

Save the Date

Club Meeting

5 August 2015

DX. Online tools to improve DX experience. By: W6HDG (Howard Groveman).

Board Meeting

12 August 2015

Palomar Amateur Radio Club board meeting at 7:00pm at W6GNI QTH.

Club Events 23 August 2015

Club Picnic! See page 11 for details. Work party on the 9th, see page 3.

Advertisements are free for members

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

Wanted: E. F. Johnson electronic T-R switch, working or not. Matt, 619-865-8497, ae6hf@arrl.net. Matt AE6HF

Goodie Table Update For August!

WB6IQS will bring three 2-meter beam antennas (9 to 11 elements each) and several UHF antennas. There also will be bulk RG-58/U cable (no connectors), resistors / capacitors and antenna tuner parts.Contact WB6IQS@att.net for any specific requests. John Kuivinen, WB6IQS

Amateur Radio will be a big part of the San Diego Maker Faire. This will be an amazing event full of all sorts of DIY techie goodness! It's the world's biggest show and tell.

If you are interested in volunteering for the Maker Faire through PARC, or volunteering directly, then contact: Michelle at w5nyv@yahoo.com



SCOPE page 2



Work Party Announcement

I am scheduling a work party for the repeater site on August 9th, the Sunday after the meeting. Primary goal is to chip the loose paint off the freezer building and primer it. A follow up work party will paint a coat of a good outdoor paint to better blend into the area.

This is a good time for members, including new members, to help the club and learn about the repeater site.

Gathering time is 10:00 AM at Mother's Kitchen at the top of Palomar for transit to the site. Those that wish may come early to enjoy the fine food and company at Mother's before the work party.

A reminder to all, APRS units are to be disabled during the work party.

Dennis KD6TUJ Site Chair Please support our advertisers. Their support of the club is vital.

{special} THANKS to our sponsors



President's Corner

Hi all PARC members. It is now August and we are on the downhill of the year. We only have 145 shopping days to Christmas. It is time to start preparing that "Santa list" so Christmas morning finds your new radio gear under the tree!

A couple of happenings to note this month.

Publishing of the Scope newsletter will be troublesome for a few weeks, or months. We received sudden notice from the gentleman who printed Scope for mailing, that because of a health condition, he would cease his printing business the end of this month. As you can imagine, finding another person or company who can print our Scope newsletter will not be easy, so the paper version of Scope will be delayed for some time. This has no impact for those who receive Scope by email. That will continue as always. The club Board is looking at all alternatives. Some of you may consider opting to receive Scope by email. If you wish to do so, you can follow the information on our Club Website at the following link:

http://palomararc.org/news.htm

August is our Club picnic. This year it is Sunday, August 23rd at San Dieguito State Park. So come on out to the picnic, have some fun and camaraderie, and take a chance at getting a drawing prize.

Congratulations to KD6TUJ (Dennis), and KI6RXX (Gregg) on receipt of their ELMER awards on behalf of W6NWG (PARC). They received the awards for their harmonious and longstanding contribution to the efforts of many ham radio operators throughout San Diego County.

Last, but not least. Last month began too soon after Field Day. Our FD was a tremendous success as I commented last month. We we now have a carefully tallied FD score. PARC participated as a 4A station, and our point total was 8484 points. Read about FD elsewhere in this Scope.

Bylaws Committee

A Bylaws committee was formed a few months ago with the primary focus on how to adjust the bylaws so the SCOPE can be sent primarily by electronic means. Preliminary motions have passed.

Those availing themselves to the committee are Charlie NN3V, Kevin KK6FRK, Richard KG6WUY, Greg KI6RXX, Conrad KG6JEI, and Dennis KD6TUJ, who was appointed chair.

Recently, it has brought to the attention of the Board that there are items in the Bylaws that have WILL, such as "Successful applicants will be introduced at the next meeting." This might be a word change to "may". Other items may be discovered.

Reviewing the direction given to the committee, it was determined that the newsletter issue was not defined as the only issue that could be considered. The committee has now been tasked to do a review of the whole document to determine IF any changes are required. Another item that was brought up was that the Bylaws original document can not be easily located. It may be in the bank box, and will be checked. If not, there may be a question to approve the copy on the webpage as a "final" document. Research continues.

Any concerns should be directed to one of the above members for consideration, response, and action.

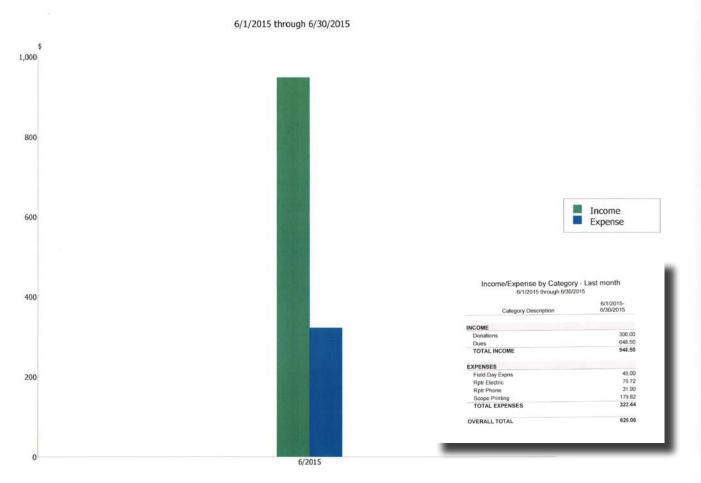
Dennis



PARC Field Day Efforts, photos by Paul KB5MU

Club Financial Update

Income/Expense by Category - Last month



6m Repeater Repair Update

"I was very pleased to purchase from John, WB6IQS, a Hewlett Packard Model 141T 0.5 to 1.3 GHz RF Spectrum Analyzer. While studying the documentation, I realized that having the matching HP 8444A Tracking Generator would complete the instrument, making it more effective for characterizing filter networks, tuning cavities, etc. I was subsequently able to procure an 8444A in excellent condition, on eBay.

I am now practicing alignment and use of the Spectrum Analyzer, and also practicing basic cavity tuning techniques on a single 2M pass cavity that I happen to have at my QTH:

Once I get the hang of this, and have time available during daylight (since the cavities are outside, on my covered patio), I will begin to document the current state of the 6 meter cavities, prior to the start of the upgrades, and retuning."

John W6JBR

Get Better Organized

For Contests

When viewing the Southern CA Contest Club (SCCC) Website

http://www.socalcontestclub.org/

Where Jim does a great job reporting SCCC member contest score summaries, I noticed that the list of operators participating in the NX6T efforts was not complete and emailed Jim the editor and he explains below why.

Looks like several of NX6T ops have not registered/joined the SCCC - Well it would be great if you are a regular at NX6T that you might considering joining SCCC. There are NO DUES and occasionally an informative meeting is held but no requirement to attend.

What does help, if you join SCCC is that your scores when you operate from home can be added to group efforts where SCCC competes with NCCC and other clubs working same category of contest we operate.

Here is the sign-up sheet, let me know if you decide to join.

Check out SCCC website and please join SCCC so we can add your scores when we donate scores for group categories when you operate using your own call

http://www.socalcontestclub.org/join.php

You can check here to verify you are on membership list in case you are not sure whether you ever joined and that you are on the list

http://www.socalcontestclub.org/roster.php

Thanks and 73,

Dennis N6KI

For Observation

Want to keep an eye on Palomar Mountain? Bookmark this internet camera link:

http://hpwren.ucsd.edu/cameras/L/hp-n-mobo-c.jpg

For Your Shack

Check out this before and after photo set. Let it inspire you to improve your own hamshack!

How about a Shack Series? Send your shack photos/makeovers/war stories to scope@palomararc.org



Before... a box of parts. What the heck is in there.



And after! VHF station with computer integration. FLEX 1500 in the wings ready to go once appropriate antenna goes up.

Field Day Report

Field Day is over. See page 9 for our final results. Overall I would say this years Field Day went well.

Knowing that we had lost our former site in San Marcos to the California Department of Motor Vehicles, we started planning early. Since visits to the DMV are never fun, we certainly weren't going to go there for Field Day. Qualifications for a site seemed simple: an open space of about 1000 foot diameter, with the ability to point the antennas northeast with no major power lines directly in the way. Seems simple enough. After all, there are many empty lots scattered around the county. Even simpler than that was the ability to locate said potential properties on Google Maps, determine their orientation and size with Google Earth, and then go to street view in Google Maps to read the corner sign and find the number to call the owner. Except for one problem. No one seems to appreciate ham radio, Field Day and what amateurs do for the community in a time of an emergency. Even if they do, they all seem too worried about the liability of our event to offer us temporary space. I got many different colorful answers ranging from "No Thank you" to "Absolutely NOT, why would you even think of asking, you are wasting my time."

Oceanside gave its usual answer of possibly, which would include an outrageous nonrefundable upfront application fee, with them taking more than half the year to determine if the site is safe and available for us to use, and suggesting that we might want to reschedule for a later date or be more flexible about the date based on how long it could take and when they would decide to give us an approval. Oceanside even backed up that answer by stating that we would not be allowed to use water to weigh down the towers because of the fact we are in a drought situation. Basically another NO for us.

In late May as Field Day came ever closer, we got tentative approval for a site located not far from the club meeting location in Carlsbad. This was great because the site would be easy to find and in a familiar location for club members. In addition, the site being in Carlsbad should be nice and cool, which is a nice change from the San Marcos heat, and we could finally start the rest of the planning for the event and advertise the site. During the club meeting we announced that we had a site only to find out a week later that the owners of the site got cold feet and backed out of the offer. Back to searching for a site, now with only a few weeks left.

OK, now it was time to start contacting some of the usual volunteers and see if they were still interested in attending the event considering the fact that we still did not have a site. This included our Field Day chef Gina. Gina responded with the suggestion that we use a property in Valley Center owned by the Valley Center Water District and that she could help coordinate approval. We got a same day response from them. It was YES pending we met two conditions. We had to be non-profit and had to obtain insurance. Well, we are non-profit, and we obtain insurance every year for our events like Field Day. Piece of cake! We had official approval by end of week. WOO HOO, we now had a site.

Dennis and I took a trip that Wednesday to check out the site and do further planning. We wanted to determine the exact location of the site, any necessary prep work for the site like mowing, and the site layout. We came to the location but there were multiple lots that could have been owned by the water district. Which one was ours? We decided to ask the fire department directly across the street from the potentials. Surely they would know. That's when it hit us. There was a fire department across from our site location and we still needed water for the tower supports. We stopped in to ask them. They gave us the location of the site and even agreed to fill our water supports for us. I was surprised to learn that they are required to track the amount of water taken from fire hydrants and to report that figure, but nonetheless we had a site and water. Even better was the fact that the site had just been recently graded. The site was flat, and even larger than we needed.

Setup started on Friday by collecting the gear at about 8:00 AM at Towizard. Transportation was easier because I was towing the bird cage which made for a great spacious transport vessel for all the club equipment. After collecting the gear we were on our way to the site. We arrived about 11:15. Then I was off for a quick trip around the corner to get the site key. Since we only had insurance for Friday through Sunday, they would not give us the key any earlier than Friday. We *continued page 8*

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had a lot less help for setup this year than in years past. I think this was largely caused by us not having a location until last minute. With less help, the workload was heavier on all of us. Remember, many hands make light work. This would not have been as big an issue except for the fact that it was HOT. We were in Valley Center and it was probably close to 100°F.

Setup seemed to go smoothly until we got to the station boxes. Did I mention it was HOT? One might think that if the boxes were organized last year after Field Day and not used until now that they would still be organized. This would be the case, only that certain members who inspected the equipment to ensure it was still working and reorganized it, did not know that we had discontinued the use of the internal rotators because they are nothing but trouble. Guess we were back to using one this year. After remodifying the tower to accept an internal rotator, we were back on track. The Valley Center Fire Department, after their long journey to our site right across the street, arrived right on time. Conrad took them around to each station to ensure the trashcans were in the correct locations and to grab photos of the fills while we continued to set up the other stations.

Now if only we had enough people to raise the towers. The biggest tower requires an absolute minimum of 10 people to raise with the 11th person standing by watching for safety. We only had 9 people. We were short two people. It was HOT so time for another break at the midway. Then to my surprise, two more local hams showed up. We now had enough people to continue the work. It only took us about another 15 minutes to rest up from the heat and start working again. Off to the heaviest tower to finish and raise. We then went one by one until we were done. We finished around 6:30. After setup, we all retreated around the corner to Portinos, a local Italian and pizza place recommended by Gina, for food and libations. Boy was it good.

Saturday started out well. Breakfast by Chef Gina. Then it was time to crank up the station towers. Did I mention that internal rotators are nothing but trouble? John WB6IQS warned us. We should have gone back to Oceanside to get the other style rotator but we decided instead to use the internal. Came time to test the rotation of my antenna and get it pointed in the right direction only to find out that the rotator control wire had pinched and broken off. This was on the heaviest tower, so lowering it was not the best solution. After fixing the cable the 20m SSB station was ready to go. All other stations were on the air by 11:00. On Saturday we were visited by ARRL Section Manager Steve Early (a former PARC President) as well as a council member from the City of Poway. We also had attendance from local CERT and our GOTA station and information booth had a lot of public participation. Our Saturday lunch and tri-tip dinner was extraordinary as usual. The 20m band seemed to be well open this year while the other bands had little action. This was in contrast to last year where 15m seemed to dominate.

Tear-down on Sunday went very smoothly until we got to my station. Did I mention that pesky internal rotator? Yep, you guessed it. They are nothing but trouble! While attempting to rotate it back to the position necessary for lowering the tower, the control cable was severed again at the base of the rotator. We could not lower the tower without risking damaging the antenna without getting the antenna rotated in the proper rotation. After solving that problem we vowed to never use internal rotators again. We finished packing up and left the site. That's when Conrad who was the tail vehicle noticed smoke coming from the wheels of the trailer that stores all the club towers. A rotator pipe had come loose, slipped over the side of the trailer and wedged itself in between the tires, wearing one completely down to nothing. We were not even a quarter of a mile away from the site when this happened. After spending almost an hour attempting to free the pipe and realizing that we would lose that tire, we also learned that there are not many tire repair shops open on Sundays. Thankfully where was one open in San Marcos and we had a spare tire on board. We would have changed it ourselves except for the fact it wasn't seated on a rim. After stopping in San Marcos to fix the tire we arrived back in Oceanside around 5PM. Richard, Conrad and I unloaded the gear and then Field Day was finally over. Now I still had to return the bird cage. Next steps would be to compile the results and submit our score. Field Day is a group effort and our club sure puts on a great effort each year. The Palomar Amateur Radio Club Field Day Extravaganza isn't accomplished without all the hard work and support from our membership. Thank you to all who helped make this year's Field Day a great success! If anyone is interested in running Field Day next year, I am more than willing to help them out. :-)

Look forward to seeing everyone next year at Field Day.

73 DE Greg Gibbs KI6RXX 760-583-9668

Palomar Amateur Radio Club Field Day Scoring Sheet 2015

Class:

Power Multiplier:

Web Submission:

Total Band QSO Score:

50

Band / Mode QSO Breakdown:					
	CW	DIGITAL	PHONE	TOTAL QSO's	TOTAL PTS
160M	0	0	0	0	0
80M	6	0	64	70	76
40M	200	0	107	307	507
20M	791	0	829	1620	2411
15M	227	0	180	407	634
10M	2	0		2	4
6M	4	0	13	17	21
2M	0	0	0	0	0
1.5M	0	0	0	0	0
Other	0	0	0	0	0
Satellite	0	0	0	0	0
TOTAL:	1230	0	1193	2423	3653

4 A

Bonus Points:			
<u>Category:</u>	PTS	Multiplier	Total PTS
100% Emergency Power	100	4	400
Media Publicity	100	1	100
Set-Up In Public Place	100	1	100
Information Booth	100	1	100
NTS To ARRL SM/SEC	100	0	0
W1AW Field Day Message	100	1	100
NTS Messages Handled	10	0	0
Natural Power QSOs	100	0	0
Site Visit Elected Official	100	1	100
Site Visit Served Agency	100	1	100
Youth Participation	20	1	20
Educational Activity	100	1	100
Satellite QSO	100	0	0
	TOTAL BONUS POINTS: 1120		

Station Scores STATION Total QSO's Total Score 20/80 CW 797 3188 20/80 SSB 893 1786 15/40 CW 427 1708 5/40 SSB 287 574 10M 2 8 6M 17 17 GOTA 4 8 2427 TOTAL: 7289

2

TOTAL FIELD DAY SCORE:

8484

LY Score	8946	
Difference	-462	-5.45%
LY QSO's	2262	
Difference	165	+6.80%

Club Members ONLY!

PARC has a tube bank that includes many 6 & 12 volt receiving tubes (and some transmitting types) for use by club members to repair their own personal equipment. Not for commercial use or resale. If we have your requests, we will pre-check the tubes and deliver them to you at the next club meeting.

7306

Contact John WB6IQS WB6IQS@att.net

HAM ADDIO Jerry Babin, N5MCJ (Manager) Joe Acevedo, N6SIX Ron Cole, N6OMW Pete Villevar, N3PV H R O UTLET	KENWOODAstron,rf CONCEPTSAEA,DIAMONDOUTBACKERUS TOWERSLarsen AntennaKANTRONICSTEN-TECYAESU, MFJ, ICOMHy-gain, Tri-EXBENCHER, Inc.Cushcraft And OHUSTLERtooCOMETNumerous toAMERITRONMention!	(APRS). Check our	
Open: 10a.m. – 5:30p.m. Monday thru Saturday Ask about our 858 560-4900 or toll free 1-800-854-6046	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!		

Call To Action - Parity Act Letter Campaign

by Mark Schlesinger, N6NNI

Where should I send my letters in support of HR 1301 and S 1685?

Amateur radio operators are asked to send letters, addressed to their member of Congress, to:

American Radio Relay League Attn: HR 1301 Grassroots Campaign 225 Main St Newington CT 06111

If you prefer to send a signed letter, please convert it into a PDF, then email it to reginfo@arrl.org Please include the phrase "HR 1301 Grassroot Letter" as the SUBJECT of your email.

Why does the ARRL request I send my letter to the ARRL instead of simply mailing it to my Member of the US House?

There are several reasons:

First, because of security concerns, it can take from six to eight weeks for a letter sent directly to a Congressional office to be delivered. All mail

to their office is delivered to a holding facility to be screened to problems before they are finally sorted and delivered.

Second, and as important, when the ARRL receives your letter, it can be combined with other letters to your Congressperson and hand-delivered to their office on Capitol Hill. This provides an additional opportunity for our Washington team to have a face-toface meeting with the key staff in each Congressional office.

In Conclusion

I ask that you make available the following example-letters to each of your ham-radio friends at amateur radio meetings so that we can act. We can quickly get our point presented to our political representatives, our Senators and Representatives.

We need considerable support to accomplish our purpose. I ask that you do so with the same enthusiasm that the amateur radio community did in support of the hams of Poway, California to accomplish City Ordinance changes where amateur radio communications was suppressed and in many cases prevented for nearly 30 years. Thanking you, Mark Schlesinger, N6NNI, Poway, California: ARRL Member; July 10th 2015.

<The Amateur Radio Parity Act ----Example of Support Letter to Send to Your Senator>

<insert date>

<insert Senator's Name> <insert Senator's address>

Dear Senator _____:

I am a constituent in your state and wish to bring an issue to your attention. I am a federally licensed amateur radio operator, one of nearly three-quarters of a million licensees of the Federal Communications Commission in the United States.

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FERRITES FOR HAMS

Ferrite – Toroids, Slip-on, Snap-on Mix 31, 43, 61, 77 for Baluns/Ununs, RFI/EMI Quantity pricing for Clubs, DXpeditions Antenna Balun/Unun - kits or assembled 1:1, 2:1, 4:1, 9:1 for dipoles, verticals, G5RV, loops, OCF, end fed, NVIS, quad, yagi antennas RFI Kits - home, mobile, or portable operation Free Tip Sheet to cure RFI, reduce radio noise, work more DX and keep your neighbors happy!

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Annual Club Picnic Announcement

The Annual Picnic of Palomar Amateur Radio Club is scheduled for Sunday August 23rd., 2015 at the San Dieguito County Park, Area 4. The Picnic starts at 9 AM and will last through the late afternoon or so.

Each year PARC hosts an annual picnic for its members and every year it is great fun. Throughout the year, club members earn participation points for signing in at various club activities like the regular monthly meetings, repeater mountain work parties, operating days, and Field Day. This is the time for club members to redeem those participation points for tickets in the annual picnic prize drawing. A maximum of 20 tickets for each club member is allowed. Club members even get a point for attending the picnic. Multiple prizes will be awarded in various denominations.

The club will provide the main course. Members and their guests are asked to bring an item from the following list and some drinks. Last names beginning with: A-K: side dish or casserole, L-R: salad, vegetables, or fruit, S-Z: desert, and last names beginning with Lara: BROWNIES.

There is lots of fun to be had at the picnic. Transmitter hunting (also known as T-hunting, fox hunting, bunny hunting, and bunny chasing), is an activity wherein participants use amateur radio direction finding techniques to locate one or more radio transmitters hidden within a designated search area. Think of it like hide and seek, only with ham radios. What could be more fun than that! There will be at least one radio hidden within the San Dieguito County Park area for those who wish to try their attempt at finding it. Who will be the first to find the radio?

Plans are to have an HF radio setup on 10, 15, and 20 meters for those that wish to play around on HF. In the past, at the PARC picnic, we have made contacts with places as far away as Russia. Come out and see what propagation on the ham bands brings us this year.

Come and share some good food and great stories, try and find the hidden transmitter, play on HF, and most importantly, come out and have a great time with other Hams from our club.

We look forward to seeing you there!

Greg Gibbs KI6RXX and the PARC Board of Directors.



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We provide communications support for public service events on behalf of our communities.

During and after local and state-wide disasters and emergencies, and when all other forms of communications are unavailable, we provide communications for first responders and Federal, state and local governmental agencies and nongovernmental agencies, including the Red Cross and Salvation Army and United States Military Auxiliary Radio System (MARS).

We also do this for our neighboring communities when communications systems including cell-towers and land lines are turned off and reprogramed to exclusively serve Police, Fire and Emergency Responder Services.

On the behalf of the free services we provide, I am concerned that we cannot successfully serve our community unless an outdoor antenna can be located upon our residences.

Private land use regulations routinely include restrictions that completely preclude Amateur Radio communications' operators from installing any type of outdoor antenna.

Recently, a bi-partisan Bill, S 1685 - "The Amateur Radio Parity Act", was introduced by Senator Wicker (MS) and co-sponsored by Senator Blumenthal (CT). S 1685 directs the FCC to extend their existing PRB-1 regulations of "reasonable accommodation" of Amateur Radio communications to include private land use regulators. The "reasonable accommodation" policy has for almost 30 years applied to municipal zoning ordinances. This Bill would afford us the ability to negotiate with homeowner's associations in residential developments.

The proposed Bill, S 1685, would extend the policy to Amateur Radio Operators who reside within under land use restrictions. The Federal Communications Commission has asked Congress for guidance in this area and S 1685 provides it.

As your constituent, I am asking that you support the bill by signing-on as a cosponsor. Please contact Senator Wicker's office to do so. If you have any questions, please contact ARRL, the national association for Amateur Radio, attention Dan Henderson, at 860.594.0236. Thank you. Sincerely, <your signature> <your name and call> <your address>

<The Amateur Radio Parity Act----Example of Support Letter to Send to Your Congressperson>

<insert date>

<insert Congressperson's Name> <insert Congressperson's address>

Dear Representative _____:

I am a constituent in your state and wish to bring an issue to your attention. I am a federally licensed Amateur Radio operator, one of nearly three-quarters of a million licensees of the Federal Communications Commission in the United States.

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Recently, a bi-partisan Bill, H.R. 1301 - "The Amateur Radio Parity Act", was introduced by Congressman Adam Kinzinger (IL-16) with Congressman Joe Courtney (CT-02) and eleven additional original co-sponsors. H.R. 1301 directs the FCC to extend their existing PRB-1 regulations of "reasonable accommodation" of Amateur Radio communications to include private land use regulators. The "reasonable accommodation" policy has for almost 30 years applied to municipal zoning ordinances. This Bill would afford us the ability to negotiate with homeowner's associations in residential developments.

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Sincerely, <your signature> <your name and call> <your address>





PARC Field Day Efforts, photos by Paul KB5MU

DX Clusters: The first use of Crowdsourcing?

Howard Groveman W6HDG

Crowdsourcing is a relatively new term which Merriam Webster defines as "the process of obtaining needed services, ideas, or content by soliciting contributions from a large group of people, and especially from an online community, rather than from traditional employees or suppliers."

A very cool recent example is the Cobra iRadar Car Radar Detector. For decades you had to mount a radar detector in your car and put up with those infernal beeps which registered both real speed traps and many false alarms. If you were lucky, you found the cops before they found you. Cobra Electronics wasn't satisfied with the status quo and two years ago designed a cellphone connected (Bluetooth) radar detector where speed traps, red light cameras and other hazards can get automatically or manually uploaded to a central server by each user. Rather than beeps, the detector compares your location to the vast database of collected hazards and does a voice announcement of nearby critical information. You can see how such an invention could be paradigm changing.

I mention the above because hams, being way ahead of the curve, experienced such a paradigm shift 30 years earlier. We might have even been the first true crowdsourcers – long before crowdsourcing was even a word. When packet radio was catching on in the late 80's, one industrious ham, Dick Newell, AK1A, in 1985 developed a DOS-based DX Spotting system where rare or unusual stations, when worked or heard, could be listed over nodes on the Packet Radio System. This had a profound effect on DX hunting. In the late 90's and 2000's things had transitioned to internet connected networks and robust server apps such as AR-Cluster (AR-Technologies / AB5K), CC Cluster (Lee Sawkins / VE7CC) and DX Spider (Dirk Koopman / G1TLH).

The nice thing for hams is that you don't need to be a network guru to use the Clusters. You don't even need to have a Telnet client for access, since ham radio software started to include the DX Cluster as part of their onscreen rig control and logging programs. Rather than having to stumble over a rare station, working DX became a matter of point and shoot.....

Ham Radio Deluxe ver 6 now has dual Cluster displays integrated into the electronic Logbook which can graphically present the current band you are on as well as a second window which can filter and display other bands/ modes you might want to switch to. Various "worked status indicators" have been added to the HRD cluster window so you can see if you worked a country, continent, zone, particular station, mode or band previously. It also displays if the spotted DX is registered with Log Book of the World (LoTW) – a valuable fact if you want to amass confirmed countries in short order.

The very latest developments in this category are automated skimmers for CW, PSK, JT65 and RTTY (SSB decoders are a distant dream at this point). These use multiple geographically placed SDR's owned by various hams to look at large swaths of multiple bands and which can decode in bulk. Servers around the world can instantly post the results to Clusters, public Telnet Servers and a specialized online site called Reverse Beacon Network (RBN). You don't even need your own SDR to enjoy the benefits of these worldwide crowdsources. They can even help you to evaluate your rig and antennas by seeing who is copying you, making a subtle change and then seeing if you are being spotted any stronger. If you are a CW, RTTY, PSK or JT65 user who has been active over the previous couple of days, be sure to visit www.reversebeacon.net, www.pskreporter.info, and www.hamspots.net,

register and look up your call. You will be amazed at how many times you were automatically spotted by these skimmer bots. Look up your buddy's call and compare your results.

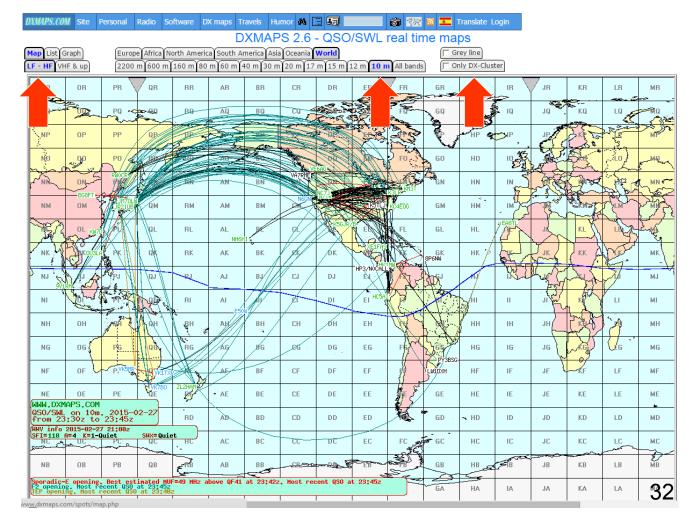
If you want a real world example of how these Clusters and RBN's can get displayed visually, be sure to go to www.DXMaps.com which displays real-time propagation maps. Click on the band segment, specific band and indicate if you want all spots from all sources, or just from the regular DX-cluster. Leave the map on screen and it will update automatically. Click on the map to get a line by line listing. Below is a map from a 10 meter afternoon opening to Asia on February 27, 2015.

And finally, if you always seem to miss those unpredictable 6 meter openings, go to

http://www.dxmaps.com/spots/warnings.php

and sign up for an automated e-mail sent when there is a VHF/UHF opening specifically workable from your QTH!

73 and GL, Howard W6HDG



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PARC Field Day Efforts, photos by Paul KB5MU















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

Featured Program:

At 7:30pm on 5 August 2015, Palomar Amateur Radio Club will present a program DX. Online tools to improve DX experience. By: W6HDG (Howard Groveman).. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA. Arrive at 7:00 for socializing.

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