Palos Verdes Amateur Radio Club

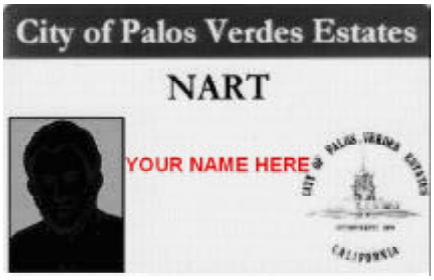
K6PV

Q R O

JUNE 2007

Emergencies!
Are You Prepared?

See Program Details In Denzel Dyer's Column, Page 3



PVAN

DE the VP

Denzel Dyer, KG6QWJ

We have all heard bits and pieces about DCS and PVAN, and perhaps even NART.
The next meeting will put the pieces together.

DCS (Disaster Communications System) is a Los Angeles County system administered by the Los Angeles County Sheriff. Bill Pomeranz will talk about DCS, what it does, how to get into it, and the privileges (if any) and obligations (several) of DCS operators.

Herb Clarkson will tell us about the work of DCS with the PVP Unified School District — licensed hams and equipment at the schools, with monthly drills.

PVAN and NART are local, unofficial, less highly organized, and easier to get in to.

Alan Soderberg will present PVAN, the Palos Verdes Alert Net, which is primarily a Rancho Palos Verdes operation.

Bryant Winchell will do the same for NART in Palos Verdes Estates.

All three organizations can use more active members ('active' underlined because just after the ground stops shaking is not really the time to wonder what the emergency frequency is).
See you there!
Denzel KG6QWJ

Treasurer's Report

Bill Harper

RADIO STATION WA6ESC AMATEUR RADIO

As of June 1, 2007

PVARC Balance	$2,050.12
John Alexander Fund	$ 795.50
Repeater Fund	$ 850.16
Total	$3,695.78

Welcome Back to Returning Member!

Mike Semos, N6DBS
(Mike was our Vice President in 1983 when Clint Mason, WA6TMJ, was President.)

Board of Directors

President	Joe Locascio, K5KT
Past President	Dave Scholler, KG6BPH
Vice President	Denzel Dwyer, KG6QWJ
Treasurer	Bill Harper, WA6ESC
Secretary	Ginger Clark, KG6TAU

Appointed Offices

QRO Editor	Ginger Clark, KG6TAU
Editor Emeritus/ Proofreader	Bryant Winchell, W2RGG
Graphics Guy	Rick Murray, K6WXA
Web Page Editor	Rick Murray, K6WXA

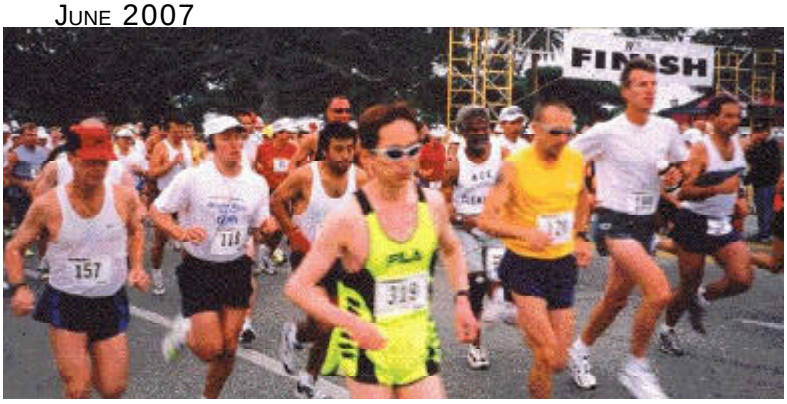
www.palosverdes.com/pvarc

Contacts

QRO Editor	310-378-7894
WebMeister:	310-544-0982

The President Is On Vacation

Joe Locascio, K5KT



Thanks to You the 2007 PV Marathon Was Another Success!!

Denzel Dyer, KG6QWJ
Net Control

The Club's support of the Palos Verdes Marathon (19 May) seems to have worked well, in spite of the net control operator being a complete tenderfoot.

Thanks to all the following who helped with the radio operation this year:

Walt Ordway (K1DFO), who was out of town, but who spent a great deal of time explaining things, and who arranged for the loan of a repeater.

Dale Hanks (N6NNW), who assisted at RPV City Hall before the race to help check out radio coverage with the new antenna, and during the race.

James Keene (WA0FMB), **Steve Smith (KO6ZC)**, **Rick Murray (K6WXA)**, **Homer Meek (K6HKT)**, **Herb Stark (KO6RC)**, **Joe Locascio (K5KT)**, **Marian Locascio (K5KKT)**, **Marty Dodell (KF6VSY)**, **Lora Dodell (KF6JLF)**, **Bill Harper (WA6ESC)**, **Mike Semos (N6DBS)**, and **Bill Leighton (KG6WVF)**, who handled the ends of the course and the nine aid stations in between.

Bryant Winchell (W2RGG), at the PVE command post.

Sid Wielin (KF6QFH), who was the race director's operator.

Dave (KG6BPH) and **Dale (KG6ZVD) Scholler**, and **Stu (W7UW)** and **Martha (N7ZCZ) Salot**, who were operators for the YMCA vans 1 and 2.

Leroy Radcliffe (KI6EAO), **Ginger Clark (KG6TAU)**, and **Trey Barton (KG6ZOE)**, as Rovers 1 and 2.

EMS operators **Mike (KG6ISW)**, **Chip (KB6EMS)** and **Howard (KB6MYE)**, who are not Club members but who worked with our net.

And especially **Helen Dyer**, who took extensive notes to help remind me of things to be done, and provided drinks and snacks between contacts.

My apologies if I missed anyone. It certainly wasn't intentional.

The Marathon net was also a test of the new RPV antenna, which worked very well except at the far end of the course — that location was not selected for its suitability as a radio site. And, speaking of unsuitable sites, Rick Murray appears to have the notorious Aid Station 2 conquered.

Finally, remember that there will no doubt be another PV Marathon next spring!!

Rolling Hills Estates 10K/5K

This year's annual RHE 10K/5K event has been moved to Saturday, 11 August. The event starts and finishes at Ernie Howlett Park, just off of Hawthorne Blvd. This 10K/5K event is a bit different from other 10K/5K events. This one is run mostly on the horse trails in the City of Rolling Hills Estates, and also goes through the Botanical Gardens.

The race will start at approximately 8:30 AM and will be completely finished by around 10:00 AM. If you'd like to help with the radio communications for this event, please contact Walt, K1DFO, at waltordway@juno.com

History of the 449.980 MHz "PV West" Repeater

By Herb Clarkson, KM6DD

West Repeater on Right

The 449.980 PL 173.8 repeater now designated as "PV West," is a joint operation of the Palos Verdes Amateur Radio Club (PVARC) and the Metropolitan Transit Authority Amateur Radio Club (MTAARC). Saturday afternoon of Field Day this year will mark ten years that this repeater has been in operation. On this anniversary, a summary is appropriate as even some long-time Club members do not know this repeater's history. If you are wondering about the other 440 repeaters, a short summary is also included.

The Beginning

The story starts with the Northridge Earthquake in 1994 and the concern of various agencies in their ability to communicate in emergencies. This included the leadership of the Palos Verdes Peninsula Unified School District (PVPUSD). Ironically, later it was discovered that these PVPUSD individuals were unaware of the PVARC emergency radio study conducted in 1987 for the School District on this very subject.

A few months after the earthquake, the South Bay Amateur Radio Club (SBARC) lost the location for their repeater operation. They approached the School District for permission to locate their repeater at a school site that was unoccupied at that time. In return, the repeater would be available for the School District, should they establish an emergency radio net based upon amateur radio. In addition, the SBARC agreed that they would provide training, support, etc., to the School District for such a net. Some radio communication tests were conducted and permission was given to the SBARC to install their 220 MHz repeater at the school site. They commenced operation in July 1994.

Around December 1995, the School Board President contacted Paul Weisz, a PVARC past-president and at that time in charge of Lomita Station's Disaster Communications Service. Paul was asked to lend a hand to establish an amateur radio emergency communication net for the District. He turned the project over to this author and to Bryant Winchell because of his knowledge of the 1987 study which he led. The end result was that the PVARC and Lomita DCS took over the development of the School District emergency radio net. That is another story in itself but it was a key to the establishment of the "PV West" repeater.

Several Club members involved in emergency communications recognized the advantage of having additional emergency frequencies on other than the two-meter band. It was assumed that the Los Angeles area would experience severe frequency congestion in any major emergency. The School District was amenable to having the PVARC operate a 440 MHz (70 cm) band emergency repeater collocated with the existing SBARC repeater...According to one School District official "…it would be for the well being of the Peninsula... the District would be acting as a good neighbor to do so…

The Problem

Two problems existed with this idea. First, was the lack of any readily available repeater with a frequency. Secondly, the 70-cm. band is not considered ideal for emergency use. The band was, and still is, designated as a frequency band where the government has primary usage with amateur radio use being on a non-interference basis. In fact, planned usage of this band for emergency purposes was actually discouraged. At that time, with the sole exception of the Santa Clarita Sheriff's Station, there was no 70 cm capability at county EOC, Sheriff Stations or local city EOCs.

Solving Problem #1

The lack of a repeater was solved via PVARC member Jim Smart who at that time was an employee of

Continued on Page 6

the MTA and a member of their radio club. The MTA Amateur Radio Club had installed a repeater (449.980 Pl 136.5) at Running Springs that covered most of the LA basin though marginal in the South Bay area. For better basin coverage, the MTA radio club was seeking a Palos Verdes area location to place another repeater on the same frequency. The PVARC made an agreement with the MTA radio club that they would provide the frequency and repeater equipment while the PVARC would provide the location. A Memorandum of Understanding approved by the PVARC board and signed by then President Jack Carter on June 11, 1997 documented this agreement.

Also executed was a Memorandum of Understanding dated May 28, 1997, between the PVPUSD and PVARC to operate a repeater collocated with the 222 MHz repeater being used by the School District. Two conditions were imposed – the repeater was to be an "open" repeater and in emergency would be controlled by the Lomita Sheriff's Station Disaster Communications Service. Each year, after the radio club provides evidence of liability insurance, a one-year "no cost" lease contract is signed between the School District and the PVARC. Note – this evidence of liability insurance is the same that the PVARC provides to the City of RPV for use of Hesse Park for meetings and to the School District for use of High School grounds for Field Day, etc.

On the Saturday afternoon of Field Day in 1997 (June 21st), Mike Mockler and this author installed the repeater that is now known as "PV West" operating on 449.980 with PL 173.8 on both input and output. The frequency assignment was originally held by MTAARC member George Trook (K6IUM) but has since transferred to the MTAARC itself. The repeater IDs will be changed to W6MTA whenever the repeater units next require maintenance.

The original operational concept for that repeater was for the MTA to be responsible for FCC compliance, furnish the equipment, etc. while the PVARC would provide the location and overlook the day-to-day operations. This concept has evolved with significant equipment upgrade by Bill Harper, WA6ESC, and myself over the years. Most significant is the installation of what is now a fourth generation antenna, designed and built by Bill. He also was deeply involved in providing the power supply upgrade, emergency power switching and extra air cooling with filtering etc. I provided the backup batteries plus other incidentals, etc., etc. The MTAARC, as the licensee, remains responsible to the FCC and the repeater coordination group for the proper legal operation of the repeater. PVARC members provide direct operational control and maintenance of the repeater. Repeater unit maintenance is performed by Mike Mockler who is both a MTAARC and a PVARC member.

Relationship with the collocated SBARC repeater group remains excellent. As reported in the QRO Jan 2007 edition, a yearly "pre-winter" maintenance party is held jointly with SBARC members. At that time, the antennas are inspected and painted if necessary. If required, the guy wires are replaced and any other preventative maintenance performed.

Solving Problem#2

Once this repeater was in operation, attention was next focused on the Lomita Sheriff's Station obtaining 70 cm capability. In July 1998, bureaucratic obstacles were overcome and the stations' antenna tower underwent "required maintenance.**"** As part of this maintenance activity, a new tri-band antenna was installed at the antenna tower top with new cabling connecting it to the station's DCS room. This allowed Lomita to become the second Sheriff's Station to have 440 MHz band capability.

Continued on Page 6

International Lighthouse & Lightship Weekend

August 17 – 19, 2007
Point Vicente Lighthouse
USA-640

Anacapa Isl. Light Station, USA-012

Having the PV West repeater available, along with Lomita Sheriff's Station new 70 cm. capability, next led local cities to acquire the same. At present, Rancho Palos Verdes, Torrance, and Lomita City radio rooms have 70 cm equipment in operation. Redondo Beach has all the equipment and awaiting antenna installation. Rolling Hills Estates has a 70 cm antenna available for a radio connection if needed. Within Rancho Palos Verdes, the PVARC-owned repeater (447.120 PL 100.0) became operational in late summer of 2004 for Club, DCS, and PVAN use.

PV East

In July 2004, a twin to "PV West", named "PV East" came into being. The MTA radio Club established a third 449.980 MHz repeater located on the east side of the PV hill. This repeater, with input PL of 100.0 and output PL of 173.8, provides excellent coverage in the LA basin and much of the PV hill, particularly the south side, and overlaps the "PV West" repeater coverage. Cross repeater communications are available whereby communications that would not be possible on a single repeater are readily accomplished using the two overlapping radiation patterns. This repeater is under operational control of Lomita DCS during emergencies and, like the "PV West" repeater, is available to the PVARC Club and its members.

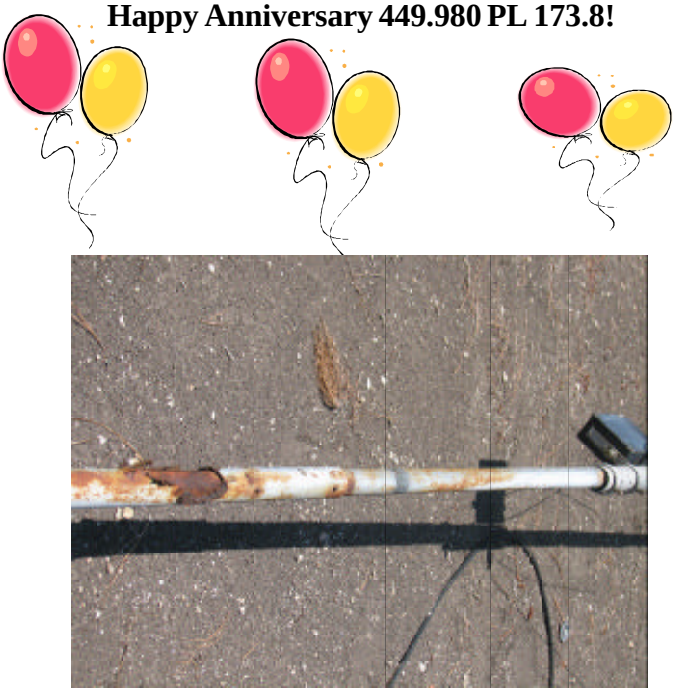
Library District

In 2006, the PV Library District realized a need for emergency communication capability after considering the large number of citizens utilizing their facilities, especially students during the day. Because of the library locations, communications via available local repeaters is extremely difficult. However, the original Running Springs repeater (now called the "North" repeater) provides a third 449.980 MHz capability into this area by covering the north facing slopes of PV and can be easily used by the three libraries. The MTA radio club has made this repeater available to the libraries and to Lomita DCS. And, as with the other two, it is also available to PVARC members for general use.

Because of the risk of any inadvertent omission of names, I won't list the various Club members who gave time and effort over the years. However, numerous individuals have been involved from the original efforts of Jim Smart and Jack Carter (SK) to those listed in the January QRO.

In summary, these three repeaters, all with backup power, along with the newer PVARC 447.120 MHz repeater, provide significant 70 cm band open repeater and emergency capability in the South Bay area.

Happy Anniversary 449.980 PL 173.8!



What are those antenna masts doing when we aren't watching?

ARRL Summary Report

June, 2007

AMATEUR RADIO VOLUNTEERS SERVE THOSE DISRUPTED BY KANSAS TWISTERS

Amateur Radio volunteers responded after an EF5 magnitude tornado with winds exceeding 200 MPH swept through southwestern Kansas over the May 5-6 weekend, essentially wiping out the town of Greensburg. The town, population 1500, lost its hospital, schools, churches and all of its business and infrastructure. A National Weather Service meteorologist called the tornado "one of the most destructive tornadoes in the last 10 years." Ref.: The ARRL Letter Vol. 26, No. 19

HAM RADIO INSTRUMENTAL IN PACIFIC MARITIME RESCUE

Amateur Radio played a critical role May 4 and 5 in rescuing two people from a foundering sailboat that had been en route to Colombia. Members of the Maritime Mobile Service Net (MMSN) and Intercontinental Net on 14.300 MHz were involved in getting the man and woman aboard the 35-foot s/v Sailabout to safety after they ran into trouble some 700 nautical miles southwest of the Galapagos Islands in the South Pacific. Ref.: The ARRL Letter Vol. 26, No. 19

ARRL SUBMITS PLAN TO MITIGATE REPEATER INTERFERENCE TO MILITARY RADARS

The ARRL has submitted an interference mitigation plan to the US Department of Defense (DoD) as part of an effort to resolve reported interference from dozens of 70 cm amateur repeaters to US military radar systems on both coasts. Since Amateur Radio is secondary to government users from 420 to 450 MHz, hams must not interfere with primary users and, under the rules, can be forced to cease operation. Earlier this year, the US Air Force asked the FCC to order dozens of repeater systems to either eliminate interference to its "PAVE PAWS" missile and satellite detection and tracking radars in Massachusetts and California or shut down. Ref.: The ARRL Letter Vol. 26, No. 20

BS7H SCARBOROUGH REEF DXPEDITION LOGS AVAILABLE ONLINE

The BS7H Scarborough Reef DXpedition team reports it logged 45,830 QSOs during its weeklong stay on the South Pacific rocks. All BS7H logs now are available online <http://www.scarboroughreef.com/srlog.html>. The DXpedition to the world's most-wanted DXCC entity, which got under way April 29 and concluded May 5, has been approved for DXCC credit. The Daily DX <http://www.dailydx.com> says if you don't find your call sign in the online log search but are confident you had a solid QSO, send a QSL card to Steve Wheatley, KU9C, PO Box 31, Morristown, NJ 07963-0031 (or via the QSL Bureau). Attach a brief explanatory note. KU9C will search the logs to see if an error occurred, Daily DX Editor Bernie McClenny, W3UR, says. Do not e-mail KU9C. The BS7H logs have not yet been uploaded to ARRL's Logbook of the World. Ref.: The ARRL Letter Vol. 26, No. 20

ASTRONAUT, FCC ENFORCER ATTRACT SRO CROWDS AT UPBEAT 2007 HAMVENTION

Enthusiasm was the order of the day at the 56th Dayton Hamvention® <http://www.hamvention.org>, May 18-20, near Dayton, Ohio. Business was brisk among the hundreds of vendors in the indoor areas, despite generally excellent weather outside, which tends to draw hordes to the outdoor flea market area. Ref.: The ARRL Letter Vol. 26, No. 21

ARRL TO FCC: SHUT DOWN "GROSSLY NONCOMPLIANT" AMBIENT BPL PILOT PROJECT

The ARRL has again demanded that the FCC shut down Ambient Corporation's broadband over power line (BPL) pilot project in Briarcliff Manor, New York. On May 21 the FCC called on the BPL equipment maker and system operator to demonstrate it's complying with all terms of the Part 5 Experimental license <http://www.arrl.org/news/bandthreat/BriarcliffManorResponse20070521.pdf> authorizing the system, or face possible enforcement action. In a May 31 letter to FCC Spectrum Enforcement Division Chief Kathryn S. Berthot, ARRL General Counsel Chris Imlay, W3KD, contended that it's "long past time that the Commission enforce its own rules," and again objected to the Commission's "inexplicable inaction" in the face of evidence the system is noncompliant. Imlay pointed out that the FCC's May 21 letter made no mention of Condition #1 of Ambient's Part 5 Experimental license. Ref: The ARRL Letter Vol. 26, No. 22

RILEY REITERATES RECOMMENDATION TO "LIGHTEN UP" ON HAM BAND

FCC Special Counsel in the Spectrum Enforcement Division Riley Hollingsworth's main message at the Dayton Hamvention® <http://www.hamvention.org> 2007 FCC Forum may not have been a new one. But it's certainly one he believes bears repeating — at least until it starts cutting through the QRM and QRN that pervade more communication channels than our Amateur Radio bands.

"Well, you could have gone to the flea market, but you came to church instead," Hollingsworth quipped to his Dayton forum audience. "I've got you now." Ref.: The ARRL Letter Vol. 26, No. 22

ARRAY OF NEW GEAR DEBUTS AT DAYTON 2007

It's always a treat to get your first look at a new HF transceiver at Dayton. This year, there were no fewer than six to drool over. Here, in alphabetical order, is a rundown:

Elecraft <http://www.elecraft.com/> announced its new K3 HF and 6 meter transceiver. It includes many upgrade options, so many, in fact, that you can configure anything from a kit-built 10 W portable QRP radio to a full-featured, contest-ready 100 W rig with *two* high-performance receivers. It is scheduled to ship starting in July.

FlexRadio Systems <http://www.flex-radio.com/>, a pioneer in high-performance software defined radios (SDRs), introduced its Flex-5000 HF plus 6-meter transceiver series that promises higher performance and more features than its earlier model. Included are the Flex-5000C, a fully integrated system in a single box, and the Flex-5000D, which includes a second receiver.

Hilberling, the first Amateur Radio transceiver maker from across the Atlantic for some years, announced its PT-8000 transceiver. It's offered as a full-featured HF and VHF transceiver available in 10, 100 or 600 W versions. The North America distributor is Array Solutions <http://www.arraysolutions.com/>.

ICOM <http://www.icomamerica.com/> unveiled its IC-7700 HF + 6 meter transceiver. It appears to be a single-receiver version of its top-tier IC-7800, sharing the 200 W transmitter, high performance receiver and 7-inch display of its sibling. Contesters are the market target, but the IC-7700 may be of interest to anyone who covets the features of the IC-7800 but doesn't need two receivers or the higher price tag.

Ten-Tec <http://www.tentec.com/> has its new Omni-VII HF + 6 meter transceiver on display. The unit's "distributed roofing filter architecture" promises ham-band-only receive performance with a general coverage receiver. Stay tuned for the "Product Review" in July QST.

Finally, Yaesu <http://www.yaesu.com/> showed its new FT-450 HF + 6 meter offering. The FT-450 bears some similarities to the Yaesu FT-2000, but with fewer features and a correspondingly lower price. Ref.: The ARRL Letter Vol. 26, No. 22

FCC DESIGNATES HEARINGS ON THREE AMATEUR RADIO APPLICATIONS

The FCC has issued hearing designation orders (HDOs) to Amateur Radio license applicants in three unrelated cases. All three HDOs released May 24 hinge on licensee "character" issues. The Commission notified David O. Castle, WA9KJI, of Evansville, Indiana, that it was designating his license renewal application for hearing in the wake of alleged misconduct extending back several years and continuing at least until earlier this year. Ref.: The ARRL Letter Vol. 26, No. 22

SOLAR UPDATE

Solar swami Tad "Black Hole Sun" Cook, K7RA, Western North Carolina, this week, reports: Average daily sunspot number this week dropped nearly 23 points to 3.3, while average daily solar flux declined exactly 5 points to 68.8. Ref.: The ARRL Letter Vol. 26, No. 22

The Catalina Island Incident

Chuck Lobb, KN6H

The phone rang about midnight. Bill T-01, KB6FB, sleepily answered. “We need three teams of three DCS hams each to deploy to Catalina,” the caller stated. “The first team on the 0630 boat, the second on the 1230 boat, the third at 1830.” The object was to provide radio communication between County Fire and Sheriff Units at Avalon. Masks were recommended due to the pall of smoke.

Bill went to work. For the 0630 team he rounded up Rich T-03, KG6JKJ, who joined RDT’s (Rapid Deployment Team members) mostly from the Carson sheriff station. Bill then called Chuck T-43, KN6H, asking him to round up teams for the 1230 and 1830 boats. Chuck and Bill volunteered themselves for the 1230 boat, and Stu T-61, K9STU, Mike T-109 ,KF6UCN, and Dee T-115, KE6ZBV, were pledged for the 1830 boat.

Rich got on the 0630 ferry at San Pedro in good shape with equipment of his own and from the Carson RDT. Bill and Chuck didn’t fare quite so well. While driving to the ferry terminal, Station A advised that the 1230 Catalina Express was departing at 1215 from Long Beach, not San Pedro. That resulted in a race across the Vincent Thomas Bridge, the length of Terminal Island and across the Gerald Desmond Bridge, plunging into Long Beach just in the nick of time to catch the Catalina Express.

The boat ride was a bit choppy through the afternoon whitecaps, and as we approached Catalina, dozens of little columns of smoke could be seen across the hillsides. Small, vertical columns of white that would periodically shoot up, then die down looking much like little Yellowstone Park geysers. A few were spotted on the hillsides above Avalon. No heavy flames, however, for which we were thankful, but a very heavy pall of thick smoke hung low in the air to the north between Avalon and Two Harbors.

Upon landing, we were immediately whisked via golf cart to the Avalon Fire Department where the RDT’s had established two base stations. The first maintained contact with Station A in East Los Angeles via the DCS repeater on Mt. Disappointment. The second base rig was for local handhelds between ourselves at the sheriff command post, the fire command post and the Avalon beach and dockside area. Interestingly, the Station A antenna that worked the best was a mobile mag mount just a few feet off the ground perched atop an upside down grocery cart.

The afternoon passed relatively quietly with Bill T-01 and Rich T-03 at the base station and Chuck T-43 on the Avalon docks reporting as each arriving ferry brought more returning residents. Tourists were not allowed and thus the majority of Avalon shops were closed and locked. The small community was virtually a ghost town, save a single pharmacy and the hotel.

But there was aerial activity aplenty. Literally dozens of helicopters filled their large buckets in the sea in front of the Casino, emptying them mostly in the canyon just north of Avalon. At one point, an enormous hovercraft from Camp Pendleton brought county fire engines and equipment from the mainland. The craft would run right up on the beach south of town, then lower a ramp and the engines would drive off directly into town.

The small Avalon Fire Station with just four units was taken over by the county. The engines were pushed out and the space used for shift briefings. It was amazing to watch the Incident Command System in action with Section Chiefs from Operations, Planning, Logistics and Finance conducting the briefing from printed briefing assignments distributed to all in attendance. It was an impressive and well coordinated briefing using these sheets and a large wall map indicating the fire perimeter outside Avalon.

Food was in abundance and of incredible quality. We later learned it was from a wedding reception than had been canceled when the wedding party was evacuated. Rest assured, the food found good use with dozens of tired firefighters.

As the day wore on and the fire danger steadily reduced, Chuck T-43 and Rich T-03 decided to catch the 1955 boat back to Long Beach. Bill T-01 opted to remain overnight with the incoming shift of Stu T-61, Mike T-109 and Dee T-115. Ahead of them was the final fire containment plus communication support for the Two Harbors area that remained without power, telephones or water. The fire had apparently destroyed the lines and poles between Two Harbors and Avalon.

Would we do it again? You bet! Ham radio communication experience in a large scale event like this was a wonderful exercise of our skills, our equipment, and our ability to plan quickly and stuff a knapsack with clothing, food and water for an extended stay in the field.

It did we learn anything? What do you think? How about you? Are you ready to go?

Field Day Orientation (Slightly Abbreviated)

Jeff Wolf, K6JW

Field Day is an emergency preparedness exercise administered by the ARRL and designed to be conducted as a contest.

The objectives of Field Day fall into two categories:

1. Demonstrate ability to set up and operate continuously under field conditions, independent of commercial sources of power.
2. Accumulate points by making as many contacts as possible during a 24 hour period and exchanging a standardized "report" with each contact.

This year, Field Day will be held from Saturday 6/23 to Sunday, 6/24.

How does the PVARC participate in Field Day?

In the years prior to 1990, the PVARC joined each year with Northrop's radio club to run a big, multi-station, highly competitive event which was conducted on the PV landfill. Beginning in 1990, the Club initiated a separate, second event of its own that was designed for beginners, while still joining with Northrop on the landfill for the highly competitive effort. The smaller event proved popular and has continued to the present while the joint Northrop-PVARC event has passed into history. Over the years, the Club has tried to maintain the informal and beginner-oriented approach to Field Day that supports the tradition of education and fostering competence in emergency and contest operation.

The Club generally operates two to three radios during the event. One is dedicated to SSB (voice) operation on the HF bands, typically 10, 15, 20, 40 and 75 meters. A second station is dedicated to CW operation and operates on the same HF bands. The third radio, when available, operates on the VHF/UHF bands. Each station keeps a log of its contacts by computer. The logs are merged at the end of the event and contact points totaled for submission to the ARRL.

What is the Field Day Schedule for 2007?

Setup will begin adjacent to the athletic field at Palos Verdes Peninsula High School at 7:30 a.m., Saturday, 23 June. Stations will go "live" at 11 a.m. Operation will cease promptly on Sunday at 11 a.m. Teardown immediately follows.

What is involved in station operation?

Ideally, each station will be staffed by two people at all times. The first is the operator making the contacts and the second is the individual performing the logging task on the computer.

What are the methods and what is the format for contacts?

There are two ways to make contacts with other stations. First is simply to tune across the band and listen for other stations calling "CQ Field Day". You can simply answer a CQ by stating the Club callsign, K6PV. The QSO (contact/conversation) will go something like this:

Other Station: CQ FIELD DAY FROM [CALLSIGN]

You: K6PV

O.S.: K6PV WE ARE [HIS REPORT]

You: THIS IS K6PV. WE ARE [MY REPORT]. THANKS

O.S.: THANKS AND GOOD LUCK.

Note that there is no real chit-chat. It's very quick so that the other station can move on to the next contact.

The second way to make contacts is for YOU to call CQ and listen for other stations to come to you. Doing this is more difficult because you may generate a "pileup" of stations calling you, and inexperienced operators may have difficulty when faced with pulling intelligence out of the resulting cacophony. Also, stations will lose patience in trying to make the contact with you unless you can "run" the contacts rapidly, getting information quickly and without asking for too many repeats, called "fills" in amateur jargon.

In summary, here, the best way for the newcomer to contest operation to get started is by the "search and pounce" method rather than the CQ method.

What is the "report" and how do I give it?

Field Day stations are allocated to specific operating categories based upon the number of transmitters in operation, the type of power being used, whether the setup is being run by a single operator or multiple operators, as in a club, the ARRL district in which the operation is occurring, and the type of location of the station(s). The PVARC report is given as "2ALAX". What does this mean?

2 = Number of transmitters. This is sort of misleading, in that the PVARC will actually be operating three or four transmitters but will still be a "2". Here's how it works. One station will operate on HF CW. That's 1. One station will

continued on Page 12

operate on HF SSB. that's 2. A third station will operate on VHF/UHF and *this will not count as an additional transmitter because VHF/UHF operation is permitted under Field Day rules without increasing the operating class.* Why is this? I really don't know. It's just the way the rules are. Finally, a fourth radio may operate on HF SSB as what the rules call a "GOTA", or "Get On The Air" station. This is a station run for beginners or the inexperienced ONLY. It is limited to the accrual of a maximum of 400 points and it, too, does not "bust" the class 2 status of the PVARC operation according to the official Field Day rules.

A = Club station with radios running on non-commercial power.

LAX = Our ARRL section.

When it's time for you to give your (the PVARC) report, all you have to say into the microphone is, "We are 2ALAX." Or, "2AlphaLAX." Or even, "2AlphaLimaAlphaX-Ray."

What radios do we use?

We usually get very high quality radios with narrow filtering for high selectivity. This allows us to hear calling stations clearly and without struggling overly much to understand them through the noisy interference caused by many other stations operating on adjacent frequencies.

What antennas do we use?

For HF operation on 10, 15 and 20 meters we usually use three element Yagis. We generally use dipoles for 40-80 meters.

What about logging?

All logging is done by manual data entry into the computer.

Where do all the radios, antennas, towers, generators, computers and myriad other supplies come from?

All equipment and supplies are provided on loan from Club members and others who wish to participate. The Club carries insurance, minimizing the degree of risk taken by those who lend equipment for the event. If you are interested in providing any of the necessities, please contact Jeff, K6JW, days at 714-226-6567.

For the complete article as K6JW wrote it, come to the Information Table during Field Day.

The City Council and Emergency Preparedness Committee invite you to the:

GRAND OPENING CELEBRATION
EMERGENCY COMMUNICATIONS CENTER
Saturday, June 30, 2007
10:00 a.m.
30940 Hawthorne Boulevard, Rancho Palos Verdes

Festivities Scheduled: Ribbon Cutting, Facility Tour, Live Demonstration of Radio Communications, Light Refreshments

The City of Rancho Palos Verdes enhanced its communications capability to respond to any man-made or natural disaster in the City by dedicating a center for amateur radio communications. the Center features a control room for trained amateur radio operators, an 89-foot antenna tower, and radio equipment to communicate through various mediums and radio band frequencies. the new center will support the City's growing network of volunteers to relay and receive critical information between City hall, Sheriff, fire, other governmental entities and neighborhoods throught the City during an emergency.

For more information, contact Gina Park at 310-544-5206

And Finally... The History of the Rubber Ducky Antenna.

I've read a lot about "Rubber Ducky" Antennas on the Web and it seems that nobody knows where they came from! It seems that many people think that they are just some natural outcome of a typical engineering design. In fact, if a Rubber Ducky Antenna did not already exist, and you put a bunch of Engineers, Mathematicians, and Physicists in a design conference and asked them to design one, they would properly claim that it couldn't possibly work.

When I was at the Lyman School in Westborough Massachusetts, a reform school for juvenile delinquents, I operated a Ham Radio Station on the 6-meter phone band. My call sign was K1KLR. Because space was a premium, I was unable to have an outside antenna. Therefore, I invented what became known as the "Rubber Ducky Antenna". It was first called a cantenna long before Heathkit borrowed the name for a dummy-load. It was published in QST Magazine sometime around 1958 by my mentor, Mr. Guido Sandini, who was the cottage master at Westview Cottage at Lyman. Mr. Sandini was a well-known "ham" who taught a "ham-radio" class at the Lyman School.

This is the story about that invention.

I was kind of a privileged character at Lyman, having already "done my time" and awaiting out-placement. I became part of a successful program where such persons were allowed to attend "outside school" in Westborough.

After returning from outside school each afternoon, I was supposed to use a small room at the front of Lyman Hall for my homework studies. After I would barely complete my homework, I would set up my Ham Radio station and attempt to communicate with others in the Westborough area. I didn't have a place to install an antenna so I would connect the shield of a coaxial cable to the screen of a screen-door, poke the center conductor through a hole in the screen, then attach a 1/4 wave-length wire to that. This would dangle outside and sometimes work as an antenna.

Some hams would refer to this makeshift antenna as "loading up a screen-door". At one time I thought I heard the words "screen-door spring". This make me think. The problems with the wire dangling through the screen were that it was too long and it wasn't properly oriented for a good antenna.

So, my first attempt at a rubber-ducky antenna was what I called the "cantenna". This consisted of a paint can which I filled with rocks for support. To the top of the can I soldered 4 radials of brazing rod. Their length was determined by the size of the floor of the closet where I would store this contraption. In the center of the can-lid I installed a coaxial connector so that the solder connection was oriented upward from the top of the can and outside the can. I Punched a hole in the side of the can so that I could insert the coaxial cable from the transmitter and receiver T/R relay. I soldered a section of a screen-door spring to the center conductor of the coaxial connector.

I found that the spring needed to be only about 10 inches high after I had stretched it so that none of the turns touched each other. This was tuned, with the transmitter at low power, by adjusting the length so that a neon bulb would illuminate when brought near the top of the spring and an inductive loop coupled to a lightbulb would light the bulb when brought near the base of the spring.

After scratching my eye while taking my portable antenna down, Mr. Sandini suggested that the spring be put inside a piece of windshield-wiper hose. Since we didn't have "shrink-tubing" in those days, this was difficult to do until I threaded a wire through the spring and used it to pull the spring through the tubing from the bottom of the spring so it wouldn't distort and stretch out the antenna.

Mr. Sandini made some further experiments with my antenna, in fact making one that required no ground radials at all. It was just a spring in a rubber hose with a banana plug on one end. This would plug into the top-of-the-box antenna connector on the portable transceivers used by the Civil Defense, the Gonset Communicator III. He made several for both the six and two meter amateur radio bands.

After using this antenna successfully at a "Ham Fest" in Swamscot, Massachusetts, Mr. Sandini published an article about it in the QST magazine.

Now, neither Mr. Sandini nor myself knew why the spring worked as an antenna. My first thought for the design was that I needed a spring that, when stretched out, would be 1/4 wave-length long to emulate a 1/4 wave-length whip. I carefully calculated the stretched-out length of a spring from its circumference and wire diameter. Imagine my surprise when I found out that the thing would resonate, produce better than a 2:1 VSRW, and actually function as an antenna, when about

1/6 the calculated length! Then it was thought that it was the resonance alone that made it antenna-like. However, this wasn't true because good coils don't radiate very much energy (they are low-loss). Then it was thought that the thing just acted like a base-loaded whip. This turned out to be untrue as well.

Basically, the Rubber Ducky can't work as well as it does. A well-constructed Rubber Ducky has a base impedance near 50 ohms. This is dependent upon the ratio of the diameter to length. It also has about 10% bandwidth. This is dependent upon the spacing of the turns, the closer the spacing, the lower the bandwidth. It also has an aperture that is over twice its physical size. This is the real anomaly. No other antenna has an aperture greater than its size.

After I left Lyman School, I started a career that has spanned over 4 decades of successful Engineering Design. I have moved from Radio Transmitter design through medical Ultrasound design to Software Design for CAT Scanners and Airport Baggage Scanners. Every time I see somebody with a Cell-Phone, I remember those beginnings. Now, if I had only Patented the damn thing!

Cheers,
Richard B. Johnson
Project Engineer
Analogic Corporation

I found this Rubber Ducky article on the website of the Southwest Museum of Engingeering, Communications and Computation.
www.smecc.org

If you have a little time, and you love history. ... particularly Engineering, Communications, and/or Computation history, don't miss this site at www.smecc.org.

Want to read Barry Goldwater's conversation about ham radio?
www.smecc.org/barry_goldwater.htm

Or read about WWII Radio Operator Albert J Yascavange's experiences on the front lines during the war? www.smecc.org/albert.htm.

It's a wonderfully eclectic Museum with magic at every turn. And that's just the web site portion. The museum in Arizona must be amazing!

"If winning isn't everything, why do they keep score?" —Vince Lombardi

Palos Verdes Concours d'Elegance

The 15th annual PV Concours d'Elegance will be held on Sunday, 16 September at the Trump golf course. The coordination and support of this equipment is done by a bunch of us ham radio operators.

The side benefits of working this event are that you get free parking (saving $5), free admission (saving $30), a free box lunch, and you get to walk around and see all of the classic cars. So, if you are a car buff, you may want to volunteer for this fun event. If so, contact Walt, K1DFO, at waltordway@juno.com.

www.smecc.org.

Ed Sharpe, Archivist, Senior Member IEEE and various other professional organizations.

Ed Sharpe always has been passionate about technology, even as a young boy. "When I was a kid, as my compatriots were out throwing dirt clods at each other, I was building radios," says the 50-year-old archivist of the Southwest Museum of Engineering, Communications and Computation.

As a child, Sharpe soaked up as much information as he could about technology, spending hours with adults who were knowledgeable about the field. Retirees, in particular, proved to be incredible resources.

"They were the best because they had time on their hands," Sharpe says, "and you could go by after school and pester those poor guys and they'd teach you anything you wanted to learn."

Education of the public on the history of technology is important.

"By understanding where we came from, we have a better understanding of how to go forward," Sharpe says.

The Southwest Museum of Engineering, Communications and Computation, in Glendale, occupies 2,000 square feet of the Coury House, include a cross-sectional history on RCA products such as radios and electron microscopes; a rural electrification display that shows how American farms became electrified; an office-automation display with phone switchboards and Dictaphone machines, military communications, radar and countermeasures; and an early computer display that has some of the first computers.

Originally a smaller-scale museum was part, of Computer Exchange Inc., a Phoenix business Sharpe once owned.

"Every day artifacts that depict the history of engineering and science hit the landfill," he says. "We need to preserve our technological heritage."

The Museum is located at 5802 W. Palmaire Ave., Glendale. Admission is free, and tours are provided from noon to 3 p.m. by appointment Tuesday through Saturday.'

OPPORTUNITIES

June

June 20 - PVARC Meeting - Emergency Networks

June 23 & 24 - Field Day Weekend, Jeff Wolf, K6JW

August

August 11 - *DATE CHANGE* The Hills Are Alive, 5k/10k, RHE, Walt Ordway, K1DFO, 310-541-4007

August 17-19th - International Lighthouse and Lightship Weekend, Dan Colburn, W6DC, 310-373-5206; Rick Murray, K6WXA, 310-544-0982.

August 19 - Annual PVARC Lighthouse Picnic

September

September 16-Concours d'Elegance- Trump National Golf Course - Walt Ordway, K1DFO, 310-541-4007.

November

Sometime in November- IOTA trip to Two Harbors Catalina Island. If you missed it last year, don't miss it now. Great site, great company, great fun. Rick Murray, K6WXA, 310-544-0982.

Need a Club Badge?
Contact Karen Freeman, KG6BNN
310-541-6971 $13

Need a Club Patch?
Contact Joe Locascio,K5KT
310-373-8166 $5

Want a new Club Jacket?
Contact Joe Locascio, K5KT
310-373-8166 $35-$50

Repeater Board of Director's meetings are held on an irregular schedule but all members are welcome to attend. Let a Board member know you're interested and you'll be contacted when a meeting is scheduled.

Board of Director's meetings are held on the first Wednesday of the month at Joe Locascio's house. All visitors are welcome.

Who's Who? Find An Elmer

Antennas:	Bill Harper,WA6ESC; Rick Murray, K6WXA
Concours d'Elegance:	Walt Ordway, K1DFO
Contesting:	Bill Pomeranz, KB6FB
CW:	Jeff Wolf, K6JW
DCS:	Bill Pomeranz, KB6FB
DX:	Jeff Wolf, K6JW
Education/Classes:	Walt Ordway, K1DFO
Field Day:	Jeff Wolf, K6JW
HF, Getting Started:	Bill Pomeranz, KB6FB
Lighthouse Events:	Dan Colburn, W6DC, Rick Murray, K6WXA;
PVAN:	Alan Soderberg, W8CU
PV Marathon	Denzel Dyer, KG6QWJ
RHE 5K/10K	Walt Ordway, K1DFO

These Club members have all offered to share their skills. So feel free to contact them Find contact information in the Club Roster. Want to add your name to this list?

Contact the editor Ginger Clark, KG6TAU at ginger.garnett@gmail.com or 310.378.7894.

Palos Verdes Amateur Radio Club
P.O. Box 2316
Palos Verdes Peninsula, CA 90274

New Membership Application and Member Renewal Form

New: _____ or Renewal: _____ Membership Date:_____

Individual ___ ($15/Year) or Household and/or Family Membership ___ ($17/Year)

(Applying) Member Information: **Member Renewal same as Last Year? YES__NO__**

Last Name: _____ First Name: _____Spouse: _____

Street Address: _____

City: _____ Zip: _____

Home Phone: _____ Work Phone: _____

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

License Call: _____ License Class: _____ARRL Member?_____

Member of: DCS/RACES/ARES/PVAN _____ District _____ Unit ID #_____

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

Name_____ Call Sign_____ Class_____ ARRL_____

Name_____ Call Sign_____ Class_____ ARRL_____

Name_____ Call Sign_____ Class_____ ARRL_____

Individual membership ($15.00) $_____
Household and/or Family membership ($17.00) $_____
Donation to the John Alexander Fund $_____
Donation to the Repeater Fund $_____
Donation to PVARC $_____
Cash: _____ or Check: _____ Date_____ TOTAL $_____

Please make checks payable to: Palos Verdes Amateur Radio Club

Dues are based on the January 1st to December 31st calendar year.

[Form2007_Membership_#1A.doc]