

Emergency Radio Communications in Portola Valley

August 2023

Here in Portola Valley, we have the best of many worlds including semi-rural living with nature, close to major cities, many hills and valleys and engaging trails on which to walk and wonder, and terrific radio communications for hobby and emergency should we need it.

The Portola Valley Emergency Preparedness Committee (PVEPC) working with the WPV-CERT¹ (Woodside-Portola Valley Citizens Emergency Response Team) have established several layers of emergency radio communications for all to use and share. Please read on for an introduction.

First, the mission. In any emergency, information becomes critical to decision making and resource deployment. This is taught in every class on emergency preparedness and response and to every official responder. Clear, concise, current, understandable communication can alleviate a lot of suffering and save lives should an emergency befall us.

Second, the means. We have many layers of communication in Portola Valley. SMC Alert might be a first source of information. Informational updates may appear on official Internet websites like San Mateo County Office of Emergency Management or even the PV App. PV Forum is usually a good place to read the latest updates as well. All these services require telephone and Internet infrastructure to be operational and effective. In most cases around here telephone and Internet services do remain operational during minor emergencies like temporary power outages and storms.

But what if something serious happened like a wildfire or a major extended utility outage. In PV we've often experienced many multi-days power outages. Though it's been a while since we had one if a major earthquake occurred. Regardless the reason, imagine your telephone, or your cell phone, or your Internet is down. Cell towers, if they are working, might be jammed. Or power to our homes is intentionally shut off and everything is down. This happens more often than one thinks and not always at a convenient time. National and local experience has shown that *radio* becomes the preferred, if not the only means by which information is shared and decision-making is enabled.

Third, getting the word out. About ten years ago the PVEPC was charged with finding a way to get a message to town residents should an emergency arise. After a lot of research we concluded and established a TIS AM² radio station in Portola Valley. With the support of the Town our AM radio station broadcasts on 1680 kHz on your AM dial, 24x7 recorded messages for visitors and town citizenry. It is a reliable information service with pre-recorded messages

¹ <https://wpv-cert.org>

² TIS – Travelers Information Radio Service is a defined radio service by the Federal Communications Commission (FCC) for [low-powered](#) non-commercial broadcast used to disseminate information to the general public, including for motorists regarding travel, destinations of interest, and situations of imminent danger and emergencies.

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but can also go to live broadcasts should it be warranted. The AM broadcast reaches about 70% of Portola Valley's residences and thus is a reasonably good service to get the word out should all the wireline and wireless phone and Internet systems fail.

Fourth, how to assess what's happening. The PVEPC also put in service several GMRS³ repeaters⁴. These general-purpose two-way radio networks cover PV well. Over time the PVEPC team hardened these repeater installations with backup power, backup antennas, and an ability to survive an emergency event. Anyone can use these open two-way radio systems with a cheap UHF⁵ two-way radio and an FCC⁶ license. Should an emergency befall us, many trained WPV-CERT volunteers will be using this service because WPV-CERT has standardized on it.

Also, about 10 years ago some of the local amateur⁷ radio operators (ham radio) organized an amateur radio club, Portola Valley Amateur Radio Club KM6DLG⁸ and built a ham repeater network covering the local area too. Ham radio is a hobby for many people and per the FCC service definition ham radio also serves the public by supporting emergency communications. Most all official first responder groups have some affiliation with their local ham radio organizations. At times of major disasters like hurricanes or floods, ham radio always seems to be there and is often the only working communication service for emergency authorities to use. As such there are many ham radio organizations whose sole purpose is emergency services. In San Mateo County one such club is SCARES, K6MPN⁹.

In this mindset, the PVARC KM6DLG club acquired and built out a mobile communications trailer. This trailer, normally positioned at WFPD Station 8, has a full stack of radio repeaters for GMRS, ham, and WPV-CERT including its own power so that it can act as the communications hub for any local Incident Command Center¹⁰ should it become necessary.

³ GMRS – General Mobile Radio Service is a defined radio service by the Federal Communications Commission, is one of the regulated services designated for use by citizens for general purposes. GMRS usage requires a license \$75 for 10 years and enables all members of a household to use the radio. No training, testing, or other requirements exists.

⁴ Repeaters are radio systems that allow for low power, hand-held radios to rebroadcast over wide areas. These shared systems are very common in all radio services including first responders, amateurs, GMRS, etc.

⁵ UHF – Ultra High Frequency is the name of a radio band typical in the FCC parlance. Similarly, there is a VHF or very high frequency band, AM band, FM band and so forth.

⁶ FCC. Federal Communications Commission. <https://www.fcc.gov>.

⁷ Amateur Radio is a defined radio service by the FCC. It requires a license to operate administered by the FCC and volunteers. The test demonstrates a basic understanding of the rules associated with the service and some basic level of radio technology. It is obtainable from many clubs who run Saturday workshops.

⁸ KM6DLG is the FCC call sign for the Portola Valley Amateur Radio Club. A web page at <https://radio.rothrockfamily.com> explains more about the club and the radios available for use.

⁹ South County Amateur Radio Emergency Services club <https://www.k6mpn.org>

¹⁰ Incident Command Center is DHS designation for where an emergency service operation would be headquartered. There are rules and protocols in which many volunteers are trained and certified to open and operate an ICC.

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The San Mateo County Sheriff Communication Unit KC6ULT¹¹ consists of ham radio operators who volunteer with the San Mateo County Sheriff's Office to provide communications and logistical support during local events and emergencies. Some of the hams in PV and Woodside are members of the Sheriff ACS and many more hams participate in its weekly check ins.

In 2019, WPV-CERT was organized by members of Woodside EPC attaching itself to the WFPD, incorporating PV, as well. The root of this org is the old CERPP¹². Working together, WPV-CERT, the GMRS, and ham radio repeater volunteers built and expanded a linked radio network throughout the whole WFPD. In addition, WPV-CERT provides a broad range of training programs for first aid, shelter, emergency operations and the like including how to operate and when to use two-way radios. *WPV-CERT is our best local source of information, training, and preparation.*

Fifth, resilience. Today WPV-CERT, the GRMS repeater owners, PVARC/KM6DLG members and many volunteers keep these radio networks operational by performing frequent tests. Further, we have integrated these radio networks to extent allowed by law and practical needs into other services in our community. And with the PVARC communications trailer in tow, Portola Valley EPC can establish an Incident Command Center just about anywhere it needs to remain in communication with the community.

Your Opportunity. There is a growing bevy of trained volunteers who understand how to operate these networks during an emergency in addition to many other emergency duties and activities. While all this can sound a bit technical and even nerdy, it really isn't. This is about being prepared and getting involved so our community can be prepared to take care of ourselves. This is about getting to know your neighbor and others in town. There are many skills needed and the more people involved, the broader the reach and the deeper we are prepared.

Where do I get more info? The best place to start is at WPV-CERT.org. That said, I am always happy to answer questions, assist in acquiring a radio or license and establishing an antenna, or just reviewing emergency preparedness hygiene. WPV-CERT can also visit you in your neighborhood with your neighbors and show you how to get started.

Here's hoping we never have to use any of these emergency communication systems but feeling better that they are in place.

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¹¹ <https://www.sonso-scu.org>

¹² Citizens Emergency Response Preparedness Program. <http://old.cerpp.org/index.html>

PORTOLA VALLEY AMATEUR RADIO CLUB KM6DLG

Portola Valley, California Ham Radio & Emergency Preparedness Communication Information

[Home](#)



PV AMATEUR RADIO CLUB - KM6DLG

PV ARC maintains **seven repeaters** for the Portola Valley, Woodside and surrounding areas. These are open repeaters, emergency powered, and used by local amateurs and the WPV-CERT teams.

FM Repeater

- 224.820+ PL 110.9 KM6DLG (NARCC Coordinated)**
- 146.085+ PL 110.9 KM6DLG (Uncoordinated)**
- 52.92- PL 100.0 KM6DLG (NARCC Coordination)**
- 146.085+ PL 100.0 WB5NVN (NARCC Coordinated)**

[-> Local hams meet on NVN repeater 7:45 pm Tuesdays<--](#)

The KM6DLG 2-meter and 220 ham repeaters are linked. Transmitting to either one, repeats on both.

DMR Repeater - WB5NVN digital ID

145.025 TX - 147.525 RX ColorCode 03 (NCDCC Coordinated. NARCC recorded)

Local Talk Group 312882

[Click here to view current DMR log.](#)

GMRS Repeater - WQBS772

462.625 MHz DCS 162 (PV1 on WPV-CERT) <—MAIN CHANNEL

462.675 MHz DCS 162 (PV2 on WPV-CERT)

San Mateo Sheriff's ACS

SM Sheriff's ACS maintains a HAM repeater network on 146.865 PL 114.8 VHF.

In some portions of Portola Valley and Woodside this SM ACS VHF repeater is hard to