

W6OTX

W6ARA

PAARA NEWSLETTER  
VOLUME 73, NUMBER 12, December 2022

K6OTA

K6YQT

# PAARAGraphs



The Official Newsletter of the  
**Palo Alto Amateur Radio Association, Inc.**

The Friendliest Club Around

Celebrating 85 years as an active amateur radio club—Since 1937

<http://www.paara.org/>

## Elecraft update with Q&A

**Eric Swarts, WA6HHQ**

Eric Swarts will join us in person to bring us up to speed on what's new at Elecraft. This meeting is always a highlight of the year. And don't forget, the Dream to Reality Raffle will take place and one of you will win a KX3.

### Bio:

Eric Swartz, WA6HHQ, is Elecraft's Chief Operating Officer, a co-designer of Elecraft's K4, K3S, K2, and other Elecraft products. He co-founded Elecraft in 1998 with Wayne Burdick, N6KR. Licensed for over 51 years, his early interest in Amateur Radio led him to a career in electronic design and management. He received his B.S. in Engineering and Applied Science (Electronics) from Yale University in 1979 and has been involved in a number of successful Silicon Valley startups. Prior to Elecraft, Eric was co-founder and President of Verisys, a test equipment manufacturer of high-performance protocol analyzers for the computer and mass storage market.

Wayne and Eric also jointly received the ARRL's Technical Excellence Award in 2001 for their Elecraft radio designs.

### This meeting will be a In Person Only Meeting

Time: December 2, 2022 07:00 PM Pacific Time  
Cubberley Community Center  
4000 Middlefield Rd, Palo Alto  
Room H6

## Upcoming Events

Dec 2***	PAARA General Meeting, 7:00 PM
Jan 6	In-Person Meeting
Feb 3	*** IRL Only Meeting
Dec 21***	Board Meeting, 7:00 PM.
Jan 18	Everyone welcome! Zoom Meeting, eMail President for details!
Feb 15	*** Cancelled

## President's Corner

December 2022

If you missed the PAARA 85th anniversary event, you missed a very fun day! The weather could not have been more enjoyable. A huge shout-out goes to Doug, KG6LWE, and Darryl, KI6LSM, for all their efforts in setting up the HF stations and running them. Another huge shout-out goes to Rob, KC6TYD, for getting all the food, and drinks, and cooking up some delicious hamburgers & hotdogs.



Forty-two people signed the visitor log. Among them were three visitors from the Loma Prieta club who came to check out the activity. All those who joined us had a wonderful time so-

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**PAARAGraphs — December 2022**  
**Celebrating 85 years as an active ham radio club—Since 1937**

(President — Continued from page 1)



contacts using the special event call sign W6B as hoped but were able put 64 contacts into the log.

There were two special presentations during the event. The first was by Kristen, K6WX, who presented the club a plaque and read the resolution she presented at the last ARRL Board of Directors meeting recognizing PAARA's 85 years. The resolution reads:

On the motion of Ms. McIntyre, seconded by Mr. Stafford and was VOTED (with applause) that:

WHEREAS, the Palo Alto Amateur Radio Association (PAARA) has been an active Amateur Radio club serving the city of Palo Alto since its inception in 1937;

WHEREAS, PAARA is known as "The Friendliest Club Around" and lives that motto every day;

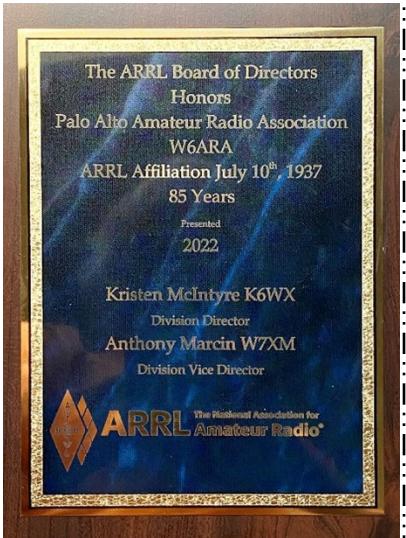
WHEREAS, PAARA counts among its former members O. G. "Mike" Villard, W6QYT, inventor of Over The Horizon RADAR, father of SSB, and Stanford Moonbounce, among other achievements;

WHEREAS, PAARA has counted among its membership and frequent visitors former ARRL President, former IARU Secretary, and current ARRL International Affairs VP, Rod Stafford, W6ROD; ARRL Second Vice President Bob Vallio, W6RGG; ARRL Pacific Division Director Kristen McIntyre, K6WX; Bay Area Section Managers, and other ARRL Field Staff;

WHEREAS,  
PAARA has many  
other notable  
members of Silicon  
Valley fame, such  
as Gerry Tucker,  
N6NV, designer of  
power systems fly-  
ing on the Interna-  
tional Space Sta-  
tion and



cializing, remembering past events, building 2M tape measure antennas, enjoying hotdogs or hamburgers along with a special anniversary cake, and working on one of the three HF stations. As the CQWW SSB contest was the same weekend, we didn't make that many



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(President — Continued from page 2)

WHEREAS, PAARA's Field Day operation regularly features guest contest operators such as Rusty Epps, W6OAT; Jim Brown, K9YC; and John Miller, K6MM.

Therefore, be it resolved that the ARRL Board of Directors congratulates and recognizes PAARA, currently holding the club callsigns W6ARA, W6OTX, K6OTA, and K6YQT, on their 85th Anniversary.

The second was a presentation by Doug, KG6LWE, on behalf of the board, to Jim Rice, K6AK, for his over 20 years of commitment to PAARA in running the very successful raffle and serving on the board. Please thank both of them for their respective efforts on behalf of PAARA!

Remember, Clark, KK6ISP, will be running the election during the December meeting. You must be a current member in good standing and present at the December meeting to vote. The results of the vote will be announced just before the close of the meeting. The list of candidates is located elsewhere in this issue.

Don't forget to bring that stray cash for the annual Dream to Reality raffle where the grand prize will once again be an Elecraft KX3 HF radio with a few accessories. A lucky winner will be going home with an early Christmas present. There will be other great raffle prizes rounding out the raffle. Remember the December meeting is an in-person-only meeting.

It's already time to start thinking about next year. There are some fun events in store at the start of the year. The largest ones I can think of are Quartzfest (January 22th ~ 28th), <https://quartzfest.org/>, which may be larger than last year due to the cancelation of the Yuma Hamvention. PAARA will again have several members present at this fun event. Much more locally, the IDXC (International DX Convention) is on April 21-23 in Visalia, CA. Their updated website has a bit more information including a large list of top-end HF radios that will be raffled off. For more information go to <https://www.dxconvention.com/>. I hope to see a large number of PAARA members there.

In recognition of his energy and enthusiastic support of PAARA activities and meetings for more than Twenty years, developing the raffle, including his favorite, the Dream to Reality Raffle, coming up with prizes every month and running more than 200 drawings, contributing to increased attendance at meetings at a time when the club was in decline, helping to bring it back to the robust organization it is today, serving on the Board as VP for several years, and participating in numerous Field Days..

**The Officers and Directors of the  
Palo Alto Amateur Radio Association  
do hereby award and bestow upon**

**Jim Rice, K6AK  
a Lifetime Membership**

on this date of October 29, 2022

Signed by:

Jim Thielemann, K6SV, President  
Rob Fenn, KC6TYD, Vice President  
Ric Hulett, N6AJS, Secretary  
Bob Korte, KD6KYT, Treasurer

Darryl Presley, KI6LDM, Director  
Doug Teter, KG6LWE, Director  
Joel Wilhite, KD6W, Director  
Walt Gygger, K6WGY, Director



As mentioned in the most recent issue of the ARRL letter, a suggestion was made to recycle old issues of QST by putting labels on them covering your address and leaving them in doctor's offices and other public waiting rooms that have magazines. I'll be printing up some labels and bringing them to the next meeting for those who wish to leave an issue of QST behind in waiting rooms instead of in the recycle bin. This is a great way to spread the word about amateur radio as well as PAARA.

I look forward to seeing a room full of smiling faces at the December 2nd meeting.

73, Jim K6SV

Get on the air to keep the airwaves alive!

## Elections

PAARA is holding elections for it's board members at it's December meeting. You must be a PAARA member and present at the meeting to vote.

Here is the Election Slate for the PAARA 2022 Election:

**President**

Jim Thielmann<sup>1</sup> K6SV

**Vice President**

Rob Fenn<sup>1</sup> KC6TYD

**Secretary**

Ric Hulett<sup>1</sup> N6AJS

**Treasurer**

Bob Korte<sup>1</sup> KD6KYT

**Director A**

Walt Gyger<sup>1</sup> K6WGY

**Director C**

Doug Teter<sup>1</sup> KG6LWE

**Director D**

Darryl Presley<sup>1</sup> KI6LDM

I'd like to thank PAARA members Mikko San-nala (AB6RF) and Frank Fox (AF0XX) for being on the Election Committee with me.

Clark Martin (KK6ISP)

<sup>1</sup> Incumbent

## November Board Meeting Minutes

Present were President Jim Thielemann K6SV, Vice President Rob Fenn KC6TYD, Secretary Ric Hulett N6AJS, Treasurer Bob Korte KD6KYT, Directors Joel Wilhite KD6W, Doug Teter KG6LWE. A quorum was present.

The meeting was called to order at 7:15 pm

**President's Report** — A huge "Thank You!" to Doug, Rob and Darryl for PAARA's 85th anniversary celebration. The event was a great success due to these guys' efforts! We registered 42 signatures in the visitors log, and logged 64 contacts on the special event call W6P. Our visitors included some curious passersby, and some folks from the Loma Prieta Amateur Radio Club.

**Secretary's Report** — We are happy to welcome some new members: Jim Roberts AF6AC, Rob Libunao K6RDL have joined. In addition, Garrett Reid KN6VKX visited us at the November club meeting. New hams who visit the club are given a one-year membership.

Don't forget that club memberships expire on December 31: Check your PAARAGraphs to see if it's time for you to renew!

**Treasurer's Report** — We paid the printer's bill for the month, and deposited two checks for dues.

**VP / Program Chair Report** — Our guest speaker for the December meeting will be Eric Swartz WA6HHQ, from Elecraft. Top Topic: Elecraft update with Q&A.

We have sold some items from the PAARA for-sale inventory. Rob will bring a few items for sale to each meeting.

**Old Business**

**Members:** — Many of you will have an interesting ham-radio story or anecdote. Be a published author! Write up your story and submit to Jim K6SV. Our story hopper is empty, and we really need your content.

**Storage for Gerry** — Doug and Jim hauled out another load out. Gerry mentioned at the 85th event that they were getting another load together! We hope that this will be the final trip.

Our accountant has the books up to date.

Clark Martin KK6ISP reports that he is ready for the officers and directors election at the December PAARA meeting. N6AJS will furnish him a current membership roster.

PAARA members should check out the IDXC meeting in Visalia – this is a major ham convention, with many presentations, vendors and some great raffle prizes.

**New Business**

Club meetings in December (elections) and April (homebrew night) will be in-person only.

**Club 85th year event:** — This was a great success. The board discussed whether we should have a similar event in future years. After discussion, we reached a consensus is that we should have an annual PAARA-fest at a local

(Minutes — Continued from page 4)

park, with radios and food. Our target date would be late September. Details were tabled until a future board meeting.

**PAARAGraphs notices:** — N6AJS will check references and links in PAARAGraphs and furnish updates to the editor. He will also update the PAARA membership form and furnish to Shri for a website update.

The PAARA badges statement in PAARAGraphs needs to be updated. We will adjust the price for a new badge from \$24.95 to \$25.00, and specify that all badges will be mailed.

We want to make a 'new ham' flyer with info on PAARA and the free 1-year membership. Tabled for this meeting.

The board agreed that there will be no board meeting in December, unless an urgent matter arises.

Postage rates are going up again in January. We will purchase extra stamps before then.

The meeting was adjourned at 8:35 pm

Respectfully submitted,

Ric Hulett N6AJS  
PAARA Secretary

## PAARA Sale Items

These and other items have been reduced in price! Go to PAARA.org and click on the For Sale tab to purchase.



FT-100, \$400

MFJ-1702C Antenna switch, \$25

Alpha Delta Antenna switch, \$40

MFJ-209 SWR Analyzer, \$50

MFJ-207 SWR analyzer, \$50

# PAARA



**1<sup>st</sup> Prize    Elecraft KX3**



**2<sup>nd</sup> Prize    Heil Sound the Heritage Microphone**



**3<sup>rd</sup> Prize    Gerber Truss Multi Tool**



**4<sup>th</sup> Prize    12, 30-amp Anderson Powerpole Connectors**





## November Raffle Winners

**Left to Right**

- 1<sup>st</sup> Place Alan, AG6ZE, — Yaesu FT-65R 144/440 Dual-Band HT
- 3<sup>rd</sup> Place Darryl, KI6LDM, — Carhartt Legacy Tool Roll
- 2<sup>nd</sup> Place Jim, K6SV, — FLUKE-101 Digital Multimeter
- 4<sup>th</sup> Place Alen, K6ADG, — Ace Interlocking Organizer

## 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 .....	Rob Fenn, KC6TYD	650-888-9060 kc6tyd@gmail.com
Secretary .....	Ric Hulett, N6AJS	408-332-4593 energyconserved@sbcglobal.net
Treasurer .....	Bob Korte, Kd6kyt	650-522-0110 bob@rgktechsales.com

### Directors

Director ('21-'22) .....	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	650-743-7892 dteter@wcwi.com
Director ('21).....	Darryl Presley, KI6LDM	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	650-743-7892
Station Trustee K6OTA...	Ron Chester, W6AZ	
Property Manager .....	Gerry Tucker, N6NV	
Badge Coordinator .....	Doug Teter, KG6LWE	650-743-7892 dteter@wcwi.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	650-743-7892
ASVARO Rep.....	Clark Martin, KK6ISP	kk6isp@sonic.net
Webmaster .....	Shrikumar, KA6Q	
	webaron@gmail.com	
Technical Coordinator ...	Christopher, AI6KG	408-348-0304 ch@murgatroid.com
QSL Manager .....	Marty Wayne, W6NEV	408-234-8023
Speaker Coordinator ....	Rob Fenn, KC6TYD	650-888-9060

### PAARAGraphs Staff

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Bob Van Tuyl K6RWY	Kristen McIntyre K6WX	
Ron Chester W6AZ	Vic Black AB6SO	
Joel Wilhite, KD6W	Jim Thielemann K6sv	
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Member Profiles .....	<i>Position Vacant</i>	
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](mailto: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.electronicsfleamarket.com/>

### PAARA — Palo Alto Amateur Radio Association

Meets 1<sup>st</sup> 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](mailto:KD6W@ARRL.NET), 650-325-8239

### FARS — Foothills Amateur Radio Society

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

### NCDXC — Northern California DX Club

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

### 50 MHz & Up Group

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

### San Mateo Radio Club W6UQ.ORG

Meets 3<sup>rd</sup> Friday, January through November  
Tuesdays & Thursdays, [Directed] Net, 7pm, N6ZX 145.370Hz -600kHz PL107.2Hz  
Contact: <http://W6UQ.org/calendar>

### 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 3<sup>rd</sup> 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](mailto: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 2<sup>nd</sup> 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](mailto: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](mailto:president@wvara.org)

### American Red Cross, Santa Clara Valley Chapter

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

(Please send changes to [PAARAGraphs editor](mailto:PAARAGraphs editor))

This Ad space is available

## 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 <sup>st</sup>	Doug - KG6LWE
2 <sup>nd</sup>	Doug - KG6LWE
3 <sup>rd</sup>	Ric - N6AJS
4 <sup>th</sup>	Rob - KC6TYD
5 <sup>th</sup>	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.



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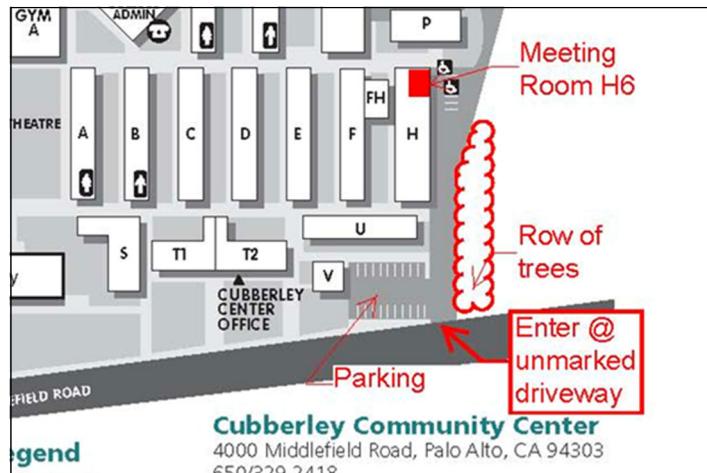
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Information  
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**Meeting Location — Middlefield Road between San Antonio and Charleston in Palo Alto. 4000 Middlefield Road**

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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 PAARAGraphs \$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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**ARV'S, WA6UUT (SK)**  
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900 – 927.225 down 25 Mhz	On Line

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### **PAARA Badges**

Badges can be ordered through  
our website [https://www.paara.org/  
pages/members-current.html](https://www.paara.org/pages/members-current.html).

Scroll to the bottom of the page  
and fill out the info. All badges will  
be mailed.

The cost for a badge is \$25.00.

### **PAARAGraphs Ad Rates**

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

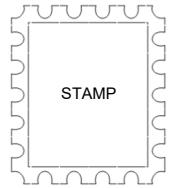
1. Not-for-profit ads by association members for ham-related items and wants. No cost for business card-size ads (additional space at \$2.50 per business card size per issue).
2. For Profit organizations and/or individuals: \$5-business card size, \$14.00-quarter page, \$25-half page, \$50 full page 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 PAARAGraphs 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.**

# PAARGraphs — December 2022

Accept no substitutes. Produced and printed in California USA



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

**FIRST CLASS MAIL**

Address Service Requested



**FTDX101MP | 200W HF/50MHz Transceiver**  
• Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation  
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**FTDX10 | HF/50MHz 100 W SDR Transceiver**  
• Narrow Band and Direct Sampling SDR • Down Conversion,  
90MHz IF Roofing Filters • Precise Excellent Shape Factor • 5'  
Field-Color LCD Touch Panel w/3D Spectrum Stream • High-Speed  
Auto-Antenna Tuner • Microphone Amplifier w/5-Stage Preamp  
Equalizer • Remote Operation w/optional LAN Unit (SCU-LAN10)



**FT-991A | HF/50MHz All Mode Transceiver**  
Real-time Spectrum Scope with Automatic Scope Control •  
Multi-color waterfall display • State-of-the-art 32-bit Digital  
Signal Processing System • 34kHz Roofing Filter for enhanced  
performance • 3.5 inch Full Color TFT USB Capable • Internal  
Automatic Antenna Tuner • High Accuracy TCXO



**FT-3000DR | 24MHz/144/430MHz Dual Band**  
• 50W Reliable Output Power • Real Dual Band Operation (U/V,  
U+U-V, U-U) • 2.4-inch High-Res Full Color TFT Display • 3-Band  
Scope • Built-in Bluetooth • Wi-Fi • WRE5 X-Portable Digital Node/Efied  
Node with WiFi/BT



**FT-70DR | 24MHz/144/430MHz X-Port**  
• System Fusion Compatible • Large Front  
Speaker delivers 700 mW of Loud Audio Power  
• Automatic Mode Select detects CAT4 or FM  
Analog and Subtitles Accordingly • Huge 1,105  
Channel Memory Capacity • External DC Jack or  
MicroSD slot • 500 memory per band



**FT-400XD | 24MHz/144/430MHz Mobile**  
• Color Display: green, blue, orange, purple, gray • GPS/APRS  
Output with Efficient Data Internal Fans • 32-Bit IF DSP Processor  
Effectively Anti-Interference • 1000mW RF Output • Large Dot Matrix LCD  
Display with Quick Spectrum Scope • USR Port Allows Connection to PC with a Single Cable • CAT Control/PITTRITY Control



**FT-50R | 144/430 MHz Dual Band**  
• Compact Commercial Grade Rugged Design •  
Large Audio • 5 Watts of Reliable RF Power Within  
a compact Body • 3.5-hour Rapid Charge included •  
Large White LED Display • Easy Hands-Free Operation w/Built-in  
Bluetooth® • 1200/9600bps APRS Data Communication •  
Antenna • 1200/9600bps APRS Data Communication •  
Micro SD Card Slot



**FT-600R | 50W HF/VHF/UHF Mobile Transceiver**  
• All New User Operating Interface-EZ-II (Easy to Operate II) •  
• Robust Datalogs • Multi-Color Easy to See LCD • 208  
Memory Channels/10 Memory Groups • Built-in Electronic Keyer  
• Internal Battery Operation Capability • Two Antenna Connectors  
• Built-in High Stability Oscillator ±0.5 ppm

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**FTDX101D | HF/6M/2M/440 All Mode Transceiver**  
• Narrow Band SDR & Direct Sampling SDR • Crystal Roofing  
Filter • Phenomenal Multi-Signal Receiving Characteristics • Up-  
parallelized 70dB Maximum Attenuation VC-Tune • 15 Separate  
(HWF 10 + GEN 5) Powerful Band Pass Filters • New Generation  
Scope Displays 3-Dimensional Spectrum Stream



**FT-818ND | HF/6M/2M/440 All Mode Portable X-Port**  
• Ultra-Compact/Robust • Multi-Color Easy to See LCD • 208  
Memory Channels/10 Memory Groups • Built-in Electronic Keyer  
• Internal Battery Operation Capability • Two Antenna Connectors

BT10 or a Commercially Available Bluetooth® Headset

**FT-2980R | Heavy-Duty 80W 2M FM Transceiver**  
• Massive Heatsink • 80 watts of solid RF power • Large 6  
Load 3 watts of audio output for noisy environments • Large 6  
digit backlit LCD display for excellent visibility • 200 memory  
channels for serious users



**FT-700R | 24MHz/144/430MHz Dual Band**  
• All New User Operating Interface-EZ-II (Easy to Operate II) •  
• Robust Datalogs • Multi-Color Easy to See LCD • 208  
Memory Channels/10 Memory Groups • Built-in Electronic Keyer  
• Internal Battery Operation Capability • Two Antenna Connectors

BT10 or a Commercially Available Bluetooth® Headset

**FT-600R | 50W HF/VHF/UHF Mobile Transceiver**  
• All New User Operating Interface-EZ-II (Easy to Operate II) •  
• Robust Datalogs • Multi-Color Easy to See LCD • 208  
Memory Channels/10 Memory Groups • Built-in Electronic Keyer  
• Internal Battery Operation Capability • Two Antenna Connectors



**FT-600R | 50W HF/VHF/UHF Mobile Transceiver**  
• All New User Operating Interface-EZ-II (Easy to Operate II) •  
• Robust Datalogs • Multi-Color Easy to See LCD • 208  
Memory Channels/10 Memory Groups • Built-in Electronic Keyer  
• Internal Battery Operation Capability • Two Antenna Connectors