

PAARAgraphs



The Official Newsletter of the

Palo Alto Amateur Radio Association, Inc.Celebrating 79 years as an *active* amateur radio club—Since 1937<http://www.paara.org/>**January 6, 2017****"Homebrew Night"**

Join us Friday, January 6, 2017 PAARA meeting at Cubberley Community Center, Room H-6 for HOMEBREW NIGHT. No, it has nothing to do with beer. We want to see what you've been building or toying with in your workshop. Anything ham or electronics related is great. Bring and show off what you have built. See you all there.

Upcoming Events

- Jan 6 PAARA General Meeting, 7:00 PM
- Feb 3 Cubberly Community Center, Room H-6, 400 Middlefield Rd, Palo Alto
- Mar 3
- Jan 18 Board Meeting, 7:00 PM
- Feb 15 Everyone welcome!
- Mar 15 Location: Marty, W6NEV, QTH



President's Corner

January 2017

Happy New Year in advance. I just wrote "2017" for the first time on something. This year has gone by unbelievably quickly. The PAARA Dream to Reality Raffle is over and so is the PAARA Leadership Election. Radio-wise the bands have been in not great shape, but there's always the lower frequencies. Oh, and don't forget Straight Key Night.



The December PAARA meeting was a real blockbuster. Attendance was off the charts. Our speaker was Eric Swartz, WA6HHQ, one of the founders of Elecraft. He told a great story of the founding of the company and how each radio model was developed. He also gave us some insight into his business acumen. That is probably what has

made Elecraft more than just a hobby. All in all it was a very enlightening talk. The Raffle was the big finish to the evening, with a KX3 with tuner and 2 meter module ready for someone to win. You could win it with just \$1. The big winner was Pat, W6ABA. Now, to be honest I believe Pat put more than \$1 into the Raffle, and we really appreciate that, but anyone who bought even one ticket had a chance.

The last meeting was rounded out with the finish of the election cycle for the PAARA Leadership Team. I'm proud to announce that Marty, W6NEV, will again be our Vice President, Ron, W6AZ, our Treasurer, and Jim, K6SV, our Secretary. The PAARA Board will be joined by returning member Rebar, N6DB, and returning board member and past PAARA President Joel, KD6W. Darryl, KI6LDM was not up for election this time. Last but not least, Walt, K6WGY, will be joining the Board for the first time. If you see Walt or any of the rest of the Leadership Team, please give them a thank you for their hard work. Of course, if something isn't right, please let us know too. Oh, and I'll be returning for 2017. You're stuck with me for another year :).

The HF bands have been quieter than the last few years. With winter, things close up tight just

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Marine Station “KFS” Through the Decades

A Personal Recollection

Rick Ferranti, W6NIR

When I was 7 years old and growing up in the San Francisco Bay Area, my Dad and I were tooling down the Bayshore Freeway near Palo Alto in his brand new 1961 Oldsmobile. All of a sudden, mixed in with the Giant's baseball game we were listening to on the car's radio, we heard the urgent beep-beep of a Morse code transmission. Dad pointed to the dashboard and said, with a little sparkle in his voice, "That's Sputnik!" I listened with rapt fascination as the code flew out of the speaker, reached a crescendo in volume, and then faded out moments later. Wow, I thought, a message from space, just like I'd seen on the local kid's TV show Captain Satellite.

Well, it really wasn't the first artificial earth satellite, that little metal orb the Russians had launched in 1957 to ignite another mad competition in the Cold War, the "Space Race." Sputnik actually did transmit a short CW greeting on about 20 MHz, nestled up against WWV, and was copied widely by the hams of the day until its batteries died in just a few weeks. No, what my Dad and I were hearing on that magic day four decades ago was the intermodulation product of KSFO's baseball broadcast and a very strong signal from the shortwave marine radiotelegraph station located right next to the freeway in Palo Alto, with callsign KFS.

Sidebar: A Brief KFS History

When KFS' powerful HF signal overloaded the radio in our car, the station had already been there in the Palo Alto baylands for 40 years. Its history stretched back to the earliest days of radio, when in 1910 Federal Telegraph station "PFS" went on the air from a location near the Golden Gate Bridge. This "Beach Station" incorporated a major technological advance -- it was among the first commercial radio stations in the U.S. to use an arc transmitter instead of a spark transmitter. The arc, a negative resistance device invented by a Dane but developed by Fed-

eral Telegraph Company in Palo Alto, sent continuous radio waves which concentrated their communications power all on one frequency. The spark transmitter, on the other hand, blasted RF energy all over the spectrum, and had very poor communications efficiency. Federal's Beach Station, which was highly successful in communicating with Hawaii as well as up and down the West Coast, received an official government call of KFS in 1913. Like all pre-WWI spark, arc, and alternator stations, it operated on wavelengths from 300 to 3800 meters. (1 MHz down to 79 kHz).

In 1921 Federal built a new transmitter site in the Palo Alto marshlands, and the Beach Station callsign was relocated there. Among many other antennas, the new KFS had a 625-foot tower which supported a host of VLF, LF, and medium-wave radiators. Though taken down in 1963, the foundations for this huge steel tower can still be seen near the KFS site. In 1928 and again in 1935, the Palo Alto marsh site of KFS was upgraded with new antennas and an expanded transmitter building. The receiving site that complemented KFS was relocated from Daly City to Half Moon Bay, and during the later 1930's ITT-Mackay took over station operation. KFS had evolved into a world-wide shortwave point-to-point communications and marine radio station, with its last longwave arc transmitter dismantled by the beginning of the second World War.

An old friend and PAARA founding member Vance Wardlow, W6FLE, told me years ago before he became a silent key that he had worked on the HF antenna system installed at KFS in the 1930's and 40's. Since that time KFS evolved in ownership and technical capabilities, with connections to Globe and Press Wireless, Western Union, and others. It dropped all its point-to-point service with the coming of the satellite age, concentrating entirely on marine traffic. Up until recently it was called the "Palo Alto digital node" of Globe Wireless, offering various HF marine digital communications services including SITOR. Globe Wireless considered the Palo Alto HF transmitter site its flagship station.

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In January 2014, Globe Wireless was purchased by Inmarsat, and the 103-year-old callsign KFS quietly left the air. Sadly, the Palo Alto marshland transmitting station was heavily vandalized for its copper wiring over the past two years, with its transmitters smashed. In June 2016 the Palo Alto City Council voted to purchase all rights associated with the KFS station site, finally ending its long history.

However, all was not lost. Before the vandals had their grim field day, the Maritime Radio Historical Society removed two of the Press Wireless PW-15 transmitters from the KFS site and installed them at their restored RCA marine radio station in Bolinas, CA. One of them is still operating under the callsign KSM.

(some of which were surely KFS, but I didn't know the code at the time), and the drone of high-speed multiplex teletype -- which I, as an 11-year-old, was certain was the radio sound of bomber aircraft.

A few years passed and I received as a Christmas gift in 1968 a Knight-Kit "Star Roamer" shortwave receiver kit. It didn't matter that the big family Farnsworth far outperformed this little 4-tube superhet wonder; the Star Roamer looked like a real modern shortwave radio, and besides I built it myself and it actually worked. But the Star Roamer's front end, with a lone tuned circuit between its pentagrid converter and the antenna, was easily crunched by strong signals. With my family home just a few miles from Palo Alto, the strongest signal on the HF



Marine station KFS transmitter site as it appears today in the Palo Alto Baylands. Note the wideband vertical to the right of the station building, still standing in 2016.

End of Sidebar

Spurred by my chance encounter with KFS disguised as Sputnik, my interest in things radio intensified during the later 1960's. The huge, beautiful 1941-vintage Farnsworth console radio in the family dining room was soon discovered to have shortwave bands, and I was fascinated to hear not only the usual powerhouse BBC and Radio Moscow broadcasters, but also all the strange "utility" signals popping up all over the dial. There were chirps, buzzes, thumps of CW

bands was KFS, and it merrily rode in on many places on the dial -- where it was supposed to be and where the Star Roamer generated brand new places for it to show up. As this radio was an incentive to join the amateur ranks and learn CW, I started to recognize the unique rhythm of KFS callsign, and also suspected that something was a bit amiss about this powerful signal appearing in so many places on the dial. Cer-

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tainly it wasn't the Star Roamer, a real shortwave receiver with its beautiful blue and silver slide-rule dial, quad complement of tubes (2 of them in the audio stages), diode detector and regenerative single-tube IF amplifier!

A few more years passed, I got my ham license in high school, and found myself attending a local Bay Area university. My good friend and next-door neighbor Dave had a brand-new 1975 Volkswagen Rabbit, and he would often visit me at my South Bay dorm room. From there we would take off in his cool new car and do some real "cruisin'," a kind of combination California sightseeing and radio adventure. We'd climb up Mt Hamilton and do some VHF mountain-topping with my Gonset communicator. Or try long-range groundwave on 10 meter SSB from Monterey to another friend in San Jose. But our strangest experience was much closer to home -- as we drove through Palo Alto on the Bayshore highway, the Rabbit's red "check engine" light would start blinking, and then a few moments later, just when we thought we'd broken a timing chain or lost oil pressure, it would mysteriously stop. It never blinked any other time, and soon we'd come to expect the pulsing red light when we were traveling on just that stretch of highway. Finally I had the sense to look around instead of staring at the blinking lamp, and there right next to us was the sight of HF wire antennas towering over the marshland. I timed the lamp -- blink-bli-blink bli-bli-blink-bli bli-bli-bli. Gad, the "check engine" light was responding to the CW transmissions of KFS! For the rest of the time that Dave kept that car, we would be constantly amazed at its ability to act as a wideband, strong signal HF radio detector.

When I moved to the Boston area a couple of years later, I lost touch with KFS as its powerful signals weakened to ordinary levels by their long journey east. For over two decades, my only contact with HF marine telegraphy was during an occasional visit to the SF Bay area, when at first the Star Roamer got taken down from a dusty shelf at my parent's house. A piece of wire was thrown around the room and the wheezy four-lunger lit up for a few minutes of

reading the mail on the West Coast vintage AM gang on 3870 kHz. If I listened carefully enough I'd hear a CW beat-note under each transmission, yooping through the frequency as each AM'er's VFO settled in. No mistaking that familiar rhythm; it was KFS (and that darn radio's characteristic intermod). Then, as the years wore on and life was filled with job, family, and dreams of a move back West, the Star Roamer was no longer unearthed from its shelf on visits, and memories of the old distant station KFS fuzzed into the Northeastern haze.

The dream came true, and we moved back to the SF Bay Area several years ago. While unpacking the radio equipment and setting up a workbench in the garage, I'd enjoy listening to the AM'ers up on 10 meters during the day, or at night on 3870 kHz. With no HF antennas erected yet, the evening's radio of choice was an early solid-state marine-band radio direction finder, its big rotatable ferrite bar antenna doing a great job of rejecting the power line noise flooding the area on 75 meters. But it didn't reject everything -- the radio's fragile germanium bipolar rf stage was soon found to overload on loud local signals. One in particular warbled in a strange digital dance, and then, as I stood hard-ly able to believe my ears, came the happy beeps of an old old friend, the CW identifier of KFS. No matter the years, the long sojourn in the East, and the odd unfamiliarity of returning to my San Francisco roots: the snappy beat of KFS' callsign was an aural, memory-filled welcome home.

More than fifty years ago a little kid listened in awe to what he thought was a signal from space, emanating from a little magic box on the dashboard of the family car. No matter that my father engaged in a little speculative imagining on where the signal actually came from; he had inadvertently struck in me a deep spark of interest in radio that, like KFS itself, has never waned.

References

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Olson, Hank W6GXN and Orr, Bill W6SAI, "The KFS-Federal-Mackay Story: From CW Arc to Silicon Valley, the Waves of Progress", The AWA Review, Vol. 8 (Bloomfield, NY: Antique Wireless Association, 1993), pp. 74-107.

QRZ biography of W6DRZ, available at qrz.com

Goodman, Elaine, "Radio site's future up in the air", Palo Alto Daily Post, August 1, 2016.

National Parks on the Air

Patty Winter, N6BIS

Although most of 2016 has passed, there's still time to get on the air and have fun with NPOTA, National Parks on the Air. This amateur radio celebration of the centennial of the National Park Service (sponsored by the ARRL) has been an incredibly popular activity. As of early September, hams had gone to the 488 eligible NPS units nearly 11,000 times, generating more than 600,000 QSOs.

Participants on the NPOTA Facebook group (<https://www.facebook.com/groups/NPOTA/>) have reported how NPOTA prompted them to become active on HF again and/or learn CW. I fall into both of those categories. My desire to work NPOTA stations — and to put some parks on the air myself — led me to get back on HF after an absence of 15 years. My friend Bob, KK6TE, kindly lent me a spare mobile rig and antenna. Then Marty, W6NEV, helped me put up a stealth inverted-L antenna so I could work NPOTA stations from my house, I also brushed up on my CW skills. To date, I've worked nearly 200 NPS units, including a couple of dozen on CW.

NPOTA has also improved hams' emergency preparedness capabilities. While some "activators" (the people who go out to parks and put them on the air) are highly experienced mobile or portable operators, others of us have re-

cently acquired appropriate equipment so we could run HF away from home. I've done activations from John Muir's house in Martinez, Yosemite Valley, and the Ulistac Natural Area in Santa Clara (which is on the Juan Bautista de Anza National Historic Trail).

NPOTA will run until December 31st. If you'd like to join the fun subscribe to the NPOTA Facebook group, watch the DX cluster for spots that include "NPOTA" in the notes, and check out the official NPOTA website at <https://npota.arl.org/>. There are even plenty of opportunities for you to activate NPS units yourself, including ones in San Francisco, Marin County, and elsewhere in Northern California.

If you have any questions about NPOTA, please feel free to drop me a note at n6bis@yahoo.com. And c'mon over to the NPOTA FB group for more answers, advice, and encouragement.

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around sunset for 20 meters and above. Last night I couldn't even hear much on 40 meters, though WWV was coming in strong on 10 MHz. Maybe nobody was out there. It's hard to tell whether the band was closed or everyone just thought it was closed. In any event, it sure seemed quiet. Hopefully it will pick up again after the New Year. Right now there aren't many operating events either. The contest season is pretty much over. Even the state QSO Parties are gone until next year. Don't despair, though, just get on and call CQ. You might be surprised.

There is one fun operating event still in the near future. Straight Key Night starts at 0000Z on January 1st each year. That's 1600J, or local time, here in the Bay Area. This is an opportunity to pound the brass in the old school style. Operation with a straight key is encouraged, as is using boat anchors. I don't have a working boat anchor handy (I need to get that HW-101 working), but I'll probably be on with a K3 and my Kent Hand Key. It's a beautiful key that I picked up from a fellow ham a few years

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Dream to Reality Raffle Winners

Above, Front to back, left to right

- 8th Prize Norma Chamberlain / KK6HAF / DXCC List
- 5th Prize Ameer Ghoddousi / KK6TMW / Antenna Book
- 7th Prize Alan Young / AG6ZE / Oscilloscope Book
- 2nd Prize Doyle Kisler / KG6YUN / Arrow Yagi
- 1st Prize Pat Sullivan / W6ABA / Elecraft KX-3
- 4th Prize Bob Kindlund / KK6YRV / GP5SSB #2
- 3rd Prize Ralph Kugler / KC6YDH / GP5SSB #1
- 6th Prize Ralph Kugler / KC6YDH / Mag Mount
- 9th Prize Pat Buder / AE6ZY / Badge Lanyard



Raffle Winner, Patrick M Sullivan, W6ABA with Elecraft founder, ERIC SWARTZ, WA6HHQ and James A Rice, K6AK

January Raffle Prizes

- 1st Tytera MD-380 / DMR Digital Portable HT
 - Operates in Analog and Digital Modes
 - 5 Watt Output
 - Uses Time-Division Multiple-Access / Double # of Users
 - Private Call / Group Call / All Call
- 2nd Two Com Speakers
 - RF Proof Amplified Stereo Computer Speaker System
 - Stereo High Fidelity Response for Use with Voice or Music
 - Optimized for Operation in Close Range of any Radio Transmitter
- 3rd Daiwa CS-201a / Two Position Coax Switch
- 4th ARRL Operating Manual
- 5th 40W Victorian Style Clear Quad Loop Element Bulb
- 6th Minilog

December Minutes

Due to the early publishing date for this edition of PAAR-Agraph the minutes could not be included herein.

The minutes shall be published on the web site some-time after the December meeting.

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back, with a large knob and a wonderful smelling cedar base. This isn't really a contest. It's more a like a rag chew. Don't worry if your CW is rusty. Just get out there and have some fun. Lots of hams are polishing their straight key skill on that night. Come join us. You can find the Kent key at <http://www.kent-engineers.com/HANDkeyINFO.htm>. But anything works.

We have another great year of PAARA Fun and Adventure coming up in 2017. I hope you'll join us. And don't forget Homebrew Night at the January meeting. Bring all of your fun projects by. And the Winter Banquet is soon too - Jan 20th.

CU AT HOMEBREW AT PAARA IN JANUARY 2017 ES HNY — Kristen (K6WX)

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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-October, 6am–2pm
 Howard M. Krawetz, N6HM 650-856-9761
 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

QCWA Chapter 11

Northern California Quarter Century Wireless Association

Meets third Wednesday monthly at Harry's Hofbrau in Redwood City @ 11:30 AM.
 Guests are welcome. Saturday morning net on 146.850 MHz, PL 114.8

50 MHz & Up Group

Meets 1st Thursday each month at 7pm in the Texas Instruments Building E conference room in Santa Clara.
 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, 442.425+ (pl 107.2) Thur.
 Meets 2nd Mon each month @ 7:30 PM.
 Contact: <http://www.qsl.net/sccara> or Clark Murphy KE6KXO 408-262-9334
 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
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(Please send changes to PAARAgaphs editor)



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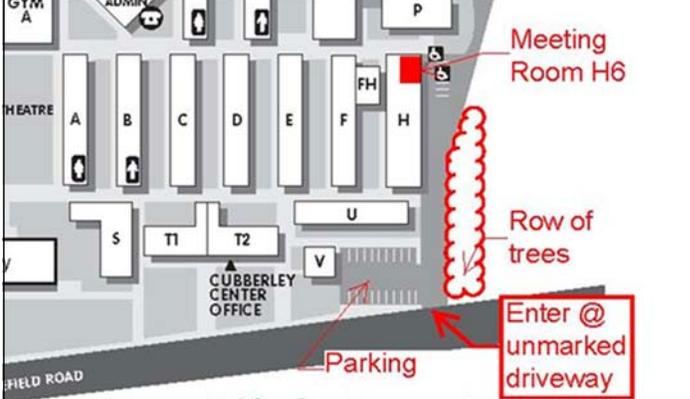
Badges are ready for pickup.

If you would like to order a badge, see **Doug Teter, KG6LWE.**

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

<u>Week</u>	<u>Control Operator</u>
1 st	Joel KD6W
2 nd	Doug - KG6LWE
3 rd	Jack - W1VSL
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.



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

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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 \$20.00 per calendar year, which includes one subscription to PAARAgaphs \$6 for each additional family member (no newsletter).
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