

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

Correctly name this publicly accessible ham-radio related site pictured below and be the second winner of our Mystery Photo Contest! First person to contact W5NYV in person or on the air with the correct answer wins the contest. Email doesn't count this time around! Ellen N6UWW won the first round by correctly identifying the toilet at HRO.



NN3V writes,

"At November's club meeting, a couple of announcements were made regarding upcoming hamfests in Palm Springs and Yuma .

The Yuma hamfest has grown by leaps and bounds in the past three years since it was started. This coming year they will have major vendors (Yaesu, Icom, and Kenwood) on site along with all the other amenities usually expected at a ham gathering.

The link to the Yuma hamfest webpage is:
<http://www.yumahamfest.org/>

The event takes place on February 18 & 19, 2011.

It might be worth running an announcement in the January and February PARC newsletters about the hamfest.

It is a great way to enjoy the Amateur Radio hobby."

Save the Date

Club Meeting
5 January 2011

Mysteries of mathematical models revealed!
Antenna Modeling by
W5NYV.

Board Meeting
12 January 2011

Palomar Amateur Radio
Club board meeting at
7:00pm

Club Event
2 January 2011

Kids Day at Double
Peak Park. Please help
volunteer and participate
in this enjoyable event.

Club Membership for December Edition

New Members: N6VF, KO6KV, KJ6FYZ, WD6DDY, KI6AOK, KI-6YFN, and three members reinstated their membership. Welcome back.

We now have some new members from the Oceanside area this month. The CERT group from Oceanside has encouraged their members to obtain their Amateur Radio Licenses. This is quite common, as they (CERT) recognize the value of being able to communicate, even if the phones are out of commission. And, they also recognize the value of having amateur repeaters up and running. So, they have encouraged their members to support PARC with their cash (IE memberships). This action is truly appreciated. While the repeaters are "open" the upkeep, power, water, taxes, etc. are not free for your club.

It is the club memberships that keep the machines on the air!

The renewal reminder for our members receiving the SCOPE by Web is helping. As a courtesy reminder, we print the calls of expired members for two issues. Hopefully the x-members will see it on the web, and respond with the usual \$20 check - to the Post Office Box.

Those on our list this time are: N6BMR, K7WCC, AF6SH, KJ6CKB, KF6GOF, and W6CD. We really do need and appreciate renewals.

AI
W6GNI

PALOMAR ENGINEERS

Box 462222, Escondido, CA 92046

TOROID CORES

Palomar stocks a wide variety of cores and beads. Our RFI Tip Sheet is free on request.

Our RFI kit keeps RF out of your telephones, TVs, stereo, etc. **Model RFI-4 \$35 +tax+\$8 to ship.**

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Ferrites slip over coax. Shrink tubing holds them in place. Works from 3.5-60 MHz (Use two kits for 160m).

Model BA-58 (for RG58, RG8X & similar cables up to 1/4" dia.) \$8.50+tax+\$8 S&H/order

Model BA-8 (for RG-8, RG-213, 9913 and similar cables up to 1/2" dia.) \$16.50+tax+\$8 S&H/order.

See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

October Fold & Staple Crew
W6GNI AI & Kathy
WA5ACE Sonny
KI6LLC Roni

Palm Springs Hamfest 2011

The Desert RATS invite you to attend "Palm Springs Hamfest 2011" on January 29. We would like your help in making this years event surpass the 600 attendee mark! That would beat last years event!

Our Swap Meet was a big draw last year as well, with over 40 vendors selling their wares. There is room for more so bring your stuff (no fee charged to sellers means better prices for you!) We have a consignment table with experienced Hams selling for you if you want us to sell your gear for a small fee. We almost sold out last year.

Lest I forget, we have a gourmet food service at a bargain price. Raffles every hour. Our event as all about great deals in these tough times.

This year we'll have ICOM, Yaesu, HRO, DX Store, Byonics, RF Stuff, AMSAT, ARRL, Alpine Antennas and 15 more. The list is getting longer.

Come join us for a fun Day with some great buying opportunities! It is worth the drive! Meet Gordon West, Clint Bradford "the Satellite Guy", Leo Meyers and all the ARRL guys from our Division.

<http://desertrats.am>

Where else can you have a full day of entertainment, food & raffle ticket for a 10 dollar bill, a tank of gas and maybe come home with a prize and free samples? Not even at Walmart or Costco will you get a better deal!

Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

For Sale



Complete Kenwood TS-130S rig including TS-130S with MC-30S handheld microphone, YK-88C 500Hz crystal filter, operator and service manuals; PS-30S DC power supply with operator manual; VF-120 remote VFO with interconnect cable and operator manual (in Japanese); and SP-120 external speaker with operator manual. Known issues: TS-130S needs dial lamps replaced and the S-meter needs to be adjusted; VFO-120 needs dial lamps replaced and dial needs to be recalibrated. \$350. Contact Bob Felton, K7WLX, at 760-598-7459 or k7wlx@arri.net.

For Sale

Item	Price
YAESU FT-1000	\$2,500.00
Kenwood TS-950 S	2,500.00
FT-2500 M	350.00
Kenwood SWR/PWR Meter, Model SW-2000	50.00
TR-7330 2 M	150.00
Astro PS7 A	25.00
Cubic Astro -150 A-10-80M Transceiver	250.00
Ten-Tec Centurion amp 1kw	1,500.00
Ten-Tec Titan amp 1kw	2,500.00
FLUKE Meter Model 77	65.00
SHURE Microphone Push to talk Model 444	30.00
3-500 tubes	100.00 ea.

Contact: R. F. Krist, W6KTE, (760) 724-2786

For Sale

Crank-up tower, 4 sections (collapsed length=12' 9"), triangular- 18" bottom to 10" top. 3' top bolt on tapered section with rotor head and thrust bearing installed + 6' of pipe above the taper. Base plate 22" x 22" with 3 studs to set tower on. Lifting winch had a motor at one time but now gone, leaving a spline shaft sticking out of the worn gear box to which a handle or motor can be grafted. Located in Poway, weight 400+/- lbs for tower alone and 150+/- lbs for the top piece, base plate and winch - \$250. Gary 858-748-6076 wb6gsn@gmail.com

For Sale: HUSTLER 6BTV High Performance HF Vertical Antenna system, 80/75/40/30/20/15/10 m, complete with 250ft spool 14 ga wire and all precut radials, SS Tilt base and SS Radial plate. Used one year. Bought new at \$400, will sell for \$200. Contact: Rich Ortloff KE6DUG 760-861-1406

For Sale: 6BTV Vertical Antenna. Crank up Tower with rotor and 3 El Yagi. Must be taken down and removed. Call Lee, (760) 726-1097

25 November, 2010
PARC Board,

I have the output section working the modulator repaired and thanks to help from John W6XM, the controller is now working. The intercom input keys the repeater, we have power out, the VSB filter was disassembled and reworked and now has 2 dB instead of 6dB insertion loss. Transmitter amplifier has been repackaged with a switching power supply and the club now has a surplus 50 Amp Astron rack mount power supply.

Let me know if anyone else wants to participate in this project this weekend.

Art,
KC6UQH

Mike K6MRP
and John
W6XM at the
repeater site.
Photo by Art
KC6UQH.



28 November, 2010
PARC Board,

Today the ATV repeater was reinstalled and operates as a standalone repeater only.

Inputs are:

146.415 PL79.5 Voice intercom
915 MHz FM Video, Audio Sub-Carrier
5.8 MHz.
2441.5 MHz FM Video, Audio Sub-
Carrier 6 MHz.

Output:

1241.25 VSB Carrier NTSC Standard.

Attached Photos show repeater, Received picture from 2.4415 GHz transmitter with the camera pointed at the top of the repeater. Pictures of the repeater itself.

Helping with the reinstall are John W6XM and Mike K6MRP

Temperature 36 Degrees F and sprinkling of Snow from the night before.

Art,
KC6UQH

HAM RADIO OUTLET

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

H
R
O

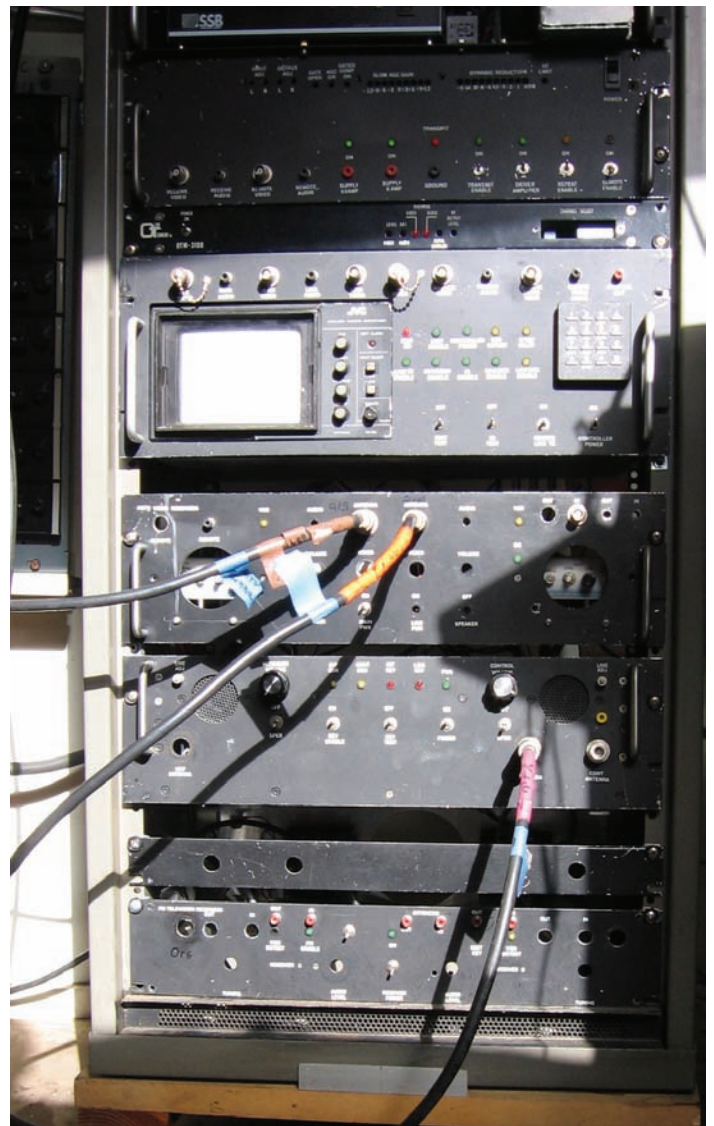
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BENCHER, Inc.
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Mention!

Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

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Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!



ATV Coordination Restored!

The Southern California Repeater and Remote Base Association (SCRRBA), frequency coordinators for the 10 M, 6M, 70CM and up Amateur Radio Service bands, has reviewed your filing for coordination, hereby grants your frequency coordination of your repeater as listed below:

1. Location: Palomar Mtn., PARC bldg., Lat 33-19 N., Lon. 116-51 W.
2. System Type: Open ATV Repeater.
3. System Call: W6NWG
4. Frequency inputs: 2241.5 MHz FM
915.0 MHz FM
5. Frequency output: 1241.25 MHz VSB
6. Emission: 16M0C3F, 30 watts, 10 dBd omni antenna, vertical polarization
7. Tone access: 15734 Hz horizontal sync
8. Licensee: W6NWG, Club License, Expires: 01-29-2016
Michelle D. Thompson, W5NYV, trustee
Palomar Amateur Radio Club

Photos by Art KC6UQH

November Minutes

The meeting was called to order at 7:25 by Dennis Baca KD6TUJ at the home of K2RP.

President Dennis Baca KD6TUJ
Vice President Ron Pollack K2RP
Secretary Gary Kent W6GDK
Director #1 Paul Williamson KB5MU
Membership Al Donlevy W6GNI
Scope Editor Michelle Thompson W5NYV.

Treasurer's Report No report this month

Secretary's Report- Minutes of the October meeting were presented by W6GDK. Motion to approve by KB5MU, second by W5NYV. Approved

General Meeting: December is the election of officers and annual social. January will be Michelle on antenna modeling. February is the club birthday.

Officers and Nominations: Still need nominees for secretary and treasurer

Membership Report: Current membership is 277.

Repeater Site/Technical Report: No activity this month. Weather station at the QTH of W5NYV on Mt. Palomar is now active.

NEW business:

SANDARC has decided that a business phone number is sufficient for VE coordinator contacts. The second exam each month is still with the ARRL VEC at this time.

San Marcos ARC would like to use our repeater for a club net. Motion by K2RP to grant permission for a 2 month trial period until January 1, 2011 at which point there will need to be a discussion of compensation to PARC. Net controls must be PARC members per our standard policy. The repeater to be used will be 146.73 on Thursday at 7 PM, to be concluded by 7:45 PM. Second by W6GDK. Approved.

Youth Radio Day will be January 2, 2011. KJ6B-WX would like to have a sort of operating day at Double Peak Park. Speaking of Operating Day, we will hold the second iteration of Operating Day on November 14 from 8 to dark at Double Peak Park in San Marcos. KC6YSO will set up a 120 foot antenna for 80 meters and will operate the Sunday morning net. ICOM is providing Band Plan and Grid Map handouts.

Field Day Site – Ranch Del Oro south of Oceanside Blvd. It is a combination of a city park and elementary school playground.

Motion to adjourn at 9:13 PM by W6GDK, second by W6GNI. Approved. Next meeting will again be at home of Ron Pollack K2RP on December 8 starting at 7PM.

Submitted by Gary Kent W6GDK



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Building an Emergency Antenna for 2 meters

by Dennis KD6TUJ

I had been looking at antenna construction articles across the years and seemed to keep coming back to an antenna project set up by Bob Hejl W2IK.

You can find it at

http://w2ik.com/W2IK_ANTENNAS.html

It is a self-contained 2 meter antenna that extends to over 16 feet, in a tubular container under 48 inches. That makes it UPS shippable. Kind of a neat project. It can make a great CERT project also.

Parts are a nominal cost to make only one. There are advantages to multiples as sale lengths of pvc are 10 feet. When going to the store(s) I had a hard time finding CPVC, so I tried PVC for sizing and found out the size was different. I bought the PVC along with the other supplies. Later, while going to ACE for different items, I happened upon CVPC and fittings. Nice find, since I really needed the correct items. Following the directions by only reading them did not always make sense, but once used with construction they did make sense. Total time with ample time to screw around was less than 4 hours. Some of the time was used to let the epoxy set.

One of the hardest things to do is to take a new item and cut it to a smaller size. If your needs do not require shipping, the size could be adjusted to the full length of the pool pole or as necessary to fit the storage/transport area you are going to use. Of course, making a J-pole is easy and there are many ways. In this case we used 300 ohm flat ribbon TV lead. (You can still find this if you look.) Interesting how it was made to separate into two pieces for storage. Soldering onto the screw was not hard as there is a cut across the head to solder in. The nut was harder as there is no groove to lay the lead in. Next time I will make a cut with a file across two adjacent sides of the nut to wrap and solder. When getting to the end where the 259 barrel connector is epoxyed in place, it was a little hard to follow until I worked the pieces together as directed. I don't know why, but the tuning seems to be broad.

Using the antenna at the November Operating Day was easy to set up. And easy to break. The top section that connects with the nut had the wire lead come off. It was too hard to solder it together, so I jammed it next to the side of the nut in the CPVC. A very tight fit that worked.

Dennis
KD6TUJ

EchoLink Nodes

By Bernie Lafreniere, N6FN

The EchoLink system is interesting in that users can link to remote nodes either by using EchoLink software on their computer or by keying DTMF commands directly from their transceiver. Using DTMF commands from a transceiver requires communication with either an EchoLink equipped repeater or a Simplex Link.

When within operating range of an EchoLink equipped repeater or Simplex node, you can use a transceiver to key a string of DTMF command tones to connect to distant nodes. DTMF command codes and the number (address) of the node that you wish to contact can be found by using the EchoLink software or by looking them up on the repeater sponsor's club or individual's web page. Node numbers can also be found on the EchoLink Link Status web page, by selecting the Link Status sidebar button on the EchoLink website's home page. <http://www.echolink.org/>

EchoLink Node Types

Contacts can be made from computers and DTMF equipped transceivers to four different node types:

Individual Users on computers	N6XXX
RF Simplex Links	N6XXX-L
Repeaters	N6XXX-R
Conference Servers	*N6XXX*
	or *NAME*

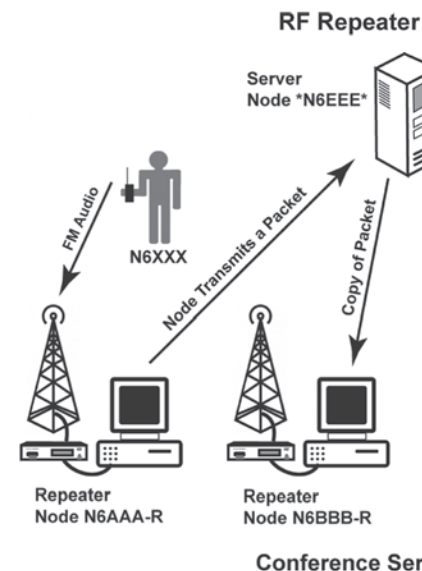
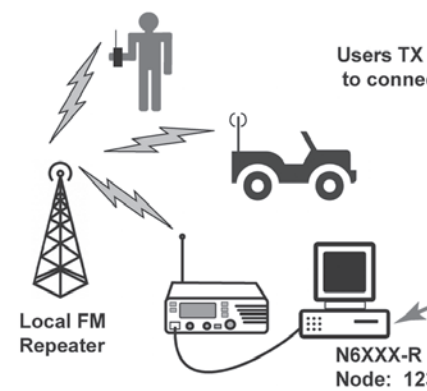
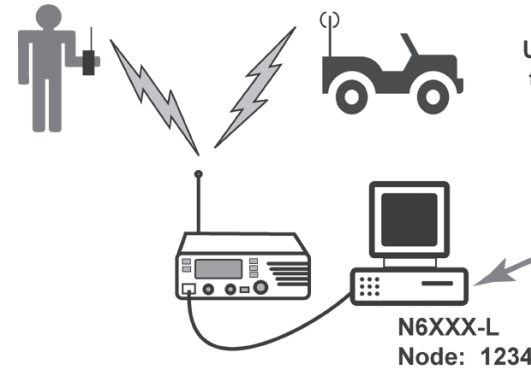
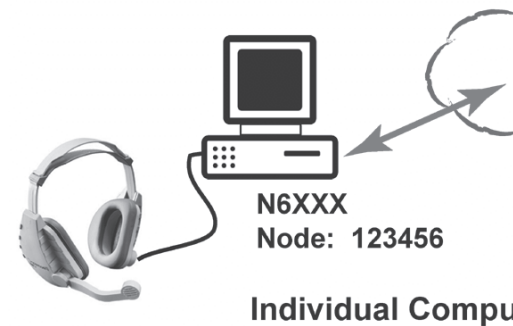
Each type of node has a uniquely formatted call sign or name. Individual computer users use their basic call sign. Other types of nodes have a suffix appended to the call sign, indicating the type of node: -L for a Simplex Link, -R for a repeater, or in the case of a Conference Server, a call sign or server name bracketed on both sides with an asterisk. In addition to the call sign, which is generally the call sign of the sponsoring individual or club, each node is assigned a unique node number, which can vary from four to six digits.

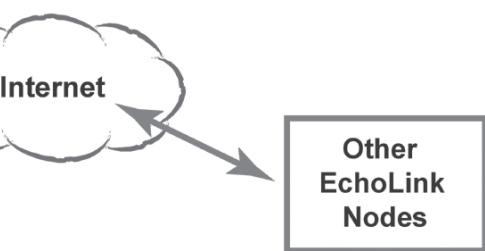
Individual User Nodes

Once individual users have installed and configured the EchoLink software, whenever they are connected to the Internet and running the EchoLink program, they are visible as an active EchoLink node capable of initiating and receiving node connections. Individual users are identified by a node number and by their call sign, with no suffix attached.

RF Simplex Link Nodes

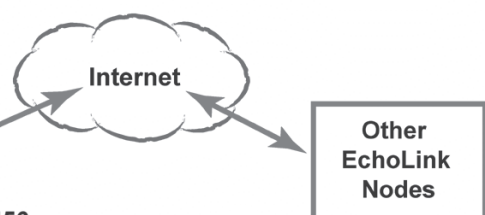
Individual users can create an RF Simplex Link by interfacing a transceiver, tuned to a simplex frequency, to the microphone and speaker jacks of their computer's sound card. Even if you do not





Enter User Node to EchoLink

Users TX DTMF commands to connect to other nodes

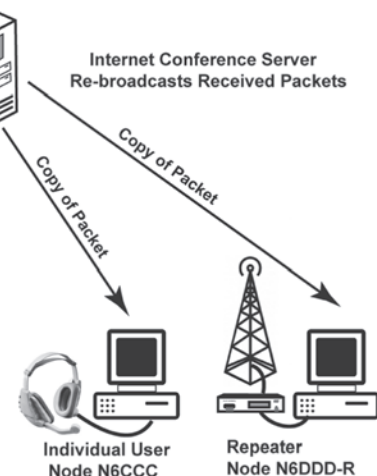


Simplex Link Node

DTMF commands to connect to other nodes



Node



Repeater Operation

create your own Simplex Link, you can still access stations using other people's Simplex Links.

Stations within range of a simplex transceiver can access the EchoLink network, establishing node connections as desired by transmitting DTMF command strings. Once the link has been established, other stations within range of the simplex transceiver will also be able to communicate with the distant node.

Simplex Links are identified by the user's call sign followed by the -L suffix, and by a unique node number assigned during validation of the -L call sign.

RF Repeater Nodes

Repeater Nodes generally are created by interfacing a transceiver tuned to an existing repeater to the microphone and speaker jacks of a computer's sound card. In this way a transceiver and Internet connected computer can be used to link a normal FM repeater to the EchoLink network.

Repeater nodes are identified by their node number, and by the sponsor or club's call sign followed by the -R suffix. Stations within range of the repeater can access the EchoLink network, establishing node connections as desired. Once a link has been established, other stations within range of the same repeater are also be able to communicate with the distant node.

Conference Servers

EchoLink nodes configured as Conference Servers connect multiple users together, as if they were connected to a single conventional repeater. All types of EchoLink nodes can connect to conference servers: repeaters, individual users, simplex links and other conference servers. An Internet resident Conference Server receives audio packets from a transmitting station's local repeater and re-broadcasts them to all connected nodes. Participants in a conference can all hear each other, and typically take turns transmitting in round-table fashion.

Conference servers are identified by a node number, and by either the sponsor or club's call sign bounded on both sides with an asterisk *N6XXX*, or by an arbitrary textual name, also bound on both sides by an asterisk *NAME*.

Next month we will explore using transceiver's to make EchoLink QSOs. For those who can't wait to learn more, visit <http://www.echolink.org/>

The Adventures of Tom and Sue- Up the Creek Without a Paddle!

As the golden sun sinks over the lake in the west, I sit here with keyboard in hand to chronicle our latest adventure.

This week was our 34th wedding anniversary, last Saturday to be exact, so we decided to celebrate. To that end, we selected to do an item from our "Bucket List". We had already completed and crossed off some items from the list, specifically riding the zip-lines through the forest. That will appear in chapter 3, not yet written. For today's adventure we decided to do something for which this area in Oregon is noted, white water rafting on the wild Rogue River!

Today, Wednesday, is one of our days off from our duties as Camp Hosts, and the weather has been quite hot for the last couple of days. Monday we had to go into Medford to take care of some business and it was 103 degrees F. We couldn't wait to get back up to our 5,152 foot elevation at the campground. Since the river is said to be quite chilly, it seemed like an excellent time to do it. Midweek is not too busy and we had thoroughly investigated the available opportunities. There are numerous businesses in the area that rent canoes, kayaks, and larger inflatable rafts. We selected one in Shady Cove, Oregon based on several factors, not the least of which was the selection of equipment they had available and the prices. We have been in the market for an inflatable kayak for some time and have narrowed our preferred choice to 2 or 3 different models. One of them was the Tributary Tomcat Tandem made by Aire, an American company in Idaho that is the most highly rated of all the manufacturers we have found. The business we selected has that particular model available for rent. Although we have extensive experience on the water in sailboats and powerboats, and some experience in canoes, we are pretty much kayak novices. I spent a couple of weeks one summer paddling all over Lake Tahoe in a kayak for several hours everyday, but that was when I was a teenager. I've never touched one since then, - - until today! We thought it a good idea to try one out before we invested our money. After all, we had made our model choice based only on the company literature and customer reviews found on the Internet.

The Tributary kayak is a two-person inflatable kayak with 4 separate air chambers and is fairly rigid when fully inflated. It has a fairly solid inflatable floor under your feet and seemed ideal. The price is \$40 for an independent trip. We awakened early this morning, had coffee, and left around 8:30 for the 50 mile drive to Shady Cove. We arrived

shortly after ten thirty following a stop for breakfast and a stop at Subway sandwich shop to pick up something to take for lunch. We were ready to go! We had our lunch, four cans of soda, and the proper attire. Getting wet is always part of a white water rafting adventure so we dressed accordingly in shorts and tee shirts.

We checked in for our reservation with Rogue River Rafting Company, paid our fee, signed the form releasing them from all liability, and promising to wear the provided life jackets at all times. We were issued the usual double-ended kayak paddle and the kayak that we had selected. Off we went! The company transported us in a van, towing the kayak behind on a trailer, a little over ten miles up the river to the launch point. The road followed the river and we watched it as we went by. There were several areas of mild rapids with noticeable white water where the river flow passed over shallow, rocky areas. "Cool", we thought! This looks like it's going to be fun! The rapids on rivers used for this sport are rated from class 1 through class 5 with class 1 being only an area with swift running water and no rapids to speak of, and class 5 being those where you're playing the game called "you bet your life"! The Rogue River has all 5 classes but the area we were going to be traversing has only class 1 and class 2. The employee driving the van coached us along the way, admonishing us only to keep the kayak pointed downriver, not to let it get broadside to the current flow. We had unlimited time to float down the river the ten miles to a launch ramp across the street from where we rented the kayak. This was to be our exit point. There were several places where we could pull into shore and beach the kayak if we wanted to stop and have lunch.

We waited our turn at the launch point as there were at least half a dozen other groups doing the same thing. They ranged from single individuals in one-person kayaks to large inflatable rafts that held as many as 8 people. There were some people in completely round rafts with no maneuverability at all. These are commonly used to tow behind a boat on the lake. We put our gear in the kayak, secured it with straps, got in and pushed off from the shore. We were on our way!

The first half-mile or so was OK. It was fairly smooth, swift running deep water. I don't know the actual speed of the current in miles per hour, but we were impressed with how fast the banks of the river seemed to pass by. We found the inflatable kayak somewhat difficult to control as far as keeping it going in a straight line. The current had a tremendous affect on it, but we managed.

continued page 13

The Desert Radio Amateur Transmitting Society of Palm Springs Invites YOU!

The Desert RATS & PS DX Club are inviting you and your groups members to attend "Palm Springs Hamfest 2011" on January 29.

We would like your help in making this years event surpass the 600 attendee mark to beat last years event!

Could you please forward the attached information sheet by e-mail to all your members... perhaps mention it on your NET... publish it in your Newsletter...list it on your Events Calendar...link our site on yours and mention it at your next couple of meetings! Helping us get the word out would really be great! The mild desert weather is perfect at that time of year. Make it a club outing! On air NETS are already a -buzz tell your pals.

Our Swap Meet was a big draw last year as well, with over 40 vendors selling their wares. There is room for more so bring your stuff (no fee charged to sellers means better prices for you!) We have a consignment table with experienced Hams selling for you if you want us to sell your gear for a small fee. We almost sold out last year.

Lest I forget, we have a gourmet food service at a bargain price. Raffles every hour. Our event as all about great deals in these tough times.

This year we'll have ICOM, Yaesu, HRO, DX Store, Byonics, RF Stuff, AMSAT, ARRL, Alpine Antennas and more. The list is getting longer!

Check our website for up to date announcements at <http://desertrats.am>

We will also be participating in Winter Field Day and having a Special Events Station that day.

Come join us for a fun Day with some great buying opportunities! It is worth the drive! Meet Gordon West, Clint Bradford "the Satellite Guy", Leo Meyers and all the ARRL guys from our Division.

I look forward to seeing you at our 2nd annual ARRL Sanctioned Palm Springs Hamfest January 29, 2011

73Peter VE7REZ /w6
760-318-0186
Twitter name : hamradio

SWAT!

Six-meter Wildass Antenna Team



SWAT Members as of November 2010

Captain Cynthia KJ6HCT
Colonel Rob KJ6RET
Empress Michelle W5NYV
Tentative Titan Mark Raptis KF6WTN
<your name and title and call here!>

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Have a Mac? Try the free cocoaNEC 2.0 <http://homepage.mac.com/chen/w7ay/cocoaNEC/Contents/Downloads.html>

Or, embrace your inner geek and run raw NEC. It's free. Read more about it at <http://www.nec2.org/>

Adventures With Echolink

by special guest writer David W9HQ

In my ongoing quest to upgrade our family communication network (and avoid the cell phone trap) I have recently gotten an EchoLink node going at my QTH. This will allow me to call back to the house when I'm out on the road, especially when I take business trips up to the Twin Cities.

For hardware, I'm using a garbage-picked Toshiba laptop; most of the keycaps are popped off of it, so somebody dropped it into the dumpster. I got it up and going using an external keyboard, but now I don't really need the keyboard at all. More on that later. A homebrewed sound card interface and 2 meter transceiver completes the package.

I've set up the node in my shack for the moment, running to a simple copper pipe J-pole up on my roof. This has let me play around with different hardware and software configurations without too much stress. The Linksys router you see there is a WRT54G-TM running the extremely cool Tomato firmware (actually, it's running the Tomato VPN firmware because I hope to have a personal VPN connection going soon.) This was the result of one more excellent bit of advice from Chris, KF9OP. I was going to buy a dedicated wireless card for the laptop, but he suggested spending just a bit more and getting a router that can be flashed with new software to do any number of sophisticated wireless tasks. Great idea. I picked up a few of them for pretty cheap off of EBay. One is configured as my main Internet wireless access point, with gain antennas on it so the signal is available throughout the whole house. But then I've connected another, configured to operate as part of a Wireless Distribution System (WDS), to the computer running EchoLink.

It needs to be wireless because ultimately, when I have all the bugs worked out, the whole shebang is going up on my silo. The rig, computer, router, and power supply will sit just under the dome and I'll extend a mast above the dome with a nice 2 meter gain vertical on top. Then I should really get out like gangbusters. I've also got a gain vertical for 2.4 GHz that will be connected to the router, to boost the wireless path back to the house.

Since it's going to be at the top of the silo, I don't really want to have to climb up there every time I want to tweak a setting on the computer. So I installed the TightVNC server on the laptop. It allows me quick and easy remote access to that PC from my shack. In fact, there's even a TightVNC client for Puppy Linux, so I can access the laptop running Windows and EchoLink from my Linux machines. Now how cool is that?

I have not used the EchoLink much for family communications, although I have a business trip in the

near future that should be a nice time to try it out. But I have had some delightful QSOs from hams who have just decided to "drop in". One afternoon I chatted with a student at the Milwaukee School of Engineering, connecting through their W9HHX node. Then later that evening, Al (W6AAX) called from Simi Valley, CA. He has family in the area and was wondering about the ham radio activity here.

And about fifteen minutes after I signed off with Al, Daryl (N5SCA) called from Lampasas, TX. It turns out he grew up in the La Crosse, WI area and was, again, wondering about ham radio activity in the area prior to a trek to a family reunion here later this year. Again, we had a nice chat and hopefully will be able to meet when he visits the area.



Then we hit our first set of white water! This was more difficult. We found it impossible to keep the kayak pointed in the direction we wanted. As we passed out of the area of deep, swift running, but smooth water into the area where the water flow was more constricted, the currents and eddies became more varied and unpredictable. Areas of relatively moderate flow would meet areas where the water was moving much more swiftly. If the bow of the boat encountered one of these areas first, no problem. If the swift water met the stern first, it would turn and try to pass the bow, rotating the kayak sometimes 180 degrees and occasionally turning it completely around. No amount of paddling seemed to have very much effect. Needless to say, we were quite uncomfortable and apprehensive about this, but we got it straightened out and headed in the right direction and we passed through this first series of rapids unscathed.

We learned how to control it a bit better and after another patch of relatively smooth water we encountered another area of white water. We negotiated this area OK too and were able to maintain somewhat better directional control than we did the first time although we still got turned around a bit. This was followed by more smooth water and then by more rapids. The same alternating pattern repeated several times. Each time we seemed better able to maintain control. We learned to read the water ahead by watching the breaking waves and steering as best we could to the calmer portions. We were never entirely successful however and by watching the other craft on the river, it was apparent that we weren't the only ones!

We proceeded on this way for the next couple of miles until one time while, trying to seek out the calmer water, we ended up aground in shallow water on a bank of rocks, pebbles actually, that were kind of like a sand bar. We were hard aground and weren't going anywhere. Our two fat butts weighed the boat down enough that we couldn't paddle off or push ourselves off the rocks. Someone had to get out. I was sitting in the stern so Sue got out and grabbed the painter at the bow to pull us off the rocks. She was standing in ankle deep water so it's no wonder we went aground. She was able to move it a bit but I determined that I also would have to get out before we could move it back to deeper water. Just about then, she was able to pull it off so that we were once again afloat.

After Sue got back in, (should I say, "re-embarked"), we were off again downriver. After an-

other series of alternating smooth and rough water and more directional control problems, we saw an area ahead that appeared to be much more challenging than heretofore encountered. We could see no area that appeared to be smoother than any other so we had no choice but to just go for it! We tried keeping the kayak near the center of the river to avoid the excessive turbulence found in more shallow areas. Once again the kayak had a mind of it's own and spun around twice until we were broadside to the current flow! We were headed downstream sideways at a high rate of speed! We paddled for all we were worth but before we could get pointed back downriver or before we passed that series of rapids, the leading edge struck a submerged rock, which effectively brought it to a halt! The trailing side, pushed by the rushing water rose up and over the side that stopped moving, dumping both of us in the water! Here we were, in the middle of the Rogue River, up to our necks in swiftly raging water, holding on to the sides of the kayak for dear life! I was holding onto the boat with one hand while holding onto the paddle with the other!

The stuff we had in the kayak was all strapped in so no worries there. We had two insulated vinyl bags. One is the size of a small lunch bag. It held 4 cans of soda and an ice brick. The other held the Subway sandwich and another ice brick. No big deal. The third item we had was a sport bag containing a couple of towels in case we got wet, (DUH! Water splashed over the side into the kayak frequently), Sue's camera and cell phone along with the keys to the Jeep! My hat washed off and Sue grabbed it. My glasses are somewhere on the bottom of the river. I had a removable section of my wallet containing only a driver's license and one credit card in my pocket. It washed out of the pocket and started floating downriver! Sue saw it and made a grab for it, letting go of the kayak in the process! Bad idea! The next thing we knew she was about 20 feet downriver and going fast!! I was holding onto the kayak and headed for more rocks! I managed to get myself back into the kayak as it and I were floating along. Just by chance, the area I floated into had several shallow rocks and the kayak was once again hard aground and not moving.

To be continued!

YL DXpedition Inaugural Meeting

YL DXpedition website
<http://www.yldxpeditons.com/>

Caribbean Contest Club
<http://asgard.kent.edu/ccc/>



Palomar Amateur Radio Club Photo Gallery Update

by Paul KB5MU

I've been working on revamping the collection of photographs on the club's web page. Instead of a mishmash of different presentations and links to off-site collections, all the photos are now displayed in a unified photo gallery driven by the free software package Zenphoto.

You can find the new photo gallery under "Look at Us" on the club's web page.

<http://www.PalomarARC.org>

You can participate in the new photo gallery, and I hope you will. As always, everybody who takes photos at club events (or other activities involving club members) is encouraged to submit photos to the gallery. I can set you up with an account authorized to post pictures directly to the gallery. If you don't want to deal with learning how to do that (it's easy, though!) you can still send me photos by email, or post them elsewhere and send me a link, or even hand me a CD at a club meeting.

Old photos are welcome, too. It'd be fun to fill in some of the club's history in the photo gallery. I can help you get your photos or slides scanned in so we can post them for everybody to enjoy.

Everybody can also participate by posting comments to the photos in the gallery. Every individual photo page has a comment form at the bottom. If you can help to identify people in a photo, or provide some context for understanding what's happening in the photo, or ask a question about a photo, please feel free to add a comment.

If you use an RSS reader to keep up with blogs and such on the internet, the photo gallery software has features for you. You can subscribe to the entire gallery and see each new photo that's posted, or you can subscribe to individual albums within the gallery. You can also subscribe to comments on a particular photo, which would be handy if you have a question about the photo.

Many other features can be added to the gallery software. If you have a particular request, please let me know. Comments and questions are invited, to webmaster@palomararc.org.

Carlsbad Amateur Radio Exams

by Paul KB5MU

Since the FCC turned over amateur radio exams to volunteer examiners in 1984, the Palomar Amateur Radio Club has sponsored and supported one of the local teams of volunteer examiners, which provides a scheduled exam session on the second Saturday morning of just about every month in the north county. These exams are held in the same room where the club meets, in the Carlsbad Safety Center, and are coordinated by ARRL VEC. The schedule is aligned with SANDARC-VEC sessions held in other locations in San Diego County, so that exams are scheduled on every Saturday somewhere in the county. Additional exam sessions are scheduled as needed when there's a license class or a convention in the area. How many other parts of the country have this much access to exams?

Detailed information on the Carlsbad exam session is available at

<http://www.kiloxray.com/vec/>

or via a link on the club's web page.

The Carlsbad VE team has made it easier than ever to register for the exam. There's now a very simple online form to fill out, and the system automatically acknowledges your registration. On the session's web page, you can see the roster for the next upcoming session. You can confirm that your registration is on the list, and you can see how many others are signed up. This is nice to know, since if fewer than three candidates pre-register, the exam session will probably be canceled. Registrations are also accepted by email or telephone, as an alternative to the web page form.

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

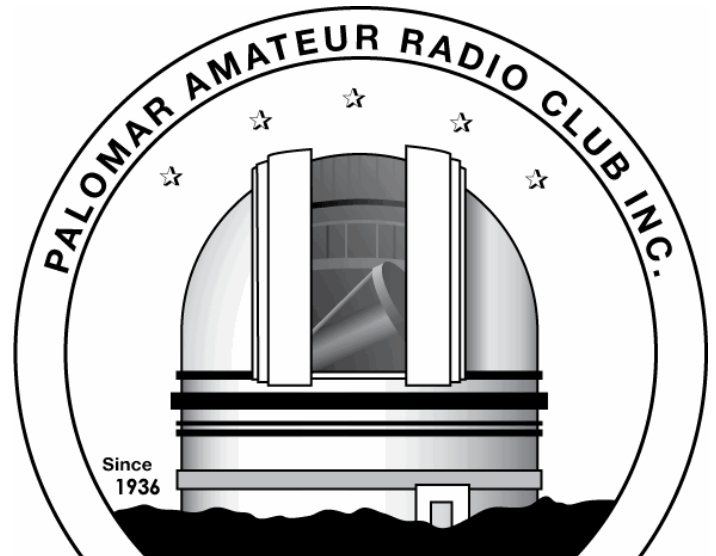
Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm, Palomar Amateur Radio Club will host a program at the monthly membership meeting on 5 January 2011. The presentation will be on Antenna Modeling, and will be given by Michelle W5NYV. We'll demonstrate antenna modeling, discuss why models are important, what makes a good model, and how they help us learn. Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.



Save the Date

Club Meeting

2 February 2011

You are invited to the
75th birthday party for
Palomar Amateur Radio
Club. Games! Food!

Board Meeting

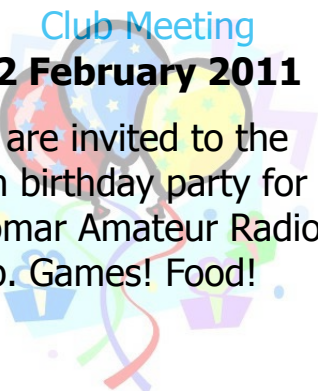
9 February 2011

Palomar Amateur Radio
Club board meeting at
7:00pm

Party!

10 February 2011

Valentine Party for
Hams! See page 5 for
details. Sign up now!



Club Membership for February Edition

Club Membership

New Members Joining PARC: W6BCO, KG6WBJ, W6DMG, N6JO. Several members reinstated their membership, which had lapsed. Thanks to all.

A number of members have elected to receive the SCOPE on the WEB. This saves the club the cost of printing and mailing, which is good. The 'not so good' is that they do not get the monthly reminder that their membership is up for renewal - which is printed on the mailing label for those that receive the SCOPE by mail. As a service, we are printing the call's of the web SCOPE members whose membership has expired recently, hopefully by oversight. The following memberships have expired within in the last couple of months: W6CD, W6NQ, KG6UTS, KG6SPL, and KJ6EDO. PLEASE RENEW!!

AI
W6GNI

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Ferrites slip over coax. Shrink tubing holds them in place. Works from 3.5-60 MHz (Use two kits for 160m).

Model BA-58 (for RG58, RG8X & similar cables up to 1/4" dia.) \$8.50+tax+\$8 S&H/order

Model BA-8 (for RG-8, RG-213, 9913 and similar cables up to 1/2" dia.) \$16.50+tax+\$8 S&H/order.

See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.



January Issue Fold & Staple
KB6NMK Jo WA5ACE Sonny
W6GNI AI & Kathy
KB6YHZ Art & Janet
The last Fold & Staple for 2010!



Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org



For Sale

Complete Kenwood TS-130S rig including TS-130S with MC-30S handheld microphone, YK-88C 500Hz crystal filter, operator and service manuals; PS-30S DC power supply with operator manual; VF-120 remote VFO with interconnect cable and operator manual (in Japanese); and SP-120 external speaker with operator manual. Known issues: TS-130S needs dial lamps replaced and the S-meter needs to be adjusted; VFO-120 needs dial lamps replaced and dial needs to be recalibrated. \$350. Contact Bob Felton, K7WLX, at 760-598-7459 or k7wlx@arrl.net.

For Sale

Item	Price
YAESU FT-1000	\$2,500.00
Kenwood TS-950 S	2,500.00
FT-2500 M	350.00
Kenwood SWR/PWR Meter, Model SW-2000	50.00
TR-7330 2 M	150.00
Astro PS7 A	25.00
Cubic Astro -150 A-10-80M Transceiver	250.00
Ten-Tec Centurion amp 1kw	1,500.00
Ten-Tec Titan amp 1kw	2,500.00
FLUKE Meter Model 77	65.00
SHURE Microphone Push to talk Model 444	30.00
3-500 tubes	100.00 ea.

Contact: R. F. Krist, W6KTE, (760) 724-2786

For Sale

Bearcat 142XL Scanning Radio, in original box, complete and working. 10 bands, 10 channels. Works. \$40.00.

Pete, K6JQE. 858-755-4838

For Sale

Crank-up tower, 4 sections (collapsed length=12' 9"), triangular- 18" bottom to 10" top. 3' top bolt on tapered section with rotor head and thrust bearing installed + 6' of pipe above the taper. Base plate 22" x 22" with 3 studs to set tower on. Lifting winch had a motor at one time but now gone, leaving a spline shaft sticking out of the worn gear box to which a handle or motor can be grafted. Located in Poway, weight 400+/- lbs for tower alone and 150+/- lbs for the top piece, base plate and winch - \$250. Gary 858-748-6076 wb6gsn@gmail.com

For Sale: HUSTLER 6BTV High Performance HF Vertical Antenna system, 80/75/40/30/20/15/10 m, complete with 250ft spool 14 ga wire and all precut radials, SS Tilt base and SS Radial plate. Used one year. Bought new at \$400, will sell for \$200. Contact: Rich Ortloff KE6DUG 760-861-1406

For Sale: 6BTV Vertical Antenna. Crank up Tower with rotor and 3 El Yagi. Must be taken down and removed. Call Lee, (760) 726-1097

Notes From the Repeater Site

by Art KC6UQH

Bernie, N6FN and Art visited the repeater site on 22 January 2011. Their purpose was to install the 447.000 spare with receive control of CTCSS regeneration. This is a new concept. If you use Tone decode on your radio you will not hear ID or anyone without a Tone encode. This is done to allow Bernie to set up the EchoLink on 447.000.

447.00 is currently using a mobile duplexer, the duplexer at the site was removed for repair/replacement and was causing desense problems.

The squelch control on the 147.13 was vigorously exercised and the .13 is back to normal operation.

Conrad met us at the site and removed the 6M repeater for repair off site. The TX power was out down to 3 W.

Help With Test Session

by Steve Early AD6VI

I have scheduled the Carlsbad Safety Center for a One-Day Technician Class on Saturday, February 26th. This class is being offered in support of the North County CERT programs.

I have scheduled the Carlsbad Safety Center for a One-day General Class on Saturday, March 5th. This class is being offered in anticipation of a more difficult exam starting Jul 1, 2011.

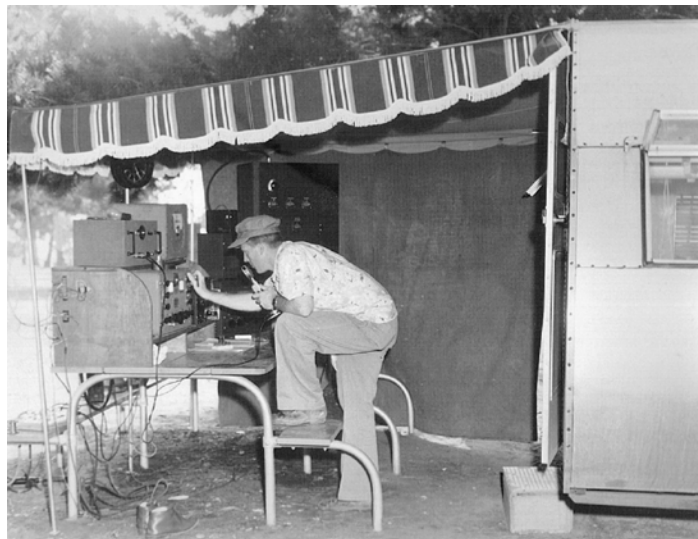
I have scheduled the Carlsbad Safety Center for a Get-On-The-Air Seminar for the afternoon of Saturday, March 12th (after normal VE Session). This class is being offered to help new and up-

graded operators to develop and improve skills. It is scheduled to allow persons to take advantage of the regular Carlsbad Exam Session, in the event they did not succeed after the Tech and General Classes.

I am hoping to offer an exam session immediately after the Tech and General Classes. This would be 5 PM on February 26th and 5 PM on March 5th. My intent is to get the students examined while they are still retaining the bulk of the material.

I believe that it is too much to the Carlsbad team to support both classes and their regular session. Therefore, I offer the Carlsbad Team the right of first refusal, but also ask the rest of you to consider supporting each of the classes.

Please advise, if available for Feb 26th or March 5th.



HAM RADIO OUTLET

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

H
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O

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TEN-TEC
Hy-gain, Tri-EX,
Cushcraft And Others
too
Numerous to
Mention!

Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!

HIGH CLAIMED-SCORES — 1946 FIELD DAY

As this issue goes to press, Field Day logs have been received from 104 club groups, 53 nonclub groups and individuals, and 45 home stations.

We are passing along the highest claimed-scores so far reported. These are subject to checking, and should not be considered a final tally.

CLUB GROUPS

(Listing shows club name, call used in FD, claimed-score, and number of simultaneously-operated transmitters.)

Jersey Shore Amateur Association.....	W2FC/2	9621-8
Frankford Radio Club.....	W3BES/3	8568-7
Tri-County Radio Association.....	W2KHK/2	6921-8
Northwest Amateur Radio Club.....	W9IT/9	6363-5
Monmouth County Amateur Radio Association.....	W3AC/2	6237-7
Motor City Radio Club.....	W8ONK/8	4500-3
St. Paul Radio Club.....	W9KYC/8	4338-6
Greater Cincinnati Amateur Radio Assn.....	W8JIN/8	4320-2
Four Lakes Amateur Radio Club.....	W9RNX/9	4239-3
Somerset Hills Radio Club.....	W3ZD/2	3978-5
York Road Radio Club.....	W3IU/3	3879-5
Steel City Amateur Radio Club.....	W8TUD/3	3870-5
Palomar Radio Club.....	W6BKZ/6	3756-6
Mountaineer Amateur Radio Association.....	W8BOK/8	3555-6
Mon Yough Amateur Transmitters Association.....	W8OC/8	3267-2
Amateur Transmitters Assn. of Western Pa.....	W8BSO/3	3249-4
Wisconsin Valley Radio Association.....	W9RQM/9	3060-2
Narragansett Assn. of Amateur Radio Oprs.....	W1LWA/1	3051-1
Minneapolis Radio Club.....	W8OBM/8	2961-3
Northern Nassau Wireless Association.....	W2FJV/2	2907-5
Tulsa Amateur Radio Club.....	W5IAS/5	2875-4
Kalamazoo Amateur Radio Club.....	W8DM/8	2817-3
Beacon Radio Amateurs.....	W3ATR/3	2707-2
Lancaster Radio Transmitting Society.....	W3LN/3	2664-1
Delaware Valley Radio Association.....	W3AQ/2	2538-3
Milwaukee Radio Amateur Club.....	W9SYT/9	2538-3
Cuyahoga Radio Association.....	W8GW/8	2529-2
York Radio Club.....	W9GY/9	2502-3
Bridgeport Amateur Radio Club.....	W1MWN/1	2457-3
Cahokia Amateur Radio Club.....	W9TCK/9	2427-3
So. Lyme Beer, Chowder and Propagation Soc.....	W1EH/1	2371-1
North Newark Amateur Radio Club.....	W2PY/2	2322-3
Greater Cincinnati Amateur Radio Assn.....	W8SLO/8	2313-1
Racine Megacycle Club.....	W9PWJ/9	2214-3
Joliet Amateur Radio Society.....	W9HVZ/9	2181-3
Fort Worth Kilocycle Club.....	W5AA/5	2142-2
New Haven Amateur Radio Association.....	W1GB/1	2106-4
South Hills Brass Pounders and Modulators.....	W8BK/3	2061-2
Toledo Radio Club.....	W8ARF/8	2061-3
Iowa City Radio Club.....	W8IFB/8	2040-3

NONCLUB GROUPS & INDIVIDUALS

(Listing shows call used by each group, number of operators, claimed score, and number of simultaneously-operated transmitters.)

W9ERU/9.....	10-2574-3	W1BDI/1.....	5-1428-1
W9RCQ/1.....	1-2115-1	W7RT/7.....	1-1424-1
W6PNU/6.....	4-1978-2	W8KYW/3.....	9-1368-2
W6STA/6.....	3-1876-2	W9VPD/9.....	4-1233-2
W2FBA/2.....	2-1827-1	W8UPS/4.....	5-1170-2
W9PEK/9.....	11-1512-2	W8VMF/3.....	4-1134-1
W8FBC/8.....	3-1467-1	W1GKJ/1.....	4-1116-1
W9AVE/9.....	7-1431-3	W1JWG/1.....	2-1057-1
WILLX/1.....	2-1428-1		



Come and join us!!!!

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When: 10 February 2011

Where Coco's Restaurant

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December Minutes

Palomar Amateur Radio Club
Board of Directors Meeting
December 8, 2010

The meeting was called to order by President Dennis Baca KD6TUJ at 7:23pm at the home of Ron Pollack, K2RP. In attendance were:

- President Dennis Baca KD6TUJ
- Vice President Ron Pollack, K2RP
- Secretary Paul Williamson, KB5MU
- Director #1 Don Johnson, WD6FWE
- Director #2 Conrad Lara KG6JEI
- Visitor Bernie Lafreniere N6FN

Secretary's Report

Secretary Paul Williamson KB5MU distributed copies of the November Board meeting minutes as emailed by last year's Secretary, Gary Kent W6GDK. Motion by KB5MU to approve the minutes as published. Seconded by Ron Pollack K2RP. Motion passed, with Conrad Lara KG6JEI abstaining. KB5MU distributed copies of the December general membership meeting minutes as emailed by last year's Secretary W6GDK. Motion by KG6JEI to approve the minutes as published. Seconded by KB5MU. Motion passed unanimously.

Treasurer's Report

KB5MU distributed copies of the Treasurer's report as emailed by the Treasurer, Georgia Smith KI6LAV. It showed a reimbursement to Dennis Vernacchia N6KI of \$68.76 for parts used to refurbish the Club's 20m antennas, charged against the Rptr Maint account. It was agreed to ask KI6LAV if there might be a more appropriate account for this charge. A question was raised about why we maintain a telephone line at the repeater site. It is for convenience and safety for workers at the site, and can also be used for repeater control. Motion by KB5MU to approve the Treasurer's report subject to a possible adjustment of the account for the N6KI reimbursement. Seconded by Director Don Johnson WD6FWE. Motion passed unanimously.

Upcoming General Meeting Program

KD6TUJ reported that the January general membership meeting program would be presented by Michelle Thompson W5NYV on antenna modeling with her SWAT team.

Membership Report

No membership report was available.

Appointment of 2011 Committee Chairs KD6TUJ announced his intention to re-appoint Al Donlevy W6GNI as membership chairman and W5NYV as Scope editor, if they are willing to serve. KG6JEI said he would be willing to serve as repeater technical chairman. No appointment for repeater technical chairman or repeater site chairman was announced.

Repeater Technical Reports

KD6TUJ mentioned receiving a report of a prob-

lem with the Club's 147.075 MHz repeater. KG6JEI said he has spot-checked the repeater without discovering any problem.

KG6JEI reported on the status of the 52.68 MHz repeater. The antenna was found in even worse condition, so Art McBride KC6UQH turned off the repeater to prevent damage. KG6JEI recommended that the repeater be removed from the repeater site and given an overhaul while its antenna is out of service. He believes that the connections to the mobile control heads of the transceivers cause problems. KD6TUJ reported that KC6UQH has reinstalled the amateur television (ATV) repeater, but that it is not linked to any other locations. KG6JEI said that KC6UQH does not currently plan to re-install any of the linking equipment, but that if someone is interested in doing so he would assist.

EchoLink Proposal

Bernie Lafreniere N6FN proposed connecting one of the Club's repeaters to the EchoLink VoIP system. The main technical issue is blocking the repeater identification and courtesy tones from going out on the Internet link. N6FN said that KC6UQH believes this could be managed easily with simple cut-and-jumper modifications to the repeater controller board. Because a standalone EchoLink node would require a fast Internet connection, not readily available at the repeater site, all other equipment would be located elsewhere. The Board agreed by consensus that N6FN be authorized to operate an EchoLink node on the 447.0 MHz repeater on a test basis.

Kids Day

KD6TUJ reported that approval had been received from the City of San Marcos to use Double Peak Park for the Kid's Day operation on January 2. The ranger was concerned about how spread out we were at the last Operating Day, so we'll try to be more compact this time. Tim Higgins KJ6BWX is taking the lead, backed up by Steve Early AD6VI. KJ6BWX is trying to get media coverage. KD6TUJ will bring out the tower trailer and other equipment.

Oceanside Antenna Ordinance

KD6TUJ reported progress on the Oceanside antenna ordinance. A meeting was held with several Council members and about twenty others, with strong interest from the Council members and a good question-and-answer session. Council members seemed impressed to learn about the engineering paperwork already provided by tower manufacturers.

Membership Campaign Proposal

K2RP noted that the upcoming 75th anniversary party at the February membership meeting would be a good opportunity to reach out to local hams who might join. He proposed a direct mailing to about 1300 hams in surrounding zip codes. KB5MU expressed a concern about restricting our

Don Johnson KD6FWE
at PARC Field Day 1977.





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K2RP announced that the March (or maybe April) meeting program would feature Bob Blumberg K4RB, a stalwart CW operator who operated from many exotic locations while working for USAID. He will talk about an IOTA expedition to an Indonesian island with a group of Indonesian hams.

Monthly Nag

KG6JEI asked KD6TUJ if the generator auto-start was installed and working yet. KD6TUJ did not dignify this question with an answer.

Next Board Meeting

It was agreed that the next Board meeting would be held at the home of KB5MU at 7pm on January 12, 2011.

Adjournment

The meeting was adjourned at 9:10 pm.
Respectfully submitted,
Paul Williamson KB5MU
Secretary

recruiting to only a small part of the county.
No action was taken.

Call for Scope Articles

KB5MU relayed the request from Scope editor W5NYV for more articles for the Scope.

Future General Meeting Program

Amateur Radio Men Meet In Carlsbad

Amateur radio operators from all parts of northern San Diego county assembled in Carlsbad this Thursday evening for their monthly meeting. Fred Elser was host at his electric and radio store on First street where his own station, W6GVU, is located.

"Hams," as they term themselves, lead interesting lives. They not only have the world by the ear, they listen as well as talk. All amateur operators are required to know the international code before they are given licenses, and many of them have telephone wireless equipment too, so that they are in daily touch with each other. Messages are sent free by them to all parts of the world where there are amateur stations, and they are in honor bound to secrecy regarding the messages.

The members of the north county group are Bill Whigham and Stanley Estes, Solana Beach; Fred Elser, Carlsbad; Johnnie Martin, Harold Ulmer, Clinton Call, Bill Jago, Melvin Bacon, Vernon Choate, Fred Pierce, Oceanside; Jack Cornell, Harry Field,

1936, PARC has its first meeting. At left is the newspaper announcement.

Thursday, F

The

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February 13, 1936

Thursday, May 13, 1937



May 13, 1937

Palomar Radio Club,
Mr. Ernest Epler, Secy.,
Route 2, Box 158,
Escondido, Calif.

May 13, 1937
Mr Ernest Epler, Sec.

Dear Mr. Epler:

It gives me great pleasure to advise you that at the meeting of the A.R.R.L. Board of Directors just held, the application of your club for affiliation with the A.R.R.L. was formally presented and your club declared a duly affiliated society. A charter will be sent you as soon as it can be prepared. I know that our respective organizations will always find much of benefit in each other's strength and progress.

It is suggested that you keep in touch with the nearest A.R.R.L. Communications Department representative elected by A.R.R.L. members in your territory (see address page 5, QST) and endeavor to keep him advised of the radio activities of your club members. Our A.R.R.L. would, we feel sure, like to have a full complement of appointments of qualified operators in different capacities right in your club organization. I refer to such appointments as those for Official Broadcasting Station, Official Observer, Official Phone Station and Official Relay Station. These are all explained fully in the Handbook.

Kindly arrange to keep us posted on any change in the officers of your club so our records will be correct.

Sincerely yours,

FHE:LLS

CC SCM Ambler, W6EOP

F. E. Handy
Communications Manager

The Adventures of Tom and Sue

This is part two. Part one was published in the January 2011 Scope. You can find this issue online at our website www.palomararc.org.

The area I was in was also relatively smooth and I could see up ahead that the region near the left bank all appeared to be less turbulent than the rest of the river. If I could safely navigate downriver past the rapids, I could possibly manage to maneuver myself over to the right bank and beach the kayak.

Hanging onto the branch was working very well at keeping me in one place and I could see several other overhanging branches ahead of me. Letting go of the branch, and using the paddle, I pushed off and once again headed downstream. This time I used the paddle to remain as close as possible to the left bank.

About 30-40 feet along, I grabbed another branch and brought myself to a halt. I rested a couple of minutes and did it again. I found another branch and stopped once more. This was working OK. I pushed off again. Up ahead I saw a rather large tree, which had fallen into the river. It was resting at a 45-degree angle from the top of the left bank, about 20 feet up, to the water with an unknown amount of it under water. There was about 4-5 feet of clearance between the trunk and the water near the bank and I headed for that spot.

The water was smooth although moving very swiftly. When I was 20-30 feet from the fallen tree, I saw that there was a smaller log, perhaps a branch off this larger tree, lying just beneath the surface of the water under the tree trunk toward which I was headed! I couldn't go there so I would have to pass offshore from the fallen tree. I started paddling with all my might but to no avail! I couldn't overcome the force of the current and I couldn't get offshore from the tree. The current slammed me against the fallen tree, tipping the kayak on its side and wedged firmly against the fallen tree! The tree trunk still had some broken branches poking out and these effectively blocked the kayak from any further movement. It was at a right angle to the flow of the river, on its right side with the top facing upstream. The branches held it fast, sideways to the flow, with the bow pointing toward the opposite bank. One branch nearly impaled the bottom and I was once again in the water! I held on there for a few minutes. It was obvious that the kayak wasn't going anywhere! The force of the gravity driven river pushing against the flat top of the kayak, wedged firmly against the tree trunk, and held there by

numerous branches was such that I wasn't going to be able to move it. I was on the upstream side of the capsized kayak being pummeled by the water. After a few minutes of trying, and with great effort, I was able to pull myself up half onto the tree trunk and half on the capsized kayak. After resting there for a few minutes, I managed to get entirely onto the tree trunk.

I checked the kayak and found it to be completely immovable against the force of the water. So there I sat on the tree trunk, facing the open water. It was hard to maintain my balance on the trunk because it was so slippery from the constant splashing of water and algae growth. There were branches firmly against my back and I couldn't push myself any further up the trunk nor could I turn around to see what was blocking my way. I resigned myself to waiting there until help arrived.

Several other people floating on the river passed by with most hollering to ask if I was OK or injured. I yelled back at everyone telling them that I was OK but my wife had fallen out upstream. A few of them said they would send help.

Two groups, when I told them about Sue, gave me a thumbs-up signal. I took that to mean she was still safely on the island. She didn't have the benefit of knowing about me as I did about her and was very worried. One group of 5 people in a large raft deliberately grounded themselves on the rocks about 60 or so feet downstream from me. One of the guys got out of the raft and I saw him very carefully picking his way upstream, walking along the bottom against the current, trying to get to a place where he could get to me. I lost sight of him but a few minutes later he came down to me from upstream, walking in the water along the bank. Man was I ever grateful to see him! He asked if I was OK and confirmed for me that Sue was indeed safe on her island. That was the best news I could have heard!

He tried to pull the kayak away from the tree trunk against the flow with me pushing from my location on the trunk but we couldn't get it to budge a bit. A few minutes later a group of 4 kayaks came by. One beached themselves a few feet from me and the others beached themselves about 40 feet downstream from me. These were all women and experienced river rafters. The one that landed nearest to me worked for the rescue service in another county and was rafting here on her day off. She had a throw bag of rope used for rescue work with her. The other guy who stopped and I tied one end of the rope to a strap on the kayak while she tied the other end to a tree on

continued on page 13

A Bill Before Congress That You Need To Read

Contact your Congressperson About
This Bill - Express Your Opinion!

112TH CONGRESS 1ST SESSION

H. R. 81 To promote and encourage the valuable public service, disaster relief, and emergency communications provided on a volunteer basis by licensees of the Federal Communications Commission in the Amateur Radio Service, by undertaking a study of the uses of amateur radio for emergency and disaster relief communications, by identifying unnecessary or unreasonable impediments to the deployment of Amateur Radio emergency and disaster relief communications, and by making recommendations for relief of such unreasonable restrictions so as to expand the uses of amateur radio communications in Homeland Security planning and response.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 5, 2011

Ms. JACKSON LEE of Texas introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL To promote and encourage the valuable public service, disaster relief, and emergency communications provided on a volunteer basis by licensees of the Federal Communications Commission in the Amateur Radio Service, by undertaking a study of the uses of amateur radio for emergency and disaster relief communications, by identifying unnecessary or unreasonable impediments to the deployment of Amateur Radio emergency and disaster relief communications, and by making recommendations for relief of such unreasonable restrictions so as to expand with the uses of amateur radio communications in Homeland Security planning and response.

1 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

This Act may be cited as the "Amateur Radio Emergency Communications Enhancement Act of 2011".

6 SEC. 2. FINDINGS.

The Congress finds the following: (1) Nearly 700,000 amateur radio operators in the United States are licensed by the Federal Communications Commission in the Amateur Radio Service.

(2) Amateur Radio operators provide, on a volunteer basis, a valuable public service to their communities, their States, and to the Nation, especially in the area of national and international disaster communications.

(3) Emergency and disaster relief communica-

tions services by volunteer Amateur Radio operators have consistently and reliably been provided before, during, and after floods, hurricanes, tornadoes, forest fires, earthquakes, blizzards, train accidents, chemical spills, and other disasters. These communications services include services in connection with significant examples, such as hurricanes Katrina, Rita, Hugo, and Andrew; the relief effort at the World Trade Center and the Pentagon following the 2001 terrorist attacks; and the Oklahoma City bombing in April 1995.

(4) Amateur Radio has formal agreements for the provision of volunteer emergency communications activities with the Department of Homeland Security, the Federal Emergency Management Agency, the National Weather Service, the National Communications System, and the Association of Public Safety Communications Officials, as well as with disaster relief agencies, including the American National Red Cross and the Salvation Army.

(5) The Congress passed Public Law 103-408 which was signed by the President on October 22, 1994. This included in section 1 the following finding of Congress: "Reasonable accommodation should be made for the effective operation of amateur radio from residences, private vehicles and public areas, and the regulation at all levels of government should facilitate and encourage amateur radio operation as a public benefit."

(6) The Congress passed Public Law 109-295 which was signed by the President on October 4, 2006. This included a provision in the Department of Homeland Security Appropriations legislation for fiscal year 2007 that directed the Department's Regional Emergency Communications Coordinating Working Group to coordinate their activities with "ham and amateur radio operators" among the eleven other emergency organizations such as ambulance services, law enforcement, and others.

(7) Amateur Radio, at no cost to taxpayers, provides a fertile ground for technical self-training in modern telecommunications, electronic technology, and emergency communications techniques and protocols.

(8) There is a strong Federal interest in the effective performance of Amateur Radio stations, and that performance must be given support at all levels of government and given protection against unreasonable regulation and impediments to the provision of these valuable communications.

SEC. 3. STUDY OF ENHANCED USES OF AMATEUR RADIO IN EMERGENCY AND DISASTER RELIEF COMMUNICATION, AND FOR RELIEF OF RESTRICTIONS.

(a) AUTHORITY.—The Secretary of Homeland Security shall undertake a study on the uses and capabilities of Amateur Radio communications in emergencies and disaster relief; and

A Bill Before Congress continued on page 15

Installing EchoLink

By Bernie Lafreniere, N6FN

In the last two issues we explored how the EchoLink system allows you to make contacts using either your DTMF equipped HT or personal computer. This month we cover how to get the EchoLink software installed on a computer and getting your call sign validated for access to the EchoLink network.

System Requirements

EchoLink is designed to work on PC's equipped with any of Microsoft's operating Systems, Windows 95, 98, Me, NT, XP, 2000, Vista and now Windows 7. Almost any PC should be fast enough to run the application.

Of course you will need an Internet connection. The application will work on dial-ups capable of 24 kbps or faster. Having either DSL or a cable modem is better.

Downloading the Software

You can download the software from the EchoLink web page: <http://www.echolink.org/> In addition to downloading the software you can also download and save a copy of the EchoLink Users Guide. This user guide is essentially the same information found in the EchoLink software's help files. If you are like me, you may want to print sections of the guide needed during set up of the software.

Software Installation and Basic Config

After downloading and saving the EchoLink install file to a convenient place, locate and double click on the file to run the EchoLink installer program. Unless the version has been updated, it is a file named EchoLinkSetup_2_0_908.exe.

When the EchoLink software runs for the first time, it comes up with a Setup Wizard that helps you configure the program for your system. Initially select Computer User, if you later want to setup your own RF EchoLink node you can select Sysop.

Continue with the Setup Wizard entering your Callsign exactly the way you want it to be registered on EchoLink. When registering as a Computer User use your FCC issued call sign with no suffixes added to it.

Create a Password, making a note of what it is in case you need to re-install the software or later generate additional call signs for operating your own Simplex or Repeater nodes. If you have registered before, use your original password. Enter your First Name and station Location (or

station description) the way you want them to appear on other stations' screens.

Firewall / Router Tester

The next step in the installation process is to run the Firewall/Router Test utility, which pops up. If the test runs without error for both TCP and UDP connectivity, you are home free and can continue with the set up process.

If the above test failed, your computer or router's firewall may not be allowing outbound traffic over TCP port 5200. For more information and suggested solutions to this problem, refer to the Firewall Solutions section of the EchoLink web site found under the Support and FAQs link that is on the main page.

Before getting too wrapped up in this issue, though, try running the Firewall/Router Test utility a second time. If all the UDP tests pass the second time try continuing with the installation, only coming back to this issue if you later have trouble connecting to EchoLink nodes.

If you are having Firewall / Router Problems Instructions for configuring your router and firewall settings are dependent upon your method of Internet connection and the type of protection software you are running. For guidance on resolving these issues, refer to the following sources:

- The Routers and Firewalls section of the EchoLink web site found at: <http://www.echolink.org/>
- The Firewall Issues section of the EchoLink software help files found under the Troubleshooting section.
- The Firewall Solutions section of the EchoLink web site found under the Support and FAQs link on the main page.
- The <http://portforward.com> web site. A link for EchoLink specific topics is found near the bottom of the Firewall Issues EchoLink software help instructions.

Call Sign Validation / Authentication

If you have never registered before, when the EchoLink software first runs, the Station List area of the screen will be blank. You will be able to look at the menus and help files, but the software will not allow access to the EchoLink system. You must first have your call sign validated by the system before you are granted full access.

All new users must be validated to ensure that they hold a currently valid amateur license and that they are who they say they are. You certainly would not want someone else using your call sign

continued one page 14

continued from page 10

shore. Both of them tried pulling on the rope with me pushing on the kayak in another attempt to free it from its wedged position. No go! It didn't budge!

The flow of the water exerts a tremendous force! I found out later that the river is 5 feet higher than usual for this time of year and flowing at 2,600 cubic feet per second. The usual flow is 1,700 cubic feet per second! With the rope secured to the kayak on one end and the tree on the other end, it appeared that I had a safe way to leave my perch on the tree and get to dry land. My feet had been dangling in the water the entire time and the 50-degree water was pretty chilly. I could no longer feel them.

With the help of the other guy and with Becky securing the rope on shore, we thought I could make it to shore. I swung both legs over one side of the trunk and, holding firmly onto a branch, slipped off the tree into the water. The intent was to hold onto the rope and walk ashore. Well, as soon as my feet entered the water the current swept them away. I was holding onto the branch with one hand and the rope with the other but the current was so powerful that I didn't have the strength to force my feet down to the bottom so I could stand up! With a great deal of effort by pushing against the tree, I managed to get one foot down. The second one was soon also on the bottom and I was only in water about up to my thighs. By wrapping the rope around my arm and pulling while at the same time taking a small step, I was able to move about 8-10 inches. I took another purchase on the rope and pulled myself along enough to take another small step. A couple more times and I was able to move more freely with less pressure from the current and finally got out of the water and sat on the edge of the bank. I was never so happy to get out of the water as I was in that minute!!

Meanwhile, Sue is still on the island. People that pass her by ask if she is OK and she answers affirmatively and tells them that I have floated on downstream and she doesn't know what happened to me. I sat there on the bank for a while. They guy who stopped to help said goodbye and wished me luck. I shook his hand and he was off to join his party, still sitting on the rocks in the middle of the river. Becky remained with me and the rest of her party were still beached downstream. This has been about 1½ hours since I found myself wedged against the tree. I was feeling extremely grateful for these good Samaritans who stopped to help as well as quite foolish for getting myself into the situation in the first place. My feelings of guilt, embarrassment and

inadequacy were somewhat assuaged when I saw two other guys float by, in the water, holding on to the side of their kayaks as they floated helplessly downriver sideways, kicking their feet with all their might with no effect. A few minutes later, a kayak floated by without anyone in it. All in all it seems like a bad day on the river. After a short while, I heard the roar of an engine and an aluminum River Rescue boat with a 140 HP outboard motor roared into view from downriver, heading upstream. There was a rather large island as these things go directly out from me near the middle of the river. The boat first approached from my side of the island, but never got within 100 feet. It then turned around and went up the other side of the island. I could hear the motor revving hard as it forced its way upstream until it was out of sight. About 10-15 minutes later it came back downstream on that side of the island, made a u-turn around it, and headed up my side.

Sue was in the boat!!

They hollered and asked if I was Tom. I waved and answered yes. They turned around and headed downstream. They went about 200 yards downstream and landed at a natural ramp to debark Sue, and then they returned to get me. I climbed aboard, said my thanks and goodbye to Becky, and off we went. They landed me at the same place they left Sue.

Needless to say we had a very joyful and thankful reunion! Both of us are OK. Nobody got injured except for a few scratches on my hands and arms from climbing onto the tree trunk. Sue got a bruise on one knee, from what we don't know but she probably hit it on a rock.

That's it! The two lunch containers were recovered at the scene of the tree but the sports bag containing the camera, telephone, and car keys was gone. The River Rescue called the place we rented the kayak and they came and picked us up. The rescue boat also put a couple of ropes on the kayak and pulled it off the tree with a great deal of effort. It, like us, was undamaged. So, at that time we were grateful that we were OK and the only things hurt were our dignity. We had lost the telephone, camera, my glasses, and car keys. They were all in the sports bag except my glasses. The loss of the car keys would be an incredible inconvenience since our other set of keys was back home in the motorhome, 50 miles away. We asked the River Rescue captain to take a look back by the tree and he did, but it wasn't there. The strap it was fastened with had parted and it was gone. The boat took off downstream and said they'd look for it but didn't give much

Up A Creek continued on page 15

continued from page 12
to gain access to the system.

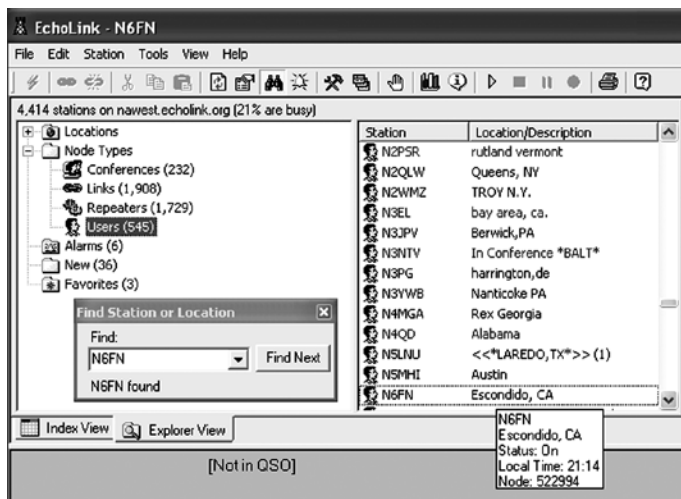
For more information on this process and to have your call sign validated and authenticated, go to the main EchoLink web page at <http://www.echolink.org> and access the Validation page.

Verifying Your Node Has Been Added

Once you have received an email notification of being validated, you can check to see that your call sign / node has been added to the list of stations available on the network. To do this, run the EchoLink software and you should see that the Station List area of the EchoLink window is filled in with available station nodes of all types.

To find your call sign, click on the binocular icon in the Tool bar and type your call sign in the Find Station or Location popup window, as shown in the following figure. Click on Find and your call sign / node should come up.

Next hover the mouse cursor over your call sign to view your location, current status (either



On line, or Busy), your local time, and most importantly your new Node number. There are still a few things that need to be configured before actually making contacts. Under Tools, select Adjust Sound Device to set the receive and transmit audio levels. Audio levels can be tested by connecting to the EchoLink Test Server, found under the Station tool. Also under Tools, you will find the Setup and Preferences menus. You can review these parameters, but the default values should work fine. Refer to the program's Help system for guidance in getting things set up.

Congratulations, you are now a registered EchoLink user! Your node appears in the station list of users all around the world. Now you can be contacted by other stations, or initiate your own calls to anywhere in the world. Enjoy!



Above, Brian KF6C shows his 6m direction finding experiment at the January membership meeting. He used this experiment to explore different modeling techniques.

Right and below, Michelle W5NYV gives a talk at the January membership meeting about mathematical modeling.



Up A Creek continued from page 13

hope of finding it. After asking us if we wanted to continue on our trip, and us giving a resounding "No" the rental place took the recovered kayak and us back to the office. We told them about the missing sports bag and asked if anyone had reported finding it. The answer was no but the rescue people weren't back yet. We decided to go hang out at the ramp where everyone returns after their trips in the hope that someone found it while we waited to see if rescue came up with it. The loss of the camera and the phone were a shame, but it was only money.

The loss of the car keys stranded us 50 miles from home. We wondered how much a cab would cost

A Bill Before Congress continued from page 11

(2) shall report its findings to Congress not later than 180 days after the date of enactment of this Act. (b) SCOPE OF THE STUDY.—The study required by this section shall— (1) include recommendations—

(A) for enhancements in the voluntary deployment of Amateur Radio licensees in disaster and emergency communications and disaster relief efforts; and

(B) for improved integration of Amateur Radio operators in planning and in furtherance of the Department of Homeland Security initiatives; (2)

(A) identify unreasonable or unnecessary impediments to enhanced Amateur Radio communications, such as the effects of private land use regulations on residential antenna installations; and

(B) make recommendations regarding such impediments; and include an evaluation of section 207 of the Telecommunications Act of 1996 (Public Law 104–104, 110 Stat. 56 (1996)); and

(B) make a recommendation whether that section should be modified to prevent unreasonable private land use restrictions that impair the ability of an amateur radio operator licensed by the Federal Communications Commission to conduct, or prepare to conduct, emergency communications by means of effective outdoor antennas and support structures at reasonable heights and dimensions for the purpose, in residential areas. (c) USE OF EXPERTISE AND INFORMATION.—In conducting the study required by this section, the Secretary of Homeland Security shall—

(1) utilize the expertise of the American Radio Relay League, representing the National Amateur Radio community; and

(2) seek information from private and public sectors for the study.

to get us both ways to get the keys. We sat there, on a bench, and had some sodas and chips for over an hour. By then we concluded that it was a lost cause and were about to leave when I saw Becky, the gal who stopped to help and remained with me until the River Rescue showed up. She had just finished her trip downriver and was pulling her kayak out of the water. Sue wanted to go over and thank her, as I had already done. While she was there, another member of her party was on the phone telling someone that they were done and ready to be picked up. The person on the other end of the phone reported finding a bag in the river and wanted to know if anyone reported one missing.

Sue just happened to overhear the conversation! It was our bag, - - - with everything intact although soaking wet, of course.

Through a tremendous amount of good luck, a wondrous concatenation of coincidences and someone watching over us, - - - we came out of this unscathed except for our wounded dignity, the loss of my glasses, and Sue's cell phone which was also soaked.

The camera remained completely dry double bagged in Ziploc bags. We wanted an adventure, - - and we got one!! Albeit not the one we expected!

It was a terrific learning experience. We learned that we were woefully unprepared for this undertaking, that we misjudged badly our abilities, and that we don't want to buy this model of kayak after all. Most of all we learned again the value of life jackets! Without them we might very well have died! We learned also not to take the car keys with us but to leave them safely behind in somebody's care.

We did learn, once again, that our ability to handle and survive a similar situation is good. We once before sank a canoe in the Colorado River but that was much easier to deal with. No white water and we paddled it ashore while in the water. We have a great deal of experience on the water with sailing and powerboats but I'm giving up on anything that's muscle powered!! Give me a motor!! Maybe two motors!! At least we can cross this off our bucket list and we didn't quite have to "kick the bucket" to do it! I tell you, it gives us a whole new understanding to the phrase, "up the creek without a paddle"! We're going on the river again next week but this time as part of a guided group

with experts doing the paddling! **The End**

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 2nd of February 2011, Palomar Amateur Radio Club will have our 75th Birthday Party! Bring a dish to share. There will be games. Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

One-day Amateur Radio General License Upgrade Class (Intermediate)

Dates/Times: Saturday, March 5th, 2011
8 AM to 5 PM (with breaks and a 45 Minute lunch)

Location: Carlsbad Safety Center, 2560 Orion Way,
Carlsbad, CA, 92010-7240

Class is free.

VE Testing, (5:00 PM to 7:30 PM) and costs \$5
Please RSVP with Steve Early at ad6vi@cox.net to
ensure enough materials and seats.

Amateur Radio Get-On-The-Air seminars

Saturday, March 12th
Noon to 3:30 PM (after PARC sponsored ARRL-
VEC session)
Location: Carlsbad Safety Center, 2560 Orion Way,
Carlsbad, CA, 92010-7240

Class is free.

submitted by Georgia Smith
KI6LAV

Repeaters for iPad and iPhone!
<http://w4smt.com/repeaters/>
submitted by Howard KY6LA.



Was looking at the Field Day pictures in the February Scope, and realized that the kid sitting down operating the station is me!! (*photo below*) I believe this was 1953. Maybe at Buddy Todd Park in Oceanside (?). I was 17 at the time. My original call was W6NLO. My 20m CW setup is shown (I still have the Hunter Cyclomaster exciter). RF amp was a pair of 24G's running about 100 watts output.
73, Merit W6NQ



BREAKING NEWS
W0NI will attend
DAYTON 2011!

Save the Date

Club Meeting
2 March 2011

K4RB, Bob Blumberg, and his experiences all over the world, with special focus on Indonesia.

Board Meeting
9 March 2011

Palomar Amateur Radio Club board meeting at 7:00pm

YL DXpedition
14-22 March 2011

www.yldxpedititions.com
Curacao!

Club Membership for March Edition

New Members Joining PARC: KJ6IEG, KJ6EDS, KJ6LLB, NQ6U, WA6PPG, and KG6KL.

One regular member renewed for 10 years! In addition, we had 8 returning members, reinstating their membership. WAY TO GO!!

Please be sure to welcome the new and old returning members.

Above, is GOOD NEWS!! So how is it that I have to tell the board that in spite of all the new, and returning old members, we still lost membership last month? Well, we did!!

And, here is the list of those that receive their SCOPE on the web, who may not realize that their membership has expired or will expire this month. W6NQ, KG6UTS, KG6SPL, KJ6EDO, KI6PGI, KJ6EDR, KI6WOF. Please renew!

Check your label for your renewal date. If your mailed SCOPE didn't arrive, and you are reading this on the web site, as a fall back, maybe your membership ran out?? We do great on attracting "New Members", but not so great on the renewals! The club really needs all it's members!!

AI
W6GNI

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Our RFI kit keeps RF out of your telephones, TVs, stereo, etc. **Model RFI-4**
\$35 +tax+\$8 to ship.

BALUN KITS

Ferrites slip over coax. Shrink tubing holds them in place. Works from 3.5-60 MHz (Use two kits for 160m).

Model BA-58 (for RG58, RG8X & similar cables up to 1/4" dia.) \$8.50+tax+\$8 S&H/order

Model BA-8 (for RG-8, RG-213, 9913 and similar cables up to 1/2" dia.) \$16.50+tax+\$8 S&H/order.

See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

January Issue Fold & Staple
KB6NMK Jo WA5ACE Sonny
W6GNI AI & Kathy
KB6YHZ Art & Janet
The last Fold & Staple for 2010!

Help With Test Session

by Steve Early AD6VI

I have scheduled the Carlsbad Safety Center for a One-day General Class on Saturday, March 5th. This class is being offered in anticipation of a more difficult exam starting Jul 1, 2011.

I have scheduled the Carlsbad Safety Center for a Get-On-The-Air Seminar for the afternoon of Saturday, March 12th (after normal VE Session).

This class is being offered to help new and upgraded operators to develop and improve skills. It is scheduled to allow persons to take advantage of the regular Carlsbad Exam Session, in the event they did not succeed after the Tech and General Classes.

I am hoping to offer an exam session immediately after the General Classes. This would be 5 PM on March 5th. My intent is to get the students examined while they are still retaining the bulk of the material.

I believe that it is too much to the Carlsbad team to support both classes and their regular session. Therefore, I offer the Carlsbad Team the right of first refusal, but also ask the rest of you to consider supporting each of the classes.

Please advise, if available for March 5th. ad6vi@cox.net

Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org



For Sale

Complete Kenwood TS-130S rig including TS-130S with MC-30S handheld microphone, YK-88C 500Hz crystal filter, operator and service manuals; PS-30S DC power supply with operator manual; VF-120 remote VFO with interconnect cable and operator manual (in Japanese); and SP-120 external speaker with operator manual. Known issues: TS-130S needs dial lamps replaced and the S-meter needs to be adjusted; VFO-120 needs dial lamps replaced and dial needs to be recalibrated. \$350. Contact Bob Felton, K7WLX, at 760-598-7459 or k7wlx@arrl.net.

For Sale

Tower, Includes:

- TRI-EX tower, Model W 51, Free Standing, Trust Bearing, 6 ft. Mast, Motor driven, Up and Down
- Hy-Gain 7 El 10-15- 20 Ant, Model TH7DX
- Rotor Hy-Gain, Model HAM 4

Cushcraft Ringo Ranger, Model ARX1, Vertical 2M

YAESU FT-1000 Transceiver

Kenwood TS-950 S, 10-160 M Transceiver

Heathkit Dummy RF Load C Antenna

Simpson Analog Multimeter, Model 260

B & W Low Pass Filter Model 423

Heathkit Phone Patch, Model HD 15

Remote Motor driven, 6 Pos Coax SW with Control Box

YAESU FT 2500 M, with Astro PS 12 A

Kenwood TR-7330 2 M, with Astro PS7A

Ten-Tec Centurion amp 1kw with spare 3-500 tubes

Ten-Tec Titan amp 1kw, 10 to 160 M

SHURE Microphone Push to talk Model 444

6 Tubes EIMAC 3-500

BEST OFFER

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Contact: R. F. Krist, W6KTE, (760) 724-2786

For Free

Fifty foot galvanized steel tower. Triangular, 28 inches wide at base.

Recipient must remove and must have liability insurance.

May be seen at 1175 La Moree Road, San Marcos, in the RV Parking Lot.

Call Fred Brown, W6HPH, 760-740-8501 or 760-742-1328, or

w6hph@yahoo.es

Repeater Site Report

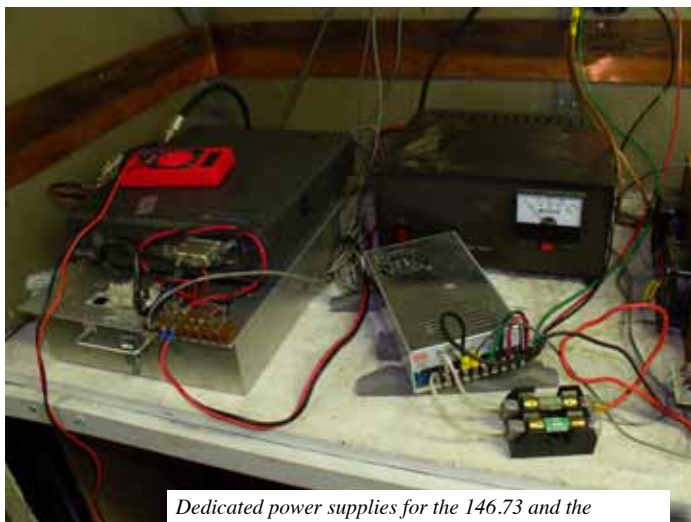
by Dennis KD6TUJ

Don WD6FWE and Dennis KD6TUJ went up to the repeater site on Sunday February 13, 2011 to check on the 146.730 and 447.000 machines. They were met by Michelle W5NYV shortly after for consultation. A power problem was set to be diagnosed. The power supply used is a Meanwell SD-350C-12 and has a rated output of 27.5 amps. While we were prepared to change out a supply we were not prepared for a large load ampere reading. Something that we need to do on all repeaters.

After confirming that the power supply shutdown from what appeared as a overload, The supply was separated and left on for the 146.730 machine. An ASTRON 35 amp supply was brought up for use on the 447.000 machine and put to use. The voice machines were checked and it was noticed that the 147.130 machine seems to have an intermittent PA unit. Possibly shutting down from heat. This machine will need care very soon. The 145.050 packet machine was then checked and the TNC reset. Still not quite working, but the lockup appears to be gone. It may be back to service when Conrad KG6JEI gets back or may take another trip to link the computer so the id can be set.

More pictures on the Palomar Amateur Radio Club website:

<http://palomararc.org/zenphoto/work-parties/work-party-at-repeater-site-february-2011/>



Dedicated power supplies for the 146.73 and the 447.000 were brought up. Photo by Dennis KD6TUJ.

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TEN-TEC
Hy-gain, Tri-EX,
Cushcraft And Others
too
Numerous to
Mention!

Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!

Repeater Site Report

by Mike K6MRP

House batteries and control battery levels look good. Rectifier (48 vdc charger) working OK. General site condition looks good. 2 Feb 2011.



6m antenna. Photo by Mike K6MRP.



Main tower. Photo by Mike K6MRP.



Checking the batteries and battery control levels. Photos by Mike K6MRP.

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Minutes - Palomar Amateur Radio Club

Board of Directors Meeting

January 12, 2011

The meeting was called to order by President Dennis Baca KD6TUI at 7:05pm at the home of Paul Williamson KB5MU. In attendance were:

President Dennis Baca KD6TUI
Vice President Ron Pollack, K2RP
Secretary Paul Williamson, KB5MU
Director #1 Don Johnson, WD6FWE
Director #2 Conrad Lara KG6JEI
Membership Chairman Al Donlevy W6GNI
SCOPE Editor Michelle Thompson W5NYV

Secretary's Report

Secretary KB5MU distributed copies of the December Board meeting minutes. Motion by Don Johnson WD6FWE to approve the minutes as published. Seconded by Ron Pollack K2RP. Motion passed unanimously.

Treasurer's Report

No Treasurer's report was available.

Upcoming General Meeting Programs

KD6TUI reported that the February general membership meeting would be a celebration of the Club's 75 anniversary. He will bring two conjoined cakes, and a call should go out for people to bring finger foods. He will ask ARRL Section Manager Steve Early AD6VI to send out some publicity for the event, and K2RP will create a poster to be placed at Ham Radio Outlet by KG6JEI. KD6TUI has sent out by email a list of previous officers and Field Day sites. K2RP is working to round up some senior club members to show up and say a few words. K2RP confirmed that Bob Blumberg K4RB is scheduled to speak at the March meeting (in the small room). Howard White KY6LA will speak on HF antenna/propagation simulations in April or May. David Doan KC6YSO is available to speak on NVIS. K2RP might do a program on WSPR. KB5MU volunteered to do a presentation on ARISsat's innovative digital modulation. The June meeting will probably be about Field Day, as usual. The annual auction in October will be in the Faraday building, a new location for the Club. WD6FWE proposed that a program on specific antennas could be made more meaningful by using those antennas at Field Day.

Membership Report

Membership chairman Al Donlevy W6GNI reported that Club membership is 288, up from 270-something. Many new members are from Oceanside, possibly as a result of antenna ordinance scuffle there.

Appointment of 2011 Committee Chairs

KD6TUI appointed Conrad Lara KG6JEI as Repeater Technical Chair. KG6JEI accepted the position, resigning his previous position as Director #2. KD6TUI reappointed Al Donlevy W6GNI as Membership Chair, and he accepted the position. KD6TUI appointed Michelle Thompson W5NYV as Editor of the newsletter, and she accepted the position. KD6TUI further appointed new committee chairs KG6JEI, W6GNI, and W5NYV to the Board. Motion by K2RP that the elected members of the Board approve these appointments in accordance with section 8(c) of the Bylaws. Seconded by Don Johnson WD6FWE. Motion passed unanimously.

Oceanside Antenna Ordinance

The city of Oceanside has scheduled a council meeting presentation for February 23. Articles on the issue were published in North County Times and the Union-Tribune. W5NYV will request permission to reprint these articles in the SCOPE.

H.R. 81

House Resolution H.R. 81 is a re-introduction of H. R. 2160 from the previous Congress, the Amateur Radio Emergency Communications Enhancement Act of 2011. This bill authorizes a study of amateur radio with an eye toward the possibility of preemption of private land use restrictions (CC&R's). K2RP asked if the Club should do something in support of the bill. W5NYV will write a descriptive article for the SCOPE.

Oceanside CERT Net

Oceanside CERT has been operating a net Sundays at 8pm on the 147.13 MHz repeater, and (upon learning that authorization is needed) has asked for authorization to continue. Motion by WD6FWE to approve the net. Seconded by K2RP with the condition that Oceanside CERT be made aware of the standard club net policies regarding preamble and postamble text and the club membership requirement for net control operators. WD6FWE accepted the amendment. Motion passed unanimously. KD6TUJ will send them the information and ask them to draft an article about the net for publication in the SCOPE.

Annual Club Picnic

Dates for the annual club picnic were discussed, and it was decided to try for August 21 in the same location as in recent years, Area 4 of the San Dieguito County Park. KD6TUJ will ask Treasurer Georgia Smith KI6LAV to reserve that site for that date. Motion by KG6JEI to approve up to \$250 for the site reservation fee. Seconded by K2RP. Motion passed unanimously.

Locations for Other Club Events

The Field Day site is still not definite. Oceanside city councilman Jerry Kern has offered to get us free access to a site in Oceanside. KD6TUJ wants to do an Operating Day on April 10 at a site in Oceanside, and possibly additional events at other locations. W5NYV suggested the Hilltop Recreation Center in Carmel Valley, and WD6FWE suggested Buddy Todd Park in Oceanside. The next opportunity for ARRL Kids Day will be in June, perhaps in a more accessible location than Double Peak Park.

Monthly Nag

KG6JEI asked KD6TUJ if the generator had been converted to propane yet. KD6TUJ did not dignify this question with an answer. Next Board Meeting Location It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on February 9, 2011.

Adjournment

The meeting was adjourned at 8:40 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

On Saturday, January 29, the Desert RATS held a hamfest in Palm Springs, not all that far from San Diego. It was sanctioned by ARRL, but it wasn't like the big Southwestern Division convention that rotates among the Sections on a four-year schedule. The hamfest was held at "the barn at Gary KD6QLT and Susie KD6TVO's estate", not in a convention hotel. That makes it much cheaper for everybody. The hamfest also doesn't feature a slate of technical talks, but it does have many of the other features of a convention. There was a commercial vendor area (Yaesu, HRO, and maybe a dozen smaller exhibitors), a swap meet, a special event station, RV camping, and prize drawings. The San Bernardino Microwave Society demonstrated microwave stations, and AMSAT Area Coordinator Clint K6LCS demonstrated satellite operation with a hand-held antenna. And of course, lots (600?) of your fellow hams to socialize with.

My day got started a bit late, so I missed all the morning activities, including almost all of the swap meet. Gene WB9COY was still hanging in there with tables of treasures (you know, the kind of items that most non-hams would describe as "junk") laid out in the shade of his RV's awning. The remnants of a silent key's collection were also still out. People who'd managed to show up on time said there'd been a pretty extensive swap meet in the morning. The microwave demonstration was also over by the time I arrived, but I did get to "help" Pat N6RMJ try to figure out how to collapse the frame of his double-wide E-Z-Up. The satellite demonstrations had to be scheduled whenever a satellite was in view, and luckily one of those times was after I arrived. Clint K6LCS was able to work a number of stations all around the U.S. with a hand-held Arrow antenna, despite stiff competition on a very busy Saturday afternoon pass.

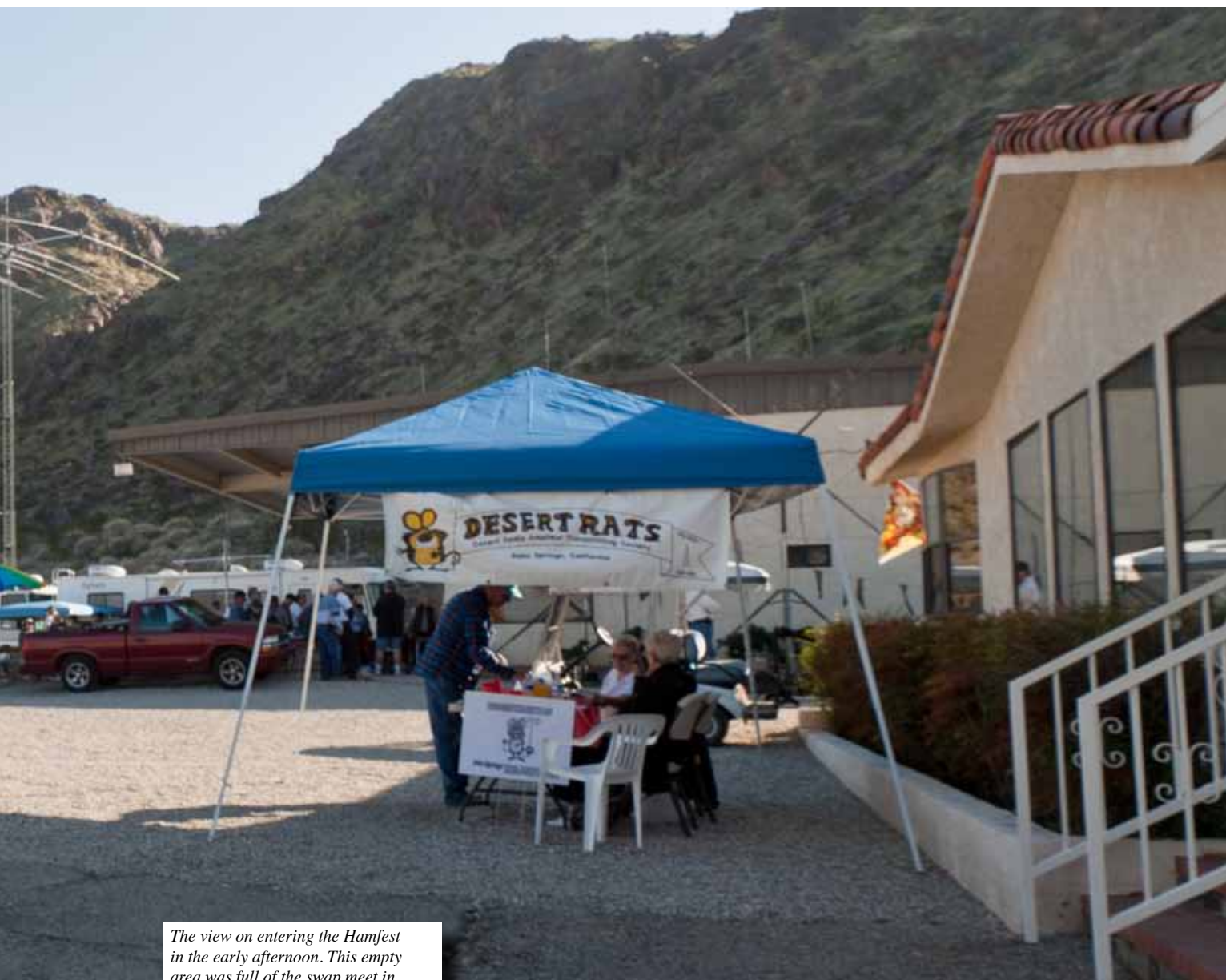
As the Scope goes to press, the Yuma Hamfest & Emergency Preparedness Show (which is also the ARRL Arizona State Convention) is going on. A number of club members are organizing an expedition to the enormous Dayton Hamvention in May. This year's Southwestern Division HAMCON will be held in Torrance in September. If you've never been to a hamfest or convention, give it a try -- and write it up for the Scope!

-Paul KB5MU



Pat N6RMJ had a bit of a struggle to collapse his shade tent.





The view on entering the Hamfest in the early afternoon. This empty area was full of the swap meet in the morning. Under the blue shade, friendly folks collected my nominal \$1 admission fee.



The Amateur Television Network had an ATV demonstration using this 2.4 GHz antenna.





Microwave stations demonstrated by SBMS.



view of about half of the vendor area. PARC member Bernie N6FN's Nifty! Ham Accessories had a booth right in the middle.



Matching networks machined out of aluminum tubing at the M2 display.



Clint K6LCS's handheld satellite station, fully integrated on the back of an Arrow antenna.



The hamfest's special event station.



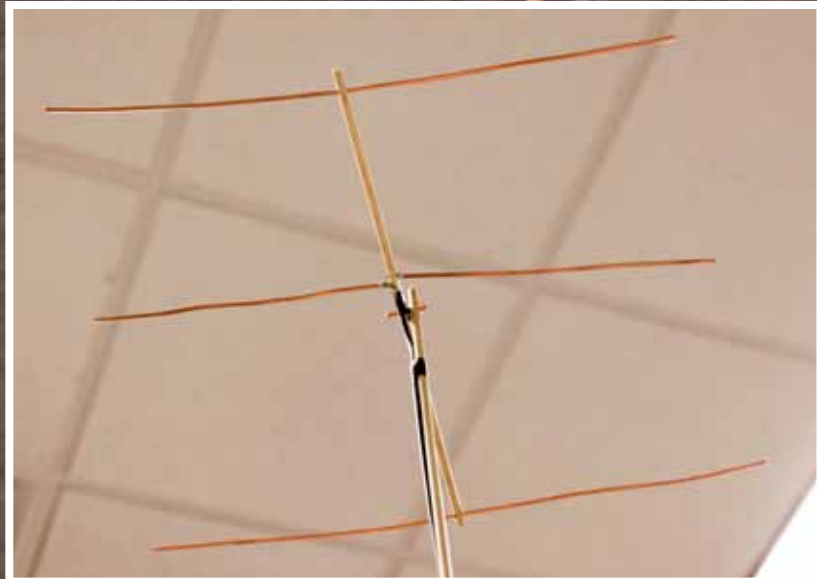
Matching network displayed by one of the vendors.



The biggest of several antenna installations at the hamfest.



Yaesu had an extensive display of their products.



PARC celebrated the 75th anniversary of the club with a ham radio cake! The graham cracker shack had a ham inside, the tower had real antennas, and real radios were attached to the antennas. Sherbet was served alongside the cake.







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I found this photo and note in my archives.

100 points contact back then !!!

For those that don't remember Felix, he has a history of high speed CW operating all over the world and was also a POW in Korea. He also was a mobile CW operator.

This was about 4 months after I got my present call.

Don WD6FWE

WORLD RADIO NEWS

9/30/77

2120 28th Street

P.O. Box 160568 Sacramento, CA 95816

Dear Jane -

many thanks for the picture. It appears in the October issue.

We're always interested in news items of a personal interest nature.

73, Linda, WB6ECS, Mng. Ed.



MEETING AGENDA

February 23, 2011

OCEANSIDE CITY COUNCIL, HARBOR DISTRICT BOARD OF DIRECTORS (HDB), and COMMUNITY DEVELOPMENT COMMISSION (CDC) REGULAR BUSINESS

**Mayor
HDB President
CDC Chair**

Jim Wood

**Deputy Mayor
HDB Vice President
CDC Vice Chair**

Esther Sanchez

**Councilmembers
HDB Directors
CDC Commissioners**

Gary Felien

Jack Feller

Jerome M. Kern

**City Clerk
HDB Secretary
CDC Secretary**

Barbara Riegel Wayne

Treasurer

Gary Ernst

4:00 P.M. – ROLL CALL

CITY COUNCIL, HDB, and CDC CLOSED SESSION ITEMS

Closed Session to discuss litigation, property acquisition, labor relations and personnel matters

6:00 P.M. – PUBLIC HEARING ITEMS

Public hearing items are "time-certain" and are heard beginning at 6:00 p.m. Due to the time-certain requirement, other items may be taken out of order on the agenda to accommodate the 6:00 p.m. public hearing schedule.

22. City Council: Consideration of Zone Amendment (ZA-10-00001 Revision) and Local Coastal Plan Amendment (LCPA-10-00001 Revision) introducing Article 39A – Amateur Radio Antenna Regulations – to the current Oceanside Zoning Ordinance, as well as the Oceanside Zoning Ordinance in effect on May 8, 1985; adoption of revised City Council Policy 300-14, Enhanced Public Noticing Requirements, to allow Amateur Radio Facilities Conditional Use Permits to provide mailed notices to properties with 300 feet of the subject property; and establishment of a \$500 fee for processing of conditional use permits for Amateur Radio facilities (exclusive of public noticing fees) – Amateur Radio Antenna Standards – Applicant: City of Oceanside

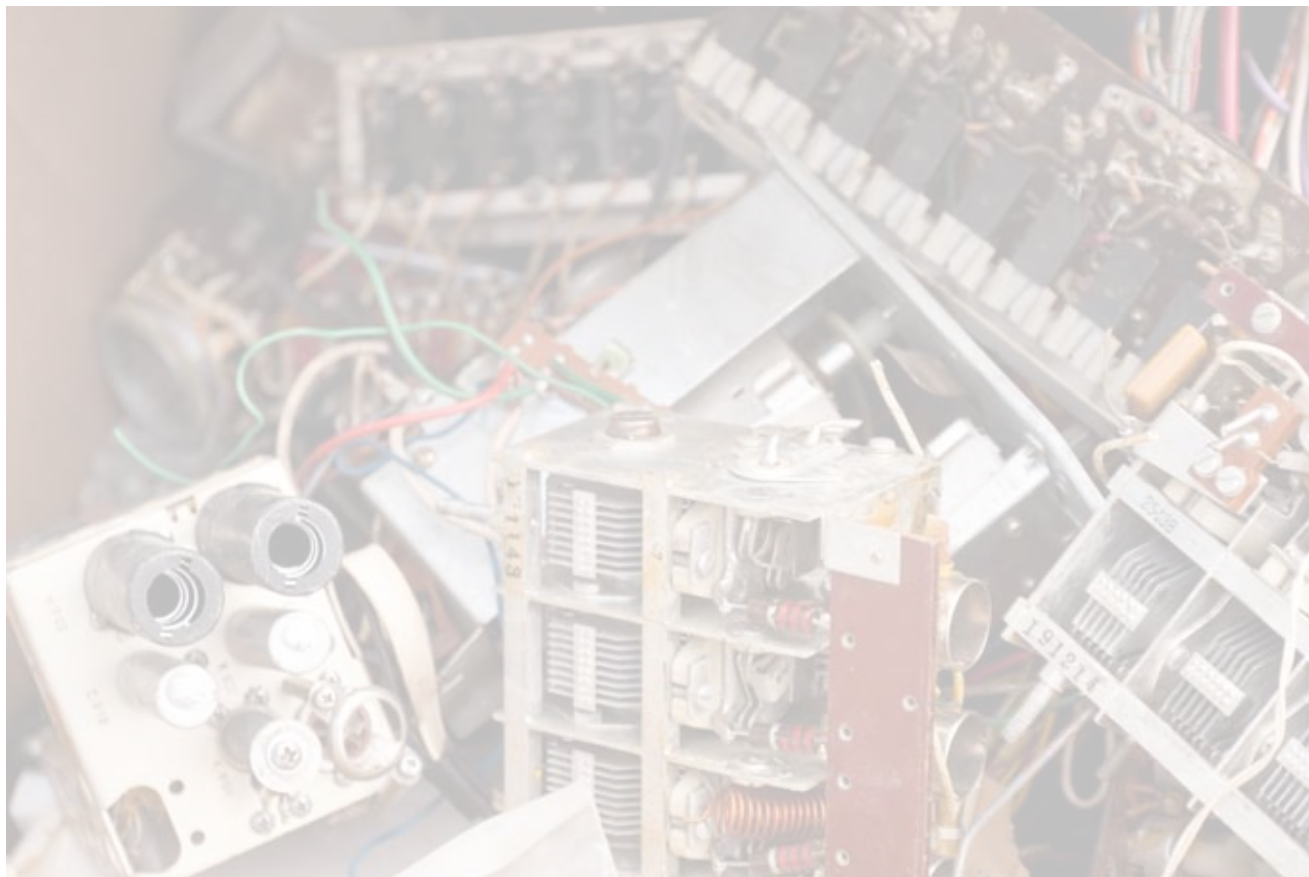
This public hearing is continued from January 5, 2011

- A) Mayor opens public hearing
- B) Mayor requests disclosure of Councilmember and constituent contacts and correspondence
- C) City Clerk presents correspondence and/or petitions
- D) Testimony, beginning with Jerry Hittleman, City Planner
- E) Recommendation – introduce the ordinance, adopt the resolutions, and adopt the revised City Council Policy 300-14

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 2nd of March 2011, Palomar Amateur Radio Club will have a program presented by K4RB, Bob Blumberg, who will talk about his ham radio experiences in various countries during his many years of living in developing areas. He will focus on an Indonesian island DXpedition.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.



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



Save the Date

Club Meeting
6 April 2011

David Doan KC6YSO
will talk about NVIS
Near Vertical Incidence
Skywave antennas.

Board Meeting
13 April 2011

Palomar Amateur Radio
Club board meeting at
7:00pm

Operating Day
10 April 2011

Operating Day in
Oceanside! NVIS
antenna demonstrated
by David Doan KC6YSO.

Club Membership for April Edition

New Members Joining PARC KI6PTN (Family), K1RVR, KJ6MZQ, AG6BM.

One past member reinstated their membership.

Of course we welcome all members, new and "old", especially "new" old timers.

Please check your SCOPE label for your renewal date. If you are receiving the SCOPE by Web, please remember your renewal date, or drop by the membership table at the meetings to find out your renewal time. As a memory jogger, this is the list of calls of recently expired "SCOPE by WEB" folks (as a reminder). Please - Please renew.

COME ON GUYS and GALS - Look at this list of non or late renewals from members (In Jan and February only). KJ6EDR, KI6WOF, KC6VXY, KI6LKP, W6ALF, and W3LFR. The club cannot exist for the next 70 years if this doesn't improve!! P.O. Box 73 awaits you!

AI
W6GNI

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Our RFI kit keeps RF out of your telephones, TVs, stereo, etc. **Model RFI-4**
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See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

January Issue Fold & Staple
KB6NMK Jo WA5ACE Sonny
W6GNI AI & Kathy
KB6YHZ Art & Janet
The last Fold & Staple for 2010!

Operating Day Update

by Dennis KD6TUJ

An Operating Day is being scheduled for April 10 in Oceanside and will commemorate the work done on the Antenna Structure Ordinance in the City of Oceanside.

Plans are to operate from 9:00 AM to 5:00 PM. The public is invited. This will continue the tradition of Operating Days that started in San Marcos.

The tower trailer will be present with the 10/15/20m yagi. There will also be a wire antenna for 40m. 2m and 440 will also be represented. This is a public demonstration and intended to help new hams, or old, get on HF.

We are inviting Oceanside city representatives in order to show them what we plan to do when we ask for use of the Rancho Del Oro Park at College and Empressa. Please come and enjoy the PARC operating day with us.

Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org



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Complete Kenwood TS-130S rig including TS-130S with MC-30S handheld microphone, YK-88C 500Hz crystal filter, operator and service manuals; PS-30S DC power supply with operator manual; VF-120 remote VFO with interconnect cable and operator manual (in Japanese); and SP-120 external speaker with operator manual. Known issues: TS-130S needs dial lamps replaced and the S-meter needs to be adjusted; VFO-120 needs dial lamps replaced and dial needs to be recalibrated. \$350. Contact Bob Felton, K7WLX, at 760-598-7459 or k7wlx@arrl.net.

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Cushcraft Ringo Ranger, Model ARX1, Vertical 2M

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Contact: R. F. Krist, W6KTE, (760) 724-2786

For Free

Fifty foot galvanized steel tower. Triangular, 28 inches wide at base.

Recipient must remove and must have liability insurance.

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Call Fred Brown, W6HPH, 760-740-8501 or 760-742-1328, or

w6hph@yahoo.es

EchoLink now Available on 447.000

By Bernie Lafreniere, N6FN

EchoLink capability is now available on the PARC 447.000 repeater. Over the last several months a link transceiver and computer system has been installed and tested that provides the repeater with connectivity to the worldwide EchoLink network. While the 447 repeater is still located on Mt. Palomar, the link transceiver and computer are located in Escondido, where it is connected to the Internet via COX Cable.

PARC members can now use their DTMF equipped mobile and HT transceivers to access EchoLink, providing the ability to make QSO's to distant EchoLink equipped repeaters and computer users. It also provides the ability for distant stations located anywhere in the world to make contacts with stations within range of our 447 repeater. EchoLink is also a valuable resource for emergency communications.

If you are new to EchoLink, the current and three prior issues of the SCOPE provide background information for understanding and utilizing the EchoLink network. The current issue provides information for making contacts using your DTMF equipped transceivers. If you missed the prior issues, they are available on the Newsletter link found on the PARC web page:

<http://www.palomararc.org/>

In addition to the information provided in the current and prior issues of the SCOPE, here is the frequency and node information required for using EchoLink on our 447.000 repeater.

Repeater Frequency	447.000 output 442.000 input
CTCSS access tone	107.2
EchoLink node no.	546528
(the node's call sign is N6FN)	

Art, KC6UQH, generously updated the repeater controller, optimizing it for EchoLink node operation. One of these changes modifies the CTCSS tone output of the repeater so that it only outputs the squelch tone while a signal is being received by the repeater. It no longer outputs the tone for repeater generated ID's or courtesy tones. This is to satisfy an EchoLink requirement for preventing repeater ID and courtesy tones from being transmitted over the VoIP network.

Important: Since the repeater's courtesy tone and ID no longer have a CTCSS tone present, to be able to hear them you need to make sure your transceiver does not have CTCSS squelch enabled on receive. This may be different than how your radio is currently programmed. Most modern transceivers have the capability of separately enabling CTCSS on transmission (which you want) and for enabling CTCSS squelch on receive (which you don't want).

All PARC members are encouraged to make use of this new capability.

HAM RADIO

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

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Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!

Oceanside Passes Tower Ordinance

by Dennis KD6TUJ

Work for amateur radio needs and against the proposed Article 39 as presented started as a result of an email received on May 27, 2010. The City of Oceanside created a Telecommunications Committee to revise their wireless antenna ordinances. We still do not know what the given direction was, but the committee wrapped ALL communications antennas outside of government use into this new ordinance. Flares did not go off, rockets and bombs did.

Members of the Oceanside Amateur Community started to get involved in the process. We found out how to get on the meeting notice list. Fred Atchley AE6IC started to take the lead to form the Calvary. The best you could say for the proposed Article 41 was a disaster in formation. We started to get notices about the meetings, but when we read them, they were the prior minutes and not the agendas. More calls to the city and the notice process started to work for the telecommunication committee. In July the Article was renumbered to 39. Fred started a list for concerned hams to keep everyone caught up. Marty Woll joined us early on the email list and sent comments for a workable ordinance and the Costa Mesa city ordinance as it relates to Amateur Radio. This became our best reference as Costa Mesa has a very liberal ordinance due to their understanding of amateur radio needs. (It helps that Gordon West resides in the city.

The City Council first heard the proposed Ordinance 39 at the October 20, 2010 meeting. Through the organizing of our local hams there were presented two distinct views presented to the Council. That of the anti- cell tower group, led by a group who were not happy that a charter school building owner was to allow a cell provider access use of his structure, and the pro amateur radio group. You should have heard the horrors of what radio waves could do to you, the public. The Article 39 was adopted as presented with a condition from Councilman Jerry Kern, that the city representatives work with the amateur community and bring back a breakout ordinance for hams. This revision was to be brought back to Council in January 2011.

November 23, 2010 Jerry Hittleman of the City of Oceanside sent out the revised Article 39A for review. All that appeared to be done was that the Article was re-written for only reference to amateur radio and excluded the language for cell towers. NO real change. Fred set up a "breakfast' meeting at Carrow's and manages to contact Councilman Kern, who offered to come along with recently elected but yet seated Councilman Felien. A great bonus for the December 4, 2010 meeting. Several of us started gathering more information to present to the Councilmen.

Next was a scheduled Telecommunications Committee on December 3, 2010 at Council Chambers. The Agenda had the Article 39A revision as item 6. Several hams went. They found that item 6 was pulled off the agenda. The Telecommunications committee did not have any knowledge of what was happening. They were very unhappy and expressed it.

At the Saturday December 3 meeting among the items presented, I provided a table of licensed operators in Oceanside as of November 2010 (total 577, 375 active, 202 inactive per FCC website) and tower information from US Tower showing the engineering and requirements that are set and drawn to national standards. (There is a disclaimer to check to make sure soils are equal to design.) Fred brought info from the California QSO Party. His graphs showed 85% of contacts made were on 20/40/80 meters with the corresponding time uses. The Costa Mesa Ordinance was also presented and explained. These and other information presented enlightened them. When asked by Councilman Kern how much input was provided by amateurs. He was surprised to hear NONE! Also asked were questions of emergency coordination with the city and capabilities. Of those present all had some emergency power and set up ability. We could not ask for a better response than this.

Public Hearing notices were sent out for January 5, 2011 (This will be the same day as the Palomar Amateur Radio Club meeting.) with no changes to Article 39A. Councilman Kern was not happy. He had his aide Ben Sullivan send a message to Mr. Hittleman asking about the public participation in drafting a revision. His response was the same non response he sent to the amateur community and ignored the questions presented. On December 16, 2010 Ben Sullivan called Fred. He requested a panel of at least 3 hams to represent citywide hams and gave suggested dates for a meeting. A date was set for 29 December, 2010 attended by representatives Tim McGovern, Jim Keller, Dennis Baca, and Fred Atchley. A pre-meeting meeting was set for the Saturday before at Carrow's to strategize our presentation to the city. Our meeting on December 29, 2010 consisted of Councilman Jerry Kern, Mr. Buell, Ms. Hamilton, Mr. Kramer by speaker phone, Mr. Baca, Mr. McGowan, Mr. Keller and Mr. Atchley. Mr. Hittleman was not available.

continued on page 14

Minutes - Palomar Amateur Radio Club

Board of Directors Meeting

February 9, 2011

The meeting was called to order by President Dennis Baca KD6TUJ at 7:08pm at the home of Paul Williamson KB5MU. In attendance were:

President	Dennis Baca KD6TUJ
Secretary	Paul Williamson, KB5MU
Director #1	Don Johnson, WD6FWE
Membership Chairman	Al Donlevy W6GNI
SCOPE Editor	Michelle Thompson W5NYV

Secretary's Report

Secretary KB5MU distributed copies of the January Board meeting minutes. Motion by Al Donlevy W6GNI to approve the minutes as published. Seconded by Michelle Thompson W5NYV. Motion passed unanimously.

Upcoming General Meeting

KD6TUJ reported that Bob Blumberg K4RB is scheduled to speak at the March meeting on his overseas adventures.

Membership Report

Membership chairman Al Donlevy W6GNI reported that Club membership is 287, down 1 from last month. The club took in \$530 in dues at the February meeting, including some long-lapsed members and people who had forgotten that they'd ever been members before.

Repeater Technical Report

KD6TUJ briefly summarized the Repeater Technical report sent by email by Repeater Technical Chairman Conrad Lara KG6JEI. The 447 MHz repeater was replaced with a unit modified for EchoLink operation. The old cavities may need replating. The 147.13 MHz repeater has squelch issues. The 52.68 MHz repeater is off the hill for repair. The 145.05 MHz packet node appears to be locked up and will need to be reset.

KD6TUJ relayed an email report from Bernie LaFreniere N6FN about the interference problem on the 447 MHz repeater. Observations confirm KD6TUJ's theory that the commercial repeater 21.4 MHz (twice the standard 10.7 MHz IF frequency) above our input might be involved. John at Palomar Communications is the technical contact for that repeater and will check for problems on their end.

Paypal Requested

KD6TUJ relayed an email request from Dennis Vernacchia N6KI that the club provide for membership renewal by Paypal.

SANDARC Meeting

KD6TUJ reported that he and KG6JEI attended the January meeting of the San Diego Amateur Radio Council (SANDARC). SANDARC will again participate in the San Diego County Fair. There is now a Lakeside Amateur Radio Club. SANDARC proposes to obtain its own container storage unit, in parallel to the El Cajon club's container they had been using. Do the member clubs approve the expense for a new container storage unit? The consensus of the Board was negative.

Upcoming Licensing Classes and Training

KD6TUJ reported that Steve Early AD6VI has scheduled classes for Technician licensing at Palomar Mountain on February 13 and at the Carlsbad Safety Center on February 19, plus a class for General licensing at the Carls-

bad Safety Center on February 26. A “get on the air” session is also scheduled from noon to 3:30pm following the regularly scheduled VE testing session on March 12 at the Carlsbad Safety Center.

Summary Treasurer’s Report

KD6TUI received a TXT message from Treasurer Georgia Smith KI6LAV: “No report tonight, but nothing unusual.” Motion by W5NYV to approve the Treasurer’s Report as submitted. Seconded by Don Johnson WD-6FWE. Motion passed.

News Coverage of 75th Anniversary

KD6TUI said he would write stories for CQ, QST, WorldRadio, and QCWA about the 75th anniversary meeting of the Club.

Locations for Club Events

KD6TUI stated that he and Greg Gibbs KI6RXX were still looking at locations in Oceanside for Field Day and an April 10 Operating Day, and hoping to get the fees reduced with the help of Councilman Kern.

Oceanside CERT Net

WD6FWE reported that he has listened to the Sunday Oceanside CERT net and suggests that they be sent the Club’s usual preamble and postamble texts.

SCOPE Deadline

SCOPE Editor W5NYV reported that she will be on the Curaçao YL DXpedition around the usual SCOPE deadline in March, so the April issue will be wrapped up by March 13. Articles must be submitted early.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of W6GNI at 7pm on March 9, 2011.
Adjournment

The meeting was adjourned at 8:22 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary



Above four photos, visitors at the March 2011 club meeting.

PARC's March 2011 meeting was packed with activities and announcements. Photos by KB5MU.



Below left, Fred AE6IC explains that we "got this close" to having a very unpleasant outcome in Oceanside with respect to antenna ordinances. See page 5 for a detailed article.

Below, Oceanside CERT is announced and explained.



Below, Fred AE6IC's efforts to organize a civic response to the Oceanside antenna ordinance are applauded.



membership
with
cements.

Left, above, and right, Bob Blumberg K4RB,
gave the presentation at our March membership
meeting. He spoke about operating from many
different countries, with a special focus on
Indonesia. This program was excellent! Thank you
Bob for taking the time to talk with us.

Below left, John IQS, explains the amazing
benefits of 50-year-old coax. Above,
items for adoption at the March meeting.
Below left, items available from adoption
(donations greatly appreciated) from Nash
Rambler's house.

Accessing EchoLink With Your Radio

by Bernie Lafreniere, N6FN

In the last several issues of the SCOPE we explored how the EchoLink system allows you to make contacts using simplex links, repeaters and computers as gateways to the EchoLink VoIP network. In February we covered how to install EchoLink software installed on a computer and validating your call sign for accessing the network. This month we explore using DTMF equipped transceivers for making contacts over the EchoLink network.

It is important to realize that you do not need to install software on your computer or have your call sign validated to be able to use EchoLink from DTMF equipped transceivers. However, you do need to have at least a basic understanding of how EchoLink contacts are made over the EchoLink network. Like any other aspect of ham radio there are conventions and procedures that are used to ensure a pleasant operating experience for everyone.

DTMF Keypad Commands

Providing you are within range of either an EchoLink equipped simplex link or repeater, you can use your DTMF equipped VHF/UHF transceiver to connect to: individual users, repeaters and conference servers. Using your radio's DTMF keypad to enter commands, you can check the status, bring-up and close connections to distant EchoLink nodes. (The differences between types of EchoLink nodes were covered in an article appearing in the January SCOPE.)

DTMF Code	Command	Description
*	Play ID	Plays a brief identification message
#	Disconnect	Terminates current connection
06+num	Query by Node Number	Looks up a station by Node Number and reports back its call sign and status.
08	Status	Determines if the node is already connected. Reports call signs of connected stations.
09	Reconnect	Reconnects to the station that was most recently disconnected.
Number	Connect by Node Number	Connects to an Internet station by specifying the node number, either 4,5 or 6 digits.
9999	Test Server	Connects to the Echo Test Server

Sysops that control RF simplex and repeater links can either accept EchoLink's default DTMF commands, or create their own DTMF commands. Most nodes, however, use the default commands shown in the table below.

Note: For terminating a connection, some Sysops have selected to use 73 instead of EchoLink's default # symbol.

Initiating a QSO with a Radio

To initiate a QSO via radio, you first need to locate an RF simplex or repeater link to use as a gateway for accessing the EchoLink network. Besides the recently installed EchoLink node on the PARC 447.000 repeater, links for other areas you might be interested in can be found using the Internet resources listed below.

- The searchable by location EchoLink Directory found at <http://www.brenet.com/Echolink.htm> Searchable by station / node type, state and frequency band.
- The searchable by lat / lon, grid square, city, state or country EchoLink Node Status directory located at <http://www.echolink.org/links.jsp> Results sorted by distance.

Once the RF link's frequency, offset (if any) and access tone have been determined they should be programmed into your transceiver's memory as usual. This frequency will be used as your gateway for gaining access to the EchoLink network.

Secondly you will need the call signs and node numbers for any individual users, repeaters or conference servers that you wish to connect to. These can be looked up using the two web pages mentioned above, or by searching the station list in the EchoLink software if you have installed that on your computer. When using a DTMF keypad, it's simpler to use the station's node number rather than its call sign. If you don't remember how to activate DTMF tones on your transceiver, you may need to consult your radio's user

manual or its Nifty Guide. Unless your transceiver's DTMF capability has been turned off, or set to autodial from DTMF memories, the typical procedure for sending DTMF tones is to hold PTT down while pressing the desired DTMF keys.

Once you have your radio set up and know the node number of a station you wish to call, the following example outlines the steps to be followed to initiate a contact. If this is your first EchoLink experience, you may want to first connect to EchoLink's test server. It is accessed in the same manner as any other node and provides a convenient method for testing EchoLink and for hearing how your own voice will sound over the network.

Example – Establishing EchoLink Connections to Other Stations

While this example establishes a connection to the Test Server, the procedure will work for any node you wish to connect to. In step 4, use the node number of the station you wish to contact, instead of 9999 for the Test Server.

1. First listen to make sure the local RF simplex link or repeater frequency you intend to use as your gateway is not already in use.
2. To verify that EchoLink is running on the link you are using as a gateway, use your DTMF keypad and send the 08 command. If EchoLink is up and running, the response should be "Not Connected" or "Connected to XXXXX" where XXXXX is the call sign of any station that may already be connected.
3. If a station is connected, announce your presence and see if you get a response. If not connected, announce your intention to access EchoLink, saying something like: "N6XXX accessing EchoLink". Wait a moment to see if any stations respond before proceeding with entering DTMF commands.

4. To establish a connection, enter the Test Server's node number: 9999. After a short delay, you should hear EchoLink responding with "Connecting to Conference E C H O T E S T", followed a little later by "Connected" if you were successful. If the specified node is not currently on-line, you will hear "Not Found". Wait until you hear the Connected response before transmitting your call. If you hear a Disconnected right after trying to connect, the node

may have a firewall or Internet problem. You will have to try a different node.

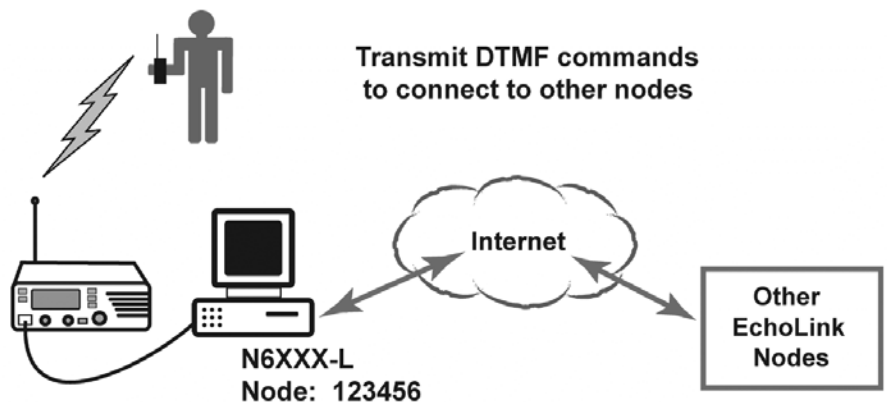
5. After a few seconds you should hear the Test Server's greeting: "Welcome to the EchoLink Test Server ...". For other nodes, you may or may not get a greeting.

6. In the case of the Test Server, if you make a voice transmission, after a short delay it should be echoed back to you. For other contacts, first listen to make sure that there is not a QSO in progress. When clear, you can make your call on the connected node. Remember to pause an extra amount of time between transmissions and to ID as you usually would when working through a repeater.

7. To terminate the connection, press #. You should then hear EchoLink respond with "Conference E C H O T E S T Disconnected". (Many nodes use 73 instead of #.)

Important: It's your responsibility to terminate any connections that you might establish. When operating mobile and approaching the fringe area of the simplex node or repeater you are using to access EchoLink, make sure you terminate the connection before you are out of range. (As a side note, if necessary anyone can terminate a connection by transmitting the DTMF # code, or if applicable 73.)

In addition to EchoLink articles that appeared in the last December, January and February issues of the SCOPE, further information can be obtained by visiting <http://www.echolink.org/>. I have recently authored a book for EchoLink titled Nifty E-Z Guide to EchoLink Operation, which you might find helpful and that will soon be available from most ham radio retail outlets and is currently available from the www.niftyaccessories.com web page.



Simplex Link Gateway Operation

A Very Early SSB Exciter

by Ron K2RP

In the late 40s, the dominant modes of transmission were CW and AM. CW today isn't much different now than it was then—a carrier being turned on and off by a key (or a keyer or a computer!).

The problem with the growing popularity of AM phone was one of overcrowding of bands. The phone bands were much narrower then than now, and 40 meters had no phone allocation at all!

Compounding the problem was that "full" AM had a carrier and two sidebands. Not only did such a signal occupy twice the bandwidth of our present day SSB gear, but if a two carriers fell within a receiver's passband, and "heterodyne" was created that manifested itself as a loud whistle at a pitch equal to the difference between the two carrier frequencies. If one station, for example, was on 3908 and another was on 3909.5, a 1500HZ tone was heard in the receiver. The phone bands became a cacophony of whistles!

Several solutions to this problem underwent experimentation and use, including Phase Modulation and Narrow Band Frequency Modulation (PM and NBFM). These modes never became popular, and SSB became the dominant phone system on HF. Not only was the problem of heterodynes solved, but the fact that only one sideband was transmitted instantly doubled the number of stations that could be accommodated on a given band.

Prior to World War 2, there was some experimentation with SSB, (or SSSC, as it was then called, for Single Sideband Suppressed Carrier.) In the late 40s, a group of experimenters did the first work on what was to become present day SSB. Not only were the transmitters fairly complex, but the receivers of the day were not up to the task of optimizing these signals. Typically, AGC was not available with BFO in use, as it has to be to

detect SSB, so a hand had to be ready on the RF gain when in round tables. Strong signals would overload the receivers of the day as well. QST, at this time, began a column named "On the Air with Single Sideband," with news of who was on the air and describing experimental transmitters. There was even speculation on when the first SSB WAC would be accomplished!

One of the first manufacturers to enter the field of commercial SSB transmitting equipment was Central Electronics. From the beginning, 9 MHz became the standard frequency for generating an SSB signal. That signal was mixed with a local oscillator, VFO or crystal, to create an output in the amateur bands. The local oscillator, if run



on 5 to 5.5 MHz, produced an output from the mixer at 4 to 3.5 MHz (difference frequency) for 80 meters, and 14 to 14.5 MHz for 20 meters. (The upper limit of 20 meters was 14,400 at that time; the top 50 KHz was "traded" for 15 meters when that became available.)

For 40 meters, (when that band was opened for voice privileges) and higher bands, other crystal or VFO frequencies were required. This explains why the majority of early SSB work was on 80 and 20 meters.

In the fall of 1952, Central Electronics introduced their "Multiphase" 10A exciter. It's job was to produce a sideband signal on amateur frequencies

that could be fed to an external amplifier. Frequency was controlled by a crystal or external VFO, and output was only a few watts, but that output could be either sideband, CW, AM, or PM. One big drawback was the use of plug in coils. There was no bandswitch; when changing bands, the cover was raised and two coils were replaced. This was soon followed with the 10B, which was similar. These units are relatively rare today, and finding one with a full coil set is even rarer.

The first real commercial success in SSB transmitters was the 20A, introduced about 1954, priced at \$250 for the wired version, and a bit less for the kit. The plug in coils were replaced with a bandswitch covering 160 through 10 meters, and instead of 1 6AG7 final, there were now 2, for about 15 watts of output. The earlier versions required some type of output meter for tuning and sideband phasing, so the 20A included a "magic eye" tube to monitor those functions. Like the earlier models, a built in VOX circuit was provided, with provisions for an optional "anti-trip" module. There was still no internal VFO, and it was common to use a converted BC458 "Command set" transmitter for a VFO. Central Electronics even produced a VFO, which was a modified and repackaged surplus transmitter! They also produced a popular "sideband slicer" for receivers of the day, which served to narrow the bandwidth and allow only the desired sideband to be heard. Later, in the late 50s, the company was acquired by Zentih Electronics, which produced the 100V and 200V transmitters. Because of the high price, not many were sold, but a great number have survived, and were considered well engineered, excellent units, even including a monitor scope on the panels.

These units are not rare, and on the regional "Vintage SSB Roundtable," (Tuesday evenings at 8 PM on 3830) there are at least one or two represented on a given evening.

Many of the AM transmitters

of the era included an SSB position on the mode switch. Without a sideband exciter or generator, however, these transmitters by themselves could not produce a sideband signal. Several companies, including Heathkit, Johnson, and B&W produced such adapters, but except for the Heathkit SB10, they are rarely seen.

I generally use my CE 20A with a Viking Valiant. There is a coax socket on the rear apron of the Valiant for a sideband signal to be introduced, and when the switch is in the SSB position, the signal is routed directly to the driver and 3 6146 finals. The transmitter has to be adjusted so no grid current is drawn while transmitting SSB, and excellent reports are received.

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BEN SULLIVAN, JERRY KERN, GARY FELIEN

Amateurs in Oceanside are to be thanked for their participation of calls, letters, emails, and showing up for the Council meetings. More thanks are to be sent to the community who supported us with the same support of the city residents. More thanks to those who assisted through emails, including some legal comments and suggesting the Costa Mesa Ordinance. I do believe this helped a lot to see another city that has Amateur Radio as a friend and recognizes their needs.
Dennis KD6TUJ

continued from page 5

We hams gave a well-received presentation of the prior material and added information on ground effect, Emergency Communication and Public Service, FCC rules 97.1a and commented on the city's lack of organized EOC communications through RACES. The city Fire Department is starting up a CERT program, and it was explained that they will still need more than handhelds and mobiles to properly support emergencies in this terrain. I felt good as Mr. Kramer commented on the presentation and suggested that the only question remaining was what the arbitrary height number would be. December 30, 2010 Mr. Aaron Burgin asked Fred for an interview for the Union Tribune. He seems unbiased and maybe even favorable to our concerns, especially about possible fees associated as first presented.

January 3, 2011 City of Oceanside forwards revised Article 39A resulting from our meeting with city representatives. For amateurs, an outstanding improvement. The next day came a retraction. The city did not fully vet the revision, and is pulling the agenda item from the Council Meeting for January 5, 2011. The article made rounds and had many comments added for minor corrections. Preparation continued for the Council Meeting, to be sure there were no changes in presentation plans and if true to thank the staff for their efforts on our behalves. Amateurs arrived at the Council Meeting and confirmed that the item had been pulled and that there would be no comments accepted towards it. Our comments were received and forwarded to staff so they could prepare them for a February 23, 2011 meeting.

Barbara Hamilton followed on January 25, 2011 with a request for another meeting to review the reworked Article 39A giving a choice of dates and times. Monday January 31 at 10:00 A.M. was chosen. The revision was sent out for review on the 27th of January. Not what we wanted, but not bad either. The 75 foot elevation for antenna structures as written was deleted.

Saturday January 29, 2011 brought another meeting to figure a strategy to continue onward to a best resolution. Few items needed covering. It was decided to go after the main points noted, but let them explain the changes first. At the meeting on Monday there was a request for more tower information. The city appeared concerned about tower specifications. Tim gave them 4 main tower manufacturers' websites to reference.

During our process in Oceanside, disastrous news came from Palmdale in regards to their ordinance running through the Court of Appeals. In a three part decision amateurs lost substantially in the City of Palmdale. Antenna support structures and was not clearly defined for elevation or size of their "active element or array" and therefore declared unconstitutional. The second concerns Radio Frequency Interference. The Court found that only the Federal Government could regulate RFI and that all state and local law was preempted. The third concerned reasonable accommodation. The city required an Amateur to take down his permitted tower but allowed him to keep a VHF/UHF vertical on his roof. The court deemed this reasonable as he was able to be active in some part of amateur radio. The process has continued, the height settled by the city is 51 feet. There were continuing discussions about existing structures and how they would be handled. Tim offered to form a checklist for the permit process. Mr. Hittleman responded to our questions of existing structures by stating that according to the new Article 39A anything less than 51 feet, if approved, but would need a building permit.

The final copy of Article 39A to be presented to the Council was sent to us on February 15, 2011. Included are height limit of 51 feet without a Conditional Use Permit. Over 51 feet requires an Administrative Conditional Use permit. The permit is to be reduced to \$500 from the over \$4000 current fee and would require a 300 foot surrounding notice instead of 1500 feet. Guy anchors and ground radials may be placed in the set back area. (This is an area from 6 to 10 feet from the property line where structures cannot infringe.)

On Wednesday February 23, 2011 at 6:00 P. M. in the city of Oceanside Council Chambers the new revised Article 39A was brought up. Council members had their comments, and then it was open to the public. Many Amateurs of the Oceanside community spoke with thanks to the city staff who listened to our information and educational explanation of what and why our needs are for the operation of great and good communications. The final ordinance was a night and day difference for the better of hams. This was approved 4-0 with the Mayor absent due to illness. It appears a job well done by Fred and his helpers. THANKS FRED, TIM, JIM AND, DENNIS for your efforts.

There was a meeting of the Telecommunications Committee Friday March 11, 2011. On the agenda was item 6 Review of an addition to the zoning ordinance, Article 39A. At the time of this writing, we have not heard back what this will cover. It looked like the revision for the notice and fee change. Item 12 is curious. Understanding Radio Frequency, to include open discussion. For information, no action required. And the near last item 19. The Telecommunication committee may be consolidated with the planning committee? Or be eliminated.

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 6th of April 2011, Palomar Amateur Radio Club will have a program presented by David Doan KC6YSO. He will talk about NVIS - Near Vertical Incidence Skywave antennas. Followup demonstration and construction will happen at our operating day on the 10th of April in Oceanside. See page 2 for details.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.



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



On this page: Wild Bill's mobile installation. Photographed at Operating Day, 10th April 2011. Were you there? Did you take any photos? If so, please consider sharing your photographs on the club gallery page.

Save the Date

Club Meeting
4 May 2011

Pat Bunsold WA6MHZ
will talk about his
experiences at the
Dayton Hamvention.

Board Meeting
11 May 2011

Palomar Amateur Radio
Club board meeting at
7:00pm

Dayton Hamvention
20-22 May 2011

www.hamvention.org/
Several club members
will be going.

Club Membership for May Edition

New Members Joining PARC: KG6HOU, AE6HF, KD6KXH, and KJ6MZA. Fortunately we had a number of renewals, and one member renewed for 4 years (\$100). Please welcome the new members, on the air, and in person.

We now have about 78 members that have decided to receive their news letter, the SCOPE, on line, saving the club the cost of printing and mailing. Unfortunately, without the colored label on the snail mail edition, it's easy to forget when one's membership has run out. I send e-mails for reminders - but only when I have a "good" e-mail address.

So, as mentioned previously we print calls of those that have "expired" recently.

The NEW list: KC6VXY, W6ALF, and W3LFR. (These 3 ran out in February 2011) Please Renew!!

AI
W6GNI

April SCOPE Fold & Staple Crew
W6GNI AI & Kathy
KB6NMK Jo, KI6LLC Roni,
WD6FWE Don KB6YHZ Art &
Janet (Great Turnout!!)



Here's a view of Wild Bill's mobile installation from the point of view of the brake pedal. Photo by W5NYV.

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Model BA-58 (for RG58, RG8X & similar cables up to 1/4" dia.) \$8.50+tax+\$8 S&H/order

Model BA-8 (for RG-8, RG-213, 9913 and similar cables up to 1/2" dia.) \$16.50+tax+\$8 S&H/order.

See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

Members of the San Diego Microwave Group discuss a solder that works on non-ferrous metals, available at local hardware stores. Photo by W5NYV.



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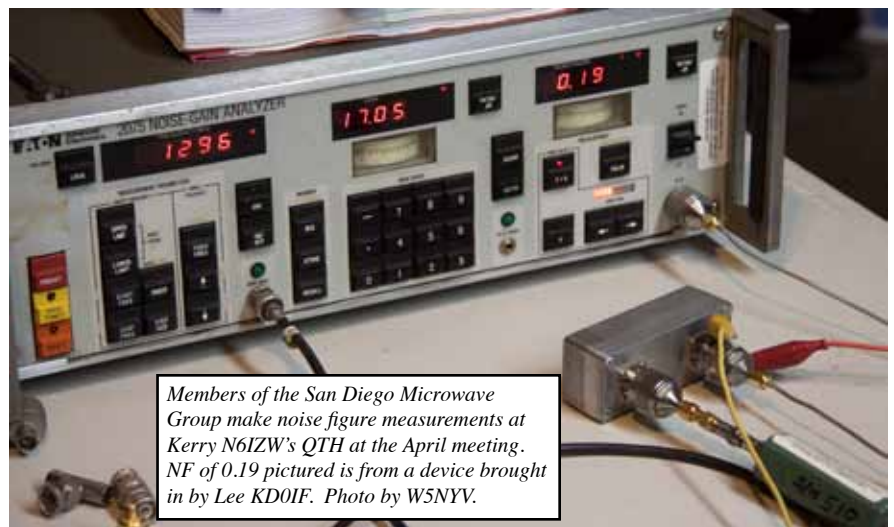
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http://www.caranddriver.com/features/10q4/the_periodic_table_of_sports_cars-feature



Repeater Work Party Report

by Dennis KD6TUJ

On Sunday April 17 a work party was conducted by several members to check on the 147.075 and 147.130 machines. Convair/220 came up also to change their power to the 48 VDC string. John WB6IQS rode up with Art KC6UQH to work on the voice machines. Conrad KG6JEI , Greg KI6RXX Dennis KD6TUJ also came up.

Bill K1CT and Mert AF6HF from the 220 club checked out their club repeater that Palomar hosts. Their machine is on 224.900 and is available to all club members. They found in their checks some loose connections and an unexpected low output to the antenna. A lot of twisting and tuning to clean and tighten connections help a little. Plans will be made to further check the output.

The main project they came up for was the switchover of power source from 115 VAC line source to the battery bank 48 VDC string. Their club purchased a converter (the same that we use) for the switch.

Bill Smith KB6MCU built this very clean and arranged repeater about 1994. John went to work on the 147.075 GE repeater. After twisting and turning coils along the receive path, he found a coil with a big reaction. Some more twisting helped by "Blue Stuff" and the coil seems to act normal by passing signals through.

On the 147.130 machine, Art changed the power amplifier brick and had to do some minor modifications due to the lower drive requirements of the new PA. A lot of time was used with great results.

Greg had a tour of the site. Conrad and Dennis became gofers and helped where needed.

Future projects include mounting the 147.075 converter, bringing back the 6m repeater, replacing the 6m antenna, switching the power on packet, and building a controller to selectively turn on and off the repeaters as needed during limited power situations.

A work site party is needed to maintain the grounds. There are tree limbs that need to be cut up and general site care-taking performed.



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Sat. May 14, 2011
8:00 am – 2:00pm

Minutes

Palomar Amateur Radio Club

Board of Directors Meeting

March 9, 2011

The meeting was called to order by Vice President Ron Pollack K2RP at 7:22pm at the home of Al Donlevy W6GNI. In attendance were:

Vice President Ron Pollack K2RP

Secretary Paul Williamson, KB5MU

Director #1 Don Johnson, WD6FWE

Membership Chairman Al Donlevy W6GNI

SCOPE Editor Michelle Thompson W5NYV

Repeater Technical Chairman Conrad Lara KG6JEI

Field Day Chairman Greg Gibbs KI6RXX

Guest Fred Atchley AE6IC

Secretary's Report

No minutes were available.

Treasurer's Report

K2RP distributed copies of the Treasurer's Report, extensively annotated by Treasurer Georgia Smith KI6LAV. Motion by Paul Williamson KB5MU to approve the Treasurer's Report as submitted. Seconded by Don Johnson WD6FWE. Motion passed.

Upcoming General Meeting

K2RP reported that David Doan KC6YSO is scheduled to speak at the April meeting on NVIS. Pat Bunsold WA6MHZ is scheduled to speak at the May meeting on his trip to the Dayton Hamvention. Greg Gibbs KI6RXX is scheduled to lead a program at the June meeting in preparation for Field Day.

Repeater Technical Report

Repeater Technical Chairman Conrad Lara KG6JEI reported that he, Ted, and Dennis Baca KD6TUI plan to work at the repeater site on Sunday, March 13. They will reset the 145.05 MHz packet TNC, install a 48V switching power supply for the 447 MHz repeater, and swap out the duplexer for 447 MHz with one salvaged from the KGB repeater.

There is presently nothing preventing the batteries from being discharged below safe levels during an extended power outage. Art McBride KC6UQH has identified a suitable power relay (\$163.75 plus tax and shipping from Mouser) and he and KG6JEI will build up the circuit to control it remotely using a spare repeater controller board. Motion by WD6FWE to approve up to \$250 to purchase the relay and materials to install a power cutoff circuit. Seconded by KB5MU. Motion passed unanimously.

Last month one of the SD-350 C-12 DC to DC power converters was overloaded due to an error in interpreting its specifications. We currently have two spare converters. One is slated to run the 447 MHz repeater and other is to be kept at the repeater site as a spare. Three more are needed, one for each of the packet systems at the repeater site. What are the current requirements of these systems? Action deferred until they can be measured. The power output problem of the 52.68 MHz repeater was isolated to the exciter. Joe Acevedo N6SIX has donated a Motorola Micor mobile transceiver to use as a backup for this repeater. It will need a new crystal to work on our frequency. The cost to re-crystal the element is \$52.35, or about \$100 for a temperature-compensated element.

Internet Relay Request

Michelle Thompson W5NYV relayed a request via Facebook from Jim Davidson on behalf of the Palomar Mountain Volunteer Fire Department. They would like to place a data relay at our site for the purpose of providing Internet access for the Fire Station and the secondary command post at the Chief's home. Do the needed lines of sight exist between these locations? W5NYV will check using Radio Mobile.

Field Day

KI6RXX reported on Field Day preparations. McAuliffe Elementary has been our proposed site, but Oceanside Councilman Jerry Kern has suggested using Buddy Todd Park instead. Both places have good elevation. Buddy Todd Park is not very flat, so K2RP recommended asking John Kuivinen WB6IQS to do a site evaluation to determine if the portable towers could be erected safely. Al Donlevy W6GNI pointed out that Buddy Todd Park is very busy on weekends and parking can be a problem, with belligerent neighbors preventing nearby parking.

McAuliffe Elementary will be expensive if we don't get a special deal, because they charge by the hour and require a staff member be present.

Some but not all station captains have been identified.

KB5MU agreed to add KI6RXX to the Board mailing list.

K2RP suggested that advance sign-ups to bring rigs to Field Day might help prevent unpleasantness with last-minute volunteers.

Requests for Repeater Usage

San Marcos CERT has requested use of the 146.73 MHz repeater from 6:45pm to 7:00pm on the second and fourth Wednesdays for their emergency preparedness net. Southwestern REACT has requested use of the 147.075 MHz repeater from 5:30am to 11:00am on Sunday, March 13, for the Safari Park Half Marathon. Motion by WD6FWE to approve both requests. Seconded by W6GNI. Motion passed unanimously.

Operating Day Park Rental

KD6TUJ teleconferenced into the meeting. The fee to rent Rancho Del Oro Park for Operating Day (with less than 60 days notice) is in the \$300 range. KD6TUJ believes we will be able to get a fee reduction with help from Councilman Kern, but we must first commit to pay the regular fee. Motion by WD6FWE to go ahead with Operating Day even with the \$300 fee. Seconded by W5NYV. Motion passed with three ayes, one nay, and one abstention. The conference call was then disconnected.

Recognition for Councilman Kern

Fred Atchley AE6IC stated that he believes the relatively favorable outcome in Oceanside would not have been possible without the help of Councilman Jerry Kern. AE6IC proposed that the club present Kern with a plaque in appreciation. K2RP had a concern about ethics rules regarding gifts. AE6IC agreed to check with the city attorney.

GOTA Station Scheduling at Field Day

AE6IC mentioned problems with mutual interference experienced at recent Field Days between the GOTA station and other stations operating on the same band. He asked that we consider some sort of operating schedule to permit the GOTA station to operate in certain windows without getting complaints from the other stations. K2RP stated that he should get with the Field Day Chairman and that it would be up to him. KI6RXX indicated that he'd be open to discussing it with AE6IC.

Involvement of CERT, Salvation Army, Etc. at Field Day

AE6IC asked if we wanted to involve CERT, the Salvation Army, etc. at Field Day. K2RP stated that this would be up to the Field Day Chairman, but that we've done so in the past and, generally, "the more the merrier".

Appointment of Director #2

KG6JEI relayed that Eric Hutchins K7ELH has volunteered to take up the vacated Director #2 position on the Board, and the President has appointed him to that position. Motion by WD6FWE to approve the appointment. Seconded by W6GNI. Motion passed unanimously.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on April 13, 2011.

Membership Report

Membership chairman Al Donlevy W6GNI reported that Club membership is 280.

Articles Needed for the SCOPE

W5NYV stated that articles are needed for the SCOPE, by this weekend (earlier than usual).

Adjournment

The meeting was adjourned at 8:56 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary



Above and below, Dennis KD6TUJ on the left presents our raffle winner, Brian Kramer KJ6HOU with a new Yaesu 2m handheld. Along with the 2m radio, Brian received a Nifty radio programming guide. The Nifty series is written by Bernie N6FN.



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Operating Day photographs from Paul KB5MU. See article next page for a summary of this very fun club event.



Operating Day in Oceanside

by Dennis KD6TUI

An Operating Day was conducted on April 10 in Oceanside at the Joe and Mary Mottino Family YMCA. Participants started to arrive at 8:00 AM. David KC6YSO brought the NVIS antenna and set it up in about 15 minutes, and with his “go kit radio set” he was on the air less than 10 minutes after that. Conrad KG6JEI pulled the trailer and helped Dennis KD6TUI put it together. Tom KG6RCW brought his HF radio to use. PAPA members came and set up their canopy and radios, then checked into the PAPA system. The new item for this demonstration was a display of radio services available for public use. It includes FRS, MURS, combo FRS/GMRS, GMRS, and Amateur Radio. Oceanside Councilman Jerry Kern arrived at 10:00 AM, viewed the display and asked some good questions about the tower and antennas. He stayed about 15-20 minutes and was demonstrated HF by Tom and David. David had two great contacts in diverse areas with solid contact. One Northeast of Los Angeles and the other east of San Diego. After a while David changed bands to 40m. An SWR check showed he was missing about 3 feet of wire. After scrounging around, a tuning wad was found and put in line bringing the SWR back to good service. Tom made contact with Georgia (US), Montana, and Aruba. Eric K7ELH did a contact to Montana in a quick try. Dennis made a contact to Quito, Ecuador. Ron K2RP made some CW contacts. 15m was playing well. A great day was had by all with beautiful warm sunny weather.



DAVID KC6YSO ADJUSTING THE TUNING WAD



GO RADIO OF DAVID KC6YSO



OPERATING DAY PARTICIPANTS IN ACTION



GUEST, WILD BILL WB6BFG, AND RON K2RP



TOM KG6RCW AT CONTROLS



ELLEN AND RUSTY AND FRANKIE, THE WONDERDOG!



RADIO SERVICES FOR PUBLIC USE



PAPA SET UP



Photos by Dennis KD6TUJ, Michelle W5NYV, and Paul KB5MU.



Operating Day photographs from Paul KB5MU.
See article on page 10 for a summary of this very fun club event.



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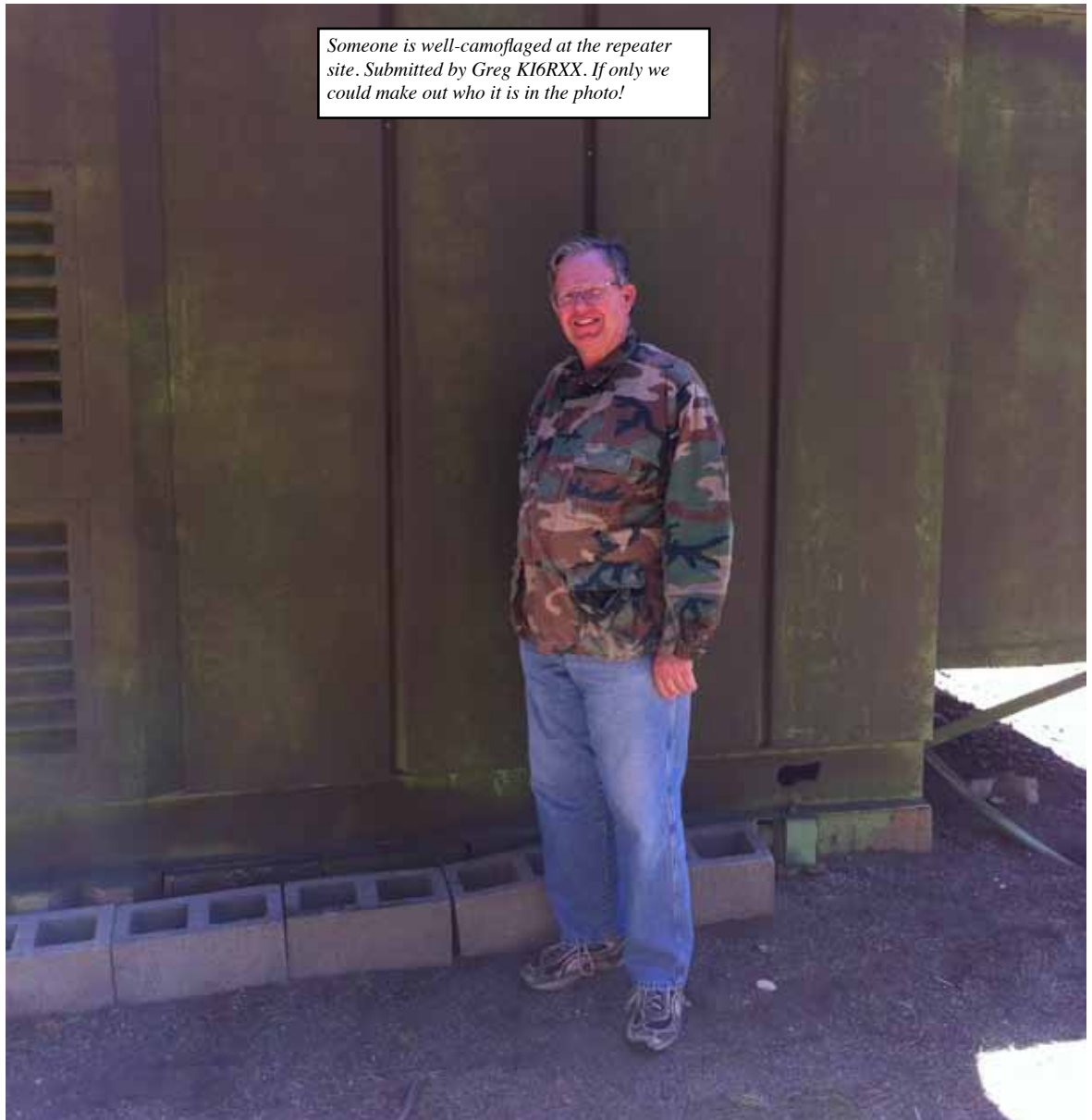
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Someone is well-camouflaged at the repeater site. Submitted by Greg K16RXX. If only we could make out who it is in the photo!



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Photographs from Oceanside

Submitted by Dennis KD6TUJ



Amateurs in Oceanside are to be thanked for their participation of calls, letters, emails, and showing up for the Council meetings. More thanks are to be sent to the community who supported us with the same support of the city residents. More thanks to those who assisted through emails, including some legal comments and suggesting the Costa Mesa Ordinance. I do believe this helped a lot to see another city that has Amateur Radio as a friend and recognizes their needs.
Dennis KD6TUJ

PARC Field Day 2011

by Greg KI6RXX

The PARC annual ARRL Field Day is fast approaching! It is less than two months away!



ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June each year, more than 35,000 radio amateurs gather with their clubs, friends or simply by themselves to operate. ARRL Field Day is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, most groups use the opportunity to practice their emergency response capabilities.

Field Day is an excellent opportunity to demonstrate Amateur Radio to local elected community leaders, key individuals with the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

This year, your Field Day Chairman is Greg Gibbs KI6RXX. You can contact me at thenetquest@gmail.com or on my cell: 760-583-9668. I received my Ham Radio License shortly after successfully passing the Technician test taken at the PARC Field Day 2008. I was pushed into trying the hobby by a good friend, Conrad KG6JEI who easily got me to purchase \$1,500 in equipment from HRO (the Icom 7000 and antenna and mount) 6 months prior to even taking the test. One year later at Field Day 2009, I joined the club and operated for the first time on HF on the 20m station and helped with tear down of the site. One of my goals in becoming Field Day Chair for the first time this year is to better enhance my knowledge and understanding of the hobby. I believe that Field Day is a great way to bring together members of the club for all sorts of fun, whether they enjoy operating, setup and tear down, or even fierce contesting and it is also a great way to recruit new people to the hobby and new members to the club. That's how I got started.

This year we are working on one of two sites, both located on the top of nice hills in Oceanside.



The first is Palisades Park and adjacent Christa McAuliffe Elementary School. The other possible site is Rancho Del Oro Park located on the corner of College and Mesa, the same site that we used for Operating Day. Both sites will be large enough to accommodate our operating class of 3A and possibly larger.



Many thanks go out to the very generous people volunteering as Band Captains this year to help me in this large task. Those people currently include: Preston, Don, The Handy Hams per KI6IET, and Charlie NN3V. Howard KY6LA has also generously offered to bring his Flex 5000. If you wish to get involved or help in any way, please contact me. This year we will have the best of the old and the new.

Looking forward to seeing you there! --Greg KI6RXX

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Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 4th of May 2011, Palomar Amateur Radio Club will have a program presented by Pat Bunsold WA6MHZ. He will talk about his experiences at the Dayton Hamvention.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.



www.arrl.org

Also occurring in June:
ARRL June VHF QSO Party Rules

1.Object: To work as many amateur stations in as many different 2 degrees by 1 degree grid squares as possible using authorized frequencies above 50 MHz. Foreign stations work W/VE amateurs only.

2. Date and Contest Period: The second full weekend in June. Begins 1800 UTC Saturday, ends 0300 UTC Monday (June 11-13, 2011).



Above: K6BZZ's mobile installation. See story on page 10

Save the Date

Club Meeting
1 June 2011

Greg KI6RXX will speak
about Field Day.

Board Meeting
8 June 2011

Palomar Amateur Radio
Club board meeting at
7:00pm

Field Day
25-26 June 2011

See page 12-13.

Club Membership for June Edition

New Members Joining PARC: KE6PX, W5BCO, KG6WBJ, W6DMG, KJ6DPE, AE6HF, KD6KZH.

And several reinstatements. Welcome back.

We now have 78 members that have elected to receive the SCOPE on the web. And, we have noticed that a number of those receiving the SCOPE by web mail do not have the monthly label to remind them when their membership is nearing renewal time.

So, the board has recommended that we print the calls of those that MAY HAVE OVERLOOKED their renewal, in the SCOPE as a reminder.

SO - Here is the list of members that "expired" in the last month or so.

KC6VXY, W6ALF, W3LFR, KI6DER, KI6GSG, KJ6RET.
Please check this list, and get your renewal checks in the mail!

PLEASE!!!

AI
W6GNI

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April SCOPE Fold & Staple Crew
W6GNI AI & Kathy
KB6NMK Jo, KI6LLC Roni,
WD6FWE Don KB6YHZ Art & Janet (Great Turnout!!)

KX3 Debuts at Dayton, Talked about in PARC

More here:

<http://www.sotawatch.org/reflector.php?topic=5730>

and a Photos and Spec Sheet and Video Demo and Narration here

<http://www.worldwidedx.com/hf-bands-hf-rigs/104940-elecraft-kx3-pictures-spec-sheet-dayton-ham-vention-2011-a.html>

<http://www.qrparci.org/>

Looks like it will become a Cool Mobile Rig with Add On 100Watt Amp! Stripped down Price Rumored to be \$800, so probably double that with all the Options !

N6KI



KX3 at Dayton, with spec sheet. Photos by KY6LA.

Advertisements are free for members

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For Sale

SX101 Receiver \$ 175.00
NC109 Receiver \$ 125.00
NC303 Receiver \$ 300.00
NC183D Receiver \$ 300.00

All receivers re-capped, clean and working.

GATES BC1-G Broadcast Transmitter setup on 160M, 250 & 1000 Watt selective power levels \$ 1800.00

Bob, K3QEP

For Sale

One Henry 2K-4 Amp \$795.00, one Metron Amp \$650.00.

sstires@cox.net

For Sale

Collins 136B-2 Noise Blanker for KWM-1,KWM-2,KWM-2A, with Manual. Never Used.
Price \$200.00
Contact: Pete,K6JQE,(858) 755-4838

For Free

Fifty foot galvanized steel tower. Triangular, 28 inches wide at base.
Recipient must remove and must have liability insurance.
May be seen at 1175 La Moree Road, San Marcos, in the RV Parking Lot.
Call Fred Brown, W6HPH, 760-740-8501 or 760-742-1328, or
w6hph@yahoo.es



We had 10 at Phil's BBQ today (for the weekly Friday Feast) and Rhonda really gave us the royal treatment! Nobody has to wait in line anymore, even though it will be out to the parking lot then down the side of the building on Fridays. You just go see Rhonda and say "Help help help me Rhonda" :-)

Mitch/K6BK and me worked this out with Rhonda at the last Phil's visit Everyone have a nice weekend.

Tom W0NI
Photo by WA3IHV

Flex 5000 with iPad

Remote Operation

by Howard KY6LA

Today I finally made some QSO's remotely on my Flex 5000 via my iPad.

I had installed on my iPad,

1. LogMeIn Ignition to control my Flex Computer and
2. Skype to send and receive Audio

On the Flex Computer, (a regular computer attached to the Flex 5000), I installed

1. LogMeIn, - to control the computer screen remotely
2. Skype, - to send and receive audio
3. DDUTIL, - a control program that connects my SteppIR MonstIR, Rotor, PW1, Power Meters to the Flex
4. Virtual Audio Cable, - instead of physical connections all Audio is inside the computer as digital bits, and
5. PowerSDR. – the Flex control program

We were operating from Rob's WA3IHV house in Escondido on 14,172 using his legacy 20th Century IC-7700 Radio.

I connected to my home station over my iPad via Rob's WiFi Network

Remotely I automatically tuned the SteppIR to 14172 and turned the beam north

Rob gave a call and we heard him distinctly at about S6.

I then gave a call into my iPad and we heard me at S6 at Rob's

There was a definitely Internet Delay of about 1/2 second, so it sounded like an echo chamber at Rob's albeit it would be OK if we were not listening to ourselves.

It would be too long a delay for CW Contesting but adequate for Digital and SSB.

I then went to Costco in Poway using the 3G feature. I remotely turned the radio to 14243 in the hope of hearing W6D. No luck with Pat but I was able to make a QSO even using the slower 3G. The trick was once I tuned the radio to the frequency, I freed up bandwidth by only using Skype and not LogMeIn as I did not need to see the band then.

The exciting thing for me is that I can travel to Dayton or to Europe or sit in my living room, only need to carry my iPad and yet not miss out on any DX from my house.

Ain't Modern Technology Wonderful!

Hello SD Microwavers,

This past Monday, May 16th, was the date of our monthly meeting of the San Diego Microwave Group at 7:00 PM. The location was Kerry Banke's home QTH in La Mesa.

The technical topic for this meeting was "Microwave Filters You Can Make", and we encouraged all participants to bring any filters made, in order to see them measured with the spectrum analyzer and tracking filter. The filters invited included evanescent waveguide types using waveguide below cutoff, as well as pipe

cap and other types members have built.

If you haven't already done it, you might want to take a look at W1GHZ's web site on the topic of "Filters". This collection of papers and presentations was the topic of the technical program presented by Kerry N6IZW.

All amateur radio operators are invited to our monthly meetings and weekly Monday night 9pm net on 146.730.

Ed W6OYJ and Michelle W5NYV

Winning Effort!

NX6T #1 USA & #1 Left Coast 7QP Out of State MS Mixed HP !

by Dennis N6KI

Out of State M/S HP

Call	CWQ	PhQ	DgQ	Mult	hr	Score	Club
NX6T	183	171	0	98	16.5	87,318	SDCC
K6MM	186	70	0	82	9	57,236	NCCC
N2BJ	38	148	0	89	8	36,490	SMC
N5NA	112	0	0	54		18,144	

Call: NX6T

Operator(s): N6KI, WQ6X

Station: W6HCD

Class: M/S HP

QTH: CA

Operating Time (hrs): 16.5

Summary:

Band	CW Qs	Ph Qs	Dig Qs
160:	0	1	0
80:	46	12	
40:	38	68	
20:	64	74	
15:	35	15	
10:	0	1	0
6:	0	0	0
2:	0	0	0

Total: 183 171 0 Mults = 98 Total Score = 87,318

Club: San Diego Contest Club

Comments:

WQ6X and I (N6KI) worked the 3 USA QSO Party Contests (NEQP, 7QP, INQP) at same time as ARI, unfortunately there was NO contest Logging program that could do this so we modified Old but VERY Useful K1EA CT DOS version 10 NEQP Contest Module to accomplish this feat !

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Minutes

Palomar Amateur Radio Club

Board of Directors Meeting

April 13, 2011 (Corrected)

The meeting was called to order by President Dennis Baca KD6TUI at 7:17pm at the home of Ron Pollack K2RP.

In attendance were:

President Dennis Baca KD6TUI

Vice President Ron Pollack K2RP Secretary

Paul Williamson, KB5MU

Director #1 Don Johnson, WD6FWE

Director #2 Eric Hutchins, K7ELH

Membership Chairman Al Donlevy W6GNI

SCOPE Editor Michelle Thompson W5NYV

Repeater Technical Chairman Conrad Lara KG6JEI

Secretary's Report

Secretary Paul Williamson KB5MU distributed printed copies of the minutes of the February Board meeting, as previously sent by email. Motion by K2RP to approve the minutes as published. Seconded by Al Donlevy W6GNI. Motion passed unanimously. KB5MU distributed printed copies of the minutes of the March Board meeting, as previously sent by email. Motion by Conrad Lara KG6JEI to approve the minutes as published. Seconded by Michelle Thompson W5NYV. Motion passed unanimously.

Treasurer's Report

No Treasurer's report was available.

Upcoming General Meeting

K2RP reported that Pat Bunsold WA6MHZ would have a very funny presentation about his trip to the Dayton Hamvention at the May meeting. The June meeting will be about Field Day.

Membership Report

Membership chairman Al Donlevy W6GNI reported that Club membership is 278. Postal rates were adjusted on April 12; it will now cost 0.1 cents more per Scope mailed. Mailing labels will have to be rotated 90 degrees from their current orientation. Dropping off Scopes at the post office will now involve waiting for the postal workers to process the stack and correct any errors.

Repeater Technical Report

Repeater Technical Chairman Conrad Lara KG6JEI reported on a repeater site visit last month. A duplexer was replaced and additional filtering was added to mitigate interference on the 447 MHz repeater. The power amplifier module was replaced in the 147.130 MHz repeater. Some time was wasted due to directional coupler limitations that resulted in a false indication of desense.

The 145.05 MHz packet node TNC was reset, and it worked for a while thereafter, but has again lost its programming, after a loss of AC power at the repeater site. The lithium battery in the TNC is fresh, so some deeper hardware problem is suspected.

The additional power cutoff relays have not yet been ordered.

The 220 Club will install a 48V power converter for their repeater at a work party scheduled for Sunday April 17.

KG6JEI reported no progress on the 6m repeater. W5NYV reported that three designs for a new 6m repeater antenna are in hand, all but one of which use off-the-shelf components. Simulation studies show a slight advantage for mounting the antenna on its own separate pole, as it is currently, but there may be mechanical advantages to mounting it on the main tower.

Field Day

KG6JEI reported for Field Day Chairman Greg Gibbs KI6RXX. A work party is scheduled for May 11 to refurbish the club's two 20m yagi antennas. Field Day sites in Oceanside are still under consideration. KI6RXX will provide a Field Day article for the Scope by Friday. KD6TUI will visit Oceanside Parks and Recreation to see about using Rancho Del Oro park. K2RP noted the importance of asking the chuck wagon volunteer to feed us again this year.

Request for Repeater Usage

Timothy Higgins requested the use of a repeater intermittently in support of the Scout Fair at Qualcomm Stadium the following weekend. Motion by Don Johnson WD6FWE to approve the request. Seconded by W5NYV. Motion passed unanimously.

Operating Day

KD6TUI reported that Operating Day was held at the YMCA in Oceanside. About 35 people signed in. Councilman Kern attended for about 15 minutes, and asked if the tower trailer would be typical of amateur radio installations at homes. KD6TUI reported that he had sent a letter of thanks to the YMCA. KD6TUI returned the check written by the club to cover expenses, since no net expenses were incurred.

San Diego Amateur Radio Council

KD6TUI reported that he made a request to SANDARC to fund the club's Operating Day event in April and its next Operating Day event, in the amount of \$200, and the request was approved. Since there were no expenses incurred at the April event, the funds will be banked for the next event.

SANDARC held its election of new officers. Challengers replaced incumbents in both contested races. There was some controversy about inactive status for member clubs. It seems that the SANDARC bylaws require a vote to move a club to inactive status, but clubs have been treated as inactive without a vote being held. The main implication seems to be that a quorum to transact business depends on the number of active clubs, so some meetings may not have had a legal quorum.

Raffle Results

KD6TUI turned over \$70 net proceeds from the raffle at the last club meeting.

Logbook of the World

W5NYV reported that the club callsign W6NWG is now active on Logbook of the World. Anyone holding old contest or other event logs for W6NWG should submit them.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on May 11, 2011.

Adjournment

The meeting was adjourned at 8:35 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary



Mobile Antenna Raising Gearbox

This might not qualify as an "internal" mobile installation, but perhaps it will be of interest. After having broken a few whips off the top of my van, I am trying this idea. A motorized antenna raising gearbox. A 12v DC motor and gear box can raise or lower the Hustler antenna in about 4 seconds! Just don't forget to lower it when the van is moving!

The SWR is still OK when half way up.
Bob Zelenack, K3QEP



Do you have a mobile installation? You need some motivation!

We're looking for a few good people to draw the drawing board, or just show you the time you get in and show your installation.

Tips, narratives, experiences, and equipment encountered and evaluated. Email: scope@pa...

HAM RADIO OUTLET

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

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Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!



Hear Yourself!

Type in call sign or calls you may have used in a Multi-Op Contest like "NX6T" or "WQ6X" or "N6KI" etc. and you will hear what you sounded like in Wales !

Fun to listen to your favorite Contest Op !

<http://gw4ble.dxlist.co.uk/>

Click on the Play button on Audio Slide Bar or SAVE.

Typically these recordings are made by Contest Logging Programs like Writelog, N1MM, WINTEST etc and are stored on hard drive if one selects that option and has a big enough hard drive during contests.

I heard WQ6X, W2PWS N6CY and possibly N6NC (N6OX ?) in calls we have use the last 5 years doing Multis from W6HCD or N6KI site! See if you can recognize the your voice as the Op who worked this guy!

These are mostly sideband recordings but he does also gave CW recordings.

We have a GREAT Signal in Wales!

73, Dennis N6KI

le installation? Do you want to have a mobile installation, and on?

few good mobile installations - whether they're completed, on or half-way done and tripping you and your passengers every out of the vehicle - to be featured in the Scope. We'd love to n.

planations, techniques, problems encountered and solved (or ended) are what we're looking for. Send them in! hammararc.org



Our May Meeting. Thank you W6SST (below). He's bringing in the coffee! Photos by KB5MU.



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Mobile Installation

by Dick K6BZZ

Here is a description of my mobile setup. There have been lessons learned along the way which will be shared here. The radios are installed in an Infiniti QX-4 SUV. Operation is on HF, VHF, and UHF, with APRS capability. The rigs are an Icom IC-706MKIIG, Ameritron ALS-500M HF amplifier, Kenwood TM-D700 2 meter/440/APRS, Hamstick antennas on NMO mounts, and a Byonics GPS antenna/receiver.



The radios are mounted in the rear of the vehicle, with remote control heads and speakers up front. There are two NMO mounts on the rear, one for HF thru 6, and the other for 2/440.

Before adding the 500 watt amplifier everything worked well at 100 watts output on HF. Then the fun began. It's a lot of fun to run 500 watts from a mobile HF station and receive great signal reports, break through pileups, etc, but there are some tradeoffs required in order to have this much fun. The first problem showed up when transmitting high power on 40 meters. The engine would shut down. That's when I learned about ECCs- Engine Control Computers. There was enough RF



getting into the ECC to cause problems. The solution turned out to be very simple, and I pass it on here to save you hours of testing.

I wound a RF choke using about 8 turns of the RG-8x feedline coax into a ferrite doughnut placed at the base of the hf antenna feed point. RFI now gone.

The engine is happy again. It's important that the HF radio in back be well grounded to the frame of the vehicle. RG-8 coax shield works well. The radios should be connected directly to the battery through a large fuse (60 AMP) in the positive cable.



I prefer to run a negative cable from the back to the battery also, rather than using the vehicle chassis as ground. After a lot of searching the best power cable for the long run from the battery to the radios was #6 Monster Cable used for high power automobile audio amplifiers. It is very flexible and easy to run around corners. The two cables run from the battery, through the firewall, then under the door sills, and under the rear carpet and seats to the rear area of the vehicle.

Good luck with your installations. Mobile HF is a lot of fun. Just be safe and don't take your eyes off the road to adjust radios. I've found it's really more fun to operate while mobile at rest or with someone else driving.



'73 de Dick K6BZZ Maricopa AZ, Carlsbad CA

Field Day Site Measurements

Measurements of Possible sites:



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N6WPA

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PARC Field Day 2011

by Greg KI6RXX

CQ Field Day CQ Field Day, W6NWG calling CQ Field Day... Field Day is fast approaching with just less than a month away.

Every year the ARRL selects a Field Day “Theme” or “Challenge”. This year the overall theme is to :Do Something Different. The ARRL States: “As part of your “Field Day challenge” in 2011, do something different. Try making contacts using a new mode for you... Tinker with a new antenna design... Concentrate on getting “newbies” on the air... Focus on demonstrating our hobby to government officials and representatives from served agencies... Choose a different venue for your event... Learn how to use a new piece of equipment... Set goals for maximizing the number of participants who make contacts... Be creative in holding an educational activity component with your set-up...” “The innovations are there – you simply need to employ them!” This year, as a brand new Field Day Captain, I have chosen to do something different; To not only run Field Day rather than just attending it, but to also try and make Field Day both contest friendly as well as fun friendly for the club.

This year your Field Day Band Captains currently include the following generous people: Preston Butler W6ASP who will operate on 10M. Don Johnson, WD6FWE, will operate the 6M (VHF) and GOTA station as usual. Charlie Ristorcelli NN3V, will be on 20/80 SSB. The HandiHams with coordination from Tom KI6IET and hopefully Bill N6HBO will operate on 15/40 SSB. Howard KY6LA will be bringing his “most current state of the art” Flex SDR Radio. Michelle W5NYV and Paul KB5MU have also offered to provide a station where needed. We are hoping to operate a 5A Station which means we still need operators for the two 20/80 and 15/40 CW stations.

Field Day is always the fourth full weekend of June, beginning at 1800 UTC Saturday and ending at 2100 UTC Sunday. One cannot expect to reasonably operate during this lengthy time period without at least one decent meal. This year the food will be provided once again by Rick Roberts N1OW and his amazingly impressive PsychoKitchen! I encourage club members to bring a main dish, side dish, or desert to share on Saturday, in an effort to bring back the Road Kill Cafe, Pot Luck Style this year.

Rick, N1OW has also offered to bring his Daisy and help with the filling of the water tanks which are used to hold down the antenna towers. Repair work has been completed on the 20M SSB and CW Yagi antennas with the help of Denis N6KI, Ron K2RP and others at the hill top site of Nash Williams W6HCD located in Fallbrook. We hope to also schedule an Antenna Party within the next few weeks for the other antennas to get them re-tuned and ready for Field Day.

This year I hope to make Field Day both fun and exciting! My personal goal this year is to better enhance my understanding within this hobby and hopefully overcome the huge learning curve that has come with being a new, inexperienced Field Day Chairmen. If you wish to get involved or help in any way, please contact me at thenetquest@gmail.com or on my cell: 760-583-9668. I Look forward to seeing you there!

73 from,
Greg KI6RXX

Photographs from May Membership Meeting

by KB5MU



PARC Field Day Station Checklist			
CAPTAIN:		BAND:	
ITEM	SUPPLIER	ITEM	SUPPLIER
+Antenna Equipment:		Computer Equipment:	
Antenna	PARC	Laptop or Desktop	
Antenna Mount	PARC	Monitor for Desktop	
Antenna COAX	PARC	Keyboard for Desktop	
Rotator	PARC	Logging: Write Log	PARC
Rotator Mount	PARC	Power:	
Rotator Cable	PARC	Generator	
Rotator Controller	PARC	Gas	
Tower	PARC	Fire Extinguisher	
Tower Stops	PARC	Extension Cord	
Tower Guys	PARC	Power block	
Tower Guy Anchors	PARC	Shelter Supplies:	
Tower Weights	PARC	Shelter	
Radio Equipment:		Table	
Transceiver		Chairs	
Power Supply		Lighting	
Microphone		Pencil and Paper	
Speaker		Operating Manual	
* Headphones		Field Day Rules	
CW Key		Safety Rules	
* Foot Key		First Aid Kit	
*SWR meter		Site Communications:	
*Patch Cord		VHF HT w/ extra batteries	
*Antenna Tuner		*Speaker Microphone	
*# Bandpass Filter			
*Spare Transceiver			
*Spare Fuses			

* Items are optional though highly recommended where possible.

+ A Tower Tailor could replace all these items

PARC HAS LIMITED SUPPLY! It is best to bring your own as we do not have enough for all stations!

PARC Can provide latest version of Write Log if necessary.

SCOPE page 15

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 1st of June 2011, Palomar Amateur Radio Club will have a program presented by Greg KI6RXX. He will talk about Field Day.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the Palomar Amateur Radio Club of San Diego, California.



www.arrl.org

The Palomar Amateur Radio Club transformed a vacant lot in San Marcos from a dusty abandoned field into a bustling communications village on Friday. About 20 club members and several visitors worked to build 6 HF Field Day stations, arrayed around the edges of the field. The stations were placed as far apart as possible in order to reduce the potential for interference. The center of the field was populated with the Get On The Air station and several shade structures for gathering, planning, and collaborating. Towers and antennas were raised by sundown.



DATE (ZULU/UTC)	START Time (Z)	STATION CALLED	HIS SIG RST	FREQ (MHz)	Mode (SSB/CW)	Indicated Power (W)	EMISSION TYPE	Remarks
1-May-11	0610	VK3UFO	42	146.7000	H	5	FM	OPERATING AS W6PUG/VK3
1-May-11	0630	VK3FZAG		146.7000	H	5	FM	JIM vk3ufo@get.net
1-May-11	0735	VK3TXD		146.7000	H	5	FM	RICHARD
1-May-11	0749	VK3FBAC		146.7000	H	5	FM	Mini
1-May-11	0800	VK3DLR		146.7000	H	5	FM	David
1-May-11	0810	VK3FCBI		146.7000	H	5	FM	CHARLIE SAVAGE
1-May-11	0820	VK3XYX		146.7000	H	5	FM	Gary
1-May-11	1015	VK3FEZZ	FQ	147.0750	H	5	FM	JOHN
1-May-11	1100	VK3EI	FQ	147.0750	H	5	FM	LINO
2-May-11	1930	VK3PJH	FQ	147.0750	H	5	FM	PAUL
2-May-11	1935	VK3VZP	FQ	147.0750	H	5	FM	RUSSEL
2-May-11	2039	VK3VCS	FQ	147.0750	H	5	FM	DAVID
3-May-11	0859	VK3BMK	Q	147.0750	H	5	FM	TERRY CHURCHER
4-May-11	0845	VK3UFO	Q	147.0750	H	5	FM	JIM vk3ufo@get.net
4-May-11	1100	VK3FCBI	FQ	147.0750	H	5	FM	CHARLIE SAVAGE
4-May-11	1914	VK3VHF	FQ	147.0750	H	5	FM	JOHN
4-May-11	1925	VK3PJH	FQ	147.0750	H	5	FM	PAUL INTERESTED IN MOSELY ANTENNA
4-May-11	1925	VK3JHO	FQ	147.0750	H	5	FM	John Stokes
5-May-11	0628	VK3PJH	FQ	147.0750	H	5	FM	PAUL ALSO DOES 40
5-May-11	0716	VK3AN	FQ	147.0750	H	5	FM	TONY MEET ME AT AIRPORT
5-May-11	0733	VK3AHJ	FQ	147.0750	H	5	FM	RJ
5-May-11	1013	VK3VMS	FQ	147.0750	H	5	FM	MICHAEL
5-May-11	1000	VK3UFO	FQ	147.0750	H	5	FM	JIM
5-May-11	1200	VK3TXD	FQ	147.0750	H	5	FM	RICHARD / AVACADOS

"Above is a screen capture photo of the folks I contacted while in Melbourne. It was truly one of the most fun things I have done in many, many years!"

Read Doug W6PUG (then W6PUG/VK3)'s article starting on page 5.

Save the Date

Club Meeting
6 July 2011

Hear about the ARISS Contact at Adobe Bluffs Middle School from Jim McLaughlin KI6ZUM.

Board Meeting
13 July 2011

Palomar Amateur Radio Club board meeting at 7:00pm at K2RP QTH.

Del Mar Fair
now until 4th of July

Visit the Amateur Radio booth at the Del Mar Fair. It's in the infield.

Club Membership for July Edition

New Members Joining PARC: N6CJR, W3DSO, N6RTI, NE6T, AND Chris May (No Call Yet).

And thirteen "old" members reinstated their membership. Here is the list of members receiving the SCOPE on the web, that "expired" in the last month or so. Please check this list, and get your renewal checks in the mail! Pretty PLEASE!!!

W6ALF, W3LFR, KI6GSG, KJ6RET, N6FF, KI6KJG, KF6UVF, KI6MMT, KB7XI, W6UDO, and N7MM.

AI
W6GNI

April SCOPE Fold & Staple Crew

W6GNI AI & Kathy, KB6NMK Jo, KI6LLC Roni, WD6FWE Don, KB6YHZ Art & Janet (Great Turnout!!)

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BALUN KITS

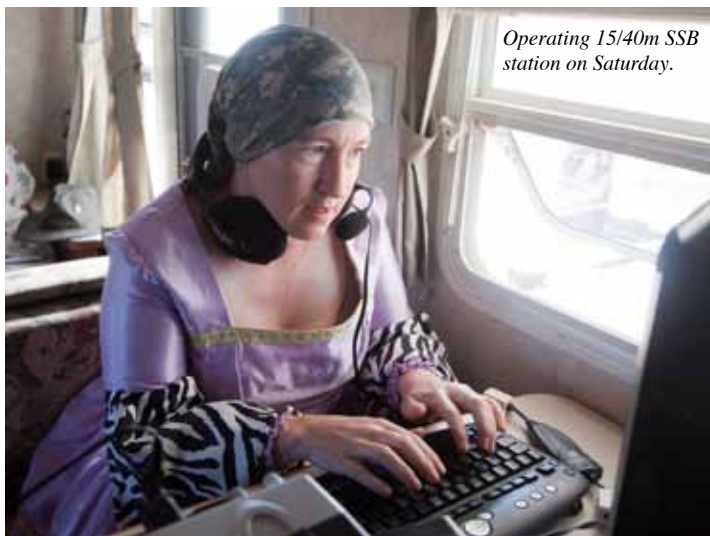
Ferrites slip over coax. Shrink tubing holds them in place. Works from 3.5-60 MHz (Use two kits for 160m).

Model BA-58 (for RG58, RG8X & similar cables up to 1/4" dia.) \$8.50+tax+\$8 S&H/order

Model BA-8 (for RG-8, RG-213, 9913 and similar cables up to 1/2" dia.) \$16.50+tax+\$8 S&H/order.

See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.



Field Day is fun! This year the Radio Fairy (W5NYV) visited. Also, very official offices for KI6RXX and KG6JEI were set up and marked with very official placards.



Above, the traditional office location for the Field Day chair (the porta potty). Left, a new tradition - the repeater technical office!



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Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

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SX101 Receiver \$ 175.00
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NC303 Receiver \$ 300.00
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All receivers re-capped, clean and working.

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Bob, K3QEP

For Sale

FOR SALE: Henry 2K-4 with two extra Eimac tubes; good condition. Total for all \$650.00.

Sonny, WA5ACE 760-724-0049

For Sale

Collins 136B-2 Noise Blanker for KWM-1,KWM-2,KWM-2A, with Manual. Never Used.
Price \$200.00
Contact: Pete,K6JQE,(858) 755-4838

For Free

Fifty foot galvanized steel tower. Triangular, 28 inches wide at base.
Recipient must remove and must have liability insurance.
May be seen at 1175 La Moree Road, San Marcos, in the RV Parking Lot.
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w6hph@yahoo.es

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!

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See this excellent collection of Field Day photographs from Bob KC6V DX.

<http://www.qsl.net/kc6vdx/parcfd2011/parcfd2011.html>

Here is a video of the San Diego Contest Club Field Day effort.

http://www.youtube.com/watch?v=SGMYumwe5WI&feature=youtube_gdata_player

Power combiner for three Acom2000A Amplifiers for 5400 Watt output!

<http://nj-bob.smugmug.com/Professional/FN2011/i-Skb7CDV/0/XL/DSC0024-XL.jpg>

N6KI

P.S - That's \$24K worth of amps + the Combiner etc

FD Score Summary Sheet - 40/20/15/10 CW

Start Date : 2011-06-22

CallSign Used : W6NWX

Operator(s) : K4RB K6BZZ K2RP

Operator Category : MULTI-MULTI

Band : ALL

Power : LOW

Mode : MIXED

Default Exchange : 4F SDG

Gridsquare : DM13IB

Name : Palomar ARC

ARRL Section : SDG

Software : N1MM Logger V10.9.6

Band	Mode	QSOs	Pts
7	CW	15	30
14	CW	154	308
21	CW	153	306
28	CW	51	102
Total	Both	373	746

Score : 1,492

Rig : FT 1000MP



The 40/20/15/10 CW station was housed in a large rectangular tent. A tower trailer supported a triband trap Yagi for 10/15/20m bands. A generator was provided for power. The rig was a Yaesu FT-1000MP and they used an AEA Morse Machine memory keyer.

Below right, Ron K2RP.

Below left, Bob K4RB.

K6BZZ also operated at the station.



VHF in the Land of Oz

Doug Johnson W6PUG

Most people dream of being able to combine work and hobby, but seldom get an opportunity to do so. When the opportunity knocks, you need to be able to recognize it, and instead of just dreaming about it – DO IT! I had a fortunate opportunity in May, and want to share it with you so perhaps you might be able to do something similar sometime.

I have worked for an engineering and supply firm for eighteen years; sixteen of those I have also been a ham. The job requires that I travel internationally to all continents (except Antarctica :o) a couple of weeks every month, and I have been doing this particular job for so long that the travel rut gets rather deep.

I had to go to Australia in May to conduct a training and field service certification program for a week. I have been all over Australia several times over the years, and have found the people fun, engaging and very welcoming to Yanks. I got on the web and found a couple of radio clubs in the Melbourne (Victoria) area, found a listing of repeaters, and checked for permissions to operate there as a visitor, and it all looked good. I packed up my 5w 2m handheld, my small card copy of my license, and headed for the Land Down Under.

Arriving on Sunday morning, I realized that in spite of much-wanted sleep, I should stay awake during the day, so that I could start getting my days and nights synched up to their local time so I could survive the week (student candidates to not appreciate you falling asleep when teaching their classes, it seems!). The hotel in Glen Waverly (Melbourne area) was kind enough to put me up on the top floor of their 6 floor structure, so I dug out the 2m and put it in the charger, made a cup of coffee, and put out some calls to three of the local repeaters that I felt I had the highest probability of raising. Sunday afternoon is pretty quiet, but on the third call, I heard the lovely sound of a faintly-British Aussie voice hailing my "W6PUG/VK3 Listening" query! Jim, VK3UFO, had the sharp ears and picked up the Yank in VK3 identity, and quickly commenced a warm and welcoming conversation, and friendship. One of the interesting things about repeater operations is that there can be no pileup, but for the rest of the day – as long as I could keep my eyes open – one after another of the local operators piped up and ragchewed with the Yank in VK3land. Once they figured out that I was physically operating from within Melbourne area and not coming in through an internet link, they were eager, welcoming and engaging.

The 5w handheld was doing ok, but due to several factors, contact quality was not the best. Over the course of the afternoon, a plan was hatched. Richard VK3TXD, and Craig VK3NCR, volunteered to pick up a small (translate that to being able to pack it in baggage for travel) external antenna from a local ham store that I contacted and paid for over the phone, and then Jim, Richard and Craig all showed up at the hotel after class on Tuesday night and they took me to a fantastic local restaurant for my favorite: fish & chips. We talked about our backgrounds and our ham interests, and the night went by far too quickly.

Wednesday night after class, I got the magmount antenna set up, and hit the repeater again – MUCH improved, but still scratchy, but then Richard mentioned something about ground plane (kinda hard to do on 6th floor of a hotel), and an idea hit me. I went down to the kitchen of the hotel and beg/borrowed an aluminum pizza pan, and headed back up to the room. I took the plastic trash can and set it on the table by the window, placed the pizza pan on top, got a spot of water and put on center of the aluminum pan, and set the magmount antenna in the center of the pan, and BINGO! FULL QUIETING!!! I can say it was not the most elegant solution (I can almost feel the cringing of the antenna experts out there reading this), but it worked. For the rest of the week, I had the privilege of working fifteen different contact individuals, mobile and stationary, from about 5 to 6:30am every morning, and then from about 5:50 to 10 every night, and it quickly became a "routine" for the rest of the week for them to check up on me during my stay in Oz. The guys were great; had scores of great stories and experiences to share, and always took a little bit of time to talk to the Yank Displaced in Oz. From those QSO's have sprung friendships which have been maintained by email,

*continued on
page 8*



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Minutes

Palomar Amateur Radio Club

Board of Directors Meeting

May 11, 2011

The meeting was called to order by President Dennis Baca KD6TUI at 7:28pm at the home of Paul Williamson KB5MU. In attendance were:

President Dennis Baca KD6TUI
Vice President Ron Pollack K2RP
Secretary Paul Williamson, KB5MU
Director #1 Don Johnson, WD6FWE
Director #2 Eric Hutchins K7ELH
Membership Chairman Al Donlevy W6GNI
SCOPE Editor Michelle Thompson W5NYV
Field Day Chairman Greg Gibbs KI6RXX

Secretary's Report

KB5MU distributed printed copies of the minutes of the April Board meeting, as sent by email just before the meeting. KD6TUI provided corrections to the repeater work party report: a power amplifier module was replaced on the 147.13 MHz repeater, and the replacement duplexer and additional filtering was installed on the 447 MHz repeater. Ron Pollack K2RP noted that Eric Hutchins' callsign was missing in the table. Motion by K2RP to approve the minutes as corrected. Seconded by Don Johnson WD6FWE. Motion passed unanimously. KB5MU distributed printed copies of the minutes of the April general membership meeting, also as sent by email just before the meeting. Motion by Al Donlevy W6GNI to approve the minutes as published. Seconded by Michelle Thompson W5NYV. Motion passed unanimously.

Treasurer's Report

No Treasurer's report was available.

Upcoming General Meeting

K2RP reported that the June meeting will be about Field Day, presented by KI6RXX.

Field Day

KD6TUI reported that final approval to use Palisades Park for Field Day has not yet been received from the city of Oceanside, pending approvals from the various committees. The Rancho Del Oro site is probably too small for a 5A class Field Day station.

KI6RXX reported that Preston Butler W6ASP will be captain of the 10m station, and WD6FWE will be captain of the 6m (VHF) and GOTA (Get On The Air) stations. Art McBride KC6UQH will be captain of the satellite station and ATV demo. Charlie Ristorcelli NN3V will be captain of the 20/80m SSB station. The HandiHams will be invited to take charge of the 15/40m SSB station. K2RP believes that he can round up a good group of CW operators for one or even two CW stations. KB5MU and W5NYV will bring their trailer and provide a station if needed.

After a discussion it was agreed that all stations will log with N1MM software.

KI6RXX reported that Rick Roberts N1OW has agreed once again to bring his water trailer (and truck "Daisy") to fill up weight barrels and to provide food for Field Day. Motion by WD6FWE to approve up to \$250 for food.

Seconded by W5NYV. Motion passed unanimously. Motion by Paul Williamson KB5MU to approve up to \$250 for a portable toilet and sink for Field Day, with KD6TUI to make the arrangements. Seconded by WD6FWE. Motion passed unanimously.

Repeater Technical Report

KD6TUI reported that Repeater Technical Chairman Conrad Lara KG6JEI will be purchasing power cutover relays soon. They will be controlled by the existing DTMF decoder to switch individual repeaters on and off. Latching relays and solid state switches will also be investigated. KG6JEI is making progress on repairing the 6m repeater. W5NYV reported no change on the 6m antenna project. A wire vertical could be rigged off the tower for temporary use.

48 volt DC power converters are in place on all the Club's voice repeaters, and on the 220 Club repeater. They are still needed on the packet equipment and on the Americas Unidos repeater.

Timothy Higgins requested the use of a repeater intermittently in support of the Scout Fair at Qualcomm Stadium the following weekend. Motion by Don Johnson WD6FWE to approve the request. Seconded by W5NYV. Motion passed unanimously.

Strawberry Festival

KD6TUI reported that a request for radio communication support for the Strawberry Festival was referred to Jim Egerton W6SST and Vista CERT.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of W6GNI at 7pm on June 8, 2011.

Adjournment

The meeting was adjourned at 9:00 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary



A highlight of PARC Field Day 2011 was the presentation of a handsome Amateur Radio Resolution plaque to Councilmember Kern and Staff Member Ben Sullivan.

The presentation occurred at the PARC Field Day site at noon on Saturday.

The plaques were emblazoned with the PARC logo and expressed our thanks for the support and guidance given by Councilmember Kern to the ham radio operators of Oceanside.

Land of Oz continued from page 5

and now I am looking to extend that experience into HF contacts.

The final icing on the cake was when Tony, VK3AN, met me at the airport on the morning of my departure back toward home, for breakfast and the eyeball QSO. There are few words I know to describe the entire experience and the fantastic reception I received in Oz.

Although I realize QSL cards are not typically the norm for VHF operations, I felt that I must extend the courtesy in appreciation of the experience in Australia, so when I got home, I sent each contact a QSL card customized with W6PUG/VK3. A couple of weeks later, I started receiving emails from my Australian contacts, acknowledging receipt of my QSL cards.

Some of these guys are very experienced HF and VHF operators, but even at that, one mentioned that it was the first QSL card he had ever received, and many commented that it was their first card from the States.

Considering how the tradition of QSL cards has seemed to diminish over the years, this was a very rewarding comment to receive, since QSL cards are an important part of the tradition of the amateur radio service. It was well worth the seventy five cents to mail a card, for sure!

So there you have it: the marriage of work, hobby and opportunity yielding new friends and camaraderie which will no doubt last for years. This, to me, is part of the amateur radio experience.

Since I go to Australia fairly often, I have modified my "road kit" to be a small mesh screen (cookie cooling screen now dubbed "groundplane") mounted to a small collapsible photography tripod with my magmount, and my handheld, all of which can be folded up into the bottom of my luggage and ready for quick assembly – and get back on the repeater to the best of friends, old and new, in the Land Down Under.



At right: This is what morphed into - ready for

Tried it out last night w Sent pix to the guys in C

73
Doug W6PUG

DATE (ZULU/UTC)	START Time (Z)	STATION CALLED	Chk if NET	HIS SIG RST	MY SIG RST	FREQ (MHz)	Loop, Vert, Jpole, Beam, Mobile, Handh eld	F
2-May-11	1930	VK3PJH		FQ		147.0750	H	
2-May-11	1935	VK3VZP		FQ		147.0750	H	
2-May-11	2039	VK3VCS		FQ		147.0750	H	
3-May-11	0859	VK3BMX		Q		147.0750	H	
4-May-11	0845	VK3UFO		Q		147.0750	H	
4-May-11	1100	VK3FCSI		FQ		147.0750	H	
4-May-11	1914	VK3VHF		FQ		147.0750	H	
4-May-11	1925	VK3PJH		FQ		147.0750	H	
4-May-11	1925	VK3HO		FQ		147.0750	H	
5-May-11	0628	VK3PJH		FQ		147.0750	H	
5-May-11	0716	VK3AN		FQ		147.0750	H	
5-May-11	0733	VK3AHJ		FQ		147.0750	H	
5-May-11	1013	VK3VMS		FQ		147.0750	H	
5-May-11	1000	VK3UFO		FQ		147.0750	H	
5-May-11	1200	VK3TXD		FQ		147.0750	H	

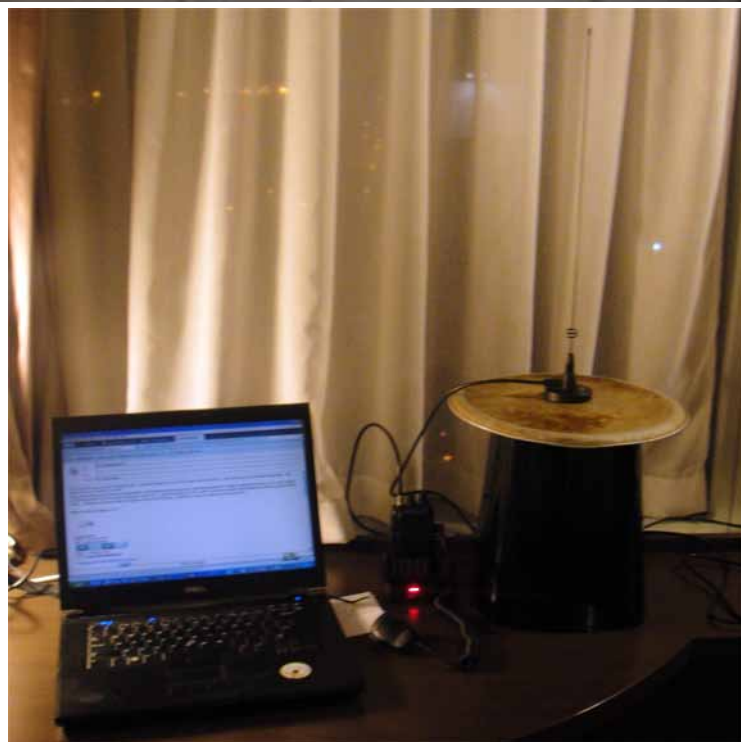


the pizza-pie-pan/trashcan antenna has
for the next trip!

with 5w handheld - full quieting!
Oz and received approval from Down Under.



Indicated Power (W)	EMISSION TYPE	Ending time	Remarks
5	FM		PAUL
5	FM		RUSSEL
5	FM		DAVID
5	FM		TERRY CHURCHER
5	FM		JIM vk3ufo@qsl.net
5	FM		CHARLIE SAVAGE
5	FM		JOHN
5	FM		PAUL INTERESTED IN MOSELY ANTENNA
5	FM		John Stokes
5	FM		PAUL ALSO DOES 40
5	FM		TONY MEET ME AT AIRPORT
5	FM		RJ
5	FM		MICHAEL
5	FM		JIM
5	FM		RICHARD / AVACADOS



FD Score Summary Sheet - 15/40 SSB

Start Date : 2011-06-22

CallSign Used : W6NWX
Operator(s) : KB5MU, W5NYV, KI6IET, KA9Q, others

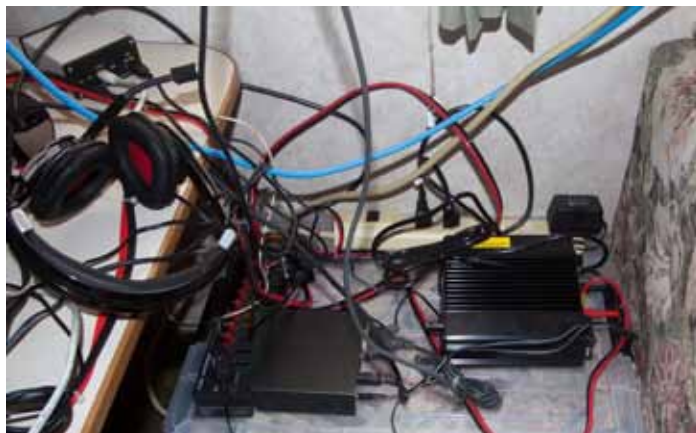
Operator Category : MULTI-MULTI
Band : ALL
Power : LOW
Mode : MIXED
Default Exchange : 4F SDG
Gridsquare : DM13IB

Name : Palomar ARC

ARRL Section : SDG
Software : N1MM Logger V10.9.6

Band	Mode	QSOs	Pts
7	LSB	163	163
21	USB	220	220
Total	Both	383	383

Score : 766
Rig : Kenwood TS-850S



The station was located at the table, and two of the four seats were used as operating positions. Due to a wheel well, the facing two seats were used for the power supplies and other components instead of seating.



Copper Home flies the Happy Face Roger, a variation on the Jolly Roger.



HAM RADIO OUTLET

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Jerry N5MCJ
Joe N6SIX

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15m yagi awaits installation on the tower.

The 15/40 SSB station was housed in Copper Home, a trailer belonging to KB5MU and W5NYV. The permanently installed HF radio was not used for Field Day, and due to the cabling required for the rotor, the panel with coax connectors wasn't used either.

Fortunately, all the HF cables went through the kitchen window. The wheel-anchored VHF antenna and permanently mounted VHF radio was used to monitor the 2m logistics channel.



15/40 SSB Report

by KB5MU

We had distorted transmit audio, which was traced down to the USB sound card interface that was hooked up for voice keyer operation (but never used for that). The distorted transmit audio was evident in the Monitor audio from the rig, but I didn't believe it was real until we got a report on the air.

The on-air report said we sounded like we had an undervoltage problem, but a check of the voltage from the power supply showed rock steady.

When we switched from 15m (and the beam) to 40m (and the much closer inverted vee), each transmission would switch the video monitor off or back on. The workaround for this was to remove the external monitor and use the laptop's screen instead.

The multiple output headphone amplifier experienced some RF ingress, audible as low level distorted audio when transmitting.

The stackup of adapters in the PTT line (rigged up when we switched to voice operation at the last minute) was a little flaky. Oddly, it would somehow fail shorted, which would key the rig.

The headphone amp had insufficient gain to operate from the fixed-level output on the radio's rear panel, as I had intended, so we had to use the front-panel headphone jack.

The headphones we used were so well sealed that conversation between the operator and the logger was difficult. This was doubly a problem when Phil was operating, because he unknowingly turned on the noise suppression feature in the Heil ProSet!

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continued on page 12

FD Score Summary Sheet - 10 SSB

Start Date : 2011-06-22

CallSign Used : W6NWG
Operator(s) : W6ASP

Operator Category : MULTI-OP
Band : ALL
Power : LOW
Mode : MIXED
Default Exchange : 4F SDG
Gridsquare : DM13IB

Name : Palomar ARC

ARRL Section : SDG
Software : N1MM Logger V11.6.3

Band	Mode	QSOs	Pts
28	USB	151	151
Total	Both	151	151

Score: 151



Field Day at 15/40 SSB Station continued from page 9

The second generator ran low on oil and started switching AC power on and off until you diagnosed it and added oil.

The first generator was inadequate to run both the sign lighting and the station, so we swapped with another station for a larger generator.

A crossbrace on the tower was bent and had to be hammered back into place so the tower could be raised to its full height.

The SWR on the 15m beam was suspiciously high (about 2:1 at its dip).

There was severe noise when we pointed the beam East.





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Preston W6ASP operated 10m SSB on Field Day. The 4-element yagi performed well. Site setup required a few minor "adjustments" with a hammer. Site teardown necessitated some shake, rattle, and roll when the sections of the tower didn't lower in the expected order. Preston had air conditioning in his trailer! This made it very comfortable inside.



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Satellite Results for PARC Field Day

W6NWG 4F SOG

DATE	Time	Call	Exchange	Satellite	Mode
6/25	23:01	W6TV	1D/MT	FO-29	SSB
{	23:04	NGR	11A/5B	FO-29	SSB
	23:07	K50D	1D/STK	FO-29	SSB
	6/26	00:05	K6AA	4A/LAX	AO-51
{	03:27	K5CM	3A/DK	VO-52	SSB
	03:38	K0GIRE	1D/SCV	VO-52	SSB
{	17:05	W6YX	1E/SCV	VO-52	SSB
	17:06	W7TY	1D/ORN	VO-52	SSB
	17:09	K6mm	4A/SCV	VO-52	SSB

Satellite STATION -

Operator: KC6UQH



Art KC6UQH, pictured to the left, operated the satellite station, pictured below right.



WE AMATEURS OF OCEANSIDE WOULD LIKE TO THANK THE COUNCIL FOR APPROVING ARTICLE 39A AMATEUR RADIO ANTENNA AND SUPPORT STANDARDS. THROUGH THE INTERACTION OF CITY STAFF, LED BY COUNCILMAN KERN, AND MEMBERS OF THE AMATEUR COMMUNITY AN ORDINANCE WAS CRAFTED TO BENEFIT BOTH THE CITY AND AMATEUR COMMUNITY. AS A RESULT, WE MEMBERS OF THE AMATEUR COMMUNITY WILL BE ABLE TO CONTINUE TO PROVIDE COMMUNICATION SERVICES IN TIMES OF NEED. AS A RESULT OF ARTICLE 39A, AMATEURS CAN OPERATE WITH A MINIMUM OF ADMINISTRATION TO EFFECT THE SAFETY NEEDS OF OUR COMMUNITY AND OPERATE TO REFINE OUR SKILLS FOR THOSE TIMES NEEDED TO SUPPORT THE PUBLIC IN ADVERSE SITUATIONS. AGAIN, THANK YOU TO THE COUNCIL AND STAFF.

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 6th of July 2011, Palomar Amateur Radio Club will have a program about the ARISS Contact at Adobe Bluffs Middle School from Jim McLaughlin KI6ZUM.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

Challenge question to the
club:

What was the first FM 2m
frequency pair? Why?

Article within the next month
or two. Good luck!

Here's the highlights of this August issue of the
Palomar Amateur Radio Club Scope Newsletter.

Read about our ARISS presentation beginning
page 3. Two mobile installations compared and
contrasted begins on page 4. There is a special
letter from JARL on page 8. An article about the
nature of QSLing in an era of electronic commu-
nications begins on page 9. An update on 39A,
news about our 10-X membership, and additional
Field Day results are on pages 12-13. At the end
of the Scope are technical reports on items that
are available for a nominal fee, donated to the
club. These items will be available at upcoming
club meetings.



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 installa-
tions - whether they're completed, on the draw-
ing 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, prob-
lems encountered and solved (or encountered
and evaded) are what we're looking for. Send
them in!

scope@palomararc.org

Save the Date

Club Meeting **3 August 2011**

Hear about the March
2011 YLDXpedition to
Curaçao and Lithion Ion
Battery Life.

Board Meeting **10 August 2011**

Palomar Amateur Radio
Club board meeting at
7:00pm at K2RP QTH.

Club Picnic **28 August 2011**

9:30am until dusk at San
Dieguito Park. Operating
stations, food, and fun!

Club Membership for August Edition

Here is the list of members receiving the SCOPE on the web, that have let their membership "expire" in the last month or so. Please check this list, and get your renewal checks in the mail! Pretty PLEASE!!!
N6FF, KI6KJG, KF6UVF, KI6MMT, KB7XI, W6UDO, AB6RM, WB6NFK, AND AC8Q.

Last year we sent out nearly 100 postcards to past members that let their membership run out (2010). A common response was that their failure to renew was an oversight, and quite a few sent in more than one year's renewal! Must be time to try that again!

I now have a list of 88 folks that elected to receive their SCOPE on the web - That have forgotten to renew their membership.

AI
W6GNI

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See catalog at www.Palomar-Engineers.com

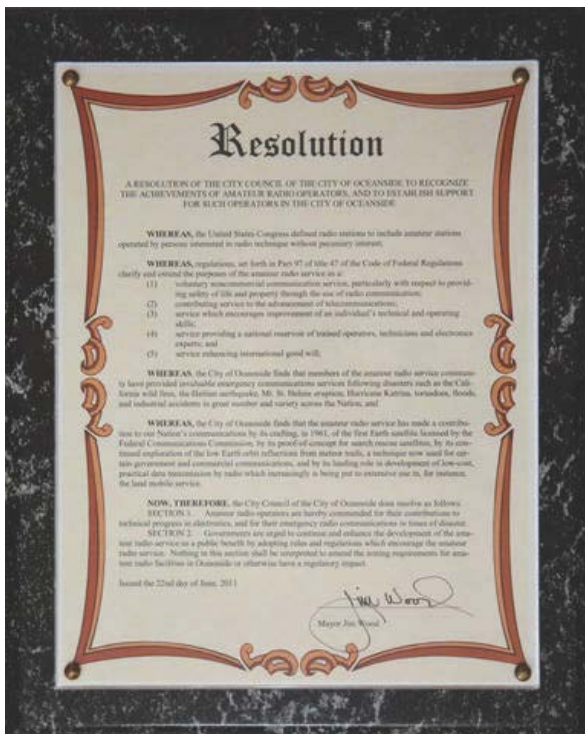
Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

July Issue Fold & Staple Crew
W6GNI AI & Kathy, WD6FWE Don, KB6NMK Jo & Toby
(The Tough and Ready)

Below, the speaker for the July meeting takes the podium. Jim KI6ZUM described the ARISS contact at Adobe Bluffs Middle School. Far below, Dennis KD6TJ holds up the Oceanside Amateur Radio Proclamation.

Photographs from the Meeting

by Paul KB5MU



Advertisements are free for members

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SX101 Receiver \$ 175.00
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Bob, K3QEP

For Sale

Collins 136B-2 Noise Blanker for KWM-1,KWM-2,KWM-2A, with Manual. Never Used.
Price \$200.00
Contact: Pete,K6JQE,(858) 755-4838

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Recipient must remove and must have liability insurance.
May be seen at 1175 La Moree Road, San Marcos, in the RV Parking Lot.
Call Fred Brown, W6HPH, 760-740-8501 or 760-742-1328, or
w6hph@yahoo.es

PARC meeting 6 July 2011

by Michelle W5NYV

Rigblaster Plus 2 wraffle will continue to the August meeting.

We had many new members and guests, including Tom N6RTI from Oceanside, Tom N6FEY and Grace W6ULW visiting from Monterrey county, AG6EF, and KJ6GA. Paul KB5MU will write a letter of appreciation to the nice lady at Lusardi Construction who allowed us to use the Field Day site.

Jim KJ6ZUM gave a presentation about ARISS.

We had the pleasure of talking to astronauts on ISS via ham radio from Adobe Bluffs Elementary School on Feb 3, 2011. Auditorium was full of kids. Entire school was present K-5. It takes 1.5 to 2 years from application to contact. Entirely volunteer, worldwide program, STEM inspiration. 630 ARISS contacts have been made, which is radio communciations with the ISS in orbit.

There are 12 telebridge stations round the globe. There are 160 members of the ARISS ops team.

Application process has changed dramtically since they applied about two years ago. It's now an open process. July 15th cutoff date, only best applications are approved. 6 months before the contact occurs a mentor or coordinator is assigned.

The principal of Adobe Bluffs was involved during the entire time and helped with the iterative process of the application. There was lots of waiting. Signed release forms must be submitted by each student's parent or guardian. A small selection of dates was presented after a lot more waiting. There

continued page 7

Two Mobile Installations

by Doug W6PUG

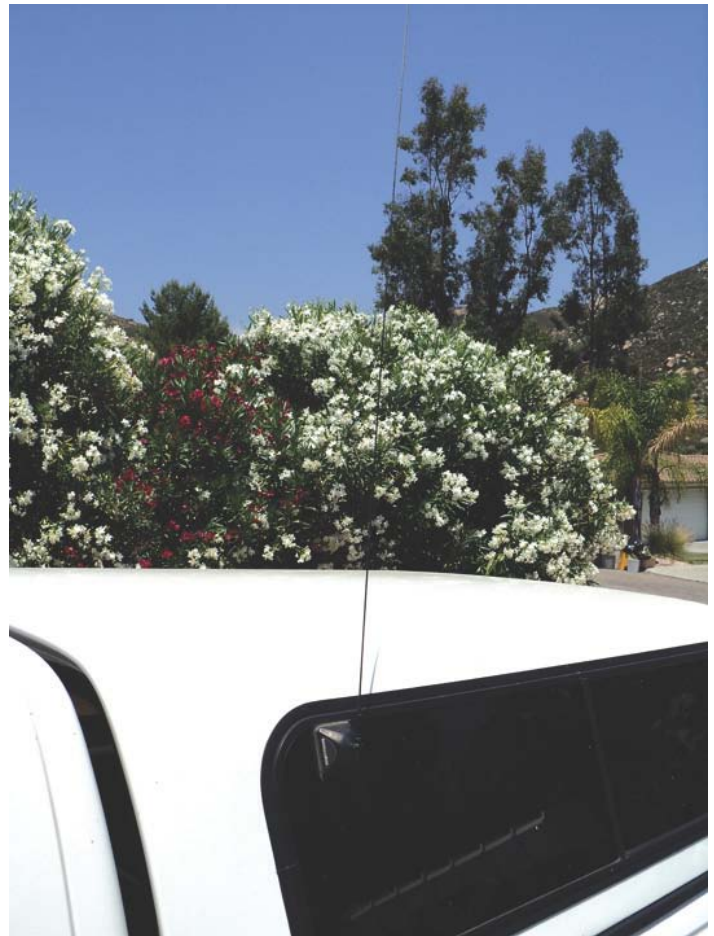
In response to your request for information on mobile installations, attached are photos of my two mobile installations, and the following notes. The first one was easy - the Toyota Tacoma.

- dash removal is easy
- Remove the junk tray from underneath the FM radio
- FT-2900 bolted straight into the stock frame holding the audio system
- The operation labels are on the top of the FT-2900 and the stock frame permits the FT-2900 to be mounted properly
- Wire tray under driver side door is large enough to accomodate all wiring to speaker and antenna
- Speaker is mounted right behind the driver seat up high enough to make hearing very clear, even in a noisy pickup
- Antenna wire is run through a rubber grommet to leave the cab; returns inside the bed through another grommet, and a glassmount Larsen antenna is used - so I have no holes drilled in the body and transmission and reception reports are excellent.
- Grounding is critical in any mobile installation
- Ran power directly from fused battery connections, both positive and negative.
- This installation has performed well for 2+ years, and I believe is a typical effort for a "conventional" installation.

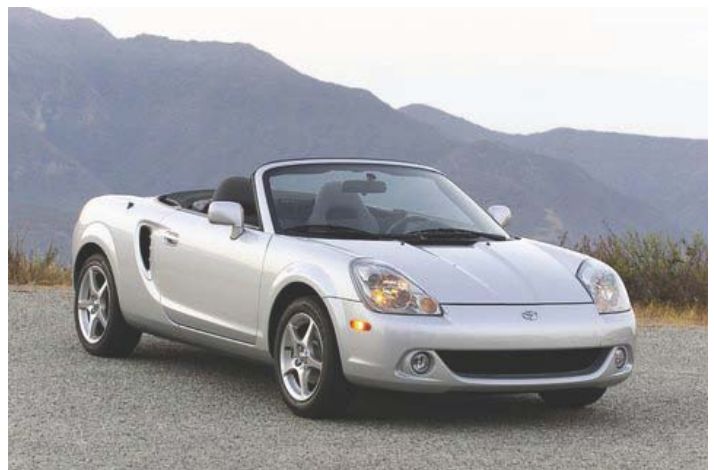
The Toyota MR2 Spyder is a bit more of a challenge

- VERY LITTLE storage space
- Cockpit space is small.
- Short term is a Lido LM-300 bolted to the passenger seat mounting stud, and my handheld clips onto a small plastic plate. I can use the Lido mount for my GPS, handheld, or my mobile phone
- In longer term, I am planning on putting FT-7900 head on the Lido mount, the body of the radio in the (very small) storage compartment behind the drivers seat, and a "trunk clip" Larsen antenna on the boot (MR2 is mid/rear engine). This makes for shortest coaxial run as well as power, and because of the electronics in the engine design, I will be wrapping a few turns of coax around a ferrite it minimize RF interference with the engine.

73 Doug W6PUG



TACOMA LARSEN ON BED



SPYDER



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MR2 HANDHELD



MR2 PLATE

Minutes (unapproved)

Palomar Amateur Radio Club

Board of Directors Meeting

June 8, 2011

The meeting was called to order by President Dennis Baca KD6TUJ at 7:15pm at the home of Al Donlevy W6GNI. In attendance were:

President	Dennis Baca KD6TUJ
Vice President	Ron Pollack K2RP
Treasurer	Georgia Smith KI6LAV
Secretary	Paul Williamson, KB5MU
Director #1	Don Johnson, WD6FWE
Director #2	Eric Hutchins K7ELH
Membership Chairman	Al Donlevy W6GNI
Repeater Technical Chairman	Conrad Lara, KG6JEI
Field Day Chairman	Greg Gibbs KI6RXX

Treasurer's Report

Treasurer Georgia Smith KI6LAV distributed printed copies of the Treasurer's Report. Motion by Paul Williamson KB5MU to approve the Report as published. Seconded by W6GNI. Motion passed unanimously.

Secretary's Report

KB5MU distributed printed copies of the minutes of the May Board meeting. Motion by W6GNI to approve the minutes as published. Seconded by Ron Pollack K2RP. Motion passed unanimously.

Upcoming General Meeting

K2RP reported that the July meeting will be about the recent ARISS contact held at Adobe Bluffs Middle School, presented by Jim McLaughlin, KI6ZUM. Several future programs are in the works but none are confirmed as yet.

Membership

W6GNI reported that the membership is down by two to 273. Eighty-three members who opted out of paper delivery of the Scope have not renewed.

Repeater Technical Report

KG6JEI reported that the TNC on 145.05 MHz was again reported offline just before the work party, during which it was replaced with a different TNC. He believes the new TNC is working fine. KB5MU stated that it didn't work for him. The batteries were checked and were fine. The overall site looks very green and is in good condition. The remains of the damaged 6m antenna look like they might fall down. Relays for power cutoff have been ordered. Design of that system is complete. A work party is scheduled for July 10. The 6m repeater will be re-installed, along with a temporary antenna for it. Power supplies will be moved onto the wall. The 220 Club will replace a radio to solve a problem of low power output. Art McBride KC6UQH has provided more details on the remote control circuit board he gave to KG6JEI. Some wires between buildings exist to be used in the remote control project, but it is not yet known whether they will be enough. Overall the site control project is progressing nicely.

Oceanside Resolution

KD6TUJ reported that the city of Oceanside has passed a resolution in support of amateur radio, and will present the resolution to amateurs at their meeting on June 22, and perhaps again at our Field Day site. All amateurs are encouraged to attend the Oceanside meeting.

Field Day

KD6TUJ reported that he paid a \$150 application fee to Oceanside in the attempt to secure a Field Day site, but that he still hopes to have the fee refunded. Motion by K2RP that the club reimburse KD6TUJ \$150 for the application fee. Seconded by Don Johnson WD6FWE. Motion passed unanimously.

KD6TUJ reported that site permission for the San Marcos site is in hand, in writing, signed. We still need to send them our insurance certificate. KD6TUJ reported that the portable toilet and sink have been ordered. Field Day Chairman Greg Gibbs KI6RXX reported that we may have some CW operators lined up. K2RP confirmed that we have “a couple”. K2RP will bring the computer and rig for one CW station. It’s possible that enough operators may be available to man a second CW station. KB5MU agreed that he and Michelle Thompson W5NYV would set up a station, to be used as a second CW station if operators are available. If CW operators are not available, the station will operate digital modes. Motion by K2RP to authorize up to \$100 for petty cash and gasoline expenses for Field Day, to be spent at the discretion of KI6RXX. Seconded by WD6FWE. KG6JEI proposed an amendment to increase the amount to \$150; K2RP and WD6FWE agreed. Motion passed unanimously as amended. There was some discussion about presenting a certificate to operators who make some number of contacts at the GOTA station. Eric Hutchins K7ELH stated that he has a number of blank certificates available. W6GNI stated that both he and Scope editor W5NYV added extras to the count of Scopes to be printed, so we should have plenty of Scopes to give out at Field Day. There was a discussion about mowing or dragging the field prior to Field Day. This was left to KI6RXX to decide. We are still short on shelters for Field Day.

Southwest California SKYWARN

K7ELH, as regional coordinator for Southwest California SKYWARN, stated that they were seeking funds or a new antenna to replace their broken Hustler 6BTV. The replacement must be a vertical because of roof space limitations. WD6FWE stated that he could probably repair the old antenna.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on July 13, 2011.

Adjournment

The meeting was adjourned at 8:42 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

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is an Education Requirement – you must teach the kids something about space and science. Parts of the curriculum in CA already match what NASA wants the school to teach in order to accomplish the educational requirements goal. The curriculum at Adobe Bluffs already was a good fit. Another requirement is that guest speakers from the local Ham Radio club give a presentation to the students. Don WD6FWE helped out a lot with this.

Equipment requirements exist. Phone patch, lots of cables and connectors, Nova, PCSat32 and Mac-Doppler software. ICOM IC-910h radio, Yaesu G-5500 Az/El rotors, Arrow 146CP and Diamond X50a antenna. Cannot hand point, has to be computer controlled. Greater than 100W is required. Talking about next time – equipment upgrades required. Continuous series of upgrades means station had to add an amplifier to qualify for future contacts.

One month to go, planning started to concentrate on the pass timing and geographical effects. We got our first choice, an 80 degree pass. Very good pass. Questions must be submitted in advance. Questions included students’ name, grade, and order. The questions were vetted. Dress rehearsals were scheduled with students using cue cards, real radios, and microphones at school. Press was contacted and volunteers were confirmed. Microphone training turned out to be important. K-2 students especially were soft talkers. There was at least one repeat request for soft speaking students during the actual event. Position of the students in an order that makes it quick turned out to be important too. Heavens Above software was used to visualize the signal and the ISS, with the output projected on a large screen.

Every student submitted a question. It was pared down to about 15, with 5 backups. The teachers

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The Japan Amateur Radio League, Inc.

14-5, Sugano 1-chome, Toshima-ku, Tokyo, 170-0073, Japan
TEL: +81-3-5395-3105 FAX: +81-3-3943-8282
Internet E-Mail: hq@jarl.or.jp

JARL

23 May, 2011

Mr. Wild Bill Wiederhold
WB6BFG
2104 Poplar Road,
Oceanside, CA 92058-2332
U.S.A.

Bill WB6BFG writes, "Not long after the earthquake in Japan I sent about a pound of QSL Cards direct to the JARL. Along with the package of cards I sent a note to their league expressing our sorrow for the devastation that the earthquake caused. I also enclosed a cash donation and asked that the money be passed along to someone who needed it. Within a few weeks I received a very nice thank you letter from the JARL. A testament to International Friendship via Amateur Radio."

Dear Wild Bill,

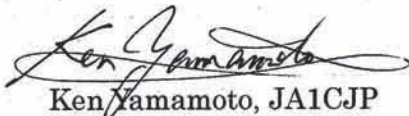
Thank you very much for your kind letter and donation.

It is so huge disaster that all broadcasters have been continuously reporting the situation of damaged areas and welfare of the suffered people for a week or two. The relief and recovery works are still on-going and will continue for years to come.

We at JARL brought up our HQ station and regional HQ stations to communicate with the stations in suffered area those could manage to be on the air. We are maintaining our effort to assist disaster relief operation by communication capabilities of radio amateurs. Japanese radio manufacturers are also helping us to offer hundreds of VHF/UHF handy transceivers.

We do appreciate your sympathy and donation for Japanese radio amateurs.

With heartfelt appreciation and respects,



Ken Yamamoto, JA1CJP
Manager, International Section

QSL Cards

A Burden or a Privilege?

by Doug Johnson W6PUG

Surprisingly, Wikipedia has a fairly extensive explanation about the history of the QSL card.

"The concept of sending a post card to verify reception of a station (and later two-way contact between them) may have been independently invented several times. The earliest reference seems to be a card sent in 1916 from 8VX in Buffalo, New York to 3TQ in Philadelphia, Pennsylvania (in those days ITU prefixes were not used). The standardized card with call sign, frequency, date, etc. may have been developed in 1919 by C.D. Hoffman, 8UX, in Akron, Ohio. In Europe, W.E.F. "Bill" Corsham, 2UV, first used a QSL when operating from Harlesden, England in 1922."

Wikipedia cites their references, and of course, expand on the subject extensively.

First off, QSL cards are typically identified with HF operations. In most cases, VHF and UHF contacts very seldom foster the exchange of QSL cards. Perhaps that is a result of the more casual communications (and of course, you cannot do a log while driving down I-15 at warp 7!).

That said, in today's world of email, websites (amen for QRZ.com!), Facebook and all of the



ABOVE, THE AUTHOR'S QSL CARD COLLECTION

Southern California



W6PUG

Confirming QSO With	DATE DAY - MONTH - YEAR	UTC	MHz	RS	MODE 2 WAY

DOUG JOHNSON
16704 Georgios Way
Ramona CA 92065 USA

email: ddjohnson@cox.net
AMI # 1678
DM13oa
Ramona
My bio on QRZ.com is current.

ABOVE, A QSL CARD BY THE AUTHOR

other tools we have for personal communications, we still have the questions about "why ham radio?" and "Why QSL cards?"

The first one is easy: the amateur radio service has as many incentives and advocates as there are operators in the world, each with their own reasons. My personal answer is twofold: the science of radio propagation is fascinating to me and far from "cookbook defined", and I get to "meet" some fantastic people who share a common field of interests – technical, in electronics. Personal, in communications, and the list can go on and on.

The second one is a little more difficult to answer. QSL cards are a time-honored tradition of the amateur radio service. So why do we see so many of the QSL comments on QRZ and other sites with notations such as "eQSL's only"; "I do not do QSL cards"; "No QSL" and all of the variations to those?

For some, the answer is simply economics: a postcard used to be a penny (come to think of it, I am probably dating myself when I say I remember a penny postcard!) now a postcard costs twenty nine cents just to mail inside the US (unless USPS raised it again when I was not looking!). A single postcard now and then is probably not a bank breaker for anyone, even if on a fixed income, but if someone operates many hours a day (and some do – for some who do not have mobility, ham radio is their link to their outside world of common interests), the cost of the QSL cards, and postage, and even the logistics of getting them into the mail or to the Bureau is a huge obstacle.

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OK, I get that one. Makes sense to me.

For others who are testers, it is not about the QSL cards, but about the points and contacts in the logbook. To fill out that many QSL cards might not be as enjoyable when you have made hundreds of contacts in a few hours. That reason might make sense.

For others, time spent filling out QSL cards is hours they would rather spend operating. OK, point made. After all, it is the amateur radio service, not the QSL card service.

So, for some, the time-honored tradition of QSL cards sounds a bit like a burden, doesn't it?

There are a hundred reasons and some might just be excuses, but there is another side to that coin that I want to take a minute and explore with you. Speaking only for myself, I have been a ham for something like 16 years, and a General license holder for a couple. I enjoy the challenge of propagation, and if you look at my QRZ.com biography, you will see that we are "antenna challenged" here. When I can make a contact in Australia or New Zealand – or Mississippi or New Hampshire, for that matter – the excitement is the same every time, and it is a privilege when someone takes some moments out of their lives to share with you. Your signal, or a comment about their family, or any of a host of personal information that gives them a personal identity. It was something of a surprise to me to realize that most of my very closest friends these past few years that I keep in touch with are hams, and when those contacts take the time to send me a QSL card, it is another extension of themselves. It represents moments in our lives that we created a milestone in our lives, and some of those created an identity from which friendships have grown. Something to consider?

I cannot "paper the wall" with my cards (XYL would paper me if I tried), so I keep mine in a picture album – and soon I will need another one as my collection grows. Even as logs are not the requirement of old, nor are QSL cards a requirement, I often flip through my album of cards and the memories bring smiles – and sometimes causes me to write an email (if I cannot get them on the radio) to check on them and their family. Whenever my friends visit my shack, it is not unusual for them to find and flip through my album. Yes, I have my very first QSL card from my very first contact when I got my General, and since She Who Must Be Obeyed doesn't want me to hang them on the wall, that album is very special to me, with a lot of great memories.

So there you have it: QSL cards are a personal extension of yourself in the history of the amateur radio service. It does not fit everyone as they are a personal extension of yourself, and a tiny piece of history that you have shared with someone. I guess I can understand why some folks do not utilize the QSL cards, and do not criticize any of them for any of their reasons. Their reasons are their own, and I respect that. But for those of you who have the time and inclination, I hope that you can afford a few minutes from your life to send or exchange QSL cards when you can. It might be that operator's very first QSL card. It might be their thousandth. But, every time someone opens the mailbox and sees that QSL card, I can promise you a bit of a smile and a warm memory comes to mind. It might be someone operating out of the area and receiving the memento of that exchange is not unlike a very personal souvenir. It becomes special. It does not matter if you keep them on the wall or in an album or a shoebox, you are preserving a bit of your personal history with someone else



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helped weed them down. Lots of good questions. We had trouble picking.

We're very lucky because Kerry N6IZW, an ARISS contact, lives in San Diego. He was actually at the event helping out. Also, KY6LA helped extensively with the event.

2m used only. 440 was used for ballast. We also had a vertical, but didn't use it. No signals seen on vertical, which may indicate a problem.

Projector running Nova for windows with footprint and map simulated. Another projector had the questions on it so that the audience could see what was being asked. After two years of planning, there was eight and a half minutes on the air. 1:15 after expected, signal received. A recording of the entire event was played during the program. There was some concern when we were calling, and the ISS didn't answer. But then the signal came in. From the recording, it did sound rough on the answer to the second question. Lots of static. Asked for a repeat. But ground didn't hear the repeat. Then there was another call from the ISS. Then the student repeated. Then the answer came back a lot stronger.

There was a clear female voice from the ISS. Students were speaking loud and clear. Signal became much more clear as the pass went on. Students asking questions one after another – the process of getting them on the air and moving on worked out very well. There is very little gap between the questions and answers. Very positive and encouraging and pro-science and pro-space travel.

A lot of work, indeed, needs to go into something that sounds like it was done so smoothly and easily. LOS creeps up on you and then the signal begins to fade. More and more static and weaker and weaker voice and then it fades out, in the space of one last question.

Four students were left to go when the signal was lost, and they were on the younger side, and there were some tears when the signal was lost.

The application for Sundance Elementary in Po-way has been approved! If we're lucky then the time slot is in 6-7 weeks, otherwise Thanksgiving. Heavens Above used again, new school is trickier because it's down in a valley. We have to make sure we do the rehearsals with the students. How to ask questions, how to read the cue cards. Two of everything as a backup.

We need 4-5 volunteers. We want to stream audio

and video from the event so that friends and family could watch from the event. Lots of photos are needed. We didn't get as many photos as wanted.

Things we need to do differently? Hit the record on video camera. Speak louder. Make sure each student has their cards. Consider using a band pass filter. Higher gain antenna. Better KEPS. Don't rely on Google Earth to find north. Fun-cube Dongle or spectrum analyzer. 3-4 hours to setup and test is barely enough specially if you plan to sue the 90 minutes ahead to test. Spectrum view is really useful. [The editor wholeheartedly agrees] We need more time. Setup the night before.

At Mt. Carmel High School – they're working on the initial part of building a microsatellite to get it built and launched into orbit. They are just starting to have regular meetings with the ham club at the high school.

Question from the audience was whether or not the pass was computer controlled. Yes, it was fully automatic tracking. NASA won't let you operate with manual operation. It has to be fully automatic operation. It's not a single plane, so it's hard to do with manual movement.

The school nurse sat next to Mitch. She said it was the quietest audience ever. They were very very interested. School board members attended the event.

There were two possibilities: great, or no contact. So, there was a lot of pressure. Up on the roof in the dark, frost, and wind and uncomfortable early in the morning. It was quite the effort.

A question from the audience was did the school and individual teachers follow up afterwards? It depended on the teacher, and how engaged the teachers were. New pink slip rumors that week. Some teachers followed up, some had lots of other curriculum to cover.

You never know in ham radio what you're going to bring to the project. The PA system wasn't working. Rats nest of wires and dozens of channels and a mixer no one knew how to work. Howard KY6LA touched the end of the plug and Mitch went to the to panel and looked for the overload light, and that was the cable that they needed to find and set the levels. Technical support guy for the school is there one half day, once a week at each school.

Principal was stoked when the ISS called back. He brought something to the district that hadn't

continued top of page 12

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happened since 2005. It was a big deal for the kids.

Jim has talked to many schools about ARISS. Only one showed enthusiasm about the opportunity. Other schools just don't prioritize this sort of opportunity the way many hams would like. Worldwide school contacts, and across elementary to university level groups. As long as I can keep finding schools that are interested, I'll keep putting in applications and helping schools get on the air with ISS.

How often do the ISS people do this? 1/week or so. Some astronauts do it more often, like 2/week. A recent Italian ISS astronaut concentrated on Italian schools. Maybe 100 this year, which is the most they've ever done.

Article 39A Update

by Dennis KD6TUJ

Since approval of Article 39A in Oceanside the following has occurred:

Wire antennas will be approved through guidelines. This language will be provided in the guidelines the Planning Division will create, upon Council approval of Article 39A.

Here's the language: "No building permit shall be required for a wire antenna supported on poles made of hollow fiberglass or a similar, non-conductive lightweight material, provided that the support pole diameter does not exceed 2-1/2 inches; the antenna is wholly situated in the Amateur Radio Operator's back yard; and the highest point of the antenna does not exceed thirty (30) feet above existing grade."

At the next Telecommunications Committee, March 11, 2011 item 6 on Article 39A discussion was not needed due to the Article being approved February 23, 2011. Topic 12, Understanding Radio Frequency was tabled until the next meeting. Before the next meeting occurred, the Telecommunications Committee was dissolved.

Through and with Fred's guidance, a Proclamation was created and presented to the Amateurs of Oceanside at the June 22, 2011 City Council meeting. This gave us hams a chance to advertise Field Day to the masses of Oceanside through cable television.

The finished Proclamation was presented at Field Day. Councilman Jerry Kern and Aide Ben Sullivan were given plaques in gratitude of their efforts for Amateur Radio.

10 - X International Membership

Thanks to an initiative by Preston W6ASP, PARC has been a member of 10-X International for several years now. We recently re-upped our membership, and here's an image of our membership card included below.

Ten-Ten International Net, or 10-10 for short, is an organization of amateur radio operators dedicated to maintaining high levels of amateur radio communications on the 10-meter amateur band (28.0-29.7 MHz). Established in 1962, 10-10 has grown continuously since that day, with some ups and downs according to the numbers of sunspots and the openness of the band. As you read this, the number of 10-10 numbers issued to members is over 75,000. 10-10 would welcome your membership in the organization if you have an amateur radio license with 10-meter privileges.

10-10 is a volunteer organization with no paid officers. Although 10-10 does contract for certain services to ensure that each member receives his or her quarterly issue of 10-10 News, the 30+ page journal of 10-10 activities, the real work of providing services for members falls on the shoulders of dedicated volunteers.



HAM RADIO OUTLET

H
R
O

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

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20m/80m Field Day Results

Band	QSOs	Points
3.5 Mhz	200	200
14 Mhz	568	568
Total	768	768

Score 1536

I am compelled to say the FD event was a real pleasure.

I know there were many club members who helped in the preparations. For instance, at least the 20M SSB beam worked like a real charm. I never used the rig's antenna tuner, and never saw an SWR above 1.2. That was NOT the case in previous years, so the antenna party certainly helped my station.

But in my opinion, two people in particular made a real contribution to the event, and I recommend the Board make an effort to recognize them publicly.

Rick operated a real quality "Field Day kitchen". The vittles were nicely thought out, his schedule was ample to suit the vagaries of the operation, and the Tri Tip dinner was WORLD CLASS.

And last, but certainly not least, we need to publicly recognize Gregory for leading the gang in Field Day planning and preparations.

Yes, he had ample mentoring. But PARC took a gamble on letting a new ham get "volunteered" for what is arguably one of the toughest and least thanked for Ham radio activity. No one ever likes the FD coordinator efforts, and no one says thanks.

Gregory learned a lot doing the 2011 FD plan. We need to make sure he is recognized for the work, in the hopes that he will continue to work for other volunteer tasks. And hopefully he will lead the 2012 FD plan.

73 de NN3V, 20m/80m station band captain

Repeater Site Work Party Report

by Dennis KD6TUJ

The work party at the repeater site on July 10th was attended by the following, KG6JEI, NN3V, KI6RXX, WD6FWE, KJ6KDM, KG6QXO, W6GNI, JULIE, KI6MMT, KD6TUJ with AF6HF and K1CT representing the 220 club. We created an organized cluster and started on some projects.

Charlie started on building a temporary 6m antenna with help. Al, Julie and Frank helped to clean up the site by trimming scrub and cutting downed branches. Greg helped by getting supplies along with Chris and Mike who were up for the first time.

Projects completed include replacing the 6m repeater, installing a separate 48vdc to 12vdc converter, hanging the temporary antenna on the west side of the tower between the crossarms, running a coax line from the antenna to the generator building.

The pre-planning for the antenna worked out well. The hanger rod was measured with close tolerance to fit the PVC antenna into the holder on the lower crossarm stabilizer that was left for this specific purpose.

The 6m machine was tested onsite and appeared to function OK. Power lead lines to the 146.730 and 147.130 machines were lengthened to give adequate room to mount the converter and not strain the leads.

Guy wire lines were checked by Don and were very close in readings that only two were adjusted. Batteries were checked and water levels are between the lines.

Mert and Bill from the 220 club changed out a radio in their repeater bringing the output back to a respectable 13 watts out to the antenna. Field checks are being done on the 6m repeater. Reports can be sent to the board.

6m specs = 52.68 MHz -.5MHz 107.2 pl

Tower Equipment Request

by Don WD6FWE

After climbing the tower at the work party on 10 July, I have a few comments about the climbing gear.

1. Provide climbing hooks for the actual climbing part. The locking rings are good for when you are at your work height but take too much time while

climbing and coming down.

2. Get shoulder straps for a complete body harness.

3. A helmet for the climber should be available. Not a problem where I was today but higher up it could be a safety issue if someone backs their head into antenna parts.

There were other minor items like an actual tool-bag but I cannot remember what they are now.

Pan Tilt Zoom Camera for Club

by John WB6IQS

I got a working PTZ (Pan/Tilt/Zoom) color day / night TV camera from surplus show stock at work. It has a low light level capability and will "see in the dark" to a limited extent. It can see from straight down to slightly higher than the horizon and spin 360 degrees. It just cannot travel more than 360 degrees.

It is like a light fixture with a globe that hangs down from an outdoor lamp housing. The housing has a fan to circulate the air and a temperature controlled heater element to keep ice and snow from fogging the lens.

The joystick remote control uses a 2 wire RS-485 differential serial data drive to talk to the camera and program its' movements. The camera can be programmed to sweep a given area continuously or via the same remote control it will accept manual control. Down the road we might be able to figure out the data format and then using a single board computer and some DTMF tones do a remote control via a RF link.

I do not have a lot of data about the RS-485 command structure but there seems to be a lot on the Internet if you Google "RS-485 CCTV Camera Control". The controller is a common Pelco (?) industry standard controller that can be used for up to 32 multiple cameras on a motion control data bus. The RS-485 can drive up to 1200' of data cable.

I have 100' of dual coaxial RG-6/U satellite remote control cable that includes heavy power (Red / White) and 6 or so smaller control wires. With the right adapters from F to BNC it would be good for camera remote control. This kind of cable was commonly used with the old 10' center fed dishes with dual feed horns.

We could put the camera on the antenna tower and then run the coaxial cable down the tower and into the CCTV transmitter building.

Think about this for the later part of the summer or fall work parties.

VHF RF Power Meter for Club

by John WB6IQS

Sorry to report that the Heathkit VHF RF power meter movement is open.

I thought it might be a bad switch connection but when I checked the meter movement with a high impedance DVM it was infinite ohms.

If you have another movement we might be able to swap scales, but Heathkit used so many different meters with different F.S. currents it will be hard to find one that will substitute. I have had limited success with opening up the movements and looking for the broken wire but then no guarantee of how good the meter will work afterwards. More than likely it was an overcurrent or surface corrosion that finally ate all the way into the copper wire.

I have packaged up the working 220 and 2 meter VHF HTs, with a spare battery, antenna and overnight chargers (all the small wall wart chargers were OK). I will bring them to the next club meeting. I also have the brick amplifiers with manuals, power connectors and data sheets all packaged up.

VHF/UHF HTs for Club

by John WB6IQS

Some comments about the VHF/UHF HTs and other miscellaneous stuff you gave me at the last meeting.

I will identify them by model number and last 4 digits of the serial numbers.

2 meter, FT-209RH, Yaesu, S/N 0186
TX OK but power output is a little lower than expected (3.2 Watts).
RX and TX OK, on frequency and correct deviation, etc.

2 meter, FT-209RH, Yaesu, S/N 0070
TX OK but power output is a little lower than expected (3.2 Watts).
RX and TX OK, on frequency and correct deviation,

etc.

220 MHz, FT-109RH, Yaesu, S/N 0729
TX OK but power output is a little lower than expected (3.5 Watts).
RX and TX OK, on frequency and correct deviation, etc.

FT-709R, UHF, S/N 0240
RX OK, No TX

FT-727R, Dual Band, 2 Mtr/450 MHz, S/N 0584
LCD display no good. No freq. display
Rx noise on squelch, but unable to test RX frequency
No TX power output, VHF or UHF.

Kenwood, TMV7 mobile, 12 VDC external power required.
Weak RX on 2 Meters, 10 uV or so to break squelch
RX OK on UHF.
PL decode and encode is OK
VHF power output = 20 Watts
UHF power output = 10 Watts
Blue display is hard to read with poor contrast and poorly defined characters. Cooling fan is annoying.

Block Amplifiers, FM Mode only:
145 MHz = 25 Watts output for 3 Watts input
220 MHz = 15 Watts output for 3 Watts input
450 MHz = 20 Watts output for 3.5 Watts input

Was not able to check if RF receiver pre-amplifiers work OK, all LEDs look right.

Donated Equipment Available At Our Club Meetings - Come and Make an Offer!

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 3rd of August 2011, Palomar Amateur Radio Club will have a program about the March 2011 YLDXpedition to Curaçao and why Lithium Ion batteries wear out so quick.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

These people ordered and paid for PARC badges. The badges were made and have been attending every meeting since. Please come to a meeting and pick up your badge.

KI6BKR, KE6SDF, K6PFP, KG6SJP,
KI6BTP, KR6BL, KG6YDC, KF6QCM,
W0KJV, KI4OHS, KF6YUW, KG6NNG,
AF6SH, WA8ZHG, KG6RLA, KI6YK,
WA6PPG, KE6UYI, KI6PGI, KG6EQV,
KI6JOZ, N1BL, KI6GSG, WD6DUX,
KJ6MAB, KG6ZLW, KJ6MZQ, KG6WLR,
KG6HJZ

The AUCTION meeting in October will be held at 1635 Faraday, Carlsbad, CA. This is WEST of El Camino Real using the same intersection to the regular meeting site. We will use Room 173 A&B.

Hours are: Set up 5:30, Sellers register at 6:00, Buyers at 6:30, with the auction starting at 7:00PM. Bring your gently used treasures for relocation to a new user. Buy a treasure or regain a memory of your past.



We have a record number of contributors to the scope this month - 12! Thank you so much to you all. Thanks to you, the newsletter is bursting at the seams with great articles this month.

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

Save the Date

Club Meeting

7 September 2011

Come hear about
SKYWARN and National
Weather Service, program
presented by Alex Tardy

Board Meeting

14 September 2011

Palomar Amateur Radio
Club board meeting at
7:00pm at K2RP QTH.

ARRL SWD

9,10,11 Sept. 2011

ARRL Southwestern
Division Convention

www.hamconinc.org

Club Membership for August Edition

Here is the list of members receiving the SCOPE on the web, who have let their membership "expire" in the last month or so. Please check this list, and get your renewal checks in the mail! Pretty PLEASE!!!

N6FF, KI6KJG, KF6UVF, KI6MMT, KB7XI, W6UDO, AB6RM, WB6NFK, AND AC8Q.

Last year we sent out nearly 100 postcards to past members who let their membership run out (2010). A common response was that their failure to renew was an oversight, and quite a few sent in more than one year's renewal! Must be time to try that again!

I now have a list of 88 folks that elected to receive their SCOPE on the web - Who have forgotten to renew their membership.

AI
W6GNI

July Issue Fold & Staple Crew
W6GNI AI & Kathy, WD6FWE Don, KB6NMK Jo & Toby
(The Tough and Ready)

Raffle Update

The next item for raffle at the PARC general meeting is a WOUXUN KG-UV3D "DUAL BAND DUAL FREQUENCY DUAL DISPLAY AND DUAL STANDBY". Checking it out shows dual band, dual frequency, dual WATCH. The radio is preloaded with simplex, 42 VHF and 10 UHF repeater pairs in San Diego County. Alpha tag labels are displayed. Reports are very good for this radio on the repeaters.

September SKYWARN and
National Weather Service by Alex
Tardy

October Annual Auction

November Go kit for emergency
preparedness by Ken KI6HRH

December Elections and Social

Contest Metrics Demonstrated

by Dennis N6KI

This report may be of interest to newbie testers and to my 2 cohorts in crime that did the contest with me (WQ6X and K4RB).

What you see on the next page is an e-mail telling me where to access my LCR (Log Check Report) for my UBNs (Unique, Busted and Not in THEIR Log Report).

This is routinely sent to the e-mail address of whoever submitted the log to the contest sponsor/ committee.

For some reason we violated the band change rule (10 times !!!) where one is limited to staying on a band for 10 minutes unless the band change yields you a NEW MULTIPLIER which as I recall for CQWW contest is a new country ! (I will Flog WQ6X and K4RB with a cat o' nine tails for this grievous error as I NEVER MAKE MISTKES ! - Sure ;-) !!!

The rest of the report should be self explanatory showing where mistakes were made and which mistakes were counted against us and this gives

you a good idea why ACCURACY is very important in contests as in a worst case situation deductions can bump you out of FIRST Place ! (Grievous mistakes like where we busted copying their call correctly cause you lose that station and then you get 2 more QSOs deducted from your log) Also, losing a multiplier weighs heavily against your log !

The good news is that if we exclude the band change violation penalty where we lost 10 QSOs we really only had 2.6% error rate consisting of INCORRECTLY Copied Calls and NOT IN THEIR LOGS (NIL) where you think you work someone but either you didn't REALLY work the station or the other station left you out of their log !)

Anything below 3% is a very good log as theoretically the best LCRs come back with 1% error for what we consider almost pristine correct logs

(There are all sorts of reasons why you could turn in a 100% accurate log and still have the reports come back that you had 1% errors !)

Classified Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

Donated Items For Sale

MFJ 941D Antenna Tuner \$50

Kenwood TM 742 with 144-220-440 modules, separation kit, manual, mike, accessories \$450

Heathkit "Cantenna" Dummy load \$20

Come to club meeting and buy!

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See catalog at www.Palomar-Engineers.com

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----- Forwarded message -----

From: CQWW Contest Committee <noreply@cqww.com>

Subject: N6KI CQWW CW 2010 Log Checking Report

To: n6ki73@gmail.com

The logs from the CQWW CW 2010 and your personalized reports (formerly UBN) are now available at <http://www.cqww.com/cq-ww-cw-2010.htm>.

Access your log checking report by clicking the rpt box to the right of your call.

Your user name is n6ki

and your password is rev-fmb

(both lower case, and remember the '-')

Questions should be sent to questions@cqww.com

Thank you for your participation in the contest. Enjoy the fun in the 2011 CQWW!

73...CQ Contest Committee

An Off-Roader Mobile Installation

by Vince W6CD

Ham Radio is very widely used by 4x4 off-roaders for safety and communications. CB is used for typical Jeep to Jeep communications while on the trail. Ham radio is used for the ability to call out for help in an emergency situation. Ham radio also used with a large group between the lead 4x4 (trail guide or leader) and last 4x4 (tail-gunner). The tail-gunner's responsibility is to ensure stragglers don't get left behind or part of the group gets separated – good communications is essential.

Both radios can be very easily removed and stowed away - disconnects in the power leads, unscrew the antenna connectors, remove the thumbscrews on either side of the mounting bracket, and lift out the radios.

Power is direct to the battery with fuses in both leads at the battery.

Antennas are a Wilson SuperFlex for CB and a Larsen for Ham - mounted at the spare tire on a Arizona Rocky Road dual antenna mount.

<http://www.arizonarockyroad.com/>

Cables are RG8X - Wilson's with the FME removable connector head on one end - easily goes through small holes and requires no soldering. Great cables, IMHO:

<http://www.universal-radio.com/catalog/cable/0908.html>

The Yaesu 1500M is very small, rugged, and packs a 50 watt punch. No longer in production, they can be found in the used marketplace for around \$100.00.

Details and specifications here: <http://www.rigpix.com/yaesu/ft1500m.htm>

Vince
W6CD



Mobile Installation - RoadTrek Class B Motorhome

by Tom N6TFL

This install began as a UHF/VHF antenna install with an Icom IC-208H. That turned out to be quite simple. The RoadTrek is a Chevy Express Van converted into a full (although small) motorhome. The antenna was mounted to the range exhaust vent cover and the feed line was routed through the exhaust fan plenum into the Audio/Visual (AV) cabinet where a good source of 12 VDC power was available from the two large deep cycle AGM coach batteries. Life was good!



The HI-Q 5/80RT antenna with 2' mast, cap hat, and 6' whip mounted at rear door of RoadTrek 190 Versatile Class B Motorhome.



Sky view of antenna coil, mast, cap hat and whip.

Next I decided I needed mobile HF as well and there is where the adventure began. I admired the problem of how to mount an acceptable HF antenna for a while before stumbling upon the "NO HOLES SUV MOUNT" piece in the "Hints and Kinks" column in the June 2011 issue of QST. Off I went to HRO and other places to start the antenna mount construction. With a few mods to KE9PH's design, that part came together pretty well. I knew I wanted a HI-Q screwdriver antenna based on the recommendation of my Elmer, W6YOO. After it came down from Murrieta it went on the mount with few problems. I wanted the antenna to be removable so that made things a little more interesting (and in the end a little ugly).

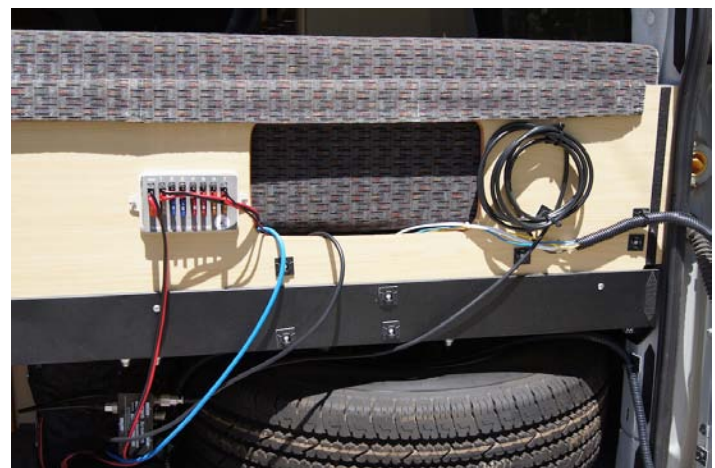
I wanted the HF rig to be in the AV cabinet with the UHF/VHF rig so that created cable routing issues. Several really ugly attempts were made before getting it right. With a screwdriver, motor control is a central issue if one wants to use all bands (or most bands) and QSY with ease. I ordered a motor controller from HI-Q. This turned out to be a major project. HI-Q was in the middle of a model improvement for this device and the new versions were not quite ready. K6WDY, Woody Woodhams, the new owner of the HI-Q Amateur Radio Products business at HI-Q was helpful beyond all of my wildest expectations and we finally got the kinks worked out. It is important to know at the operator's station inside the Motorhome just where the contacts on the motor driven coil plunger are at any given time. That's where the digital read-out on the motor controller comes in. There is a direct mapping between the position of the rotor and the frequency band.

Next was power. N6SD (another HI-Q owner) warned me that I needed to provide a stable 13.8 (or thereabouts) volt DC power source to the

continued on page 9



Inside back door: MFJ-4416B Super Battery Booster and CWS UNUN



Feed line and power distribution.

Minutes

Palomar Amateur Radio Club

Board of Directors Meeting

July 6, 2011

The meeting was called to order by President Dennis Baca KD6TUI at 7:17pm at the home of Ron Pollack K2RP. In attendance were:

President	Dennis Baca KD6TUI
Vice President	Ron Pollack K2RP
Secretary	Paul Williamson, KB5MU
Director #1	Don Johnson, WD6FWE
Director #2	Eric Hutchins K7ELH
Repeater Technical Chairman	Conrad Lara, KG6JEI

Treasurer's Report

Treasurer Georgia Smith KI6LAV had distributed the Treasurer's Report by email. Motion by Paul Williamson KB5MU to approve the Report as published. Seconded by WD6FWE. Motion passed unanimously.

Secretary's Report

KB5MU apologized for not having the Minutes of the June meeting ready.

Upcoming General Meeting

K2RP reported that the July meeting will be about the recent YL DXpedition to Curaçao, to be presented by Michelle Thompson W5NYV (pending confirmation).

Membership

W6GNI reported that the membership is down by two to 266. July is historically a down month for membership, since until the Bylaws were amended years ago, all membership expired in June.

Repeater Technical Report

Repeater Technical Chairman Conrad Lara KG6JEI reported that a work party was held on Sunday and a followup visit was made today. The temporary 6m antenna, a vertical halfwave wire dipole wrapped in PVC pipe, is mounted at the west end of the crossarms. The 6m duplexer is probably badly tuned or in need of repair, based on SWR measurements and excess power loss through the cavities. The result is that 6m coverage is quite poor. KD6TUI reported that general site cleanup was done, along with many other tasks as described in the repeater site report sent out by email.

KG6JEI stated that the next step for the repeater site is to install power cutoff relays for the repeaters. He also wants to install a telephone extension in another location, where it will be accessible using only the blue keys. KG6JEI reports that the receive filter of the 147.075 repeater is "trashed". We could install an outboard mobile radio as an auxiliary receiver. A better long-term plan would be to build up another Micor-based repeater and replace the entire repeater.

K2RP asked for clarification about an email alluding to a desire for internet connectivity at the repeater site. KD6TUI stated that Charlie Ristorcelli NN3V has proposed installing an HF remote base at the repeater site, and that he was scouting for antenna locations during the recent work party.

KG6JEI stated that the 145.05 MHz packet node is back up. Its transmit deviation was found to be very low. After adjustment, it seems to work fine.

Club Picnic

KD6TUI reported that the picnic site is confirmed for Sunday August 28 in Area 4 of San Dieguito County Park. The site fee for non-profit organizations is lower than last year, \$135 instead of \$180. We'll have the HF station and tower trailer, and a hidden transmitter hunt. Note that seniors are eligible for a pass that waives the \$2 parking fee.

Donated Equipment

K2RP reported that he has received a donation to the club of equipment from an amateur's estate, including several valuable items. He had some of that equipment on display at the meeting. He asked for guidance on the disposition of the equipment, and there was some discussion. Motion by Don Johnson WD-6FWE that K2RP be authorized to dispose of the equipment as he sees fit, provided that he keeps records of the disposition of each item. Seconded by Eric Hutchins K7ELH. Motion passed unanimously.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on August 10, 2011.

Adjournment

The meeting was adjourned at 8:33 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary



Participants at Burning Man 2011 burn a large effigy of Motorola radios in celebration of their usefulness to the Department of Public Works. www.burningman.org

HAM RADIO OUTLET

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

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OUTBACKER
Larsen Antennas
TEN-TEC
Hy-gain, Tri-EX,
Cushcraft And Others
too
Numerous to
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Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

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California QSO Party Coming Up!

by Stu K6TU

This year is the 45th running of CQP and we are shooting for a record number of California operators to put the state on the air!

This is a great contest even for the casual contester as California is THE DX everyone else wants to work!

It's a great opportunity to capture Worked All States or dig out new countries for the DX'er. See full details on page 10.

The Northern California Contest Club sponsors CQP and we have developed a number of awards to encourage folks to join the contest.

These include awards for the top operator in the YL, Youth and New Contester categories.

The contest runs the weekend of October 1st and 2nd. The full rules can be found at:

www.cqp.org/Rules.html

Please visit our website and participate in CQP!

Tip for K3 + HRD

Being a new K3 owner I found the need to document settings also. I found that Ham Radio Deluxe has a feature in its tools menu to read the settings of the K3 Menu and Config and create a printable MS notepad document. HRD, Tools, Elecraft, "GO." HRD is free and downloadable.

With the K3 powered up, the read is quick and effective. You can then print the output and put them in a binder for later reference.

It is very handy to have this for future goof ups! I know all about that!

Dave K3FT

PowerSDR Update

by Howard KY6LA

Flex has added a couple of new and very useful features to PowerSDR

The Tracking Notch Filter is truly amazing. You can now notch out interference, tune around the frequency and that interference is still notched out because the software keeps the notch on the interference. Best of all is that it happens at RF levels so it does not let the interference affect AGC. You can add an unlimited number of notches and completely control the bandwidth. This 21st century feature is light years ahead of any 20th century analog radio.

And they finally officially released Diversity Receiving so you can electronically steer your antennas to optimize performance. You need a second antenna, but a simple vertical works quite well for the second antenna. 2 beams will effectively let you electronically stack them vertically or horizontally.

New Features

1. Tracking Notch Filters (TNF) has been implemented. PowerSDR v2.2.2 now has an RF based manual tracking notch filter. RF Tracking notch filters are different than normal notch filters as they operate at the RF level, actually removing the offending RF signal rather than notching out the audio frequency which results in no AGC pumping on large signals and also stay fixed on the offending signal even when you tune the VFO. Up to six, 3-deep (3x) variable width notch filters can be enabled in the RX passband. An unlimited number of notch filters can be assigned to any frequency. The TNFs can either be made persistent, being remembered after PowerSDR is shut down; or temporary, where they are only active for the current operating session. TNFs have a ZOOM feature to easily align the TNF on the offending signal.

2. Enhanced Signal Clarity (ESC) is now officially supported in PowerSDR. ESC with the FLEX-5000 and a RX2 is a unique synchronous dual receiver system that allows for the enhancement or nulling of signals by manipulating the phase and magnitude from the second receiver to essentially provide a beam steering or null forming functionality in software.

3. The Memory form has been enhanced to allow for double click selection of memory channels and the automatic closing of the memory form after a channel has been selected.



California QSO Party

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Northern California Contest Club



Excellence in Amateur Radio Contesting



Quick disconnect (Power Pole Connectors) for antenna motor controller sensor sires and motor power leads (with plenty of chokes).



Antenna quick disconnect and door edge mount. Coax feed lines stay attached to mount.



Detail of door edge mount

continued from page 5

mobile rig or I would be very unhappy when the AGM degraded to at or below 12 VDC. Since I didn't want to have to run the van engine or the generator whenever I wanted to operate, the solution I chose was the MFJ Super Battery Booster with the optional in-cabin remote controller. Works like a champ! Anything above 9 VDC gets boosted up to 13.8 VDC automatically!

Antenna matching was begun with the MFJ 909 Antenna matcher, but with advice and assistance from Woody, that was swapped out for an UNUN. I rejected the shunt coil approach as just too ugly and awkward.

Whip selection to go atop the HI-Q provided masts and Cap Hat. I bought three in order to do some experimenting: 1) A 6 foot job from HRO, 2) A 2 foot piece of a el-cheapo from Radio Shack, and 3) A really nice shock corded 12 foot Buddy Pole. So far, I've been focusing on the six-footer. All masts are removed when the Motorhome is moving. I never intend to use the rig while driving.



Operating station with control head for iCom IC-7000, HEIL ProSet Plus and HI-Q Antenna Motor Controller.

The HF rig I selected was the iCom IC718 but that was quickly discarded along with the iCom IC-208H in favor of an iCom IC-7000. No looking back! That is a nice radio and it takes up a lot less space in the A/V cabinet making room for a Power/SWR meter.

As of this writing, the installation is nearly complete and the fun has begun – actually using the

continued on page 12

California QSO Party

CQP & improving your operating skills



From an operating point of view, what do Public Service, chasing DX or working contests have in common?

They all require accurate copy of information under stress – whether the stress of the moment, the adrenaline rush of rare DX or contest pile up, you have to accurately copy and relay information.

Entering a contest either casually to give some points or as a serious effort, Contesting provides a great learning experience for information copy “under fire”.

The first weekend of October (October 1st & 2nd this year) sees the annual running of the California QSO Party – a great opportunity for stations in California because everyone else HAS TO WORK US!

We are the DX!

Whether you are a “big gun” with stacked yagis and 1500 watts, or a “little pistol” with 100 watts to a vertical or a wire antenna, everyone else in the world wants to work YOU to pick up one of the 58 counties in our state.

It’s a lot of fun being on the receiving end of a pile up or searching & pouncing for other states and countries.

For California stations the object of the contest is to work as many stations as possible on SSB and CW. You can work the same station on each band and each mode for score credit. Every US state and Canadian province you work counts as a multiplier – 58 total for us just like the number of counties in California.

Want to be really on the end of a pile up? Plan a “CApedition” to one of the rarer counties in California and the rest of the world will beat a path to your front end!

Low Power, High Power? CW or SSB? CQP is a fun contest for all.

CQP is sponsored by the Northern California Contest Club led by the NCCC “Green” team chaired by Rick “The Rhino” N6RNO as CQP Contest Chairman. A group of NCCC volunteers help with PR, planning county expeditions and processing all the logs to score the contest.

The last 10 years has seen a great

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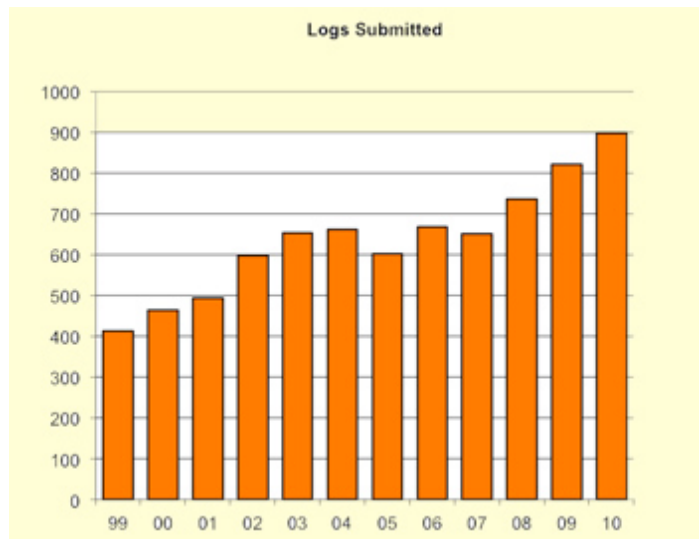
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increase in the number of logs submitted from the US, the DX world and (of course!) from California.

Last year we received just over 900 logs and with 2011 being the 45th Anniversary of CQP, we are making a big drive to get well over 1000 logs submitted.



Every station that submits a log is eligible for an achievement certificate and there are several operating categories where the leader receives a wooden CQP plaque for proud display on the shack wall.

Three categories are designed to encourage operation in contests:

- YL award
- Youth (< 18) award

and starting this year, a New California Contester's Award. This category is open to any operator that submits a log with at least 100 QSOs, made using either TriBander, Wire or Vertical antennas AND who have never submitted a log in any contest with more than 100 QSOs.

So if you've never entered a contest or have only dabbled in the past, this award category is for you!

If you work all 58 counties, you qualify for the "Worked All



California Counties Award" sponsored by NCCC. You can find the full rules and award details on the CQP web site at <http://www.cqp.org>.

Part time or full, home operator or an expedition to a new county, CQP is a blast!

We hope you will join us this year and have a lot of Fun!

Stu Phillips – K6TU



10 - X International Membership

Thanks to an initiative by Preston W6ASP, PARC has been a member of 10-X International for several years now. We recently re-upped our membership, and here's an image of our membership card included below.

Ten-Ten International Net, or 10-10 for short, is an organization of amateur radio operators dedicated to maintaining high levels of amateur radio communications on the 10-meter amateur band (28.0-29.7 MHz). Established in 1962, 10-10 has grown continuously since that day, with some ups and downs according to the numbers of sunspots and the openness of the band. As you read this, the number of 10-10 numbers issued to members is over 75,000. 10-10 would welcome your membership in the organization if you have an amateur radio license with 10-meter privileges.

10-10 is a volunteer organization with no paid officers. Although 10-10 does contract for certain services to ensure that each member receives his or her quarterly issue of 10-10 News, the 30+ page journal of 10-10 activities, the real work of providing services for members falls on the shoulders of dedicated volunteers.



Motor Controller with display showing motor position for 40 meters.



Operating station from rear of Motorhome.

continued from page 9

stuff to get some QSOs and a stack of QSL cards. I am on the air but there are some thorny problems yet to be solved as there always are with a mobile installation. This morning I discovered that when I transmit on 40 meters, the furnace fan starts up. What's up with that? Oh well, that's why we call this thing we do a hobby – right?

Oh yes – RF grounding. Woody gave me a heads up that I needed plenty of RF grounding on every part of the van so I attached copper braid every place I could find – all six doors and the hood. We also used up a bushel of RF chokes!

73s,
N6TFL – Tom

PS: Photographs available at ww.tfl.net/HamRadio/RoadTrekInstallationDescription.htm

PPS: Questions welcome emailed to N6TFL@N6TFL.NET



iCom IC-7000 and Daiwa CN-101 Power/SWR Meter in AV Cabinet at rear of motorhome.



Control head of IC-7000 mounted on book stand.



MFJ-4416BRC Remote for battery booster with input and output voltage level meters.

Mobile Rig Installation

would resolve any associated issues.

by Charlie NN3V

When thinking of installing a radio in my new car, several considerations of what radio and how to install same came to mind. I had two main requirements. Operate HF, VHF, and UHF mobile, and create an installation that was aesthetically pleasing.

I chose a Yaesu FT-857D as the mobile rig. The radio operates 160M – 6M, 2M, and 70cm, and is packed with more digital features than I'll ever understand. It is equipped with the Yaesu ATAS tuning system, to automatically tune a Yaesu ATAS-120 antenna to the selected operating frequency, and the ATAS-120 antenna is attractive, likely to meet my aesthetic requirements.

Because I successfully used glass mounted VHF/UHF antennas since beginning my mobile operations, I chose to operate the radio with two antennas. The ATAS-120 would serve as the 40M – 6M antenna (it does not cover 160/80), and a dual band Radial Larssen glass mount would be the VHF/UHF antenna.

HF mobile installations always bring out reams of anecdotal comments, some real and much urban legend, about ignition noise. There are also considerations regarding atmospheric noise experienced on HF. I trusted careful installation, good automobile manufacturing, and technology



With the radio and antennas selected, I set out to look at how to install the control head. The location needed to be easily reached by the driver, and with good visibility to allow proper radio operation.

Subaru's dashboard includes a slot for storing CDs located immediately beneath the automobile radio as shown at left.



I fabricated a wooden "wedge" on which to securely mount the control head, cut so that the wedge fit snugly in the slot, and angled so that the control head would fit flush with the dashboard panel.

The picture at left shows the final installation of the control head on the dashboard.

I always suspected Subaru intended for Outback owners to operate mobile! Next was the installation of the radio body in the trunk. Again, aesthetics guided the installation approach. I removed all the car's interior components (rear seat, carpet, and rear floorboard). Doing so exposed the frame and a series of rubber grommets from the interior to the underside of the car. For strength, I chose to install the radio body on the panel covering the jack compartment, since the panel is sturdy plastic and has direct access to one of the underside rubber grommets.

By removing the rubber grommet, I gained access to the car's frame. That is a convenient route for a large gauge twin lead cable directly from the battery in the engine compartment, safely to the trunk and up through the grommet. That's the power source for the radio, fused of course. This route hides all the power cables and gives the first ground to the installation. A second ground goes from the radio body to the chassis at the grommet. The radio's mobile mount is screwed into the plastic cover. The resulting installation is shown at left.

I then snuck the radio control cable from the control head in the dashboard, under the center column carpet, rear seat, and trunk floor.

continued on page 14



continued from page 13

That hides all the control wiring.

The ATAS-120 antenna comes with a coaxial cable to connect to the radio. I planned to install the ATAS-120 rear driver side of the car. Because of the aesthetic requirement, I did not run the HF coax from inside, then under the chassis. Doing so would mean the coax would be visible over the car's rear bumper. Instead, I wrapped the coax in soft padding, and coiled it under the floor board in the rear, snaking it out the rear hatch. I then used a path on the trunk floor to go from the radio body to the rear passenger side for the glass mounted VHF/UHF antenna. No antenna cables are visible inside the car.

Mounting the ATAS-120 antenna was fun. Many are the screwdriver antenna mounts that are commercially available. However, N6KI's (Dennis) dad, N6QVW (Armando), a master craftsman, manufactured a stainless steel mount for me shown below. Firmly attached to the car body, it also is another ground for the antenna, and certainly met the aesthetic requirement. A real classic set up!

With everything done, it was time to try things out. I started the car, turned the radio on, and went for a drive. Absolutely marvelous! NO IGNITION



NOISES whatsoever (thank you Subaru). I made some nice initial QSOs on HF, and VHF/UHF. However, driving around town I found two things to fix. The radio body (with speaker!) was located

in the rear of the car. While the radio's audio drive was sufficient to make it loud enough to hear up front, it was disturbing to passengers and driver, especially on the HF bands with the squelch open. And, there was a lot of HF QRN picked up while driving around.

What to do?

Technology came to the rescue! I installed a Digital speaker incorporating a digital noise filter. As seen to the right, the speaker fits perfectly in the car's center armrest / console. Power for the digital noise filter in the speaker comes from the 12 Volt accessory plug. With the noise filter operating, atmospheric and nearby noise sources disappear from the received audio. An absolute delight on HF. The filter is not needed on VHF/UHF.



The external look is below.



I've operated this for 8 years. I am thoroughly pleased, have had excellent results in DX and local contacts, and my installation met all the aesthetic requirements I wanted to achieve.

73 and I'll chat with you mobile/on the air!

73 de NN3V, Charlie

W6D Mobile Installation

by Pat WA6MHZ

Here is the WA6MHZ setup used for the W6D DXpeditions. Most hams don't design their cars for long distance cross country trips, but this Lincoln Town Car was. Every aspect of the setup took into consideration that there would be 16 hour days on the road, and all possibilities had to be covered.

Many hams mount their units without thinking about the Airbags. If they went off, they could very well push the mobile heads quickly into your face, which wouldn't be pretty. My setup allows for airbag deployment without damage to the radios. Since there is a 90% chance the Town Car will be wrecked sooner or later, I need to be ready for it. So all the control units are mounted under the dash and ashtray for easy access and visibility, but also safety.

Looking at the command console, we see remote heads for the Icom IC-2720H, Icom IC-706MK2 and the APRS Lat/Long digital readout.

Also there is a dual-needle Wattmeter for HF (Very Critical!) and a DC Voltmeter for monitoring the Gel Cel battery voltage. On the passenger side is a Kenwood TM-331A for 222 Mhz. All bands are covered except for 160M and 1296 Mhz: Not frequently used mobile.

Power to the IC-706MK2 is from a 40 Amp Hour Gel Cell in a plastic toolbox just behind the drivers seat. Since passengers are very infrequent, rear legroom is not an issue. A Battery Booster is also used to make sure the voltage to the 706 is kept at 13.8 regardless of the battery voltage.

APRS is well represented with DUAL Independent trackers. There is WA6MHZ-9 using a Delorme Tripmate on the front dash, Kantronics KPC-3, and a 35W transmitter in the trunk. In that container

is also a 2nd unit, a homebrew unit for W6D-9 using a board type GPS and Tiny Tracker 3 driving a junk Alinco DR-110T. Having 2 APRS signals at once assures that the car will stay on the map regardless of conditions.

On the rear trunk are 11 antennas. This really gets some WTF?s when I go to gas stations. People wonder just WHY I need so many antennas!

Here is the lineup: 2M/450 ant, 2M APRS ant, 2M APRS ant #2, GPS ant, 222 ant, 6M ant, HF (20,15,10M) ant, and a 40M Hamstick that can be changed out for a 17M or 75M hamstick. OH yes, also a Chickenband antenna which was very useful talking to truckers about what I was coming up on in Joplin after the tornado devastated it. All antennas get considerable use. It might LOOK silly, but it is very functional. Note: All are either trunklip mounts or magmounts. NO HOLES are allowed to be drilled in the Town Car WHATSOEVER!

Tuning is very easy with the setup. I lay my arm on the center armrest, and tune the 706 with my fingertip. No need to look down at the display while driving. For VHF/UHF and 222, I can tune using the buttons on the mic. An Auto Antenna Tuner makes sure I have a perfect match for the 706.

This setup has proved to be flawless after 2 years of 4400 mile trips. And, the car is ready to go in an instant, should another adventure be required I believe this is the OPTIMUM mobile setup. Maybe not the Ultimate, but the Optimum.

--

Pat Bunsold WA6MHZ
Curator
Crest Radio Museum



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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 7th of September 2011, Palomar Amateur Radio Club will have a program about Skywarn and the National Weather Service. Presented by Alex Tardy.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

Palomar Amateur Radio Club will hold our annual
AUCTION during the October 5, 2011 meeting.

The meeting has a NEW old location. Effective
September 15, the regular location at the

Carlsbad Safety Center,
2650 Orion,
Carlsbad 92008

Yes, it is available and has been reserved for the
AUCTION.

Hours are: Set up 5:30, Sellers register at 6:00,
Buyers at 6:30, with the auction starting at 7:00PM
with ART KC6UQH hosting. We would like to finish
by 9:00 PM so we can empty the room by 10:00
PM.

Bring your gently used treasures for relocation to
a new user. Buy a treasure or regain a memory
of your past.

Dennis KD6TUJ



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 installa-
tions - whether they're completed, on the draw-
ing 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, prob-
lems encountered and solved (or encountered
and evaded) are what we're looking for. Send
them in!

scope@palomararc.org

Save the Date

Club Meeting
5 October 2011

Come trade some
treasures at the annual
club auction! Details on
page 7

Board Meeting
12 October 2011

Palomar Amateur Radio
Club board meeting at
7:00pm at K2RP QTH.

ARRL Sweepstakes
November!

5-7 November CW
19-21 November Phone

Get ready!

Club Membership for October Edition

New Members Joining PARC:

KI6FCI, AG6CF, KE6JGJ, KC6M, and KJ6EDU.

Be sure to greet these new members when you see or hear them on the repeaters.

In addition, 2 reinstated their membership.

Thank you.

Here is the list of members receiving the SCOPE on the web, that have let their membership expire in the last month or so. Please check this list, and get your renewal checks in the mail! Please!!!

AD6Y, KJ6ACO, KC6UQH, KD6YJB, KC6YSO, N6TZQ, AND W6TRB.

Those that chose to receive the SCOPE on the WEB represent a nice cost saving per issue!! (And you see the photos in color, and receive the SCOPE the same day it goes to the printer). Why not check out the web site, and see if receiving the SCOPE there would work for you! Think - Palomar amateur radio club dot Org. (www.palomararc.org)

The problem for the club is to get membership renewals - especially from those that get the SCOPE on the WEB. (There isn't the monthly reminder on the label for your renewal date! See the above list!)

AI
W6GNI



October	Annual Auction
November	Go kit for emergency preparedness by Ken KI6HRH
December	Elections and Social
January	Lithium Ion! By Michelle W5NYV

September Issue Fold & Staple
Crew KB6NMK Jo W6GNI AI & Kathy, KB6YHZ Art & Janet

Winlink Needs Coders!

by Tom KA6IQA

Check out our site: www.winlink.org

We have developed a world wide network that uses HF, VHF and UHF for remote and emergency communication. Also, see September 2011 issue of QST, "Optimizing Amateur Radio Resources for Major Disasters".

We now pass over 400k messages a month.

Winlink is used by MARS, TSA, RED Cross and almost ever EOC in the US at state and local level.

It is used by people on their boats at sea, in RV's, by missionary in remote parts of Africa.

We were cited in the congressional report on Katrina as being the ONLY reliable communication system for the first 3 weeks.

In the recent natural disaster in Japan, we were

the only system providing health and welfare traffic for the first 30 days.

Our client program is programmed in VB.Net on the PC. I would like to see a MAC and Linux version.

One way to do this is a full re-write using a version of VB or C for the MAC or porting the code to use MONO runtime for .Net for the Mac and Linux

If you are a computer programmer and interested in helping code a Winlink client for Mac and Linux, then we would love to talk with you!

Tom ka6iqa
winlink development team

Write me at <lafleur@lafleur.us>

(tell him you read about it in the Scope!)

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Lessons Learned from September 8th (Part 1)

send in your observations to scope@palomararc.org

by Michelle W5NYV

Ted KD6AKT writes,

"Thought you should read this one. John and Michelle did a great job as net control. But the people that were coming on with stupid comments sounded more like CBers. I was taught to stay off the frequency unless you needed help or could help with any of the emergency calls.

Ted KD6AKT"

Ted is referring to a message he received from an area ham, quoted below.

"Yesterday after the power failed in the county, I like most of you did was to go on our repeater only to find it was down as well. So, I went looking for a another repeater to monitor. I monitored the palomar 730 machine and listened to the various reports coming in throughout the county. 1/2 hour went by and it was getting a little congested so one of the hams, can't remember his call, stepped up to be net control. After a while, another ham (ki6something) came on and challenged "why do we need a net control, this is not a disaster". Before the ham who volunteered to be net control, the palomar system was starting to get very crowded and the net control took control and kept it organized. Kudos to that ham and maybe the ki6 station learned something about operating in a disaster/emergency and the importance of keeping the traffic organized and in control.

Incidentally, the hospital was in full Triage activate until power was restored around 2 am."

During any unusual event, it's quite common for people to want or need to communicate. The repeater can get quite busy, with repetition, speculation, information, requests, opinions, and humor in abundance. Some people will express their frustration, or express their differences of opinion with others on the air.

There are many different ways of organizing communications. Some methods are more appropriate than others, depending on the circumstances. While a net control for a power outage (even a major one) may not be strictly necessary, it can help keep the repeater open for the possibility of emergency and health and welfare traffic.

In the case of the 730 machine on 8 September 2011, it was identified as one of a handful of repeaters in the area that was up and operational. RACES mad a request that the repeater operate in "minimum mode".

RACES stands for Radio Amateur Civil Emergency Service. From their website, RACES

"...mission is to operate and maintain Amateur, Public Safety, and other communications systems, and to perform unique, accurate, and efficient communication services to assist government officials in the protection of life and property. RACES personnel are citizen volunteer employees of the County of San Diego who donate their time, personal equipment, training and capabilities for public service. San Diego County RACES is an organization of the San Diego Operational Area, Unified Disaster Council, County Office of Emergency Services (UDC/OES) and is administered by the Wireless Services Division of the Sheriff's Department."

RACES may have a definition of what minimum mode means. There are varying definitions depending on the organization establishing communications. While there is no formal definition of minimum mode for the PARC repeater system, my definition is to conservatively transmit. Health and welfare traffic, emergency traffic, coordination messages, and major news updates transmitted under a controlled net is a workable compromise between those that want emergency transmissions only and those that want the repeater to be much more open during unusual situations.

A RACES operator attempted to restrict the repeater to "emergency traffic only" due to concerns about power consumption, but this request was politely declined. Since we had already complied with the request to control and (somewhat) limit the traffic by going to minimum mode, and since the estimates

for the outage did not in any way exceed our emergency power capabilities, reducing traffic to emergency only for the sake of the batteries was not necessary, and would have denied radio operators a useful channel for non-emergency traffic and very important football game updates.

Our repeater has a large battery plant, and the most conservative estimates place our emergency power capacity at three days. This is if all repeaters on the mountain are transmitting 100% of the time, and we don't allow the batteries to be depleted to the point of damaging them.

If the usage is less than 100%, and if we faced a need or made a decision to allow the batteries to run down, then we could get a week or two out of the plant. This is an extremely long time to be without power in a modern, functioning city. I believe that this long of an outage would happen in a situation where we would most likely be dealing with mass evacuations, and probably not primarily providing communications support for sheltering in place.

While there are points of failure in the emergency battery backup system, we also have a generator on site, and have discussed whether and how to install a remote starter. At this time, the generator requires a human to visit the site in order to start it. Access during a fire or other disaster may or may not be possible, but if someone can get there, the generator can be started.

If you are a member of the Palomar Amateur Radio Club, you have directly contributed to the maintenance of a system that has been extremely reliable during power failures. Thank you so very much for your support.

If you are not a member of PARC, then you should join!

Members of emergency response organizations are under a large amount of pressure. While an able and willing amateur radio operator can offer to be a communications volunteer and provide expertise, working hardware, and working frequencies, people that have formal membership in an emergency organization are accountable from the get go. They also have specific training, in some cases quite extensive, and expectations upon them that the volunteer communicator may be completely unaware of. They may operate differently, and they may believe that their methods are vastly superior, and that their opinions, concerns, and requests should be followed without question.

In some cases, they're right. They may have information and insight and training that put them squarely in the lead during an emergency. Speaking as an informal volunteer communicator, it is our job to help in a considerate, flexible, and collegial way, even if we are not treated that way by the served agency or uniformed communications officer. It's extremely important to be unwaveringly gracious, especially when dealing with others on the air who may be under a great deal of stress, or whose assumptions are different than ours, or whose requests are not applicable on our repeater.

One of the very few contentious moments we experienced concerned the repeated assertion that talking on the repeater would wear down the battery and that "we", meaning non-RACES operators, should stop using the (our!) repeater. Repeated assurances that the battery life was not in danger of being exhausted were made.

A RACES operator referred to me on the air as "the YL who thinks she's net control". The operator then made a comment that "I know you all think you are helping" and "I guess you can keep doing that (operating on the repeater) if you want to". It was unclear exactly what the operator meant, but one can easily conclude that there was an expressed belief on the part of RACES that we should all simply go away. Misunderstandings on the part of guest operators need to be corrected in as courteous a manner as possible. This means we need to know our rights on the air, and what understandings we have with which groups. There will be an article about the formal agreements PARC has next month.

RACES has its own system of repeaters which are closed. Our system is open, and we welcome as many groups as can be accommodated. We are committed to providing communications resources for San Diego county that can be relied upon during an emergency. It's my hope that club members operating skills speak for themselves during emergencies. It's my opinion that repeater operations went very well. Several groups were able to communicate using our repeater, and we are very happy to have been able to provide a channel for health and welfare and informational traffic.

Join or Renew Online

by Paul KB5MU

You can now join the club or renew your membership online. Click on the "Join" link on any page of the club's web site

<http://www.PalomarARC.org>

and you'll see a simple form to fill out, much like the old paper membership application form. When you click the "Pay Now" button you'll be taken to Paypal, where you can pay with a credit card. You don't need to have a Paypal account.

You'll notice that the online form doesn't ask for your street address or your email address. That information is entered on the Paypal form, or taken from your Paypal account if you use it when you pay.

Paypal does take a small percentage of the money collected, just as with any other credit card transaction. Your Board has decided that the Club will absorb this expense, rather than charging members extra for the convenience of joining or renewing online. We hope to get at least a few more members, which would help offset the cost.

This newsletter is a benefit of membership. When you fill out the membership form, you can choose to receive the Scope in the mail printed on paper the old-fashioned way, or you can opt to receive it by email in PDF form, or you can just be notified when a new issue is posted on the web.

If you choose not to receive the paper copy, that saves the club a little bit of money each month. Plus, the online version is in full color. You can change your option at any time. See the Newsletter page on the web site for instructions.

Right now, the online system does not know whether you're already a member or when you're due to renew. It should.

We will be looking into ways to integrate the membership database with the online system, to make it more convenient for everybody.

In the meantime, you can check the mailing label on your paper Scope (if you get the Scope by mail) or ask at the membership desk at any club meeting to determine your status, or you can email membership@palomararc.org.



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Annual Club Auction

by Michelle W5NYV

It's almost October, and that means it's auction time. Come to the General Meeting on October 5th and join the fun!

Where: The Safety Center

Any radio item new or used, working or not (boat-anchors included) will be tagged with the seller's information. Both buyers and sellers will register prior to the meeting. Please plan on arriving early to get a look at the auction items. Hams interested in bidding on items will be given a numbered card to hold up on items they would like to place a bid on. Any further questions can be directed to: board@palomararc.org

A suggestion heard at the September 2005 meeting: put those address labels you get in the mail to good use by bringing them to the auction. Instead of writing your name over and over, use the stickers instead.

If you have a wagon or other wheeled cart, please consider bringing it in order to transport items more easily into the building. The club will provide one wheeled cart for transporting equipment in and out of the building.

Art KC6UQH will be the auctioneer for the evening. Start planning now for the treasures you'll want to bring and the treasures you'll be sure to

find.

Room set-up starts at 5:30pm. As soon as the room is set up, sellers sign in and tag equipment. Bring your stuff early! 6:30 to 7:00pm buyers are registered (required!) and may view the offered equipment.

If you have questions about an item, this is the time to ask it. Inspect equipment before the auction so you know what you are bidding on (write its auction number down!) Auction begins at 7:00pm.

PARC Auction Schedule

Room Setup	5:30pm
Sellers Allowed In	6:00pm
Buyers Allowed In	6:30pm
Auction Starts	7:00pm
Auction Ends	9:00pm

PARC receives 10% of the sale price and there is no other fee for buyers and sellers. Donations to PARC are accepted. All monies are paid to PARC. Seller(s) may set a written minimum bid on their items. Seller is responsible for removing any item(s) not sold. PARC does not guarantee the condition of any item sold.

You don't have to be a PARC member to participate in the auction, so invite your friends to join in on the fun. Sellers will not be paid their money until all monies have been collected that evening, so bring a Self Addressed Stamped Envelope if you want the check mailed to you the next day, or pick it up at the next club meeting.

In previous years, the auction has been held outdoors (in a surprise move due to a conflict in room reservation), in the smaller EOC meeting room, and in the larger EOC meeting room, and offsite at other nearby locations.

HAM RADIO OUTLET

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

H
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Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

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Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!

California QSO Party Coming Up!

by Stu K6TU

This year is the 45th running of CQP and we are shooting for a record number of California operators to put the state on the air!

This is a great contest even for the casual contester as California is THE DX everyone else wants to work!

It's a great opportunity to capture Worked All States or dig out new countries for the DX'er. See full details on page 10.

The Northern California Contest Club sponsors CQP and we have developed a number of awards to encourage folks to join the contest.

These include awards for the top operator in the YL, Youth and New Contester categories.

The contest runs the weekend of October 1st and 2nd. The full rules can be found at: www.cqp.org/Rules.htm



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www.cqp.org

Northern California Contest Club

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1. SCOPE	2. 0765-30	3. 09/28/11	
4. Monthly	5. 12	6. \$3	
7. Palomar Amateur Radio Club			
1651 Mesa Verde Dr. Vista, CA.			
San Diego County, 92084-5324			
8. A. L. Donlevy	1651 Mesa Verde Dr.		
Vista, CA 92084-5324			
9. A. L. Donlevy			
P.O. Box 73 Vista CA 92085			
Editor Michelle Thompson			
5379 Carmel Knolls Drive			
San Diego, CA 92130			
10. Palomar Amateur Radio Club			
P.O. Box 73 Vista, CA 92085-0073			
11. None	12. No Change		
13. SCOPE	14. 09/11		
15. Copies	Average	09/11	Notes
a.	185.	191	Printed
b1.	2	2	PD out of Co.
b2.	165	176	Pd in Co
b3.	0	0	
b4.	2	2	Other mailed
c.	169	180	
d1.	0	0	Free out Co (3541)
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e.	16	12	Sum 15d 1 - 4
f.	185	192	Total Free/Dist.
g.	2	2	Publisher Copies
h.	187	194	Sum 15f + g
i.%	91.35	93.75	15c / 15f x 100

Printed October 2011 issue of SCOPE
(Mailed Sept. 2011)

Signed: A.L. Donlevy Publisher
09/28/2011

Picnic Drawing Winners

by Dennis KD6TUJ

Winners of the participation point gift certificates at the annual PARC Picnic were as follows: \$100 WD6FWE, \$50 KG6RCW, KD6TUJ, \$25 W6GDK, K6GO, WD6FZA, KC6UQH.

Winning a raffle WOUXUN dual band dual watch pre-programmed radio is KB6NMK.

Repeater Site Report

by Dennis KD6TUJ

Conrad and Dennis went to the repeater site on Sunday September 11, 2011 to check the status of the power supplies and batteries. After a 12+ hour outage the equipment is working fine. All repeaters were working as before the power loss. The TNC for the 146.700 packet repeater does show a malfunction. This may be due to age of the memory chip. No breakers were tripped. Checked with 220/Convair and they reported no problems, all worked well during the outage.

Mobile Installation

by Brian AG6CF

Nearly all hams have a "first radio". For me, to start out, VHF/UHF capability was more important than HF capability. I also wanted the flexibility and ease of use that only an HT can provide. An HT may not be the greatest mobile or base station, but a mobile or base station can't substitute as an HT at all.

After a bit of research, including some quality time reading reviews on eham, I selected the Kenwood TH-F6A. This radio transmits 2M/220/440, has dual receive, and the secondary receiver covers 100 kHz to 1.3 GHz (less the illegal frequencies) with the right antennas.

Operating a radio inside a 1996 Faraday Regal does hurt the signal, and the rubber ducky doesn't give the greatest performance. An upgrade to a Diamond SRH320A antenna provided a noticeable improvement to performance under weak signal conditions. An MFJ-332S magnet mount (with 12 feet of RG-58AU, and SMA connectors on either end) allowed me to get the antenna out of the cage and onto a ground plane. I simply run the cable through the weather stripping of the rear door. This setup performs amazingly well for an HT. I have made a clear QSO from a good location on Balboa Avenue in Kearney Mesa (a mile south of HRO) through the 2M repeater on Keller Peak, 95 miles to the north, on 2 watts output.

To position the HT in the car, I got a Lido LM-801EXP cup holder mount. The base slips into a cup holder in the car and expands to fit snugly. A flexible arm holds the HT up and allows it to be positioned so the display can be read. On the end of the arm is a small plate that can slide on and off. The HT can be attached to this plate using the same screws that hold the belt hook, but I just slip the belt hook over this plate and it all stays together just fine. Add a Kenwood PG-3J cigarette lighter power adapter, and I never have to worry about a dead battery in the HT. The final touch, to show that I am a serious mobile ham, is an empty soft drink cup on the passenger floorboard. White Castle wrappers to be added later.

This may not be anyone's dream rig, but it gets the job done. It can also be moved to another vehicle in minutes, or even brought on trips and used in rental cars. With the Diamond X3200 on a 20 foot pole next to the house, I have 2M/220/440 capabilities in HT, mobile, and base configurations, all for under \$800. For a beginner on a budget, that's not a bad deal at all.

73 DE AG6CF - Brian



AG6CF RIG IN CARRY MODE



AG6CF RADIO INSTALLATION



AG6CF CABLE ROUTING

The first radio on Palomar and other tales.

by Ken Easton

Ben Traxler served as the first night assistant for the 200-inch Hale Telescope on Palomar, working with Edwin Hubble and Fritz Zwicky. He later served as the observatory's chief electrician. He could thank amateur radio in part for giving him a break in finding work on Palomar.

In 1935, in the depths of the depression, the work of building the observatory had only just started. Conditions on the mountain were primitive, and the only link with the outside world was by mail, by way of the rugged Nate Harrison Grade (WPA crews were just starting on the Highway to the Stars).

As described in *The Perfect Machine: Building the Palomar Telescope* by Ronald Florence,

"... an unconfirmed rumor of work was enough to prompt men eager for jobs, or with goods to sell, to hitch a ride up to the old Nate Harrison Grade to the peak ... A young man named Ben Traxler, whose radio repair shop had failed in the depression, got a ride up the mountain with a hardware merchant eager for a new account. When Traxler mentioned his radio experience, Brett [Col. Brett, the site superintendent] suggested the possibility of opening an amateur radio station on the mountain for regular communication with Pasadena. Traxler knew that an amateur

license couldn't be used for regular traffic, but he needed a job enough to agree with the colonel's ideas. Two weeks later he was told to report to the mountain with long underwear, warm bedding and any tools he would need..."

"...To supplement the weekly mailbags from Pasadena, McDowell [the project lead] authorized a radiotelephone. Ben Traxler got a Class I license to operate the unit. A red button on the transmitter at Palomar would bring up the carrier and ring a bell in Pasadena, letting Hill [Brett's successor] make

his reports and requests. McDowell took the calls himself in Pasadena. He liked to acknowledge each statement to show he was on top of every matter. His barked 'Yup' would trigger the voice operated transmitter in Pasadena, cutting off Hill in mid-sentence. The interruptions, together with the ignition noise on California Street in Pasadena, ensured that Pasadena heard little what was reported from Palomar. Hill, content to carry on with as little interference as possible, welcomed the arrangement. He could later claim that he had reported his plans before they went ahead...

Traxler later built one-hundred-watt amplifiers for both ends of the link that made radio communications reliable. But by then Hill had already implemented many of his own ideas regarding the site work...

"...All power, telephone, and propane lines at Palomar were to be installed underground. The original specifications didn't take the highly acidic soil into account. Within weeks of installation, the outer coverings of the lines rotted and the wires reacted electrolytically with one another and with the DC phone lines... Hill



"Gus Weber, one of the workmen on the mountain, had gotten into the habit of parking his pickup truck inside the dome. Hill didn't like that, so he taught Weber a lesson by waiting until Weber wasn't around and using the overhead hoist to suspend the truck high over the two-hundred-inch telescope. Weber, suspecting a practical joke, searched the mountain before he came into the dome and saw the visitors staring up above the telescope. His barrage of swearing was another treat for the visitors."

would rant about the 'fool engineers' as he led another party to dig up the ground searching for the new break. Hill replaced the cables with heavy-duty neoprene-sheathed cable, but the gophers liked the shield. He ultimately switched to lead-covered cables, installed with a Hill-designed machine that extruded concrete around the cable..."

In later stages of the project Traxler would show his wry sense of humor. Chagrined at the thousands of tourists gawking and interrupting workers in and around the telescope dome, one day he put up a sign: 'DON'T TALK TO PRISONERS, ASK THE GUARD'.

"...It took a few days for Hill to figure out why the tourists had quieted down. Hill was capable of laughing at a dry joke but he could imagine the reaction when rumors reached Pasadena that the telescope was being built by chain gangs. He tore the sign down..."

Later, Traxler crafted

"... a sign that they put on the old concrete mock mirror disk which had been relegated to a spot alongside the walk outside the dome: 'THIS FLYING SAUCER, DRAWN HERE BY THE GREAT LIGHT GATHERING POWER OF THE TWO-HUNDRED INCH TELESCOPE, HAS BROUGHT VISITORS FROM OTHER WORLDS WHO ARE CURRENTLY GUESTS OF THE GOVERNMENT' After a woman visitor fled to the Forest Service office down the mountain, demanding to be protected by the spacemen, Hill took the sign down..."

Stolen Radio

Be on the lookout. During the blackout, I was monitoring the information on the blackout while at work at the Water Depot in Ramona.

I had my radio on and sitting on the counter. Suddenly, I realized that I did not hear the radio anymore, someone had taken off with it.

The radio is a Kenwood TH-F6A tri-bander. If you hear of someone trying to sell one of these radios, please contact me for the serial number at my email (chazasmith@gmail.com) or cell phone (760) 213-7450. Thanks, Chuck Smith, KI6LKV

First FM 2m Frequency Pair

by Roger AD5T

Around 1960, the FCC ordered commercial FM mobile equipment using 60 kHz channel spacing to be removed from service to allow splitting the commercial channels for more capacity.

Over the several years of this conversion, many thousands of the newly "obsolete by regulation" commercial radios were moved into amateur radio service, where the initial use was mostly simplex operation.

Because the Technician Class License privileges on 2m then were only for 145 to 147 MHz, and because the surplus equipment was originally used above the 2m band, the first logical channel that Technicians could operate was 146.94 MHz. This channel became the national 2m FM calling frequency from roughly the early 1960's through the early 1970's.

Early frequency plans set up channels from 146.04 Mc to 146.94 Mc, and tests found that the most common types of surplus equipment, those made by Motorola and General Electric, could operate over a range of about 600 KHz without significant retuning.

This was the main driver for today's 600 KHz offset on 2m, but there were also competing plans that generated repeaters on other offsets, and 146.34/146.76 was the most common, with repeaters on this pair operating until 1972 and later.

Most of the surplus transceivers were one or two channel radios, so a typical first step conversion was to make a fully simplex radio on 146.94, and, if a second transmit channel was available or could be added, then a 146.34 crystal made an economical choice for both simplex and repeater operation.

This is why 34/94 became the most popular repeater pair. The 2m channels we use today were pretty well set by the early 1970's, and multichannel crystal controlled and synthesized transceivers made use of any of the available repeater channels easy.

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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 5th of October 2011, Palomar Amateur Radio Club will have our annual auction.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.



Auction Statistics Comparison

Year	2011	2010
Sellers	15	15
Registered buyers	49	53
Active buyers	33	28
Items	125	124
Total Income	1237	967
Club Profit	140	224
Lights Out	~10p	~10:30p

Thank you to all participants in our annual auction! We had a great time and made some money for the club. Many people went home with new treasures, and interesting stories were shared.

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

Save the Date

Club Meeting

2 November 2011

Ken Cohen KI6HRH presents on Go Kits and more. Prepare for emergencies with go kits!

Board Meeting

9 November 2011

Palomar Amateur Radio Club board meeting at 7:00pm at K2RP QTH.

ARRL Sweepstakes

November!

5-7 November CW
19-21 November Phone

Club Membership for August Edition

Here is the list of members receiving the SCOPE on the web, that have let their membership "expire" in the last month or so. Please check this list, and get your renewal checks in the mail! Pretty PLEASE!!!
N6FF, KI6KJG, KF6UVF, KI6MMT, KB7XI, W6UDO, AB6RM, WB6NFK, AND AC8Q.

Last year we sent out nearly 100 postcards to past members that let their membership run out (2010). A common response was that their failure to renew was an oversight, and quite a few sent in more than one year's renewal! Must be time to try that again!

I now have a list of 88 folks that elected to receive their SCOPE on the web - That have forgotten to renew their membership.

AI
W6GNI

October's Fold & Staple Crew
W6GNI AI WA5ACE Sonny
KB6NMK Jo KB6YHZ Art & Janet

The ARRL San Diego Section now has a Section Emergency Coordinator.

Bruce Krypton, KG6IYN, has agreed to fill the position. I am confident that Bruce will do an outstanding job.

Steve Early, AD6VI

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ARRL Affiliated Clubs Sweepstakes Bulletin – 2011

Larry Hammel, K5OT – Sweepstakes Contest Manager

Clubs are always looking for operating events and opportunities that excite and motivate their members to be active, especially on HF. This year's ARRL November Sweepstakes certainly fits the bill and – for the first time in years – the bands will have plenty to offer Technician license-holders, too! Sweepstakes – or "Sweeps" among friends – is a contest in which modest stations can do very, very well. There's no need for giant towers and antennas or legal-limit amplifiers – a backyard dipole or vertical and a "barefoot" HF rig will do just fine. In fact, SS is one contest in which antennas can be too high!

Because Sweepstakes brings out so many US and Canadian operators, it is very popular for friendly "contests within a contest" between clubs and between club members. A club contest to work the most sections, make Worked All States, or ring up the highest score is a nice way to wrap up the season with awards being presented at the year-end meeting. Many clubs have a friendly competition with other nearby clubs for local bragging rights. Even small clubs can get into the action on a national scale in the Local category of the ARRL Affiliated Club Completion.

College clubs can participate in two ways. The first is to submit a score in the School Club category of the main competition. With its 30-hour time limit, the shared-operating nature of the category fits right in with the busy fall semester. Give the Phone weekend (Nov 19-20) a try before heading home for Thanksgiving break! The second is to participate in the Collegiate Championship, sponsored by Ken Harker, WM5R. Ken has compiled a long list of yearly winners for each of the NCAA Division I Conferences – has your school's club participated? The website is currently being updated with the 2010 scores and we need some help sorting out the current conference assignment for the record-holders

Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

- any volunteers? Finally, for a relaxed "practice" opportunity, try the ARRL's School Club Roundup from Oct 17-21.

Did we mention the opportunities for Technician licensees? Techs have a large chunk of 10 meters available to them on both Phone (28.3-28.5 MHz) and CW (28.0-28.2) but in recent years, there hasn't been much activity due to quiet solar conditions. Lately, the solar flux has been kicking up to 120 and higher, meaning that 10 meters opens up coast-to-coast and beyond! If your club's Techs have been wondering what all the fuss is about 10 meters, be sure to encourage their activity during Sweeps. Perhaps one of those intra-club challenges we were talking about?

If you'd like to know more about Sweepstakes, download the Sweepstakes Operating Guide – there are simple explanations of the rules and a list of resource articles and websites to help you get the most from your Sweepstakes weekend. Maybe you'll even bring home the coveted "Clean Sweep" coffee mug!

CQ Sweeps!

73, Larry Hammel K5OT

Magazines, Newsletters, Web sites, and E-Mail Reflectors

National Contest Journal: www.ncjweb.com

Contesting.com: www.contesting.com

Radio-sport by NS3T: www.radio-sport.net

World-Wide Young Contesters: www.wwyc.net

CQ-contest reflector:
lists.contesting.com/mailman/listinfo/cq-contest

3830 Contest Results reporting:
www.hornucopia.com/3830score

Dipole Antennas

Simple in design, effective in operation

The Amateur Radio Club of El Cajon will be holding a 5 hour (+/- as needed) Get on the Air Workshop on November 6th 2011 at 10:00am. In this Workshop, we'll be constructing and tuning Dipole antennas. The Workshop is simple in format and at a level beginners can understand. This will be a "Hands On" Workshop and will cover dipole basics, calculating wire length, making a home brew center insulator from a piece of wood, splitting feedline, stress relief for feedline and wire solder joints on the insulator, basic soldering, proper installation of PL-259 connectors, elevating the antenna above ground and tuning the antennas using an antenna analyzer. Those attending the Workshop will take home with them, a perfectly tuned dipole antenna that they built themselves, from the ground up.

Although the class is a part of the Amateur Radio Club of El Cajon's monthly "Get on the Air" Workshops, anyone with a HAM ticket or with an interest in Amateur Radio is welcome to attend. This Workshop is HANDS ON and will be held in Lakeside at our Club's storage shed. As of right now, it looks like we'll have a sufficient amount of 14AWG wire for all attending but students will need to bring at least 18" (inches) of 50ohm coax and 1 PL-259. If using RG-58, a UG-175 adapter will be needed, if using RG-8X (or RG8 mini), they'll need to also bring a UG-176 adapter. These items can be found at a number of places around town...I do know Ham Radio Outlet carries connectors and coax.

Note: if the dipole you'd like to make is longer than 20 meters, please help us out and bring additional wire with you. Stranded 14AWG or larger is preferred.

For more details and directions, please drop our Club Vice President, Steve KO4QT an email: vicepresident@wa6bgs.us

We hope to see you there!

Where were you at 3:38 PM Thursday, September 8, 2011?

by Dennis KD6TUJ

After taking care of a customer in the yard, I came into the office and was told there was a citywide power outage. After helping prepare the office to continue without power, I went to get my generator to set up and supply temporary power to the phone system. I then went to the trusty 2m to hear what was going on. I started monitoring reports of the cities of Oceanside and Vista completely out. Next came Escondido. Something big was happening. Continued monitoring between work showed a major outage was in progress. A NCS started an information net on 146.730 to control the "check ins", What's going on, and general disorganization. This stabilized net operations. Information started to come in covering areas or loss, and scattered reports of causes. Traffic control info also came across.

Reminders were sent concerning "Emergency Traffic" if needed and some basic guidelines to use in power loss situations. Those being that controlled intersections not operating should be considered four way stops, and to turn off all power switches/controls except for a central light. Turning off all power devices will lessen the shock load during power up of the electric distribution system. Notice was also given to medical/oxygen users to go to hospitals for powered support needs if there was a problem maintaining their oxygen or other device needs.

Broadcasters remembered to monitor ham frequencies for information and started to broadcast ham info as "reports" of possible causes and problem areas. The reports were substantiated as the news confirmed the reports.

Many people went to the bank's magic wall and could not get cash to go down the street to get gas on the way to the store to buy groceries to cook on the electric stove or microwave. What's the problem. Gee, can't turn the radio on to hear what the broadcasters are saying. It was interesting to see people running cars to listen to the radio. A lot of RVers opened up the RV and ran generators for TVs and radios and air conditioners. Neighbors were actually out talking to one another. Kids were playing out late. That moon was near full for good light. Some even had bonfires in their front yards. Power reports started coming in about 9:30PM about grids coming back live. I watched several areas come back. None seemed adjacent or made much sense to someone who does not do grid management. My grid came back at about 11:15 PM. Panic set in. Family insisted on their powered toys again. Eight hours of a simpler life broken by progress.

Many people operated as NCS during this outage. I would like to thank them for their time. For many hams, this was their first time in adverse conditions as a ham. This is a chance to review your personal plans, and then review your ham plans. I used mobile radios while in the vehicles, monitoring mostly, only adding when I could offer something useful such as a traffic report request for where I happened to be. A scanner on batteries works great for monitoring 2m/440. This saves the drain of batteries that can not be recharged easily. The life span of a battery pack lasts from 4 hours to 16? hours. Many of us have AA battery packs for dry cell use. (Always have AA batteries on hand - if the kids/grandkids don't find them first!) I never understand how I only get use of 4 out of a 16 pack

There are many configurations of go kits. A presentation will be given on Go Kits at the November meeting by Ken KI6HRH.

Local CERT activity during the September 8, 2011 Blackout

Ramona-

We wish to report on the Ramona Team's activity during the blackout for the PARC newsletter.

Upon activation, we opened our command post and as the ECRA 147.030 Repeater was down we obtained permission to use the ARES/RACES 147.195 Repeater on Mt. Woodson. Opened a net and began a check in of team members and coordination of activities. We brought our Ramona/ROARS 145.300 Repeater online and moved our Local Emergency Net. Traffic to this unit. We continued to monitor and participate in the RACES Net. as needed. We have substantial generator and battery back-up capabilities so power was not an issue.

The team conducted health and welfare checks on our elderly and shut-in community and several high priority medical patients. One patient was in need of supplemental oxygen, as their resupply had not been delivered. In coordination with CAL-FIRE, transport to a local hospital was arranged for this patient. Another family with a child on critical life-support equipment, which was running on battery back-up power, was closely monitored and the team was standing by to assist with one of our portable generators if needed.

Our Public Information/Liaison Officer was stationed at the Ramona Municipal Water District's E.O.C. coordinating communications between the team and emergency resources there and kept the team updated with information from the greater county area.

We had good team participation and accountability through-out the emergency and are proud to be of service to the community.

All the Best,
Philip Savage, KI6WV
Ramona CERT

Oceanside-

In general, Oceanside CERT Amateur Radio Team members monitored PARC repeaters and our Primary 2m simplex frequency (145.540), passing on the unfolding event developments to families, friends and neighbors. Team members assisted drivers in getting home safe and sound by providing traffic updates for freeways and workarounds for gridlock on many of our local roads. Other various non-emergency but necessary activities included helping search for an open pharmacy, walking local neighborhoods, starting generators and running extension cords to neighboring homes, and charging neighbors' cell-phones. One member started his motorhome to provide care for two elderly people, and found his TV showing a football game had created a gathering place for neighbors. Although cellphones worked for many, there was at least one case where a couple married CERT hams were able to successfully re-establish contact across the county via ham radio after their cellphone connection was severed.

Lessons Re-emphasized: the blackout reminded us of the value of having a set Communication Protocol; having sufficient medications/water/food on hand; having working generators and/or off-grid battery backup; maintaining sufficient gas in vehicles; and having flashlights/fresh batteries and charged HTs. It also reminded us of why many have felt the need to carry our CERT backpacks and personal emergency kits in our vehicles. Finally, there was quite a bit of non-essential chatter on local repeaters, and our group feels a renewed need to improve our simplex coverage self-sufficiency around our city.
73 de Joe/N6JO

Power Outage Triggers OHCC CERT Activation

The Ocean Hills residential community in Oceanside has 1632 homes/2500 residents; CERT members within this community are part of Oceanside CERT but unofficially calls itself OHCC CERT. At about 4p.m., shortly after the power shut down in Oceanside, OHCC CERT activated the Incident Command Post located in the clubhouse CERT room. We joined other CERT, RACES, and Red Cross units from around the county, on the

HAM radio emergency communications network where we could exchange information and, if needed, request assistance.

Dick Travis, OIC Emergency Communications, quickly established a schedule to operate the Command Post Radio throughout the night on 3-hour shifts starting with Bill and Joanne Harms, followed by Craig

continued on page 6

and Nancy Powers, then Dick, and lastly, Holly Richardson along with volunteer Gordon Cowie.

Unfortunately, the power outage caused problems for some, but it also had a positive effect as an eye-opener for many. Following, are a few highlights of what we learned/confirmed as a result of the incident.

CERT members who checked on the welfare of their neighbors found that quite a few lacked adequate emergency lighting due to inoperative equipment (flashlights, etc.) or dead batteries. Although some had candles, they are not recommended due to the potential dangers. Among the best long-term, portable lights, are fluorescent and LED lanterns powered by common dry-cell batteries and/or manual-crank generator. An alternative is a portable radio and light combination similarly powered.

Several residents didn't know that there is an emergency release (should have a red handle) to allow their garage door to be opened without electricity (lifting the door after release does require physical strength and some may need a neighbor to help).

Many of us were reminded of how important it is to maintain a $\frac{3}{4}$ or more tank of gas in our car since, without power, most gas stations cannot operate their pumps.

Additionally, we were reminded that even a relatively minor incident can cause major problems on our roadways. This is one of the reasons we suggest not evacuating your home until advised to do so by authorities (for up-to-date information, we suggest tuning to AM 600, KOGO on your battery powered/manual-crank generator radio or CH 18, KOCT when TV is operational).

As with most all wide-spread emergencies, phone service was unreliable or totally unusable due to call volume or system failure. However, long distance calls via cell phone seemed to be working most of the time. This is the primary reason for using an out-of-state person for family members to check in with during or after a disaster.

Although OHCC did not have a water problem, some areas in the county were advised to conserve and in some cases boil their water before consuming. The storage of water in our home for drinking, cooking, and other needs is critical. 1 gal per person, per day is ideal. For long-term storage of drinking water only, there are small, vacuum sealed packets that claim to last up to 5 years. For information about OHCC CERT, please go to our website (members.cox.net/ohcccert).

Bill, KI6MY

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9:00 AM to 5:00 PM

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www.palomararc.org

contact Dennis KD6TUI (760) 672-0223

Come operate on the ham bands at Rancho Del Oro park

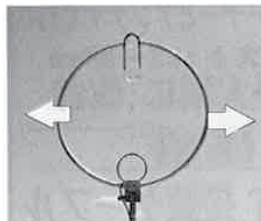
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簡単チューニング



紐を引いて
チューニング

Dear Editor:

I was recently in Japan and at Rocket Musen, they had some very interesting magnetic loop antennas for sale. I attached a pdf of the sales pamphlet in Japanese. I think you can discern from the pictures how to make your own antenna. The tubing is aluminum, 1/2" OD, and the different versions have different loop diameters. The tuning cap is a piece of inner insulation + center conductor from ~ RG8 coax trombone into a short length of straight Al pipe. To tune different bands an auxiliary cap using short length of coax is used in parallel with the variable cap. The variable cap is moved using some twine, to push/pull the coax in and out of the trombone section. The six turn version uses a commercially available antenna tuner to automate the tuning without using the trombone capacitor. (both Yaesu and ICOM tuners will work)

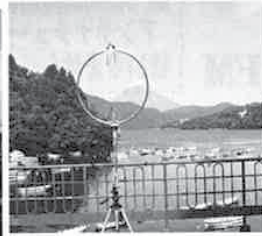
Might be good for a field day or emergency antenna. (NVIS is easy)

Peter Shintani
 KG6YDB/VE7CQA

注 高電圧がかかりますので注意！ いておりますのでご用命ください。



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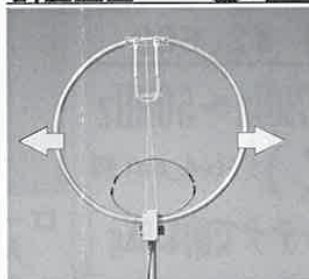
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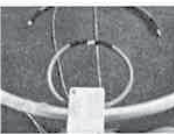
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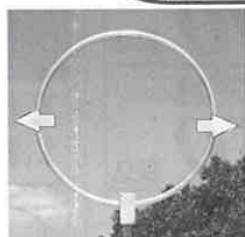
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どは電界成分ですから、その電界成分を受信せず、磁界成分のみを受信することにより、
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注 受信専用です。送信には使用できません。R0000

Minutes

Palomar Amateur Radio Club

Board of Directors Meeting

August 10, 2011

The meeting was called to order by President Dennis Baca KD6TUJ at 7:27pm at the home of Ron Pollack K2RP. In attendance were:

President Dennis Baca KD6TUJ
(by telephone)
Vice President Ron Pollack K2RP
Secretary Paul Williamson, KB5MU
Director #1 Don Johnson, WD6FWE
Newsletter Editor Michelle Thompson, W5NYV
(by telephone)

Routine Reports
Since two Board members were attending by telephone, routine reports were not presented.

Club Picnic

Motion by K2RP to authorize up to \$150 for food for the annual club picnic. Seconded by Don Johnson, WD6FWE. Motion passed unanimously.

Motion by K2RP to authorize picnic drawing prizes as follows: one \$100, two \$50, and four \$25. Seconded by WD6FWE. Motion passed unanimously.

Repeater Technical Report

KD6TUJ reported that the 147.075 repeater is still down. There hasn't yet been time to install a mobile radio as an auxiliary receiver for it. The problem with the 6m repeater has been isolated to the cavities. The 6m repeater has been turned off for now.

Adjournment

The meeting was adjourned at 7:37 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

Minutes
Palomar Amateur Radio Club
Board of Directors Meeting
September 14, 2011

The meeting was called to order by President Dennis Baca KD6TUJ. In attendance were:

President Dennis Baca KD6TUJ
Vice President Ron Pollack K2RP
Secretary Paul Williamson, KB5MU
Director #1 Don Johnson, WD6FWE
Newsletter Editor Michelle Thompson W5NYV
Membership Chairman Al Donlevy W6GNI
Repeater Technical Chairman Conrad Lara, KG6JFI

Secretary's Report

Secretary KB5MU distributed copies of the June, July, and August minutes. W6GNI to approve the June minutes. Seconded by W5NYV. Motion passed unanimously. The error in the July minutes was corrected to July 13. Motion by W6GNI to correct. Seconded by W5NYV. Motion passed unanimously. Minutes for August were not presented. Seconded by Don Johnson WD6FWE. Motion passed unanimously.

Treasurer's Report

Treasurer Georgia Smith KI6LAV had distributed the Treasurer's Report to approve the Report as published. Seconded by Michelle Thompson W5NYV. Tom Martin KG6RCW had requested reimbursement of his expenses in recognition of the work he did on the Oceanside antenna project about approving expenses incurred without prior authorization. Motion to reimburse KG6RCW "reluctantly". Seconded by W6GNI. Motion passed unanimously.

Upcoming General Meeting

K2RP reported that the October meeting would feature the auction on Go Kits, presented by Ken Cohen KI6HRH. The December meeting details of the auction were discussed briefly.

Nominating Committee

KD6TUJ asked for suggestions for members to serve on the Nominating Committee.

Membership

W6GNI reported that the membership is down a few to 20. Renewals and one new member were processed. Of forty new members, ten bounced and only three renewed. Some members are late, in effect paying for 12 months every 15 or so months.

The club collects email addresses on the meeting sign-in sheet, making it to W6GNI for use in Membership canvassing. W6GNI first before being saved for activity points account.

Repeater Technical Report

Repeater Technical Chairman Conrad Lara KG6JFI reported that the 146.73 MHz repeater resets when there's a power loss, and the recent outage on August 29 was explained when we lost the power poles on the club's property on that day.

A new receiver board was made available to the club on September 14 and repaired or replaced.

continued on page 12

ca KD6TUJ at 7:27pm at the home of Ron Pollack K2RP.

KG6JEI

and August Board meeting minutes. Motion by Al Donlevy W5NYV. Motion passed unanimously. The data in the header of Conrad Lara KG6JEI to approve the July minutes as correct. Motion by Ron Pollack K2RP to approve the August minutes passed with KG6JEI abstaining.

Chairman's Report by email. Motion by Paul Williamson KB5MU and Le Thompson W5NYV. Motion passed unanimously. Expenses in purchasing a plaque for Fred Atchley AE6IC in accordance with the ordinance. Board members expressed some concern over the authorization, as required by the Bylaws. Motion by K2RP to approve the plaque. Motion passed unanimously.

The annual auction, and the November meeting would be the annual holiday social. Logistical

the Nominating Committee.

259. At the last meeting only three re-entries were sent out to non-renewing members. Members habitually renew a few months in advance.

in sheet, but this sheet has not been printed. In the future they will be routed to the printer for the prize drawing at the picnic.

ported that the controller CPU on the board had failed and that's not supposed to happen. One member reported that SDG&E replaced one of the boards.

board while the failed board is debugged.

Dear editor,

Perhaps you would be interested in printing this link to an article in Wired Magazine that talks about the long history of SWL and the mysterious Russian station UVB-76.

There are probably many PARC members who sparked their interest in ham radio by hearing signals like this one.

Hope you enjoy the article. Here's the link

http://www.wired.com/magazine/2011/09/ff_uv76/3/

73s
Jim Elliott
K6FUI



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continued from page 10-11

The TNC on the 146.700 MHz packet repeater is giving what appears to be garbage text on the serial port, even though the baud rate DIP switches appear to be set correctly. The repeater is off the air until this can be investigated further. The 145.05 MHz node and the Metro net node are online, but they were offline during the power outage since have not yet installed DC-to-DC power converters for them.

A work party tried bypassing the cavities on the 6m repeater. That didn't work. Testing points to a problem with the cavities, which we hope can be fixed by retuning them.

The backup batteries appear to be in good condition. We've obtained documentation (on paper) for these cells, and we have a refraction-based acid measurement tool for checking their condition.

Motion by K2RP to authorized KG6JEI to spend up to \$400 to purchase three more Mean Well SD-350C-12 DC-to-DC converters to complete the conversion of the site to 48VDC battery backup operation. Seconded by WD6FWE. Motion passed unanimously.

Power Outage Net

K2RP requested that the next Scope contain a mention of the great job W5NYV did running the net on the 146.730 MHz repeater during the recent extended power outage.

Paypal

K2RP asked KB5MU yet again about the status of the club accepting membership fees and other monies via online transfer using Paypal. KB5MU stated that there was nothing preventing it from being done, he just hadn't set it up yet.

Repeater Request

KG6JEI requested primary but non-exclusive use of the 146.730 MHz repeater from 6am to 6pm on October 29 for an event. Motion by KB5MU to approve the request. Seconded by W5NYV. Motion passed unanimously.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on October 12, 2011.

Adjournment

The meeting was adjourned at 9:30 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

The Scope needs your articles! Send them in and help defeat white space.

HAM RADIO

H
R
O

OUTLET

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Jerry N5MCJ
Joe N6SIX

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Pan-Tilt-Zoom Video Camera for the Repeater Site

by Paul Williamson

Recently John WB6IQS obtained the donation to the club of a commercial quality outdoor color TV camera. It's in a sealed weather-proof housing, with a heater to drive moisture out and keep the electronics warm in the winter. Inside the housing, the camera's mount is capable of panning and tilting, and the camera itself has a wide zoom range. The camera also has good infrared sensitivity, so it should be able to capture some sort of image even at night.

The idea is to mount the camera on the tower at the club's repeater site on Palomar Mountain. The live video output would be fed into the club's amateur television (ATV) repeater, and the remote control functions to pan, tilt, and zoom ("PTZ") the camera would be handled by DTMF codes sent over the air (frequency TBD) by any user. We'll be able to check out the site without making a trip up the mountain. The camera should be able to zoom in on individual antennas (line of sight permitting) and perhaps even save some tower climbing. If we're able to mount the camera high enough, it might even be able to see around the county. We hope this might raise some additional interest in ATV operation.

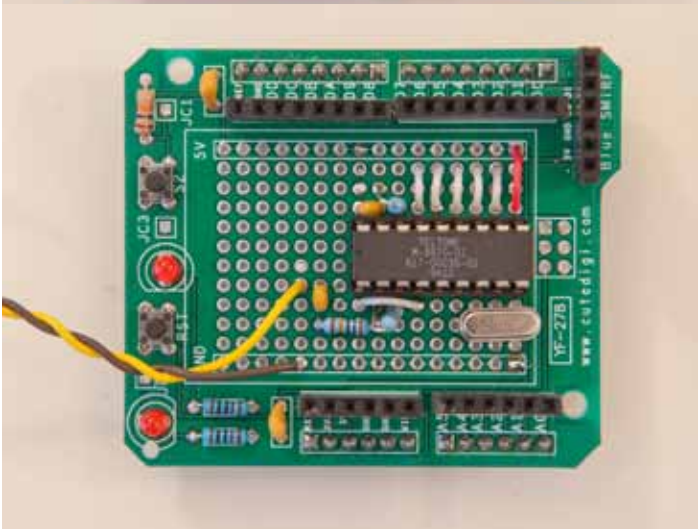
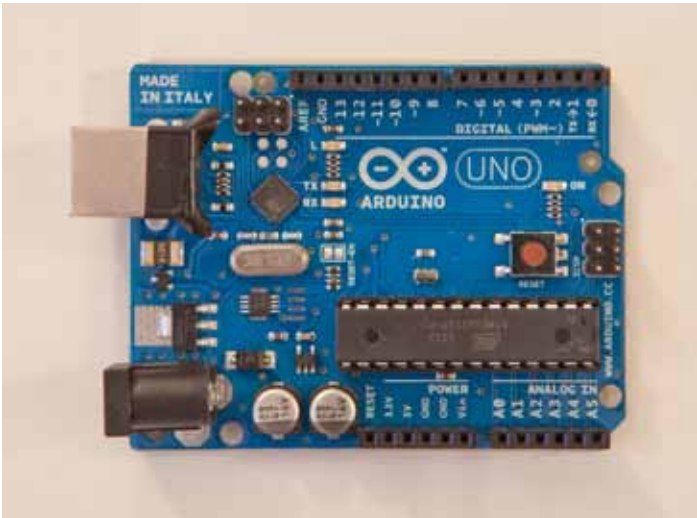
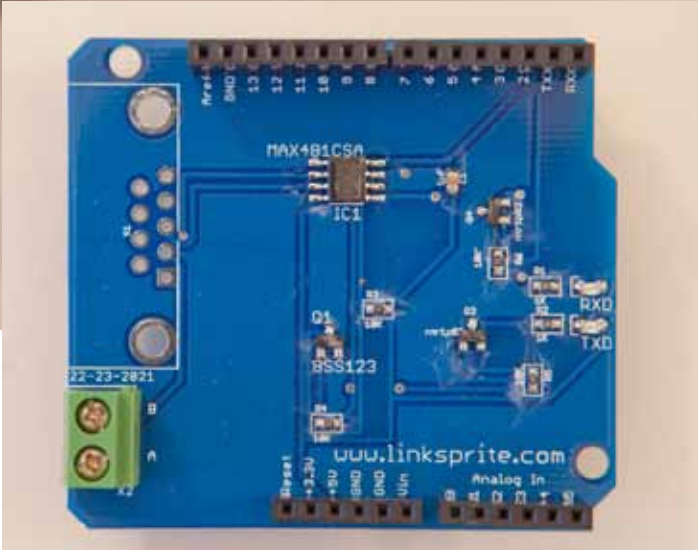
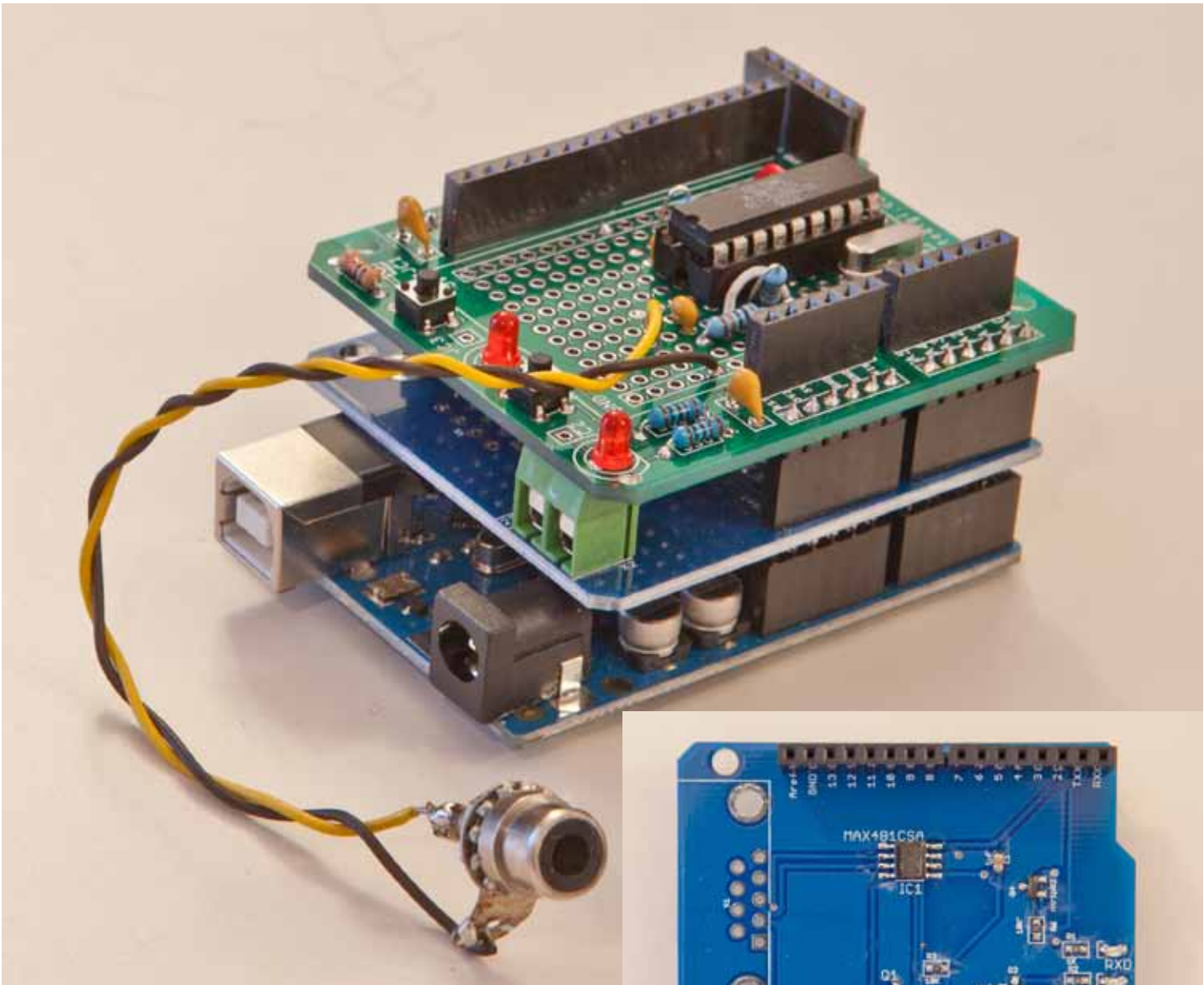
In order to get the camera installed, some work still has to be done. John has volunteered to fabricate a suitable mounting bracket for the camera. Art KC6UQH knows how to connect the video into a remotely controlled auxiliary port on the ATV repeater. Don WD6FWE has volunteered to do the tower climbing to install the camera. I (Paul KB5MU) am working on a DTMF receiver and controller board to enable remote control of pan, tilt, and zoom.

The community of people using small microcontrollers and connecting them to the physical world in innovative ways is a very rich and active one right now. A wide variety of small controller boards are readily available and inexpensive. One family of controller boards that's quite popular is the Arduino, based on an inexpensive but powerful Atmel microcontroller chip. Most Arduino boards support a standard set of I/O connectors that allow additional boards called "shields" to be stacked up with the main board. All sorts of shields are available for common interfacing tasks. I've chosen an Arduino UNO controller board. (see photo)

It needs two interfaces to the physical world: an audio interface from a radio receiver that can decode DTMF tones, and an electrical interface to the RS-485 standard interface provided by commercial PTZ cameras. Since RS-485 is a somewhat common interface, I was able to obtain an off-the-shelf commercial "shield" that takes care of that interface. (see photo). I couldn't find a DTMF decoder shield, but there's a standard DTMF decoder chip that requires only a few extra components, the MT8870D-1. I used a commercial prototyping "shield" that provides plenty of room to breadboard a simple circuit, and built up the circuit straight out of the MT8870D-1 data sheet. (see photo). All three board stack up together to make a nice compact package that has all the required interfaces to control the PTZ camera by DTMF.

That leaves the controller software to be written. I've written and tested demonstration software and proved that I can reliably decode DTMF tones, and started in on the task of defining and documenting what codes will do what functions. Once this is completed and I've had a chance to test with the camera itself, the software to implement the full set of remote control functions should practically write itself. Heh. The camera responds to a standardized set of commands called Pelco D. These commands are reasonably well documented, so there's some hope that talking to the camera won't present any major difficulties.

I can't tell yet how long this project will take. Even if the controller and the mounting bracket and all the other mechanical details come together quickly, we will be at the mercy of winter weather on Palomar Mountain to schedule an installation. It might be a while.



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Scope (USPS #076530) is published monthly by the Palomar Amateur Radio Club 1651 Mesa Verde Drive, Vista, CA 92084. POSTMASTER: Send address changes to SCOPE, P.O. Box 73, Vista, CA 92085. Periodicals postage paid at Vista, CA 92084. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

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Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 2nd of November 2011, Palomar Amateur Radio Club will have a program on Go Kits presented by Ken Cohen KI6HRH.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.

SCOPE

A newsletter by and for the
Palomar Amateur Radio Club
of San Diego, California.

The Nominating Committee, Comprised of Jim W6SST, Jo KB6NMK, and Art KC6UQH, submitted the following report for Palomar Amateur Radio Club for 2012.

The Nominating Committee recommended at the November general membership meeting that existing officers KD6TUJ, K2RP, KB5MU, WD6FWE, and K7ELH be re-elected, and proposed David Ochs KI6LKP for Treasurer.

No nominations were offered from the floor.

Elections will be held at the December meeting. The slate will be elected unless a candidate withdraws, which case nominations are re-opened for that position.

This month in the Scope:

Repeater site work party announcement, new classified advertisement from Ron, a direction-finding yagi antenna report from KD6TUJ, a 70cm yagi build report from KB5MU, SSB sweepstakes report from N6KI, call for 10m contest participation from N6KI, a report on our rained-out operating day from KD6TUJ, minutes from the October board of directors meeting, and an invitation to our annual Holiday Party!

Please bring food to share. We'll have games and fun, and socializing.



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

Save the Date

Club Meeting

7 December 2011

Annual Holiday Party
Please bring a dish to share. Games, socializing, food and fun!

Board Meeting

14 December 2011

Palomar Amateur Radio Club board meeting at 7:00pm at K2RP QTH.

ARRL Contest

160m CW

2-4 December, CW only.
www.arrl.org/160-meter for details.

Club Membership for December Edition

New Members Joining PARC: KJ6IXE, KG6PSV, N6TFL, K8QLT, AA6BP. And SEVERAL reinstatements.

A number of members have elected to receive the SCOPE on the WEB. This saves the club the cost of printing and mailing, which is good. The 'not so good' is that they do not get the monthly reminder that their membership is up for renewal - which is printed on the mailing label for those that receive the SCOPE by mail. NOW, as an added feature to the Club's Web Site (palomamarc.org, All active members, along with their expiration/renewal date are listed. Please check it out! And, if you are not listed, PLEASE RENEW!!

AI
W6GNI

October's Fold & Staple Crew
W6GNI AI WA5ACE Sonny
KB6NMK Jo KB6YHZ Art & Janet

6M ANTENNA

Here is the link to the 6m antenna Don will build for the hill for the next work party install and trial.
<http://www.qsl.net/w8cwe/6meterj.html>
Dennis KD6TUJ

Work party December 11th

Date: Dec 11th at 9:00 AM
Where: Meet at Mothers Kitchen on Palomar Mountain
Contact: KG6JEI@amsat.org
Talk In: 146.730

It is time to wrap up the hill for the winter. Weather permitting we intended to have a work party on December 11th. The goal of this work party will be to:

Confirm all systems on line after power reset on 14th
Verify site ready for winter, secure all buildings for snow.
Install DC-DC power supplies for the packet repeaters.
Install new charger for control receiver so that the site always has a charged control battery
6m install new J-Pole antenna on original pole mast and check transmission.
Check receiver on 050 packet

If anyone else has any issues they believe need to be addressed now is the time to put the request in because after this the site will not have any scheduled parties until Spring.

The ARRL San Diego Section now has a Section Emergency Coordinator.

Bruce Krypton, KG6IYN, has agreed to fill the position. I am confident that Bruce will do an outstanding job.

Steve Early, AD6VI

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Email sales@impulseelectronics.com

Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

For Sale

Hammarlund HQ 129X receiver (vintage 1946) in great working condition (New Filter Caps) and above average appearance. \$150.

12-volt power supplies

Samlex SEC 1223 23 amp switching \$70

Astron 12 amp \$35

Ron K2RP@arrl.net
760 436-8109



Photographs by KB5MU of the November membership meeting featuring a program about Go Kits by Ken Cohen KI6HRH. Thank you Ken for an enjoyable and informative program!



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Hello SD Microwavers!!

Next Monday, November 21st was the date for our November meeting of the San Diego Microwave Group. We were amazed at the transformation of Kerry's garage workshop! It's clean and organized.

Kerry presented a newly designed synthesizer designed by Tony KC6QHP that will support most of our microwave bands. It sounds like kits may be available!

Now is also the time to start thinking about next month's Holiday Meeting and White Elephant Gift Exchange.

That meeting will be held, also at Kerry's place, but on the SECOND MONDAY of December 12/12/2011, instead of the 3rd Monday. Think about the wonderful item(s) of microwave related background, beautifully wrapped to conceal the sheer value of the gift, for you to take home and enjoy. Also don't forget the lavish pot-luck display of sweets and goodies to share with all the attending microwavers.

Hope to see you there at both events.

Happy Thanksgiving and 73.

Ed Munn

858-453-4563

remunn@earthlink.net



ARRL Sweepstakes Contest, SSB

Call: N6KI

San Diego Contest Club Operator(s): N6KI, WB6NBU, K6GO, N6OHS, NN6X, N6EEG, N6CY, K6KAL, AF6WF, W5NYV, KB5MU

Station: W6HCD

Class: Multi-Op LP

QTH: SDG

Operating Time (hrs): 23.5

Summary:

Band QSOs

160: 0

80: 125

40: 210

20: 210

15: 155

10: 122

Total: 654 Sections = 80 Total Score = 104,480

Club: San Diego Contest Club

Comments:

Running Low Power Category for SS SSB and trying to bust pileups or get a good run going, felt like a novice fighter showing up with a KNIFE at a GUNFIGHT! Am used to the comfort of running High Power from antenna farms sporting towers as tall as some redwood trees here in CA! Anyway, the goal of the San Diego Contest Club was to train new Ops in new methods and make a SWEEP! That we did indeed by busting a massive pile up for Puerto Rico late in our contest hours! When the gentleman at KH2R/KP4 called for "Any YLs on Freq?" - Novice contester, Rusty, AF6WF (aka Rosemary in another life), was up to the challenge and secured our last section needed in 2 calls! This exercise taught our Ops how to do Ping-Pong CQs with 2 transmitters and with the aid of some new hardware, allowed only 1 of transmitters on the air at a time.

Initially the ops had some trouble with this concept but after a while they performed like some of the PROs of the W6YI group! Now to go find some more elements for those 2 and 3 Element HF Yagis !

73, Dennis N6KI

Dennis N6KI writes, "I asked Santa to bring me one of these for Xmas. Just what every "California KiloWatt" station should be sporting in 2012".

More details here: <http://www.rfconcepts.com/PRODUCTS/New-Products/Alpha4040>

We talked about this tuner at lunch at Phil's on Friday with the regular ham radio lunch bunch, and the consensus was that it sure was beautiful, but wouldn't it still be more practical to have a tuner outside near the antenna?



Let's do 10m contest again from Nash W6HCD QTH!

2nd weekend in December

Dec 9,10-11

CW and SSB. All Ops are welcome!

If 10 opens as it has in past couple months we should have lots of activity!

Let me know if you can operate and hours available.

Dennis N6KI

n6ki73@gmail.com

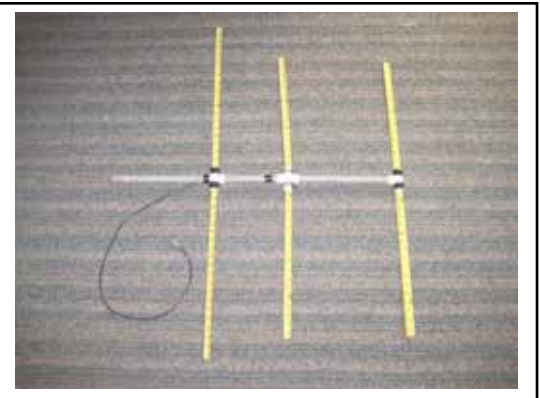
Simple Yagi For Direction Finding

For Operating Day, a demo project was a DF tape measure yagi. The design used was from JOE LEGGIO WB2HOL (http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm) This seemed easy enough and it was! There was a small expense for PVC and hose clamps.

Most of us have broken tape measures that may be laying around. I also had some old coax with a BNC connector. Or, cut a 6 foot BNC to BNC patch cord in half.

Supplies needed:

- 19 1/2 inches PVC plus handle
- 1 T connector
- 2 X connector
- 2 1 inch hose clamp
- 1 5 inch piece of wire (almost any gauge)
- Old (or new) tape measure
- screwdriver
- shears or aviation cutters
- tape
- solder and solder iron
- PVC cutter
- sandpaper



Following the plans was easy. Sometimes you can lose your place with all the hash marks on the tape, 1/16, 1/8, 1/32. After measuring out the tape lengths it is a good idea to round the ends to help prevent sharp edges. Nothing fancy, just a trim in an arc.

Sanding the ends of the driven elements was not hard at all. It took all of three minutes of mild pressure with a medium grit.

The hardest part was tightening the hose clamp to hold the driven element with the match hairpin and coax. Overall a easy project with good DF results. And the tape measure elements make it easy in and out of cars.

Dennis KD6TUJ

Tape Measure Yagi Test

Completed a test of the tape measure yagi made for DF. From Christie McCauliffe School to the TOWizard storage yard is a distance of 3.68+- miles. Height at McCauliffe is 340 feet MSL through a small ridge of 300 feet to TOWizard at 200 feet MSL.

Conrad KG6JIE was using a hand held VX-1 radio at 500mw to the measure tape yagi. Reading on the receiving hand held was 2/3 scale and was readable in an arc of 180 degrees with visual declination about 20 degrees from "center". Using 50mw, the arc decreased from 180 degrees to about 135 degrees. Very noticeable scale readings were seen while sweeping for the source. Again, the center seemed to have about a 20 degree swing. With a attenuating pad, changing frequency up or down 5 kc, or using triple (438 MHz on 70 cm), this should work fine. I will bring the yagi to the meeting. Find the T-Hunt df radio on 146.565.

Dennis KD6TUJ



OPERATING DAY

Sunday, November 20, 2011



Rancho Del Oro Park
JOE AND MARY MOTTINO YMCA
4701 Mesa Drive
Oceanside

9:00 AM to 5:00 PM

HOSTED BY PALOMAR AMATEUR RADIO CLUB

www.palomararc.org

contact Dennis KD6TUJ (760) 672-0223

Come operate on the ham bands at Rancho Del Oro park

70cm, 2m, 6m, 10m, 15m, 20m

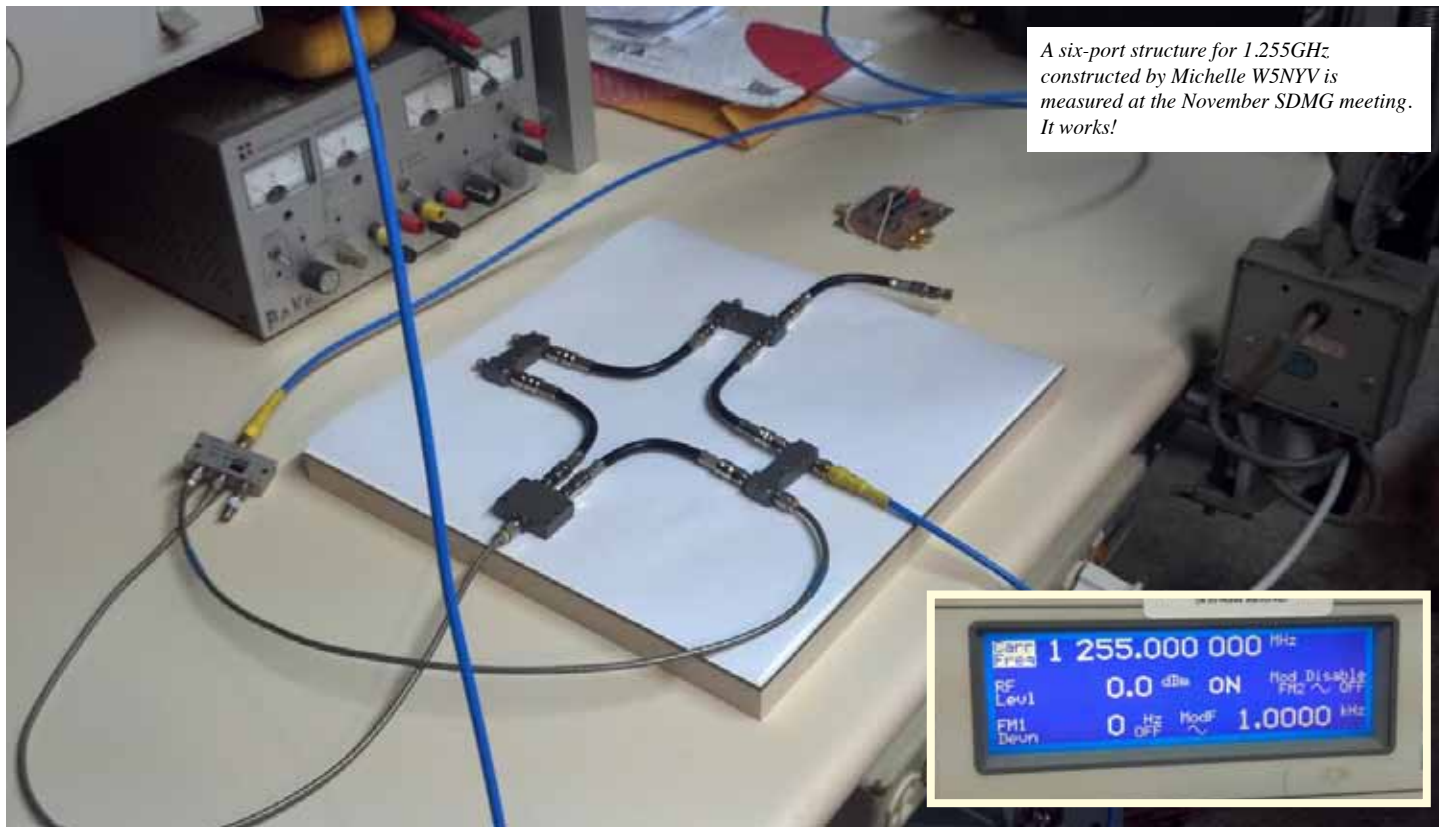


Operating Day Report

Operating Day November 20th was much better than we had planned. The event was canceled on Friday due to weather. Friday was very cold and close to rain. Weather forecast for Sunday was cold (OK) and 30% - 60% chance of rain (not OK) increasing to 80% at night. Knowing from past experience that rain rarely shows in Oceanside, it was really questionable that rain would show up. We still had to plan for public participation. If there is rain, it would be unlikely for people to show up. As usual, the day was better than forecast. We can operate in difficult conditions, but we didn't expect the public to attend.

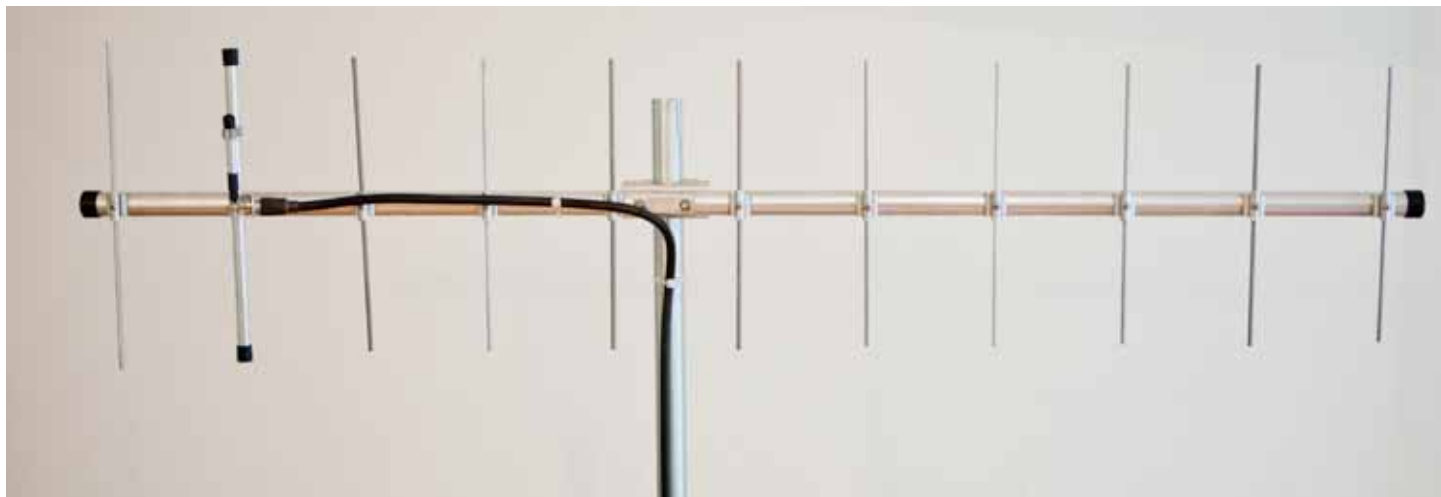
Things we did not do included a bar-b-que, demonstrating direction finding with a project tape measure yagi, talking HF to some foreign location, Ron K2RP bringing vintage tube equipment to make those same contacts sound better, along with members of PAPA showing off what is capable with D-Star. A great day of public Amateur Radio was missed by all!

We'll be planning the next one soon.

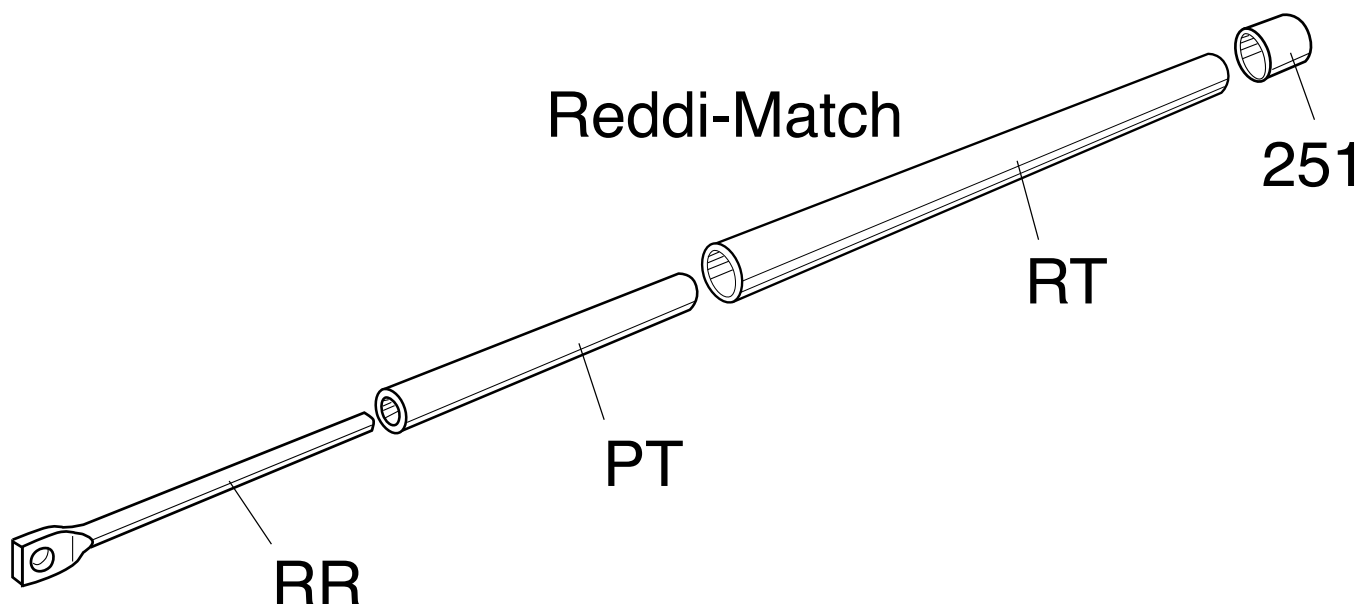


Cushcraft A449-1 70cm FM Yagi Antenna Build Report

by Paul KB5MU

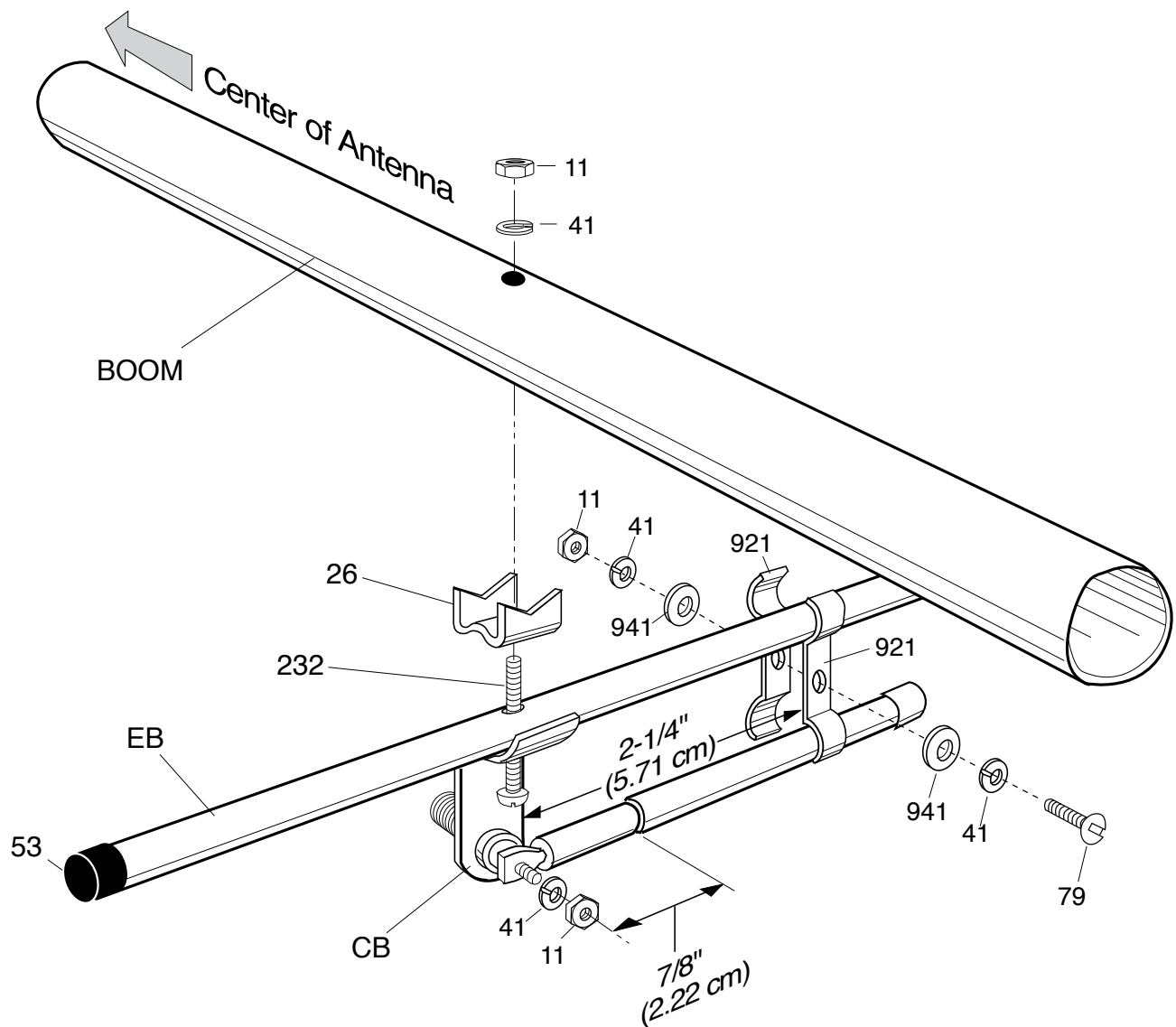


I recently assembled this Cushcraft A449-11 70cm FM Yagi antenna. The guys at Ham Radio Outlet joked that all the parts were "probably" in the box, so I took careful inventory. All parts were indeed in the box, but not exactly as described in the seven pages of nicely-illustrated instructions.



This figure, taken from the instructions, shows assembling the gamma match rod and coaxial capacitor from four different parts. In reality, the whole thing comes pre-assembled and sealed with heat-shrink tubing. That's an improvement, but it'd be nicer if the instructions were updated to match.

The parts list calls for 13 hex nuts and 14 lock washers. I guess MFJ (owner of Cushcraft since 2009) doesn't like counting out individual nuts and lock washers, though, since they came packaged in bags of 6 nuts and 9 lock washers. Three such bags left me with extra nuts and lock washers, which was fine once I figured out what was going on.



This figure, taken from the instructions, shows how the gamma match is assembled and connected to the main boom. The first problem arose when attempting to assemble the two brackets 921 around the driven element EB. The two flat washers 941 were extra-thick ones, and with all the hardware the machine screw 79 was just a tiny bit too short. It was necessary to assemble the brackets around the slightly slimmer gamma match assembly, and then slip them over the driven element. Even then, it was a fiddly operation.

The next step is to attach the connector bracket CB between the driven element EB and the gamma match assembly, which also connects the whole thing to the main boom.

continued on page 12

Minutes

Palomar Amateur Radio Club Board of Directors Meeting

October 12, 2011

The meeting was called to order by President Dennis Baca KD6TUJ at 7:21pm at the home of Ron Pollack K2RP. In attendance were:

President	Dennis Baca KD6TUJ
Vice President	Ron Pollack K2RP
Secretary	Paul Williamson, KB5MU
Director #1	Don Johnson, WD6FWE
Newsletter Editor	Michelle Thompson W5NYV
Membership Chairman	Al Donlevy W6GNI
Repeater Technical Chairman	Conrad Lara, KG6JEI

Secretary's Report

Secretary KB5MU distributed copies of the September Board meeting minutes. Motion by W6GNI to approve the minutes. Seconded by W5NYV. Motion passed unanimously.

Treasurer's Report

No Treasurer's Report was available.

Treasurer KI6LAV had distributed a summary of the auction results by email. Auction volume was similar to last year's, but the profit to the club was lower this year because less equipment was donated to the club for the auction.

Upcoming General Meeting

K2RP reported that the November meeting would be on Go Kits, presented by Ken Cohen KI6HRH. The speaker has a six-page handout, which will be distributed on the club's web site. The December meeting will be the annual holiday social.

Membership

W6GNI reported that the membership is down a few to 257.

Repeater Technical Report

Repeater Technical Chairman Conrad Lara KG6JEI reported that power converters for the packet equipment have been purchased and received, but not installed. Art KC6UQH visited the site and replaced the receive module on the 147.075 MHz repeater. Don WD6FWE is planning to make a 6m J-Pole antenna for the repeater site.

The generator currently at the repeater site is not capable of powering the battery chargers. In order to do that, we need a 240VAC inverter-based generator.

Operating Day

KD6TUJ reported that the YMCA has given permission for us to hold another Operating Day at the south end of the parking lot on November 20. Tom KG6RCW has volunteered to BBQ at Operating Day. KD6TUJ called KG6RCW on the telephone during the meeting and asked about funds for food. Based on his response, motion by KB5MU to allocate \$50 for food at Operating Day. Seconded by W5NYV. Motion by K2RP to amend the motion to increase the amount to \$75. KB5MU and W5NYV agreed to the amendment. Motion passed unanimously.

Possible Sale of Antennas

KD6TUJ reported that Erik KA6UAI had inquired about purchasing one of the Station Master antennas stored at the repeater site beside the storage container. Motion by K2RP to invite Erik to make an offer on the antenna. Seconded by WD6FWE. Motion passed with a vote of 2 aye, 1 nay, and 3 abstaining. KD6TUJ agreed to follow up with Erik.

Memoranda of Understanding

KD6TUJ reported that the Salvation Army had asked to update their oral understanding with the Club

to a written MOU. KD6TUJ agreed to research what agreements are already in writing and follow up.

Offer of a Free Tower

KD6TUJ reported that a 54' crank-up tower is available for free in Temecula. It needs some refurbishment. After a brief discussion it was agreed that KD6TUJ would ask for it on behalf of the club.

SANDARC Bylaws Amendment

KD6TUJ reported that the San Diego Amateur Radio Council (SANDARC) had published proposed amended bylaws. Both Club delegates KG6JEI and KD6TUJ recommended that the Club vote against the amendments. Motion by W5NYV that the Board direct the delegates to vote no. Seconded by WD6FWE. Motion passed unanimously.

Publication of Membership List

KB5MU asked the Board whether it was a good idea to put a list of club members, with their expiration dates, on the web site. The consensus was in favor.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on November 9, 2011.

Adjournment

The meeting was adjourned at 9:19 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

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OUTBACKER
Larsen Antennas
TEN-TEC
Hy-gain, Tri-EX,
Cushcraft And Others
too
Numerous to
Mention!

Drop in to see our display of working equipment. Find out about Pkt location determining equipment (APRS). Check our complete line of magazines, ARRL books, license manuals, and Bulletin Board with all sorts of Goodies listed.

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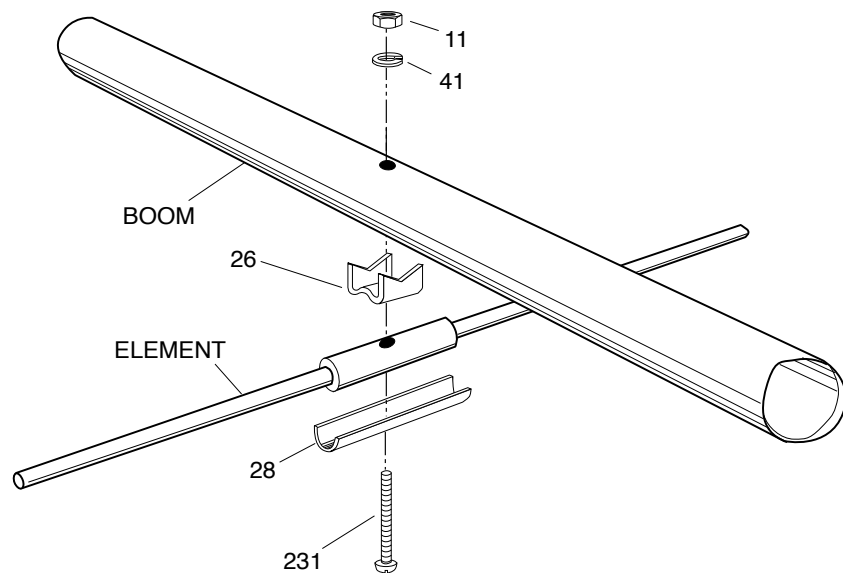
Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!



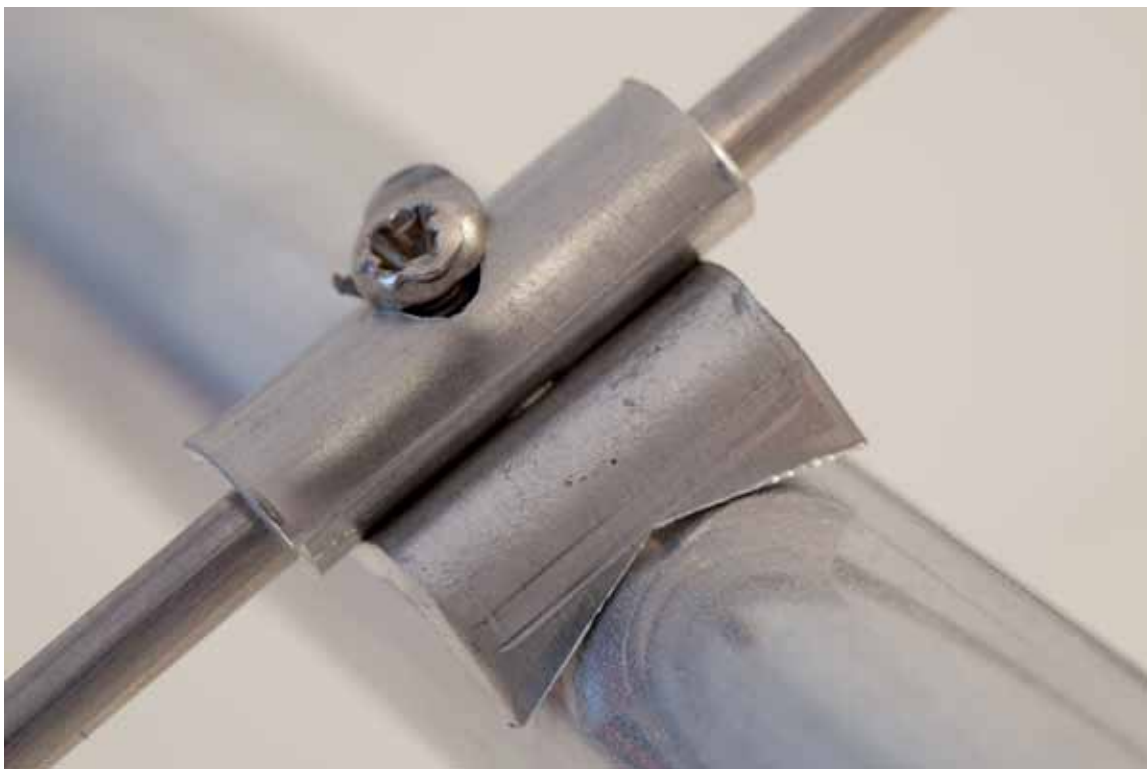
continued from page 9

Here you can see how that turned out, as seen from the end of the driven element. It's clear from the illustrations in the instructions that the connector is supposed to end up parallel to the boom. Unless this is another recent "improvement", the bracket is wrong. Either the mounting hole is in the wrong place on the curved section, or the sharp bend isn't sharp enough. I elected not to rebend the bracket, but I'm worried that I might have trouble fitting on the coaxial feedline if its PL-259 connector is one of the longer ones.

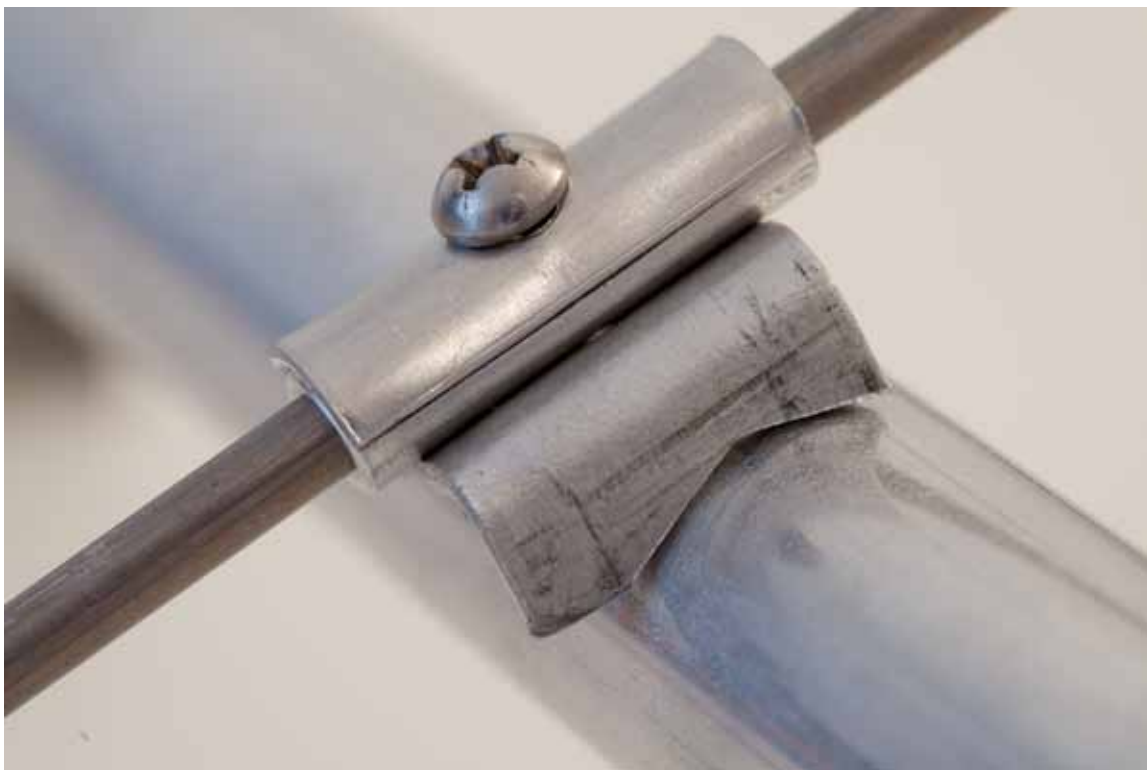
The instructions also say to be sure that the gamma match is parallel to the driven element. It isn't, and there isn't any way to change that without bending brackets. Simply bending the connector bracket to perpendicular will actually make this issue worse. To correct both issues, I'd have to reshape the bracket.



Here's how the elements are attached to the boom. The special shape of spacer bracket 26 is supposed to lock the element perpendicular to the boom and in a consistent plane perpendicular to the pre-drilled holes in the main boom.



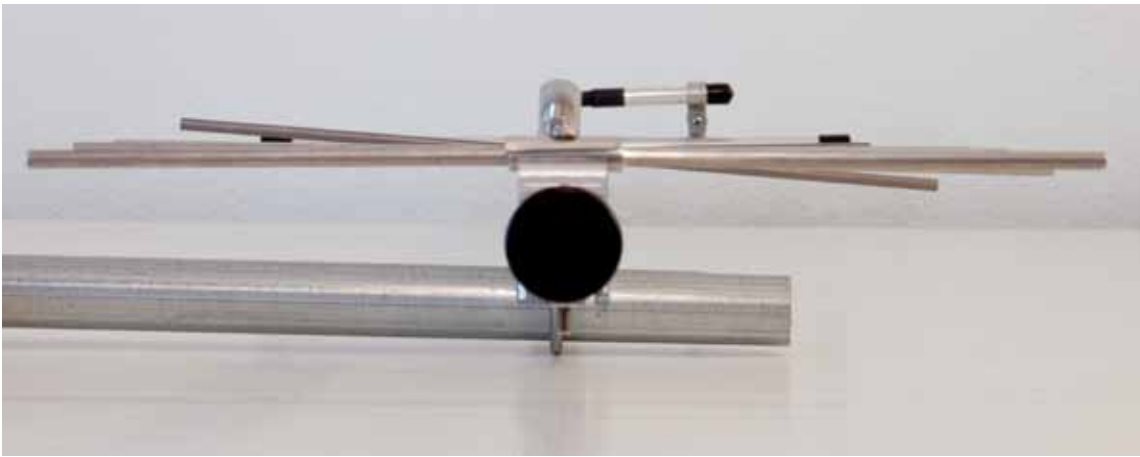
Here's what that hardware is supposed to look like (except for the ugly deformed machine screw head). All but one of them looked like this.



The other one looked like this. See how the notches are off center?

0000z-2400z on 3 December is Skywarn Recognition Day.
Here is an info link:

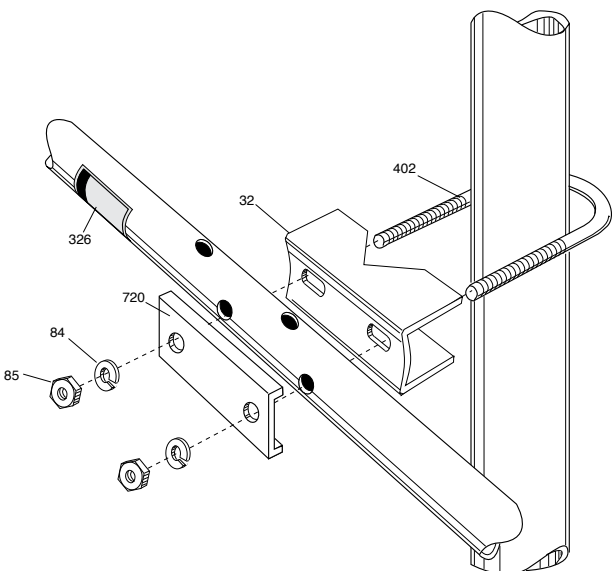
<http://www.wrh.noaa.gov/mtr/hamradio/>



This view from the front of the antenna shows the result: the reflector element mounted on the defective spacer bracket is about 5 degrees out of plane with the other elements. This will probably have a negligible effect on performance, but it sure looks wrong.



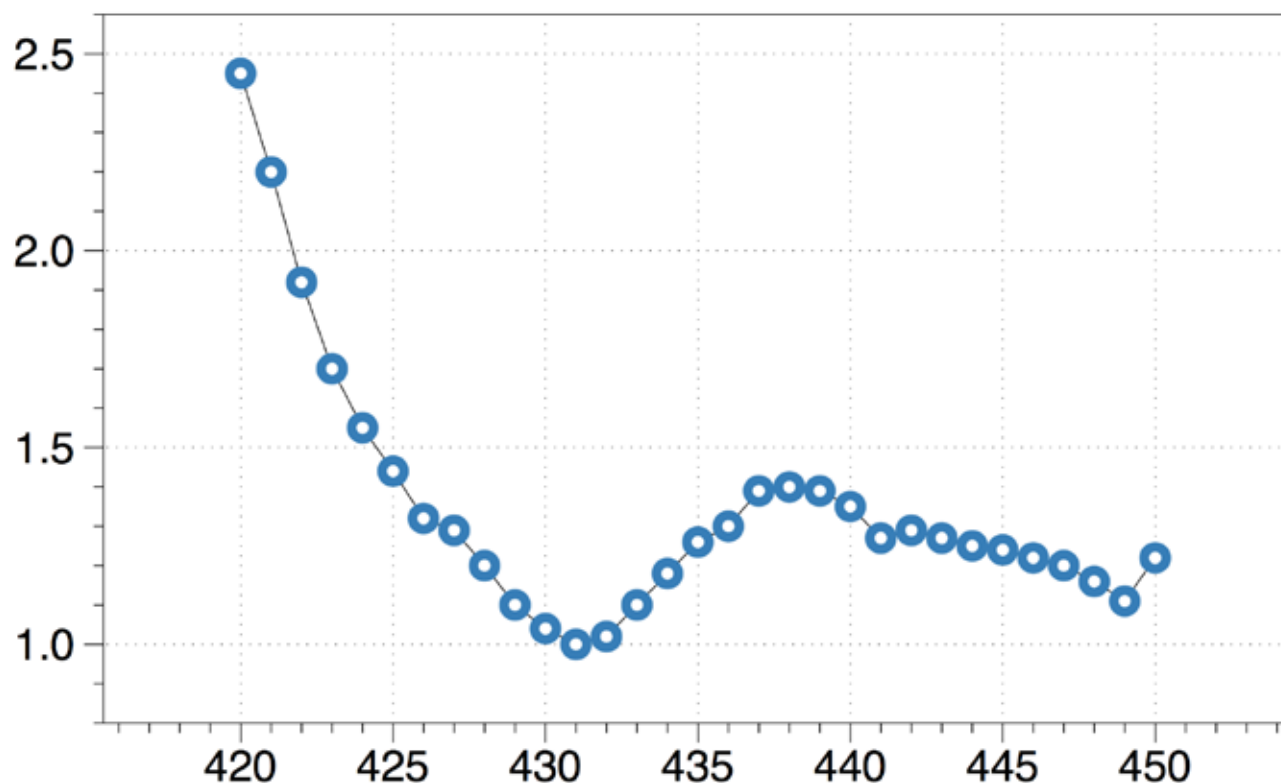
Just for curiosity, here's a closer look at that deformed machine screw. There's extra material on top of the rounded head and a flat tab of extra material beside it. This doesn't seem to cause any practical problems.



This is what the instructions show for the mast mount. The boom is pre-drilled to mount in either orientation. Since it's a single U-bolt mount, it has to be tightened pretty firmly to prevent slippage.



Here's the actual mast mount (one director element has been removed for clarity). The bracket on the mast side is pretty much as shown in the instructions, and is much more robust than it needs to be for an antenna this light. The plate on the other side, though, looks much cheaper. In the instructions it looks like a machined channel, possibly deep enough to cradle the boom. In reality it's a bent piece of thin sheet metal. The bent sides don't come into contact with the boom. If I tighten the nuts on the U-bolt too much, this flat plate will squash the boom.



For a basic functional test, I ran an SWR curve of the antenna, shown here. This is not a laboratory-grade measurement, by any means. It was made indoors with low-cost equipment and temporary mounting arrangements. The antenna is only specified to work from 440 to 450 MHz, the FM repeater portion of the band, so I was pleasantly surprised to find that it is also serviceable in the weak-signal and ATV segments of 70cm.

While setting up the SWR test, I discovered that the dress of the coax cable is critical. I was hoping to get away with not fastening down the feedline for the test, but the SWR varied widely with the position of the coax near the director elements in front of the driven element. Since the mechanical design of the antenna requires the feedline to run along the boom across the center of three of the directors, and then down the mast between the third and fourth director, the coax can't be routed out of the way. The SWR curve shown applies to the particular way I dressed the coax. If I did the test again with a different installation, I don't doubt the results would be somewhat different.

The next step would be to attempt to characterize the antenna's pattern and gain.

Ron K2RP writes about his experiences in the SSB Sweepstakes,

"I Made my first Clean Sweep (all 80 Sections) in 52 years on the air. And, I did it in only 80 contacts! One per section, no duplication. It's called an 80-80, and a couple people do it every year. See you on the 7th, honoring JAs."

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Editor: Michelle Thompson W5NYV

Submissions: scope@palomararc.org

Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:

At 7:30pm on the 7th of December 2011, Palomar Amateur Radio Club will have our annual Holiday Party.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.