

PAARAgraphs



The Official Newsletter of the

Palo Alto Amateur Radio Association, Inc.

Celebrating 83 years as an *active* amateur radio club—*Since 1937*



Section Manager, Responsibilities and Challenges

James Armstrong, NV6W

Biography

Celebrating over 40 years in amateur radio. Novice class license issued 1974 (WN6EMR); upgraded to General class in 1975 (WB6EMR). Advanced and Amateur Extra Class licenses issued 1987. Current vanity callsign (NV6W) issued 2012. Ex-7J1AJP (Japan).

Memberships: DXCC, WAC, AJD, WARFA, Ten Ten International, and the Royal Order of the Wouff-Hong.

Section Manager, ARRL Santa Clara Valley, effective August 2020.

Highlights: Eyeball QSO with Taroh Yagi, JH1WIX and his XYL Emiko at their home in Ohtaku, Kugahara, Tokyo in September 1990, courtesy Kazuo Fukuda, JA1GUW.

Commercial FCC Licenses issued in 2012

Second Class Radiotelegraph Operator's Certificate with Ship Radar Endorsement -- the only active T2 in San Jose, California.

General Radiotelephone Operator License (PG) with Ship Radar Endorsement
GMDSS Radio Operator / Maintainer License (DB) with Ship Radar Endorsement

**This meeting will be conducted
with Zoom. Please see Zoom
details later in this issue.**

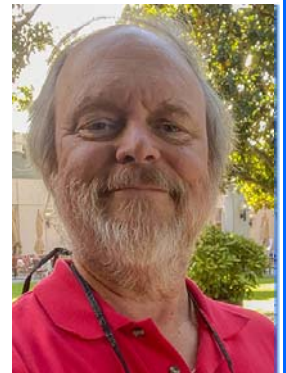
Upcoming Events

Oct 2	PAARA General Meeting, 7:00 PM Zoom Meeting, see article for details
Nov 6	
Dec 4	
Oct 21	Board Meeting, 7:00 PM. Everyone welcome! Zoom Meeting, eMail President for details!
Nov 18	
Dec 16	
Oct	Electronic Flea Market Cancelled

President's Corner

October 2020

I trust everyone successfully weathered the horrific smoke over the last 4 weeks. Daily orange/amber suns, fog/smoke, falling ash, and a bit of Armageddon skies tossed in for good measure. That along with air quality index numbers above 200 didn't make for a fun time. Least we do not forget the new record 30 consecutive Spare the Air days.



I also trust everyone's family and friends survived their flash of reality should they have the misfortune to be in one of the burn areas. Two friends of mine were lucky to escape the onslaught of the fires but lost their house or cabin in the process. Most possessions are replaceable but lives aren't, so we're all glad they came out unscathed.

I'm sure everyone has seen the stories of amateur operators using their skills to assist in communications during these uncharted times. With

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9-11 Amateur Radio in New York

A Private Citizen's Eyewitness Report on Ham Radio's Finest Hour

Bart Lee, KV6LEE

Editor's Note: This is not sponsored or authorized by the American Red Cross; it is a private report on Amateur Radio. It was written in the days following the 9-11 disaster.

"In a time of crisis, you do not 'rise to the occasion'; you sink to your level of training."

Attributed to Art Botterell (www.incident.com)

Amateur radio went on the air in an Emergency Net minutes after the terrorists' attack on the World Trade Center. Guy Richman, KC2AYG, net control, had the Amateur Radio Emergency Service (ARES) net working in disaster relief shortly after 9 AM. Now, months later, I feel and take pride in how amateur radio volunteers put their training and skills to work, subjected themselves to unknown risks of further terrorism as well as spewing toxic smoke, and made ham radio effective when all else had been destroyed. We took the terrorists' best punch, but the New York Fire Department and other public safety people fought back, sacrificing more than 300 more lives in the struggle to save thousands of lives. An important aspect of our response was amateur radio in disaster relief. I was there.

As if FEMA had federalized ARES, the New York Radio Amateur Civil Emergency Service (RACES) net coordinated disaster relief communications as soon as 9:30 AM. On two meters, 147.000 mhz soon served as the net's main frequency for many days and nights, 24/7. Guy put in long days at the mike and Mark Phillips, KC2ENI (G7LTT in the U.K.), took the net at night. Guy Richman and Mark Phillips were the "Ironmen" of the first week. In the wartime condition of New York on September 11th and the week following, the 18 hours a day devotion of men like these, and there were many, at Red Cross Radio and elsewhere, made all the difference. This was no drill. In fact, the RACES Manhattan station itself, along with the City's Office of Emergency Management Center, was lost with the 9 AM evacuation of World Trade Center Building Seven, and gone forever with the collapse of that building at 5:23PM on the 11th.

Both Guy and Mark worked from their home stations, in the Bronx and in Brooklyn, during the entire operation. All disaster training warns against the "Ironman

Syndrome" for all its risks of error and burnout. Yet in the first days of this new war, many responsible and trained radiomen pushed their limits every day.

Something Big is Up

On the morning of September 11th, I had sat with a coffee on a bench on a gorgeous new day in upper Manhattan, Lexington Avenue and 86th street about 9 AM. Then I watched several ambulances, fire engines and fire trucks steam past me. "Something big is up" I thought, based on what would be more than "a full-box response" in my home town of San Francisco. My New York host soon joined me. At about 9: 35 AM his wife got through on his cell phone: "The World Trade Center is attacked!" What to do?



Fig. 1 — Twin Towers on 9/11/2001

He got his son at a nearby school and I got out my Yaesu FT50R handheld transceiver, and turned to VHF, with the car radio tuned to WINS New York's all-news station. All the news was inconceivably bad. The first voice I can recall hearing on the ham bands was the distinctive Bronx accent of Guy, KC2AYG. I knew that New York's response to this enormity had begun.

As we drove south past mid-Manhattan, thousands of people walked north, some grim-faced, some looking normal, some in tears, all determined to move away from the site of what no one could understand. At my hosts' apartment at the end of Fifth Avenue, the smoke and dust was so opaque that we could not see south past Washington Square Park. Once upstairs, maybe 10:45 AM, we saw the video of the planes hitting, and then the Towers coming down: "World War III," I thought.

(Eyewitness — Continued on page 3)

(Eyewitness — Continued from page 2)

D-day VHF ham traffic that I heard that morning related to hospital utilization and out-of-state DMAT (Disaster Medical Assistance Teams). The Fire Department coordinated on 154.37 mhz, a frequency I learned about from monitoring the ham nets. Staging in Brooklyn, they intended to come across the Brooklyn Bridge, walking if need be. The First Responders had already been lost with the collapse of World Trade One and Two. On 154.29 mhz, I heard that the Rescue Teams were trapped in the ruins. The NYPD was up on 151.47 mhz. The Red Cross came up on 146.90 mhz. Hams in emergency communications came up on 146.62. I scanned through the various VHF bands manually. I never heard the whole story, but I heard the fragments that made up the mosaic of the initial disaster response. Every voice was professional and courteous, determined to do the work of recovery, and all were unified in the face of the horrific toll of terrorism on the City.

An E-mail And Monitoring

At my hosts' lower Manhattan apartment, friends from the hot zone below Canal Street began to show up to take refuge. They had heard the jets, had seen the burning buildings, and saw them come down. Staggered and traumatized, they told us their stories. At 11:30 AM I sent the following email to fellow amateur radio operators in San Francisco emergency services, (one of the few emails of mine that got through):

SFARC, MOES/ACS/RACES Sept 11, 2001 [about] Noon. I am in lower Manhattan near ground zero. We could not see past the end of Fifth Avenue for the smoke from the collapsed World Trade Center. Enormous amounts of cement dust. NYFD and NYPD mobilizing on VHF. Cell phones mostly don't work. Hams up for emergency communications on 2 meters, with Red Cross etc. My host is a doctor and we are likely going to a hospital. This is real life triage, an inconceivable tragedy, and there will be much to do. Thank God for what training I have. Be well and be careful, 73 de Bart Lee KV6LEE.

The landline phones were mostly not working because of overload and destruction of facilities. I did hear a working number for the Red Cross on the ham net. At noon, I went up on the roof to monitor and to take pictures. At 2:40 PM I heard the Police Department, monitored on 154.81 mhz, call for refrigerator trucks "reefers" for morgue operations.

From the roof, a mile and a half north of ground zero,

I saw the third building come down, WTC7, that had held the Office of Emergency Management and Emergency Operations Center, and the elaborate RACES ham radio station. At 5:22 PM+- it was there with lots of black smoke behind it. At 5:24 PM +- it was not there, replaced by blue sky, just as the Towers had been. My perception was that it took less than a second for the building to fall, too quick to get the camera up. It buckled about a quarter of the way up, slid over a little to the right (west), and fell mostly straight down. "A sad lesson," I thought, "do not put the EOC and radio stations in a target building, no matter how well guarded it may be." The smoke may have come from the many thousands of gallons of emergency diesel fuel stored at the site for the emergency generators for the EOC. The building became a giant candle wick until the steel buckled from the heat.

The next morning I walked well into the hot zone south of Canal Street to accompany a resident to get her stuff from her apartment on Worth Street. It was deserted and as eerie as a Twilight Zone episode. Then I volunteered at the Red Cross uptown. The communications chief, Jay Ferron, N4GAA, put me to work with Charles Hargrove, N2NOV, the ARRL District Emergency Coordinator, and John Kiernan, KE2UN for the Red Cross.

Managing The Volunteer Pool

Jay Ferron did a magnificent job getting amateur radio communications into each of a dozen Red Cross Shelters and three Office of Emergency Management sites for 24 hours a day for nearly two straight weeks. Charley carried a heavy load in the first days, as did John, especially. Charley initiated much of the organizational work that I was privileged to carry through.

Hams volunteered from all over the metropolitan area, and several states. (I happened to be visiting from California, as was Don Jennings, K6QDT, who cured our transmitter problem the second night). Westchester RACES supplied many trained and capable radio operators day in and day out, as did New Jersey.

Such effective management of the pool of volunteer operators is a tribute to the skill and dedication of the nearby ham radio organizations they made it work. The ARRL's Tom Carrubba, KA2D, a Section Emergency Coordinator, did outstanding work.

D day +1, -- High Tech Breaks Down

September 12, the Red Cross ran its radio operation from a corner of the bottom floor of its headquarters

(Eyewitness — Continued on page 4)

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building at Amsterdam Avenue and 67th street. John had brought in his Alinco mobile rig, and a power supply. Some magmount antennas got the signal out through a metalized window to a repeater some blocks south. This was full field expedient, just like all of the rest of the radio operation I saw, and it worked, although not without some hiccups. But time after time, what we needed was manuals, to figure out what to do next on our way to fixing whatever problem inevitably had to get fixed.

Yet the reason why it all worked, and worked better and better each day, was that everyone involved made it better and better every hour they put in, in hundreds of accumulating little ways. From putting up signs to offering themselves for a "hot wash" debrief despite their exhaustion, let alone putting in a sixteen hour shift, every ham made it all work for everyone.

As many as 100 or more hams each day involved themselves on either the day shift or the night shift, nominally 12 hours each. (I was night shift trick-chief for the first week and had the privilege of working with almost all of the volunteers, day and night, as did John on the day shift for the first week). We knew many of our best radio ops simply by first name and callsign, such as Kevin Stickelman, KC2CPF. We used duct tape and magic marker as name badges, front and back. We explained that we wanted to be able to call out their name through 25 feet of smoke and dust if we had to.

Amateur radio operators worked in "the hot zone" and at Office of Emergency Management sites at unknown but real personal risk, and at many shelters. All put in long days and long nights ensuring that traffic got through. In the first several days, cell phones and landlines either simply did not work, or were spotty at best. Vaunted high technology fell to earth, but hundreds of hams with their own radios and equipment stepped in for effective emergency communications.

Some of the earliest traffic I was personally involved with at Red Cross headquarters was an emergency evacuation order, for a shelter near the Empire State Building, which had received a credible bomb threat. This order went out on a handheld transceiver into a jury rigged Yagi antenna. (The old Alinco was down for repair). There was all too much of that priority in the early days of this horrific event. At one point during the Sept. 12th - 13th night shift, all Red Cross operations were halted via ham radio, awaiting assurances of security from FEMA. We lived the "fog of war."

RACES capability was lost with the attack, but the readiness of the RACES and other ham operators restored that capability starting on day one because each had his or her own equipment and knew how to use it, and how to work with other in an effective ad hoc disaster communications team.

We never had too few volunteers, each of whom had trained himself (and herself) to do whatever it takes, and they did it. They came with a mobile rig, a power supply, and a gain antenna, as requested. We had hams from several countries helping as well: England, Russia, India, France, Canada, and the Leeward Islands, stand out. Things like nationality or ethnicity were less than irrelevant, because like the rest of New York, we were all New Yorkers at war, and in our case, serving the Red Cross. Some technically adept not-yet hams, Bobby Rios in particular, also supported our early response.

For hams going to the hot zone, we issued dust masks and special credentials, and each shift of operators got a disaster-worker orientation (initially from me) and later a de-briefing. These hot wash debriefs helped us pinpoint the problems to resolve for the next shift. Often a new shift, hearing a debrief, simply figure out how to solve a problem and did it.

The Red Cross transported the radio ops into and out of Manhattan from Brooklyn after transferring New York operations there on D-day+3. The Red Cross soon coordinated its transportation on its own 800 mhz replacement repeater system, but the hams stayed in communication especially to insure that a radio operator whose shift had ended got back to base. We had to take care of our own in that regard, because of unfamiliarity of the volunteer drivers with the emergency radio operation. Jay and I and few others also worked the 800 mhz radios for internal coordination. Like most New York commercial repeaters, the Red Cross 800 mhz system went down with the Twin Towers. It was almost a week before Red Cross had reliable 800 mhz communications. One odd aspect of the situation was the total absence of intermodulation distortion (intermod). Most of the antennas for the pagers and most repeaters fell with the Towers. On VHF it was like 1963: no interference.

Red Cross National Headquarters sent up a new communications van with John Perry, N1EOD, which was very useful during the move of disaster operations from Manhattan to Brooklyn. The van permitted us to take routine traffic during the transition with Brooklyn not yet up on the air and Manhattan packing up to move.

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Brooklyn Headquarters

Brooklyn Headquarters was a "bare-base" operation: there was only a building when we got there. Radio was one of the first functions in, up by Sept. 14 at 5 PM. This complicated the challenges of coordination. There were two bottlenecks in the operation: getting appropriate credentials for the ops timely (and "appropriate" got stricter daily), and transportation. The challenge was to make sure that no ham was left behind at a shelter or other site at the end of what was often a very long 12 hour shift, as well as getting timely relief operators in on time.

Doing both radio installation and credentials in Brooklyn, David Craig and Tyler Schetler (both hams) were heroic. Radio room operation in Brooklyn, certainly on my night shift, put in place some Incident Command System principles. We got organized, put up signs, isolated command from intake and the ready-room, separated operations from logistics and safety, collected the log, etc. San Francisco's Emergency Response Team drills paid off in New York. Brian R. Fernandez, K1BRF, my replacement (and a great help throughout) and I had both trained with San Francisco's Auxiliary Communications System of OES. Our San Francisco earthquake communications drills had an unhappy but fitting utility in New York.

We also did simple things like put out a lot of garbage. Just keeping the scrap paper and water bottles from confusing the operation was a task. Getting organized from scratch involved not just getting radios up, working and maintained, but also file creation and management, setting up the radio log, using the laptop to manage volunteers (Charley Hargrove did this), assigning shifts twice a day, creating large daily shift charts to keep track of operators and shelters, and managing sensitive credentials.

Everyone worked with courtesy and goodwill, but stress can take its toll. "Stress makes you stupid" is another truth attributed to disaster specialist Art Botterell. San Francisco disaster management specialist and USAR-veteran Ron Lopez (also a ham) faxed me the Critical Incident Stress Management Protocols, which helped Brian and me to remain sensitive to stress reactions in ourselves and others, and to ameliorate them. Sleep works wonders.

<To Be Continued>

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so many fires burning at once, everyone is stretched beyond normal. Assist in any way you can and at your first opportunity thank those who helped. Stay off the published ARES net and FEMA coordination frequencies so they are open for use by those who need them the most. Check the ARRL web site if your uncertain which frequencies are being used.

NASA and NOAA finally agreed that Solar Cycle 25 is finally here. They declared the end of cycle 24 occurred in December. There has been a slow steady increase in solar activity since December. That's good news for us as the band conditions will start to improve. Of course, they have no idea how good or active this cycle will be. The consensus seems to be that it will not be much better than the last one but they are not sure it will be even that good. However active the sun becomes; it will be better than it is now.

For those that missed the September meeting, you missed an interesting presentation by Rob, KC6TYD, Rachel, KK6DAC, Frank, AF0XX, and Karen, KK6NGA on Quartzfest 2019. The 4 presenters provided 4 slightly different perspectives on the same event. Rob and Rachel talked about there different approaches to tent camping, though I'd have to say they weren't "roughing it". Frank and Karen talked about attending in a trailer, motor home, or bus type coach. Karen also provided input on what was going on for the non-hams attending the event. Though next year's event will not officially be held. Several hams are planning to go down and enjoy the week without all of the events, as Gordo said on Ham Nation, "it's back to its roots next year".

As mentioned in the board meeting minutes, progress has been made on how the elections will be conducted. Details on the process will be announced in the next month or two. Clark, KK6ISP, engaged Rob, KC6TYD, and Shri, KA6Q, to assist him with the election process. The one position we need a candidate for is Vice President. This important position needs to be filled. Please reach out to Marty, W6NEV, if you have any questions about the position. Let Clark, Rob, or Shri know if you wish to run for VP or any other board position as all but Walt Gyger, K6WGY, director position is up for re-election.

We also need to thank Rob and Shri for their efforts in working out a way to hold the Dream to Reality raffle in December. They demonstrated the concept to the board at the September meeting. It's workable at this point though not complete. The

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payment process needs to be worked on along with the process of getting ticket numbers to the purchaser. The process will involve going to the PAARA web site, selecting the desired ticket purchase value, and completing the purchase through PayPal. The ticket numbers will be automatically generated based on how many tickets you purchase. The numbers will be emailed to you. The close of ticket purchasing will be announced toward the end of the meeting to give the team time to generate and email the last numbers. As this is all being done electronically, the team will have the names of those purchasing the tickets so if there's an issue with the email receipt of numbers, we'll know who won. As in any other PAARA raffle, you will need to be present at the zoom meeting when the tickets are drawn to win.

This is the current working theory on how we'll conduct the raffle. As I said, it's still a work in process so the finite details may change. Rob and Shri will demonstrate the ticket selection process at the October meeting. They will demonstrate the entire process at the October board meeting so the board can decide if more refinement is needed or vote to move ahead. Should we decide to move ahead, there will be a raffle at the November meeting so the team and participants can see it working and look for kinks before the big event in December. The entire process will be documented in the November issue of PAARAgaphs.

73, Jim K6SV

Keep the airwaves alive by getting on the air!

Topic: PAARA Club Meeting

Time: Oct 2, 2020 07:00 PM Pacific

Join Zoom Meeting

[https://us02web.zoom.us/j/83522574102?](https://us02web.zoom.us/j/83522574102?pwd=M0lZelltQlJhWTNHK0FRMWhqR2orUT09)
 pwd=M0lZelltQlJhWTNHK0FRMWhqR2orUT09

For "Your Name" use: first name & call sign

Meeting ID: 835 2257 4102

Passcode: 835488

One tap mobile

+16699006833,,83522574102#,,,,,0#,,835488#

US (San Jose)

Sept 16, 2020 Board Meeting Minutes

The September Board meeting was a virtual meeting, conducted over Zoom.

Attending: Jim Thielemann K6SV, President; Marty Wayne W6NEV, Vice President; Ric Hulett N6AJS, Secretary; Bob Korte KD6KYT, Treasurer; Walt Gyger K6WGY, Joel Wilhite KD6W, Doug Teter KG6LWE, and Darryl Presley KI6LDM, Directors. Also present were Shri Hariharasubrahmanian KA6Q, Rob Fenn KC6TYD, Clark Martin KK6ISP, and Daniel Curry K6DLC. A quorum was present. The meeting was called to order at 7:09 pm.

President's Report

Fall is upon us; it is a time of change. Jim showed some internet pictures of a recent Aurora Borealis event. NASA and NOAA agree, solar cycle 25 has begun. We are on the positive slope of the cycle, so things can only look up from here.

Marty W6NEV is working on his C3 beam. He has bought a new rotator, controller and cable. And then, we'll have an antenna party! Walt K6WGY bought a full-size 40m dipole to go atop his KT-36.

Jim posed a question: Has anybody commented on the FCC proposal to charge for \$50 for licenses? Darryl has sent a comment, stating that non-commercial stations should be exempt by law. If enacted, this would be a disincentive: If a ham gets a Technician license, then upgrades to General, and then to Amateur Extra, then gets a vanity callsign, the cost could be \$100. As advocates for ham radio, club members are encouraged to let our voices be heard.

The Northern Florida ARES has requested that hams keep clear of frequencies used for hurricane communications: These are 3950 and 7242 kHz. Also, FEMA has designated frequencies for interagency use between amateurs and government. We need to keep clear of the 60-meter frequencies centered at 5332 kHz SSB and 5348 for digital.

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Secretary's Report:

We have had two renewals and two new members since the last Board meeting, bringing PAARA membership to 178. Please welcome Edward Kondrot KM4JQR and Michael Desing KG6TLA to our club.

Treasurer's Report:

There has been minimal financial activity, with no meetings or other events held in-person.

VP / Program Chair Report:

Our presenter for the October club meeting will be James Armstrong NV6W, the new ARRL Santa Clara Valley Section Manager. For November, Fred Cunha K6FVC will present an Intro to Satellite Communications. December: The Dream to Reality raffle.

No PAARA field trips are planned at this time.

The October presentation may be a bit shorter than usual. We discussed whether there might be other material available for presentation.

Old Business:

PAARA club members are encouraged to write an article for PAARAgaphs. We have received a couple of submissions, so will have articles for next issues. We need to keep the production of new articles up, to sustain the quality of PAARAgaphs.

Elections:

Clark KK6ISP, elections chair, has confirmation from all incumbents as to their willingness to stand for election for next year. We had a detailed discussion about running the elections securely online. There are technical flaws with all available online voting options. The current plan is: We will generate a unique set of ballot code numbers. A ballot and one code number will be mailed to each club member, either with PAARAgaphs or on a separate postcard. Members will vote on a website, on the day of the December meeting. We will check each vote for a valid code number. (We

will have a procedure for handling duplicate codes, and for rejecting invalid codes). We'll run a test of the system at the October Board meeting.

This was approved unanimously by the Board. The board also considered voting by proxy, for this year's election only. Since the ballot code is the verification of ballot, a member can furnish that code to another club member to vote in his stead. This change was also approved by the board.

Dream to Reality Raffle:

Shri and Rob demonstrated a computerized raffle ticket draw, which works well. We still need to establish the PayPal method for selling raffle tickets. Shri, Rob and Ric will collaborate on this effort. For the December raffle, winners of the smaller prizes will have their tickets re-entered for the grand prize. Shri and Rob will have an explanatory article in PAARAgaphs, and we'll have a demonstration at the November club meeting.

Shri KA6Q has volunteered to be the ham representative at DART at the Palo Alto airport.

900 Mhz repeater status: All the parts for All-Star are in hand. One cable remains to be completed.

PAARA has a number of radios offered for sale on the website. Marty is preparing to offer some more on E-bay soon.

Much progress has been made on transferring our financial records to the new accountant, but this is not yet complete.

Next club meeting October 2 will be on Zoom. Check the PAARA website PAARA.org for meeting details and signup information.

New Business:

No new business items were raised.

The meeting was adjourned at 9:00 pm.

Respectfully submitted,
Ric Hulett N6AJS
Secretary / Membership Chair

Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

Officers

President	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Vice President	Marty Wayne, W6NEV	408-234-8023
	w6nev@arrl.net	
Secretary	Ric Hulett, N6AJS	408-332-4593
	energyconserved@sbcglobal.net	
Treasurer	Bob Korte, KD6KYT	408 396 4745
	bob@rgktechsales.com	

Directors

Director ('19-'20)	Joel Wilhite, KD6W	408-839-5948
	kd6w@arrl.net	
Director ('20-'21)	Walt Gyger, K6WGY	408-921-5901
	walt@tradewindsaviation.com	
Director ('21)	Doug Teter, KG6LWE	650-367-6200
	dteter@wci.com	
Director ('21)	Darryl Presley, K16LDM	650 255-2454
	ki6ldm@arrl.net	

Appointed Positions

Membership	Vic Black, AB6SO	650-366 0636
	ab6so@smrn.com	
Database	Ric Hulett, N6AJS	408-332-4593
	energyconserved@sbcglobal.net	
Chaplain	Rick Melrose K6RDM	408-341-9070
	K6RDM@yahoo.com	
Public Affairs	<i>Position Vacant</i>	
Station Trustee W6OTX, W6ARA....	Gerry Tucker, N6NV	
Station Trustee K6YQT...	Doug Teter, KG6LWE	650-367-6200
Station Trustee K6OTA...	Ron Chester, W6AZ	
Property Manager	Gerry Tucker, N6NV	
Asst. to the Treasurer....	Ron Chester, W6AZ	
Badge Coordinator	Doug Teter, KG6LWE	650-367-6200
	dteter@wci.com	
Historian Position	<i>Position Vacant</i>	
Raffle Coordinators	Rob Fenn, KC6TYD,	rtyd@aol.com
	Shrikumar, KA6Q	
	shri.paara@enablery.org	
Field Day Coordinator ...	Doug Teter, KG6LWE	650-367-6200
ASVARO Rep.....	Clark Martin, KK6ISP	
	kk6isp@comcast.net	
Webmaster	John Miller K6MM	
	webaron@gmail.com	
Technical Coordinator ...	Joel Wilhite, KD6W	408-839-5948
	kd6w@arrl.net	
QSL Manager	Marty Wayne, W6NEV	408-234-8023
Speaker Coordinator	Marty Wayne, W6NEV	408-234-8023

PAARAgaphs Staff

Editorial Board		
	Bob Van Tuyl K6RWY	Kristen McIntyre K6WX
	Ron Chester W6AZ	Vic Black AB6SO
	Joel Wilhite, KD6W	Jim Thielemann K6SV
Editor	Bob Van Tuyl, K6RWY	408 799-6463
	rrvt@swde.com	
Back Up Editor	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Advertising.....	Walt Gyger, K6WGY	408-921-5901
	walt@tradewindsaviation.com	
Member Profiles	Diana Lloyd, KK6YGM	650-988-8882
	dianalloyd76@gmail.com	
Technical Tips	Vic Black, AB6SO	650-366 0636
	ab6so@smrn.com	
Photographer	<i>Position Vacant</i>	

VE Exams

Redwood City Main Library, Community Conference Room, 4th Saturday 10:30 am each month and De Anza Park, Sunnyvale, 2nd Saturday 10:30 am each month except November and December. See website for details and exceptions: <http://amateur-radio.org> or Contact Al, WB6IMX@att.net

Electronics Flea Market

Sponsorship by A.S.V.A.R.O. — Association of Silicon Valley Amateur Radio Organizations

Second Saturday of month, March-September, 6am–12 noon
 Contact: <http://www.electronicfleamarket.com/>

PAARA — Palo Alto Amateur Radio Association

Meets 1st Friday 7:00pm each month at Room H-6, Cubberley Community Center; Net 145.230 - PL 100Hz Mondays at 8:30. See our website at <http://www.paara.org> for more information or contact: Joel Wilhite KD6W, KD6W@ARRL.NET, 650-325-8239

FARS — Foothills Amateur Radio Society

Meets 4th Friday each month at 7:30pm
 Contact: <http://www.fars.k6ya.org>

NCDXC — Northern California DX Club

Meets 3rd Thursday 7:30pm each month,
 Repeater for member info 147.360, Thursday 8:00PM
 Contact: <http://nodxc.org> or Mike Gavin W6WZ, (650) 851 8699

50 MHz & Up Group

Meets 1st Thursday each month at 7pm in the Summit Room at the Sunnyvale Sports Basement, 1177 Kern Ave, Sunnyvale
 Contact: <http://50MhzandUp.org>

SPECS

Southern Peninsula Emergency Communication System

Meets each Monday 8:00pm on Net 145.27, 440.80 MHz
 Contact: <http://specsnet.org> or Tom Cascone, KF6LWZ, 650-688-0441

SCARES

South County Amateur Radio Emergency Service

Meets 3rd Thursday 7:30pm each month, Belmont EOC, Belmont City Hall, One Twin Pines Lane, Belmont CA 94002. Net is on 146.445 [PL 114.8] & 444.50 (PL-100) 7:30 Monday evenings. Contact: President Gary D. Aden, K6GDA 650-743-1265 (D), 650- 595-5590 (N)
 Web: <http://k6mpn.org> E-mail: pres@k6mpn.org

SCCARA

Santa Clara County Amateur Radio Association

Operates W6UU & W6UU/R, repeater 146.985-pl
 Nets: 2m, 7:30pm Mon; 70cm, 10M (28.385) 8PM Thur.
 Meets 2nd Mon each month @ 7:30 PM.
 ARRL/VEC license testing contact 408-507-4698

SVECS — Silicon Valley Emergency Communications

Operates AA6BT repeater (146.115 MHz+)
 contact: <http://www.svecs.net> or Lou Stierer WA6QYS 408 241 7999

TEARS — The Elmer Amateur Radio Society

Dedicated to operational training, knowledge building & FCC exam testing.
 KV6R repeater under construction.

Contact: AA6T@ARRL.NET

Most members are Extra Class or VE's. See QRZ dot com/kv6r for class info

WVARA — West Valley Amateur Radio Association

W6PIY six-meter repeater on 52.58MHz. Normally, six-meters is linked with 147 and 223, while 441 and 1286 repeaters are linked.

VHF: 52.58 (-500) 151.4 ctcss UHF: 441.35 (+5.0) 88.5 ctcss
 147.39 (+600) 151.4 ctcss 1286.20 (-12m) 100.0 ctcss
 223.96 (+1.6) 156.7 ctcss

Meetings are 2nd Wednesday of every month except July, August and December.
 Contact: <http://wvara.org>, Bill Ashby N6FFC, 408-267-3118, president@wvara.org

American Red Cross, Santa Clara Valley Chapter

Contact: <http://santaclaravalley.redcross.org> or Scott Hensley KB6UOO, (408) 967 7924 shensley@Novell.com

(Please send changes to PAARAgaphs editor)

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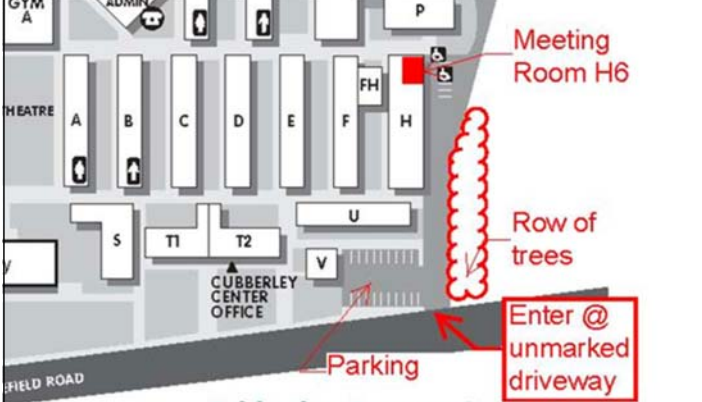
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PAARA Weekly Radio Net

Info and Swap Session
 every Monday evening at 8:30pm
 on the N6NFI 145.230 MHz repeater

Week	Control Operator
1 st	Joel - KD6W
2 nd	John - W6JMK
3 rd	Ric - N6AJS
4 th	Rob - KC6TYD
5 th	Rob - KC6TYD

If you're interested in trying out at Net Control, Contact Doug, KG6LWE. It's good practice, and lots o' fun! Give it a try.



Cubberley Community Center
 4000 Middlefield Road, Palo Alto, CA 94303
 650/329.2418
 650/856.8756 fax
 www.cityofpaloalto.org

Meeting Location — Middlefield Road between San Antonio and Charleston in Palo Alto. 4000 Middlefield Road

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Palo Alto Amateur Radio Association

P.O. Box 911, Menlo Park
 California 94026-0911

Club meetings are on the first Friday of each month, 7:00pm at the Room H-6, Cubberley Community Center.

Radio NET & Swap Session every Monday evening, at 8:30pm, on the 145.230 –600 MHz repeater, PL 100Hz.

Membership in PAARA is \$25.00 per calendar year, which includes one subscription to PAARAgaphs \$6 for each additional family member (no newsletter).

Make payment to the
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 P.O. Box 911, Menlo Park, CA 94026-0911

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PAARAgaphs Ad Rates

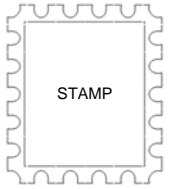
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- Not-for-profit ads by association members for ham-related items and wants. No cost for business card-size ads (additional space at \$2.50 per business card size per issue).
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All fees payable in advance by the year with "scanner-ready" copy or text-only ads. **Give payment and copy to Walt Gyger, K6WGY.**

PAARAgaphs — October 2020

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