QRO

Monthly Newsletter of the Palos Verdes Amateur Radio Club

February 2019

Inside this month's QRO

"The 2018 Baker Island DXpedition"

Arnold Shatz, N6HC

Thursday, Feb. 7, 2019

6:30 pm: "What's Next?" group...all ham radio questions are welcome

7:30 pm: Main meeting

Fred Hesse Community Park
(McTaggart Hall)

29301 Hawthorne Blvd.
Rancho Palos Verdes, CA

Visitors always welcome

PVARC's upcoming meeting topics…

The PVARC's February 7 monthly meeting has noted DXpedition operator and DXpedition team physician **Dr. Arnold Shatz, N6HC,** speaking about the June 27-July 6, 2018 Baker Island DXpedition in the central-Pacific Ocean. This DXpedition almost on the Earth's Equator to one of the most-wanted DX entities logged nearly 70,000 contacts under marginal propagation conditions while also commemorating the 81st anniversary of aviatrix Amelia Earhart's 1937 disappearance near Baker Island. Arnie was first licensed as a ham in 1957 at age 13 while growing up in the Philadelphia area. He received his Bachelor degree in biology and M.D. degree from Temple University in Philadelphia, then did post-medical school training at the University of California, San Francisco. Now retired from his Orange County medical practice where he was a Board-certified urologist Arnie has been on 13 major DXpeditions throughout the world including Midway Island (2008), Swains Island (2012), and Amsterdam Island (2014), which were each named "DXpedition of the Year" at the annual International DX Convention.

Arnie Shatz, N6HC

Dick Norton, N6AA

At the PVARC's March 7th meeting **ARRL Southwestern Division Director Dick Norton, N6AA,** (left) will speak about developments affecting amateur radio throughout the U.S. as well as the American Radio Relay League's directions to further our hobby and public service. He is an avid amateur radio contester with a personal goal of operating a major contest from each of the 40 CQ Magazine zones spanning the world. He has already been to most.

Our April 4th monthly meeting will debut a new video about the PVARC's February 20-24 2019 Islands On The Air DXpedition to Two Harbors on Catalina Island. Nine PVARC members are making this year's journey at their own expense to provide Island contacts for hams worldwide. In recent years our teams have dealt with unexpected weather conditions, challenging propagation, and solving technical issues while operating at Two Harbors.

For our May 2nd meeting we are scheduling a presenter about the new FT-8 mode. FT-8 has gained widespread acceptance among many DXers using low power on HF bands during the current solar cycle's sunspot minimums. More recently there's a new FT-8 version that is suitable for 2019 Field Day use.

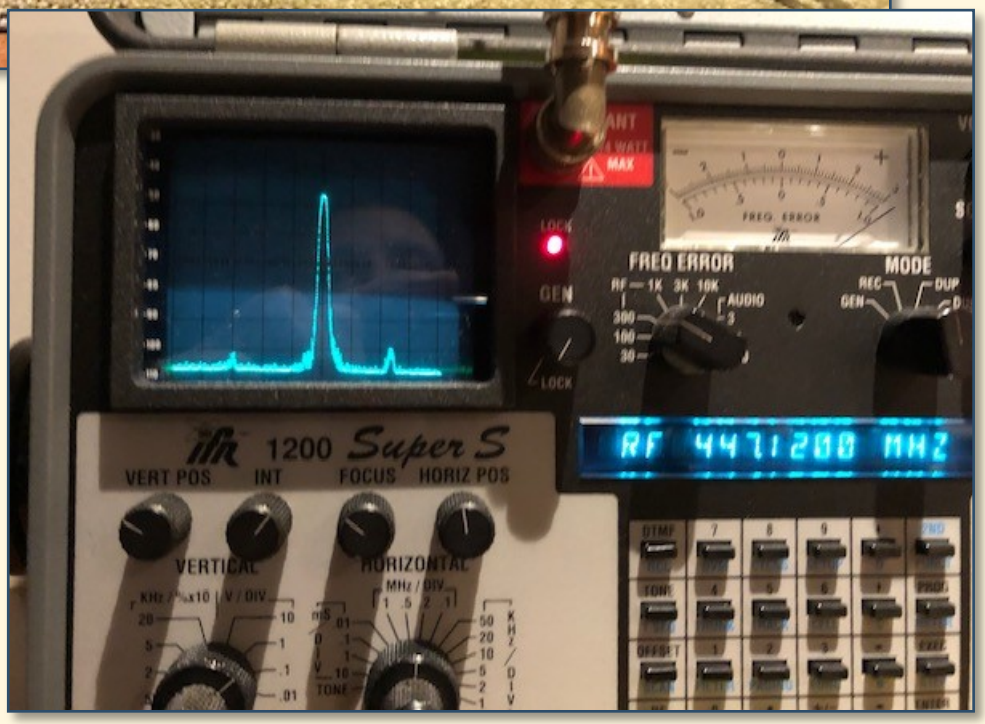
As previously reported we won't have a meeting in July 2019 due to the 4th of July holiday. We are hopeful that Hesse Park will be available instead for a special meeting on August 1. We still expect to hold our International Lighthouse Weekend and family picnic at Pt. Vicente in mid-August. ■

PVARC acquires dual-mode UHF digital and analog repeater for K6PV, will launch networked PVARC DMR talk-group

Our K6PV repeater is soon joining the Digital Mobile Radio (DMR) world.

The PVARC Board recently approved acquiring a dual-mode DMR/analog repeater that dramatically increases K6PV's communication reach and benefits to PVARC members while still providing focused coverage for the City of Rancho Palos Verdes' PVAN radio group.

Our new Hytera RD982i repeater arrived on February 2 and had initial tests on the workbench of PVARC Director Gary Lopes, WA6MEM, who found full 50-watt TX power with a clean signal. This Hytera repeater operates in either digital or analog mode yet still can be networked while using DMR. Most other DMR repeaters allow only dual-mode digital/analog operation without internet connectivity or only all-digital operation if networked. The PVARC already has a DMR talk-group number that will be disseminated to club members along with programming info and education on using DMR. The K6PV repeater will still use 447.120 MHz with PL 100.0 in analog mode on all your existing UHF radios. For DMR operation the "Color Code" will be announced soon. We'll have full information about using DMR in the next **QRO** issue and at our monthly meetings. ■



PVARC Directors Clay Davis, AB9A, and Gary Lopes, WA6MEM, have been the drivers behind getting our K6PV repeater into Digital Mobile Radio (DMR).

Above photo: Gary has extensive repeater technical experience with the local K6RH and N6RPV 440 repeaters. He tested the PVARC's new UHF Hytera RD982i at his electronics workbench, also removing the cover to examine the repeater circuitry inside.

Right photo: WA6MEM's spectrum analyzer shows a very clean test signal coming from Hytera RD982i.

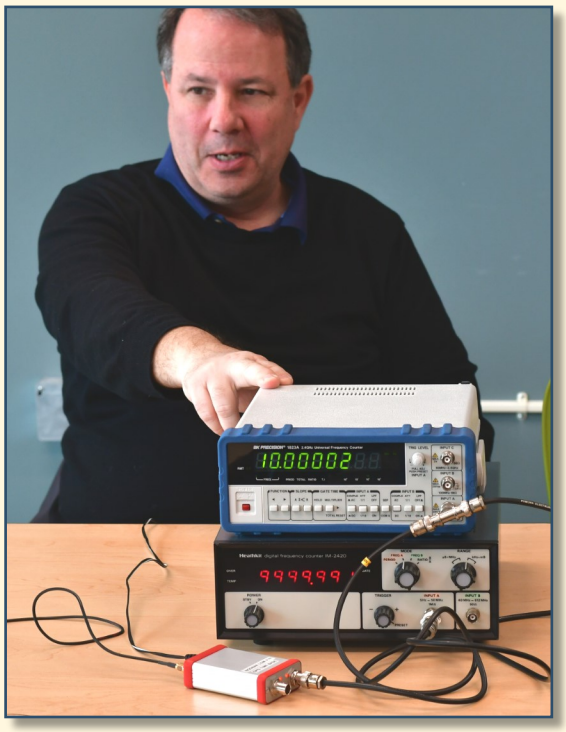
PHOTOS: GARY LOPES, WA6MEM

HF Enthusiasts Group discusses projects and more in meetings at Palos Verdes Library; next gathering is Feb. 9

Our HF Enthusiasts Group had a product-featured two-hour meeting on January 12 at the Palos Verdes Library main branch. Demonstrated or discussed included:

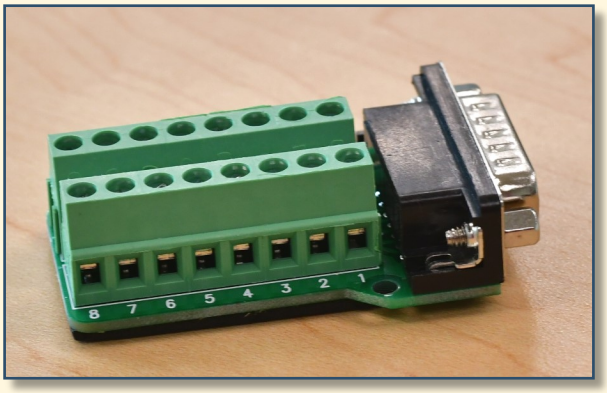
- frequency counters with temperature compensation;
- miniature Soviet military CW key;
- Arduino or Raspberry Pi projects for clock/thermometer/hydrometer, a CW keyer, a panadapter for the Kenwood TS-590S transceiver in conjunction with SDRPlay2, a miniature Linux computer as eventual substitute for Flex Maestro control, band monitors, and more;
- Low-cost DB-15 adapter to get accessory functions from an HF radio;
- Differences in rotor wire gauge sizes and their resistance, plus ground wires...and other topics

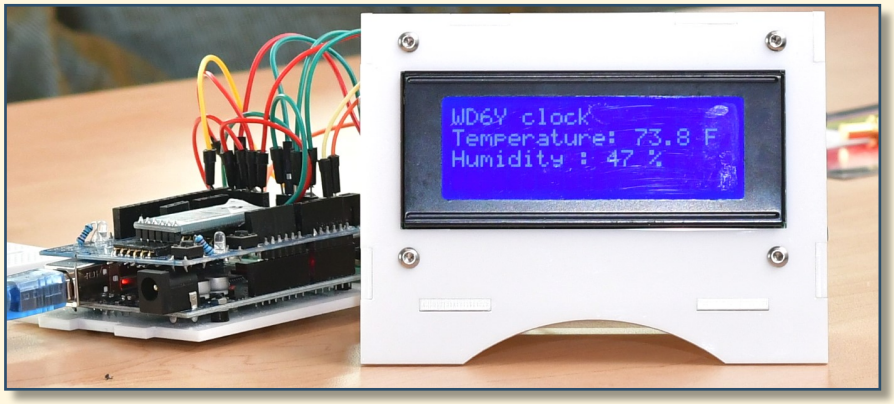
All are welcome at the next HF Enthusiasts meeting on Saturday, February 9, from 10 am-Noon in the Library's Purcell Room.■



Above: Brian, K6BRN, discusses his BK and Heathkit temperature-compensated frequency counters. **Below:** AC6RM's palm-sized Soviet CW key. **Bottom left:** Ray, N6HE, made low-cost adapter for DB-15 connector to also handle HF radio accessory functions. **Bottom right:** Carlos, WD6Y, enhanced his Arduino electronic clock with GPS and weather functions.
PHOTOS: DIANA FEINBERG, AI6DF

Above: The scene at January 12, 2019, HF Enthusiasts Group meeting as Bob, AC6RM, shows handheld Soviet military telegraph key. PHOTO: RAY DAY, N6HE





Optimizing performance of a 2-port RF device

(When a network analyzer is not available!)

By Jerry Kendrick, NG6R

Sometimes a need arises within PVARC to create some new signal conditioning unit like a low-, high-, or band-pass filter [1]; a resonance shifter [2][3]; or an HF Triplexer [4]. It seems to be a fact of life that, despite the best of intentions, the physical realizations of these units don't quite live up to design expectations. This happens primarily because 1) the components used are not exactly the theoretical values specified by the design, and 2) there are unintended circuit phenomena such as mutual inductance and parasitic capacitance as well as inductance, capacitance and resistance in all components and conductors. These phenomena, reflecting reality vs. theory, were explored in a previous **QRO** article [5].

Each of the units mentioned above (filters, shifters, triplexers) were constructed for PVARC or emergency communications applications from passive components—in these instances just inductors and capacitors, no resistors. So, what freedom does one have to alter (tune) the performance of these circuits without actually replacing components? The short answer is: not much. The capacitors are generally soldered into place. Sometimes an additional fixed or variable "trimming" capacitor might be connected across (in parallel with) one or more of the circuit capacitors to slightly increase the existing capacitance. But, without de-soldering and replacing capacitors, little can be done to alter this type component. But for the inductors, a little more latitude exists, as illustrated later in this article.

What are the characteristics of most interest in these units? There are primarily two key performance parameters: insertion loss and return loss. And, because these units need to work over a specified frequency range, these two parameters may vary over the spectrum of interest.

QRO Editor's Note: This article is very helpful because great network analyzers are unlikely to be in your ham shack. The Rode & Schwartz ZVA-40 network analyzer shown above and similar high-end units are 21st-Century incarnations of New York City financier J.P. Morgan's sage advice in the late 19th-Century: "If you have to ask how much it costs you can't afford it." Prices for better network analyzers are not published anywhere on the internet nor in brochures...you must ask for a quote. PVARC Director Gary Lopes, WA6MEM, reports the network analyzers he purchased at his employer were in the $40,000 to $100,000 range and the ZVA-40 above starts at $90,000 depending on options.

PHOTO: RODE & SCHWARTZ VIA WIKIPEDIA

Insertion loss is the amount of power that is lost in the unit compared with what was input directly into the unit, is usually expressed in decibels (dB), and is a critical parameter in characterizing a device that is inserted into a transmission line.

Return loss, on the other hand, is the loss that occurs because of power being reflected back from the unit toward the source due to impedance mismatch. This loss is directly manifested as a voltage standing wave, which can be measured as VSWR. (Most often, the source is assumed to be the same impedance as the characteristic impedance of the transmission line, i.e., generally 50 ohms resistive. Seldom is this assumption strictly true, however.) Both of these parameters affect the efficiency of the unit. They represent separate but related losses and must be characterized separately. Both result in power loss between the source and the ultimate load AND SHOULD BE MINIMIZED. The best solution is

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to minimize both concurrently, if possible. This article focuses on how to do that.

Note that return loss (always expressed in dB) and voltage standing wave ratio (VSWR) are related, as they are both ways to express the same phenomenon. Mathematically,

- Return loss (RL) = 10 log (P_r/P_{in}), where P_r is reflected power and P_{in} is power forwarded in to some device, and
- VSWR = [1 + √(P_r/P_{in})] / [1 - √(P_r/P_{in})]

[**Note:** There is no industry standard on whether RL should be considered to be positive or considered to be negative. For example, when reflected power P_r is one-tenth of input power P_{in} (so that the log of this ratio is -1 and RL would calculate mathematically to be -10 dB), some articles and texts will still refer to this return loss as +10 dB.]

As a point of interest, here are three examples relating return loss to VSWR:

Return loss of 10 dB: VSWR = [1 + √(0.1)] / [1 - √(0.1)] = (1 + 0.316) / (1 - 0.316)] ≈ 2.0

Return loss of 14 dB: VSWR = [1 + √(0.04)] / [1 - √(0.04)] = (1 + 0.2) / (1 - 0.2)] ≈ 1.5

Return loss of 25 dB: VSWR = [1 + √(0.00316)] / [1 - √(0.00316)] = (1 + 0.056) / (1 - 0.056)] ≈ 1.1

These two key performance parameters—insertion loss and return loss—are part of a more generalized set of parameters called S parameters or scattering parameters [6][7][8]. These are used by network engineers, communication systems designers and microwave engineers and are often measured using a network analyzer. Although they are general enough to apply to devices with multiple ports, we hams are usually interested in just two ports: input port (designated port 1) and output port (designated port 2). Consider the illustration in Figure 1 of a typical device under test (DUT).

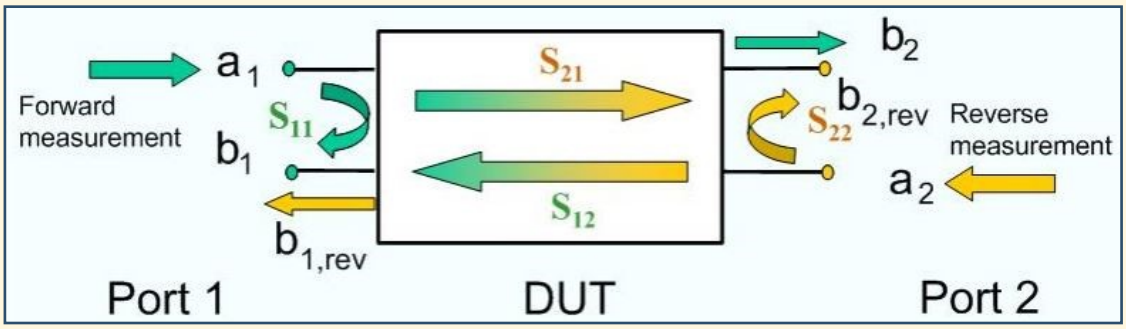

Figure 1. Illustrates the four S parameters for a 2-port network or device under test (DUT): S_{11}, S_{21}, S_{12} and S_{22}. S_{11} and S_{21} are associated with forward measurements (looking into the input, i.e., relative to port 1) and are of the most interest to us. Insertion loss is related to $|S_{21}|$ (i.e., what power comes out of port 2 compared with what power was driven into port 1); and return loss is related to $|S_{11}|$ (i.e., what power is reflected back from port 1 compared with what was driven forward toward port 1).

The general treatment of S parameters is well beyond the scope of this article. Instead, the thrust in this article is to illustrate how to characterize and ultimately minimize both insertion loss and return loss (concurrently) by exploiting measurement techniques for S_{21} and S_{11}, respectively.

Since our objective is to minimize concurrently both insertion loss and return loss, we need a means of measuring these parameters separately but pair wise. For this, we will use a directional coupler [9], like the one shown in Figure 2. The coupled port captures a small portion of the power reflected back from the DUT.

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(When a network analyzer is not available!)

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As DUT reflected power increases, power from the coupled port increases proportionally. So, measurement of coupled port power is an excellent indicator of return loss.

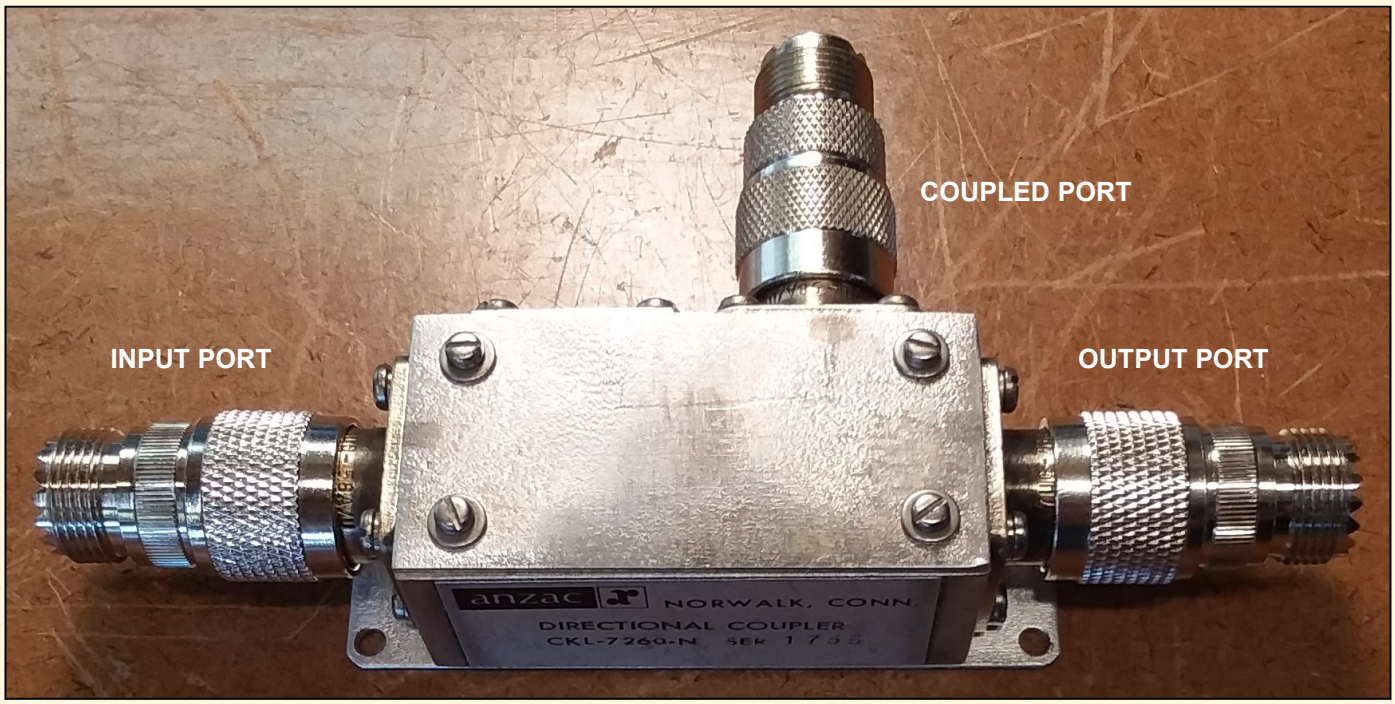

Figure 2. Directional coupler acquired specifically to enable measurement of insertion loss and return loss of RF devices such as band-pass filters, resonance shifters and triplexers. Reversing the Input and Output ports in the 3-port directional coupler shown here would change the coupled port (used here for return loss) to a forward power coupled port. We will use the directional coupler only in the mode shown here for this set of measurements because the side port will be used in our application only for return loss measurements.

Heretofore, we've faced a significant challenge in measuring both insertion loss and return loss together, because they have had to come from two totally different test configurations for the DUT. Changing between these two configurations is time consuming and necessitates making and breaking RF cable connections—both undesirable constraints. After discussing this dilemma on several occasions with fellow club member WA6MEM, Gary conceived, designed and constructed an automated RF switching method to instantly switch from measuring insertion loss to measuring return loss. Gary's automated switching platform, constructed with a pair of simultaneously activated (ganged) RF relays, is shown in Figure 3 *(next page)* along with conceptually how the directional coupler, the spectrum analyzer/tracking generator and the DUT are connected together to conduct these tests.

Note that concurrent measurements of insertion loss and return loss could be done quite easily with a more expensive network analyzer, but this was not available to us. Instead, we would use a much more common and less expensive spectrum analyzer (SA) equipped with tracking generator (TG) to complete these tests.

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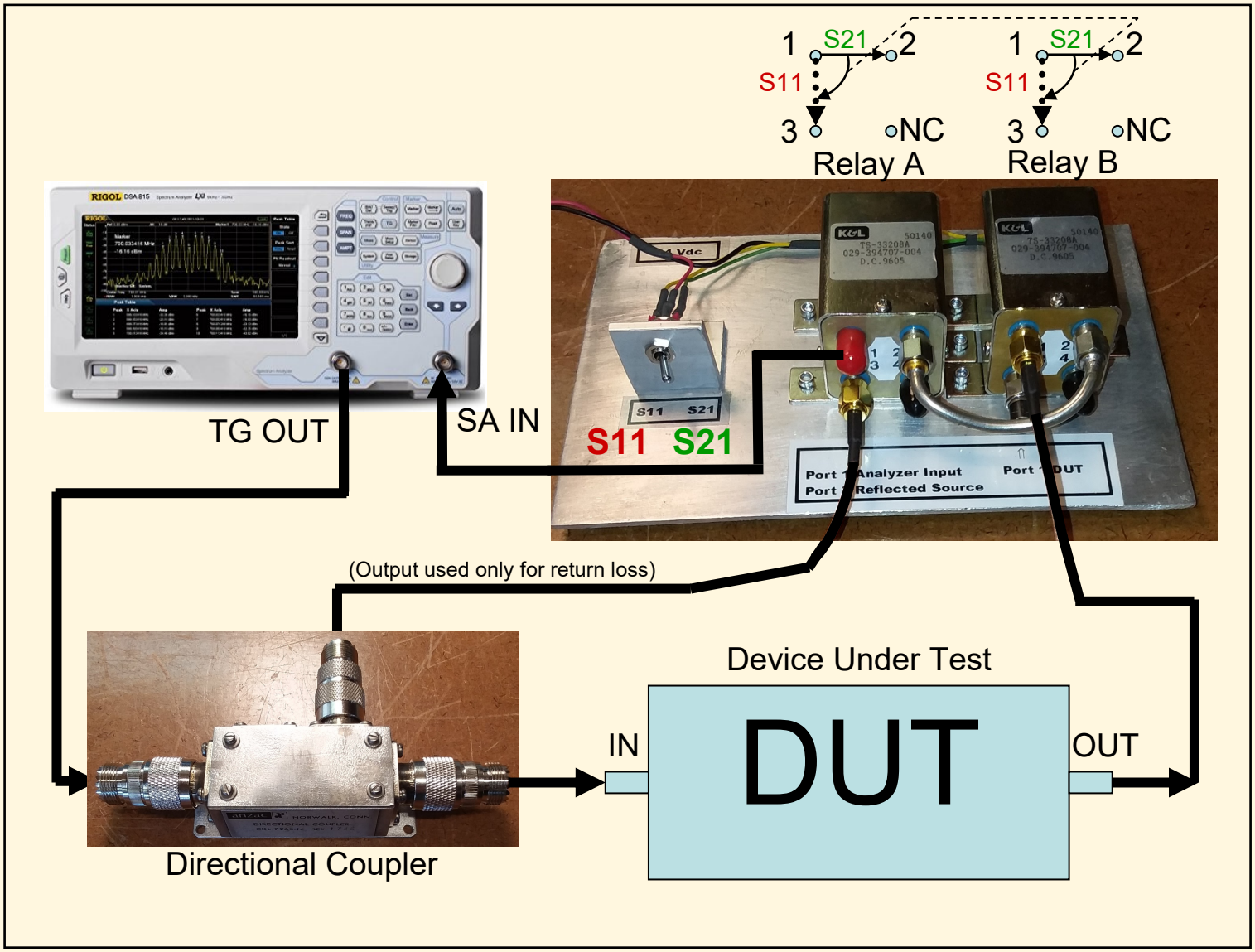

Figure 3. Schematic diagram of RF relay network. Configuration showing WA6MEM's automated RF relay switching platform, along with directional coupler and tracking-generator-equipped spectrum analyzer, to subject a device under test (DUT) to a measurement of both insertion loss and reflected loss with the simple throw of a switch. That switch can be seen on the switching platform, labeled S11 S21.

Let's examine how to use the test configuration shown in Figure 3. First, the tracking generator (in this case embedded within the spectrum analyzer, but could be a separate unit) is set up to create a frequency sweep over the spectrum of interest. For example, if testing a 20m band-pass filter (BPF) as our DUT, we might set up a frequency sweep from 10 MHz to 20 MHz to capture the operational ham band (14.00 – 14.35 MHz) plus some spectrum on either side of that band for assessing the filter's rejection characteristics outside the operational band. The sweep rate over this frequency range is fast enough that the entire spectral response can be viewed at one time.

We'll now trace the signal flow for these two separate measurements—insertion loss

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and return loss—referring to Figure 3. The RF signal goes from the tracking generator to the directional coupler input port, travels through the directional coupler with a very small (but known and fixed) loss before reaching the DUT input. The output from the DUT then routes to the Relay B port 1. Let's consider first that the switch on Gary's platform has been positioned to S21, i.e., we're interested first in insertion loss. A quick study of the two ganged relay diagrams shows that the signal will be routed through both relays directly to the spectrum analyzer input. The spectrum analyzer screen shows how the device under test responds over the spectrum of interest. In our example of the 20m BPF, we would see a dB vs. frequency plot from 10 MHz to 20 MHz. And if we concentrate on the operational ham band (14.00 – 14.35 MHz), we'll be able to observe the insertion loss as we make changes to components within the DUT. As we make a component adjustment, we would ask: Does it improve or does it get worse? Note that the RF line from the coupled port going to Relay A port 3 is not connected for this S21 test. It is used only for the return loss S11 test.

Now, let's examine the switch placed into the S11 position, i.e., we're now interested in return loss. In that position, the output of the DUT, which goes to Relay B port 1, will be routed to Relay B port 3. It's somewhat difficult to see in Figure 3, but there is a 50-ohm load termination device attached to the Relay B port 3 SMA connector. The DUT output is thus terminated in 50 ohms, so that any reflected power that would show up on the input of the DUT would represent an impedance mismatch at the input due to the DUT itself—the very parameter, return loss, we're trying to measure and minimize. Furthermore, that reflected power would be picked up on the coupled port of the directional coupler. Note that when the switch is in the S11 position, that coupled port output is routed via Relay A port 3 to Relay A port 1 and then on to the spectrum analyzer input. So, now on the screen of the spectrum analyzer, we have a measurement of return loss vs. frequency that we can observe as we make changes to components within the DUT. Again we ask as we make a component adjustment: Does it improve or does it get worse? The clever use of synchronized (ganged) RF relay switching, conceived and implemented by WA6MEM, provides a terrific strategy for systematically minimizing insertion loss and return loss within any DUT more quickly and without breaking RF cabling connections.

With this capability now at our disposal, let's apply it to a sample DUT of interest to the Club: the 40m BPF that we use in our Catalina IOTA operational activities. That device is shown in Figure 4 with the cover removed and components exposed to enable tuning to improve one or both of the two type of losses—insertion loss and return loss.

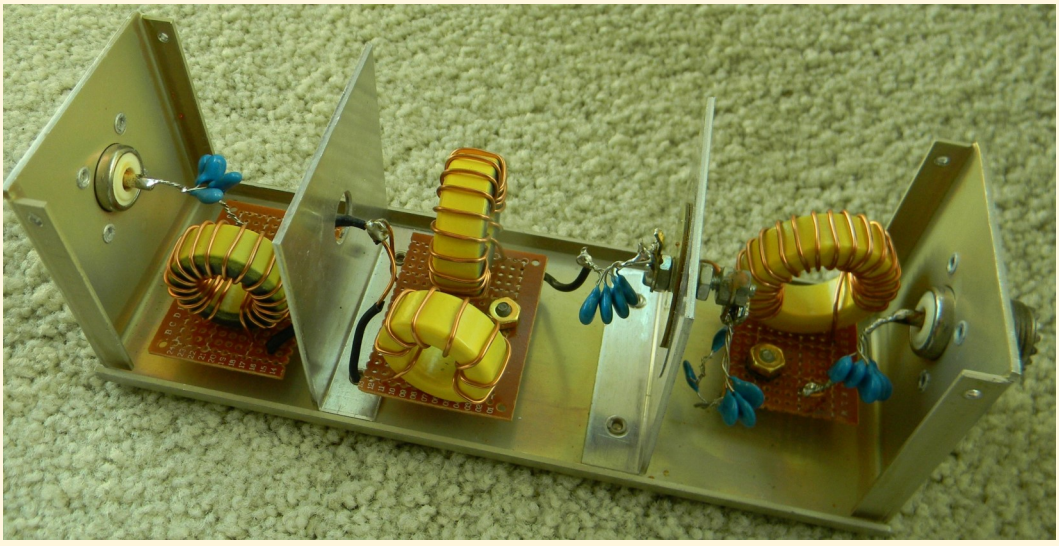

Figure 4. Internal configuration of sample DUT: a 40m BPF used for PVARC Catalina IOTA operational activities. Note that although capacitors are soldered into position with no "tune-ability," the inductance of each of the coiled wire inductors can be adjusted over a small range by changing the spacing of the turns—the closer the wire turns are spaced, the higher the inductance, and vice versa.

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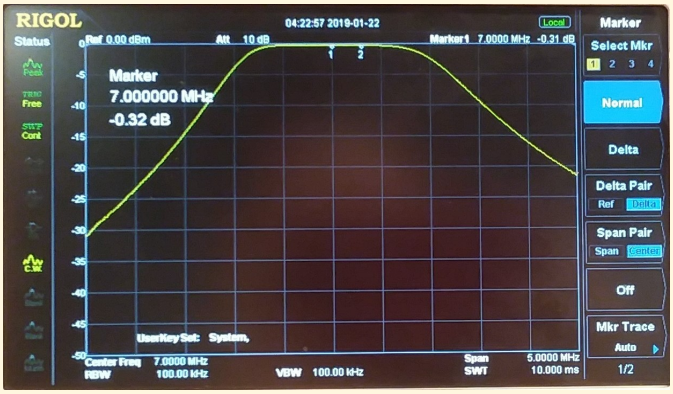
This homebrew band-pass filter was designed by the author and previously optimized for very good in-band and adjacent band performance, as can be seen in the "initial" performance curve of Figure 5a. Note markers 1 and 2 at the 40m band edges of 7.0 MHz and 7.3 MHz, respectively. As can be seen, marker 1 shows in-band loss of only 0.32dB. Although this is very good performance, in order to demonstrate the procedure outlined above, this BPF became the DUT in Figure 3 to determine if any additional performance improvement could be achieved. Figure 5b shows the result of using the automated S parameter RF relay network device and alternately observing both S21 and S11, as shown in Figures 5c and 5d, while adjusting wire spacing individually on the four filter coils shown in Figure 4.

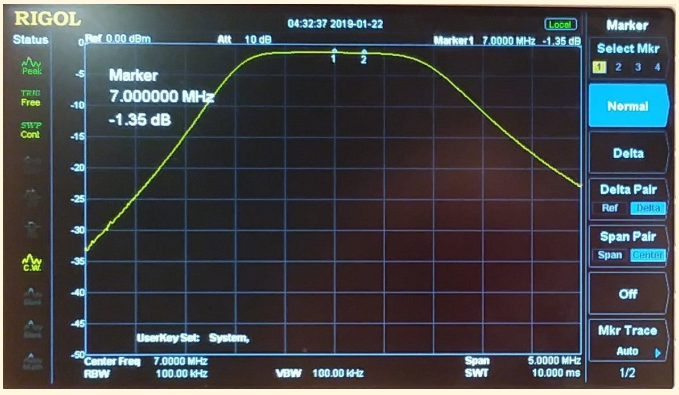
This process is quite slow, making a wire spacing change on only one coil at a time and observing its effect on S21 (Figure 5c) and S11 (Figure 5d). After each coil spacing change, the S21 value as in Figure 5c and the S11 value as in Figure 5d were recorded and a judgment made as to whether the specific change was an overall improvement or not. This deliberate and iterative process was applied to each of the four coils. Because the filter had already been adjusted for excellent performance, little additional performance improvement was able to be achieved (0.26dB vs. 0.32dB).

(a) Initial filter transmission performance



(b) Transmission performance after coil adjustments

(c) Relative measure of S21 insertion loss



(d) Relative measure of S11 return loss

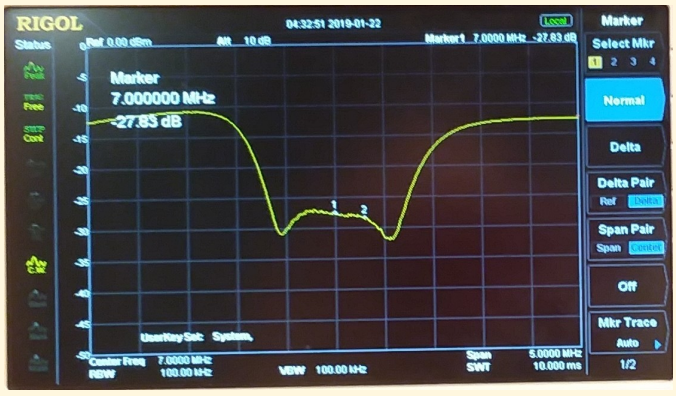


Figure 5. (a) Spectrum analyzer display of initial transmission performance of 40m BPF prior to further optimization using the RF network device and procedure outlined in this article; (b) Very slight improvement of in-band transmission performance due to this procedure (beyond an already very well optimized filter performance); (c) A measure of relative insertion loss (S21); the additional loss due to coupler attenuation (approximately 1dB) is inconsequential, as only relative improvement from adjustment to adjustment is important, not absolute performance; (d) This measure of relative return loss shows the general shape of the pass-band return loss curve. Note that the general approach in this procedure is to strive for less in-band loss in Figure 5c while simultaneously striving for lower return loss in Figure 5d. These two curves (5c and 5d) are alternately viewed on the spectrum analyzer screen by throwing the switch in Figure 3 labeled S11 S21.

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Conclusion.

Use of the hardware and procedure described in this article gives us the ability to assess DUT tuning improvements in both insertion loss and return loss without the need to make RF cabling changes. As slow as the process is, it is considerably faster and less frustrating than having to make RF cabling changes after each adjustment. A simple throw of a switch is sufficient to make a complete assessment after each tuning adjustment. When a suitable network analyzer is not available for the frequency band of interest, DUT tuning adjustments are easier, faster and more reliable using the RF switching platform and procedure described in this article.

References

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9. https://en.wikipedia.org/wiki/Power_dividers_and_directional_couplers
10. Conversations with Gary Lopes, WA6MEM, ARRL LAX Section Technical Coordinator ■

It's renewal time for PVARC membership...and also consider being an ARRL member

PVARC member dues are collected early each year...so please send your renewal if you haven't. You may also pay at our monthly meetings where we have renewal forms. Additionally, we have set up a PayPal link to renew but it doesn't have our renewal form attached. To pay by PayPal ($20 individual membership, $25 for family membership) log onto PayPal and enter as the recipient: **PVARC90274@gmail.com .**

Additionally please consider joining the American Radio Relay League (ARRL) if you haven't already. The ARRL is the only national organization representing amateur radio and has another significance for the PVARC: We receive benefits from being an ARRL-affiliated club but being an ARRL-affiliated club requires at least 51% of club members also be ARRL members. Annual ARRL membership costs $49 and includes the monthly QST magazine as well as access to numerous web-based materials. Visit: www.arrl.org/ then click on the "Join/Renew" tab. ■

PVARC Club News

7 PVARC badges await pickup at February meeting...or another time

Gary Lopes, WA6MEM, has the following new PVARC badges ready for distribution at our February 7, 2019, monthly meeting at Hesse Park or by special arrangement.

- KC6ROX
- KI6YMD
- K6RO
- K6GHL
- N6XJM
- W6BMD
- WJ1P / DU1X

To make special arrangements with Gary contact him at: gary@wa6mem.com. ■

Embroidered PVARC patches available at monthly meetings

PVARC club patches are available at our monthly meetings for $4 each. You may sew these onto any cap, jacket, shirt, or bag.

The four illustrations in the patch center are emblems of the Palos Verdes Peninsula's four cities (clockwise from top left: Palos Verdes Estates, Rolling Hills Estates, Rancho Palos Verdes and Rolling Hills.) ■

Palos Verdes Amateur Radio Club

An American Radio Relay League Affiliated Club

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Monthly Meetings:
1st Thursday (except August and December) at 7:30 pm at Fred Hesse Park, 29301 Hawthorne Blvd., Rancho Palos Verdes, CA. Visitors always welcome.

Repeaters (Open, though often listed as "Closed"):
Club: K6PV, 447.120 MHz (-), PL 100.0, CTCSS
"PV-West": K6IUM, 449.980 MHz (-), PL 173.8, CTCSS

To order a Club badge:
Gary Lopes, WA6MEM, gary@wa6mem.com
To order a Club jacket or patch:
Dave Scholler, KG6BPH, 310-373-8166

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Front page photo — Pt. Vicente Lighthouse at dusk on January 13, 2019. Across the Catalina Channel in the background Catalina Island's terrain "dip" is Two Harbors where K6PV/6 will operate.
PHOTO: DIANA FEINBERG, Ai6DF

PVARC Club News

PVARC upcoming dates in 2019

- **PVARC monthly meeting at Hesse Park, McTaggart Hall**
  1st Thursday each month, 7:30-9:30 pm, except in July and December. 6:30-7:25 pm, "What's Next?" group for newer hams.

  In 2019 only: No monthly meeting on July 4 due to Independence Day; special meeting August 1.

- **HF Enthusiasts Group meetings at Palos Verdes Library, Peninsula Center main branch**
  2nd Saturday every month, 10 am to Noon in the Purcell Room.

- **Walt Ordway, K1DFO, Technician and General amateur radio license classes at Hesse Park**
  Saturdays, February 2 and 9, 2019; license exam session, February 16;
  Saturdays, May 4 and 11, 2019; license exam session, May 18.
  Saturdays, November 2 and 9, 2019; license exam, November 16.

- **Public service events in 2019:** Heart of the Homeless 5K in Rolling Hills Estates, **April 27**; Ridgecrest 5K at Promenade Mall, **May 5**; Hills Are Alive 10K/5K in Rolling Hills Estates, **August 10**; Conquer the Bridge run/walk at Los Angeles Harbor across Vincent Thomas Bridge, **Labor Day September 2**; and Palos Verdes Half Marathon-10K-5K, **November 16.**

- **PVARC 2019 Islands On The Air DXpedition** to Two Harbors, Catalina Island, February 20-24.

- **ARRL 2019 Field Day,** Soleado Elementary School, Rancho Palos Verdes, June 29-30.

- **2019 International Lighthouse & Lightship Weekend**, Pt. Vicente Lighthouse, August 16-18.

- **PVARC 2019 Holiday Dinner:** Dec. 5, location TBA.

Non-PVARC Events of Note:

- **ARRL 2019 Southwestern Division Convention** and Yuma Hamfest, Feb. 15-16, Yuma, AZ, Fairgrounds.

- **International DX Convention,** April 12-14, at

WELCOME NEW MEMBERS OF THE PALOS VERDES AMATEUR RADIO CLUB IN 2018-2019

George Rizkalla, KM6OXX

Alfred Visco, KM6OPB

Noel Park, KM6OPA

Michael Leyba, KK6KCH

John Tsohas, KM6OPE

Gregg Perkins, KM6OPD

Thomas Wynne, KM6QVW

Frank Attenello, KM6QVU

Debra Shrader, KM6QVX

Daniel Shrader, KM6QXC

Baldomero Fernandez, KM6QVV

Brian Keen, KM6QWC

Emanuele Rodrigues-Berardini, KM6QVZ

Neal Pollack, N6YFM

Daniella Ward, KM6TRC

Talbot Knighton, KM6TDF

Dylan Brown, KM6TDI

Robert Cullinan, KM5DI

Ellen Tessitore, N6XJM

Michael Vulpillat, KJ6RVU

Brian Clebowicz, K6BRN

Warren Arata, KM6YGR

Chris Sundlee, N6CGS

Brad Rachielles, KC6NNV

PVARC Club News

PVARC Officer and Director elections at February 7th meeting; no additional nominations received at January 3rd meeting

At our February 7 meeting members will be asked to elect by simple voice vote affirmation the PVARC's nominated slate of officers and directors to serve from February 2019 until February 2020. No additional nominations were received at the PVARC's January 3rd meeting.

Our nominating committee slated the following who committed to fully serve during the next 12 months:

For President: Diana Feinberg, AI6DF

For Vice President: Ray Day, N6HE

For Treasurer: Peter Landon, KE6JPM

For Secretary: Ron Wagner, AC6RW

For Director: Clay Davis, AB9A

For Director: Gary Lopes, WA6MEM

Planning finalized for PVARC 2019 Islands On The Air DXpedition to Catalina Island; operator team ready

This year's PVARC Islands On The Air DXpedition to Two Harbors at Catalina Island's isthmus is set to depart Los Angeles Harbor on February 20 with a nine-operator team.

Radio equipment has also been lined up along with antennas, coax, tools, and logistical items for the Feb. 20-24 trip. Team members are responsible for paying their transportation on Catalina Express, their nightly cabin rooms, meals, and incidental expenses while at Two Harbors. Our club pays only for the two cabin rooms used for radio operations during the DXpedition.

This year's K6PV/6 operator team consists of: Ray, N6HE (team leader); Chris, KA6WNK; Diana, AI6DF; Gary, WA6MEM; George, WA6YBR; Hugo, KM6DQU; Jerry, NG6R; Neal, N6YFM; and Steve, K6NT. They'll be monitoring the K6PV repeater during most daytime hours and can report on their progress (or challenges of the day).

Catalina Island remains an actively-wanted entity among Islands On The Air followers as there are no Catalina hams known to be using the HF bands for DXing. ■

PVARC Calendar February 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 K1DFO's Tech & General ham license classes start at Hesse Park, 9:30a–5:00p
3	4	5 PVARC Weekly Net, 7:30 pm, K6PV repeater & VHF cross-band	6	7 PVARC monthly meeting, Hesse Park, 7:30 pm: Arnold Shatz, N6HC	8	9 PVARC HF Enthusiasts meeting, 10a-Noon, Palos Verdes Library's Purcell Room
10	11	12 PVARC Weekly Net, 7:30 pm, K6PV repeater & VHF cross-band	13	14 Valentine's Day	15 Yuma Hamfest & ARRL Southwestern Division Convention, Yuma, AZ	16 PVARC ham license testing, Hesse Park, 10a; Yuma Hamfest & ARRL SW Conv., Yuma, AZ
17	18 Presidents Day Holiday	19 PVARC Weekly Net, 7:30 pm, K6PV repeater & VHF cross-band	20 PVARC K6PV/6 IOTA DXpedition, Two Harbors, Catalina Island	21 PVARC K6PV/6 IOTA DXpedition, Two Harbors, Catalina Island	22 PVARC K6PV/6 IOTA DXpedition, Two Harbors, Catalina Island	23 PVARC K6PV/6 IOTA DXpedition, Two Harbors, Catalina Island; W6TRW Swap Meet
24 PVARC K6PV/6 IOTA DXpedition, Two Harbors, Catalina Island	25	26 PVARC Weekly Net, 7:30 pm, K6PV repeater & VHF cross-band	27	28		

Tell your friends and family about our upcoming ham license classes at Hesse Park

Two Free Amateur Radio Courses

FCC "Technician" course (entry level)
FCC "General" course (2nd level)
Each course is 2 sessions
The sessions will be on 4 May and 11 May 2019
Technician 9:30 AM to 1:30 PM both Saturdays (bring your lunch)
General 1:30 PM to 5:00 PM both Saturdays
The FCC tests will be 10:00 AM to noon on 18 May 2019

At the start of the 4 May Technician course, the Palos Verdes Amateur Radio Club will give a 30-minute presentation on how to get further involved with amateur radio.

The class location is at Fred Hesse Community Park, 29301 Hawthorne Blvd., Rancho Palos Verdes.

Confirm your attendance to Walt, K1DFO at waltordway@juno.com

There is no fee for either course.
Taking the FCC test is $15.

Optional Material (sold at cost)
Gordon West books with all the FCC test questions, $26 for the Technician and $26 for the General
Paper copy of Walt's Power Point charts, $22 for the Technician and $22 for the General -

For courses sponsored by the Palos Verdes Amateur Radio Club, students thru grade 12 who pass their examination at a PVARC VE test session will, upon application to the Club, be eligible for reimbursement up to a maximum of $50 to cover the cost of materials and the examination fee.

Everyone who obtains their first ham radio license through a PVARC VE test session, regardless of age, will receive a free membership in the Palos Verdes Amateur Radio Club for the remainder of the current calendar year.

Palos Verdes Amateur Radio Club
P.O. Box 2316
Palos Verdes Peninsula, CA 90274
www.n6rpv.net/pvarc or k6pv.org

NEW MEMBER & MEMBERSHIP RENEWAL FORM

NEW: _____ or RENEWAL: _____ MEMBERSHIP DATE: _____

Last Name: _____ First Name: _____Spouse: _____

Street Address: _____

City: _____ Zip: _____

Phone: Home _____ Work _____Cell_____

Email address: _____
(Unless otherwise noted emails will be sent to the applying member only)

License Call: _____ License Class: _____ARRL Member?____Birth Mo./Day: _____

Other amateur radio groups you belong to:_____

Additional Household and/or Family Members (if Applicable):

Name_____ Call _____ Class_____ ARRL____ Birth Mo./Day: _____

Name_____ Call _____ Class_____ ARRL____ Birth Mo./Day: _____

Name_____ Call _____ Class_____ ARRL____ Birth Mo./Day: _____

Individual membership ($20.00) $_____

Household and/or Family membership ($25.00) $_____

Additional donation to support PVARC activities $_____

Cash: _____ or Check #: _____ Date_____ TOTAL $_____

Please make checks payable to: Palos Verdes Amateur Radio Club; Dues based on January 1st to December 31st year.

All New and Renewal Member applications must be signed below.

I am applying for a new or renewal membership in the Palos Verdes Amateur Radio Club and understand that by accepting membership I agree to abide by the Club's constitution and by-laws (available on-line at: http://www.n6rpv.net/pvarc/constitution.htm or upon request.)

Signature:_____ Date: _____

Family Member Signature: _____ Date: _____

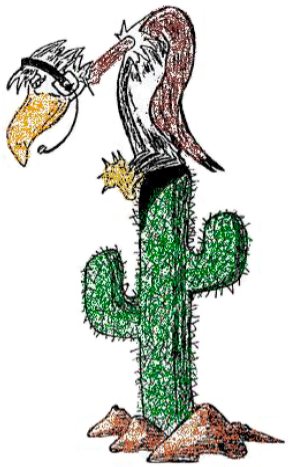
Family Member Signature: _____ Date: _____

2019 Southwest Division Convention

Yuma Hamfest

Yuma, Arizona

Feb. 15 & 16 2019



Yuma County Fairgrounds
2520 East 32nd Street, Yuma, Arizona

www.yumahamfest.org

Check the Website for Additional Information

Gates Open for Camping Thursday, 2 pm Vendor Setup Friday, 7 am - Noon	Event Hours Friday, Noon - 5 pm Saturday, 8 am - 5 pm	Hamfest Dinner & Grand Prize Drawing Saturday Night 6:00 - 8:00 pm

Vendors & Exhibitors
Consignment Sales
License Testing
Hourly Door Prizes
On-site RV Camping
Hamfest Dinner
ARRL Speakers
Transmitter Hunt
$5.00 Admission

Tailgating (Swap Meet)
Full Seminar Schedule
DXCC Card Checking
$25,000 in Grand Prizes
Emergency Preparedness
Admission Prizes
Hospitality Area
Near Space Balloon Launch
Antenna Clinic & T-hunt

W1AW /7 Special Event Station

Email Contact: ***info@yumahamfest.org***

We are proud to have the Amateur Radio Council of Arizona (ARCA) as a sponsor of our event.

The Yuma Hamfest is an American Radio Relay League (ARRL) sanctioned event.

Presented by the Yuma Amateur Radio Hamfest Organization