

The Heterodyne

Newsletter of the West Valley Amateur Radio Association

September Meeting

**The Joy of (Antenna) Matching
by Steve Stearns, K6OIK**

**Wednesday September 9
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

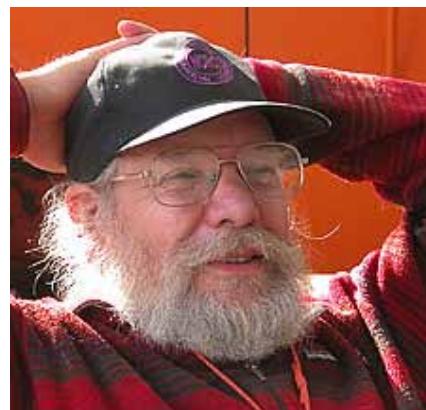
A Network Checkin Comedy of Errors

While I was in New Hampshire, I attempted to check into the Elecraft SSB net. This net is a fairly informal net used mainly by Elecraft radio users, although all hams are welcome to checkin. The checkin information is name, state, radio being used, and, if it is an Elecraft radio, the serial number, so checking into this net is good practice for emergency communications under less than ideal conditions.

Well, that Sunday, band conditions on 20 meters weren't good. John, N6JW in Riverside California, who has a good station and usually comes in gangbusters, was about 80% readable -- a weak 54. Ian, KM4IK in Atlanta Georgia, the net control station, was the strongest station I could hear at 57.

I should note that the Peterborough QTH is near the top of a hill and quite RF quiet. I was running an Elecraft KX3 at 12 watts into a 2 element wire beam at 23 feet pointed WSW. The band was quiet and hearing was quite good.

While I could hear Ian, he could not hear my QRP signal. Greg, KC8HXO, picked it up quite



well in western Michigan, and correctly copied, "Bill, New Hampshire, KX3 6454". but Ian had problems hearing Greg. Greg managed to relay everything but the serial number when conditions got even worse and there was no path between Greg (or me) and Ian.

Well, a partial checkin isn't too bad, and we had had practice in relaying messages between two stations which could not directly communicate, which is always good emergency communication practice.

Then, the comedy of errors started. Some, unknown to me, station told Ian that I usually checkin from California with K3 serial 6296, so Ian completed the checkin information based on that erroneous data. Not only was the basic data wrong for that day, the serial number for my K3 in California was also wrong.

Greg tried to get a correction in, since he had the correct data, but band conditions weren't up to making that work. So the initial net report had bad data, later corrected via the Internet, but that isn't ham radio.

What can we learn from this incident? We can laugh at the mix up if we just consider it to be a bunch of hams getting together on a Sunday. If we consider it as a practice for emergency services, then the issues are more serious.

In emergencies, we need to have accurate transmission of messages, or lacking that a clear idea of what errors may exist in the data. If Ian logged my checkin as, "Bill, NH, KX3 ????". Usually checks in from CA, K3 6296" the only error would be the K3 serial number 6296 instead of 6299 -- bad but not awful. An emergency manager might be able to make some use of that data, but would know that it was not completely reliable.

Message handling by voice or CW is basic to emergency services. Even if an ARES/RACES team plans on using a digital system with error checking, that system may fail and force the team back to the basics. My conclusion from this incident is that ARES/RACES teams should practice the basics and that HF nets are good practice for bad conditions, much better than local FM repeaters.

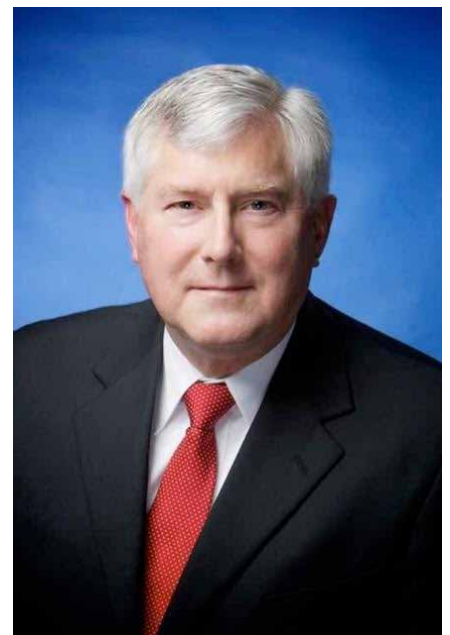
73, Bill - AE6JV

About the Meeting

The next WVARA meeting is at 7pm on Wednesday, September 9. The topic of this month's presentation is ***The Joy of (Antenna) Matching*** by Steve Stearns, K6OIK: Oh, the joy of being a match maker! We are going to match couples. Maybe even triples! Is that legal? But no singles. That's no fun. Steve will focus on multi-band matching - all nicely explained on a Smith chart with no math. Woo hoo!

Steve Stearns, K6OIK, started in ham radio while in high school at the height of the Heathkit era. He holds an FCC Amateur Extra and a commercial General Radio Operator license with Radar endorsement. He previously held Novice, Technician, and 1st Class Radiotelephone licenses.

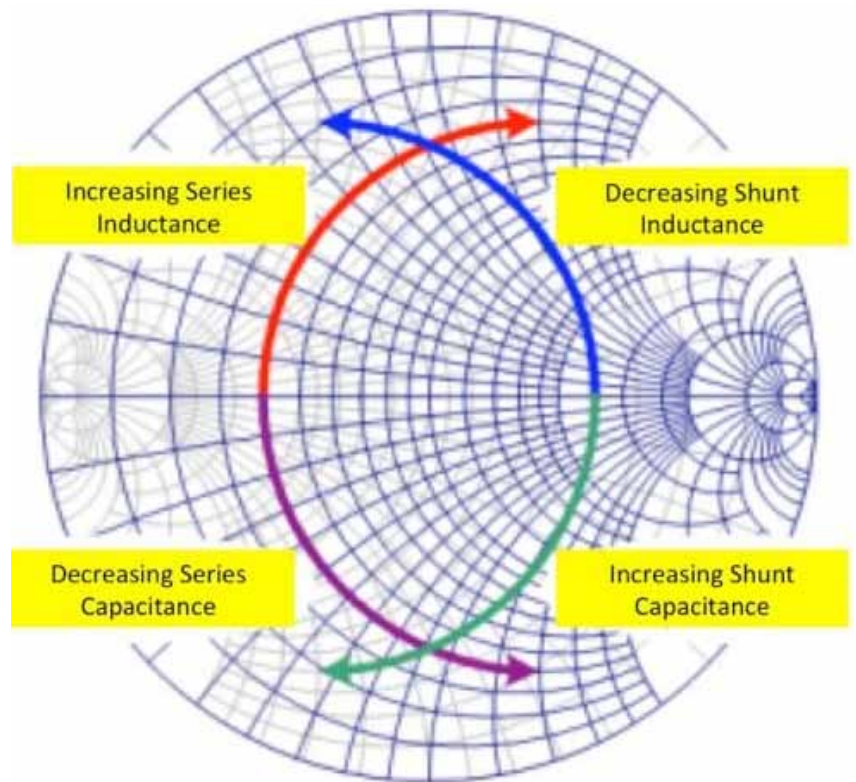
He studied electrical engineering at California State University Fullerton, the University of Southern California, and Stanford, specializing



in electromagnetics, communication, engineering and signal processing.

Steve was Chief Technologist for TRW Firestorm Wireless Communication Products (now part of Northrop Grumman Electromagnetic Systems Laboratory), where he is leading the development of digital array signal processing technology for smart antennas, commercial wireless, and government communication systems.

Steve is also serving as assistant director of ARRL Pacific Division, and vice-president of the Foothills Amateur Radio Society. He holds nine U.S. patents and has over 50 professional publications. Steve has received numerous awards for professional and community volunteer activities. He is active on HF phone: Golden Bear Amateur Radio Net, 3,975 kHz LSB at 1900 Pacific time daily.



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!

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 at the Burger King at 2532 Channing Avenue, just off Seaboard Avenue and near the corner of Trimble Road and De La Cruz Boulevard.

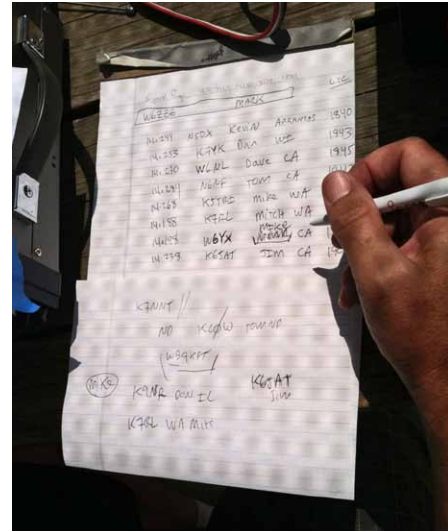
Map of restaurant: <http://mapq.st/3-l0rpFmro>

Club Web Page: www.wvara.org

Hope to see you there!

Jim Peterson, K6EI

August BBQ Photos by Jim K6EI and Phil W6PK





WVARA Net Check-Ins (W6PIY)				
Every Tuesday at 8:30 PM				
Call Sign	Name	08/18/15	08/25/15	09/01/15
AA6RB	Roy	X		
AB6XS	Kevin	X	X	X
K6BRF	Bert			X
K6SCC	Brian	X		
KA6AMB	Mark	X		X
KD6VOR	Marv	X	X	
KF6EMB	Svend	X		
KJ6ZZI	Michael		X	X
KK6VF	Kevin	NET		NET
KK6VSI	Rex	X		X
KX6B	Dick			X
W6ESL	Tom	X	X	X
W6HOC	Howard	X	X	X
W6MNL	Steve		X	
W6PK	Phil			X
WA6QYS	Lou			X
WB6KHP	Dave	X	NET	X
TOTAL		11	7	12

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Hope To See You At The Meeting!