

QRO

Monthly Newsletter of the Palos Verdes Amateur Radio Club



#### **APRIL 2018**

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# 2018 K6PV/6 Islands On The Air DXpedition at Two Harbors, Catalina Island

Ray Day, N6HE
Thursday, April 5, 2018

General Meeting: 7:30 pm "What's Next?" group: 6:30 pm

Fred Hesse Community Park 29301 Hawthorne Blvd. Rancho Palos Verdes, CA 90275 Visitors Welcome

(Reservations are now closed for our no-host pre-meeting dinner at the Red Onion Restaurant.)

### At our April 5 meeting: Seeing our 2018 Catalina Island DXpedition in a completely new way...plus two short ham radio videos

The PVARC's April 5 Hesse Park meeting topic will be a quite-different coverage of our Feb. 21-25 Islands On The Air Dxpedition to Santa Catalina Island's Two Harbors. Unlike recent years' presentations this year we've taken it to another level with a 25-minute edited video summarizing our 4.5 days on the island.

You will see the interactions of team members and how they solved technical issues plus operated on multiple modes and bands. This video does not dwell on QSO after QSO but rather what our team members experienced while at Two Harbors—working together as hams and working against Mother Nature as high winds kicked up.

Additionally, we will show the five-minute summary video of the Yuma Hamfest held during Feb. 15-17. This video wasn't shown at last month's PVARC meeting due to technical issues that are now resolved. Unless another venue is located (another site is being considered) the

2019 Yuma Hamfest will also be the 2019 ARRL Southwestern Division Convention.



Finally, we have another short but interesting video from Hawaii about disaster preparedness from an amateur radio perspective.

#### What happened to our Red Onion Restaurant pre-meeting dinners?

This month's PVARC Red Onion Restaurant no-host pre-meeting dinner on April 5 will likely be our last. Only those who RSVP'd to Jeff Wolf, K6JW, by Sunday, April 1, will be guaranteed a seat at the PVARC's table on April 5. If you did not RSVP you may still come to the restaurant but likely sit at another table.

At our March 1 dinner far fewer PVARC members came to the Red Onion than our reservation count made several days earlier. Reasons for the shortfall included illnesses, forecasts for heavy rain, and work commitments. Jeff, K6JW, has made our monthly dinner reservations based on attendance in prior months and that usually worked fine.

But on March 1 with only a few PVARC members for

dinner our expansive reserved table largely sat empty to the restaurant's dismay and displeasure. Going forward the Red Onion insisted we provide accurate reservation counts—which is difficult because many of us are not certain we can attend the dinner until that day. Bottom line: the popular Red Onion did not like setting aside a large open table for a few diners with many other parties booked that night.

We're sorry to see our Red Onion pre-meeting dinners end. But on a very small scale we will still offer our out-of-area speakers a courtesy dinner at the Red Onion or comparable restaurant in appreciation for their drive to the Palos Verdes Peninsula. ■

#### The PVARC's upcoming meeting topics...

Speaking at our May 3rd monthly meeting is Don Minkoff, NK6A, presenting his visit to the Marconi Museum in Bologna, Italy, and twenty days of QRP ham radio operating while in Italy. Don previously spoke at our club about Summits On The Air in which he is an avid hill-topper and SOTA chaser.

Our June meeting speaker will be announced soon. For our July 5th meeting Bob Brehm, AK6R and owner of Palomar Engineers, is speaking about "The Secrets of End-Fed Wire Antennas." There's no club meeting in August...instead we hold our annual family picnic at Pt. Vicente Lighthouse on Sunday, August 19.

Our September 6th monthly meeting has Tim Coker, N6WIN, speaking about "The Reverse Beacon Network" which many contesters and DXers use to check propagation conditions.



#### And back for an encore later in 2018....

One of our most popular meeting topics has been "Show Us Your Shack," or more loosely "Show Us Your Project." We seek four to six PVARC members to briefly (in 10-15 minutes) present their home amateur radio station, a portable ham station, or some kind of amateur radio-related project that fellow club members might find interesting. Have something you feel worthy of presenting at a future meeting? Contact our Vice President Ray Day, N6HE, at rayday@cox.net and let him know.

#### Other PVARC dates in 2018

- ◆ PVARC monthly meeting at Hesse Park, McTaggart Hall 1st Thursday each month, 7:30-9:30 pm, except in August and December
- ◆ HF Enthusiasts Group meetings at Palos Verdes Library, Peninsula Center (Purcell Room)
   2nd Saturday each month, 10 am to Noon, except December
- Walt Ordway, K1DFO, amateur radio license classes at Hesse Park April 29 and May 5; August 4 and 11; November 3 and 10
- ◆ Field Day at Ridgecrest Intermediate School, Rancho Palos Verdes Saturday-Sunday, June 23-24
- ◆ International Lighthouse & Lightship Weekend at Pt. Vicente Lighthouse Friday-Sunday, August 17-19; PVARC Family Picnic at the Lighthouse, Sunday, August 19
- PVARC Holiday Dinner, location TBA Thursday, December 6

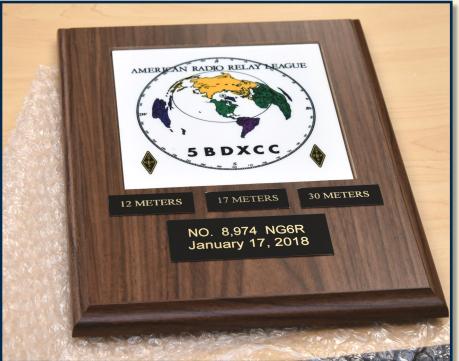
### **PVARC's HF Enthusiasts Group meets on 2nd Saturdays at Palos Verdes Library District's Peninsula Center site**

Our HF Enthusiasts Group's March 10, 2018, meeting again convened at the Palos Verdes Library District's Peninsula Center Library. The Purcell Room works well with ample room for more attendees. We've now reserved the Purcell Room from 10:00 am-Noon on every 2nd Saturday through November 2018 (there's no HF Enthusiasts Group meeting in December).

At the March 10 meeting ten attendees braved a rainy day to discuss the new Flex SDR transceivers, various antenna concepts, and DXing. Jerry, NG6R, also showed his new 8-Band DXCC Award.

The next HF Enthusiasts Group meeting will be Saturday, April 14, from 10:00 am to Noon. ■





**Above:** Everyone enjoying the new Purcell Room venue for PVARC's monthly HF Enthusiasts Group meetings. Shown clockwise from left on March 10: Jerry, NG6R; Don, WG6E; Clay, AB9A; Mike, AF6VT; Malin, KO6MD; Ron, AC6RW; Dave, KM6LGX; Bob, KE6JI; and Ray, N6HE; with Diana, Al6DF, behind camera.

**Left:** Jerry NG6R, displayed his recently-received ARRL Eight-Bands DXCC Award plaque from contacts made during nearly 60 years in amateur radio. The basic plaque covers 80-40-20-15-10 meters; additional endorsements are for 12, 17, and 30-meters. Still to come: 160-meters. He was the 8,974th ham to receive one of these plaques.

PHOTOS: DIANA FEINBERG, AI6DF

#### The Future of Rare DXing? Arrggghhhh!

By Ray Day, N6HE PVARC Vice President

I have been, as many of you have been, puttering around with the relatively new digital mode, FT8, on HF. Rather amazing results from this weak-signal mode developed by Joe Taylor, K1JT and friends. I have worked stations that decode just fine with barely a trace on the software's waterfall. In a short time, I managed to qualify for an FT8-only Worked All States award.

FT8 is a huge improvement over its predecessors, JT-65 and JT-9. A QSO can be completed in as little as one minute, as contrasted with roughly seven minutes with JT-65. Calling it a QSO is a bit far-fetched, though, as the contact is rather rigidly formatted. It's definitely a "hi-bye" thing; but it is still reaching out around the world with ham radio. Some find it completely uninteresting, while others enjoy it – I'm in the latter category, especially now with many days of no sunspots and diminished HF propagation.

Go to https://physics.princeton.edu/pulsar/k1jt/ to get started and download the software. If you have been on AFSK RTTY or PSK-31, you have the physical audio interface needed to utilize the FT8 software, WSJT-X. If not, plenty of simple computer-to-radio audio interfaces exist. Talk to anyone using FT8 to see how they do the audio interfacing.

But I digress...there has been some experimenting with a "DX Mode" of operation where a DX station could communicate simultaneously with multiple stations. How is that possible? The FT8 signal does not occupy much space (~40 Hz?) in the roughly 3 KHz of the audio spectrum transmitted by an HF SSB station. In practice, there could be perhaps 30 (or more?) discrete "channels" of information received and/or transmitted at the same time. Obviously, the transmit/receive timing would have to be co-ordinated between all stations involved, and fortunately, that's a given with even basic FT8 contacts; all users' computers are precisely time-set to UTC (see www.time.is) and there are web links that can automatically reset your computer's clock down to the second. My ham computer loses about a second a day, for Pete's sake, so I need to be sure all's well before I start an FT8 session.

Imagine this in a year or so (or less?): A rare DX station is using an advanced version of WSJT-X in DX mode and can contact 20-30 stations at once and complete the QSO-cycle (signal reports and confirmations) in about a minute each. All moreor-less automated on their end, no less. Perhaps the up-until-now rare DX station, using this weak-signal mode, wouldn't even need to transport and provide RF amplifiers to the remote location. Hmmmmm.... 25 QSOs per minute times

60 minutes per hour times 24 hours on-the -air time (to somewhere) per day equals 36,000 contacts/day – with only one sta-



#### The Future of Rare DXing? Arrggghhhh!

#### ► Continued from previous page

tion? Granted every time/audio channel slot won't be utilized, but you get the idea. With multiple stations operating simultaneously, the all-time DX operation QSO record could be shattered within a week! And no need for anxious hams to re-contact the station for "insurance contacts." OK, OK, these FT8 contacts wouldn't help with CW/SSB/RTTY-only entity counts, but they certainly would count towards your ATNO (All Time New One) "mixed" total.

But wait, there's more.....so if this can be automated, why not just drop a battery-powered automated station on Bouvet Island, for example? You could buy a lot of batteries for the cost of most exotic DXpeditions. Since this is a weak-signal mode, an automatically-deploying vertical antenna is not beyond the realm of possibility. Are there rules that a person has to actually be at the DX station? I dunno...

Just like IRLP internet-assisted contacts aren't considered by some to be "real" ham radio contacts (one ham I know has as an email tag-line, "real radio bounces off the sky"), most true DXers will throw up as soon as this DX Mode FT8 possibility sinks in, as all their skills developed over the years in outwitting the pile-up are out the window (you could set up your FT8 station to call and call and call with no "time-out" limitation and work the rare DX while outside watering the lawn). Another similar controversial situation exists with using "remote stations" to add to your DXCC totals – some like it, some think it's cheating.

This (automated DX stations – and maybe even the DX Mode FT8 itself) is to me a disgusting concept in DXing, but it'll be interesting to see what happens here. You thought Don Miller was controversial? Just wait.....

Maybe there'll be a DXCC for "All My Contacts Were With Real People?" ■

#### So Where Is FT8 ???

Shown at right are suggested frequencies for FT8 within the "digital" portion of each band's plan. Users may also be slightly above or below these frequencies, especially during DXpeditions. As the article above notes, with FT8 occupying only about 40 Hz of bandwidth (vs. 2600 Hz for SSB) numerous QSO's fit into a small slice of radio spectrum.

As also mentioned: Be certain your computer's clock is accurately set before beginning any FT8 session.

Band	MHz
160	1.840
80	3.573
40	7.074
30	10.136
20	14.074
17	18.100
15	21.074
12	24.915
10	28.074
6	50.313

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#### **PVARC Club News**

#### International Lighthouse & Lightship Weekend plans submitted

The PVARC recently submitted its application to the U.S. Coast Guard for using Pt. Vicente Lighthouse grounds during this year's International Lighthouse & Lightship Weekend, August 17-19. Our fellow member Bob Closson, W6HIP, is coordinator of our Lighthouse Weekend activity and prepared our request. If approved we will also hold our annual catered family picnic on Sunday, August 19. ■

### PVARC operators at Ridgecrest Intermediate School 5K

Our member Walt Ordway, K1DFO, is again heading the PVARC's public service operations at the Ridge-crest Intermediate School 5K on Sunday, April 29. This run/walk takes two laps around the Promenade on the Peninsula Mall and adjacent streets. The PVARC radio team typically has 10 operators with Walt also serving as net control.

### Walt Ordway's next ham classes set for April 28 and May 5

Please advise your non-licensed family members, relatives and friends about the PVARC's next round of Technician license classes on April 28 and May 5 at Hesse Park.

Walt Ordway, K1DFO, will teach the Technician course from 9:30 am to 1:30 pm on both days, followed by the General license course from 1:45-5:00 pm. At the start of the April 28 Technician class a short presentation on the many things one can do with amateur radio will also be given.

The PVARC will have a license exam session from 10 am-Noon on Saturday, May 12, in Hesse Park's Fireside Room.

The Technician question pool is changing effective July 1, 2018. Walt's Hesse Park classes in August 2018 will be his first using the new Technician question pool which is valid through June 2022. The current General class license pool will next be updated effective July 1, 2019. ■

#### **Palos Verdes Amateur Radio Club**

An American Radio Relay League Affiliated Club

**Board of Directors:** 

President Diana Feinberg, Al6DF Vice President Ray Day, N6HE

Treasurer Peter Landon, KE6JPM Secretary Ron Wagner, AC6RW Directors Clay Davis, AB9A

Gary Lopes, WA6MEM
Past Vice President Mike Caulfield, AF6VT

**Appointed Offices:** 

QRO Editor Diana Feinberg, Al6DF
Webmaster Kel Vanderlip, W6KCV
Club Librarian Bryant Winchell, W2RGG
K6PV QSL Manager Jeff Wolf, K6JW
K6PV Repeater Trustee Mel Hughes, K6SY

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LAACARC Delegate Jeff Wolf, K6JW
VE Coordinator Dave Scholler, KG6BPH

VE ARRL Liaison Jerry Shaw, KI6RRD Net Control Operators Malin Dollinger, KO6MD; Dale Hanks, N6NNW; Bob Sylvest, AB6SY;

Ron Wagner, AC6RW; Dan Yang, K6DPY

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Email us: k6pv@arrl.net

Website: www.k6pv.org

#### **Mailing Address:**

Palos Verdes Amateur Radio Club PO Box 2316 Palos Verdes Peninsula, CA 90274-8316

#### **Monthly Meetings:**

1<sup>st</sup> 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 — The *Pt. Vicente Lighthouse at sunset as seen from near Terranea Resort on March 7, 2018*PHOTO: DIANA FEINBERG, AU6DF

#### **PVARC Club News**

#### Something new...

#### "What's Next?"- no-stress, nopressure help for our newer hams

Did you recently obtain your amateur radio license and wonder what to do next? Or you've had your license for several years and want to know more about avenues in amateur radio? Come to the PVARC's "What's Next?" gatherings at Hesse Park anytime from 6:30-7:20 pm just prior to our regular monthly meetings and ask for help with any question. We're here to assist in a no-stress manner—and no ham radio-related question is considered "dumb" to ask.

Led by Ray Day, N6HE; Bob Millard, KE6JI; and Ron Wagner, AC6RW, we can help hams better understand how to operate their radios (and/or help purchase the best one for their budget.) We can also provide help on other ham radio subjects, whether for VHF/UHF bands or HF bands; public service or DXing/contesting, or ???

Among the most frequently asked questions by new hams are "Which radio to buy?" and "How do I program my radio?" If you have others we're glad to help with those too. Look for Ray Day and Ron Wagner, AC6RW, off to one side of our room at Hesse Park while setup is underway for the main meeting.

### Helpful guidelines when submitting QRO articles

Our **QRO** newsletter welcomes articles about technical subjects and PVARC member activities.

To facilitate layout and editing please send your article as two separate files: 1) all the text as a straight Microsoft Word file and 2) any photos, illustrations, or diagrams in a second file or as separate JPEG files. If possible please keep the text portion to not exceed 800 words.

#### **QRO's Dept. of Errors and Omissions**

We strive for 100% accuracy in each issue but if you notice any errors or omissions in **QRO** please advise your **QRO** Editor, Diana AI6DF, at: ai6df@arrl.net. ■

#### WELCOME NEW MEMBERS OF THE PALOS VERDES AMATEUR RADIO CLUB IN 2017-2018

Rick Heaston, KM6GXZ

Larry Fadden, KK6TXN

Steve Sheridan, KM6IQO

Pamela Gaume, KM6MMJ

Vincent Reher, KM6LGT

Bernadette Sabath, KM6SAB

Zvika Golan, KJ6LHL

Fred Cook, KE6AZB

Jeff Wolfe, KM6GYB

George Nestojko, WA6YBR

Irene Turner, KM6LGU

Dave Turner, KM6LGX

Don Wilt, WG6E

Don Putnick, NA6Z

George Rizkalla, KM6OXX

Alfred Visco, KM6OPB

Noel Park, KM6OPA

Michael Leyba, KK6KCH

John Tsohas, KM6OPE

Thomas Wynne, KM6QVW

Frank Attenello, KM6QVU

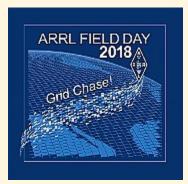
Debra Shrader, KM6QVX

Daniel Shrader, KM6QXC

Baldomero Fernandez, KM6QVV

Brian Keen, KM6QWC

Emanuele Rodrigues-Berardini, KM6QVZ



This year's ARRL Field Day logo.

COURTESY: ARRL WEBSITE

#### ARRL Field Day is June 23-24...we'll be on the air

Mark your calendar for this year's ARRL Field Day. It's June 23-24 at Ridgecrest Intermediate School in Rancho Palos Verdes and again goes non-stop for 24 hours.

Our K6PV operation will again be a category 2A station with a bonus VHF/UHF transmitter. Anyone wanting to try HF is welcome to make some contacts...or help with contact logging using the easy-to-operate N3FJP Field Day software. We always need help with setup Saturday morning in three hours from 8:00-11:00 am and with takedown from 11:00 am to Noon on Sunday.

More information to follow about this, amateur radio's highest participation yearly event. Between 35,000-40,000 hams participate annually in Field Day and we hope you can be among them. ■

#### FOR SALE BY PVARC MEMBER: Alinco DR-235T MKIII Transceiver (SN M102151)

The Alinco DR235T MKIII 220 MHz FM Mobile Transceiver is a single band 220 MHz unit with the following features:

- 25 watt output
- Three display options: frequency, channel number, or 7 digit alphanumeric label
- Selectable for conventional or narrow band FM modes
- 100 programmable memories
- Two data ports, one jack on the front panel and one 9 pin serial port on the rear
- CTCSS, DCS and four tone bursts for selective calling and repeater access
- Can be cloned with an optional cable (not included)
- Can be optioned with Alinco EJ-41U board for APRS (not included)

The radio is in excellent cosmetic condition and works perfectly. Microphone, mobile mounting bracket, and original manual included. Anderson Powerpoles on radio's fused pigtail power cable.

Price new today at Ham Radio Outlet: \$239.95. **My asking price: \$115.** Contact Jeff, K6JW at k6jw@scdxc.org.



#### Something to consider

### Why ARRL Is Recommending Enhanced HF Privileges for Technician Licensees

#### From the ARRL, March 15, 2018

ARRL has asked the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, and 15 meters. These recommendations were put forth by the ARRL Board of Directors' Entry-Level License (ELL) Committee, which explored various initiatives and gauged members' opinions through surveys conducted in 2016 and 2017.

Specifically, ARRL proposes to provide Technician licensees, present and future, with phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz, plus RTTY and other digital privileges in current Technician CW allocations on 80, 40, and 15 meters. The ARRL petition is in recognition of the tremendous technological advances and changes in Amateur Radio.

"This action will enhance the available license operating privileges in what has become the principal entry-level license class in the Amateur Service," ARRL said in the petition. "It will attract more newcomers to Amateur Radio, it will result in increased retention of licensees who hold Technician class licenses, and it will provide an improved incentive for entry-level licensees to increase technical self-training and pursue higher license class achievement and development of communications skills."

We encourage everyone to read the full petition, which can be found at www.arrl.org/ TechnicianEnhancement

#### **Key Points:**

- A thorough review of operating privileges available to the entry-level license has not occurred since the late 1970s when the Novice class license— the entry-level license at that time— was modified to allow Novices access to a limited portion of the 10-meter band, which included the first HF phone privileges for that license class.
- The 2-year process that led to the development of this petition did include significant input from the Amateur Radio community. The two surveys that the ELL Committee conducted on this issue drew more than 8,000 responses from ARRL members.
- If the operating privileges are changed as proposed, the Technician class license, (which is now the entry-level license class since the FCC prohibited the issuance of new Novice class licenses in 2000) will be comparable to the "foundation" license found in many Amateur Radio administrations around the world. These foundation licenses include a broad array of basic HF phone, CW, and digital privileges in addition to the VHF/UHF privileges already available with the current Technician class license.
- Technician licensees, now numbering at about 378,000, comprise more than half of the US Amateur Radio population. Yet, the Technician class license is insufficient for the purpose that the FCC made for it 18 years ago. Many who obtain Technician class licenses do not participate actively, do not pursue on-air and public

### Why ARRL Is Recommending Enhanced HF Privileges for Technician Licensees

#### ► Continued from previous page

service opportunities, do not renew their licenses prior to expiration, and do not pursue higher license classes. There is an uncomfortably large attrition rate among Technician class licensees. Those who obtain Technician-class licenses are not pursuing upgrades to General class licenses because they don't find the operating privileges offered by the Technician class license interesting enough to keep them from pursuing other, non-radio-related activities.

- The proposed addition of a total of 275 kHz of HF phone privileges, spread across the 80, 40, and 15-meter bands would allow Technicians the opportunity to develop and expand their understanding of HF propagation. In addition, this proposed change would allow Technician licensees to participate in public service-oriented, emergency, and Section traffic nets on 75-meter phone frequencies from 3900 to 4000 kHz, since 47 out of 50 states conduct their primary state/section-wide public service activities on those frequencies.
- Technician licensees already hold CW privileges on frequencies within the 80, 40, and 15-meter bands where the proposal would add HF digital privileges. Those digital privileges will attract younger people to Amateur Radio.
- There is no proposed change to the 200 W Technician HF power limit. Also, the few remaining Novice licensees would gain no new privileges.
- While some believe that the addition of the frequencies takes away the Technician's incentive to upgrade, consider that current Technician HF privileges involve 850 kHz on 4 bands, with the proposed addition of 275 kHz on 3 of those bands, so the total under this proposal is 1125 on 4 bands 80, 40, 15, and 10 meters. Compare that to General class HF privileges: 3150 kHz across 9 HF bands 160, 80, 40, 30, 20, 17, 15, 12, and 10 meters. In addition, Generals have access to the 5-channels on 60-meters, and the two newest bands 2200 and 630 meters. The incentive to upgrade from Technician to General is almost tripling the available HF spectrum and allows those who upgrade access to 8 additional bands, including the prime day-time bands of 20 and 17-meters. Also, when Technicians upgrade to General or higher, they also are permitted the maximum Amateur power level of 1500 W.
- Demographic and technological changes call for a "periodic rebalancing," and there has not been such a rebalancing in many years. The FCC has not assessed entry-level operating privileges since 2005, and yet Amateur Radio has changed dramatically since then, with many more modes of communication having been developed.
- ARRL does not propose changes to the Technician class question pool, which is reviewed and updated every 4 years by the NCVEC's Question Pool Committee. The current pool already tests for all of the basic technical and operating information that would allow Technician-class licensees to safely and appropriately use the proposed additional spectrum.

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

#### **Two Free Amateur Radio Courses**

FCC <u>"Technician"</u> course (entry level) FCC <u>"General"</u> course (2<sup>nd</sup> level) Each course is 2 sessions

The sessions will be on 28 April and 5 May 2018

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 12 May 2018

At the start of the 28 April 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 <u>no fee</u> for either course. Taking the FCC test is \$15.

**Optional Material (sold at cost)** 

Gordon West books with all the FCC test questions, \$22 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.

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

Family Member Signature:

### NEW MEMBER & MEMBERSHIP RENEWAL FORM

Date:

<b>N</b> EW:	or Renewal	.:	MEMBERSHIP	DATE:		
Last Name:	First Name:		Spouse:			
Street Address: _						
City:				Zip:		
Phone: Home	Work		c	ell		
Email address: _	(Unless otherwis	e noted emails	will be sent to	the applying member only)		
License Call:	License CI	ass:AR	RL Member?	Birth Mo./Day:		
Other amateur rac	dio groups you belor	ng to:				
Additional House	hold and/or Family N	/lembers (if App	olicable):			
Name	Call	Class	ARRL	Birth Mo./Day:		
Name	Call	Class	ARRL	Birth Mo./Day:		
Name	Call	Class	ARRL	Birth Mo./Day:		
Individual membership (\$15.00) \$						
Household and/or Family membership (\$20.00) \$						
		Additional do	nation to suppo	ort PVARC activities \$		
C	Cash: or Ch	eck #:	Date	TOTAL \$		
Please make checks payable to: Palos Verdes Amateur Radio Club; Dues based on January 1 <sup>st</sup> to December 31 <sup>st</sup> year.						
All New and Renewal Member applications must be signed below.						
accepting membersl		the Club's cons	titution and by-l	teur Radio Club and understand that by aws (available on-line at:		
Signature:				Date:		
Family Member Sig	gnature:			Date:		