

## August Meeting Location

As we continue to work on confirming our permanent home, which we are hopeful to be firm on very soon, this month we will meet at the brand new 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. The website for this facility is <http://www.carlsbadca.gov/services/depts/parks/facilities/>



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## It Appears By Spears



I hope everyone is having a safe summer. As any longtime San Diego Resident can tell you fire is more of a threat than earthquakes. As I write this a fire is burning near Fallbrook and yesterday one burned over 300 acres near Escondido. Emergency Preparedness is critical as a disaster can strike anytime. Have a family emergency plan and review it regularly. For more information visit

[www.readysandiego.com](http://www.readysandiego.com)

In this issue we have more Field Day information from Dennis including our final scores. Gunther, AI6V0 provided some additional pictures starting on Page 15. I know it's early but you may want to start collecting all your junk, I mean valuable equipment for this years Club Auction which will be on October 3rd.

There is an informative article from Rich NI6H on Packet Radio starting on page 10. Our annual Club Picnic will be held in September at San Digeo Park in Solana Beach. Additional information will be in next months Scope.

73 de KM6CXW  
Keith Spears  
Editor

## President's Report



Greetings PARC Members and other HAMs! We have exciting news about our meeting location, we are confirmed for the Carlsbad Parks Department Pine Avenue facility! This venue is brand new construction and should suit us nicely, it's also right off the 5 freeway and near enough to the

old location that pre-meeting dinners at Tip Top should still be possible for those who wish to participate! More details on the front page. Be sure to check out the Field Day report on page #12 for our final score and other details. We are also working on putting together an outreach

team who will be working to staff booths at various events like Operating Day, Harbor Days, and others. We will have details coming soon so keep an eye out in the next SCOPE for that information. I hope everyone is enjoying their summer and keeping cool!

## 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

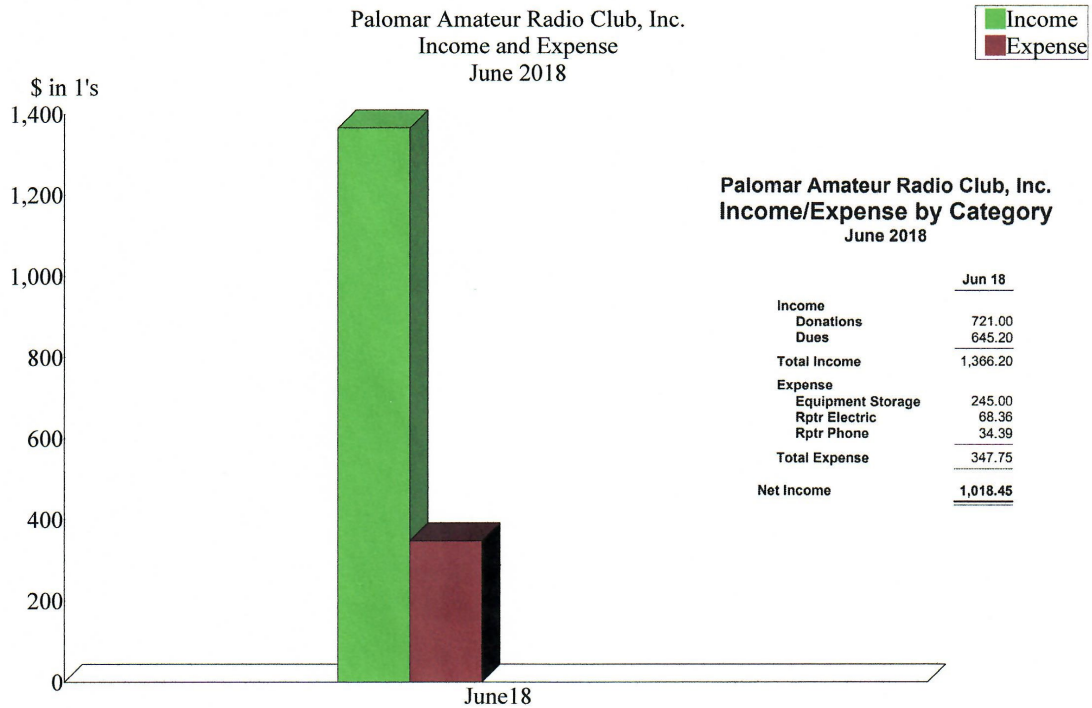
### Non Voting Members

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

### Committee Chairs

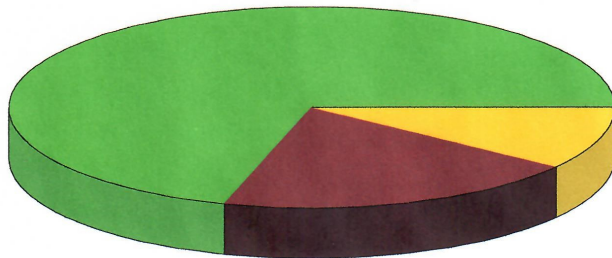
Boy Scouts	Michael Palugod	mpalugod@yahoo.com
Digital ATV	Michelle Thompson, W5NYV	mountain.michelle@gmail.com
Echo Link	Bernie Lafreniere N6FN	N6FN@niftyaccessories.com
HF Remote	HF Remote SIG	hfremote@palomararc.org
Mesh Networking	Michelle Thompson, W5NYV	mountain.michelle@gmail.com
Operating Day	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

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Expense Summary

Equipment Storage	\$ 245.00
Rptr Electric	68.36
Rptr Phone	34.39
<b>Total</b>	<b>\$347.75</b>



By Account

## August Program

The August PARC member meeting program is dedicated to end-fed wire antennas. Our very own AK6R (Bob) will present many technical considerations about the end fed concept, including considerations on avoiding RFI.

This will combine theory with practical advice.

## 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

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## 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!

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## Upcoming Events

Wednesday, August 1st	7:30	PARC Meeting	Pine Ave. Community Center
Wednesday, August 8th	7:00	PARC Board Meeting	Poway Fire Station #3
Wednesday, September 5th	7:30	PARC Meeting	TBD
Wednesday, September 12th	7:00	PARC Board Meeting	Poway Fire Station #3
Wednesday,, October 3rd	7:00	PARC Meeting & Auction	TBA

## 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.

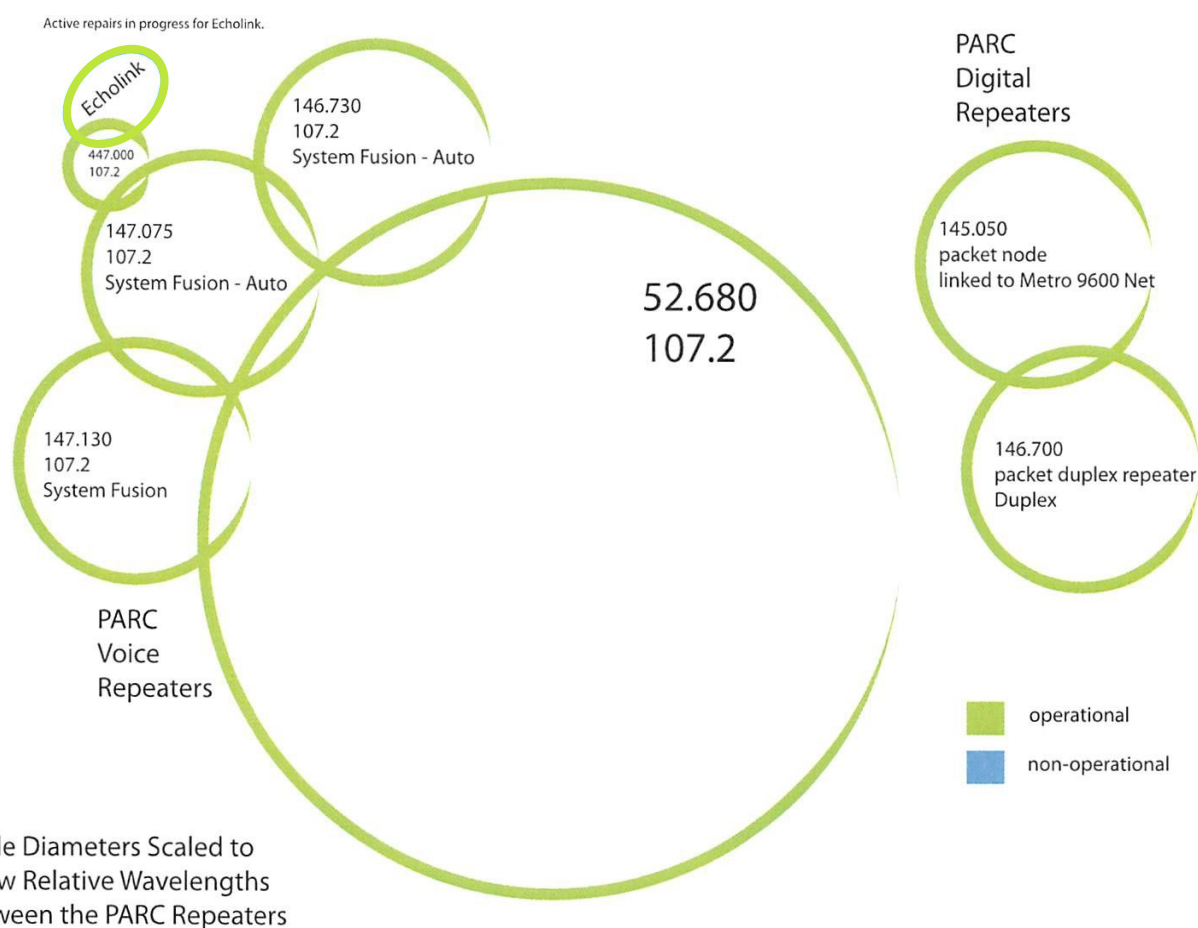
- ATV in: 915 MHz WBFM audio subcarrier 5.8 MHz
- ATV in 2441.5 MHz WBFM, audio subcarrier 6.0 MHz
- Intercom: 146.415 MHz NBFM simplex (tone 79.7). Currently not working.
- ATV out: 1241.25 MHz VSB, NTSC Standard

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

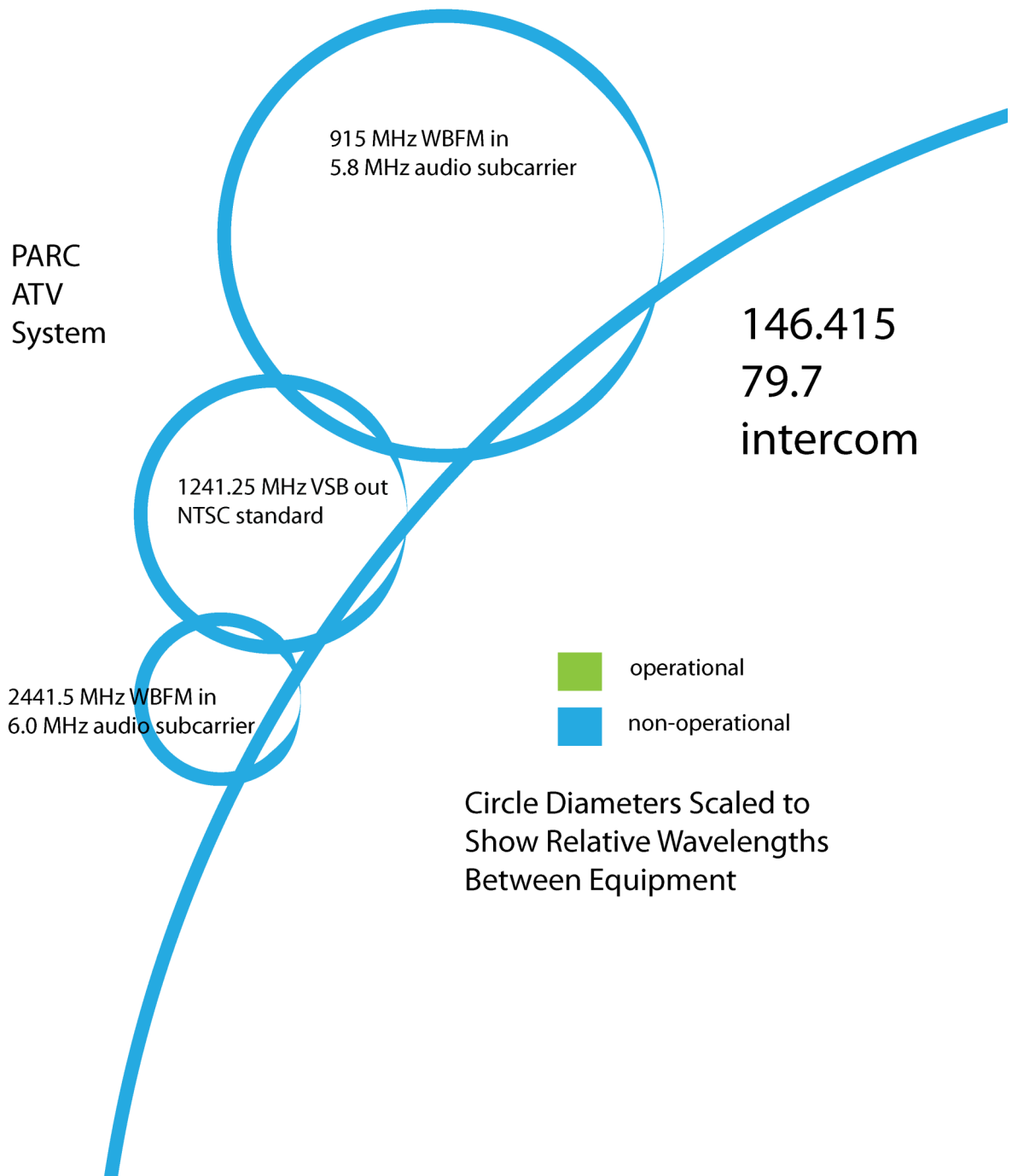
# Reported Repeater Status



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



## Packet Radio—Rich NI6H

PARC supports two packet systems:

1. A standard simplex 145.050 VHF digi-peater
2. One of the most unique systems in the country today, a full duplex packet repeater on our TASMA coordinated 146.700 (no PL required) frequency.

These packet repeater systems were built by John WB6IQS.

We are replacing both of these digital systems. For the 145.050 digi-peater John WB6IQS purchased a new MFJ 1270C TNC (Terminal Node Controller) and Ron KG6HSQ upgraded its' firmware. These systems are used by amateur radio operators using Winlink Packet Software for normal communications. Winlink is used to send radio EMCOMM (Emergency Communications) Email messages in support of our local Non-Government Organizations (NGO's) such as ARES, ACS/RACES, Red Cross and local hospitals.

Winlink is an all-volunteer project of the Amateur Radio Safety Foundation, Inc. (ARSFI). It is a non-profit public benefit corporation. The Winlink Global Radio Email System is accessed via software named Winlink Express. ( <https://winlink.org/> ) When our local internet goes down the Winlink Global Email system will continue to deliver Radio Email messages to the nearest area where the internet is still active. This includes a western state or even worldwide to other countries. Unlike voice communications, Winlink packet modes do not require the operators to be at their radios and on frequency. The Winlink Radio Email system can pass your Email to the working internet, store it on a local gateway for recipients to pick up later or store it in the Winlink Cloud.

With Winlink, amateur operators retain the ability to send EMCOMM Emails to and from those last few hundreds of miles that may have gone dark in a disaster. The only equipment that is needed is a 2 meter or 440 (mobile or HT) radio, TNC, computer and interface cable.

There is also a software / hardware combination that can replace the need for a TNC. You can do packet communications using a hardware sound card or USB interface such as a Signalink USB. With this software and hardware you can do Winlink communications on HF, VHF or UHF radio. Note: In general a dedicated TNC system is preferred.

It is also possible to use an HF station for state to state or worldwide communications. If our local internet goes down, an outside Winlink Gateway will forward our local Winlink Emails via HF Packet to the nearest Gateway with an active internet.

There are currently two Winlink Gateways on our 146.700 packet repeater: XE2BNC-13 at the Mexican/US border (active 24/7). N6KZB has been managing this Gateway since our packet repeater went on the air. It is set to auto forward on HF radio upon loss of local Internet. It has a message store / pickup mailbox feature such that if the lo-

## Packet Radio-Continued

cal Internet is down, then it will reach a working internet gateway.  
KG6HSQ-13 in Fallbrook.

Peer to Peer transmissions work very well over our digital repeater. We have used this mode in ARES Hospital support. Remember, our 146.700 digital repeater transmits and receives twice as fast as a simplex digi-peater.

Additional Gateways (a station that receives and transmits Winlink Radio Emails and has an active internet connection) are welcome on our 146.700 packet repeater.

To assist you in understanding and using the Winlink Global Radio Email System, Phil Sherrod W4PHS has developed many useful Winlink presentations. Attached are some useful links for further information.

73 de NI6H

### Winlink Training Presentations

[RMS Express training presentation](#)

[Using RMS Express to send/receive radio-only messages](#)

[RMS Express Message Templates](#)

[RMS Express HTML Forms](#)

[Winlink Training PowerPoint slides](#)

[Winlink Operational Modes](#)

[Radio-Only Winlink](#)      [Operation](#) (HF MESH and Peer-to Peer)

[RMS Express Pic-](#)      [ture Editor](#)

[Winlink Tactical](#)      [Addresses](#)

[WINLINK EXPRESS SOFTWARE](#)

## Field Day Update-Dennis

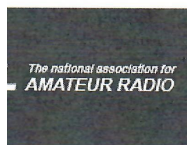
- Field Day planning/nets went well
- Use field day check list - all assets were identified
- Set up could use more help
- Majority set up by 1430
- Analyze antennas when up at low level to confirm swr/frequency cut
- Make pulleys removable
- Keep pulleys with 100 foot rope on winders in station boxes
- Have cord winders – need to set a work party to wind tie down ropes 3 per station box
- Review station boxes for proper stock
- GOOD CREW FOR TEAR DOWN!
- Last off site by 1500
- Club banners should be front and high of canopies
- Order GOTA banner (~\$100) Get On The Air 10 foot width
- No extra items on midway/reception area
- Gota= Gota equipment only info=info only Food=food only no storage of any other item
- If storage is needed find somewhere else and cover the items
- Filters were on site but not used
- Need wire antenna storage box, covered, similar to station boxes
- Analyze and label wire antennas
- Improve station information notebooks
- Mark banner frames for easier assembly
- Use alarm for WIAW message
- Phone number for NTS for back up use to get on net if missed
- Winlink, if used, needs to be registered in advance NEW
- All rotators are 8 pin and external this makes all rotators interchangeable
- No rotator/rotator wire/control in 160m box should have one for backup
- WD40 (Lube) tower legs before erecting
- make sure radios are "contest" level

## For Sale

- Vertical trapped antenna. HyGain 18AVT. All band HF 80 - 10 Meters. Donation to club. \$40 OBO. Contact [WB6IQS@att.net](mailto:WB6IQS@att.net) for details.
- Oscilloscope, 40 MHz, 2 channel, analog. Calibrated vertical and horizontal ranges. No probes. Tenna model 72-740 bench oscilloscope, club donation. Contact [WB6IQS@att.net](mailto:WB6IQS@att.net). \$40 OBO
- Transport case. Molded plastic & metal, water proof heavy duty with locking hasps. 12" tall, 23" wide X 18" deep. Foam rubber internal dividers. Club Donation. American Touristor Go-rilla or TSA (same thing!) grade construction. \$35 OBO. Perfect for a Go-Box. Contact [WB6IQS@att.net](mailto:WB6IQS@att.net)
- Kenwood TS-140S HF transceiver, 80 - 10 Meters with WARC bands. Mobile and base station microphones. Donation to club. Compact design. Has original manual and external DC power supply. Good condition. \$250 OBO. Contact [WB6IQS@att.net](mailto:WB6IQS@att.net).

## Field Day Scoring

ARRL Field Day Entry Form



### 2018 Field Day Entry Form

mailed to: fieldday@arrl.org with a copy to KD6TUJ-3@HOTMAIL.COM

07-16 04:10:30 PDT  
4b29ff3a7238b

link if you want to update your Field Day entry:

et/cabforms/fielddayupdate.php?callused=W6NWG&confirmation=2734b29ff3a7238b

re web to submit your 2018 ARRL Field Day entry. Print this page to use as proof that you try.

Call used: **W6NWG** GOTA Station Call: **WD6FWE** ARRL/RAC Section: **SDG** Class: **5A**

Participants: **74** Club/Group Name: **PALOMAR AMATEUR RADIO CLUB**

Pr

Power multiplier: **2X**

#### Bonus Points:

Description	Points
100% Emergency power	500
Media Publicity	100
Public Location	100
Public Information Table	100
NTS message to ARRL SM/SEC	100
W1AW Field Day Message	100
Formal NTS messages handled - No.=10	100
Natural power QSOs completed	100
Site Visit by invited served agency official	100
GOTA Bonus	0
Submitted via the Web	50
Educational activity	100
Social media	100
Safety officer	100
<b>Total Bonus Points</b>	<b>1,650</b>

#### Score Summary:

	CW	Digital	Phone	Total	
<b>Total QSOs</b>	<b>804</b>	<b>0</b>	<b>260</b>		
<b>Total Points</b>	<b>1608</b>	<b>0</b>	<b>260</b>	<b>1868</b>	<b>Claimed Score = 3,736</b>

#### Submitted by:

DENNIS BACA, KD6TUJ  
659 ARTHUR AVENUE

<http://www.b4h.net/cabforms/fielddayentry.php>

1/2

## Field Day Scoring

7/15/2018

ARRL Field Day Entry Form

OCEANSIDE, CA 92057

E-mail: KD6TJ-3@HOTMAIL.COM

**Comments:**

(blank)

**Band/Mode QSO Breakdown:**

	CW		Digital		Phone	
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)
160m						
80m	84	100			7	100
40m	211	100			191	100
20m	505	100			38	100
15m	4	100			1	100
10m						
6m						
2m						
1.25						
Other						
Satellite						
GOTA					23	100
<b>Total</b>	<b>804</b>		<b>0</b>		<b>260</b>	

**GOTA Bonus:** GOTA Coach - Double Bonus Points

Name/Call	QSOs	Bonus Points
DON, (NONE)	14	0
TOM, (NONE)	9	0

**Supporting Documentation Required**

Based on your selections, the ARRL expects to receive supporting documentation:

- via e-mail to: [fieldday@arrl.org](mailto:fieldday@arrl.org)

Version: 2.0.2

Revision Date: July 26, 2017

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Web form by WA7BNM



## Field Day Pictures From Gunther, KI6VO





## Field Day Pictures - From Gunther AI6VO





# 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**

### Summer Vacation Jokes ( I know they are old and bad!)

**Brendan:** Where do sharks go on summer vacation?

**Jordan:** Where?

**Brendan:** Finland!

**Erik:** Why did the robot go on summer vacation?

**Sarah:** I haven't a clue.

**Erik:** He needed to recharge his batteries.

**Mike:** Why don't mummies go on summer vacation?

**Hank:** I don't know.

**Mike:** They're afraid to relax and unwind!

**Elaine:** Where do eggs go on summer vacation?

**Peter:** I don't know.

**Elaine:** New York City!

**First woman:** My son came to visit for summer vacation.

**Second woman:** How nice! Did you meet him at the airport?

**First woman:** Oh, no. I've known him for years!

**Ben:** Where do goldfish go on vacation?

**Bob:** Where?

**Ben:** Around the globe!

**Jacob:** Why can't basketball players go on summer vacation?

**Riley:** Why not?

**Jacob:** They'd get called for traveling!

**Jake:** What did the bread do on vacation?

**Drake:** What?

**Jake:** It loafed around.

**Teacher:** Johnny, please use the words "letter carrier" in a sentence.

**Johnny:** Yes, ma'am. "My dad said that after seeing how many things my mom was bringing on vacation, he would rather letter carrier own luggage."

**Stephan:** Where did the sheep go on vacation?

**Michael:** Where?

**Stephan:** The Baa-hamas!