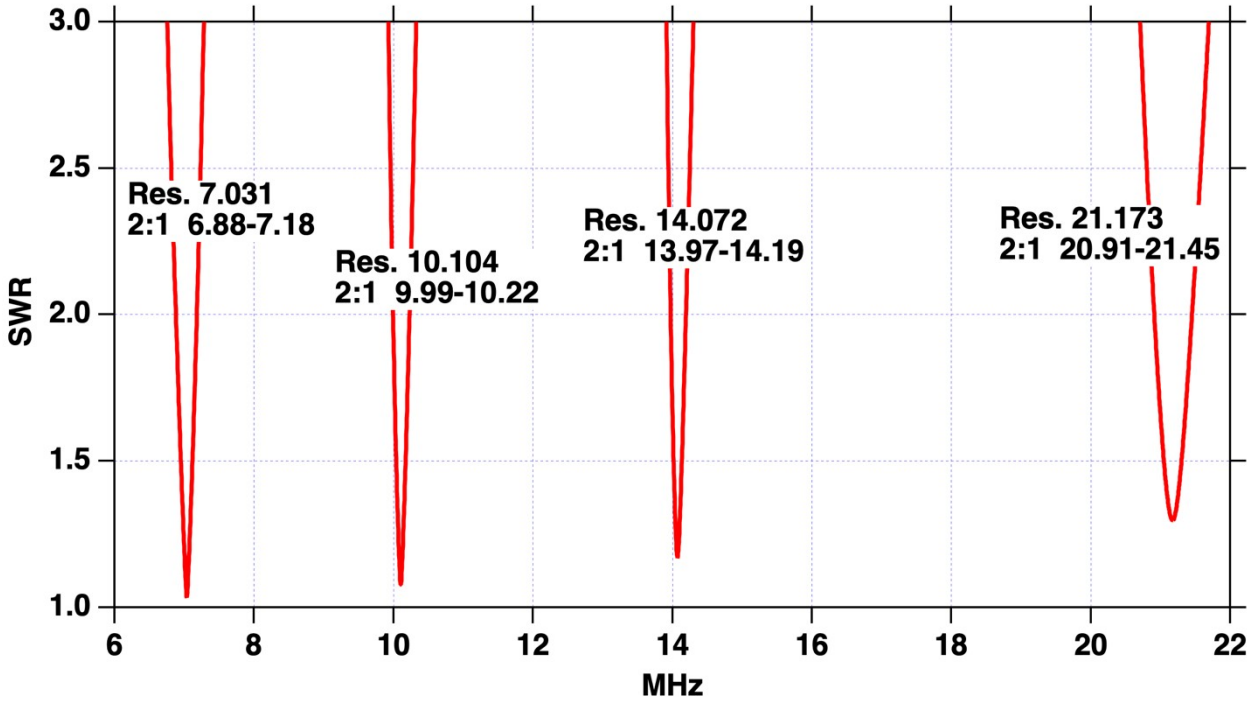


Figure 3. SWR of my 40/30/20/15m fan dipole showing 50-ohm 2:1 SWR bandwidths.

References

1. L. B. Cebik, W4RNL, "My Top Five Backyard Multi-Band Wire HF Antennas." http://on5au.be/content/fdim/fdim9.pdf

2. Jim Brown, K9YC, "A New Choke Cookbook for the 160-10m Bands." http://k9yc.com/2018Cookbook.pdf

****

Club Log Standings 2024

Overall

1	W1SRD	Steve Dyer	257
2	NK7I	Rick Bates	251
3	W6DE	Dave Engle	236

CW

1	K6YK	John Lee	207
2	W1SRD	Steve Dyer	177
3	W6DR	Dave Ritchie	160

Phone

1	W1SRD	Steve Dyer	177
2	K6YK	John Lee	149
3	NC6R	Steve Allred	135

Data

1	NK7I	Rick Bates	245
2	W1SRD	Steve Dyer	226
3	W6DE	Dave Engle	216
3	W6DR	Dave Ritchie	216

Awards Checkers ARRL

Rick Samoian, W6SR

(DXCC, WAS, VUCC, 160M)

The NOAA Solar Update

Click the link below to display the latest NOAA solar predictions.

http://www.swpc.noaa.gov/products/weekly-highlights-and-27-day-forecas

Upcoming Events

For the latest contest info. click on the following link:

http://www.contestcalendar.com/contestcal.html

Upcoming DX and DXpeditions

Click the link below to display upcoming DXpeditions.

http://www.ng3k.com/Misc/adxo.html

MLDXCC Focus Contests

ARRL SS CW/PH
California QSO Party

MLDXCC Reflector

The MLDXCC reflector is maintained at groups.io. Visit https://groups.io/g/mldxcc

We also maintain a spotting reflector at https://groups.io/g/MLDXCC-Spots

We are also on Facebook!
https://www.facebook.com

Classifieds

Members are requested to review their classified ads each month for accuracy and to resubmit their ads or confirm their desire to keep it running in the next issue.

Need QSL cards, business cards, club banners?
Contact Vina K6VNA vina@sign-tek.com

W6SR

I have two items for sale/trade.

1. Recently I acquired a Johnson KW tuner (site unseen) from a friend. My plan was to modify it for the remote radio setup at W1RH. However, after I inspected the unit, it is way too nice to modify. It's (IMHO) collector quality, original in and out. It even has the original, working SWR meter, relay, relay power supply and directional coupler cable. But not the directional coupler. Couplers are more available than the KW tuners since they were used on the 250W tuners also. I hate to see a vintage piece of collector quality gear hacked. Anyone interested in one of these? Price, you tell me, best offer takes it.

My portable Honeywell generator is excess to my needs, and needs a good home.
Used very little, mostly for microwave (10GHz) contesting and to power up tools in the field at the old place.
I always ran it out of gas when stored, and it was EZ start. Runs hours on 1 gal of gas.
What's it worth? You tell me, offer.

Contact me at ricksamoian@outlook.com
de Rick, W6SR

KN6TZK is looking for an amplifier. Any suggestions may contact him on the reflector.

Area Clubs

Northern California Contest Club - https://www.nccc.cc

Lodi Amateur Radio Club - http://www.lodiarc.org

Stockton Delta Amateur Radio Club - http://www.w6sf.org

Pizza Lovers 259 – https://www.pl259.org

El Dorado Amateur Radio Club - http://edcarc.net

Sierra Foothills Amateur Radio Club - http://www.w6ek.org

Redwood Empire DX Association - http://www.redxa.com

Calaveras Amateur Radio Society http://calaverasars.org/

Tuolumne County Amateur Radio Electronics Society (TCARES) https://tcares.net/

ARRL Pacific Division

Pacific Division Director
Anthony Marcin W7XM
w7xm@arrl.org

Pacific Division Vice Director
John Litz NZ6Q
john@litz.com

East Bay Section Manager
Mike Patterson N6JGA
n6jga@arrl.org

Nevada Section Manager
John Bigley N7UR
n7ur@arrl.org

Pacific Section Manager

Alan Maenchen, AD6E
AD6E@arrl.net

San Francisco Section Manager
Bill Hillendahl, KH6GJV
kh6gjv@arrl.org

Santa Clara Valley Section Manager
James Armstrong NV6W
nv6w@arrl.org

Sacramento Valley Section Manager
Dr. Carol Milazzo KP4MD
kp4md@arrl.org

San Joaquin Valley Section Manager
Steven Hendricks KK6JTB

kk6jtb@gmail.com

Director, Greg Glenn, NR6Q
nr6q@arrl.net

Editor… 

Webmaster and acting Editor, Norm Wilson, N6JV
n6jv@n6jv.com

The MLDXCC NEWSLETTER

Officers of the MLDXCC

President, Steve Allred, NC6R
sallred@volcano.net

Vice President, , Bob Hess, W1RH
w1rh@yahoo.com

Secretary, Lee Gravesen KM6VNZ
km6vnz@gmail.com

Treasurer, Sue Allred, K6SZQ
sueallred@volcano.net

Director, Rich Cutler, WC6H
wc6h@yahoo.com

Director, Steve Dyer, W1SRD
w1srd@arrl.net