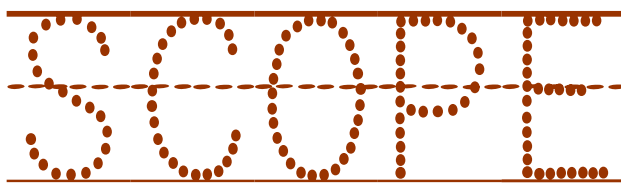




## Inside this issue:

Editorial	2
President's Corner	2
Board Members & Committee Chairs	3
Treasurers Report	4
Meeting Program & Upcoming Events	5
Scholarship Committee Report	5
Repeater Report	6
Repeater Status	7
ATV Status	8
Membership Report	9
Nevada QSO Party	10
Tropospheric Ducting	11
Oceanside Harbor Days	12
San Diego Hamfest	13
PARC Picnic	14
PAR Auction	15
Back Page Fun	16



## September Meeting Location

Like last month, we will be meeting at the Pine Ave Community Center, a part of the Carlsbad Parks and Rec department. The facility is located at 3209 Harding Street. Coming from the 5 on Carlsbad Village Drive, turn left onto Harding Street where the Jack-in-the-Box is. Then in two blocks, it will be on the right by Pine Street.



## It Appears By Spears



The calendar may say Fall but here in San Diego we are still enjoying our summer. In this issue we have an interesting story on Page 11 about long range contacts from the USS Constellation.

Speaking of long range contacts, the Nevada QSO party will be in October. See more

information on Page 10. Along with our friends at Oceanside CERT we will be showcasing PARC at Oceanside Harbor Days. More information is on Page 12. ARRL is publishing a lot of information on their website about disaster response and preparedness. You may want to check it out.

September also brings with it the start of both college and pro football. With the Chargers gone, we focus on college ball in my house. My wife went to TCU so Go Frogs!! See you at the Picnic!

73 de KM6CXW  
Keith Spears  
Editor

## President's Report



Greetings fellow HAMs and Happy Fall! I know we don't usually know what season it is in Southern California, so I figured it would be a good time to remind everyone. Our General Meeting this month will be at the Carlsbad Parks and Rec Pine Avenue facility, same as last month. We don't yet have the Auction nailed down but hope to announce that on Wednesday, and of course will have details in the SCOPE as soon as they are available. We have several upcoming outreach activities that need volunteers to man

tables and talk to the public about HAM Radio! I'm sure everyone is aware of the HAMFest coming in East County. We have decided not to have a booth there, instead focusing on the Maker Faire and other outreach opportunities in North County. Keep an eye on the SCOPE, the email announce list, and attend our monthly meetings to hear more about these opportunities. We can only continue to have these events if our membership steps up to staff the booths, so please get involved! Our Picnic is also set up

for September 22nd, same place as previous years - San Dieguito Park, Picnic Area 4, we expect to be up and running around 09:00 with a hidden transmitter hunt, some radios, show-and-tell, and other events. Lunch will be served at noon. Please see page 14 for more details about what sides to bring. We will also be conducting our usual participation drawing, so be sure to attend for a chance at some great prizes!

Thanks and 73 de K6JPE

## Board Members and Committee Chairs

### Board of Directors

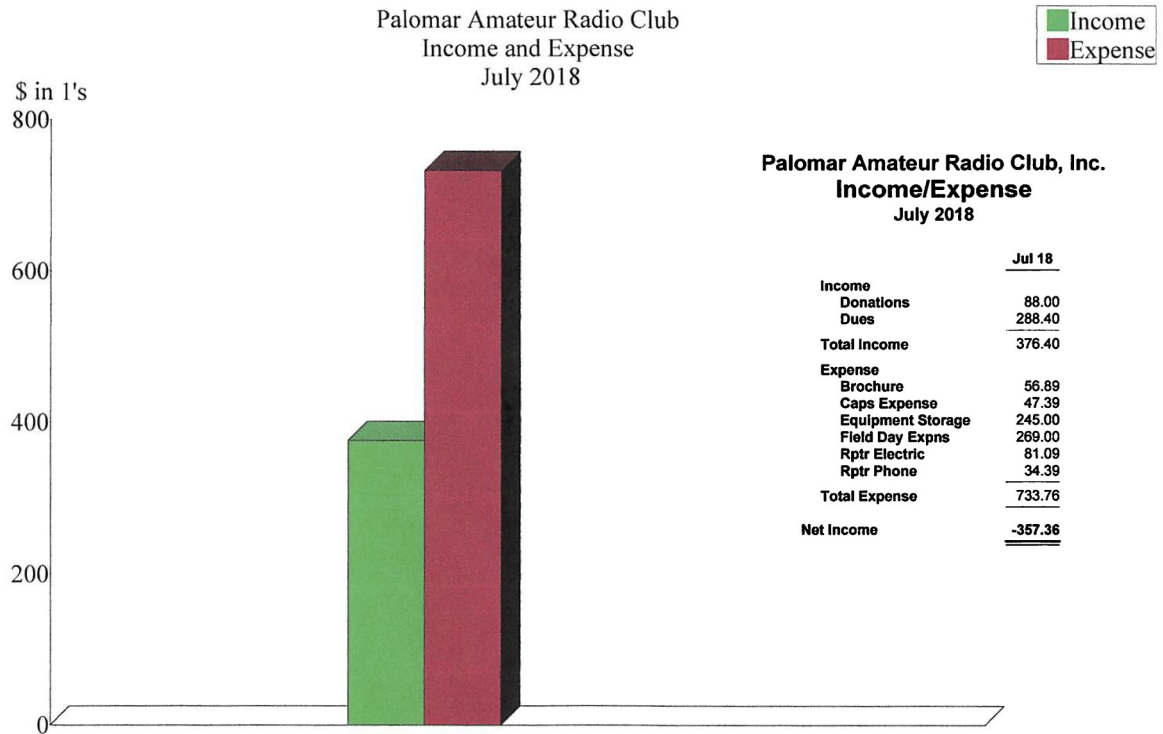
President	Joe Peterson, K6JPE	(619) 630-8283
Vice President	Charlie Riistorcelli, NN3V	(619) 68-7617
Treasurer	Tom Ellett, W0NI	(858) 546-1148
Secretary	Tony Zuppero, K5TZ	
Director 1	John Kuivinen, WB6IQS	(760) 727-3876
Director 2	Greg Gibbs, K16RXX	(760) 583-9668
Membership Chair	Glen Christensen, A16RR	(858) 735-1144
Repeater Technical Chair	Mark Raptis, KF6WTN	
Scope Editor	Keith Spears, KM6CXW	(858) 472-8442 Text Welcome

### Non Voting Members

Repeater Site Chair	Mark Raptis, KF6WTN	(Acting)
Webmaster	Guido Sansonia, NO6I	(760)-224-6824
Trustee	Michelle Thompson, W5NYV	mountain.michelle@gmail.com

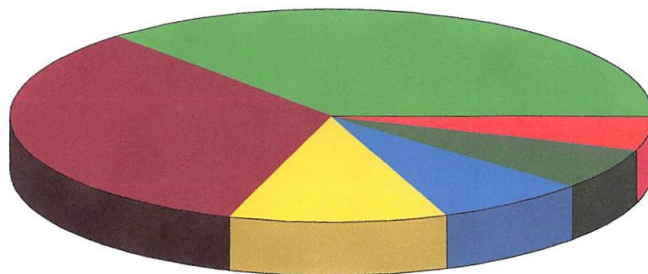
### Committee Chairs

Boy Scouts	Michael Palugod	mpalugod@yahoo.com
Digital ATV	Michelle Thompson, W5NYV	mountain.michelle@gmail.com
Echo Link	Bernie Lafreniere N6FN	N6FN@niftyaccessories.com
HF Remote	HF Remote SIG	hfremote@palomararc.org
Mesh Networking	Michelle Thompson, W5NYV	mountain.michelle@gmail.com
Operating Day	Tom Martin K6RCW	k6rcw@amsat.org
SANDARC Representative	John Walker AC7GK	ac7gkjohn@gmail.com
SANDARC Representative	Paul Williamson KB5MU	kb5mu@amsat.org
SD Microwave Group Liaison	Kerry Banke N6IZW	kbanke@sbcglobal.net



Expense Summary  
July 2018

■	Field Day Expns	\$ 269.00
■	Equipment Storage	245.00
■	Rptr Electric	81.09
■	Brochure	56.89
■	Caps Expense	47.39
■	Rptr Phone	34.39
	<b>Total</b>	<b>\$733.76</b>



By Account

## September Program

The September meeting program will be dedicated to Tech Talk. I hope to make this an interesting and new type of monthly program format, that will be used at times in order to answer club member and guest technical interests.

If you are interested in learning information about a particular ham radio technical or operational

## October Program

The October program will be the annual club auction. Please see page 15 for more details.



## Scholarship Committee Report

Thanks to the incredible work by Gayle KG60, Michelle W5NYV, and Charlie NN3V we have funded a scholarship with ARRL Foundation under the Palomar Amateur Radio Club name! We will have further information on how your interested family and friends may apply, what the requirements are, and how the decision is made in the coming months. The first scholarship will be available for the 2018-2019 school year! We are still pushing for some additional funds to create a second scholarship, but that will be for the 2019-2020 school year. Keep an eye out for further information later in the year, and remember us when you're preparing your tax write-offs for 2018!

## Upcoming Events

Wednesday, September 5th	7:30	PARC Meeting	Pine Ave. Community Ctr
Wednesday, September 12th	7:00	PARC Board Meeting	Poway Fire Station #3
Saturday, September 22nd	9:00	PARC Picnic	San Dieguito Park
Wednesday, October 3rd	7:00	PARC Meeting & Auction	TBA
October 10th	7:00	PARC Board Meeting	Poway Fire Station #3

## Repeater Status

This list includes W6NWX repeaters operated by PARC and other repeaters open to use by PARC members. All W6NWX repeaters are located on Palomar Mountain and are open to all amateurs.

Frequency	TX	Tone	Call sign	Remarks
52.680	-	107.2	W6NWX	Back on the air
146.730	-	107.2	W6NWX	System Fusion enabled. See Note 1
147.075	+	107.2	W6NWX	System Fusion enabled. See Note 1
147.130	+	107.2	W6NWX	System Fusion enabled. See Note 1
447.000	-	107.2	W6NWX	FM only for EchoLink Call Sign W6NWX
224.900	-	107.2	WD6HFR	Convair/220 ARC
224.380	-	107.2	KK6KD	HARS Hispanic Amateur Radio Society Open
224.940	-	107.2	KK6KD	HARS: Sharp Chula Vista Hospital, Open
145.260	-	107.2	KK6KD	HARS: San Diego Open
147.945	-	107.2	KK6KD	HARS: System Fusion Mt. Miguel Open
448.460	-	151.4	KK6KD	HARS: Mt. Miguel, San Diego Open
145.460	-	110.9	XE2DXA	HARS: Tijuana, Mexico Open
146.970	-	107.2	KA3AJM	Vista-Sponsored by MetroNET
146.175	+	107.2	N6FQ	Fallbrook ARC; linked to 445.600
445.600	-	107.2	N6FQ	Fallbrook ARC; linked to 146.175
145.050	s	N/A	W6NWX-1	Packet node; linked to metro 9600 net 1
146.700	-	N/A	W6NWX-3	Packet duplex repeater; Duplex 3

PARC operates an armature fast-scan television repeater. It's currently off the air. Currently there are not links to other ATV sites.

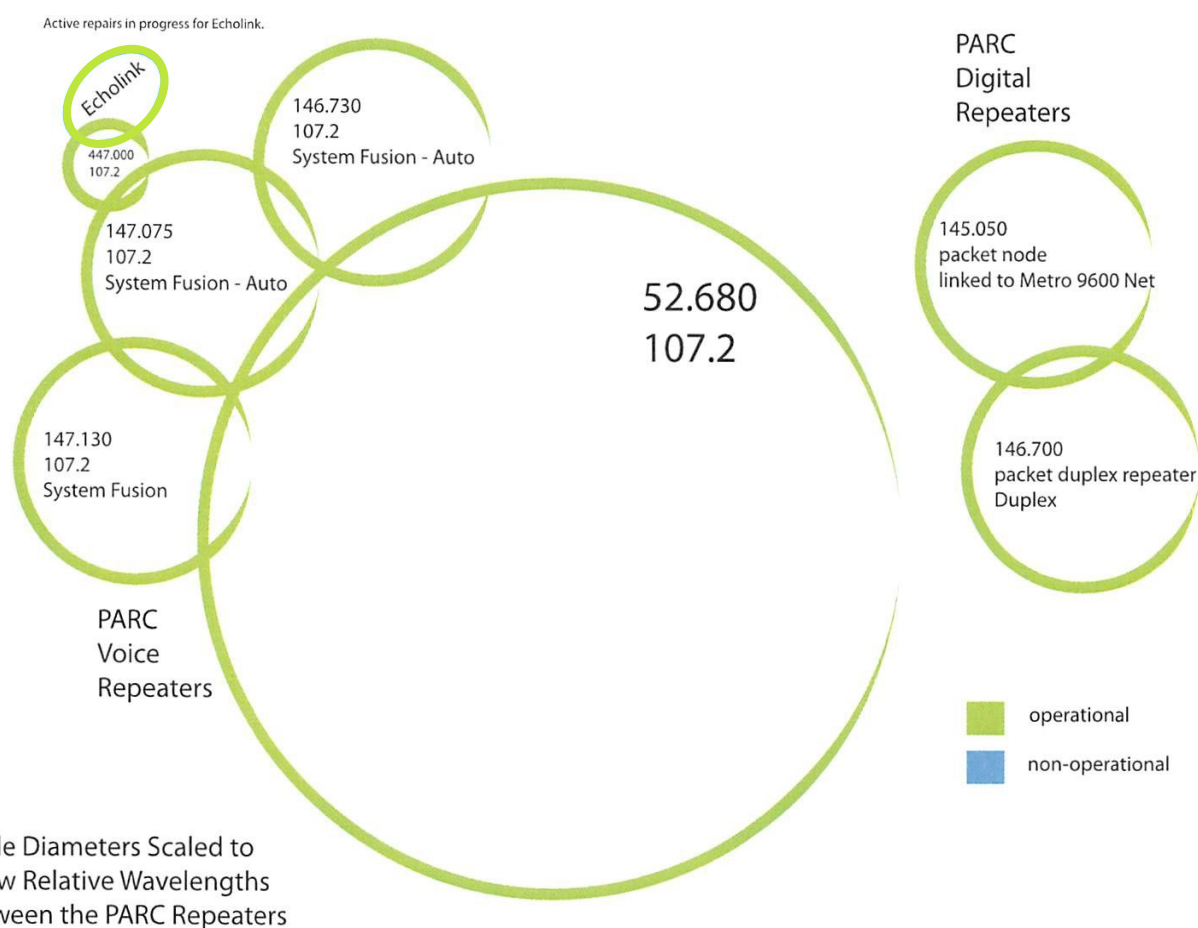
- ATV in: 915 MHz WBFM audio subcarrier 5.8 MHz
- ATV in 2441.5 MHz WBFM, audio subcarrier 6.0 MHz
- Intercom: 146.415 MHz NBFM simplex (tone 79.7). Currently not working.
- ATV out: 1241.25 MHz VSB, NTSC Standard

The PARC repeater site on Palomar Mountain is located at 5560 feet above mean sea level and 2132 above mean terrain. It covers most of San Diego County and beyond into Mexico and out to sea, and is shielded from the North.

**Note 1:** All Fusion enabled repeaters require a CTCSS tone of 107.2 Hz to access the repeater and also transmit a 107.2 Hz tone. Since the repeater output has a 107.2 tone you can enable CTCSS receive tone squelch on your transceiver which will eliminate interference from spurious noise and other repeaters. Control operators have the capability of setting the Fusion Repeaters to FM only operation. Consequently if you can't bring up the repeater in C4FM digital mode, try using normal FM mode. When in FM mode all Fusion repeaters have a 3 minute maximum transmit time, after which the repeater will cut off transmission until after the received signal drops. To prevent timing out the repeater after someone finishes talking, wait until you hear the courtesy beep which indicates that the 3 minute time has been reset. If a transmit timeout happens the repeater will provide a voice message indicating that the maximum transmit time has been exceeded.

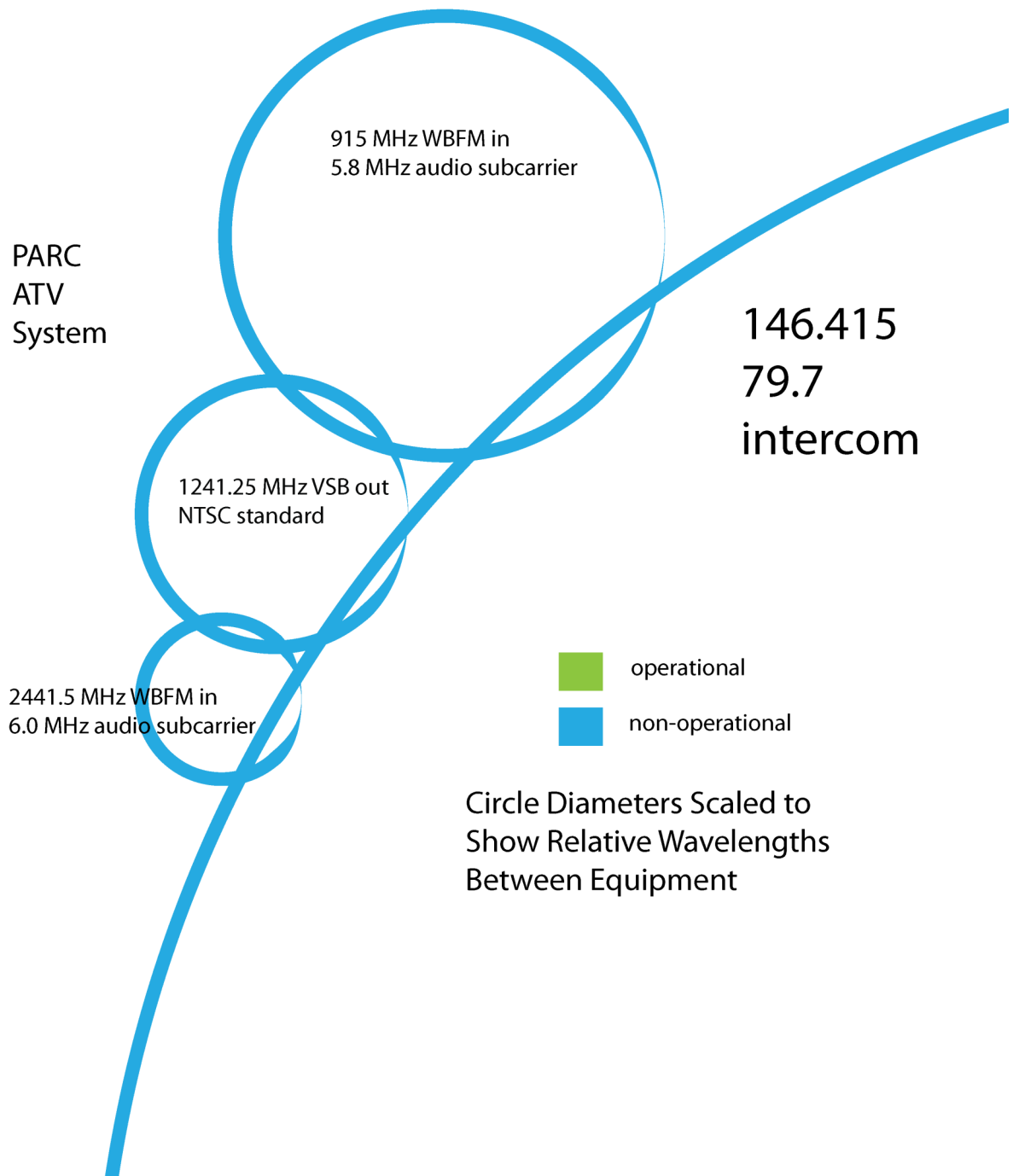
**Note 2:** PARC no longer operates an autopatch or packet BBS

# Reported Repeater Status



Thanks to Michelle Thompson, W5NYV for the repeater status graphics.

# Reported ATV Status





## Membership Report

You can check the status of your membership 24/7 at Member List or 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@palomararc.org](mailto:Membership@palomararc.org).



Check the status of your membership 24/7 at [Member List](#). If you don't find your name and callsign on that page, then your dues have lapsed. If you have questions, send email to [Membership@palomararc.org](mailto:Membership@palomararc.org).

---

## Donate to PARC by Shopping at Amazon

As publicized earlier this year, PARC is now a not-for-profit charity, and funds donated to PARC are deductible for income tax purpose if you itemize. PARC also announced

that in cooperation with Amazon, it is now possible to shop on Amazon at NO cost increase, and have Amazon distribute a percentage donation to PARC.

This is done by shopping on [www.smile.Amazon.com](http://www.smile.Amazon.com). If you choose to avail yourself of this opportunity, when shopping on [www.smile.amazon.com](http://www.smile.amazon.com),




---

## Polo Shirts

We're ordering Polo shirts! Some of you already have orders in with me from the last meeting, please be ready to pre-pay for them so we can get the order placed ASAP! We need

20 shirts to get the price I've been quoted. If we end up with 30+ then the price goes down and I'll have a little change for those who have pre-paid once your shirts come in! Base price: \$21.00 includes printing on the front, PARC logo on one

side and your name/callsign over the pocket. Add \$2.00 for 2XL, \$3.50 for 3XL, or \$5.00 for 4XL. Add \$5.00 if you also want the logo printed large on the back.

73 de K6JPE



## **The New Improved Nevada QSO Party in October!**

The Sierra Nevada Amateur Radio Society is proud to present the Nevada QSO Party which will be an annual event on the second full weekend in October. This year it will start at 2000 hours Nevada time (PDST) on Friday, October 12 (0300z 10/13/2018) and run until 1400 on Sunday, October 14 (2100z 10/14/2017)

The objective of this contest is to activate and work all 17 of the counties in Nevada. Nevada stations will work anyone, anywhere, and out of state stations will work Nevada Stations. All stations may be worked on the three different modes for up to three times on each HF band and only once on the VHF+ frequencies. Rovers in Nevada can be worked again when they change counties.

The state of Nevada is one of the rarest U.S. States on the air. Be sure to work Nevada in the upcoming Nevada QSO Party; it will be helpful you when going for ARRL WAS (Worked All States award) and other awards like grid zones and counties.

The VHF+ band will consist of all legal frequencies from 50 MHz up to 1300 MHz. In order to bring a lot of new hams into contesting, we are allowing the use of repeaters on these frequencies. There are linked systems which will allow out of state contacts. All modes will be allowed with the exception of the WSJT modes.

On the HF side, Phone, CW, and Digital modes will add multipliers to the QSO points. All conversational digital text modes are allowed with all counting the same. Currently, the WSJT modes do not have a contest exchange message that is handled as a valid regular message, so those modes are not allowed. (This may be changed if this is added to the WSJT program in the future)

Logging software from N1MM will have the ability to work on this contest. For those that are using paper and pencil or some other logging method that does not produce a Cabrillo file, we also have the WA7BNM Cabrillo log maker which will allow you to build a Cabrillo file. All entries over 10 contacts must submit an electronic Cabrillo log.

We also have a sign-up form to allow stations to sign up for the counties which they will activate and what modes they will be using. We are going to try and get operators out in all counties and have all modes covered. Please use this form if you are going to be operating in Nevada.

The Nevada QSO Party website is <http://nvqso.com/>. Complete rules are listed under the "Rules" tab and please read the FAQs for additional information. Information is subject to change on the website so be sure to check back regularly. Please visit this site often and pass the word onto your friends!

We are looking forward to your participation in this contest!

For further information on this news release, contact Jim Shepherd at [W6US@SNARS.ORG](mailto:W6US@SNARS.ORG)

## Tropospheric Ducting in the Pacific by Lenny Gemar - N7MOT

It's a picture-perfect afternoon as CV-64, the USS Constellation sails toward its home port of San Diego. Blue skies, a stiff breeze across the deck, and dolphins jumping in the water race along with the ship. After spending six months away from home and family, the crew is excited to be finally headed back.

Having just spent a few days in Pearl Harbor, a lone sailor retires to the ham shack/MARS station to take care of some paperwork and catch up on some reading. As he sits there high above the quiet flight deck, he hears the squelch break on the VHF/UHF dual-band radio in the shack. Thinking nothing of it he tightens the squelch and gets back to writing. There's always errant RF floating around the island of an aircraft carrier. But then he hears voices. That's when it occurs to him that the radio is on and still tuned to the last channel he used when pulling out of San Diego six-months

prior. And he was still five days out from San Diego!

In those days it was simply known as 13/73, the Palomar Amateur Radio Club's repeater. It was a flamethrower of a repeater solidly lighting up North County, with plenty of overshoot to also cover South County. At nearly 6,000' it was one of the more prominent repeaters in Southern California.

As he awaited a break in the conversation, our intrepid radio operator turned on the navigation monitor and looked up his coordinates on a map. Nearly 2,500 miles lie between Oahu and San Diego. Mid-August of 1985 and not quite halfway back, the map showed they were 1,300 miles out from San Diego. 1,300 miles?!?!? What radio magic is this?

For those of us that have lived along the coast, tropospheric ducting is a fairly common occurrence. Also sometimes referred to as an inversion, it allows VHF and sometimes UHF QSOs to transit distances far outside the normal line-of-sight limitations to which hams are accustomed. Quite prevalent along weather fronts in the rest of the U.S., the Pacific coast offers this phenomena due to the water/land conjunction. That's why it's not uncommon to hear repeaters from Santa Barbara (and beyond) all the way from San Diego. But I digress.

At an appropriate point, the Chief MARS Operator aboard the Constellation breaks in and announces his presence. He has a nice conversation, but those on the other end sound dubious in

his claim to be so far at sea. As the conditions begin to break down, he tells them that he'll call again once they return to port. The propagation conditions deteriorate and the operator gets back to work, after dutifully logging the call.

At the end of the week the ship nears San Diego and, true to his word, the operator calls in on 13/73 to chat with anyone listening. On this trip he's been to Singapore, Australia, the Philippines, and Kenya. And two months floating around the Indian Ocean. But there's no place like home and he's

happy to be back in the U.S. operating his radio and talking with friends, catching up on the events of the past six months.



## Oceanside Harbor Days

Come out and support PARC at Oceanside Harbor Days  
September 15th and 16th

We will have a booth setup next to the Oceanside CERT group. Prime location, everyone walks past our two booths.

CERT talks preparedness and we talk ham radio for Emergency Communications (and all the other aspects of Amateur Radio).

We need volunteers to cover 9:00 am till 5:00 pm each day. I'd like to see teams of two for each 2 hour span. Call a fellow ham and sign up for a time slot. Another person that can be there at 6:00 am to help setup would be great too!

Saturday; September 15th

6:00 am Setup

9:00 to 11:00

11:00 to 1:00

1:00 to 3:00

3:00 to 5:00

Sunday; September 16th

9:00 to 11:00

11:00 to 1:00

1:00 to 3:00

3:00 to 5:00

5:00 pm Teardown and load out



We will have 120V power. I'm thinking we need a mobile 2 meter and 75 cm rig plus something to at least 'show' HF. I have a Heathkit SW-7800 receiver with a whip antenna that should be able to get SSB and CW. I will bring a mobile 2m/75cm antenna and a 2m/75cm Moxon antenna on poles we can strap to a canopy legs. Maybe even bring a vertical 2m dipole. People love to talk antennas! No large HF antennas this year.

Contact me at [MembershipChair@palomararc.org](mailto:MembershipChair@palomararc.org)

Regards,

Glen AI6RR

PARC Membership Chair



# SAN DIEGO HAMFEST

## October 6, 2018



**Time of the Event: 7 AM-3 PM**  
**"Old Radio Trade Show" Starts at 6 AM**

**Hamfest Cost: \$5.00**  
**Trading Post: "Consignment Booth"**

**Old Radio Trade Show in parking lot!**  
**Set-up a table and sell your unwanted**  
**Old Radio Gear ONLY \$5.00 a space!**

All Local Ham Clubs Welcome  
 Button Hole "QSO's" with other Hams  
 Visit Ham Club Booths  
 ARRL Forum  
 Ham Radio Vendors  
 Door Prizes  
 VE Testing  
 T-Hunt  
 Speakers  
 "FREE" Antenna Friendly Parking

### Grand Door Prize



**ICOM 7300**



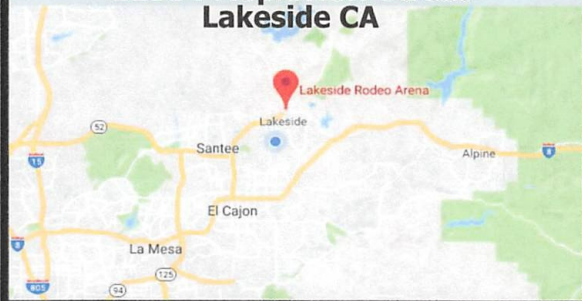
**Vendors!**



**Used Radio  
Trade Show**

### Location

**Lakeside Rodeo Grounds**  
**12584 Maplevue Street**  
**Lakeside CA**



You are cordially invited to attend the

4th Annual San Diego Hamfest 2018.

We plan on starting out the day with an

Old Radio Trade Show, Vendors,

Speaker Forums, and VE Testing.

So come on out and let's Ham it Up!

**Air Conditioned Tech**



Sponsored by: Lakeside Amateur Radio Club  
 Visit us on the Web at  
[WWW.LakesideARC.org](http://WWW.LakesideARC.org)

For the most up to date information  
 Please visit: [WWW.SDhamfest.org](http://WWW.SDhamfest.org)



# It's Picnic Time!

Members of Palomar Amateur Radio Club, and HAM Friends in the community! Join Palomar Amateur Radio Club for a fun day of radio, T-Hunting, food, and rag-chewing at San Dieguito Park, in our usual area #4, on Saturday September 22 2018.

Hamburgers, Hot dogs, and Veggie burgers will be provided, along with the fixins, plates, and flatware. Members and guests are asked to bring an item from the following list based on their last name:

- A-K Side dish or casserole
- L-R Salad vegetables or fruit
- S-Z Dessert

We will also hold our yearly Participation Drawing for some fun prizes, and see some show-and-tell to include your boat-anchor radios and new toys or projects you might be working on, feel free to bring items to show off!

Exact schedule TBD, but we will be there in the morning at park opening (08:00) to setup, through lunch, and into the afternoon. We have the space all day so feel free to hang out as long as you like!

Hope to see you there!!





# PARC AUCTION!

**Wednesday, October 3rd**  
**Location TBA**

- Sellers can setup between 6:00 and 6:30
- Please have your name and on all items
- Buyers can examine the merchandise between 6:30 and 7:00
- The auction will start at 7:00
- All items should have some nexus to amateur radio
- Information on the condition of the item is appreciated
- Small items can be grouped together in a lot
- Any item that sells for less the \$10 will be considered a donation to the club
- We accept cash, credit cards and gold bouillon but no bitcoins



SCOPE  
PUBLISHED BY THE  
PALOMAR AMATEUR RADIO  
CLUB

EDITOR  
KEITH SPEARS  
KM6CXW

## Editorial Policy

The Scope welcomes and encourages members to submit articles, photos, stories, equipment reviews and any other items of interest to ham radio.

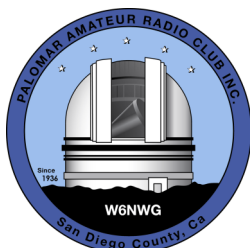
The Palomar Amateur Radio Club reserves the right to edit all submissions for content and length.

Please submit documents in MS Word format and photos as JPEG or GIF. Flyers may be submitted in PDF.

**All submissions need to be received by the 20th of the month.**

Send submissions to:

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



## Palomar Amateur Radio Club

**The Back page is a place for humor. If you have a joke, cartoon or just a fun story about ham radio, please share it with me. Please remember**

### Back to School Jokes ( I know they are old and bad!)

When I was in school,, my math teacher called me average  
How mean

**Q.** Why did the math book look sad?

**A.** Because it had so many problems!

What if math teachers are just pirates and they want us to find X so they can find the buried treasure.

**had:** Why do magicians do so well in school?

**Josh:** I don't know. Why?

**Chad:** They're good at trick questions.

**A book never written:** "High School Math" by Cal Q. Luss.

**Tom Swiftie:** "We have too many quizzes in school!" Tom said testily.

What kind of school do you go to if you're...

...an ice cream man? Sundae school.

...a giant? High school.

...a surfer? Boarding school.

...King Arthur? Knight school.

**Teacher:** Donald, what is the chemical formula for water?

**Donald:** H-I-J-K-L-M-N-O.

**Teacher:** What are you talking about?

**Donald:** Yesterday you said it was H to O.

**Teacher:** Where are the Great Plains located?

**Tommy:** At the great airports!

**Math teacher:** A man from Los Angeles drove toward New York at 250 miles per hour and a man from New York drove toward Los Angeles at 150 m.p.h. Where did they meet?

**Johnny:** In jail!

**Teacher:** Tommy, can you tell us where the Declaration of Independence was signed?

**Tommy:** Yes, ma'am. At the bottom.

**A book never written:** "When Does School Start?" by Wendy Belrings.