

# *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)

---

### **How's the Sun?**

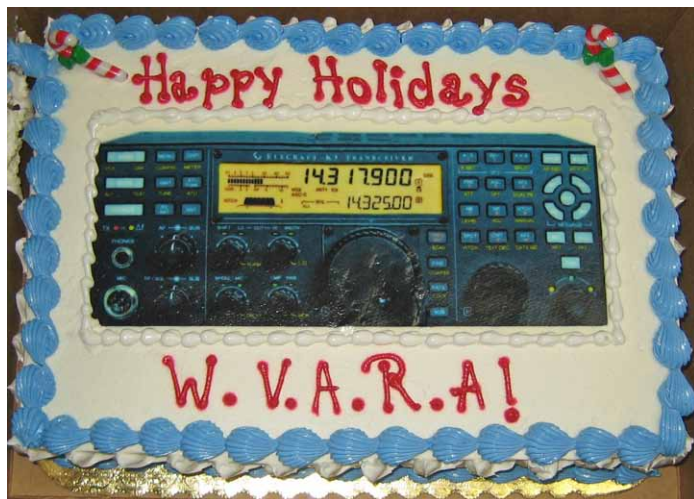
From ARLP050 Propagation de K7RA on December 17, 2010:

Average daily sunspot numbers for this week declined over seven points to 27.6 from the previous week, December 2-8. Solar flux was about the same as last week, the average up less than a point.

Predicted planetary A index for the next ten days, December 17-26 is 5, 8, 8, 5, 5, 8, 5, 5, 7 and 5. Solar flux for the same days is predicted at 82, 80, 80, 78, 78, 78, 78, 78, 88 and 88. Flux values are expected to rise to 90 by December 29 through January 1.

XA week ago two sunspot groups were visible, 1131 and 1133. The last day 1131 could be seen was December 14, after which it rotated out of view. It first appeared on December 2, and was a big sunspot group. Comparable sized groups were 1108 on September 6-28, 1109 on September 21 to October 4, and 1117 on October 19 through November 1. All other recent groups have been much smaller.

Sunspot group 1133 is rotating out of view, visible for 13 days after arrival on December 4. The sun would be spotless, but a new sunspot group 1135 emerged on Thursday, December 16, when the daily sunspot number rose from 11 (the minimum non-zero value, on Wednesday) to 23.



### **ARRL 160 Contest Update Jim Peterson, K6EI, Dec 5**

Had a blast in the contest this weekend. Band conditions were great. With the K index at 0 and the A index at 1, D layer absorption was really low and the East Coast came in solid both nights.

I was operating QRP/portable the two nights with a borrowed Elecraft K3 from a quiet location in the Fremont hills using a temporarily-installed 55ft tall inverted L with 50 radials -- managed to work 370 stations and 72 multipliers (including 7 DX multipliers and plenty of East Coast stations) with my mighty 5 watts.

*(continues)*

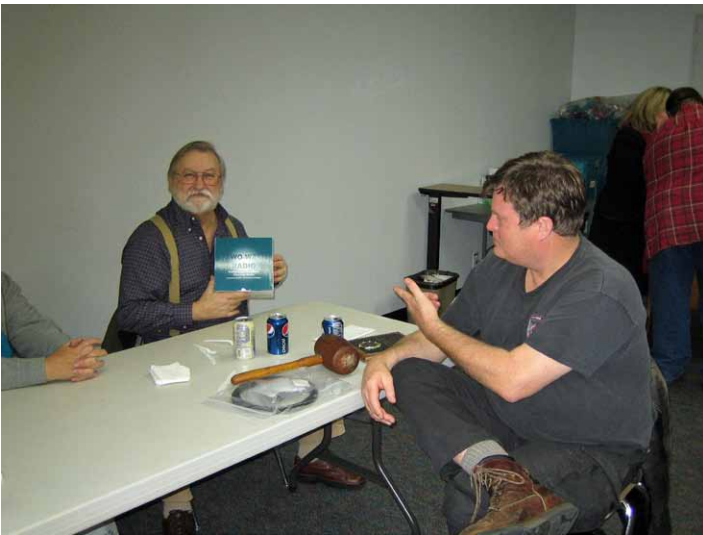
## Rotating Image of the Sun

At <http://stereo.gsfc.nasa.gov> NASA has a rotating image of the sun, showing a spherical map of the Sun as it currently appears, formed from a combination of the latest STEREO Ahead and Behind beacon images, along with an SDO/AIA image in between.

## ARRL 160 Contest Update, continued:

High points were 1) working ZL8X (Kermadec Islands) at 6am Saturday morning, 2) holding a freq between 1:30-2:30am Sunday with a steady string of East Coast stations responding to my CQ, and 3) working Japan Sunday at 4am.

## Photos From Holiday Party



**“King for a Day” at W7RN**  
**(A 2010 Sweepstakes SSB Adventure)**  
**By Nick Ulman, KZ2V**

Everything was planned nicely: I would operate SS phone as part of the W6YX school entry with N7MH. I was looking forward to an entire weekend available for radiosport, an unusually long opening on my schedule. Mike and I were going to set up a two-op, two-radio (but only one transmitting at a time) mental octopus system.

Then, Friday afternoon I happened to glance through the NCCC reflector digest and noticed a plea for an operator to go to W7RN. Hmmmm...

Now understand that I am a ham radio peasant with only a single inverted-V so low that I can touch it if I jump. I enjoy a few hours of contesting now and then, but I’ve never made what is considered a serious effort by NCCC standards. I’ve never been in the slightest danger of winning anything except in absurdly narrow categories like “SOSB QRP Assisted SCV Section.” From time to time I “help” the multi-op efforts at W6YX by slowing down the rate and miscopying crucial multiplier call signs.

When one of the kings of ham radio contesting opens up his castle, it is an opportunity a peasant cannot pass up. I sent an email to N6WM: Has anyone filled the spot at W7RN yet? Chris quickly emailed back and told me to call K5RC right away. I cleared the new plan with the XYL (“I’ll be back on Sunday night”) and made sure N7MH could do without me (as if there was any doubt). Tom, K5RC, said, “You better leave soon to beat the storm that’s coming.”

I rushed back to my house, grabbed tire chains, a winter jacket, one set of extra underwear and literally nothing else. I was on the road from Mountain View just after 4 pm. It took an hour in traffic just to get to Livermore. I talked to the XYL about the weather. She said, “Let’s get four wheel drive on our next car”. I called Tom. He said that it was only raining on I-80, so keep going. I did and had smooth sailing, although wet, to Auburn.

Perhaps 15 miles east of Auburn it started to snow. No accumulation, though, and temperature still above freezing. Then suddenly traffic slowed to a crawl: chain control! Maximum speed with chains is 30-40 mph and they make a terrible racket: zum-zum-zum-zum-zum-zum!

Soon it started to snow harder and stick. The temperature dropped to about 28-30 F. Every so often one of my fellow lunatics on the freeway would spin out and slow everyone else down. There were at least three times when all progress stopped for half an hour or more. Tom helped my spirits by calling every hour, but my progress reports were depressing: “Blue Canyon”, “No, not at Donner Summit yet”, “Moving about 5 miles per hour”, etc. Crawling along through the storm was fun until about midnight; after that it was a real chore. I had to be very careful slogging along at about 18 - 20 mph with a concrete wall on the left and “Kenworth” or “Peterbilt” on the right.

The miles crawled by. It got later and later. Eventually I descended into Reno and dumped the chains. I-395, a four or five lane freeway, was all mine as I neared Virginia City. Tom’s driveway is steep (he lives at the top of a mountain, of course) and I couldn’t face chaining up again to climb it, so Tom graciously met me at the bottom at 4 am in K7AFO’s 4WD truck, 12 hours after my journey had begun. I went to sleep soon after.

I got up around 10:30 or 11:00 and pulled up the window shade. Whoowee! There was a tremendous tower reaching heavenward a la “Jack and the Beanstalk” with massive Yagis sprouting from the trunk. I pulled up

the shade on the other window: Another tower bigger than the first! I went downstairs to meet Tom and eat breakfast.

There was not too much time for chit-chat as the contest was fast approaching. Tom took me over to the shack to get oriented. Whoowee! Fellow peasants I tell you a King does not have merely one or two amplifiers, he has a *wall* of amplifiers! (There is one for each band.) A dedicated touch screen controls the vast antenna farm. You want a stack of 40-meter Yagis pointing at W4? Just touch the screen! How about many, many elements on 20-meters pointed directly at VE8EV? Just touch the screen! The radio signals originate from one of the two all-K3 SO2R stations. (That's four K3's if you're keeping score at home.)

We quickly recorded some messages ("CQ Sweepstakes, W7 Radio Nevada!") and mumbled something about "strategy" – high bands when the sun is up, low bands when it goes down, or something like that. I said my contest goal was to get back to Mountain View safely in less time than the outbound trip. I figured I already had 12 hours of BIC; any radio contacts were a bonus.

The contest began and I started out on 15 meters. (I know that there is another, higher band called "10 meters", but I haven't heard of anyone actually using it, so I never tuned the radios there.) The first thing you notice when operating from a big station is that when you call CQ, people answer! Sometimes there are lots of them and you can make two contacts or even three in a single minute! That's fun!

During lulls in the rate, I cleared out all the unworked stations in the band map with 20 or 30 minutes of search and pounce. You can do as many as 50 per hour that way if the band map is sprinkled with new stations. Sometimes when a run slowed down a little, I would visit the tree outside the shack for relief. (It's a good idea to stay hydrated at 6,500 feet.) I would come back from a break and CQ on the same frequency I left a few minutes before, and pretty often someone would call back immediately and the run would continue as if I never left.

Every now and then Tom would say, "Have you tried twenty yet?" or "You don't have many Q's on twenty." When all was said (literally) and done I had about six times as many contacts on 15 as on 20 which Tom thought was very strange. The reason was simple: Whenever I went to 20 the rate went down because I couldn't understand what people were saying with all the QRM. On 15 everything sounded clear and crisp.

A few things started to become apparent as the contest went on. I would like to pass along to my fellow peasants some tips about proper etiquette when the king speaks to you. Please realize that the king has directed vast quantities of aluminum to focus exactly 1,500 Watts (no more, no less) right in your direction. That is why you are deafened by his booming signal. The aluminum also works in reverse so that the king hears your every whisper. However, hard as it may be to believe, your signal is not always very loud in the king's ears. It could be that you are feeding a wet noodle with only two or three watts, or perhaps propagation is just not that good so it would be hard to hear you even if you were WWV. In any case, here is a principle that may come in handy: *Only tell the king the exact nugget of information he asks for!* Here is how quite a few contacts proceeded:

Me (King for a Day): "W3ABC two-ninety-three uniform W7RN fifty-nine Nevada"

PVRC Peasant: "Uhhh...(pause)...OK, let's see, thanks for five-nine in Nevada...please copy my number twentarglegflapuffalpha W3ABC seventy-eight Maryland DC, QSL?"

King: "W3ABC, my number again please"

Peasant: "Uhhh... twentarglegflapuffalpha W3ABC seventy-eight Maryland DC"

King: "W3ABC, serial number only again please"

Peasant: "uffeezzorkty alpha W3ABC seventy-eight Maryland DC"

King: "I've got everything except the serial number, serial number ONLY!"

Sometimes when I finally did get the serial number, but there was still a small doubt about the rest, I would say something like:

King: "W8XYZ, it's twenty-one bravo, check ninety-nine, Minnesota, right?"

At this point if the peasant said *only* "roger, roger" (assuming I had all the info correct), then the contact was complete. But, if the feeble peasant, trying to be helpful, *repeated the correct info*, it actually made things worse! When that happened I had to wonder if everything was OK or if the peasant was trying to change something.

Peasants, please realize that most of the time the King *already knows what you are going to say* except for the serial number! That is because the King has got a pre-fill file from Dr. Evil so most of the time he merely has to verify that you are telling the truth. Thus, the King can change the information flow requirements of a contact. All he really needs is your call sign, serial number, a "good feeling" that what you said matches what is already on his screen, and the all-important "roger, roger"! (Why hams think "roger" means "yes" is a mystery to me, but that is another story. In the ham world "roger" = "yes", absolutely.)

I think the best peasant strategy for filling in the King was to repeat (*only*) the requested information *several times quickly*. That seemed to give the peasant's message a better chance of finding clear reception time.

The next thing that was quite surprising was that out of 1,306 contest exchanges, fifty were dupes! That's about 4%. I have no idea if that is considered a high or low dupe rate. Here is one that really stood out. Early on in the contest I was contacted by W1AF in the S (school) category. I recognized that call sign and said, "Are you at Harvard?" "Roger, roger!!" You can imagine my surprise when I was called by W1AF again the next day. Aren't those smarty-pants at Harvard sharp enough to avoid dupes? Did they not hear my booming call sign correctly in their headsets? They later apologized via email; some kind of logging screw up blamed on software. Probably Microsoft's fault – that place was started by a Harvard man, of course.

Anyway my policy as King for a Day was to work all dupes without comment. I did question a very few people and they always swore we had not worked before. I have a sneaking suspicion that some stations thought that my check (59) was their signal report and also it's possible that some people thought you could contact a station once per band rather than the actual rule which is once per contest.

I was only a peasant at a king's station but there were several things that I could have done better. My messages were good, but not perfect. If you're going to use a message more than a thousand times it behooves you to make it a very precisely crafted message, spoken clearly and fully tweaked up in Audacity. N6CCH gave me some helpful tips on this, but I did not get to use them in SS.

Another thing is that my habit was to verify the complete call sign before offering any information to the other station. It would have been better to proceed with the information immediately even with a partial call sign because the other station has to mention their call sign in the exchange. That is usually a good enough second chance to get it right.

I wasted a few seconds welcoming people with "check 10" to ham radio, but I don't regret that. Without more peasants, the king will not be able to set new contesting records. One time when things were slow someone told me "Minnesota" when the pre-fill said "Wisconsin". I said, "Did you move from Wisconsin?" The poor guy then launched into a mini rag chew about how he sometimes operated from his fishing cabin or some such – my bad.

I'm sure there are many, many other things I could have done better such as making a few contacts on twenty



meters with all those stacked Yagis twisting in the wind. But I made roughly 5 to 8 dB more contacts than I ever have in any other contest and that was with the brain fog that resulted from the overnight trek to get to the station. I made just about the same number of contacts on Sunday as on Saturday which is probably a roundabout way of saying I should have made more on Saturday. Overall I was very pleased!

As a peasant, I am sometimes disappointed to read 3830 reports from kings that say things like, "Only a part time effort, not really trying, I don't really like this contest, etc." when they post scores 10 or 20 dB greater than mine in half the time. Spread the enthusiasm to the little people!

While I was absorbed in the contest I did not notice that it had kept snowing. A lot. I called the XYL and explained that I might not get back until Monday. She understood. The trip back (on Monday) was relatively easy. In daytime, after all, how hard can it be? I did have to put on chains twice because I took them off too soon the first time. And I spent some time helping a girl, and couple of desperate lady tourists from Belgium, get the chains off their cars.

King for a Day! What an amazing experience! Thank you very much to Tom, K5RC, proprietor of the Comstock Memorial (Super) Station W7RN, and his XYL Midge K7AFO for hosting me. They could not have been nicer and they do a great service to amateur radio contesting by allowing others to experience their wonderful hospitality and operate their tremendous radio station.

---

## 2010 West Valley Amateur Radio Association Officers

President: Bill Ashby, N6FFC  
Vice President: Scott Emery, AD6RY  
Secretary: Jeannett Pispisa, KG6SVJ  
Treasurer: Jon Kelley, K6WV  
Directors:  
Chuck Kamas, AD6CL  
Jim Peterson, K6EI  
Brian Goldberg, KG6BKI  
Kevin Smith, KK6VF  
Phil Verinsky, W6TQG  
Dave Schultheis, WB6KHP

Heterodyne Editor: Phil Verinsky, W6TQG  
Internet Postmaster: Phil Verinsky, W6TQG  
Meeting Refreshments: Kevin Smith, KK6VF  
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

## Tower Trailer Presentation

Dean, N6DE's excellent Powerpoint presentation at the November meeting, "Adventures With The WVARA Tower Trailer", can be downloaded at [http://www.wvara.org/doc/wvara\\_presentation\\_nov2010\\_2.pptx](http://www.wvara.org/doc/wvara_presentation_nov2010_2.pptx).

## 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

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.