www.wvara.org September 2014

The Heterodyne

Newsletter of the West Valley Amateur Radio Association

September Meeting

Field Day Highlights and California QSO Party: Plans & Ideas by Jim Peterson, K6EI

Wednesday September 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

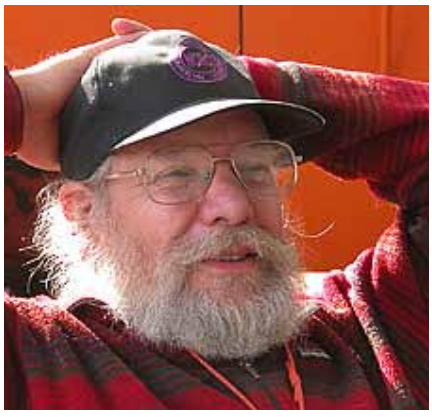
WVARA Repeaters (W6PIY)		
Band	**Frequency**	**PL**
6 Meters	52.580- MHz	151.4 Hz
2 Meters	147.39+ MHz	151.4 Hz
1.25 Meters	223.96- MHz	156.7 Hz
0.70 Meter	441.35+ MHz	88.5 Hz
0.23 Meter	1286.2- MHz	100 Hz

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 .

Visitors Are Welcome!

President's Letter



Something I Wish I Had Known When I Started Operating

The most important thing I wish I had known, was how use of a frequency is managed. Because, in general, we can't hear what others are doing while we are transmitting, we need to manage frequency access. If two people are transmitting on a single frequency at the same time, it can be very difficult to understand either of them. This situation is called "doubling", and generally requires each doubling party to repeat their message.

When there is only one user of a frequency -- for example for remote control of a model airplane -- all that is needed is to make sure the frequency is not being used by someone else. When there are only two users -- having a conversation on simplex or through a repeater -- it is almost as easy as when they are in the same room. When one is finished transmitting, the other starts and control of the frequency follows the natural course of the conversation.

With three or four people, frequently control can be passed in round-robin fashion, each person handing control to the next person. If an additional people want to jump in, they can just

give their call signs while control is being passed and the next person to transmit invites them to join.

Other times, there isn't much traffic on the frequency, so someone who has something to say just says it. Doubling isn't likely, and can be dealt with when it occurs. Some computer networking protocols work this way.

With more than three or four people, round-robin can become awkward. The solution is frequently to have one station act as "net control" and recognize stations who wish to speak. This is the technique used to manage most nets, including the WVARA Tuesday evening net. A station which wishes to speak gives their call sign and net control recognizes them, like raising hands in grade school. If you want to hear good net control operators at work, listen in on the 9 AM talk net -- http://9amtalk.net. You will hear good net control practices in a busy environment.

During a contest, when working DX, or when just wanting a rag chew, a station finds an unoccupied frequency and starts calling CQ. That station is said to "run" the frequency because it is managing access to that frequency. Stations who wish to work that station give their call signs in response to the CQ and are recognized by the running station. When they are finished the running station will either call CQ again or ask QRZ - "Who is calling me?" The station who answered the CQ station moves to another frequency for its next contact.

If many stations want to work the running station, this is called a "pileup". There are protocols and strategies for operating in a pileup. I'll describe them in a future letter.

73, Bill - AE6JV

About the Presentation
Field Day Highlights and California QSO Party: Plans & Ideas

Field Day and next month's CQP (California QSO Party) will be two of the hot topics at this week's WVARA meeting (7pm on Wednesday, September 10). Jim Peterson, K6EI, will review some of the highlights of our over-the-top 2014 Field Day operation including lots of photos. We will share some favorite stories of this June and will also spend a few minutes brainstorming about what worked this year and what areas could be improved at Field Day this year. Bring your "outside-the-box" ideas.

At this week's meeting we will also discuss plans and ideas for WVARA's involvement in next month's CQP (California QSO Party). Last year WVARA activated Kings County, and we had a real hoot in the process. This year's CQP is just a few weeks away: Oct 4-5, and we expect to have an even bigger blast!

Meeting Location: Silicon Valley Chapter of the American Red Cross, 2731 N. First Street at Plumeria Drive (southwest corner) in San Jose. Visitors are welcome, and of course there will be chocolate chip cookies.

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. And for those who are hungry, several of us will be eating dinner prior to the meeting. This month we'll be meeting for Chinese food at Ume (2595 North First Street, at the corner of W Trimble and First St.) at 6:00pm.

Club Web Page: www.wvara.org

Hope to see you there!
Jim Peterson, K6EI
Member of the WVARA Speaker Selection Committee

The WVARA 2014 Field Day Team on Mora Hill

Kevin KK6VF's Antenna Progress

"It's getting a bit closer ... there is, of course, a matching hole to go along with this bit of hardware ... sort of puts the size of the base in perspective"

WVARA Folks Get Active in July's Flight of the BumbleBee Event

by Jim Peterson, K6EI, Greg Olsen, K6XM, Bob Yee, W6VVQ, Nick Ulman, KZ2V

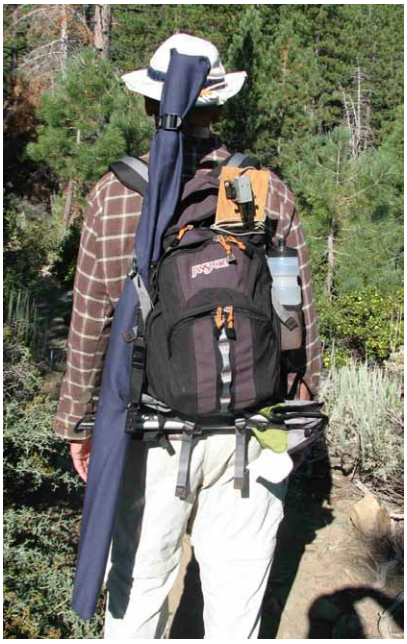
If you had fun at Field Day and enjoy both QRP and slow- or moderate-speed CW, then the Flight of the BumbleBees (FOBB) is another great radio event worth considering.

Each July, hams participate in FOBB as a QRP home-based station or as a portable (i.e. Bumblebee). Participants who operate portable from field locations are designated as Bumblebees. They need to get to their operating site principally under their own power by walking, biking, boating, and so on. The distance traveled to the site is at the Bumblebee's discretion. This year's event was from 10am to 2pm PDT on Sunday, July 26, and three of us participated from locations in Northern California (Greg near Lake Tahoe, and Nick / Jim from a Windy Ridge hilltop near Skyline Drive). Rick Ibarra usually also participates in FOBB, but this year was attending a wedding in Portland. What follows are summaries of Greg/Bob's and Nick/Jim's experiences:

Greg Olsen, K6XM, and Bob Yee, W6VVQ
Portable QTH: near Lake Tahoe

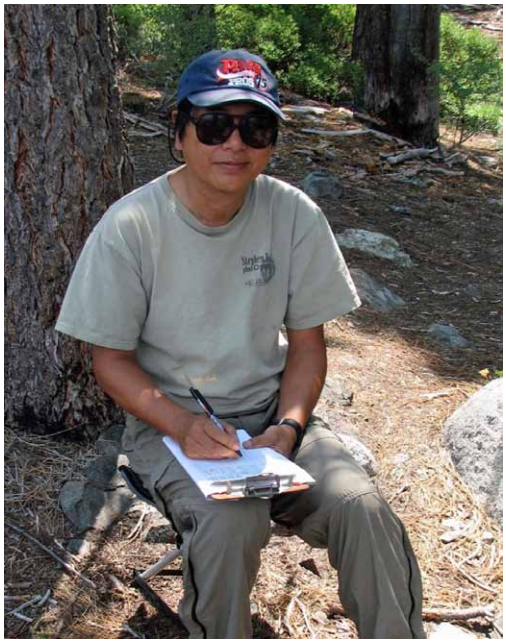
Greg and Bob, W6VVQ, had a great time using Greg's Elecraft KX3. (Greg did the operating, and Bob helped with the logging) The view was great – Fallen Leaf Lake and Lake Tahoe. The QTH was ideal – a steep drop-off due east and 180 degree clear view.

This year Greg did a lot of search and pounce. He also did a lot of CQing but had problems getting stepped on by guys in the Midwest. It was really hard finding a clear spot. Greg/Bob ended up with 46 QSOs and 30 BumbleBee contacts -- 4 QSOs on 15 meters, and all of the rest on 20. 15 was open, but there was almost no activity there, and none at all on 40. It seemed like conditions weren't as good as in the past. Florida was the only state that they worked on the East Coast. Last year they worked lots – ME, VT, NH, MA, RI, NY, PA, VA, NC, GA, FL. And last year they had 84 QSOs. He heard a station in Liberia on 15 running a pileup, but didn't waste time trying to work him.



Greg Olsen packing in his antenna and portable station -- including a stool to sit on

Greg on the air with his Elecraft KX3



Bob Yee, W6VVQ, busy logging

Their inverted vee is one that Greg has used for several years. It is also what he uses for SOTA (Summits on the Air). It is fed with ladder line into a balun and can be loaded on 10 thru 40 with the KX3 internal tuner.

Propagation was the difference between this year and last. In past years Greg/Bob were hearing and working a lot of eastern US stations. That accounted for a big difference in the total number of QSOs.

Greg and Bob’s Tahoe Antenna Farm

Nick Ulman, KZ2V, and Jim Peterson, K6EI
Portable QTH: Windy Ridge Open Space Preserve above Portola Valley (near Skyline Drive)

Total contacts: 49
Total bumblebees: 27
Claimed score: 3969

QSOs by band:
10M 0
15M 1
20M 48
40M 0
(did not operate on 10 or 40 meters)

16 states contacted:
NM, WA, AZ, OR, MO, CA, CO, WY, IL, FL, MN, TX, UT, IA, WI, OK

DX:
JA

Nick and Jim hiked about 1/4 mile up to the summit of Windy Hill which is approximately 35 miles southeast of San Francisco. The 360 degree view included the San Francisco Bay and the Pacific Ocean. It was sunny and quite hot, but the hill lived up to its name and cool breezes kept them comfortable most of the time. Actual bees frequented our operating position, but did not sting. Several hikers stopped and asked what they were doing.

Nick/Jim hadn't yet learned how to pack light so it took a few trips back and forth from the parking lot to move all of the gear. Their station was an Elecraft K2 with an American Morse Equipment DCP miniature iambic paddle. They had two antennas and a coax switch so they could compare signals on each antenna. They used a 12 Ah SLAB for power, but Jim gamely carried another, much larger and heavier battery to the summit and back as backup. It turned out the smaller (but still a brick!) battery was sufficient. They used in-ear headphones; Jim also used over-the-ear noise cancelling headphones to reduce wind noise.

They used two antennas:
Antenna #1: End-fed half-wave 20M dipole oriented vertically and supported by a 31 foot Jackite pole. See, e.g., http://aa5tb.com/efha.html for EFHW antenna info.

Antenna #2: 20M inverted-V with feed point about 30 feet high supported by a K6EI custom fiberglass and aluminum pole. This antenna was fed with ladder line with a large MFJ tuner. They used the tuner to operate on 15M.

They also had two camp chairs, a portable operating table, a three-pound hammer for setting guy rope stakes, an MFJ antenna analyzer, and assorted other heavy things. Logging was pen and paper with a separate dupe sheet. They had considered computer logging but decided against it because they would not have been able to read the screen in the bright sun.

Nick/Jim operated almost exclusively on 20M. On 15M they worked only N4BP in FL. Signals were mostly weak, some at "ESP" level. They were disappointed to work no one east of IL other than N4BP, but were glad to have a QSO with Greg/Bob near Lake Tahoe. Signals were sometimes as much as 1-3 S-units louder on the inverted-V than on the EFHW vertical dipole. Sometimes the two antennas were about equal, but I don't recall the vertical ever being noticeably better than the inverted-V.

Nick reports that the reverse beacon network showed that their CQ's were usually around 5-10 dB

above the noise at best; perhaps S1 to S3 at another station's receiver. A comparison of KZ2V vs K6XM reverse beacon network via W5MEL showed Greg/Bob's and Nick/Jim's signals as having about the same signal strength.

Overall it was a fun experience!

The view from Windy Ridge (Nick, KZ2V, on the air)

The Windy Ridge Antenna Farm

Ops K6EI (L) and KZ2V (R) too hot to smile. The one disadvantage of the Windy Hill site was the lack of shade.

A real bee sighted during the Flight of the Bumble Bees

Items For Sale By George, N6NKT:

Hy-Gain TH-7DX, 7 Element, Tri-Band, 10/15/20M $300

Manual available at http://www.hy-gain.com/support.php?productid=TH-7DX
Down from Palo Alto ARC office, disassembled and located in Cupertino

KLM KT-34, 4 Element, Tri-Band, 10/15/20M $200

Booton 92EA RF Voltmeter $200

Contact George Williams, N6NKT, n6nkt at yahoo dot com

Send Buy and Sell information to: het_editor at wvara dot org

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See You At The Meeting!