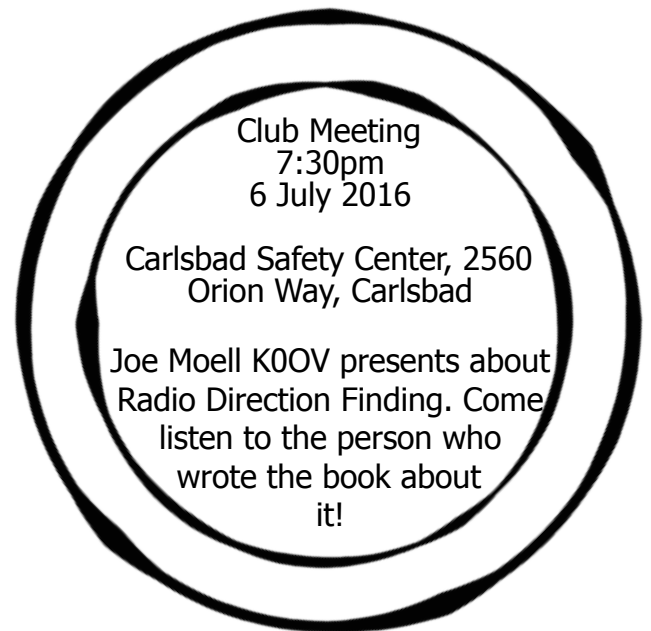
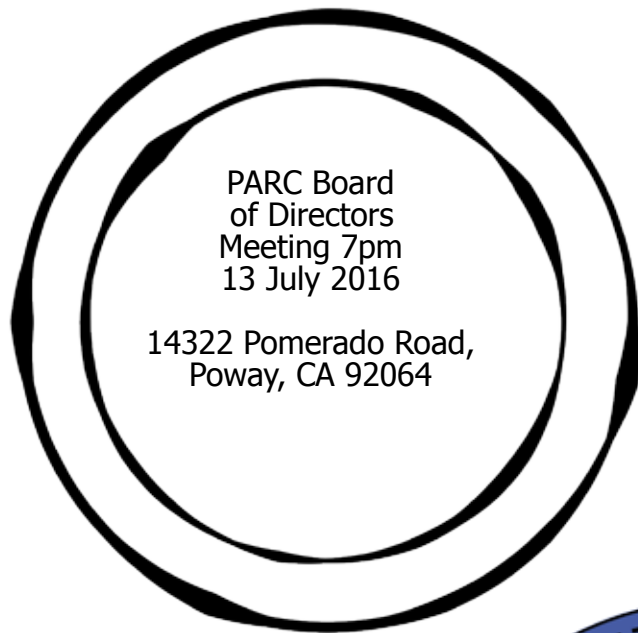


The drawing for two radios to be given away based on attending Field Day will be made at the July 6th General Membership meeting.





Summer Vacation!

Most of your editorial team is taking most of the month of July off. That's why this edition of the Scope is a bit shorter than previous digital editions.

We will return in full force for the August 2016 edition of the Scope.

Share your Field Day experiences with the scope at scope@palomararc.org.

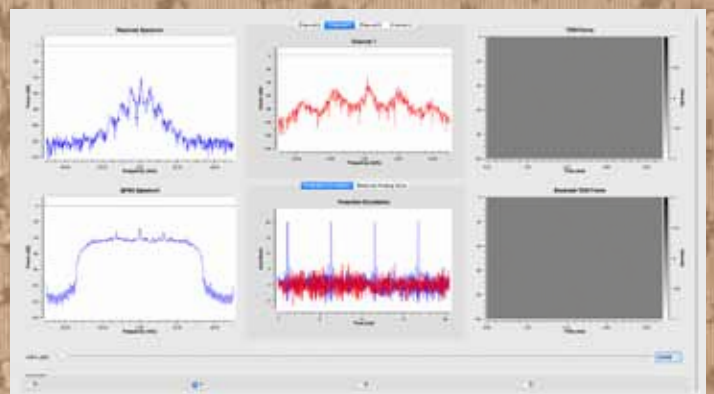
Going to DEFCON? We are! Expect some ham radio reporting from Las Vegas this fall.



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Call for Field Day articles and photos! Did you operate? With the club or in addition? Tell us about it for August Scope!

scope@palomararc.org



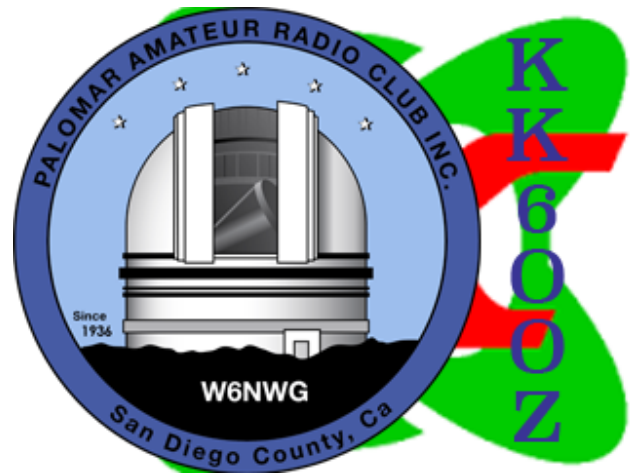
July Membership Meeting

It began at ARRL conventions in the 1930s as hams used crystal diodes and headphones to detect and locate hidden radio transmitters. Now it's a regular ham radio activity that everyone in the family can enjoy, either on foot in a neighborhood park or in the family car on the streets and highways. Learn about the many ways that you and your fellow hams can have fun with radio direction finding (RDF) in this presentation, and find out how transmitter hunting technology has progressed in the last 80 years. You may already have (or can easily make) all the equipment you need to join the fun. Keep at it and you might join the hams who have won medals at international championship hunts in recent years.

Joe Moell K0OV has written for almost every ham radio publication and designed many new devices for radio direction finding (RDF). His book "TRANSMITTER HUNTING---Radio Direction Finding Simplified," is the definitive text on RDF for hams, and he has written over 250 magazine articles on RDF topics. In addition to being a Technical Advisor on RDF to ARRL Headquarters, he serves as ARRL's ARDF Coordinator and oversees the yearly USA ARDF Championships. He also moderates the annual CQ Worldwide Foxhunting Weekend. For more information on transmitter hunting, visit Joe's "Homing In" site on the World Wide Web: <http://www.homingin.com>

PARC Field Day 2016: Lost and Found items! We have a few items picked up at cleanup after the club's FD event. These items will be available at the General Membership Meeting on Wednesday, July 6th.

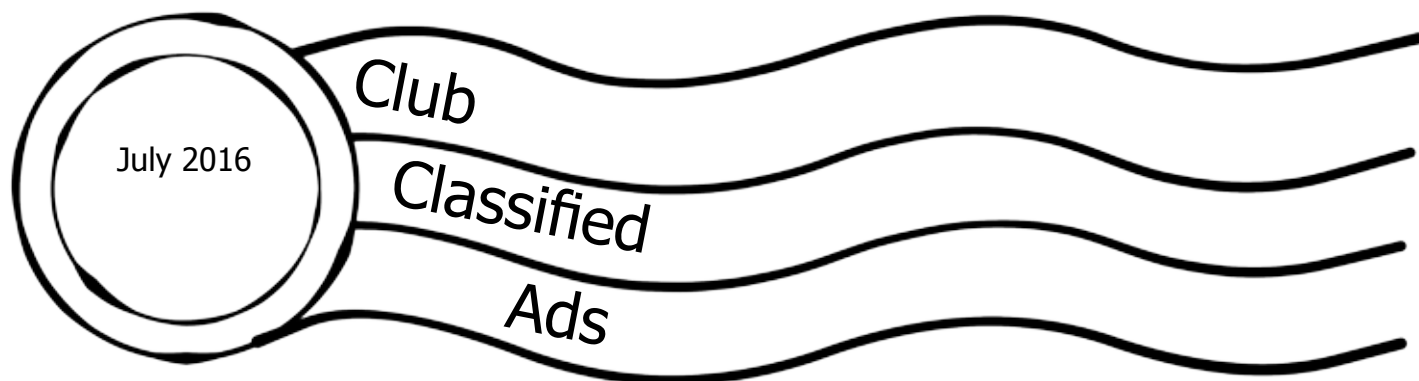
If you were part of the Sunday cleanup crew and you have anything you grabbed because it appeared to have been left behind by someone, please bring it to the July 6th meeting also.



Please help us test a potential upcoming feature for our repeater site. We have a Wires-X node on 147.555. It's KK6OOZ, and we would like to invite club members with C4FM capability to use it, upload text and pictures, and report if you are able to reach it in its current location.

The equipment is set to low power. Eventually, this node may be moved in frequency to link one of our digital repeaters to the Wires-X international network. We need a simplex mapping in order to best evaluate the correct power settings and decide whether or not the node's location will work out.

Attempt to check in and report your success to board@palomararc.org
Thank you!



FOR SALE!

Yaesu FT-270R -- Rugged 2m HT

5 watts RF, 800mW audio for noisy environments, submersible 30 min at 3 feet (IPX7). New condition, two months old, used once in the field. Includes packaging, documentation, etc. \$80. Email to KK6LWE@arrl.net

50' TELESCOPING FIBERGLASS MAST – HEAVY DUTY

Max-Gain model number MK-8-HD. Bottom section 2.5" OD, top section 1" OD. Optional guy rings and guy ropes included. Never used. Original cost \$250, now \$150. Email to KK6LWE@arrl.net

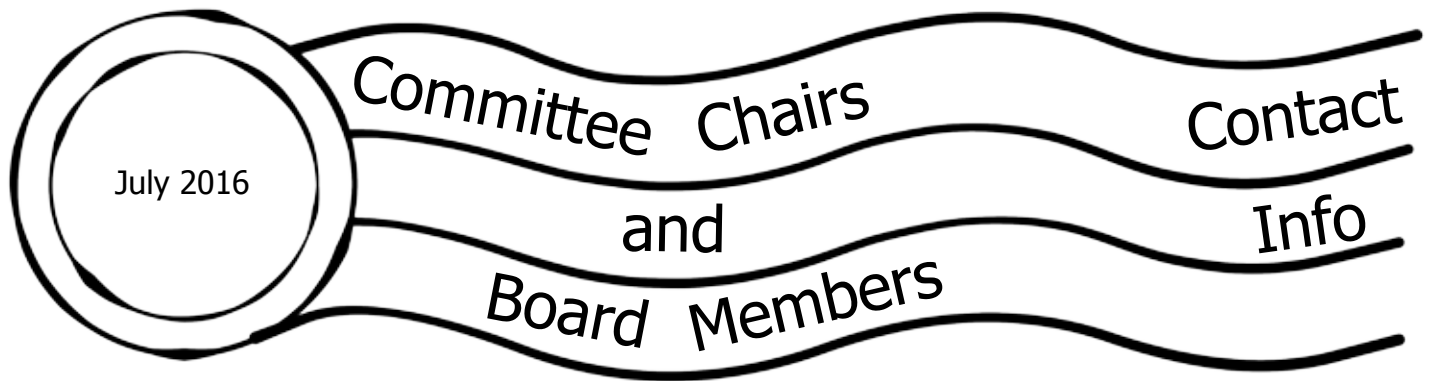
Advertisements are free for members

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

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.

Contact John WB6IQS WB6IQS@att.net



Current Board of Directors

President	Charlie Ristorcelli NN3V	(619) 368-7617
Vice President	Joe Peterson K6JPE	(619) 630-8283
Treasurer	Tom Ellett W0NI	(858) 546-1148
Secretary	Sandy Pratt KK6EED	(858) 748-2611
Director #1	Kevin Walsh KK6FRK	(858) 722-5069 (text welcome)
Director #2	John Walker AC7GK	(949) 212-5533
Membership Chair	Glen Christensen KJ6ZQH	(858) 735-1144
Repeater Technical Chair	Mark Raptis KF6WTN	
Scope Editor	Michelle Thompson W5NYV	(858) 229-3399 (text welcome)

Not on the Board

Repeater Site Chair Mark Raptis KF6WTN (acting)

The board members might have callsign@amsat.org mail aliases.

Committee Chairs

EchoLink	Bernie Lafreniere N6FN	N6FN@niftyaccessories.com
mesh networking	Phil Karn KA9Q	karn@ka9q.net
Operating Day	Tom Martin K6RCW	k6rcw@amsat.org
SANDARC Representative	John Walker AC7GK	ac7gkjohn@gmail.com
SANDARC Representative	Paul Williamson KB5MU	kb5mu@amsat.org
SANDARC Alternate	Michelle Thompson W5NYV	w5nyv@amsat.org
SD Microwave Group Liaison	Kerry Banke N6IZW	kbanke@sbcglobal.net



SAN DIEGO



HAMFEST 2016

DATE: OCTOBER 1, 2016



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VISIT US AT: WWW.LAKESIDEARC.ORG

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Time: 7AM—3PM

6AM “Old Radio Trade Show”

Old Radio Trade Show In parking lot !

Ham Fest Cost: \$5.00

Old Radio Trade Show “\$5.00 To Show”

Location:

Lakeside Rodeo Grounds

12584 Maplevue St. Lakeside CA.

Free Parking and Antenna Friendly.

*You are cordially invited to attend the
2nd Annual San Diego Hamfest 2016. We
plan on starting out the day with a Old
Radio Trade Show, Vendors,
Speaker Forums, and VE Testing.
So come on out and let's Ham it Up!*

**For the most up to date information
please visit: www.SDhamfest.org**

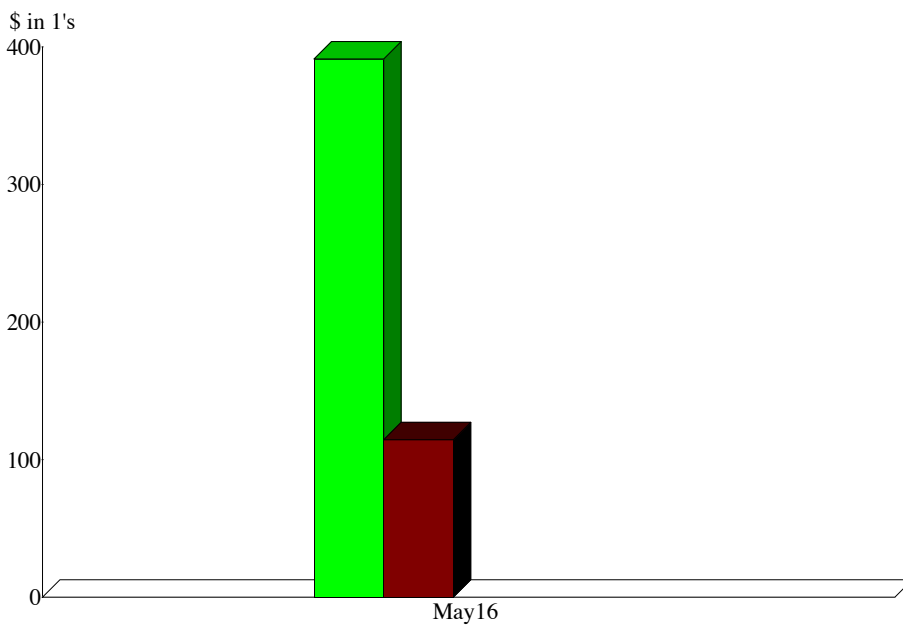
QLS/SDHAMFEST2016-ver1.0

15 June 2016

Club Financial Update

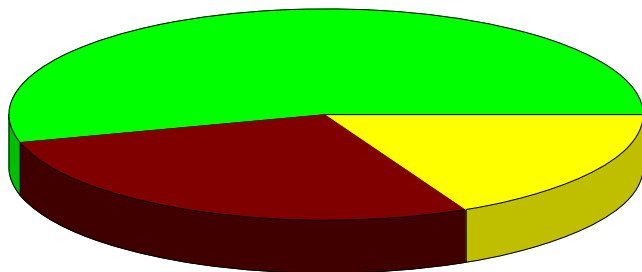
PARC - Income and Expense
May 2016

Income
Expense

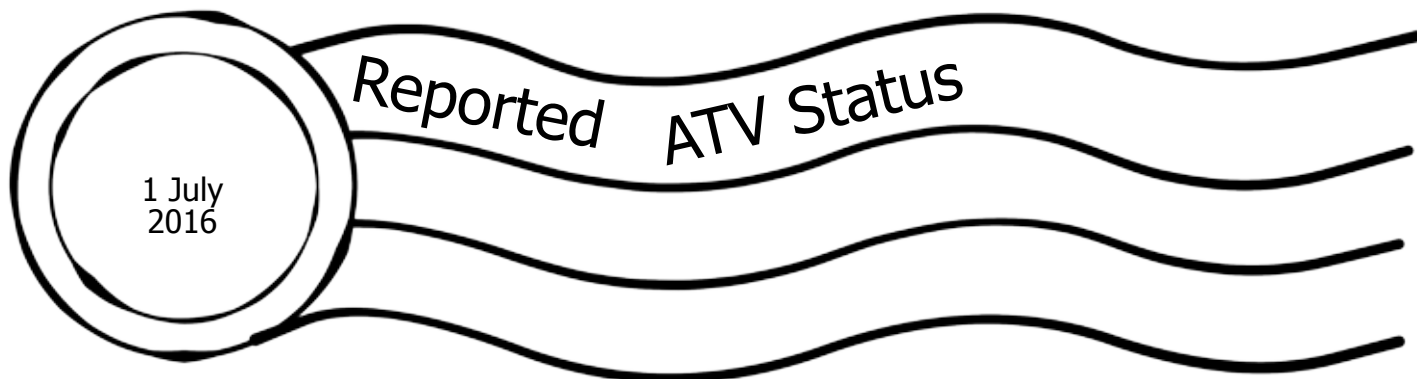


Expense Summary
May 2016

Rptr Electric	\$ 62.30
Rptr Phone	32.19
State CA	20.00
Total Expense	\$114.49



By Account



ATV system renovations have begun!
Contact board@palomararc.org if you
want to be involved.

At a minimum, upgrades to include
DVB-T transmission, ATN linking,
and substantially reduced cost and
complexity to enjoy this mode.

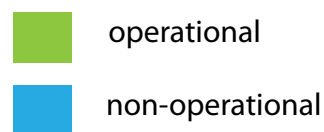
PARC
ATV
System

915 MHz WBFM in
5.8 MHz audio subcarrier

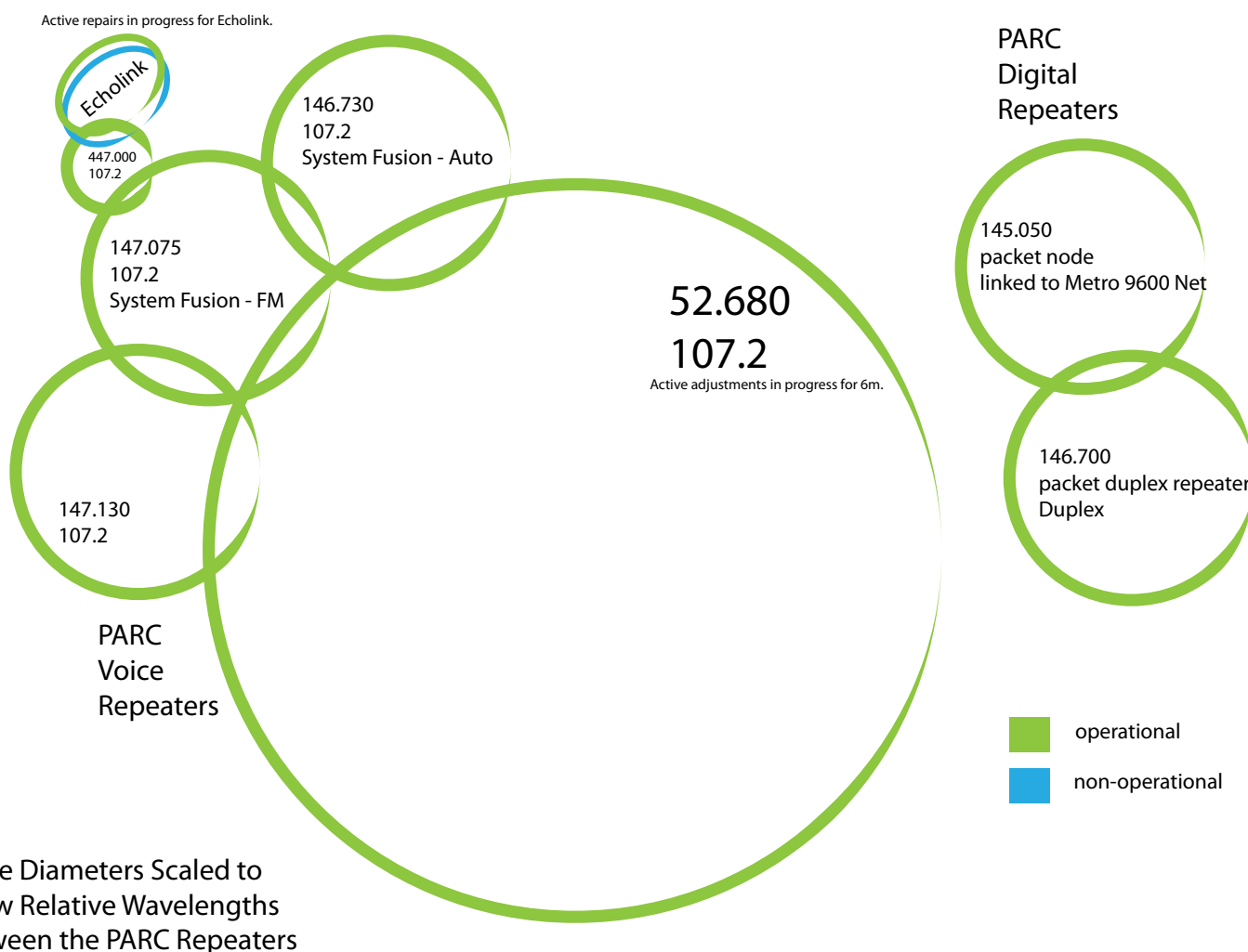
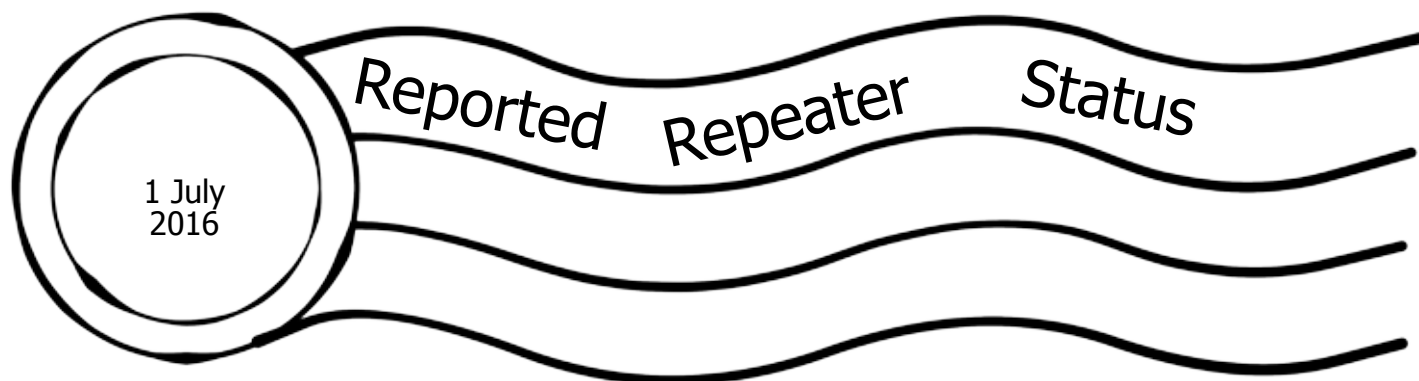
146.415
79.7
intercom

1241.25 MHz VSB out
NTSC standard

2441.5 MHz WBFM in
6.0 MHz audio subcarrier

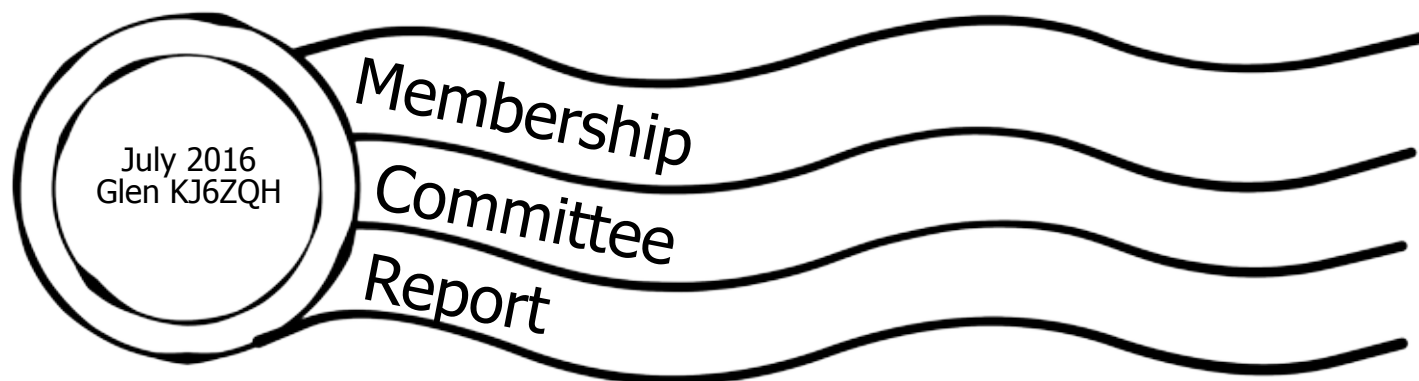


Circle Diameters Scaled to
Show Relative Wavelengths
Between Equipment



The 6m repeater has been repaired! Some additional work remains to fully tune the repeater, but essential functionality has been restored after a 3+ year hiatus. Thank you to Mark KF6WTN, John WB6IQS, the PARC board of directors, and our 6m cavity donor. Please find work party photos in this issue of the Scope.

Try it out and send your reports to board@palomararc.org



July 2016
Glen KJ6ZQH

Membership Committee Report

From the Membership Table

You can check the status of your membership 24/7. Go to the club's website and navigate to Join and click on "here" at the top of the page. Enter your call sign into the box and click the "Look up my membership status now" button.

To renew your membership or extend your membership, fill in the form on the Join page. Make sure you select the correct value from each of the drop-down menus (Type of Membership, How many years, I'm an ARRL Member, Newsletter option and License Class). If you want to receive an email when your membership is coming due for renewal, please make sure that I have a valid email address for you. To do that, please send an email to Membership@palomamararc.org.

Callsign	EXP_DATE	Callsign	EXP_DATE	Callsign	EXP_DATE	Callsign	EXP_DATE
AB6O	04/04/16	KE6ZLX	08/28/16	KK6JDM	02/09/16	NE6AA	07/07/16
AE6HF	06/27/16	KF6SMB	08/28/16	KK6LBN	07/03/16	NN6X	06/30/16
AF6GM	03/30/16	KG6HSQ	06/06/16	KK6LJ	06/04/16	NU6L	08/17/15
AG6EK	03/04/16	KG6MDQ	03/16/16	KK6LNV	02/02/16	W0NI	07/18/16
AG6VY	07/03/16	KG6OMH	09/11/15	KK6MTF	07/31/15	W6ADF	03/18/16
AI6KO	12/13/15	KG6QWR	05/09/16	KK6MZF	06/28/15	W6DEO	12/30/15
K1NJH	06/03/16	KG6TFL	02/04/16	KK6NLS	08/16/16	W6HDG	08/07/16
K2RP	08/24/16	KG6TTZ	11/20/15	KK6QOS	12/16/15	W6JBR	07/05/16
K6DRH	09/30/15	KG6UTS	05/19/16	KK6RIP	02/09/16	W6KE	07/28/16
K6GOR	03/01/16	KG6VVN	01/07/16	KK6RRW	03/21/16	W6OYJ	08/25/16
K6ISS	10/03/15	KG6ZUW	06/28/15	KK6RWK	02/14/16	W6RLC	07/28/16
K6JQE	08/04/16	KH6GK	03/23/16	KK6TNO	05/09/16	W6TXK	07/23/16
K6JXY	07/18/16	KI6AUP	06/29/16	KK6TYQ	06/03/16	W6XM	08/23/16
K6OT	02/04/16	KI6DBL	03/07/16	KK6TYT	05/30/16	W6YOO	07/28/16
K6RRP	08/28/16	KI6KJG	04/01/16	KK6UFP	05/24/16	W9BOI	02/06/16
K6SC	02/13/16	KI6SBQ	01/08/16	KK6UYP	07/01/16	W9UVZ	08/07/16
K6WJH	06/27/16	KJ6KDM	09/03/15	N6ERD	03/04/16	WA6ALW	03/04/16
K7ELH	03/11/16	KJ6KGH	08/01/16	N6ISC	07/28/15	WA6GYG	08/28/15
KB6CPZ	07/28/15	KJ6KLJ	02/03/16	N6IZW	08/23/16	WB6IQS	07/28/16
KC6HUK	03/06/16	KJ6QQD	05/05/16	N6MDU	07/18/16	WB6UIR	11/05/15
KC6UQH	07/28/16	KJ6YPR	08/06/15	N6MXD	05/26/16	WB8BHE	07/28/16
KC6YSO	11/05/15	KJ6ZBQ	03/13/16	N6NAU	07/28/15	WB9COY	07/03/15
KC7CJ	05/06/16	KK6CTF	07/31/15	N6TBA	06/25/16	WD6FZA	11/05/15
KD1BD	08/16/16	KK6DRA	05/16/16	N6WST	12/03/15	WQ6V	10/15/15
KD6AEB	09/25/15	KK6FFJ	08/22/15	N6XDX	08/01/16	WX6AAA	08/07/16
KD6YJB	07/28/16	KK6GHF	03/04/16	NA6DC	04/04/16		
KE6NPL	06/11/16	KK6GO	06/04/16	NB0X	07/01/16		
KE6PHE	07/28/16	KK6IJN	01/07/16	ND6W	07/28/16		

President's Corner

July 2016
Charlie NN3V

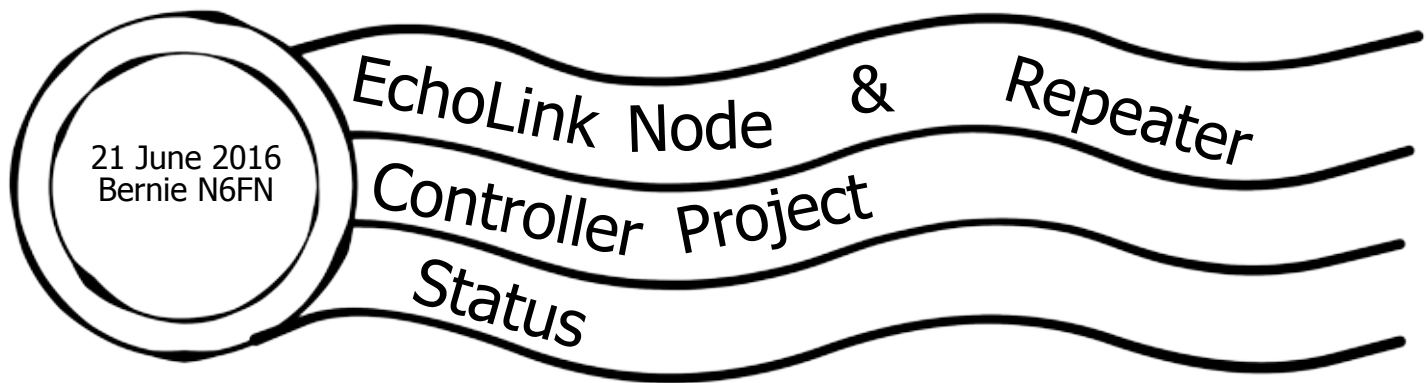
As many already know, PARC enjoyed a marvelous FD weekend! There will be other comments about our FD in the August edition of Scope. I will remark briefly that we had a greater turn out this year than last. The weather cooperated to give us lower temperature than last year, and a sustained breeze that made it a delightful event.

At the risk of missing someone who deserves a well done, let me say that every ham who participated by either helping set up or tear down the site, or by merely operating a station did a wonderful job. The Club owes a warm and hearty well done to AG6CF (Brian) who served as our 2016 FD chair and did an incredible effort organizing and executing a flawless FD. The station captains delivered excellent performance results and we will see the tally of the effort when ARRL announces the result of 2016 FD entries. Along with kudos, a hearty thanks to NE6O (Jim) who did a superb effort in running the GOTA station. Jim exhibited many different elements of ham radio, with excellent examples of different antennas and managed to captivate several non-hams. It was perhaps one of the best GOTA station demonstrations since long ago when A6CV ran our GOTA station program.

Again, at the risk of not mentioning someone who is deserving special thanks, our friends KF6WTN (Mark) and KJ6ZQH (Glen) were tireless throughout the entire weekend. From multiple errands from and to the FD site, to labor intensive efforts throughout the FD site, they worked tirelessly to help make our FD a lot of fun. Last but not least, a big thank you to the Club members who helped close down the FD site. Many people fail to realize that after a fun filled 24+ hours of ham radio, the close down of a FD site is a time when few remain at the FD site, and with the weather conditions being warm and toasty, the close down effort is grueling.

The attached photo shows the crew who stayed to the end and did the heavy lifting (should that be lowering) of our major equipment. Missing are KF6WTN and KJ6ZQH who were at the other end of the site, loading towers onto the tower transportation trailer. This is the last tower to come down. At our July General Meeting we will draw the winners of the drawing for the radios to be awarded to club members who participated in this year's FD. 73 and I hope to see you at FD 2017!





As you may recall from prior reports, since the new Yaesu DR-1X repeaters as delivered by Yaesu are not compatible with EchoLink or IRLP repeater linking requirements, the EchoLink project morphed into evaluating and selecting commercially available repeater controllers to solve the problem, as well as address a number of other more general repeater control related issues.

After purchasing a controller, a DR-1X repeater was modified and cable harnesses designed and fabricated and control algorithms written. Part way through the process it became evident that each repeater will require an external power shut off relay to remove power from the repeater under either manually by a control operator sending commands, or automatically via fault sensing algorithms programmed into the controller.

The solution is now working. All of that development work and testing took a couple of months. In early June the board approved the purchase of a controller and necessary accessory items to upgrade our three DR-1X repeaters on the mountain. All of the necessary material has been purchased, with all of it having been received this month except for the controller itself, which I'm expecting will arrive a week or so before this newsletter is published.

Now the grunt work starts. We have to reproduce everything done so far using the hardware that is to be installed at our Palomar site. To modify three repeaters, build all the necessary cable assemblies and power control relay boxes, and then test all this stuff with the new controller amounts to weeks of work. Thankfully John Kuivinen, WB6IQS has volunteered to assist in the fabrication of various cables and repeater modifications. With a little luck, we hope to have the new controller system in place and operational by the end of summer.

Amazon Shopping for PARC

Shop on www.smile.amazon.com. Same thing as shopping on Amazon, BUT! when you shop at www.smile.amazon.com if you designate Palomar Amateur Radio Club as your charity of choice, Amazon will Donate to PARC!

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You shop. Amazon gives.

Shop Now

IMPULSE Electronics .com

Wouxun Radios and Accessories

Powerpole Connectors

Power Cables

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3CX400A7 • 3CX1200A7/D7/Z7 • 3CX1500A7 • 3CX3000A7
4CX250B • 4CX250R • 4CX400A • 4CX800A • 4CX1500B

Merit W6NQ • Gary K6CAQ • Steve K6NDG • Rob WA6GYG • Doug K6DRA

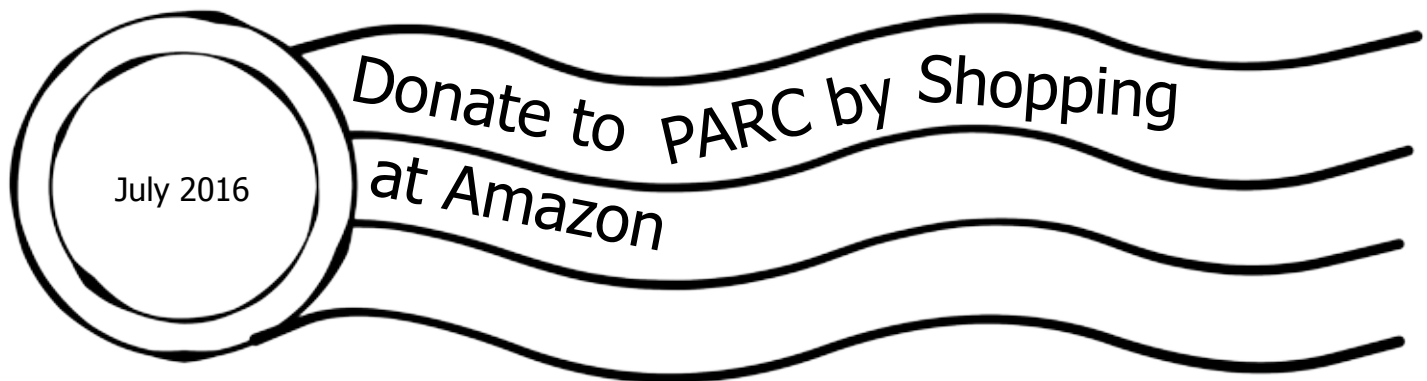
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Their support
of the club is
vital.

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THANKS
to our sponsors



There is good news about our club's non-profit status. As mentioned in December, PARC is now a tax exempt non-profit public corporation. If you choose to donate money or equipment to PARC, and if you itemize deductions, you can take a tax exemption for the value of the donation.

BUT There is even an easy way to donate to PARC! Do you shop online at Amazon?

PARC is now registered with smile.Amazon.com as a not-for-profit public corporation. If you so choose, any purchase you make on Amazon can be identified as a purchase for which you desire that Amazon donate funds to PARC!

Here is how it works.

If you wish to designate that some funds of your Amazon purchases be donated to PARC, go to www.smile.amazon.com and log on to make your regular purchases just as you always do. After logging in, you proceed to order your purchase as usual, and in the checkout procedure you are offered an opportunity to designate a portion of the purchase to be distributed by Amazon to any of thousands of charities. There we ask that you select "Palomar Amateur Radio Club" as the non-profit to which the funds will be donated by Amazon.

This will have absolutely NO EFFECT on the regular purchase price of your item.

What happens is that without any further action on your part, Amazon will forward to PARC's bank account 0.5% of the purchase price of what you bought.

You can learn all about this further by visiting the following link:
<https://smile.amazon.com/ch/95-3737299>

Amazon is aware of one problem with this initiative. **The Amazon smartphone shopping app DOES NOT work for charity designations. You must use the web browser.**

Your PARC Board of Directors hopes you will consider donating to PARC as you shop on Amazon. The Board of Directors is evaluating a series of projects to update the Club's infrastructure, to bring remote capability to PARC members, to upgrade our FD equipment, and to update the technologies we have available throughout our repeaters. Some of these projects are the result of your response to questionnaires, or suggestions you forwarded to the board for consideration. All these potential projects will be evaluated and announced to you so you can give us feedback about the project's desirability. To carry the projects to completion will require that club member volunteers get hands-on experience in the project. This too will be an opportunity to follow the requests expressed by members, and also an opportunity to elmer recent licensees in all aspects of ham radio.

You asked that the Club be revitalized in this manner, and here are the beginnings of the effort. So please remember, when you shop on Amazon, donate to your club! But they will all involve material purchases for which the Club will be using funds that are donated for the project accomplishment.

We hope you will be generous in donating to PARC through Amazon purchases since the donation has zero impact on what you buy.



Want to help PARC earn more awards?

Contact board@palomararc.org about using the club call sign in upcoming contests or operations!

We aren't that far from getting several more shiny stickers!

At right is the overall picture of our club call sign's Logbook of the World WAS record.

Notice that 20m Phone and 20m CW are pretty close to having all 50 states.

Which states are missing? See the image at the bottom of this page. We need Hawaii for 20m Phone and Nevada for 20m CW.

Think you can bag these states to give us two more awards?

The cost of the award will be covered by a donor. Want to help?

- 1) arrange for permission to use W6NWG by writing the board about your plans.
- 2) submit a log of the contacts to the board. Uploading to LoTW and application for awards will then occur.
- 3) get accolades from the club!

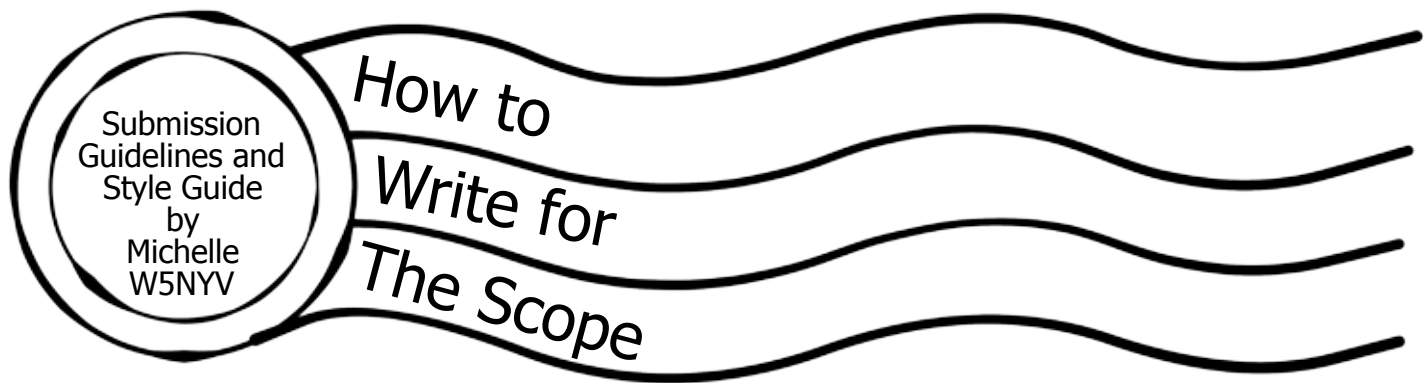
Your Logbook WAS Account (W6NWG WAS)

Account Status

WAS Award	New LoTW QSLs	LoTW QSLs in Process	WAS Credits Awarded	Total
Mixed *	0	0	50	50
80M	22	0	0	22
40M	39	0	0	39
20M *	0	0	50	50
15M	40	0	0	40
10M	6	0	0	6
CW *	0	0	50	50
Phone *	0	0	50	50
80M Phone	15	0	0	15
80M CW	13	0	0	13
40M Phone	19	0	0	19
40M CW	38	0	0	38
20M Phone	49	0	0	49
20M CW	49	0	0	49
15M Phone	23	0	0	23
15M CW	37	0	0	37
10M Phone	5	0	0	5
10M CW	1	0	0	1
Triple Play	100	0	0	100
5-Band	157	0	0	157

* = Award has been issued

20M Phone	49	<input type="checkbox"/>	The 20M endorsement sticker to be affixed to your Phone WAS certificate. Missing: HI
20M CW	49	<input type="checkbox"/>	The 20M endorsement sticker to be affixed to your CW WAS certificate. Missing: NV



Submission Guidelines

Article submissions in most modern file formats are accepted. Plain text in the body of an email, with attached full resolution photographs, is most preferred. Dropbox and several other file transfer services are supported.

Sending a fully-formatted PDF, so that the author can control formatting and exact wording, is also accepted. We use Tahoma font for body text, but will accept PDFs with other fonts. If any editing is necessary, then it will be negotiated with the author, and will then be the responsibility of the author.

For 2016, the Scope theme is postal marks and radio-related stamps. Postal theme artwork is welcome! Scans of amateur radio stamps, stories about stamps in general, interesting or quirky postal marks, fun things to do with the mail, puzzles about stamps, interesting stamp-related narratives, stories about current mail technology, QSL cards, QSL bureaus, and QSL collections are all very highly desired throughout 2016.

We want to publish articles about amateur radio and amateur radio related events and interests. Amateur radio covers a very broad swath of subjects. Contesting, technical experiments, narratives about the hobby, stories about how you became a ham, suggestions for an interview, ideas for more puzzles and games, experiences in community service, emergency communications, tours and travelogues of places of interest to amateur radio operators, mobile installation articles, ham shack articles, good operational practices, ideas for what PARC should be doing in 2016, and many other subjects are what we want to print in the Scope every month.

Articles that misrepresent a person, subject, or event will not be printed. Articles that are attack pieces, demean groups or individuals, or ridicule others will not be printed. The editorial staff

of the Scope, in coordination with the Palomar Amateur Radio Club Board of Directors, has the final say on what is published in the club newsletter. Being a member of the club does not guarantee that a submitted article will be published. No payment is given in exchange for any article. Copyright remains entirely with the original author.

Style Guide

Time: Use 24-hour time in the following format.

"We started the event at 9:00 and began tear down at 16:00."

Name and Call Sign: Name is followed by call sign with no commas.

"Michelle Thompson W5NYV began writing the article."

After the first name and call sign is listed in an article, the style is to shorten it to first name and call sign with no commas.

"Michelle W5NYV was writing all day."

Do not use ellipses unless you know exactly how to use ellipses.

Ellipses... are not... the same thing... as a comma... or a pause...

Capitalization should be used for proper nouns. Proper nouns are the names used for an individual person, place, or organization. They are spelled with initial capital letters. For example, Michelle, New Mexico, and Boston Red Sox.

"And... that's it! That's All there is To It!"

What's the next step? Write an article, or propose one. If you need help, just ask! Mail to: scope@palomararc.org

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PERIODICALS

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Scope Volume #48 Issue #6 (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 and at additional mailing offices. Dues are \$20 per year or \$35 per year for a family. Dues include a subscription to Scope.

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Featured Program:

At 7:30pm on 6 July 2016, Palomar Amateur Radio Club will have a program about Radio Direction Finding given by Joe Moell K0OV. See page 4 for details on this opportunity to hear an expert in the field speak.

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

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