

We'll be ZOOMing our
next Meeting

Time 7:00 PM

September 9 (Wednesday)

ZOOM:

meeting number 917 8189

2793 password *****

See page 9 of this issue for
fur-ther instructions if you're
not familiar with ZOOM (it's
not difficult)

SUNSPOTS

REDWOOD EMPIRE DX ASSOCIATION

P.O. Box 750834, Petaluma, CA 94975

Volume XXIII

Number IX

September 2020

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Meeting Announcement

History of transoceanic radio communications - By Frank Donovan
- W3LPL

From W3LPL: My presentation covers radio technology development from the Maxwell's mathematical description of electromagnetic waves in 1860-1865, Hertz's development of a crude spark transmitter and spark receiver that proved the existence electromagnetic waves in 1886-1888, Fessenden's heterodyne receiver patent in 1901, and Marconi's development of two way transoceanic high power radio spark communications from 1901 through 1907, the development of multi-hundred-kilowatt spark, arc and electron tube transmitters from 1906 through the 1930s, Armstrong's development of regenerative and superheterodyne receivers from 1913-1918, ARRL's very successful one way transatlantic test in 1921 at about 1 MHz, the development of military and commercial HF receiver, transmitter and antenna technology from 1921 through the 1970s, and the development of early operational satellite communications capabilities from before 1960 through the 1970s.

REDXA President's Commentary



I'm anxiously waiting for some fall weather and hopefully some cooler temperatures and better band conditions. It's hard to believe we still have our real fire season just ahead of us. I hope all of us ready for the PSPS power shutdowns also looming around the corner. It's been a tough few weeks with the raging fires around Northern California. A few hams lost everything in the CZU fire around

President's Report (continued)

Santa Cruz. A couple of REDXA members were evacuated for several days and many on evacuation alert status. The weather reports the past month seems to be "Hot and Smoky" with many unhealthy AQI days for all of us. I saw Rohnert Park/Petaluma AQI hit 310 one day!

The bands seem to be on an upswing lately as Ole Sol starts to awaken. DX has been fairly good with numerous West coast openings to EU on 20M. The lack of DXpeditions to chase during the pandemic has seen a decrease in the rarer DXCC entities, but there's still plenty of DX to work.

We have CQP (Oct 3rd and 4th) and Sweepstakes (Nov 7-9 CW and Nov 21-23 SSB) just around the corner. We've entered the Small club categories in both contests in the past. The Pizza Lovers 259 beat us in CQP 2019 by 350K points last year. We had 12 logs against their 7 logs. We also had a few of our big point contributors not active in 2019. Let's get as many stations on the air for CQP this year. It's always a fun contest, plenty of activity and we're the DX. Go to CQP.org and familiarize yourself with the rules, numerous classes for entry and a simple exchange.

This is a fun contest for everyone and should help break up the monotony of sheltering in place. I imagine most of us will operate from our home stations. Although you never know where REDXA's well-travelled N6YEU will end up this year. I plan on staying home and possibly putting up a portable TA-33 beam for SO2R work. Please be sure to register your station/County on the CQP.org webpage. There is a special FUN award for CQP participants this year called the SEQUOIA Challenge.

CQP 2020 includes a special award that commemorates the Northern California Contest Club's 50th anniversary, while also celebrating California's state tree, the mighty Redwood. Here's how to get your colorful commemorative certificate:

Participate in CQP and work a minimum of 100 QSOs.

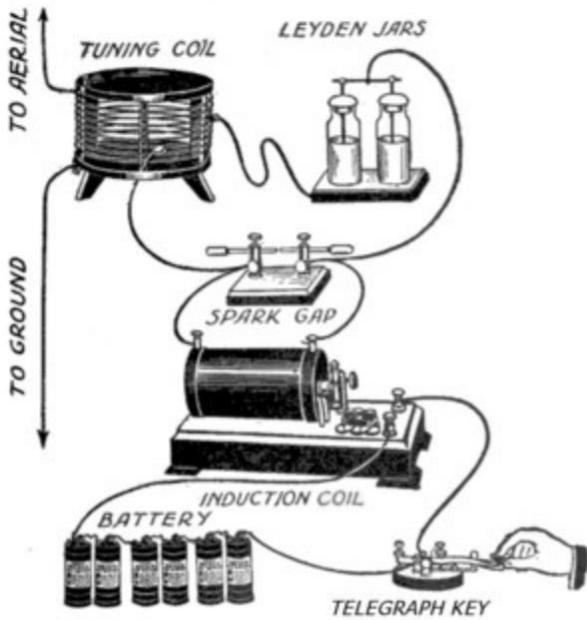
Work seven of the special call signs to spell out SEQUOIA. Look for special 1x1 call signs ending in the letters S, E, Q, U, O, I, and A. There will be three of each on the air, for a total of 21 call signs so there will be many ways to win.

Turn in your log.

Easy!

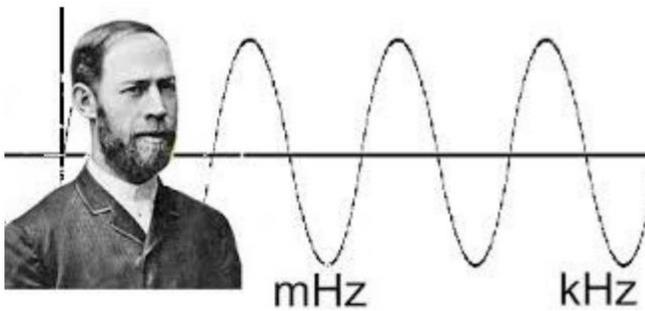
Our own N6IE will be K6O.

Don't miss the entertaining presentation this month by Frank Donovan on the History of Transoceanic Radio Communications. I'll open the Zoom meeting early, around 6 – 6:15pm for social hour. Bring your favorite beverage and join us.



To get you in the mood for W3LPL's presentation, here are some relevant images.

Please note that I was in error in last month's "Sunspots" where I said Marconi's first wife was related to the Jameson distillery family. In fact, it was Marconi's *mother* who was a Jameson. The Jameson connection likely helped Marconi get access to U.K. officials for demonstrations of his equipment.

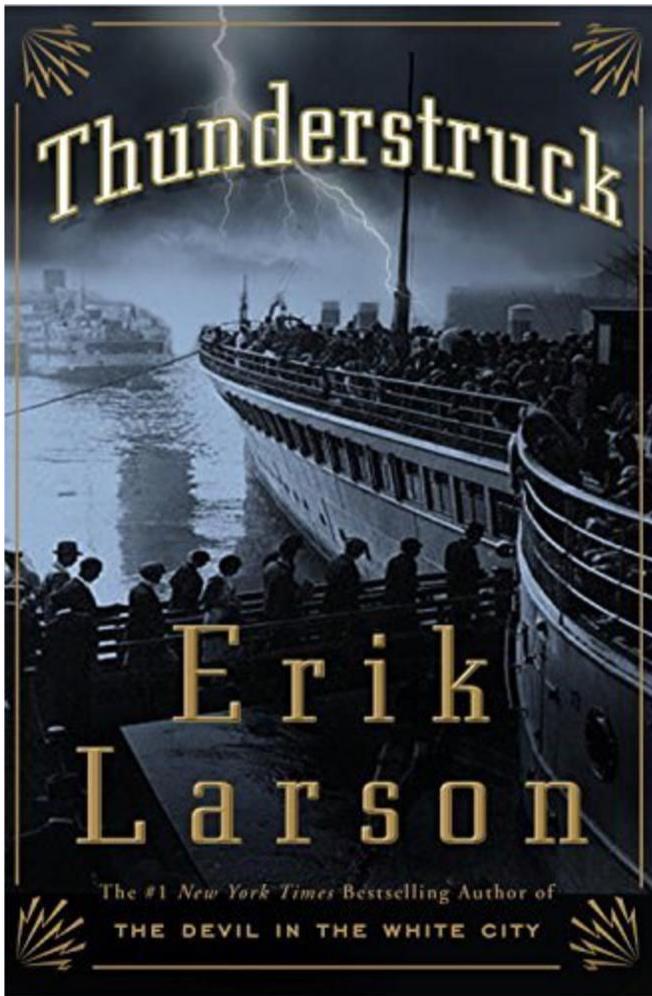


Above left: a low-powered amateur spark gap transmitter ca. 1905

Left: Heinrich Hertz

Below: Guglielmo Marconi with spark apparatus





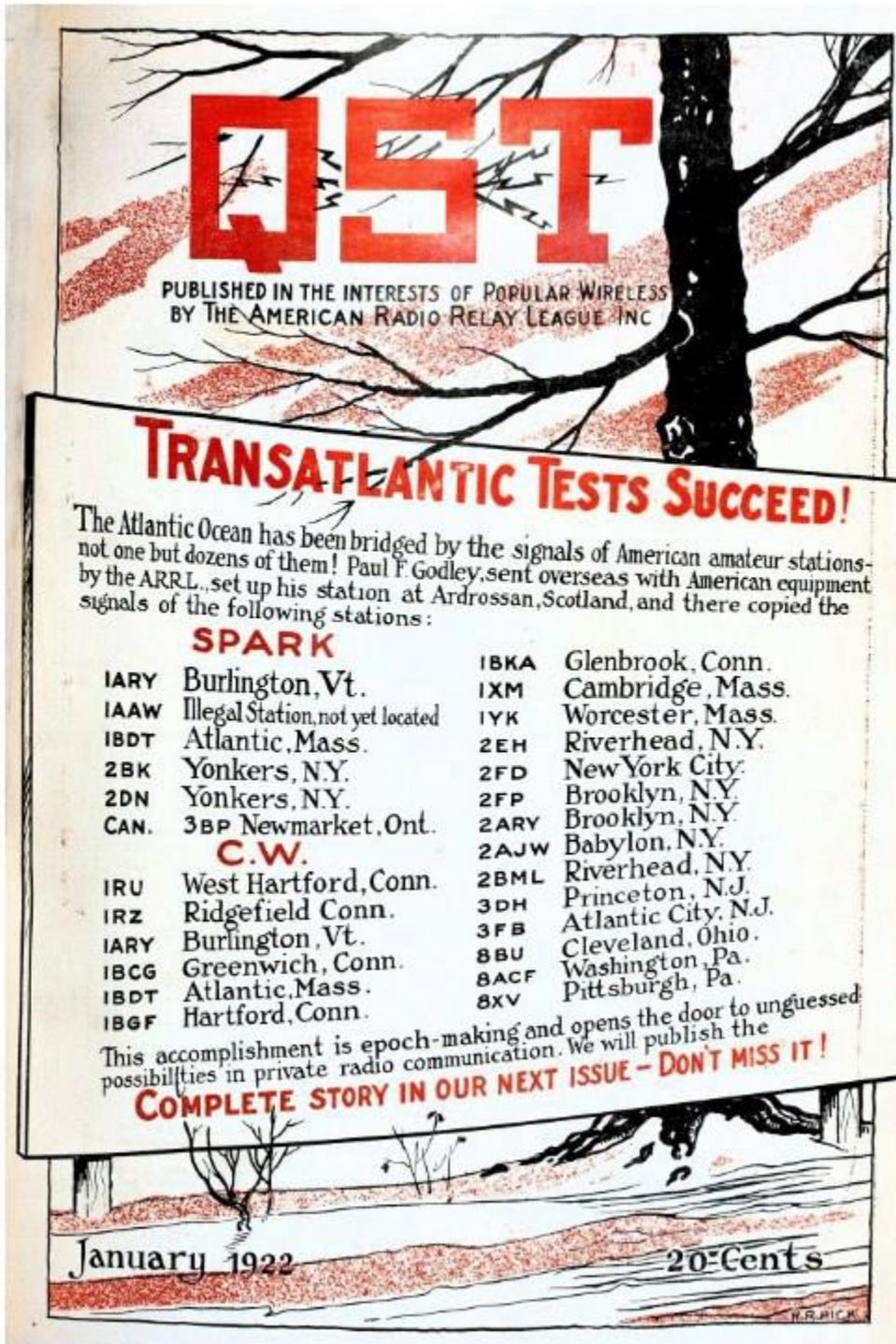
Forget about Oprah. Here's your editor's suggestion for the first offering in the REDXA Book Club.

Thanks to Ron, N6IE, for suggesting this (and pointing out my error in mentioning Marconi's first marriage was not to a Jameson. His *mother* was a Jameson.

"Thunderstruck" is a history of Marconi and the development of marine radio coupled with a famous, grisly murder in pre-WWI London. How this all fits together makes for a satisfying, page-turner of a book.

To learn more about amateur radio spark see Hal Kennedy's [N4GG] article "How Spark Transmitters Work" as published in "The History of QST, Volume 1—technology". The article is available on-line. The full volume is available from the ARRL store.

Factoid from "Thunderstruck". Apparently Marconi was the first radio operator to send (the equivalent of) QLF when he sent a message to a sloppy-fisted operator suggesting that he should try using his left foot.



In December 1921 the ARRL sponsored its second transatlantic ham radio test. Amateurs in the USA transmitted and Scottish amateur Paul Godley listened. Godley's results were front cover news in QST.

Results of the test showed transatlantic communication by ham radio was possible. Two-way communication followed the next year.

The test also showed the superiority of the new mode CW. Spark had a rapid decline. In 1927, amateur spark was banned..

Harry Hider, W7IV, wrote in his article "The Final Days of Ham Spark" [QST, March 1992] that "despite [the superiority of CW] many die-hard spark enthusiasts held on—for a while. Many gave up ham radio completely rather than convert to CW. To them, spark embodied a romance that CW could never evoke. They lamented that all CW signals sounded the same and lacked individuality— something certainly not true of spark."

Duly noted: The East Coast Advantage which is still a factor in DX contesting 99 years later.



The California QSO Party (CQP) is coming soon. October 3-4. This is your chance to be the object of pileups. A "6" in your call is sure to attract the attention of the ham radio world.

And if you don't have a "6" , be sure to sign /6.

You'll find everything you need to know about the event at the CQP Web site www.cqp.org

REDXA will be going for the small club championship.

K6SRZ (the Subaru) at KU6W, Merced County. That's W6GJB's radio trailer containing two K3s and two KPA500s. This was a last minute relocation from our San Benito (W6BX) operation after the contest organizers sent an urgent plea to get under-represented Merced on the air.

REDXA Area CQP Plans

Lake County: N6ZFO

Marin County: KC6AWX, K6ELE, N6TQ

Napa County: KE6ZSN

San Francisco: Nobody yet!

Sonoma: K6SRZ (W6PZ), K6ANP, K6JS, W6XU, N6D (AE6YB) K6O (N6IE)

Sierra County (N6YEU on a county expedition)

This is current as of September 8. Please join our ZOOM meeting on the 9th to update any plans.

REDXA CQP RECORDS

Lake: S/O HP N6ZFO, S/O LP N6ZFO, M/S HP KZ6T, KF6LMB

Marin: S/O HP, S/O LP, S/O HP(A), S/O LP(A) K6RIM

Napa: S/O HP W6OSP (AD6E) , S/O LP N6GKY, M/S HP W6OSP, WW6D, M/S LP W6OSP and ?

Sonoma: S/O HP W6PZ (K6SRZ), S/O LP K6JS, S/O HP(A) N6IE, S/O LP(A) KG6N, M/S HP W6PZ (K6SRZ, KU6F)

The actual point totals can be found at <https://www.cqp.org/records/records-2019-ca.pdf>

Please note that the San Francisco S/O HP record is 41 years old.



Clublog standings. DXCC worked during the calendar year.

Mixed

KC6AWX	226
N3RC	154
N6IE	149
N6AD	132
K6RIM	127

CW

KC6AWX	160
N6IE	128
K6JS	115
K6RIM	114
N3RC	99

Phone

K6RIM	75
KC6AWX	68
N6YEU	56
K6VXI	46
N3RC	41

Digital

N3RC	134
KC6AWX	134
N6AD	132
N6IE	106
K6ANP	97

REDXA is inviting you to a scheduled Zoom meeting.

Topic: Redwood DX Association

Time: Sep 9, 2020 07:00 PM Pacific Time (US and Canada)

Every month on the Second Wed, until Dec 9, 2020, 4 occurrence(s)

Sep 9, 2020 07:00 PM

Oct 14, 2020 07:00 PM

Nov 11, 2020 07:00 PM

Dec 9, 2020 07:00 PM

Please download and import the following iCalendar (.ics) files to your calendar system.

Monthly: https://marincounty-org-dpw.zoom.us/meeting/tJUqf-igpzktE9ck3XqhGaSfP3pVpriubzC0/ics?icsToken=98tyKuCpqTMrEt2XtxCERowcB4qgd_zxmHpaj_pel0zdEih0YzDwBrFSBKJtGc3S

Join Zoom Meeting

<https://marincounty-org-dpw.zoom.us/j/91781892793?pwd=MjJwUmhXaUFZMTQ0Qlg2MUdRTjBCZz09>

Meeting ID: 917 8189 2793

Passcode: *****

One tap mobile

+12133388477,,91781892793#,,,,,0#,,432213# US (Los Angeles)

+12532158782,,91781892793#,,,,,0#,,432213# US (Tacoma)

Dial by your location

+1 213 338 8477 US (Los Angeles)

+1 253 215 8782 US (Tacoma)

+1 206 337 9723 US (Seattle)

Meeting ID: 917 8189 2793

Passcode: *****

Find your local number: <https://marincounty-org-dpw.zoom.us/u/ab48R4xzKT>

Members' Recent Contest Scores

CWOpen

Call	Class	QSO	Mults	Score
K6MM	SOHP	133	133	17,689
K6MM	SOHP	114	109	12,426
K6CTA	SOLP	10	10	100
K6MM	SOHP	100	100	10,000
N6ZFO	SOHP	16	16	256

KsQP

K6MM	SOHP	65	37	6,564
N6ZFO	SOHP	43	28	3,812
K6CTA	SOLP	9	3	162

HiQP

N6IE	SOABHP	58	13	1,417
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Russian RTTY WW

N6IE	SOABHP	66	22	9,900
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NAQP SSB

N6ZFO	SOLP	441	100	44,100
K6CTA	SOLP	75	61	4,575
W6PZ(K6SRZ)	SOLP	132	34	4,488
K6JS	SOLP	55	32	1,760
K6MM	SOLP	50	25	1,250

AUGUST MEETING MINUTES

by Doug WW6D, Secretary

The monthly meeting was again held via Zoom on August 12, 2020 beginning around 7pm. It was hosted by President Jim Selmi, K6JS.

A motion was made to approve the minutes from the July meeting as published in the July Sunspots and the oral treasurer's report presented by Fred, N6YEU. Motion was seconded and approved.

Old Business. None. New Business. None.

Program: Our speaker for evening was Marty Sullaway, NN1C. His topic: "Youth in Contesting". Marty is an energetic, enthusiastic contester and provided many highlights of his contesting experiences, particularly with the multi-op stations ZF2LZ and KC1XX. He is a co-founder and current president of TeamExuberance.org, dedicated to creating, advising, and facilitating radiosport and DX related activities for young people in amateur radio. Check out the web site for more info on how youth are keeping contesting alive in the 21st century.

(Biography: Marty is an 18-year-old Extra Class radiosport aficionado living in Eastern Massachusetts. Marty has found himself operating at stations such as KC1XX, W1KM, K1LZ, K1VR, K1IR, 4X6TT, HH2AA, K6ND, K3LR, and K1TTT in some of the major DX contests. Marty has been fortunate to be a member of winning teams, having won both modes of CQ WW and ARRL DX contests in M/S and M/2 categories.)

Meeting adjourned around 9pm.

REDXA Calendar of Upcoming Events

by Doug WW6D

Sep 9 * *REDXA Monthly Meeting*

Sep 12-14 ARRL September VHF

Sep 26-27 CQ WW DX RTTY

Oct 3-4 [California QSO Party](#)

Oct 14 * *REDXA Monthly Meeting*

Oct 24-25 CQ WW DX SSB

Nov 7-9 ARRL Sweepstakes CW

Nov 11 * *REDXA Monthly Meeting*

Nov 21-23 ARRL Sweepstakes SSB

Nov 28-29 CQ WW DX CW

Dec 4-6 ARRL 160m Contest

Dec 9 * *REDXA Monthly Meeting*

Dec 12-13 ARRL 10m Contest

Dec 26-27 Stew Perry Topband Challenge

Refer to <https://www.contestcalendar.com/contestcal.html> for more contest information.

Scientists Forecast that Solar Cycle 25 Could Actually Be Epic for Ham Radio Operators

Posted by [Wayne KE8JFW](#) on August 14, 2020 at 1:11 pm

While predictions from solar physicists about the fate of Solar Cycle 25 have been categorically tepid up to this point, there may be more than just a ray of hope for Hams still suffering through the tail end of Cycle 24's less-than-stellar sunspot performance.

This jolt of optimism comes from the recent paper, "Overlapping Magnetic Activity Cycles and the Sunspot Number: Forecasting Sunspot Cycle 25 Amplitude." Published in late June by Scott W. McIntosh, Sandra C. Chapman, Robert J. Leamon, Ricky Egeland, and Nicholas W. Watkins, the document concludes that "...**sunspot cycle 25 will have a magnitude that rivals the top few since records began.**" This outcome would be in stark contrast to the community consensus estimate of sunspot Cycle 25 magnitude." The scientists predict "with 95% confidence that the Cycle 25 amplitude will fall between 153 and 305 spots," and with 68% confidence that the amplitude will be 233 spots.

Why is this important to Amateur Radio enthusiasts? Generally speaking, a dearth of solar activity makes working the bands from 14-28 MHz (20 through 10 meters) and 50 MHz (6 meters) a challenge. More sunspots during a cycle's solar maximum means better skip propagation, improved DXing, more log books filled with "never-thought-possible" QSOs, and happier Hams.

from the NOAA's Solar Cycle 25 Prediction Panel, which offered this dimmer view of what lies ahead: Cycle 25 will be much like Cycle 24, with a minimum peak sunspot number of 95 and a maximum of 130.

Will Solar Cycle 25 exceed all expectations or produce the same lackluster results as its predecessor? Only time will tell, but until then, our collective fingers are crossed.



Maybe some day when you have a really BIG antenna, you can call in this crew to save you the work of tower climbing.

These are images of a PG&E crew doing maintenance of transmission towers in San Rafael.

Photo credit: Marilyn, N6VAW



Doug, WW6D, sends along the following article by Wayne Burdick, N6KR, which appeared first on the Elecraft reflector

I have a friend about my age who got into amateur radio only a few years ago. Like many of us, he was enthusiastic about the technology. Intrigued with DX.

I showed him my station; we talked endlessly about gear. Later, I helped him put up a simple wire antenna.

Then, when his license arrived, he dove straight into FT8 and didn't look back. Within days, he'd worked all states, then DXCC. He'd bag a few rare ones over a light lunch, then pat his laptop on the back and congratulate his soft-ware app for its near-mythical ability to extract weak signals out of noise.

Within weeks, he'd mastered everything there was to know about this glorious new hobby.

Point. Click.

In this new world order, those of us who took the longer, slower path to ionospheric enlightenment -- and who still occasionally enjoy making waves by hand -- often fail to explain why.

I had failed to explain it to my friend. Even as hints of his boredom crept in, creating an opening, the best argument I'd made for trying CW was that he could do it without a computer. Coming in a weak second was the notion that CW was the original digital mode. For obvious reasons, I didn't bother with the classic argument about CW's signal-to-noise advantage over SSB.

I had all but given up.

Then, in a moment of delayed clarity, I decided on a different approach. I invited him to a weekday brunch. A bit of an escape. He willingly took the bait.

On the appointed day, arriving at his workplace, I bypassed the lobby's glistening elevators and climbed the four flights of stairs to his office. I insisted we take the stairs down, too. "Why?" he asked. "And how'd you get up here so fast?"

I pointed out that I always chose stairs, when possible. That's why I wasn't out of breath. We hustled down, jockeying for position, and emerged on the ground floor invigorated by the effort.

"So, where are we going?" he asked. We'd been to every overrated twenty-dollar burger venue at least twice.

I replied that we'd be going someplace we'd never tried. My kitchen.

When we arrived, I put him to work chopping onions and broccoli and squeezing oranges while I whipped eggs into a froth and grated Swiss cheese. We ate our omelettes outside, in full sun and a cool breeze. "What's for desert?" he asked. "Isn't there a frozen yogurt place a two-minute drive from here?"

I had something else in mind. Back in the kitchen, I handed him a water bottle, then strapped on a small pack I'd pre-pared earlier.

We walked a mile or so through my neighborhood, admiring the houses' varied architecture, ending up (as planned) at a local park festooned with blackberry bushes. The most accessible branches had been picked clean, but with teamwork and persistence we were able to gather several large handfuls of fat, ripe berries, which we devoured on the spot. We'd been poked and scratched but didn't care. "Doesn't brunch usually end with champagne?" he won-dered aloud, admiring his wounds.

Not this time. I pulled out two bottles of craft beer that I'd obtained from a neighbor in trade for repairing his ancient home stereo. Carlos had spent years crafting an American pilsner to die for, sweating every detail, including iconic, hand-painted labels. My friend accepted the bottle, then tried in vain to remove the cap. Not a twist-off.

"Opener?" he said.

I handed him a small pocket knife, an antique without specialty blades. He soon discovered it could not be used to remove the cap directly. He looked at me with a bemused expression, no doubt wondering what I had up my sleeve this time. I pointed out that we were surrounded by white oaks, a species known for its hard wood. He got the message, smiled, and began hunting. Within seconds he'd collected a small fallen branch. I watched as he used the knife to fashion a few inches of it into a passable bottle opener. We popped the caps, toasted his new-found skill, and traded stories of our misspent youths.

Continued on the following page

"Oh, one more thing," I said.

I pulled a KX2 out of my pack, along with two lengths of wire. Of course he knew everything there was to know about Elecraft, and me, so he wasn't surprised when I also pulled out the rig's attachable keyer paddle. We threw one wire in the closest tree and laid the other on the ground.

He didn't have to ask whether I'd brought a laptop.

We listened to CW signals up and down 20 meters, which was open to Europe at the time. As he tuned in each station, I copied for him using pencil and paper. He'd learned Morse code, but only at very slow speeds. After making a contact, I set the internal keyer speed to 10 words per minute and dialed power output to zero, for practice purposes, then showed him how to use the paddle. He smiled as he got the hang of it. Sending the full alphabet was a challenge, but he got there. The KX2 decoded and displayed his keying, providing confirmation.

We'd blown through his allotted lunch break by a factor of three, so it was time to go. We coiled up the antenna wires, packed up, and walked back. As I drove him back to his employer, we made plans to get together again for a weekend hike.

I could have just dropped him off, but we went back into the lobby together. Out of habit, he stopped in front of the elevator. Then he looked up.

"OK," he said. "I get it. This CW thing. It's slow, it's hard to do well, and it takes years of practice."

"Like hunting for your own food, or carving your own tools," I added.

"Or cooking from scratch. Or brewing your own beer. Building your own radio. And you use more of your senses. Not just your eyes, but your ears. Your sense of touch."

I nodded. Listening. Feeling. That was the radio I'd grown up with.

"Of course it's harder to work DX with CW than with FT8," I reminded him, playing devil's advocate.

"Is that what matters, though?" he asked.
A longer discussion for another day.

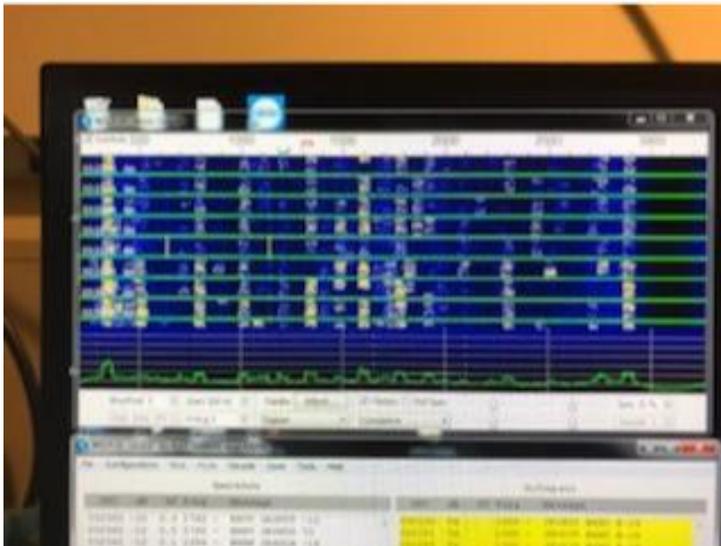
"Your call," I said.

He gripped my shoulder and smiled, then reached toward the elevator's glowing, ivory colored button, framed by polished brass. The path most taken.

Point. Click.

"On second thought," he said, "I'll take the stairs."

Wayne,
N6KR



Boy am I sorry I missed this opening. This is shot of the WSJT-X FT-8 waterfall as seen in Josh's (W6XU's) shack during a big 6-meter opening into Japan, Chi-na, and Korea. Each streak in the waterfall is a JA.

For Sale

I am looking to sell the following items:

Yaesu FT-950 transceiver \$550

Ten-Tec Argosy II transceiver (power limited to qrp as final is weak) \$100

Hy- Gain 204 BA (original not MFJ) 4 El 20 meter Yagi \$250

Henry 2K HF Amplifier (if you want it it's yours) I have no idea if it works. This beast is HEAVY.

Prices are reasonable but ANY offer will be considered.

73, Fred-N6YEU





Boulevard Café & Grill

1096 Petaluma Blvd. North,
Petaluma, CA

The Café is open again for socially distanced inside and patio service. They're not able to host gatherings like our REDXA meetings, but I encourage you to stop in for breakfast or lunch. It's one way to thank Daniel and his staff for their support over the past years.

