

# SCOPE

## THE PALOMAR AMATEUR RADIO CLUB NEWSLETTER



Above: Compliments of Radio Rover on Flickr, A Yuri Gagarin Amateur Radio Commemorative QSL from the USSR.

Radio Rover writes, "In the old Soviet Union days, Radio Amateurs were give or purchased rather patriotic QSL cards to use that would be distributed worldwide. The Soviet radio amateur would get a stamp with his/her call and other info such as Oblast, name, etc post it on the card. I have a bunch of these pre-fab QSLs from contacts I made when I was a kid that I will post from the late 70s and 80s."



Do you have a mobile installation? Do you want to have a mobile installation, and need some motivation?

We're looking for a few good mobile installations - whether they're completed, on the drawing board, or half-way done and tripping you and your passengers every time you get in and out of the vehicle - to be featured in the Scope. We'd love to show your installation.

Tips, narratives, explanations, techniques, problems encountered and solved (or encountered and evaded) are what we're looking for. Send them in!

[scope@palomararc.org](mailto:scope@palomararc.org)

# Save the Date

## Club Meeting 6 March 2013

The 7:30pm program is by John W. Kuivinen WB6IQS on History of U.S. Broadcast Television

## Board Meeting 13 March 2013

Palomar Amateur Radio Club board meeting at 7:30pm at W6GNI QTH.

## Field Day Work Parties March 2013

Contact Greg KI6RXX or Charlie NN3V to volunteer.

Fold & Staple that did February Scope  
Al Donlevy W6GNI Kathy Donlevy  
Jo Ashley KB6NMK Sonny Stires WA5ACE  
Roni Elsberry W6EPM Art KB6YHZ

## Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to [scope@palomararc.org](mailto:scope@palomararc.org)

### For Sale

Swan Mark II linear amplifier. Clean, working well \$650.

Heathkit HP23B Power Supply with 11-pin cable. Looks and works very well. \$70.  
Ron K2RP@arrl.net (760) 436-8109

## HAM RADIO OUTLET

Jose XE2SJB  
Jerry N5MCJ  
Joe N6SIX

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R  
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*Numerous to*  
*Mention!*

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## Lunch Bunch Meets Again!

To Celebrate Successful World Tour

Above: a photo from last week's Lunch Bunch meeting at the chinese buffet.

See page 4 and 5 for what else they did this week.

The Lunch Bunch welcomes all for a friendly Friday lunch. Locations vary. An email is sent out on Wednesday with details for the Friday lunch.

Sign up at <http://www.w0ni.com>

<a href="#">Access Your Call</a>	<a href="#">Add Call</a> <input type="checkbox"/>
<input type="text"/>	<input type="button" value="Logon"/> <input type="button" value="Reset"/>
<p>To add your call to the lunch list just check the "Add Call" box above. Then click "Logon". I will send you an email to let you know where the gang will meet for lunch on Friday. Hope to see you soon.</p>	
<p>73 de W0NI/Tom</p>	



## Tube Checkers Working

And Are Now Planning World Tour

I fired up the two club tube checkers that I picked up at the last tower work party.

The EICO mutual conductance checker with a roll chart was OK. I tested several tubes on it and all appears fine. I am guessing mid-70's vintage for it. It has a very sturdy metal case with a metal lid. It is very clean on the inside. The case could use a little metal work and a new coat of paint.

The Shell Electronics emission type tested has a leather covered suitcase style wooden case. It is much older (probably early 50's) and will not check the variety of tubes that the EICO is capable of testing. After replacing a few questionable capacitors, it is OK too. One nice thing about this tester is that you can test 6 and 12 Volt automobile vibrators.

I will bring them to the club meeting next month.

John Kuivinen, WB6IQS  
Vista, CA.



The Friday lunch group got a special treat on February 15 when they toured the USS Midway Museum. The “lunch bunch”, including many PARC members, met at Phil’s BBQ in Pt. Loma. After lunch, they headed to the Midway where Joe Garza – AB6RM was waiting to take the group on an extensive tour of the ship.



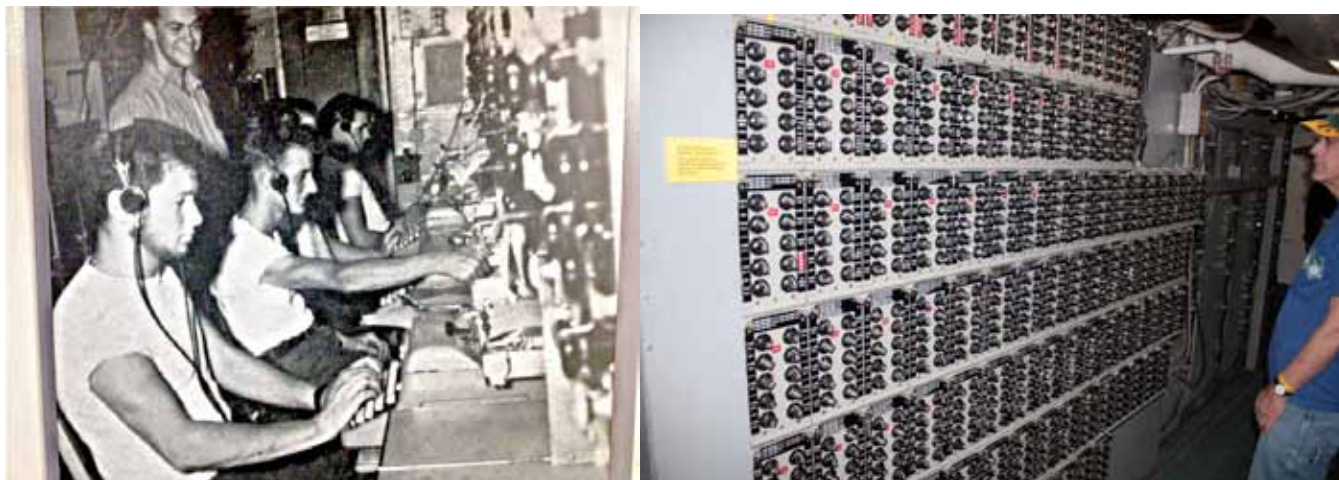
Left to right: Tom/W0NI, Dave/KC6YSO, Paul/K6PKS, Gayle/K6GO, Mike/NA6MB, Nils/KI6TTP, Howard/KY6LA, Rob/WA3IHV, Ron/N6XT, N6XT/Guest, Mitch/K6BK, Joe/AB6RM, and Grant/K6PLR. Front row: David/OK6DJ, daughter and wife.

I was impressed with the Midway when I took a self-guided tour shortly after it opened in 2004. But, Joe’s tour was far more impressive and informative! Our group got to go through some parts of the ship not seen by the general public including the operating ham station NI6IW.



At left, David/OK6DJ visiting San Diego from the Czech Republic was very excited to operate one of three Elecraft K3 160–2M transceivers. On the right, Rob Reichman WA3IHV takes a turn in the operating chair.

The Midway station NI6IW conducts a special event on the second Saturday of the month. On the first weekend in June about ten operators man the station and participate in the all Museum Ships weekend event. They operate SSB on 20M, 40M. Plus PSK31 and other digital modes on 20M, analog FM VHF, and D-STAR to make as many contacts as possible during the six hour event. The station also includes four networked laptops containing the N1MM logging program. The laptops support various programs for centralized logging, digital modes, Internet/Telnet access lines for DX Clusters/Spotting, and call sign look-ups.



At left Operators on the Midway in the 1960's copy CW on a typewriter. Could have been N6KI or WN6K? At right, Paul/K6PKS surveys a large communications panel.

NI6IW also operates the Navy Marine Corps Military Auxiliary Station (MARS) NNN0CQQ using SSB, FM, and digital modes. The MARS station is used to support Department of Defense emergency management communications during exercises or real-world events. The Commander, Navy Region Southwest, is the main user and customer of MARS services.



The Midway's organic antennas are used for HF operations and with this lofty location they play very well indeed. Photos used here were taken by Mitch/K6BK and Conrad/KG6JEI. All rights reserved. Article by Tom Ellett – W0NI.

You can sign up to receive an email notice of the regular Friday lunches. Just go to [www.W0NI.com](http://www.W0NI.com) and check the "Add Call" box. You'll receive an email each Wednesday as to the location of the Friday lunch. The lunch bunch has been meeting for over twenty-five years and they rotate between 8 favorite restaurants.



We have another winner! Congratulations to Charlie NN3V!



MOVING TOWER TO SAWHORSES.



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# Tower Work Party

Photos by Dennis KD6TUJ



ONE OF THE TWO WINCHES OF CONCERN WITH NO LOCK PAWL.



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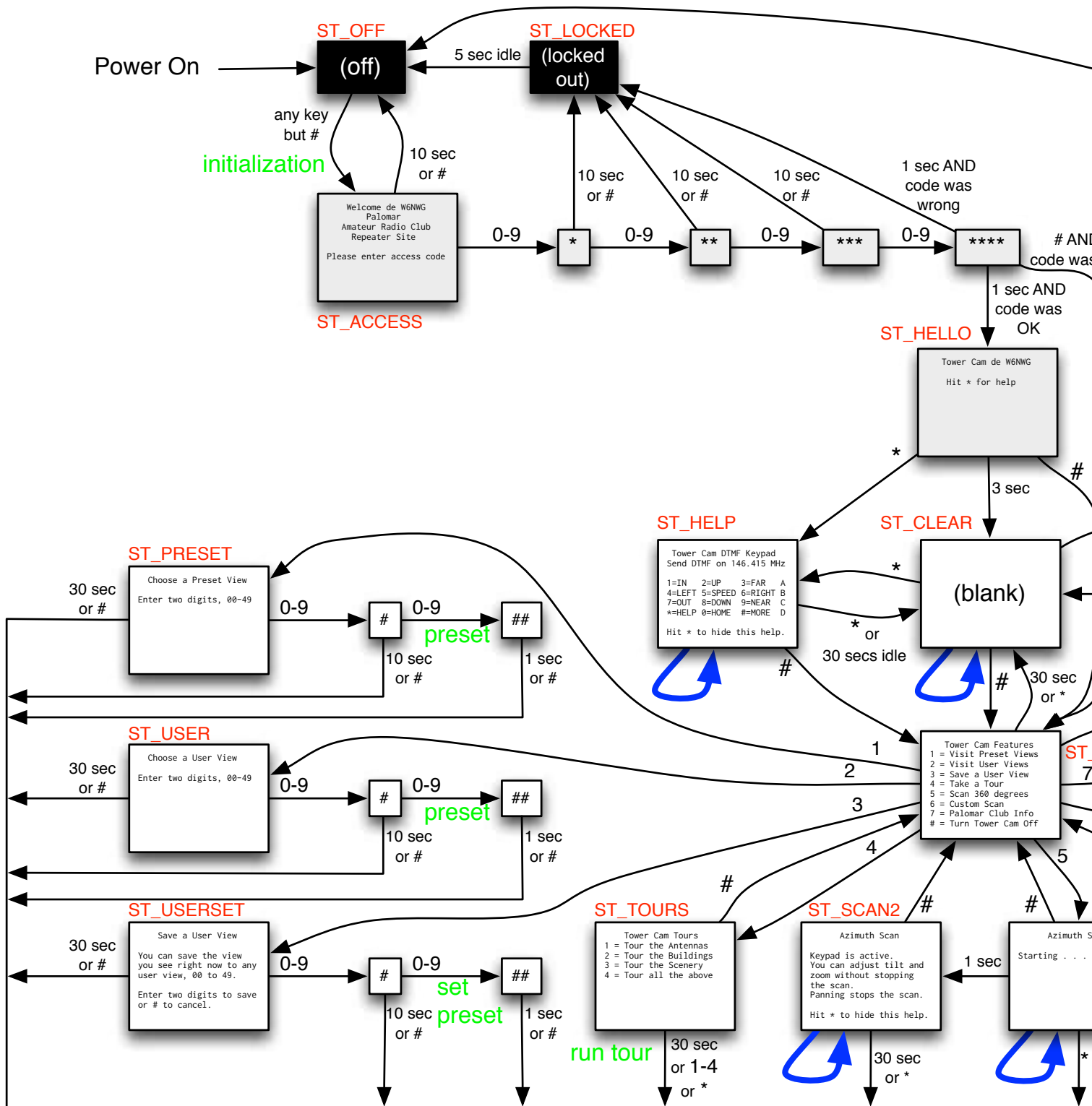
**Michelle Thompson**  
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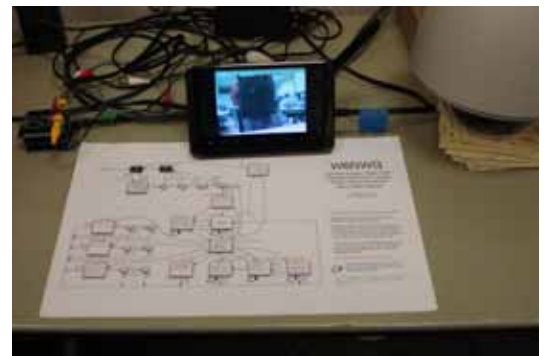
**Donald Johnson** added photos to February 7, 2013.

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**Joseph Peterson**  
 Reminder: Feb 5 4x4 net is not happening as I am in Phoenix and just don't have the power to reach back to San Diego ;-)  
 Like · Comment · Follow Post · February 4 at 9:02pm near Phoenix, AZ  
 Seen by 34  
 Write a comment...

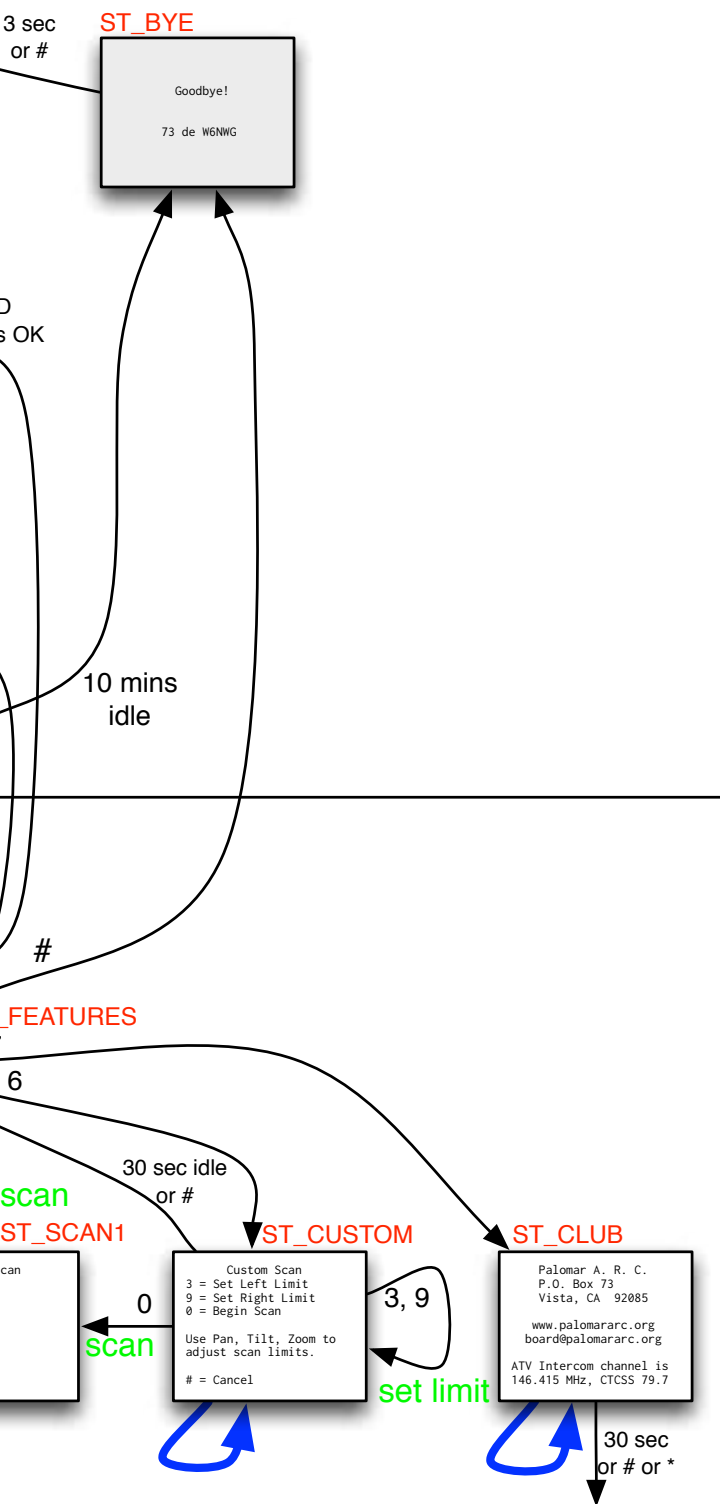


Camera into camera.  
 Photo by KD6TUJ.



Showing  
 Photo





# W6NWXG

## Palomar Amateur Radio Club Repeater Site Tower Camera DTMF Remote Controller Menu State Diagram

February 14, 2013  
Paul Williamson, KB5MU


Black background means that no video is transmitted.

Gray background means that the characters are displayed on a plain gray background.

White background means that the characters are overlaid on video from the tower camera. Besides the characters shown here, the camera itself overlays "73 de W6NWXG" in the upper left corner, and adds a preset name/number when a preset is in use.

The small boxes represent characters added to the preceding screen to echo user input. The access code is echoed with asterisks. Other digits are displayed as entered.

RED represents state names in the code.

 represents keypad operations for pan, tilt, zoom, focus, etc. unless overridden by an explicit keystroke action.

Green represents, in simplified form, commands that get sent to the camera, other than the keypad operations.



Paul explaining the system.  
Photo by KG6JEI.

# First Work Party

## Saturday February 2, 2013

The Palomar Amateur Radio Club with coordination from Charlie, NN3V held its first Field Day Work Party. This is the first of more to come. The goal of these work parties is to assess the condition of the Clubs equipment and prepare it for its use at Field Day in June. The last thing we want during setup at Field Day is any surprises or accidents and we will use this time to make any repairs found to be necessary from its use last Field Day.

In attendance where Charlie NN3V, Tom KG6RCW, John WB6IQS, Glen WA6GHW, Conrad KG6JEI, Jerry AK6QJ, Richard KJ6WUY, Rich NI6H, Gary W3LFR, Brian AG6CF, and myself Greg KI6RXX.

The work party started around 10am, at the Tow Wizard site where the club equipment is currently stored, and ended around 1pm. Our plan was to restring two of the towers with 1/4 inch galvanized aircraft cable. This is the wire that is used to crank up the towers and extend their height. The wire that we ordered ended up being slightly larger than what we had on there but fit perfectly and should provide more tensile strength. This is a good thing - especially when I am standing under them! The wire was ordered for us by Conrad on behalf of the club. Combining his tower trailer needs along with Denis and others allowed them and the club to save on cost and shipping.

The day was partly cloudy and warm. It was a perfect day to work on the towers. Restringing the towers went more smoothly than we had anticipated and we were able to restring 4 out of the 5 towers and even help Dennis restring his tower trailer. The fifth tower is up on a storage box and will require a great effort to get down and has been decommissioned for the past few years. Its condition will need to be assessed at a later time.

When we were finished, many of us headed to the Breakwater Brewing Co. on the coast Highway in Oceanside and were treated to a round of beers from Charlie. Thank You Charlie! Most had the Old Blue Eyes, an Old English style Brown Ale at 9.5 ABV. It was very good.

Our next work party will involve erecting the towers to ensure they are free flowing and there is no more hardware work to do. This will happen after the reconditioning the crank mechanisms we removed is completed and they are reinstalled. We will also need to finish rotating some of the tower bases to allow better transport and replace one of

the eye bolts in the base of a tower that bent last Field Day. One of the towers requires installation of a small pulley (block & tackle) at upper end of tower for use if a wire antenna support, flag, etc. has to be hoisted once the tower is erected.

Many thanks go out to all who attended and helped out with this work party! We will announce the next work party as we get more information about the cranks.

73, Greg Gibbs KI6RXX

## Alert: Stolen Radios

Contact Peter at [pssd@sbcglobal.net](mailto:pssd@sbcglobal.net)

On Thur night Jan 31, 2013, between 8pm~12midnight a white male, tall, 30'ish and bald or close to bald, broke into my minivan and stole two amateur radios in Rancho Bernardo. I did not see the burglar, however, a neighbor gave the follow description as she saw a stranger hiding next to some bushes across the street from my house at around 11:30 pm when she returned home.

I filed a police report( San Diego), but I thought that I might as well let the ham community know about this theft.

The thief punched the driver's door lock to gain access.

1: ICOM IC706 ( microphone is missing), serial number for IC706 006019. It also had the optional narrow SSB filter FL-223. The power cord had a cigarette lighter plug on the end which is broken off. It also had the extended cable for remote mounting of the head, but the head mount is not present.

2) Kenwood TH79, with an aftermarket Diamond( may be it was Comet) extended range super flexible antenna. The battery pack is not stock it was cut open and LiIon cells are inside. On power up, the display should say VE7 CQA

Not Amateur Radio items:

- 1) old old Sony Navu car GPS( looks like miniature crt tv set)
- 2) tire pressure gauge( round dial) but it reads in Bar, not psi
- 3) no-brand stun gun ( modified to use lithium 2/3A cells(3)
- 4) car battery booster( black box) uses 12 V gel cell( in a black nylon outer cover)
- 5) rear view mirror for a caravan, with a extra wider mirror clipped on



what dummy to take the rear view mirror. He broke the glass near the mount( i had used JB Weld to glue the shoe on to the windshield)  
6) home made 12 V battery monitor( analog meter plus a red LED panel meter) connected to a cigarette lighter cord.

## SANDARC 2013 Chair Election

This April the San Diego Amateur Radio Council (SANDARC) will be holding an election for their board of directors. It is for a two year term. I am writing this article to let members of PARC know I want to grow Amateur Radio in San Diego. I did it in Escondido, now I want to do it for the entire county.

My actual goals are:

Publicize the up-coming SANDARC Convention through the many marketing avenues I have cultivated during my 7+ years at UT San Diego (formerly The San Diego Union Tribune).

Create a countywide Elmer's List where we can list what every HAM's specialty is so that a new HAM can find an Elmer on areas they need help.

Design a facebook page where all SANDARC activities can be shared across the county.

Establish a Delegate Team that will visit clubs and offer advice and assistance on help each club may need - like - Advertising, Membership, Club Presentations, Field Day, Club Websites, and much more.

Write a presentation we can give to local high schools promoting the fun and benefits of becoming a HAM.

Distribute a quarterly newsletter - maybe call it the SANDARC Sentinel.

These items are just a brief outline of what I want to do as SANDARC Chairman. You're probably asking yourself why I am sharing this with you. I am because PARC is a SANDARC delegate club and I am hoping you will tell your board to have PARC's SANDARC delegates vote for me.

Please send me your thoughts and ideas for the future of Amateur Radio in San Diego County.

73,

Robert J. Kitson, KI6SBL  
EARS 2013 SANDARC Delegate

### Info for March SCOPE

#### 8 past members Reinstated – Welcome Back!

**While we certainly appreciate Reinstated members, we believe many "Reinstatements" are due to members not aware that their membership was due.**

**Since many members now get the News Letter (SCOPE) on the web, they don't receive the paper copy that we mark blue when membership is almost over, and red when the time for renewal has passed.**

**The Board has recommended that we publish member's calls that are getting close to renewal time. Previously, we listed the memberships that had expired, and some didn't like that at all!**

**The following members are due for renewal in a month or so. Hopefully, if your call is in this list, you will find time to send a check, or tell PayPal to renew you membership.**

**ZZ9WGF, KE6CWP, KE6CWM, KK6GO, KY6LA, K1WTS, KJ6WTS, KJ6DYG, KJ6TIM, KG6WGD, K6JPE, KH6GK, ND6W - more next month!**

**Thank you,  
AI W6GNI Membership**

# DIY Antenna Tilt Base

W6PUG

A year ago, I got my Gap Challenger, and wrote an article about using a garden auger to make the hole for it, as opposed to a backhoe and a major earthmoving event, and that has worked well for me. Now, a year later, I need to do some maintenance on the antenna. A screw came loose in one of the middle (of course!) connections and some other minor maintenance that needs to be done, and here I am with a 32 foot whip stuck up in the air, and a 5-1/2 foot me trying to figure out how to get it down so I can work on it, without constantly imposing on my neighbors. I looked at several tilt-over mechanisms, running in cost anywhere from \$100 to well up over \$350, and did not feel like I should have to take out a second mortgage on the house so I could work on my antenna. One of the reasons these are so expensive is that the tilting mounts are designed to support a free-standing antenna, which is not what I need, as I have a brace to the patio cover 8 feet above ground.

Off to the scrap bin I went, and dug out a piece of scrap aluminum plate from a previous project and a couple of 1/2x10inch galvanized lag bolts. A quick trip to the hardware store provided me with 4 stainless steel cap screws and nuts with integral star washers, 2 “U-bolt” clamps and nuts, small bag of “Sakrete” (pre-mixed dry concrete) and a hinge. Cost was about 14USD.

Step 1: Smooth down the edge of the aluminum plate so I have a 4x18x1/2 inch plate. Half-inch plate is big overkill, but it is what I had in my scrap pile. Drill 4 holes to match to longer section of the hinge and attach hinge to plate with the stainless cap screws. Drill out the bottom holes in the hinge to allow the lag screws to penetrate.

Step 2: I pulled the PVC isolator out of the ground, and cut it so that it is 1 inch longer than the base section of the antenna base (the Challenger is a folded vertical dipole) – about 18 inches total in length), filled the 36 inch deep hole with Sakrete and water, and when semi dry, spray the lag screws with silicone lubricant and screw the lag screws through the hinge into the concrete (I had to use an electric “hammer” drill, although a socket wrench would have worked) and level/plumb the aluminum plate to vertical (perpendicular to ground). Ensure you set the hinge in such a manner that the antenna will have a clear path to “lay down” when tipped over. The feature won’t do a lot of good if you tip it into a tree or a hill <smile intended>. The silicone spray did enable me to tighten the lags a bit, and they could be withdrawn if necessary (although I cannot imagine why you would do that!)

Step 3: Off for a cup of coffee, and find something else to do until the Sakrete has “set”. I did not get back to the project for about 6 hours and found the concrete had set fairly well (antenna weighs about 30 pounds).

Step 4: Next morning, I slid the schedule 80 PVC isolator tube down into the U-bolt brackets (ensuring the tube is on the side of the plate opposite of the hinge) and tightened the nuts on the U-bolts snug and tested the hinge over feature – which went perfectly: the isolator tube lays over the hinge as expected, and the hinge is well-anchored to the concrete “mini-pier” in the ground.



Step 5: Slide the antenna into the insulation tube, and commence “hand-walking” your antenna to a vertical position (note no mention of the neighbor!). Check plumb (perpendicular to ground).



Note the gap between the bottom of the open tube insulator and the ground (arrow), to ensure rainwater can evacuate from inside the insulating PVC tube.

Lash the antenna to a nearby vertical support (assuming you are affixing it to your patio cover or similar), then proceed to put the permanent strut to your vertical support (I used a 1.5 inch pipe flange affixed to the patio cover, a short piece of threaded schedule 80 PVC pipe with a  $\frac{1}{2}$  inch hole drilled next to a depression “saddle” whittled into the antenna side of the support, and a hose clamp).



Now, when I need to lay the antenna down (which I just did this morning), it is a one-man operation, and easily done. Your own design will vary with your type of antenna and support, but the idea is simple. Adapt it to fit your own situation. Today, I am having wind gusts of 35mph and nothing is even showing a hint of moving! I like simple solutions to simple problems. Hope this gives you some ideas – and no doubt you will invent some improvements! Cheers to all – 73 W6PUG Doug



*Here are two additional photos of the antenna tipped over and also back up in working position.*



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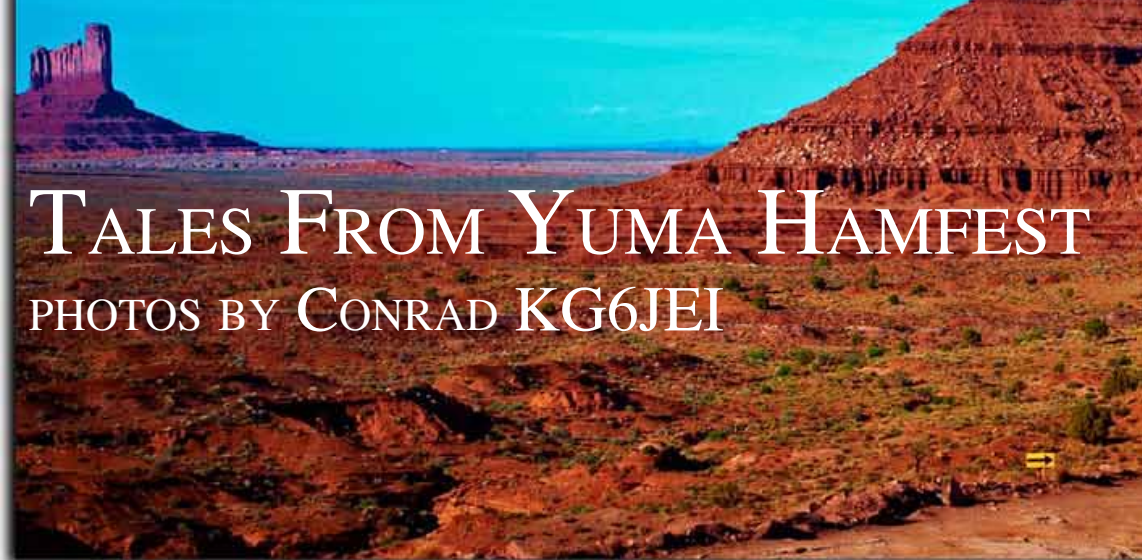
TWO MILES DOWN THE ROAD...  
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OUCH LANDING HURTS!



GIFT FOR HOWARD



# TALES FROM YUMA HAMFEST

PHOTOS BY CONRAD KG6JEI



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You can join or renew your membership on the club's web site <http://www.palomararc.org>

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Questions? Ideas? Comments? [W6NWG@amsat.org](mailto:W6NWG@amsat.org)

### Featured Program:

At 7:30pm on the 6th of March 2013, Palomar Amateur Radio Club welcomes John W. Kuivinen WB6IQS as he presents on the History of Broadcast Television in the US. His talk will cover early history of B&W/color TV of the 1930s-1950s, a history of HDTV from 1968 to the present, the different types of TV signals (analog and digital) currently available in consumer devices, a comparison of available scan rates vs. picture resolution for different types of signals, RF splitting of the CATV and OTA (Over The Air) RF signals, why you may or may not need a broadband RF amplifier, and basics of coaxial cables for distributing CATV and OTA signals.

John Kuivinen, WB6IQS, works for a company in Carlsbad that manufactures and OEMs digital and analog TV modulators, broadband RF amplifiers, security TV cameras and home audio/video appliances.

We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.