

# *The Heterodyne*

*Newsletter of the West Valley Amateur Radio Association*

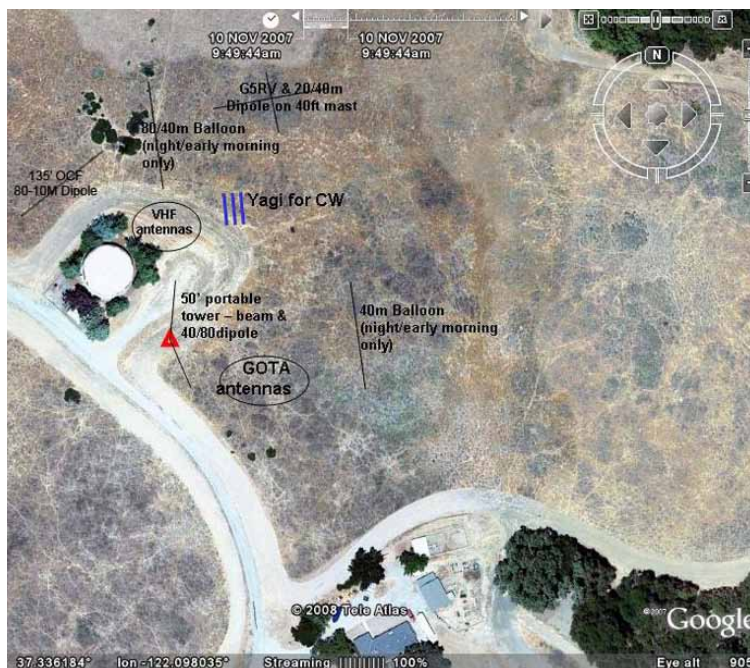
## **NEXT MONTHLY MEETING Wednesday January 19**

Club Meetings Begin at 7pm at San Jose Red Cross  
2731 N First St, San Jose (SW corner at Plumeria Dr)

### **January 19 Meeting “Field Day Brainstorming”**

Would you believe Field Day is only 5 months away?!? Sounds like the perfect excuse to start brainstorming on what this year's WVARA Field Day event should look like. The January meeting will be focused on discussing what worked in 2010 and ways we can improve the Field Day experience in 2011. Be thinking about what you like the most about our Field Day operation and what you think could be improved to make it more fun, more inviting to visitors, and an even better event - Jim, K6EI.

P.S. Gary Gordon will take a couple minutes to share his ideas on 40m diversity reception using an upgraded version of his rotatable dipole consisting of full-size crossed dipoles.



**Field Day Last Year (Mora Hill)**



**Brainstorm Session Before Last Year's Field Day (Photos By Bruce Wilson, KA6FBE)**

# CR2X, Radio Arcala's Cluster Station in the Azores

## WPX SSB 2010, CQ8X, from San Miguel Island

By Dick Crouch, N6RC



Even though the Azores is not that high on the DX Wanted List, you can imagine how excited I was to be invited by Martti, OH2BH and Juha, OH8NC, to join the WPX-SSB Contest team, CQ8X, this past March on San Miguel Island in the Azores Island chain. Never would I have imagined, however, that this team would proceed to break the European record last set in 1982! The contest team this year was multi-national with hams from Finland, the Azores, the United States, and Germany. I hope you enjoy the following.

73's, Dick, N6RC



Here's the CQ8X Team: Standing from the left, OH1TV, Pekka; Richard, N6RC; Veijo, OH6KN; Jose, CU2CE, Francisco, CU2DX; Martti, OH2BH; Juha, OH8NC; and seated, Carsten, DJ6LAU; Toni, OH2UA; and, Touko, OH6RM

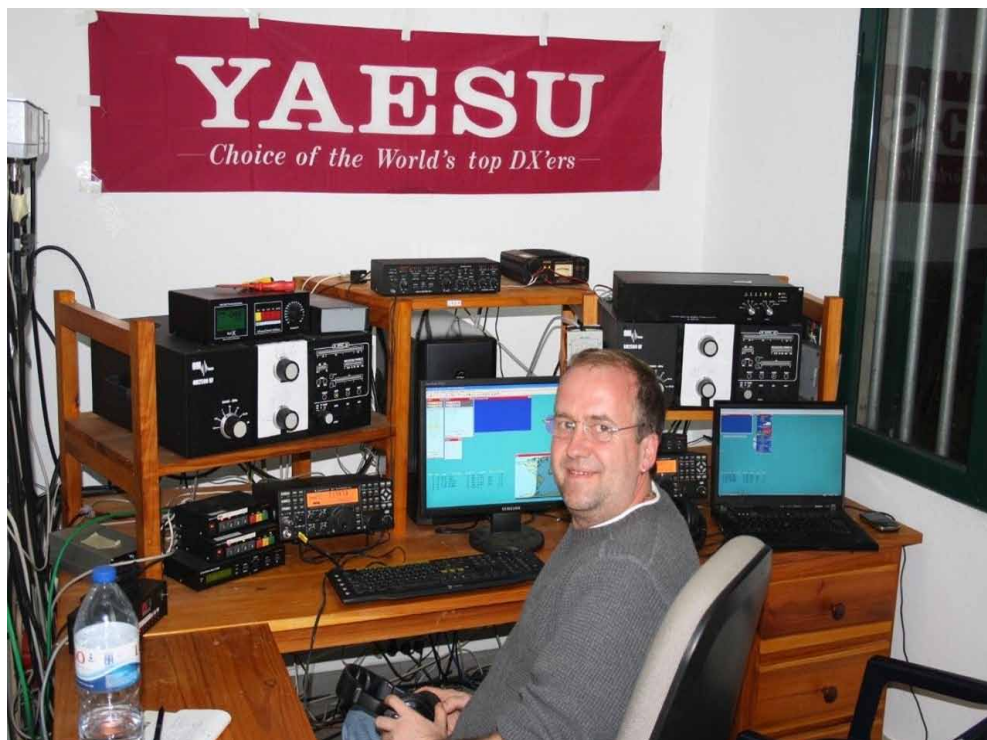




**Location of the Azores Relative to Europe & Africa**



**San Miguel Island**



**DL6LAU at the CR2X/CQ8X Operating Position**

### CR2X Station Configuration



WinTest Contest Software



Rated to 125 mph

- ✓ Radios: 2 \* FT10000MP  
2 \* K3's



- ✓ Amplifier: 2 \* OM2500HF



- ✓ MicroHAM StationMaster



- ✓ MicroHAM MK2R



- ✓ Optimized for SO2R operation , but used M/S for CQ8X WPX

- ✓ Both radios can have every possible antenna combination

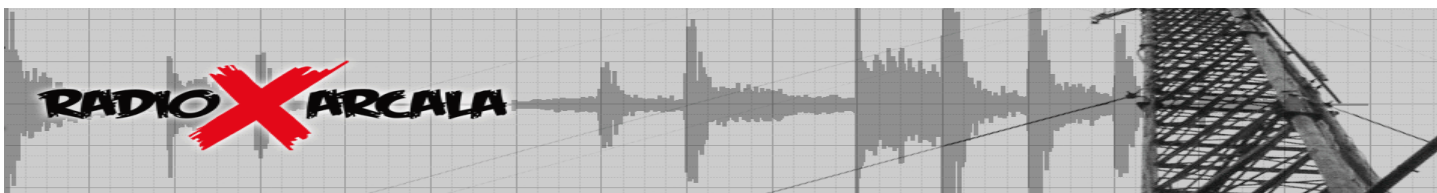
- ✓ Pull one antenna out of stack for 2nd radio

- ✓ SO2R with tribanders is possible with microHAM Stack Switch

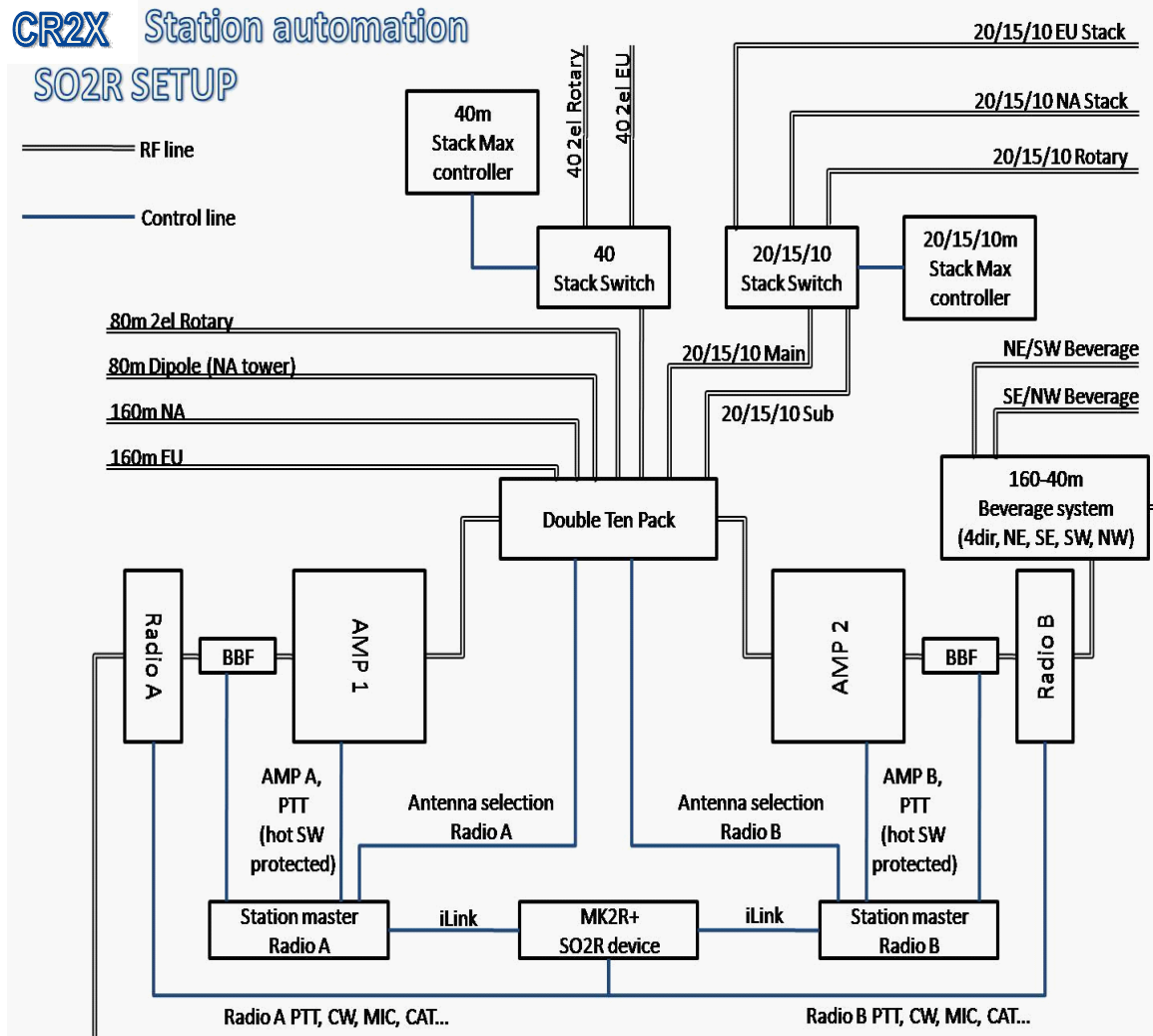


- ✓ MicroHAM 10-pack band based antenna switching





## CR2X Station automation SO2R SETUP



## Understanding the block diagram of the CR2X station

- MK2R+ takes care of all SO2R switching (audio, ptt, cw, mic, etc.)
- MK2R is connected to PC for fully automatic SO2R operation
- In SO2R everything (also audio switching) is controlled from keyboard via WinTest logging software
- Station Masters follow radio frequencies & switch antennas, band pass filters, etc. according to radio frequency
- Double ten packs switch all antennas based on band to radio A and to radio B
- In those bands where we have more than one antenna & we use power splitting to multiple directions, Stack Switches are used for selecting any possible combination of antennas



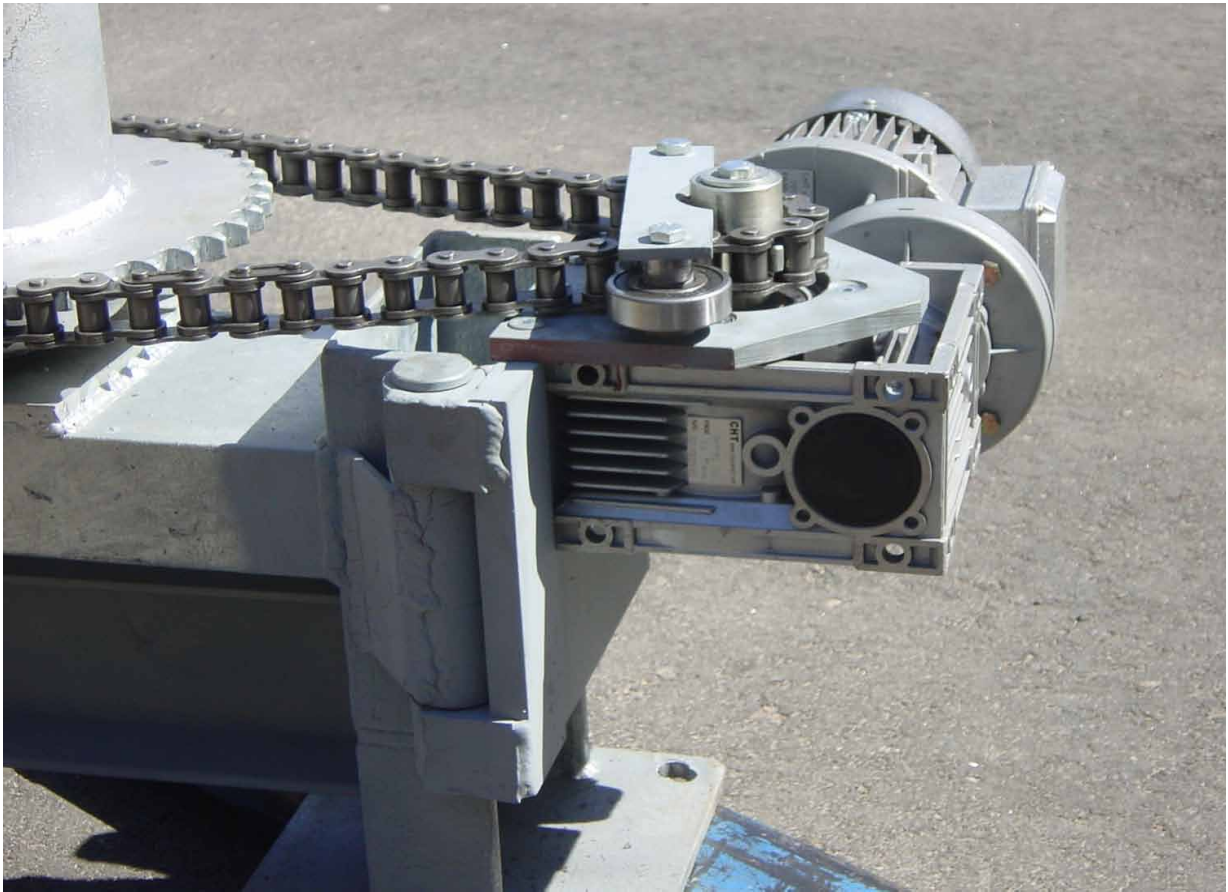
**Antennas Looking North**



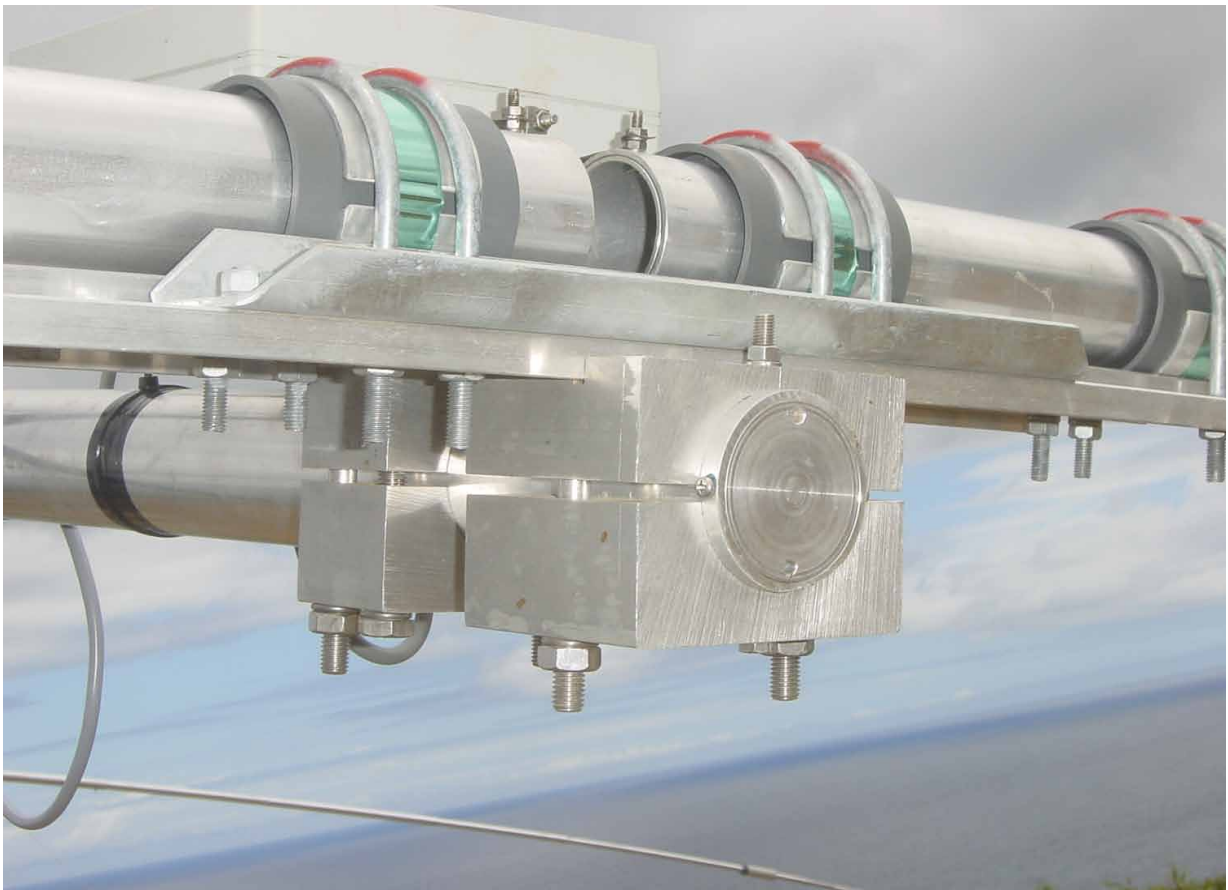
**Fixed Position Beaming Europe**



**Tower Rotator**



**Boom to Element Hardware**



## 2010 SSB WPX Operating Results

CQWW WPX Contest, SSB 160: 20  
 Call: CQ8X 80: 335  
 Class: M/S HP 40: 1048  
 QTH: Azores 20: 1798  
 Operating Time (hrs): 48 15: 2932

**Total: 6,177 Prefixes = 1,375 Score = 22,258,500**

## World Wide Scores – WPX 2010 SSB

Call	QSOs	Prfxs	hr	Score	Club
Non-USA M/S HP					
5D5A(@CN3A)	6500	1561	48	38,800,000	RR DX
P40V(@P49V)	5700	1194	48	25,151,610	NCCC
CQ8X(@CR2X)	6177	1375	48	22,258,500	
UP0L(@UN9LW)	4878	1224	48	21,620,736	Ural Contest Group
RT4F(@RK4FWX)	5680	1422	48	18,955,260	
PQ5B(@PP5CFS)	3873	12494	48	14,780,402	Araucaria DX
SO9Q(@SP9YDX)	3510	1298		12,552,958	SP DX Club
RT3F(@RK3DZB)	3921	1266	48	10,541,982	
IQ1RY	3185	1133	48	9,834,440	RR DX
VC6R(@VE6SV)	2946	1012	45	8,594,916	
LN9Z(@LA9Z)	3194	1148	48	8,565,228	LA Contest Club
ED1R(@EC1KR)	3137	1074	48	8,319,204	Radio Club Henares
EE2W(@EB2BXL)	2825	1058	47	7,785,822	
EM7L(@UR4LWC)	2940	1050	48	6,773,550	Ukrainian Contest Cl
LS1D	2350	917	48	6,611,570	LU Contest Group
9A3B	2554	985	48	5,713,000	Croatian CC
EJ6DX	2683	893		5,120,462	
DK0WL(@DJ6ZM/DL1	2057	912	35	5,100,816	BCC
DP4W	1779	844		3,964,268	BCC
OP4K	1770	858	46:48	3,706,560	Antwerp Contest Club
VX6AO	2162	726	20	3,653,958	
E20AS	1910	790	48	3,500,490	various
L73D	1170	634		2,064,938	LU Contest Group
F6FYD	1150	687	44h14	1,904,364	

My immediate reaction was “wow, we got killed by 5D5A and edged out by P40V.” But, further discussions revealed that due to positioning on the earth’s surface (especially closer to the equator), and proximity to North and South America, P40V has a significant advantage over European locations. Because of this P40V is competing in a different ‘division.’ This is no different than the use of handicaps in sports to create separate, competitive divisions. With equal operating ability, identical equipment, and antennas P40V will always beat the European winner. 5D5A has an even greater advantage by being in the middle of Europe and Africa, close to Asia, and with equal access to North and South America with only water in between. So, the above scores are from the European Division and CR2X now holds the honor of setting the all time record for WQPX SSB. Isn’t it amazing that this was accomplished at the bottom of the sunspot cycle!

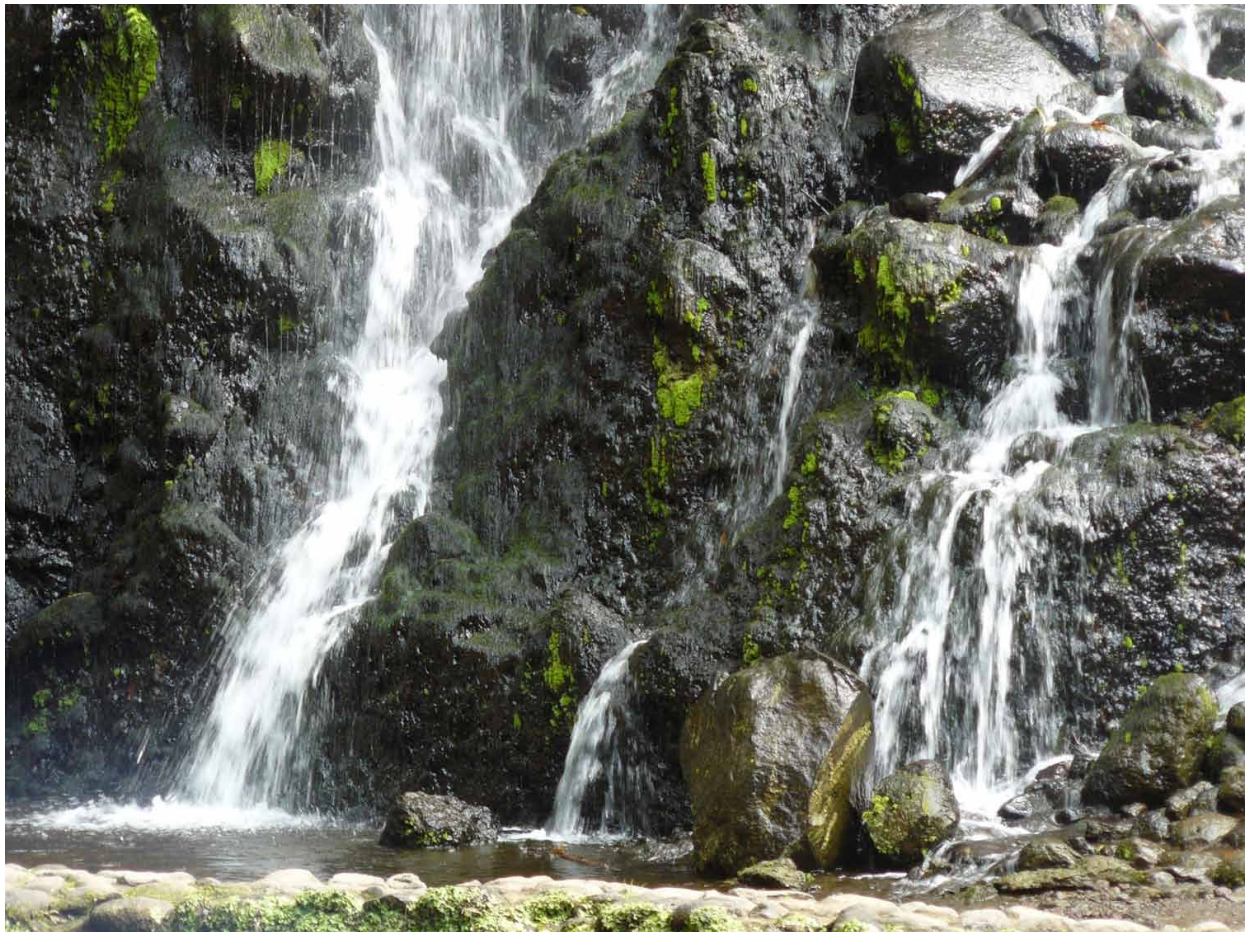


## Natural Beauty of the Azores

No presentation on the Azores would be complete without photos of its natural beauty!







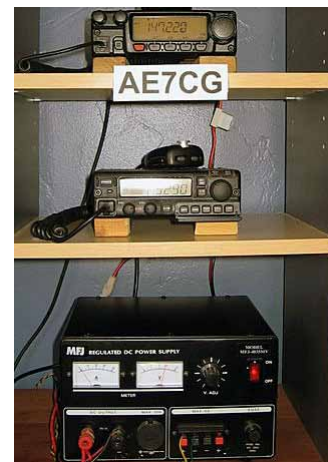


**Village of Furnas – in the Volcano (now you know how this village got its name)!**



**Village Inferno!**

## Loren Singh, AE7CG's QTH in Prescott Valley, Arizona



Loren, AE7CG (was AD6YU, our 2008-2009 Heterodyne editor) would like to convey New Year's greetings to all WVARA members. The photos show his QTH and rigs in Prescott, Arizona after the Dec 30 snow storm. Loren worked WVARA on 40m CW during 2010 Field Day from W7YRC and will listen for us again this year. He is using a WB6IQN DBJ-1 J-pole on 2M, and a low dipole on 20M. The only HF rig is an MFJ Cub on 20M running 2 watts QRP. On 2M, he uses a Yaesu FT-2500M and FT-2800M for local repeater QSOs. Loren usually listens for CW near 14.060 MHz +/-, so get on the air and work him! And of course, if anyone operates QRO with a tower and beam pointed towards Arizona, that always helps!

### 2010 West Valley Amateur Radio Association Officers

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Vice President: Scott Emery, AD6RY  
Secretary: Jeannett Pispisa, KG6SVJ  
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Jim Peterson, K6EI  
Brian Goldberg, KG6BKI  
Kevin Smith, KK6VF  
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Repeater Trustee: Chuck Kamas, AD6CL  
Webmaster: Larry Goodwin, KG6ENF  
Club URL: <http://www.wvara.org>

#### Club address:

West Valley Amateur Radio Association  
P.O. Box 6544  
San Jose, CA 95150-6544

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**See you at the meeting on January 19!**

### 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 <http://www.wvara.org/net.html>.

#### WVARA Repeater (W6PIY)

Band	Frequency	PL	Status
6 Meters	52.580- MHz	151.4 Hz	Operating
2 Meters	147.39+ MHz	151.4 Hz	Operating
1.25 Meters	223.96- MHz	156.7 Hz	Operating
0.70 Meter	441.35+ MHz	88.5 Hz	Operating
0.23 Meter	1286.2- MHz	100 Hz	Operating

### 220 Repeater - Back and Working

With many thanks to Mike, K6QFO, Kevin, KK6VF (who helped despite being injured), John, NU6P, Kevin, AB6XS and Dave, WB6KHP, the 220 repeater is back and working. Thank you for all of your help. In addition to the 220 we were able to set the level on 1.2 and the courtesy tone on 220.

Everything should be back up and working. Let me know if there are any issues.

73's. de AD6CL  
January 8, 2011