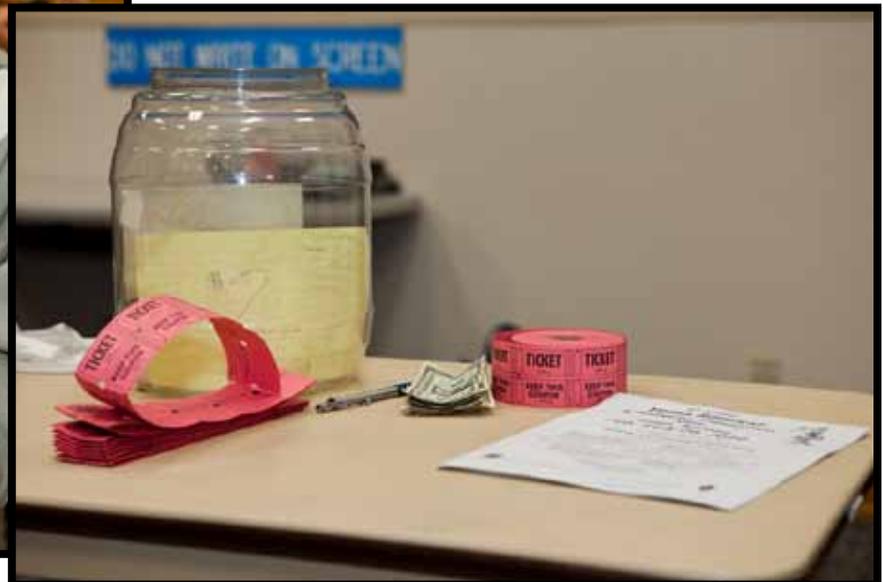
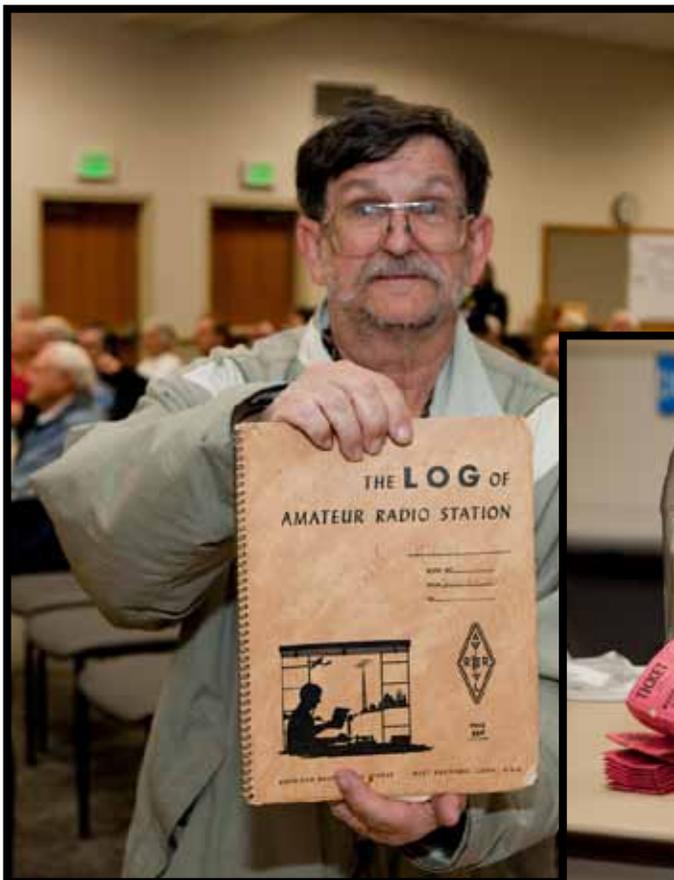


SCOPE

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



Above, Don Johnson WD6FWE holds up a station logbook.

Bring a few extra dollars for the raffle to the March Meeting. We'll be giving away a 2m 50W mobile radio during the meeting if we meet our ticket sale goal!

Save the Date

Club Meeting
3 March 2010

Robert Langenhuisen PA0RYL explains how a radiotelescope was saved in the Netherlands.

Board Meeting
10 March 2010

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

AV4DX Meeting
April 24, 2010

North Sentinel Island DXpedition Meeting 3:00pm Carmel Valley Recreational Center

March Program

by Robert Langenhuysen W0SDR, PA0SDR

Radioastronomy is the ultimate form of DX imaginable. Weak radiosignals originating millions of lightyears away are bombarding the earth continuously but only the most sensitive antenna's and radio equipment are able to detect these signals.

Radioastronomy is a rather new science where radioamateurs have played a major role. Even until the day of today, one can find many radioamateurs amongst the modern radioastronomers.

In the last 5 years amateurs have been very active in salvaging the historical 75 feet parabolic dish in Dwingeloo the Netherlands. This is oldest steerable parabolic dish antenna of this size in the whole world.

This dish was built in the 1950s as the result of the intriguing work of Grote Reber (W9GFZ) who was



probably the only practicing radioastronomer for nearly 10 years at the end of the 1930s.

C.A. Muller (PA0CAM s.k.) was one of the driving forces behind the use of the Dwingeloo dish for radioastronomy in the first 40 years of its existence.

Thanks to the help of volunteers (90% of them active radioamateurs) the dish is in the process of restoration and can already produce very strong EME signals from 23 cm up to 6 cm. The dish also allows amateur radioastronomers to live usage of the dish as a radioastronomy detector by means of the internet.

Robert Langenhuysen W0SDR / PA0SDR (pictured at left) will give a presentation on this unique dish at the March PARC General Meeting.

Membership

New Members Joining PARC:

KJ6CLS, KJ6DYE, KI6GZK, WA1QMI. In addition, we had 7 returning members, reinstating their membership. WAY TO GO!! Please be sure to welcome the new and old returning members.

Please use the firms that support the club, and mention that you saw their advertisements in the newsletter.

And, here is the list of those that receive their SCOPE on the web, who may not realize that their membership has expired. KI6JEX, W6MBM, NO8RF, K6DAF, K6ROY, K6PPG, and W3LFR. 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 its members!!

AI
W6GNI

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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**
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See catalog at www.Palomar-Engineers.com

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

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For Sale

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

Classified ads are free for members of the club.

For Reasonable Donation To The Club

The following items are offered.

Swan 500 HF Transceiver with Power Supply, cables, and manual. Works well, but meter sticky. Needs cleaning.

Kenwood TS 520 HF Transceiver. Internal Power supply. Power cable, mike. No manual (available for download on internet.)

Works well in the top 200-500 kHz segment of band, unstable from 0-200. Needs thorough cleaning of VFO. Can be used as-is for most of phone portion.

Ameritron Remote Antenna Switch Model RCS 8V. This allows one feedline for 5 antennas on your tower. This is brand new in the box, and current production. New price is \$170.

There will be lots of smaller goodies on the table next meeting

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Wild Bill and Ellen February Meeting Program

Summary by W5NYV, photos by Paul KB5MU

Wild Bill and Ellen narrated their many photographs from their recent trip to Jersey Island at the February PARC membership meeting. The CQ WorldWide (CQWW) contest is held during the last full weekend in October. For the contest, the team, which included Bill WB6BFG, Ellen N6UWW,

Laptops and K3s were the instruments of choice for the DXpedition. 40m was alive day and night. The team ended the contest with 7,018,488 points in 48 hours, which was down about 2,000,000 points from last year's DXpedition to Honduras.

Questions from the attentive audience (kept awake by loud bursts of static from the wireless microphones) were "How bad were conditions for the East Coast?" and "How did you like the K3?" Wild Bill and Ellen explained that while conditions were great to the East Coast of the United States, the West Coast was opened very rarely. The "usual suspect" big gun stations with



N6AA, N6VI, W6XD, W6NV, AB6BH, OH1VR, OH2KI, and W6XD's YL. had a successful "Suitcase DXpedition". Jersey Island, part of the UK, is in CQ zone 14. The operating site was a World War II signal tower with three feet thick walls and doorways five and a half feet tall. The tower was built by the Todt Soldiers as part of the Atlantic Wall and was meant to last all 1000 years of the Third Reich.



Jersey Island is part of the Channel Islands. On a map, it can be found close to France. Full-size yagis and wire antennas for the low bands were brought along on the DXpedition. Once at the station, which is a club station of Jersey Amateur Radio Society (JARS), the team tore it apart, installed antennas in between dodging rain and enjoying rainbows, and then got to work.

stacked beams at 130ft got through, but no one else was heard.

At the end of the contest, the station was restored to better condition than when they found it, and Wild Bill and Ellen departed for a tour of London. They visited the prime meridian at the Royal Observatory, had tickets for an Elton

John concert and actually saw ZZ Top in concert, experienced Halloween in Dublin, Ireland, partied with some crazy Scots, and made it back home in first class due to some low friends in high places. Thank you Wild Bill and Ellen for a great presentation to the club!

December Board of Directors Meeting Minutes

The meeting was called to order at 7:07 PM by President Dennis Baca KD6TUJ. The meeting was held at the home of Al Donlevy W6GNI.

Treasurer's Report

Georgia – KI6LAV presented the November Treasurer's report – Total Assets \$12,187.49, Total Liabilities are \$5656.00. A motion was made by KB5MU to accept the treasurer's report, seconded by KG6JEI. Approved.

Secretary's Report

Gary- W6GDK presented the November Secretary report prepared by Loren Hunt- AD6ZJ, the outgoing secretary. Moved to accept by KI6LAV, second by KB5MU Approved.

General Meeting

January meeting will be Monica Zech.

Membership Report

Presented by Al W6GNI- Current membership is 288, with 114 non-renewals in 2009. Al proposed sending a Renewal letter to all non renewals. It was also suggested that we setup the website to allow payment of dues by Paypal.

Repeater Site/Technical Report

Considerable work was done at the repeater site to the power supplies and batteries. Much remains to be done. Need at large 13.8 VDC supply also.

Discussion items:

An expense item to RF Parts for repeater site materials was discussed by KI6LAV- mostly how to post the expense.

Liability insurance of \$340.00 is due January 10,

Upcoming General Meeting Topics

March "How a Radiotelescope was Saved"
Month TBD - Lin Robertson KJ6EF – Vintage broadcast radios
Month TBD - KC6YSO – AM and other boat anchors
Month TBD - AK6QJ – Subject TBD
Month TBD – Ed Zeranski KG6UTS – Military radios

2010. Motion to pay made by K2RP, second by KB5MU Approved

Appears to be an issue with the PA on the 147.13 machine causing static on the 147.075 repeater.

Meetings – February is the 74th anniversary

April might be contesting 101 by N6KI
Several ideas for future meetings were discussed.

Packet monitoring of the packet repeater to determine usage has been started.

OLD Business

Generator – propane conversion of the generator is still needed. Paul noted we need to think about a completely remotable generator system so it can be started automatically or remotely if access to the mountain is restricted. No motions.

Board Members Attending December Meeting

President Dennis Baca KD6TUJ
Vice President Ron Pollack K2RP
Secretary Gary Kent W6GDK
Treasurer Georgia Smith KI6LAV
Director #1 Paul Williamson KB5MU
Director #2 Conrad Lara KG6JEI
Membership Al Donlevy W6GNI
Scope Editor Michelle Thompson W5NYV
Repeater technical chair Mike Pennington K6MRP

February Membership Meeting Photographs



Top row, Wild Bill WB6BFG expounds on the DXpedition to Jersey Island. Middle two photos are Loren AD6ZJ practicing for the QLF contest to be held at the August picnic, and Dennis N6KI telling us to forget about it. Bottom photo is Ron N6XT with coffee, heading over to the goodie table. Coffee provided at every meeting, thanks to Jim W6SST. Photos by KB5MU.



Goodie Tables!



Above and left, 74th anniversary Capacitor Cupcakes were on the goodie table, along with cookies. The blue cupcakes were made with white cake cupcake mix, and blue fondant icing over a layer of white buttercream. 74 was painted on with black icing. The W5NYV household enjoyed baking them.

When will Conrad's brownies be seen again? Inquiring minds and impatient taste buds want to know.

Below and below left, items and people visit the other goodie table, across the room from the food and coffee. Here is where items are available for any reasonable donation to the club. Typical items include books, parts, chassis assemblies, magazines, components, and occasionally tools and complete systems. Bottom left corner - that's me, W5NYV. Photos by KB5MU.



San Diego City Antenna Ordinance Update and Call For Action

Following is the introduction from <http://sddxc.org/tower/>

"Thank you for taking an interest in the City of San Diego's proposed ordinance to create an overly restrictive, expensive and burdensome process which will effectively quash the efforts of many amateur radio operators from doing what they are licensed to do by the FCC.

The current form of the ordinance restricts antennas to 40.5' in about 50% of the most populated portions of the city, and 70' elsewhere, unless a ham is willing to deposit \$8,000 plus countless thousands more in fees, costs and additional deposits (there is no limit). The ordinance is vague enough that the city can potentially choose to restrict towers altogether in certain planned districts in the future – though, at least for now, that is not the case. Perhaps worse yet, the city can require the ham to obtain expensive expert studies, without any limitations, and undergo countless community planning group presentations, only to have a final decision conditioned to make construction prohibitively expensive. And if that's not bad enough, there is no guarantee of approval, which can mean tremendous losses of time and money, with only the hope of getting a court to overturn the city's decision (again, at great cost to the ham).

We ask that you review the time line on the DX

Club website at <http://sddxc.org/tower/>. Please read the documents submitted and the city's ordinance and negative declaration, so you can understand how awful the situation really is.

But don't lose hope just yet – you can help! We ask that you write to council members and the Mayor (jerrysanders@sandiego.gov), and show up to public hearings to fight the good fight with us. If we don't succeed now our options will be limited – an expensive court battle or living with a bad law costing individual hams ungodly sums of money. Neither choice is attractive!"

As a property owner, tenant, or person who has requested notice, you should know that the Planning Commission will hold a public hearing to recommend approval, conditional approval, or denial to the City Council of proposed Amateur Radio Communication Amendments to the Municipal Code and Local Coastal Program that would amend Land Development Code Chapter 11, Article 3; Chapter 12, Articles 6 and 9; Chapter 13, Article 1; Chapter 14, Article 1; and Chapter 15, Articles 1 and 5. Amateur radio communication is a legally protected form of communication that can be beneficial for emergency response and disaster preparedness. The amendments would clarify that communication by licensed amateur radio operators is a permitted land use in zones citywide. The amendments would also clarify the applicable height and placement criteria that apply to minimize negative impacts of associated amateur radio antenna structures, and the



available discretionary permit process to request special height or placement accommodations to achieve effective communication. The proposed Amateur Radio Communication Amendments are subject to Process 5.

Please consider attending the hearing. Making your presence felt is a vital part of the process of lawmaking. The proposed ordinance will affect you.

Notice of Public Hearing and Notice of Availability
Planning Commission Recommendation

DATE OF HEARING: February 25, 2010
TIME OF HEARING: 9:00am
LOCATION OF HEARING: Council Chambers, 12th Floor, City Administration Building, 202 C Street, San Diego, California

PROJECT TYPE: Process 5 Amendments to Municipal Code/Local Coastal Program
PROJECT NAME: Amateur Radio Communication: Amendments to Land Development Code and Local Coastal Program

APPLICANT: City of San Diego, Development Services Department
COMMUNITY PLAN AREA: citywide
COUNCIL DISTRICT: citywide
CITY PROJECT MANAGER: Amanda Lee, Senior Planner
PHONE NUMBER: (619) 446-5367

The proposed amendments would allow amateur radio antennas to exceed the maximum zoning height by 35 percent or up to 70 feet above grade, whichever is less, through a staff level decision (Process 1); except in the Coastal Height Limit Overlay Zone, Clairemont Mesa Height Limit Overlay Zone, Planned Districts, and Historical Districts/sites containing historical resources, where the maximum height of the applicable zone would apply to ministerial antenna requests. City-wide, antenna placement would be required to meet the setback standards of the applicable base zone, and may not encroach into environmentally sensitive lands, or into a designated public access way or public view corridor identified in an adopted land use plan, unless such placement met the deviation requirements discussed below.

The proposal would allow for site specific deviations to be requested citywide with a Neighborhood Development Permit (Process 2) to allow for effective communication by reasonably accommodating amateur radio communication in accordance with State and Federal law.

The decision to approve, conditionally approve, modify or deny the Amateur Radio Communication Amendments will be made by the City Council at a public hearing.

Panorama stitched together on site in camera at the December 2009 membership meeting by Don Johnson WD6FWE.





Club Survey

Please Complete and send to scope@palomararc.org

I work: (circle as many as apply)

HF 6m 2m and up ATV satellite

other:

I would like to work: (circle as many as apply)

HF 6m 2m and up ATV satellite

other:

I would like to learn about...

Programs I would like to see are...

I enjoyed programs either about or by...

How can PARC and it's members help you?

Is there something you can offer to help PARC?

What do like about PARC?

OPTIONAL

Your name, call, and contact information and preferences, in order to continue the conversation.

Thank you!

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Greetings from AD6ZJ, Loren

Many of you know me as the past PARC secretary. Others may have seen me do a presentation. Today I find myself in a new role for the club. After seeing the Repeater Technical chair position go vacant for over a year I decided to accept the position when Dennis KD6TUJ (our pres) asked me in January. Not that I am an expert on repeaters, far from it. I am just a club member willing to step in and learn as I go. There are actually several important club positions that could be filled with the same willingness by club members with a willingness to learn (the Repeater Site chair or the Field Day Chair for example). Since I have an engineering background I figured I would tackle the technical chair post. Others will need to step up for the other vacant positions. Since I don't know what I am doing and not having an abundance of spare time I naturally will be asking the assistance of others. WB6IQS (John) and KC6UQH (Art) and others have already started the process of getting me up to speed. I had no idea how much they did for the club until I started getting involved myself.

It would be great to put together teams of experts and beginners to accomplish the technical tasks needed on the repeater site. Please consider joining the list of those willing to get involved. If you're an expert your input and time will be much appreciated. If you don't have a clue about repeaters but want to help, we will learn together. If you don't have a clue about electronics but want to learn, we can help. There are club members (myself included) who would be happy to share what we know.

So what will we try to accomplish this year? We actually have several tasks underway that can use additional work and then we have projects not even started and others not yet on any list that we might want to tackle. Of course we also have the job of repairing the repeaters when they go down. Here is what we have going on right now.

Power Supply upgrades – We are in the process of converting our aging inefficient power supplies with modern 48VDC to 13.8VDC DC to DC converters. We have already upgraded the voice repeater power supplies and need to upgrade the Packet repeater supplies. Our former Site Chair K6MRP (Mike) did an outstanding job running the 48VDC from the battery room to each Repeater room so all that remains is swapping out a few more supplies. Currently all of the newly installed power supplies are just sitting next to each repeater and these need to be mounted on plates. With all the repeaters running directly off battery power we need a new way to monitor when there is a power failure (has anyone noticed a lack of the "P" from time to time? Now when there is a power failure the repeaters just go on working with no relays to switch to restore power. This all works until the batteries run down and then nothing would work. We need to create a voltage monitor so that a generator

can be switched in when during an extended grid failure and in the event of a generator failure we need to shut off the less used repeaters to conserve battery life for the repeaters in constant use. To shut off what is not needed we should be using a radio link for remote shutoff but the link we had is not adequate for our needs and a new one needs to be designed.

Power Amplifier upgrade – The power amp in one of our repeaters has a few issues causing it to put out more power than needed. Nothing wrong with a little more power you say? Well, as it turns out this extra power causes some inter-modulation mixing between repeaters (sometimes heard on the 147.130 machine). So a new amp is nearly complete but needs an attenuator built and a full test. Then it needs to go up the hill and get installed. The installation will not be a drop in replacement but rather will require a little thought during installation.

ATV Repeater restoration – The PARC ATV repeater is currently down and there is a debate over just what form it will take when it goes back up. Art may need some assistance in getting it back together and at some point it will need to be reinstalled at the site.

Repeater spare parts inventory – The repeaters at the PARC site are older units that need some work from time to time. The older units are actually better because you can work on them and fix them without exotic components. We have a supply of extra boards for these units. They need to be tested and those found bad need to be repaired. The tested good boards will then get inventoried at the repeater site for when a repeater goes down allowing the down time to be lessened.

Packet Stuff – Some think packet is dead, others use it every week. We have three packet machines for various purposes but not getting much use. Maybe there are better ways to utilize them.

New technology – There are various ideas people have had about putting some new mode into service. As time permits we will look into the practicality of implementing some new technology. Do you have any ideas?

Did you catch it? There is a whole list of little and not so little tasks just from this short list. Can you handle hooking up power supplies or mounting them? Maybe you have what it takes to design a voltage monitor or a remote shutoff controller. Maybe you have some skills in TV land and would like to learn about ATV. The point is there are many things that need to get done. With just a few doing the work (in our spare time) the list will be ever growing. On the other hand, with a small team of willing club members things can get accomplished and we can all learn and grow in the process.

Please consider joining me in keeping our repeaters in top form. If interested or if you just want to know more please email me at AD6ZJ@ARRL.net.
73, AD6ZJ, Loren

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Editor: Michelle Thompson W5NYV
Submissions: scope@palomararc.org
Questions? Ideas? Comments? W6NWG@amsat.org

Featured Program:



Robert Langenhuisen, who holds the ham radio call sign PA0RYL in his home country of the Netherlands and W0SDR in the United States, is in San Diego for a couple of months. He has graciously agreed to tell us the story about how he and a number of other ham radio operators in the Netherlands saved the oldest steerable radiotelescope in the world from demolition. They converted it to a station that bounces signals off the moon and use it for amateur radioastronomy. This promises to be an unusual and memorable program!

Here is Robert's description of his program:

“In the Netherlands I have brought together a large number of hams and other volunteers to save the oldest steerable 100-foot radiotelescope in the world from being demolished. Over the past years, this resulted in the radiotelescope being converted into a fully operational EME (moonbounce) station that can be active on all ham bands from 23 cm up to 6 cm. Moreover, it can also be used by anyone that is interested in amateur radioastronomy. It can even be used over the internet. More information on that can be found on <http://www.camras.nl>.”

Palomar Amateur Radio Club meets the first Wednesday of the month at Carlsbad Safety Center, 2560 Orion Way. Room opens at 7:00 pm. Program starts at 7:30 pm. Visitors are welcome. Coffee and light refreshments will be served.

Interesting Dial Photo by KB5MU