

# *The Heterodyne*

*Newsletter of the West Valley Amateur Radio Association*

## **February Meeting**

**Maximum Permissible Exposure  
Limit Versus Near Field Radiation  
From a 2-Meter Mobile Antenna  
By Keith Snyder, KI6BDR**

**Wednesday February 10  
Meeting Starts at 7pm**

Meeting Location:  
American Red Cross,  
Silicon Valley Chapter  
2731 N. First Street at Plumeria Dr  
(southwest corner) in San Jose

Map at [www.wvara.org/meetings.html](http://www.wvara.org/meetings.html)

WVARA Repeaters (W6PIY)		
Band	Frequency	PL
6 Meters	52.580- MHz	151.4 Hz
2 Meters	147.39+ MHz	151.4 Hz
1.25 Meters	223.96- MHz	156.7 Hz
0.70 Meter	441.35+ MHz	88.5 Hz
0.23 Meter	1286.2- MHz	100 Hz

## **Club Net**

WVARA's club net is on the W6PIY repeaters each Tuesday at 8:30 pm. All repeaters are linked together during the net. The net script can be found at [www.wvara.org/net.html](http://www.wvara.org/net.html).

**Visitors Are Welcome!**

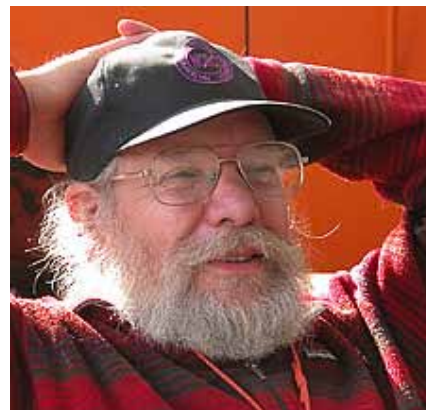
## **President's Letter**

### ***It's All About Having Fun***

I have always been amazed by the number of different ways people have fun in our hobby. We have a club member who fell in love with the idea of the Rockmite radio[1]. He learned CW, and last heard was measuring his successes in miles/watt.

I know another ham who is most interested in writing software for software defined radios. I once was one of those guys who wanted to build radios, but was scared silly of ever operating one.

Some people like to put up antennas and towers. Some build their own gear. I know people who have designed and built antennas, keys, antenna switch controllers and other gear for their shacks. A few go as far as designing and building their own transceivers. Some go on to found their own ham radio company.



Some people travel to get on the air. These trips range from simple SOTA activations, holiday operations from tropical resorts, and DXpeditions to places where the winds never get below 30 knots or so. The DXpedition to South Sandwich and South Georgia islands is continually dealing with blown down antennas and torn tents.

Then we have the DXers, the testers, the rag chewers, the repeater operators, and the emergency services people, all of whom probably make up the bulk of the ham radio community.

And I've probably left a bunch of people out. It's an incredibly diverse community.

A suggestion for everyone: To have more fun, try adding in a different branch of ham radio to your play ground. If microphones scare you, try checking into one of the nets. The WVARA net meets at 8:30PM local on Tuesday nights on the W6PIY repeater. Come up to field day and get a taste of contesting. Check out your local ARES/RACES group. Try building something. Kits are a wonderful way to start.

Me? I'm trying to learn CW. Actually using a key scares me. I'll try to branch out from DX chasing and search and pounce contesting using canned messages and do some CW rag chewing to improve my skills.

73 Bill AE6JV

[1] Available from <http://www.qrpme.com/?p=product&id=RM4>. This 1/2 watt radio operates on two frequencies on one band and fits in an Altoids tin.

## ***About the Meeting***

### **“Maximum Permissible Exposure Limit versus Near Field Radiation from a 2-Meter Mobile Antenna” by Keith Snyder, KI6BDR**

Every ham knows that a car is a Faraday cage that protects you from RF exposure, right? Wrong! Every ham knows that dipoles and monopoles have no end-fire radiation, so if you sit directly under the whip on your car's roof, you are in a null and therefore safe, right? Wrong!

Ever since the FCC published OET Bulletin 65 and Supplement B in 1997, all Amateur Radio operators have been required to do station evaluations to assure that RF exposure does not exceed maximum permissible exposure limits. But short of doing direct measurements, how safe are you inside your car when you operate on 2 meters through a roof top monopole?

Keith Snyder, KI6BDR, has done extensive computer calculations of electric field, magnetic field, and power density field inside the typical car. The answer may surprise as Keith shows how to avoid winning a Darwin Award for making cooked ham. This month's presentation will show the power of computers to safely harness your RF power.

Keith currently works at Northrop Grumman in San Jose and previously worked at Harris Broadcast, GTE, Ball Aerospace, Aydin Radar, and Space Systems Loral. Keith has a B.S. degree in Electrical Engineering from Ohio University. Keith works in computational electromagnetics doing antenna design, antenna pattern predictions on complex structures such as aircraft, and nearfield radiation



hazard predictions for military ground vehicles. He is active professionally in the IEEE Antennas and Propagation Society and is a licensed Amateur Radio operator who operates VHF. He has presented papers at the IEEE International Symposium on Antennas and Propagation, the Applied Computational Electromagnetics Society, and ARRL Pacificon's Antenna Seminar.

Meeting Location: Silicon Valley Chapter of the American Red Cross, 2731 N. First Street at Plumeria Drive (southwest corner) in San Jose. Most of us come in through the side entrance on the southwest side of the building — look for our red WVARA sign. And remember, visitors are welcome!

If you haven't been to the Red Cross, "talk-in" is usually available on the Association's repeaters. Best choice would be 2m/220.

Dinner: For those who are hungry, several of us will be eating dinner at 6pm, just prior to the meeting, at The Habbit at 2000 El Camino Real at the corner of Scott Blvd in Santa Clara — a ten minute drive from the Red Cross building.

Map of restaurant: <https://goo.gl/maps/NipZ7c1jhUL2>

Menu: <https://www.habitburger.com/charburger/?MenuVersion=D&region=bay-area&regionDisplay=Bay Area>

Hope to see you there!

Jim Peterson, K6EI

<b>WVARA Net Check-Ins (W6PIY)</b>				
<b>Tuesday's at 8:30 PM</b>				
<b>Call Sign</b>	<b>Name</b>	<b>01/19/16</b>	<b>01/26/16</b>	<b>02/02/16</b>
Total		15	10	11
AA6RB	Roy	X	X	
AB6XS	Kevin	X	X	
AE6JV	Bill	X		X
K6BRF	Bert		X	X
K6YOP	Yaron			X
K7RJV	Rex		X	X
KD6VOR	Marv	X		
KF6EMB	Svend	X	X	X
KI6SLX	Peri	X		
KJ6CQJ	Dean	X		
KJ6GMO	Sue	X		
KJ6ZZI	Michael	X		X
KK6EBL	Klouse	X		
KK6ONL	Lincoln			X
KK6VF	Kevin	NET	NET	NET
KK6WRP	James		X	
N9CU	Andy		X	
W6IA	Mark	X	X	X
W6IFN	Steve	X		
W9KKN	Bill	X		X
WB6KHP	Dave	X	X	X



## FARS/PAARA/WVARA Winter Banquet Photos

*Photos Courtesy of Bob WB2URF and Kristen K6WX*





## **VP8SGI - South Georgia Island**

The following QSO's were found in VP8SGI's online log:

AA6RB

AE6JV

K6EI

K6XM (all bands 160 thru 10 !)

KK6VF

W6FB

W6PK

Congratulations to all and my apologies if I missed anyone!



## **VHF Contest Photos**

*The VHF Contest photos will run in the March Heterodyne.*

### **Membership Renewal Reminder**

Don't forget to renew your WVARA membership. The fastest and easiest way to renew is with Paypal - go to <http://www.wvara.org/membership.html> and select a Pay Now button. After logging into Paypal, please open and fill in the box on the left titled "Name, Call Sign, Address, Phone, Email". Or bring a check or cash to the meeting. Checks can also be mailed to WVARA, P.O. Box 6544, San Jose, CA 95150-6544.

### **Wallpaper Alert!!!**

The mailman just dropped off a tube containing a really cool certificate. DXCC Certificate #61389, signed by Kay Craigie.

I did the entire application on LOTW, with K5P being the last station that put me over. The day after applying a QSL for UA2F in Kaliningrad came through (#101). ARRL no longer allows mixed submissions (LOTW + cards), so I had to wait until I had all the QSLs in LOTW to apply. Now I can package up about 25 QSL cards to get further credits...

Thanks a bunch to Phil for his encouragement, advice and suggestions. They were very helpful.

- Jack, W6FB

p.s. Yippee!!! Woohoo!!!

### **Local Repeater Information**

Our friends at the Santa Clara Valley Repeater Association who operate the WB6OQS repeater on 146.760 have been without their repeater for several weeks due to a combination of electrical problems, rodent damage and bad weather.

Over the weekend they temporarily replaced their VHF repeater with a "loaner" unit placed at their site in the Santa Cruz Mountains.

If you are so inclined, you could put this repeater into a vacant memory channel and have it available for times of emergency or for another place to go to chat with friends. Because of the location, the repeater does not cover certain areas in the west valley (parts of Los Gatos and Saratoga) but covers most of the rest of the metropolitan area.

The particulars are 146.760 -600 with 151.4 ctcss.

I wish them well as they deal with replacing electronic equipment.

Dave Schultheis  
WB6KHP San Jose  
Director, WVARA

## 2016 West Valley Amateur Radio Association Board

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The Heterodyne is published monthly by the West Valley Amateur Radio Association and sent to all club members via the web. Please obtain permission from the author to re-publish any article in this publication.

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