

PAARAgraphs



The Official Newsletter of the

Palo Alto Amateur Radio Association, Inc.Celebrating 84 years as an *active* amateur radio club—*Since 1937*

Space Weather and HF Propagation

Carl Luetzelschwab, K9LA

The presentation will begin with a review of the layers of the ionosphere. We will go over several websites that offer space weather information, and which parameters are important for HF propagation. We will then tie space weather parameters to propagation on the various HF bands.

Carl Luetzelschwab, K9LA, started his radio career as a short wave listener in the late 1950s. He received his Novice license (WN9AVT) in October 1961, and selected K9LA in 1977. Carl is an electrical engineering graduate of Purdue University and was an RF design engineer until his retirement in 2013. Carl enjoys propagation research, DXing (he's at the Top of the Honor Roll), contesting (he was NCJ Editor from 2002-2007), experimenting with antennas and restoring/using vintage equipment.

He and his wife Vicky AE9YL enjoy traveling, which has included DXpeditions to Syria (YK9A in 2001), to Market Reef (OJ0/AE9YL and OJ0/K9LA in 2002) and numerous trips to ZF (Vicky is ZF2YL and Carl is ZF2LA). He has received the Bill Orr W6SAI Technical Writing Award, the YASME Foundation Excellence Award and the Indiana Radio Club Council Technical Excellence Award.

This meeting will be conducted with Zoom


Time: Aug 6, 2021 07:00 PM Pacific Time

<https://us02web.zoom.us/j/82930660082>

Login ID: First name and Call Sign

Meeting ID: 829 3066 0082

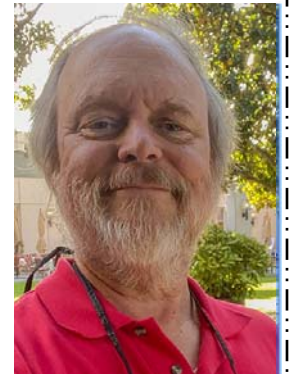
Upcoming Events

Aug 6	PAARA General Meeting, 7:00 PM
Sept 10 Oct 1	Zoom Meeting 
Aug 18 Sept 15 Oct 20	Board Meeting, 7:00 PM. Everyone welcome! Zoom Meeting, eMail President for details!
Aug	Electronic Flea Market Cancelled

President's Corner

August 2021

Where did July go? I don't know about you but for me, it was a VERY busy month. I asked the question at last night's board meeting when was the last time you worked HF mobile or portable? A couple of board members had worked portable recently, what about you? Field Day is about getting out and working HF from somewhere other than your normal location. Randy, K8TR, provided one of this month's stories on his recent FD experience working away from his home QTH. But, one doesn't have to wait until FD to justify working somewhere other than one's home QTH.



As for myself, thus far I've done more camping than in years past. This leads to a perfect time to take your portable rig out and work the bugs out. I ended up at Camp Far West Lake, north of Sac,

(President — Continued on page 4)

2021 Field Day at N6A, 3A SCV

Field Day is always one of those special weekends that seem to take 11 months of planning and a month following of clean up, this year wasn't much different. My XYL Sandy and I operated single transmitter last year from a field at a nearby airport and, with a little setup help from one of my sons, managed to get a 3 element tribander on an AB577 mast and a home brew 2 element 40 meter wire beam up, but the heat was exhausting and we only managed to work about 400 contacts. This year we had an offer to cat-sit at a friend's mountain house in the Los Gatos hills and thought, at 3000' this would be an ideal Field Day spot and hopeful for cooler temps up in the hills. The house has wide open view of the West, which was not ideal, but the elevation a low density of man-made electronics made for some excellent signals out of that location. Also, having Sandy as an operator as she earned her General this year as K8SKR and adding to the group was Bill AI6JZ and his wife.

N6A was to be a 3A station and all Kenwood TS-590's with N1MM logging software networked between the stations. We added a wide band open wire fed dipole to the antenna mix so there would be an antenna available for all the rigs and all looked good on Friday evening when we finished our setup and settled in for an excellent brisket dinner.

We had our true Field Day emergency happen when PG&E decided to do some power line work and shut off power to the house, which didn't affect the radio's or the laptops that were already on the twin Honda generators but the networking between the 3 stations hung up and we had to scramble to find out what the problem was. Fortunately the mys-

tery was solved rather quickly and we went back to our morning coffees and listening to the bands to see how conditions would be at the start of the contest. Power was restored a few hours later, which was helpful on a house with well water.

Sandy took 15m FT8, Bill took 40m phone and I started off with 20m phone. At zero hour it was off to the races and we were having a great time for hours making contacts and then switched off antennas between the 3 rigs. I had brought some low power RF band pass filters and glad I had done so as in getting the antennas up proved to be more of a challenge than we had planned. There was not as much of an open clearance between the huge redwood trees so the antennas were much closer than we would have liked. After the contest Bill said he could me clacking away on 40m CW when he went on 20! The 20 meter conditions were a bit unusual as I worked a lot of LAX and SDG stations and missed out on a few 1 area sections. 80 meters was unusually quiet and that may have just been our location or antennas, but it didn't sound like anyone was having any big runs regardless.

After dinner we dropped back to 2 stations as band conditions and operators tired out, and I finally gave up around 4am where at that point Sandy and Bill logged into the rigs and kept N6A on the air. Our Cheetos stained fingers still managed to operate radios and log contacts with a strong effort where we had hoped to break the 1000 contact mark and hit 1087 as a final count. There were few problems during the contest, the 40 meter beam had some unusual SWR curves during setup that we had

traced back to a questionable coax connector that got changed out and held up during the contest,

(N6A Field Day — Continued on page 3)



Fig. 1 — Field Day Crew: Randy K8TR, Sandy K8SKR, Bill AI6JZ



Fig. 2 — Beams and Wires

(N6A Field Day — Continued from page 2)

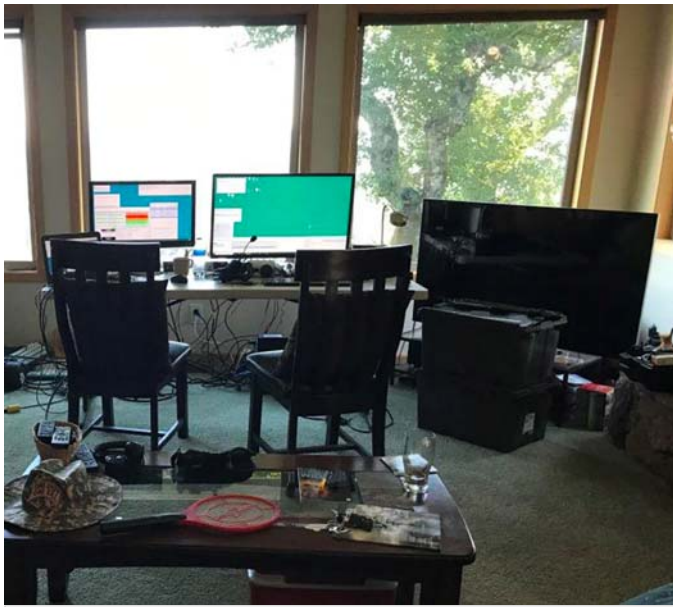


Fig. 3 — Operating Desk

and I had to go it alone to gas up the generators around midnight while keeping an eye out for hungry mountain lions, of which none were spotted.

On Sunday it was a challenge to tear it all down and pack it up for the return home. The hope for a cool temps in the mountains never did happen but we wnet home tired and happy with what we had been to accomplish.

Being the “chairman” of our little FD group and putting together the event really does give me an appreciation for the huge effort that Jim, Doug and the entire PAARA club mange to do year after year.

73
Randy K8TR.

Field Day 2021: N6AJS

Field Day is my favorite ham radio activity. Recently, I have been captain of the CW-B station at PAARA, as well as helping with antenna set-up and checkout. Unfortunately, in 2021, the Bedwell Park location was not available to us.

I still wanted to operate Field Day, but the ‘class D’ station, operating from home, did not seem like a real ‘field operation’ to me. I wanted a portable op of some kind. I have a Ford Focus Electric: It has a 27-kWh high voltage battery

and a 12-volt system. The 12-volt battery is charged from the larger battery pack: In effect, I have a very high capacity 12-volt system.

I drove to a nearby park, set up my home rig in the hatch of the car, and connected to the 12V system. I used my Buddipole to put a short dipole about 18 feet in the air. Next, I called my XYL to have her bring me a BNC to PL259 adapter. (Always do a dry run before you go portable!)

I discovered that the resistance of my power cable was a little too high: If I transmitted with more than 30 watts, the voltage would droop, and the radio would shut off, sometimes in mid-QSO. I operated for a couple of hours on Saturday afternoon, making QSOs on 20 meters CW and SSB. Jack, a young fellow from near the park, peppered me with questions, which I happily answered.

On Sunday morning, I set up a 2-meter antenna atop the Buddipole mast, and made a few more contacts. Net result, 21 contacts, plus bonus points for emergency power and public location, 310 points! I learned some things, and I now know that I can quickly put up an emergency station, when the need arises.

July, 21 PAARA Board Minutes

Present were: President Jim Thielemann K6SV, Vice President Rob Fenn KC6TYD, Secretary Ric Hulett N6AJS, Treasurer Bob Korte KD6KYT, Directors Darryl Presley KI6LDM, Doug Teter KG6LWE, and Joel Wilhite KD6W. A quorum was present. The meeting was called to order at 7:10 pm.

President’s Report: When was the last time you worked HF, Mobile or portable? Doug has been working HF with the KX3 he won at the “Dream to Reality” raffle. Jim operated Field Day from Camp Far West, and at Lake Mildred last weekend. Jim has pictures of some deer visiting his portable site. Ric operated portable with the HF rig in his battery-electric car.

On Field Day, Darryl had several agency visitors from local government.

Secretary’s Report: No new members or other membership events this month. A “Thank you!” goes

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(President — Continued from page 1)

on FD. This was the 1st time I'd worked FD from somewhere other than the club site or my home QTH. Though my effort was shortened by family needs, I did spend the better part of Saturday working Phone on 20M. Unlike last year, I was even able to make contact with several east coast stations. It was lots of fun sitting in the shade of my motorhome making contacts even if it was over 100 degrees that day!

On the weekend of 7/17, I was located at Lake Mildred in the Gold Country. Once again, I deployed my IC-7100 and Bravo 7K antenna. This location wasn't as good as my FD location or the bands weren't as good. It was still fun and I learned I need a longer feed cable as I couldn't get the antenna far enough away from me which might have been part of my problem making contacts. On the positive side, one never knows who will be interested in checking out what you're doing! We had a very short conversation on what I was doing in "his" space. You'll have to excuse the window screen as I was working from inside my motorhome on this occasion.

Have you registered for the QSP Today virtual HamExpo yet? If not, do so now as it's less than a month away on August 14 & 15. You can find more information at:

<https://www.qsotodayhamexpo.com/>

The last one was well worth my time as there were a large number of presentations on topics that we usually don't have an opportunity to learn about.



Fig. 1 — Making Contacts in the Shade

For those who remember 1969, and man landing on the moon for the 1st time, I stumbled on a rather interesting story. There is the possibility that the Eagle, the lunar lander, is still orbiting the moon! Until recently, the consensus was that after being jettisoned from the Columbia Command Module, the lander's orbit decayed to the point that it crashed into the moon. Seems an amateur space fan, leave it to amateurs, wanted to try and locate the debris on the moon. He used some free software provided by NASA to run an orbital simulation with the hopes of narrowing down where it might be. Instead of coming up with a possible location where it crashed, seems the program indicated it very well might still be in orbit! You can watch the story here:

<https://kottke.org/21/07/apollo-11s-lunar-module-might-still-be-orbiting-the-moon.>



Fig. 2 — Just checking you out.

As you'll see in the board minutes, we received notification from Cubberly that we are approved to use "our" room for the September 10th meeting. Note that this is the SECOND Friday in September as the first Friday is part of Labor Day Weekend. We'll be checking with Cubberly to make sure we understand any restrictions. We're also checking the internet bandwidth at the site so we can

continue having a zoom component to the meeting. This is so we can have presenters from outside the area and other visitors who can't attend in person.

If you hadn't heard and you're an EZNEC user or ever thought of wanting to give it a try, you'll want to check out the news here:

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<https://qrznow.com/eznec-pro-antenna-modelling-software-will-be-free-from-2022/>.

The sole developer of the software is retiring on January 1, 2022! The software will be free after that date, there are some limitations on what versions will be still available.

Once again PAARA's antenna team has been asked to remove a tower and antenna by an SK's wife. The original request came through Kristen, K6WX who ran into Lilah, KE6EHD, the widow of Jim Tiemstra, K6JAT/SK at the ARRL board meeting earlier this month. Doug, KG6LWE, will be going to the site in the Oakland hills to assess the effort required and figure out a date when the work will be done. Please reach out to Doug to

offer your services in this very worthwhile service PAARA provides.

As I mentioned last month, Pacificon will be in person on October 15-17th. If you haven't registered yet, you can go to www.pacificon.org. Hotel rooms are filling up fast if not already full so get your reservations in early. Of most importance though is the special event station PAARA hosts. Mikko, AB6RF, still needs volunteers to assist in all aspects of the station. Additionally, this year we're going to need radios for the station. The radios we've used in the past are no longer available. Please reach out to Mikko and offer any assistance or equipment you can for this important event.

73, Jim K6SV

Get on the air to keep the airwaves alive!

(Minutes — Continued from page 3)

out to Mikko Sannala AB6RF, who will be handling the newsletter mailing for August.

Treasurer's Report: PAARA made a payment to the newsletter printer, there were no other financial activities this month.

VP / Program Chair Report: We have received notification that we are approved for the meeting room H-6 at Cubberley community center, beginning with the September meeting on the 10th. (Meeting is delayed due to the Labor Day weekend).

We have speakers arranged for August, October and December meetings. For August, our guest will be Carl Luetzelschwab, K9LA.

The board discussed ways to promote and support the first meeting back at Cubberley Community center.

Old Business:

Club members are urged to write an article for PAAR-Agraphs. It's membership articles that make the newsletter special! Still don't have a story for next month!

Education Committee: Rob KC6TYD: This has been on hold pending in-person meetings. Promotion, Copy ideas from Portland club. First direction would be from CERT teams.

Possible topics: What to buy? How to program my radio? How do I make a contact with someone? E.g. repeater protocols. [start with simplex, then move to repeater]. Need to recruit some topic speakers.

New Business:

Pacificon: (October 15 – 17) PAARA is sponsoring the W1AW/6 special event station. Mikko AB6RF is organizing the station.— Doug and Rob will contact Mikko to coordinate antenna maintenance and other topics. We had a discussion about social distancing for radios at W1AW/6: vinyl gloves? Covers for microphones? We talked about reducing the number of operating positions to 3.

New accountant: Jim has been reaching out for accounting help. Sheila Foley is a candidate for this task. She has her own accounting firm and is willing to do this for us, for a reduced fee. The board voted to have Jim proceed with engaging this bookkeeper, pending further information.

Joel has received a certificate for his score in the ARRL 10 GHz and up contest last year: 5th best score nationwide!

Jim Tiemstra's widow needs help removing his tower and antenna. Doug will follow up with her in the next two weeks. The widow of a Silent Key in Watsonville has requested assistance with station disposition. Rob Fenn will contact her for more info.

We learned that club member Doyle Kisler KG6YUN is in the hospital.

We discussed the December Dream to Reality raffle. Moved: The December Dream to Reality raffle big prize will be an Elecraft KX3, with roofing filter, microphone, antenna tuner. Seconded and passed unanimously.

Meeting was adjourned at 8:51 pm.

Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

Officers

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Director ('21)	Darryl Presley, K16LDM	650 255-2454
	ki6ldm@arrl.net	

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Station Trustee W6OTX, W6ARA....	Gerry Tucker, N6NV	
Station Trustee K6YQT...	Doug Teter, KG6LWE	650-367-6200
Station Trustee K6OTA...	Ron Chester, W6AZ	
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	dteter@wawi.com	
Historian Position	<i>Position Vacant</i>	
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	Shrikumar, KA6Q	
	shri.paara@enablery.org	
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ASVARO Rep	Clark Martin, KK6ISP	
	kk6isp@comcast.net	
Webmaster	John Miller K6MM	
	webaron@gmail.com	
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QSL Manager	Marty Wayne, W6NEV	408-234-8023
Speaker Coordinator	Rob Fenn, kc6tyd	650-888-9060

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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://ncdxc.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

SCCARRA

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:

147.39 (+600) 151.4 ctcss 441.35 (+5.0) 88.5 ctcss

223.96 (+1.6) 156.7 ctcss 1286.20 (-12m) 100.0 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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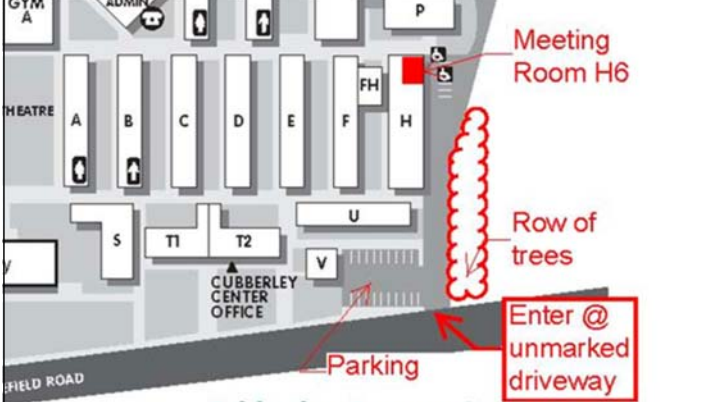
www.jameco.com

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
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 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

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 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).

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 again.

PAARAgaphs Ad Rates

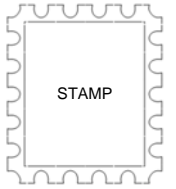
PAARAgaphs accepts paid advertisements from non-members. (short personal ads remain free for members in good standing). **All ad rates listed are per issue.**

- 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).
- For Profit organizations and/or individuals: \$5-business card size, \$14.00-quarter page, \$25-half page, \$50 full page or back cover per issue. These fees may be reduced or waived in exchange for a valuable consideration that is given to the Association or its general membership. Such consideration must be in addition to any existing arrangements with the association. The PAARAgaphs editors reserve the right to reject any ad deemed to be not in the best interest of the Association.

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 — August 2021

Accept no substitutes. Produced and printed in California USA



Palo Alto Amateur Radio Association, Inc.
 PAARAgaphs Newsletter
 P.O. Box 911
 Menlo Park, California 94026

FIRST CLASS MAIL

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KENWOOD



TS-590SG
 HF/50MHz Transceiver



TM-D710G
 2M/440 Dualband



TM-V71A
 2M/440 Dualband



TM-281A
 2 Mtr Mobile



TH-D74A
 2M/220/440 HT

YAESU
 The radio



FT-991A
 HF/VHF/UHF Transceiver



FT-891
 HF-50 MHz All Mode Transceiver



FTM-300DR
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FTM-400XD
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FT-70DR
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- RETAIL LOCATIONS - Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE - Toll-free Phone hours 8:30AM - 5:30PM
- FAX - All store locations
- ONLINE - WWW.HAMRADIO.COM
- MAIL - All store locations

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AMHERST, CA (800) 854-6046	OAKLAND, CA (877) 892-1745	PORTLAND, OR (800) 756-4287	PHOENIX, AZ (800) 559-7288	MILWAUKEE, WI (800) 558-0411	WOODBRIDGE, VA (800) 444-4799
PLANO, TX (877) 455-9790	SAN DIEGO, CA (877) 500-8623	DENVER, CO (800) 444-9476	ATLANTA, GA (800) 444-7927	NEW CASTLE, DE (800) 644-4476	SALEM, NH (800) 444-0047

Contact HRO for promotion details. See how including Special, Mobile and Channel. Call will be mailed to the nearest store. All HRO items are subject to price. If the first store you call is busy, you may call another. Prices, specifications and descriptions subject to change without notice.

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