



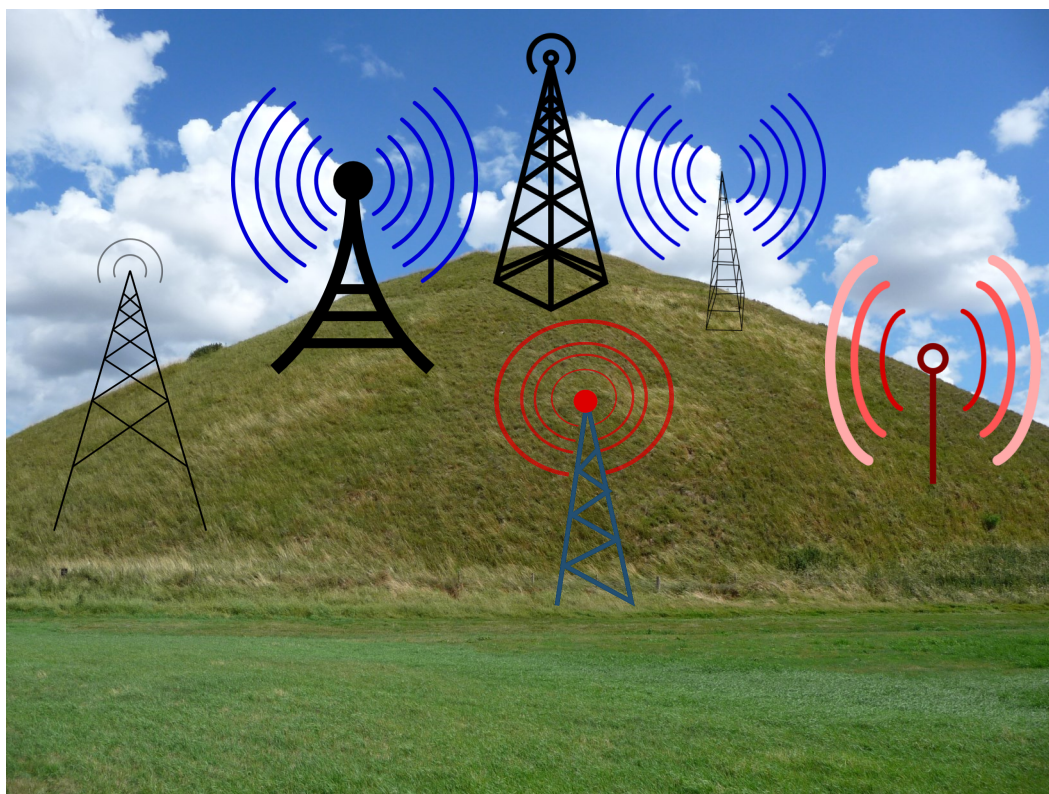
# SCOPE

Palomar Amateur Radio Club

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## *April Showers*



## *Bring May Flowers!*

## It Appears By Spears—6 Meter Update

(Editors Note:: I am using my space this month for John's 6 meter update report.)

The 6 meter repeater was mechanically complete about a month ago but needed some bench time for debugging and complete testing before going up on the hill. Bernie N6FN worked on the integration of the controller code update and addition of the 3d repeater in this rack.

We needed to extend the cavity duplexer cables about 10' from the old repeater location to the new location in our 19" rack. I also added a low pass 6 meter harmonic filter in the transmit line. When I checked the output signal on my spectrum analyzer these Midland LMR mobiles are not as well filtered as a good quality base station would be.

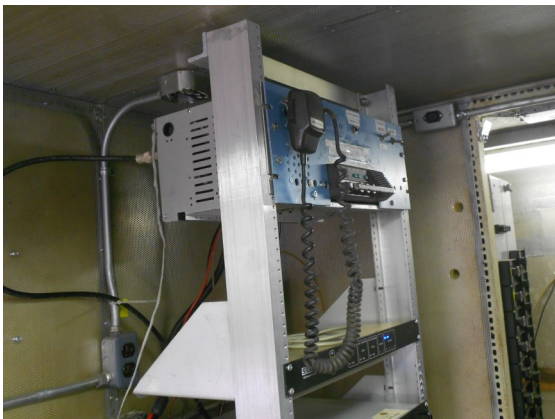
After installing the repeater and verifying normal operation with the local microphone, Bernie updated the firmware in our two SCOM 7330 controllers. He installed a new operating system in each and updated the script for the 5 repeaters.

Rich, NI6H, helped with remote signal reports from both his mobile and a handheld. Local measurements using instruments are all good, but a distant signal report is the real measure of the repeater's performance.

We also investigated changing the current independent remote control system to work with the SCOM 7330 controllers. The SCOM controllers have a feedback path that will allow us to verify that control commands have been received and acted upon.

We are in need a tower climber to secure and repair a broken section of one of our two meter antennas. This is not an immediate concern but should be done before the next fall. The fiberglass sheath of the antenna is hanging loose and will eventually break due to repeated flexing.

Submitted by John Kuivinen, WB6IQS, Vista, CA



## Board Members and Committee Chairs

### Board of Directors

|                          |                            |                             |
|--------------------------|----------------------------|-----------------------------|
| President                | Joe Peterson, K6JPE        | (619) 630-8283              |
| Vice President           | Charlie Riistorcelli, NN3V | 619-368-7617                |
| Treasurer                | Tom Ellett, W0NI           | (858) 546-1148              |
| Secretary                | Rainer Muller              |                             |
| 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 Memebbers

|                     |                          |                             |
|---------------------|--------------------------|-----------------------------|
| 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        |

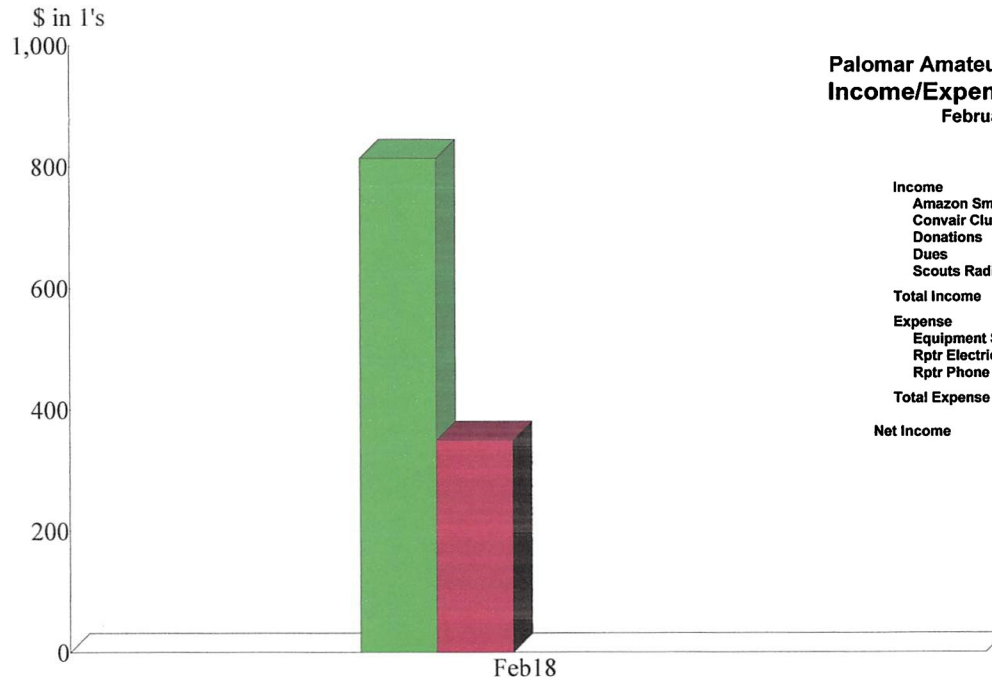
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### Articles Wanted

As you notice, there is no technical articles this month as I received no submissions. Please consider sharing your knowledge. Product reviews, tips and tricks and anything else related to radio is welcome.

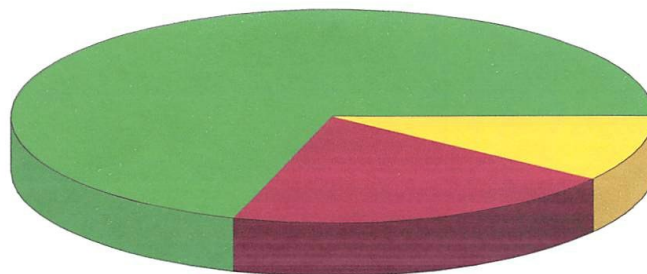
Palomar Amateur Radio Club, Inc.  
February 2018

Income  
Expense



Expense Summary  
February 2018

|                   |          |
|-------------------|----------|
| Equipment Storage | \$245.00 |
| Rptr Electric     | 70.39    |
| Rptr Phone        | 34.32    |
| Total             | \$349.71 |



By Account

## April Program—April 4th

**Technology Hour.** - The Program for the April regular members meeting is:

“Low Cost Software Designed Radios”.

KA9Q (Phil Karn) will expand on Direct Conversion SDR. This is not about SDR Cadillacs. This will highlight the many very affordable dongles, etc. that are SDR and are so much fun.

## Field Day Report

The second Field Day net was conducted with 7 check ins.

Field Day nets run on Wednesdays at 2000 hours except on General Meeting nights.

Field Day will be June 23 and 24, 2018

We have captains to operate as 5A. That is 5 hf stations on non-commercial power. Plus a Get On The Air station for guests and operators who do not have hf privileges.

Psycho kitchen provided by Gina W1OW, Chefed by Mark KF6WTN .

Possible help from local scouts from Troop 619 in Valley Center.

MESH demonstration by Andre K6AH, Lead of ARDEN.

T hunt scheduled for Scouts and all guests.

The big items we are looking for are shelters, generators, and fire extinguishers.

OF MAJOR IMPORTANCE AND SAFETY-- WE WILL NEED MANPOWER FOR SETUP AND TEAR DOWN.

FRIDAY June 22, 2018 8 AM LOADING AND TRANSPORT 12 NOON FOR SETUP

SUNDAY June 24, 2018 11 AM FOR TEAR DOWN AND TRANSPORT TO STORAGE

## Upcoming Events

|                              |         |                    |                        |
|------------------------------|---------|--------------------|------------------------|
| Wednesday, April 4th         | 7:30    | PARC Meeting       | Carlsbad Safety Center |
| Wednesday, April 11th        | 7:00    | PARC Board Meeting | Poway Fire Station #3  |
| April 20th—22nd              | All day | DX Convention      | Visalia, CA            |
| Wednesday, May 2nd           | 7:30    | PARC Meeting       | Carlsbad Safety Center |
| Wednesday, May 9th           | 7:00    | PARC Board Meeting | Poway Fire Station #3  |
| Wednesday, June 6th          | 7:30    | PARC Meeting       | Carlsbad Safety Center |
| Wednesday, June 13th         | 7:00    | PARC Board Meeting | Poway Fire Station #3  |
| Sat. & Sun. June 23rd & 24th | All Day | Field Day          | Valley Center          |



## Repeater Status

This list includes W6NWG repeaters operated by PARC and other repeaters open to use by PARC members. All W6NWG repeaters are located on Palomar Mountain and are open to all amateurs.

| Frequency | TX | Tone  | Call sign | Remarks                                  |
|-----------|----|-------|-----------|--|
| 52.680    | -  | 107.2 | W6NWG     | Back on the air                          |
| 146.730   | -  | 107.2 | W6NWG     | System Fusion enabled. See Note 1        |
| 147.075   | +  | 107.2 | W6NWG     | System Fusion enabled. See Note 1        |
| 147.130   | +  | 107.2 | W6NWG     | System Fusion enabled. See Note 1        |
| 447.000   | -  | 107.2 | W6NWG     | FM only for EchoLink Call Sign N6FN-R    |
| 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   | W6NWG-1   | Packet node; linked to metro 9600 net 1  |
| 146.700   | -  | N/A   | W6NWG-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.

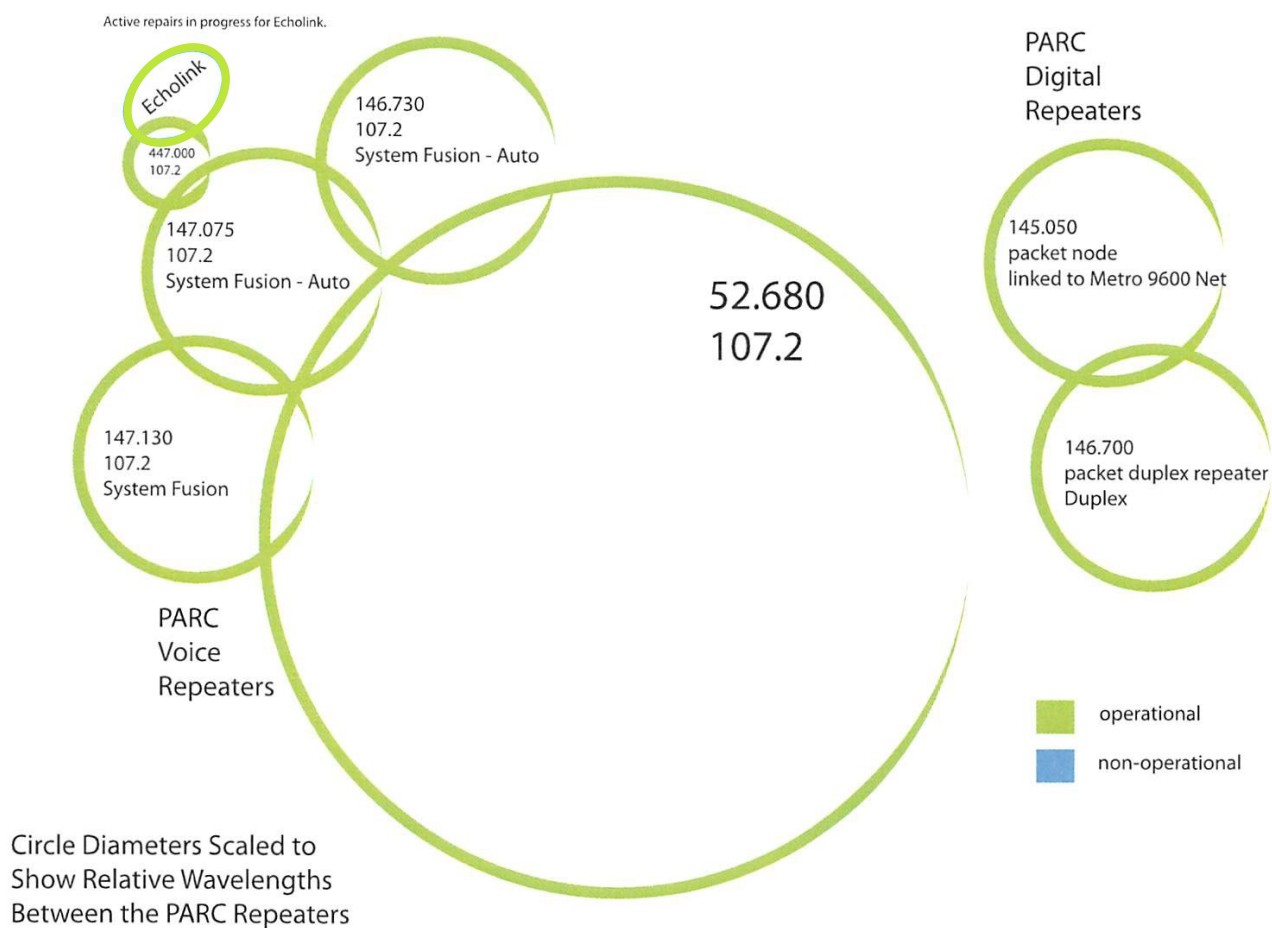
- ATV in: 915 MHz WBFM audio subcarrier 5.8 MHz
- ATV in 2441.5 MHz WBFM, audio subcarrier 6.0 MHz
- Intercom: 146.415 MHz NBFM simplex (tone 79.7). Currently not working.
- ATV out: 1241.25 MHz VSB, NTSC Standard

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.

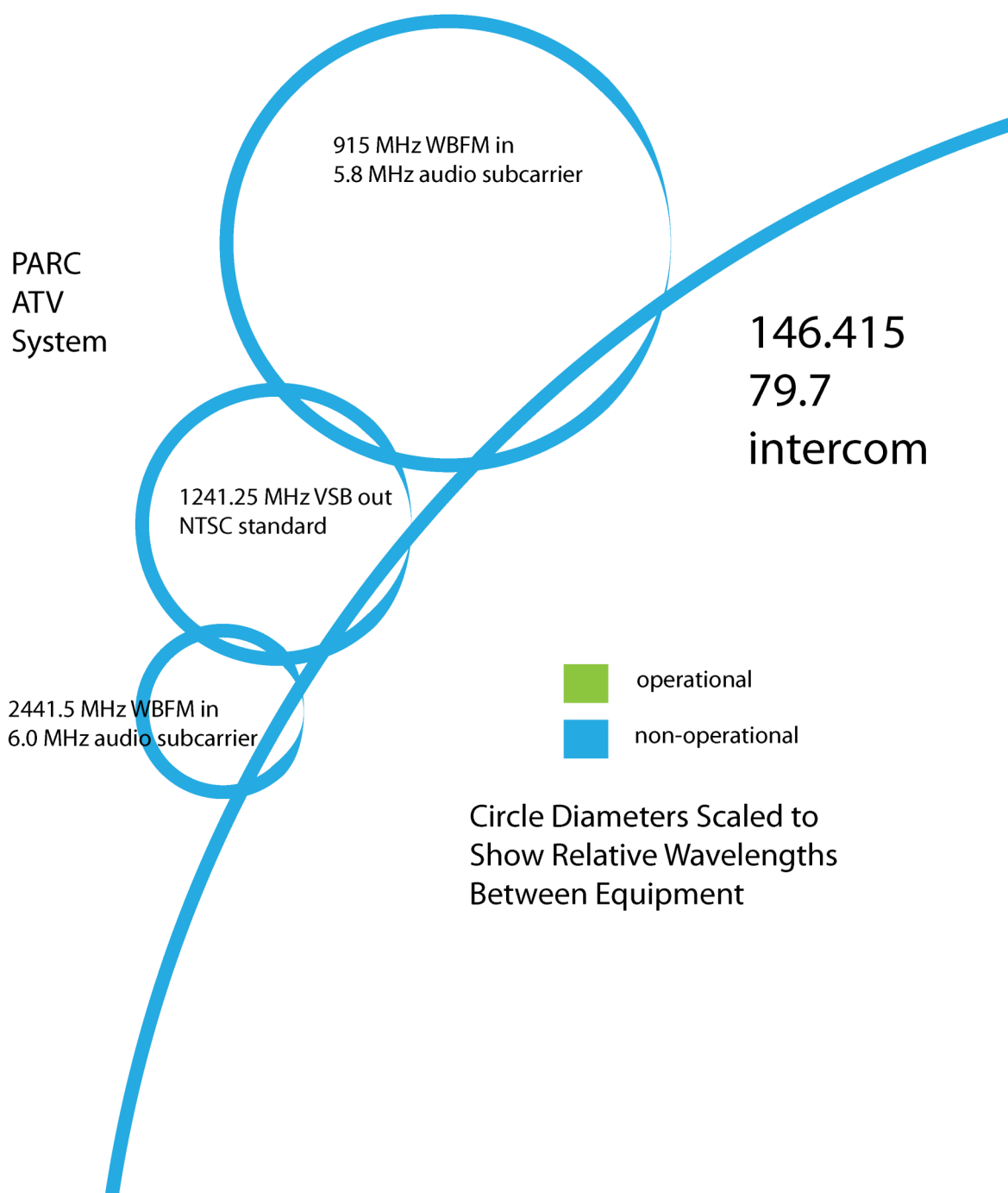
**Note 2:** PARC no longer operates an autopatch or packet BBS

# 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



## Proposed Bylaws Amendment 2018-A

**Purpose:**

To bring the bylaws into alignment with current practice, and clarify what is required.

**Discussion:**

Back in 2001, the board decided that the expense of maintaining a “retail” insurance policy on the club-owned equipment was not financially responsible, due to multiple reasons; Most of the equipment was donated, cobbled together from pieces and parts, upgraded, repaired, modified, etc. so replacement cost justification to insurance companies might be problematic at best. The largest danger we have on the mountain is fire, and many insurance policies allow the underwriter to claim fire as an “Act of God” and deny coverage. The decision was made to start a self-insurance fund, a CD that gains interest over the years and we continue to fund that with the money that we would have spent on a retail policy. In 2013, the same discussion came up again, and again it was determined that self-insurance was sufficient for our needs. The current board agrees that self-insurance is still the best course of action for our insurance needs, but will continue to re-evaluate the situation in future years – so the option to have either a retail policy OR self-insurance gives future boards the ability to make that determination as it sees fit. An informational point, we have had only one equipment loss due to theft, which happened in the mid-1980s, and that loss was not claimed to insurance, but was replaced by the membership. For further information, please see page 4 of the June 2013 SCOPE.

**Text of Amendment:**

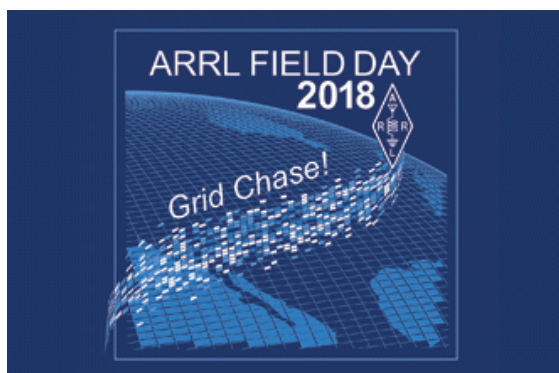
In Section 10(e), add the words “or self-insurance fund” as highlighted below :

(e) The corporation shall obtain and maintain a general liability insurance policy from a national coverage insurance company to cover liability of the corporation and its officers, directors, employees, and agents in the amount of at least \$1000.00, or such greater amount as the board may determine. The corporation shall also obtain and maintain a policy or self-insurance fund to cover Theft or Fire loss of corporation property in such amount as the board shall determine.

**Authored by:**

Joseph Peterson K6JPE

President, Palomar Amateur Radio Club



## Nikola Tesla

Nikola Tesla was a famous 20th century Serbian-American scientist who is most famous for designing the alternating current (AC) electricity supply system.

The world-famed engineer could speak in eight languages, had an eidetic memory and held 300 patents by the time he died. His name was borrowed for the red-hot car and energy storage company created by entrepreneur Elon Musk and he has been cited as an inspiration by Google co-founder Larry Page.

It seems Tesla predicted the creation of the smartphone in a 1926 interview with John B. Kennedy.

*"When wireless is perfectly applied the whole earth will be converted into a huge brain, which in fact it is, all things being particles of a real and rhythmic whole. We shall be able to communicate with one another instantly, irrespective of distance. Not only this, but through television and telephony we shall see and hear one another as perfectly as though we were face to face, despite intervening distances of thousands of miles; and the instruments through which we shall be able to do this will be amazingly simple compared with our present telephone.*

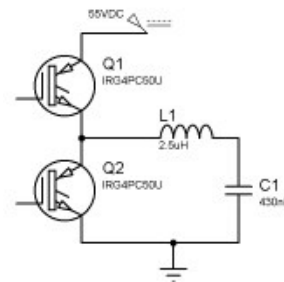
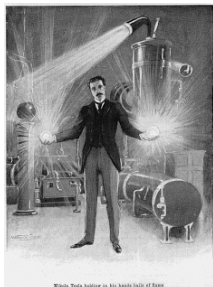
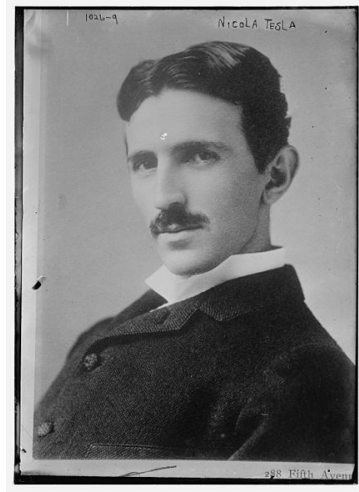
*A man will be able to carry one in his vest pocket."*

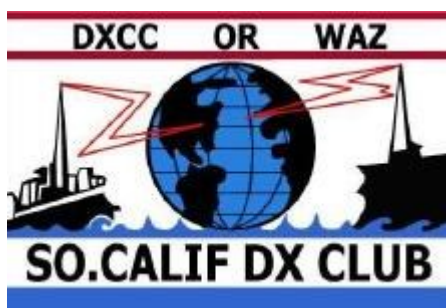
Tesla also made other futuristic remarks during the interview and predicted that men would end up inferior to women.

*"This struggle of the human female toward sex equality will end in a new sex order, with the female as superior. It is not in the shallow physical imitation of men that women will assert first their equality and later their superiority, but in the awakening of the intellect of women."*

Tesla is known for his futurist comments in the last century. That kind of far-seeing vision is especially in demand today. According to Forbes, a career of the future might be forecasting and analyzing the future.

From: "Business Insider", [www.businessinsider.com](http://www.businessinsider.com)







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 this is a family newsletter:)**

### Income Tax Humor

“Next to being shot at and missed, nothing is really quite as satisfying as an income tax refund.”

—F.J. Raymond

“There’s nothing wrong with the younger generation that becoming tax-payers won’t cure.”

—Dan Bennett

“A tax loophole is something that benefits the other guy. If it benefits you, it is tax reform.”

—Russell B. Long, former U.S. Senator

“Income tax returns: the most imaginative fiction written today. “

—Herman Wouk

“There is nothing more permanent than a temporary tax.”

—Author unknown

Indoors or out, no one relaxes  
In March, that month of wind and taxes,  
The wind will presently disappear,  
The taxes last us all the year.

—Ogden Nash

“Taxation without representation is tyranny. “

—A slogan of the Revolutionary War and the years before, attributed to James Otis, Boston lawyer and politician

““Taxation *with* representation ain’t so hot either.”

—Gerald Barzan