QRO

Monthly Newsletter of the Palos Verdes Amateur Radio Club

April 2019

Inside this month's QRO

The 2019 K6PV/6 Two Harbors Expedition

Our New K6PV/6 Video

Thursday, April 4, 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…

Our April 4th monthly meeting debuts a new video your **QRO** Editor is producing about the **PVARC's February 20-24, 2019, Islands On The Air DXpedition to Two Harbors** on Catalina Island. Nine PVARC members experienced our coldest-ever IOTA DXpedition to Catalina but had a great time making nearly 1,100 contacts with all 50 states and 45 countries despite poor HF propagation conditions.

We also competed in the 12-hour North American RTTY QSO Party and scored in the top 18% of submitted logs (…and perhaps the top 10% of all participants) in our category. Our video will also show amateur satellite contacts and the challenging conditions on 160-meters during the Feb. 23-24 CQ Worldwide 160-Meter SSB Contest.

K6PV/6   IOTA NA-066

CATALINA ISLAND

Right: The view of our Two Harbors amateur stations as seen from the height of our 17-meter band two-element Yagi antenna on February 20, 2019.

PHOTO: HUGO DOMINGUEZ, JR., KM6DQU
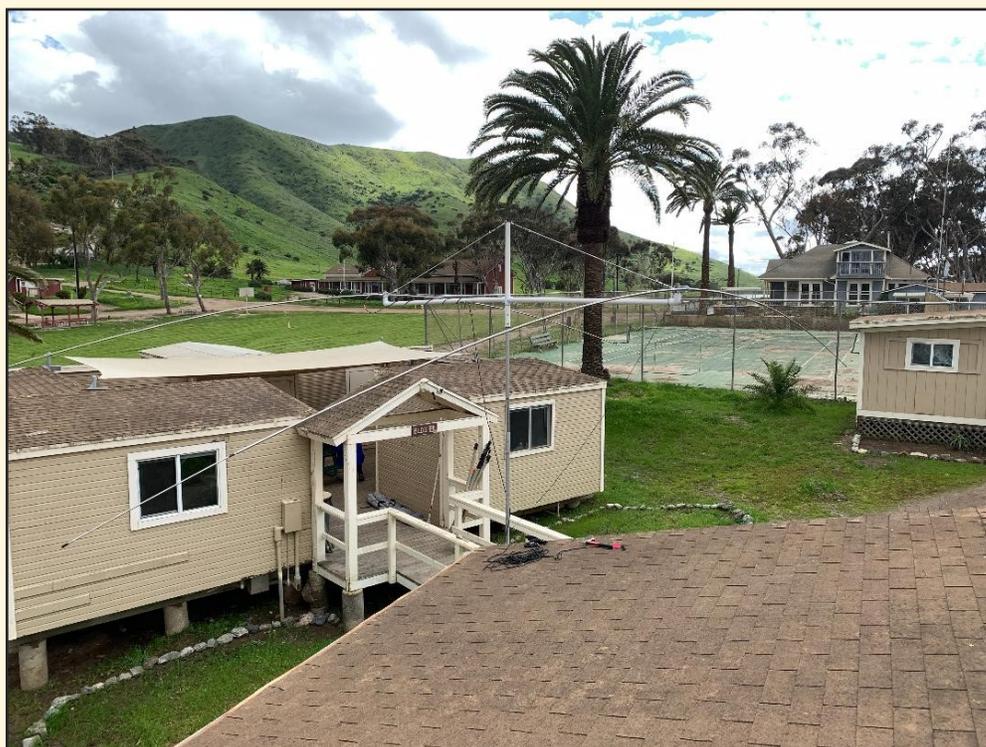
Speaking at our May 2nd meeting about Digital Mobile Radio (DMR) is **Michael Rickey, AF6FB,** the PAPA System's technical expert. Unique among the linked repeater systems in southern California the PAPA System has 16 DMR and 11 D-Star repeaters besides traditional analog FM. The PAPA System also provides its members (and to an extent the general ham community) with extensive DMR knowledge resources.

Our June 6th meeting topic will be announced soon. As previously reported there won't be a PVARC meeting on July 4th when Hesse Park's building is closed and our members celebrate Independence Day. In place of a July meeting Hesse Park is available for a substitute meeting on August 1. We still expect holding our International Lighthouse Weekend and family picnic at Pt. Vicente in mid-August. ∎

Chronicle of a DMR Newbie

By Jerry Kendrick, NG6R

I just received my Digital Mobile Radio (TYT MD-380 UHF-only HT—less than $100 from Amazon.com). Now what?! I've been hearing our club's first adopters musing about "talk groups," "color codes," "channels," "time slots" and "zones." A new lexicon to master! With our PV Amateur Radio Club repeater—K6PV—now equipped with DMR capability, in addition to analog FM (See AB9A's article on page 3 here: http://www.n6rpv.net/2019QRO/QRO_Mar_2019.pdf), it's even more important to come up to speed quickly.

Our club members are going to be buying/programming DMR radios at a more rapid pace than previously. Digital radio just seems to be an inevitable part of our amateur radio future. So, it would be beneficial for someone who's already gone through the learning process to capture his/her findings and to inform club members (like myself) what we need to know and how to get started. I made that passionate appeal at our March HF Enthusiasts meeting. But, fellow club member Clay turned the tables on me! He suggested that, instead, I chronicle my learning experience as I come up to speed and share that experience with the Club. This brief documentary—written in internal dialog style—is in response to that challenge.

Day 1

I'll watch some YouTube videos and do a little reading to learn the basics about DMR. These should make a good start:

https://www.youtube.com/watch?v=5ZawJek5z9c

https://www.youtube.com/watch?v=eDmjwh0RGoo (quite long—and with some off-roading—but really info-packed)

https://www.youtube.com/watch?v=S29RI_hsu24

https://www.raqi.ca/~ve2rae/dmr/Amateur_Radio_Guide_to_DMR.pdf (dated—written 4 years ago—but still good info)

Day 2

OK, I now understand the basics of DMR. I've learned some new terms and can sort of relate them to past experiences:

Time Slot (TS)—Old "wideband" analog FM channels are 25kHz bandwidth—like we're accustomed to on K6PV repeater—and newer "narrowband" analog FM channels are 12.5kHz; now, DMR effectively uses only half of that, i.e., 6.25kHz; and it does that by creating two independent TDMA time slots. I.E., in DMR we can place two separate and totally independent conversations (voice or data) in just one "narrowband" channel; they're referred to as TS1 and TS2.

Talk Group (TG)—users who want to share a time slot for communication; only one talk group per time slot at a time; and your radio must be programmed to listen to a talk group in order to hear that particular group of users. Can have global, regional and local talk groups; lots of additional info here: http://www.dmr-marc.net/, as well as here: https://brandmeister.network/. PVARC on the K6PV DMR repeater has been assigned Talk Group (TG) number 31060 by Brandmeister network, of which our repeater is now a member.

Zones—just a collection of individual channels that you decide to group together, maybe like one zone for local channels, another for a neighboring state, etc. You decide which channels are grouped into a particular zone when you program your own radio.

Chronicle of a DMR Newbie

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Color Codes (CC)—not really "colors" at all but much like PL tones or CTCSS that we're accustomed to in analog FM; there are just 16 available (CC0 - CC15); if not set correctly, then you will not get into the repeater—akin to analog FM repeater operation with PL tones; important when multiple repeaters are on the same frequency in the same geographical area.

Code Plug—computer file uploaded to the radio with channel assignments, call signs and other operating parameters; remember that front panel programming is not available—must use a computer to program radio. Programming can take hours depending on how extensive are the number of channels you wish to have. Remember that you can only hear traffic on a frequency, time slot, talk group and zone that you have programmed on a channel.

Simplex—I'm mainly (at least for now) interested in getting onto our K6PV UHF repeater. But later, if/ when needed, generally recognized UHF DMR simplex frequencies are: 441.0, 446.5 and 446.075MHz; by convention, all these use TG99, CC1 and TS1.

Day 3

I take a closer look at the website http://www.dmr-marc.net/ and discover I need to register myself in the DMR system. I do that by selecting "Register ID" on this website and follow the instructions. The ID will uniquely identify me (7-digit number, call sign, name) to other DMR users whenever I transmit on my radio. I can use this same ID on all my DMR radios, provided that only one is on the air at a time. It's easy to register—just put in your call sign and email address and the website uses the QRZ.com database info to populate the fields. Within minutes, I got an automatic email to confirm that my email address is correct. Now, I'll stand by to get my unique ID number via email—we'll see how long that takes. Wow, that was fast—took only 30 minutes, although the website warns it might take two days! My unique DMR ID is 3132969. So, anywhere in the world I use DMR, I'll be uniquely identified by this number anytime I transmit.

I see that this same website has a pull-down menu item "Repeaters." Clicking on it and continuing to zoom in on the world map, I see the satellite map shown in Figure 1 after highlighting one of the two repeater icons on the Palos Verdes Peninsula—K6PV, the club repeater. Another DMR-capable repeater nearby is K6RH, the repeater owned and maintained by fellow PVARC club member Gary WA6MEM. See the sidebar article for more details about that repeater.
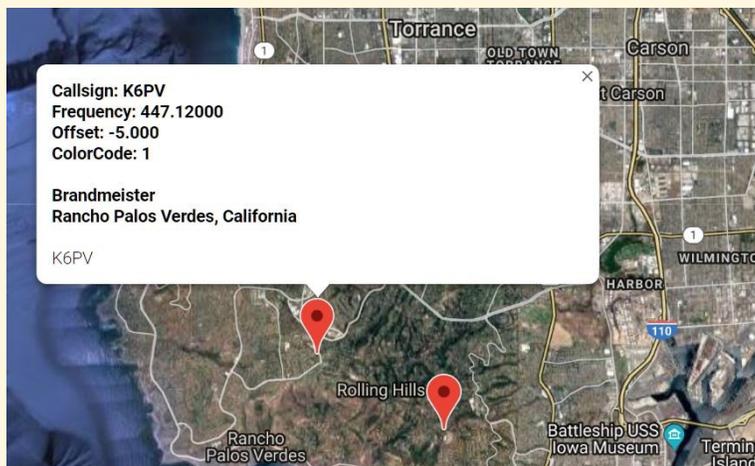
Figure 1. A visit to the website cited earlier (http://www.dmr-marc.net/), selecting Repeaters in the main menu and zooming in to Palos Verdes Peninsula. Note the color code for K6PV is CC1 and that this repeater is part of the Brandmeister network (more to learn about what that means).

Chronicle of a DMR Newbie

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Day 4

Now to examine my own radio (MD-380) and learn what I need to do to program it so that I can use the K6PV repeater in DMR mode. Right away, I noticed that the programming computer disc that was supposed to come with the radio is missing from the box. I contacted the Amazon seller, who immediately emailed me an attached file (although I'm sure it's available on-line) and I notice that the extension on this 5 MB file is ".rar". It's a zipped file so I "unzip" it to examine the setup files I'll need. I open the setup file and follow the instructions to load the "CPS MD_380" application. When I double-click on the installed application icon from my desktop, I see the image shown in Figure 2, so now I'm into the program itself.
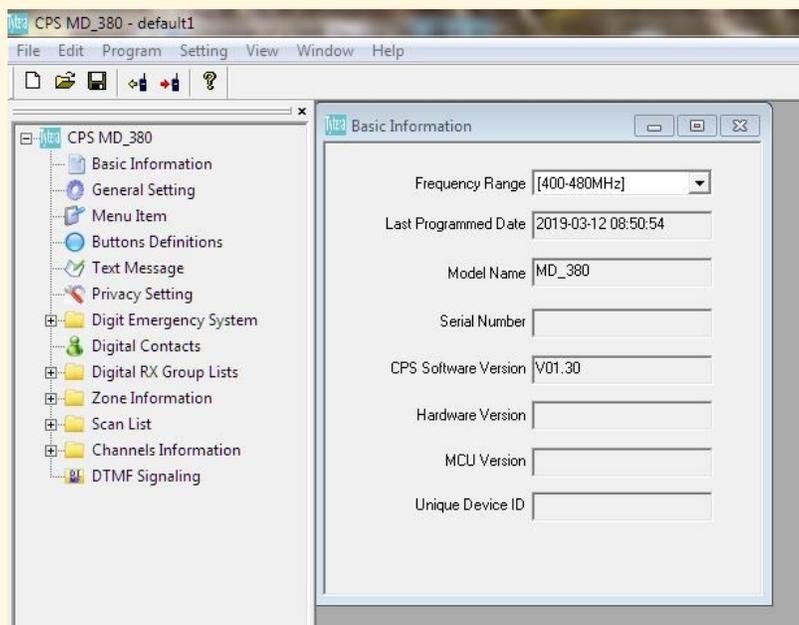

Figure 2. The first window that comes up when the MD-380 programming s/w icon is double-clicked and before the radio is attached via USB to the host programming computer.

I can see that there are a number of file groupings in the left panel, like Digital Contacts, Zone Information and Channels Information. I can imagine that other radio models may have different names for these; I'll need to start opening up these folders and see what needs to be set. But first I need some help from others who have programmed this radio in the past. I'll first look to YouTube for that.

On googling "How to program my MD-380?" I see no less than a half-dozen YouTube videos. It helps to watch more than one, because each time I watch a new one, I learn something more. None are as succinct as I'd like—in fact, all are a bit tortuous (and some even tort*u*rous!)—but here's the best one I found: https://www.youtube.com/watch?v=AUr0lanzCJ0. I'm sure that other available radios will have similar How-To videos that'll steepen the radio programming learning curve.

I'll start with General Setting and fill it out. I didn't have to modify much to personalize it for me, as highlighted with blue arrows in Figure 3. The rest of the parameters I left alone for now. The "Radio ID" I placed in its block is the 7-digit one I received via email yesterday. Each person will have his/her own unique ID to place into this block. I'll not need a programming password for my own radio, but I put in eight zeros nevertheless.

Chronicle of a DMR Newbie

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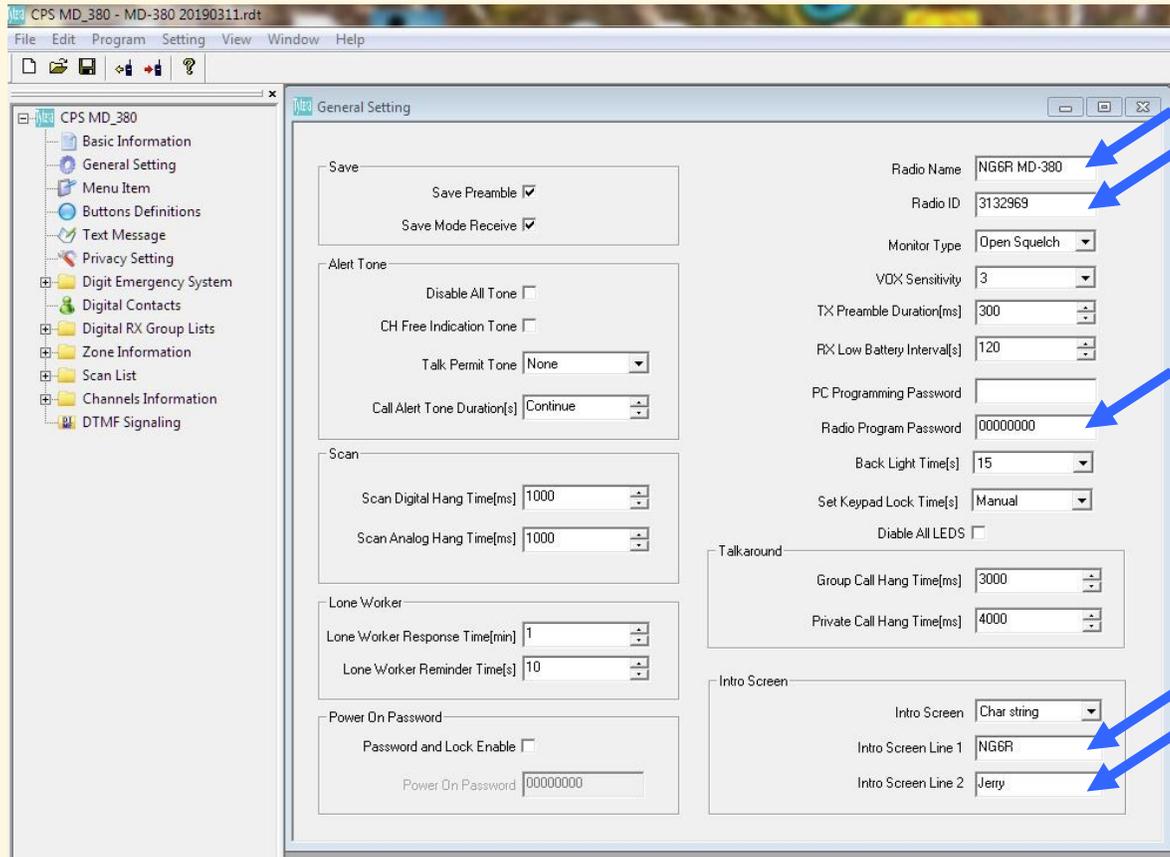
Figure 3. The General Setting window is pretty straightforward. I did have to type in my Radio ID I received yesterday from (http://www.dmr-marc.net/),

For now, I need just one contact and one channel and one zone—PVARC on K6PV DMR repeater. So, let's set that up, as I've begun in Figure 4. In Digital Contacts I put in PVARC and I know that its Talk Group assignment is 31060 from Clay's article.

Figure 4. This is the single-entry "list" of contacts I've set up. There's just one for now and it's PVARC with its own TG designator: 31060.

Chronicle of a DMR Newbie
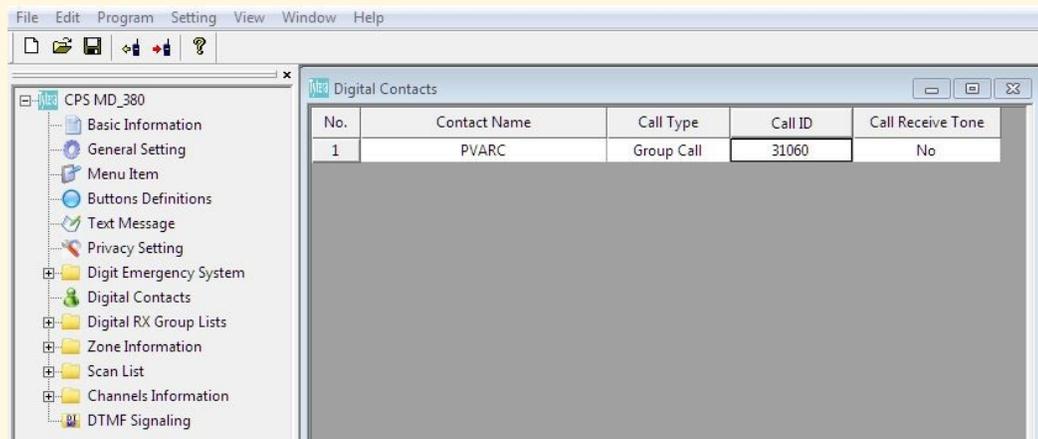
▶ *Continued from previous page*

I expand Zone Information and discover that it has just one default Zone, called Zone1. That's just fine for now, so no changes there.

I'll ignore Scan List for now. After all, I just have one repeater so there's nothing really to scan. It'll be useful later when there are multiple talk groups and perhaps multiple zones.

So, finally I expand on Channels Information, see the existence of Channel 1 and click on it. I change "Channel 1" to "K6PV PVARC," modify other default blocks and populate them with data appropriate for this K6PV repeater, as highlighted with blue arrows in Figure 5. I learn from Gary WA6MEM that PVARC access to K6PV repeater will be on Time Slot 2. The terminology on the MD-380 programming page is "Repeater Slot," for some reason instead of "Time Slot," so it's set to 2.
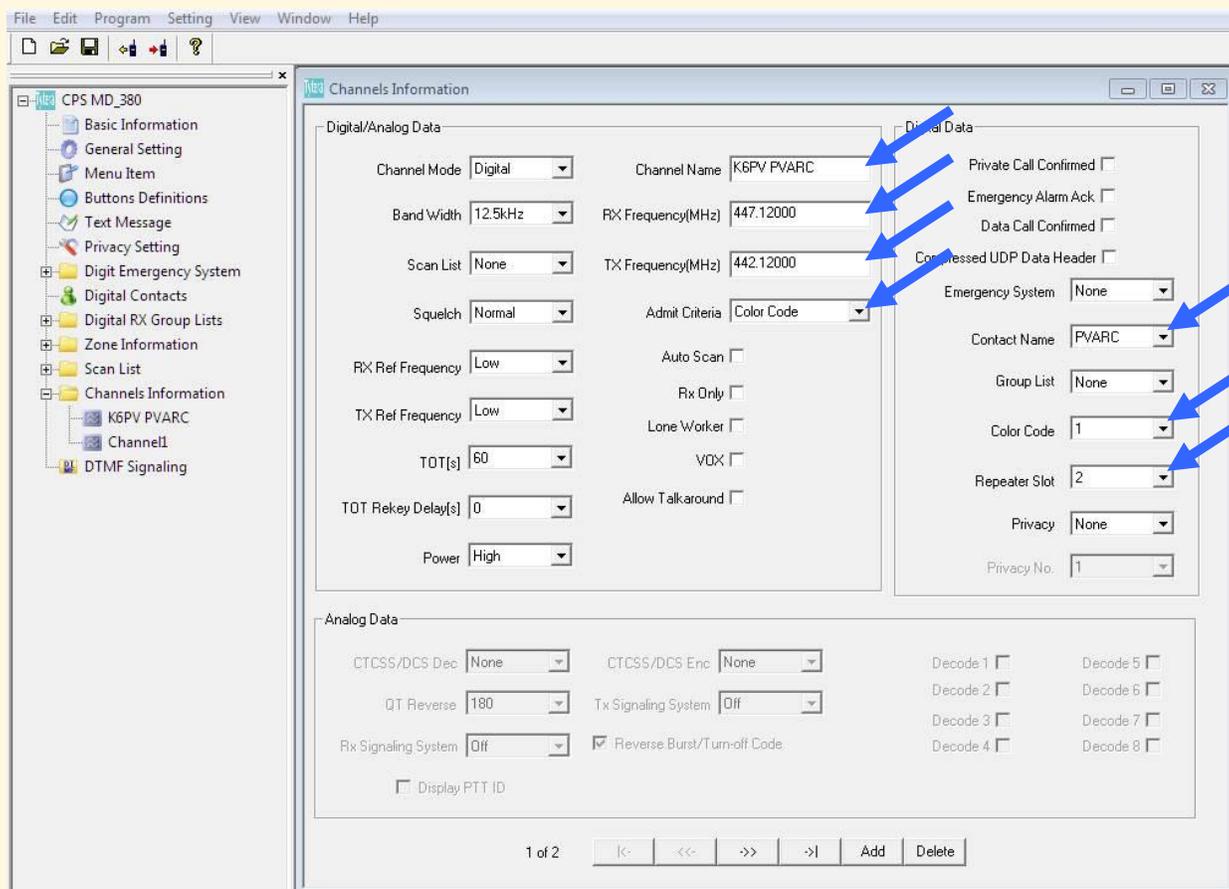
Figure 5. Finally, I'll populate the channels page. Since I have only one channel for now, called "K6PV PVARC," I've put in the appropriate data and highlighted the changed fields with blue arrows. All the other blocks were left unchanged for now.

That's it! Summarizing, I have created a code plug (computer program) for radio access to just one repeater: K6PV. I have one "contact": PVARC. I have one "zone": Zone1. I have one "channel": K6PV PVARC.

Now, I will write the code plug into the radio by attaching the supplied USB cable between the radio and the computer, simply touch on the symbol highlighted with the blue arrow in Figure 6, or alternatively select "Write data" from the Program pull-down menu.

Chronicle of a DMR Newbie

Figure 6. The code plug is written into the radio by clicking on the symbol highlighted by the blue arrow. After successf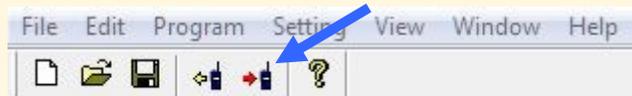ully writing the code plug into the radio, the MD-380 should be ready to make digital contacts on K6PV with similarly programmed DMR radios.

After writing this code plug into the radio (and saving it for future reference in a folder on the hard disk), the radio is ready to make contacts with other DMR-programmed radios on the K6PV repeater. A quick on-air test with Gary WA6MEM and Clay AB9A confirmed that this elementary programming effort was successful.

Summary and Conclusion

The steps outlined in this article were performed in several hours spread over four days. The actions needed by a new DMR radio user/programmer unfamiliar with digital radio programming are as follows:

1. Read articles and watch videos to develop a good understanding of DMR basics.

2. Buy a DMR radio.

3. Register yourself via the http://www.dmr-marc.net/ website.

4. Download your radio's programming software from a supplied disc or from the manufacturer's website.

5. Do a "practice" programming of your radio, much as demonstrated here, to gain familiarity with the software, procedures and various parameters/options.

6. MOST IMPORTANTLY, be patient until the K6PV DMR system co-administrators (WA6MEM and AB9A) flesh out a general and recommended code plug for PVARC users. Remember that there can be only one code plug in your radio at a time. And, since the programming software is not as "edit friendly" as you're accustomed to in MS Word and similar word processors, it is not easy (read "next to impossible") to combine multiple code plugs together (like with copy and paste) to create the one you really want to use; you almost have to laboriously re-type in all the parameters (contacts, channels, zones, TG, CC, etc.) for each entity you want to include. That limitation underscores the importance of laying in a good structure and hierarchy from the beginning that is general enough that your radio operations can grow gracefully as you add new contacts, talk groups and zones in the future. A part of that recommended code plug will reflect our repeater's membership in the Brandmeister network, a group of over 1300 repeaters worldwide that can be linked together in part-RF-part-Internet fashion for communications. Stay tuned for more information on DMR developments within PVARC to be announced in the near future. ■

The K6RH Repeater

1400' level on San Pedro Hill in Rolling Hills, CA
Coverage: Los Angeles and Orange County areas
Open repeater, owned by PVARC Director Gary Lopes, WA6MEM

Frequency: 445.3MHz with input 440.3MHz
Dual-mode: DMR and Analog FM
Analog FM: 25kHz bandwidth, PL 127.3Hz
DMR: CC1, local TG 761002 on TS2

K6RH is used every Monday night at 7:30 PM by the Los Angeles County Disaster Communication Service for its weekly network activation.

K6RH is not presently connected to the Internet, making it a perfect repeater for practicing code plug programming and having a local DMR QSO.■

— *Information about K6RH by Gary Lopes, WA6MEM*

K6PV DMR Usage Guidelines

K6PV is an open repeater. As with all repeaters—open or private—the repeater owner and trustee may set usage rules. We have just a few rules besides abiding by FCC regulations and common decency standards.

K6PV analog or digital usage is on a first-come, first-served basis...use the mode you wish if the repeater frequency is clear. Look for any signal bars in your radio's display as someone else might be on K6PV using the other mode. Any RF received on 447.120 MHz will show up as signal bars. Push your MONI (Monitor) button or turn the Squelch dial to open the squelch—you might hear an analog or DMR signal...or maybe just the other 447.120 MHz repeater in SoCal located on 8,000-foot Snow Peak above Banning.

Please note these additional rules: Do not use DMR on K6PV during the following times when analog-only nets are operating...

♦ **Monday evenings, 6:45-7:30 pm**, during weekly analog City of Rancho Palos Verdes PVAN nets

♦ **Tuesday evenings, 7:15-8:00 pm**, during analog PVARC Weekly Nets

♦ **When the Rancho Palos Verdes Emergency Communications Center is activated** for a disaster, scheduled training event, or scheduled public service event using analog FM (the latter such as the Palos Verdes Half Marathon).

...and do not use Analog on K6PV during the following times when DMR nets are operating

♦ **Tuesday evenings, 8:00-8:45 pm** during PVARC Weekly DMR Nets ■

K6PV DMR Repeater Information

Model: Hytera RD982i-U1, dual-mode DMR/analog with network connectivity
Purchased new by the Palos Verdes Amateur Radio Club, February 2019
Duplexer: Celwave 633-6A-2 six-cavity UHF duplexer, donated to PVARC by Gary Lopes, WA6MEM
K6PV DMR fully operational: March 22, 2019
Repeater site: One of higher points on the Palos Verdes Peninsula
DMR Network: Brandmeister (https://brandmeister.network/)

Radio settings *(in a DMR transceiver you will want both Analog and Digital channels):*

Analog FM: 447.120 MHz, -5.0 MHz TX shift, Tone Squelch (a.k.a. Encode-Decode), PL 100.0 (same as always.) Bandwidth is 25 kHz (single channel), i.e., "Wide FM"

Digital Mobile Radio (DMR): 447.120 MHz RX, 442.120 MHz TX, Color Code 1

Time Slot 2: PVARC Talk Group (TG 31060)
Time Slot 2: Local (TG9)
   (Note: Time Slot 1 will be configured at a later date)
Bandwidth is 12.5 kHz (two separate and simultaneous channel capability)

PVARC's DMR radio support to members

By Diana Feinberg, AI6DF
QRO Editor

Despite their complexities dozens of UHF DMR radio models are available worldwide—largely because DMR was initially (and mostly still is) for business, organizational, and government uses. End-users in this vast marketplace need not be concerned with DMR technicalities. But as amateur radio operators with the ability to personally adjust every setting in our transceivers we need to know something about Digital Mobile Radio if we plan to use it. That's why the PVARC is committed to helping our members understand DMR.

Free DMR continuing education

Because DMR entails a longer learning curve than analog FM (yet offers some significant benefits over analog FM) the PVARC will offer interested members free continuing education about DMR through five approaches:

1. The monthly pages of our **QRO** newsletter (this issue marks the start).

2. Our "What's Next?" sessions before each monthly meeting (beginning with our May 2nd meeting) will also have DMR expertise.

3. Also starting at our May 2nd meeting: PVARC Hesse Park monthly meetings will have a notebook computer capable of programming members' PVARC-supported DMR radios with a "code plug" (i.e., groups of frequencies ready to use.)

4. The PVARC website will have a section devoted to DMR information.

5. A weekly PVARC DMR net will be held on Tuesday evenings at 8:00 pm after our weekly 7:30 pm analog net.

Which DMR radio to buy?

No one is required to have a DMR radio. Those who are interested may purchase any Tier 2 DMR radio, new or used, at their own expense. Unfortunately the huge number of DMR radio models means we won't have expertise in all of them. The PVARC will initially offer our members extensive learning and programming support for the following handheld DMR radios that have affordable prices, great features, excellent reputations, and an existing PVARC user base:

- **TERA TR-7400 (UHF band only),** from PowerWerx.com and Impulse Electronics, $249.

- **AnyTone 868UV and 878UV, dual-band** available from PowerWerx.com, BridgeCom Systems, Universal Radio, Ham Radio Outlet, Amazon.com: $160-$180 for 868UV, $180-$220 for 878UV.

- **TYT UV380, dual band,** available from multiple sources including Amazon.com, $95-$120. Note: Also, the UHF-only MD-380 model was recently discontinued but inventory is still available.

Some important differences exist among the respective features, durability, and tech support for these radios...but "You Get What You Pay For." If you absolutely must have the best there are Motorola DMR radios for $800-$1,200 (new) and $400-$800 (used). But these units intended for enterprise solutions are generally too expensive and complex for most hams. They also require costly proprietary programming software that must be licensed every three years or your radio must be programmed by someone with such software.

How do the PVARC's three supported DMR handheld radios compare?

The table I've compiled on the next page shows how the PVARC's three supported DMR radios stack up against each other...and against the $1,100 Motorola XPR7550. You'll see each has its advantages. ∎

PVARC's DMR radio support to members...comparing radios

PVARC Supported DMR radio models Features:	TERA TR-7400	Any-Tone 868UV 878UV	TYT UV-380 —also MD-380* (UHF), now discontinued.	Only for comparison Motorola XPR-7550
Price (base unit), excluding sales tax	$249	$160-220, depending on accessories	$95-130	$1,100
Storage:	Channels: 1,024 Zones: 64 Talk Groups: 800 DMR database holds: 100,000 ham radio IDs	Channels: 4,000 Zones: 250 Talk Groups: 10,000 DMR database holds: 150,000 ham radio IDs	Channels: 3,000/1,000* Zones: 250 Talk Groups: N/A DMR database holds: Not stated	Channels: 1,000 Zones: 64 Talk Groups: In Channels DMR database holds: 1,000 ham radio IDs
Display type	OLED (easy to read in bright daylight)	TFT LCD	LCD	"Color display" but not otherwise specified
Frequencies covered	403-470 MHz	136-174 MHz and 400-480 MHz	136-174 MHz and 400-480 MHz	403-527 MHz
Transmit power levels	4.0/1.0 W	6.0/4.0/2.5/1.0 W	5.0/1.0 W	4.0/1.0 W
Frequency stability	±1.0 ppm	±2.5 ppm	±1.0 ppm	±0.5 ppm
Weather protection Ruggedness: Military Standard tests claimed for vibration, shock, dust, water, temperature, humidity, etc.	IP67 waterproof MIL-STD 810 C/D/E/F/G	None (None stated)	None (None stated)	IP68 waterproof MIL-STD 810 C/D/E/F/G
Battery capacity (Li-ion)	2200 mAh	3100 mAh	2000 mAh	2,250 or 3,000 mAh
Rated audio output	1.5 Watts	1.0 Watt	1.0 Watt	0.5 Watt
Warranty	2 years	1 year	1 year	2 years
Reported quality of customer technical support	Excellent	Varies...Excellent from BridgeCom, none from Amazon.com	Depends on seller	Excellent if bought through authorized dealer
Other features		Optional addition: 500 hours of voice recording or Bluetooth audio		Built-in WiFi, Bluetooth audio and data; optional IP Site connect

Scenes from recent HF Enthusiast Group meetings.

PHOTOS: DIANA FEINBERG, AI6DF

HF Enthusiasts Group meets next on Saturday, April 13

Whether you have an item to show or discuss...or just want to observe...all are welcome at the PVARC's HF Enthusiasts Group monthly meetings on 2nd Saturdays. The Group next meets on April 13 from 10:00 am to Noon at the Palos Verdes Library's main branch (701 Silver Spur Rd / 650 Deep Valley Dr.) in the Purcell Room in the corner behind the Reference Desk. There is plenty of free parking on the Library roof, in a parking structure on Deep Valley Drive, and a small inside parking area accessed from Silver Spur Rd. We realize April 12-14 is also this year's International DX Convention in Visalia so if you aren't going there consider our HF Enthusiasts meeting instead. ∎

It's still renewal time for PVARC membership...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 aren't a member. 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

6 PVARC badges await pickup at April meeting...or another time

Gary Lopes, WA6MEM, has the following new PVARC badges ready for distribution at our April 4, 2019, monthly meeting at Hesse Park or by special arrangement.

- K6MU
- KI6YMD
- KM6YGQ
- W6BMD
- W6YBW
- 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

Board of Directors:

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Vice President	Ray Day, N6HE
Treasurer	Peter Landon, KE6JPM
Secretary	Ron Wagner, AC6RW
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	Gary Lopes, WA6MEM
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Palos Verdes Peninsula, CA 90274-8316

Monthly Meetings:
1st Thursday (except July and December in 2019) 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 shown half an hour before sunset on March 27, 2019. Sunny at sea level, a heavy marine layer left the entire Palos Verdes Peninsula in fog at elevations over 350 feet.
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 August 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, 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. 12, Los Verdes Golf Course, Rancho Palos Verdes

Non-PVARC Events of Note:

- **International DX Convention,** April 12-14, at Visalia, CA, Convention Center.

- **Dayton Hamvention,** May 17-19, Xenia, OH, at Greene County Fairgrounds. ∎

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

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

Georgiann Keller, KM6GYM

Annalise Little, KM6YGS

Tim Couture, KM6QWA

Frank Brown, KM6YGQ

Charlie Hansen, AJ6HZ

Diana DiDomenico, KM6IQN

William McClure, KN6ACQ

Rick Shigio, K6RTS

David Calloway, KN6ACP

Jon Kuroyama, K6LDQ

ARRL News

Comments to FCC about proposed Technician license enhancements due by April 14

From ARRL Headquarters
Newington CT March 15, 2019
To all radio amateurs

The FCC has invited public comments on ARRL's 2018 Petition for Rule Making, now designated as RM-11828, which asks 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, 15, and 10 meters.

Interested parties have 30 days to comment. The Technician enhancement proposals stemmed from the recommendations of the ARRL Board of Directors' Entry-Level License Committee, which explored various initiatives and gauged member opinions in 2016 and 2017.

"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 its 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."

Specifically, ARRL proposes to provide Technician licensees—both 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.

* RTTY and digital privileges in current Technician allocations on 80, 40, 15, and 10 meters.

The ARRL petition points out the explosion in popularity of various digital modes over the past 2 decades. Under the ARRL plan, the maximum HF power level for Technician operators would remain at 200W PEP. The few remaining Novice licensees would gain no new privileges under ARRL's proposal.

ARRL's petition points to the need for compelling incentives not only to become a radio amateur in the first place, but then to upgrade and further develop skills. Demographic and technological changes call for a "periodic rebalancing" between those two objectives, ARRL maintained in his proposal. The FCC has not assessed entry-level operating privileges since 2005.

The Entry-Level License Committee offered very specific data- and survey-supported findings about growth in Amateur Radio and its place in the advanced technological demographic, which includes individuals younger than 30. It received significant input from ARRL members via more than 8,000 survey responses. "The Committee's analysis noted that today, Amateur Radio exists among many more modes of communication than it did half a century ago, or even 20 years ago," ARRL said in its petition.

Now numbering some 384,500, Technician licensees comprise more than half of the US Amateur Radio population. ARRL stressed in its petition the urgency of making the license more attractive to newcomers, in part to improve upon Science, Technology, Engineering, and Mathematics (STEM) education, "that inescapably accompanies a healthy, growing Amateur Radio Service."

ARRL said its proposal is critical to develop improved operating skills, increasing emergency preparedness participation, improving technical self-training, and boosting overall growth in the Amateur Service, which has remained nearly inert at about 1% per year.

The Entry-Level License Committee determined that the current Technician class question pool already covers far more material than necessary for an entry-level exam to validate expanded privileges. ARRL told the FCC that it would continue to refine examination preparation and training materials aimed at STEM topics, increase outreach and recruitment, work with Amateur Radio clubs, and encourage educational institutions to utilize Amateur Radio in STEM and other experiential learning programs. ■

ARRL News

How to electronically comment to the FCC on rulemaking petitions

Those interested in posting brief comments on Petitions for Rulemaking (PRMs) to the FCC, such as the ARRL Technician Enhancement proposal (RM-11828) using the Electronic Comment Filing System (ECFS) should access FCC Electronic Comment Filing System Express at https://www.fcc.gov/ecfs/filings/express .

In the "Proceeding(s)" field, enter the number of the PRM, e.g., RM-11828 (using this format), complete all required fields, and enter brief comments in the box provided. You may review your post before filing. All information you provide, including name and address, will be publicly available once you post your comment(s).

Visit "How to Comment on FCC Proceedings" for additional information at https://www.fcc.gov/consumers/guides/how-comment . ∎

*And finally...*Mother Nature has her way with 300-foot radio towers

During the March 13, 2019, "Cyclone Bomb" that swept through mid-America the Texas Department of Transportation's 300-foot radio tower in Abilene, TX, collapsed despite National Weather Service reports that winds only gusted to 54 mph.

Although this tower was built to exceed all required standards the violent thunderstorm rolling through Abilene wasn't standard. Something to remember if you wish for a 300-foot tower on your lot. ∎

Above: A 300-foot radio tower in Abilene, TX, operated by the Texas Department of Transportation crumpled during the March 2019 "Cyclone Bomb" storm.

PHOTO: ARRL SOUTH TEXAS SECTION MANAGER PAUL GILBERT, KE5ZW

Left: A 3D perspective from Google Maps shows the magnitude of the Abilene, TX, Texas DOT radio tower in better times.

PHOTO: GOOGLE MAPS

PVARC Calendar

April 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	**2** PVARC weekly net on K6PV repeater & cross-band, 7:30 pm	**3**	**4** PVARC monthly meeting, Hesse Park. 6:30 pm, "What's Next?"; 7:30 pm main meeting	**5**	**6**
7	**8**	**9** PVARC weekly net on K6PV repeater & cross-band, 7:30 pm	**10**	**11**	**12**	**13** PVARC HF Enthusiasts Meeting, 10am-Noon, Palos Verdes Library Peninsula Center Intl. DX Convention, Visalia, CA
14 Intl. DX Convention, Visalia, CA	**15**	**16** PVARC weekly net on K6PV repeater & cross-band, 7:30 pm	**17**	**18**	**19**	**20**
21	**22**	**23** PVARC weekly net on K6PV repeater & cross-band, 7:30 pm	**24**	**25**	**26**	**27** W6TRW Swap Meet, 7:00-11:30 am at Northrop Grumman, North Redondo Beach.
28	**29**	**30** PVARC weekly net on K6PV repeater & cross-band, 7:30 pm				

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

<u>Two Free Amateur Radio Courses</u>

FCC <u>**"Technician"**</u> course (entry level)
FCC <u>**"General"**</u> course (2nd level)
<u>Each course is 2 sessions</u>
<u>The sessions</u> will be on 4 May and 11 May 2019
<u>Technician</u> 9:30 AM to 1:30 PM both Saturdays (bring your lunch)
<u>General</u> 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 <u>no fee</u> for either course.
Taking the FCC test is $15.

<u>Optional Material (sold at cost)</u>
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: _____