



# Smoke Signals

## Newsletter of Fullerton Radio Club

### October 2022

#### President's Column October 2022

I recently took a trip to Point Reyes National Seashore, on the Marin peninsula. In addition to lots of beautiful scenery, flora, and fauna, Point Reyes is home to the KPH historic ship-to-shore radiotelegraph station. My wife and I were fortunate to get a four-hour tour of the facility. KPH operated from 1905 until 1998 and started operation as radio station PH from the Palace Hotel (thus the PH) in San Francisco under the ownership of the United Wireless Company. After the Palace Hotel was destroyed in the 1906 San Francisco earthquake, the station was eventually acquired by the Marconi Wireless Company of America and operated from several different locations until it was acquired by RCA. Beginning in 1928, RCA constructed two "state of the art" buildings on the Marin peninsula. The station consisted of a transmitting site near Bolinas, CA and a separate receiving site about 20 miles north near Point Reyes Beach. The station passed ownership from RCA to MCI and eventually to Globe Wireless. It was decommissioned in 1997 partly due to economics and the move to satellite communications. For all of its lifetime, KPH was a radiotelegraphy station. Later in its life it was also a radioteletype station. KPH never handled marine radiotelephone traffic, as that was handled by other stations.

Most ship-to-shore stations were demolished after being decommissioned in the 1990s. KPH survived mostly due to two fortunate events. In 1962 Point Reyes National Seashore was designated by Congress. As a result, plans for residential and commercial development of the peninsula were ended. Accordingly, when KPH was decommissioned, it sat on National Park Service land, which had no commercial value to Globe Wireless. The buildings and property were donated to the Park Service, which had no use for the buildings, antennas, and radio equipment. The second bit of good fortune is that in 1999, two hams, Richard Dillman W6AWO and Tom Horsfall WA6OPE stepped up and convinced the National Park Service that restoring KPH as a historical entity was a worthwhile project and that they (Richard and Tom) were capable of spearheading the restoration. Together, they formed the National Maritime Historical Society. As they say, the rest is (maritime) history.

For more information about KPH and the NMHS visit [radiomarine.org](http://radiomarine.org)

Bob, AD6QF



1959 RCA SSB-3 Transmitter with RCA Globcom and NPS inventory stickers

#### October FRC Regular Club Meeting

The October club meeting will be held on Wednesday, **October 19, at 7:00 PM**, on Zoom at the usual address and passcode. We don't publish the Zoom connection information to eliminate interference by unwelcome individuals or groups. If you need this connection information, please contact one of the Board members who will provide the information.

Note that we are preparing for *Club Officer elections* for next year, so you'll want to be present to see who is a candidate (or to be sure you're not on the list).

Additionally, we will be discussing the future of Smoke Signals.

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***November 2022 FRC BOARD  
MEETING***

*The next Club Board meeting will be on*

*November 2, 2022*

*Due to decisions made by the Board we will  
continue to hold the meeting by Zoom at the  
usual Zoom ID and passcode.*

*Meeting time: 5:30 PM*

***All Members are welcome***

**Show –and–Tell**

Bring something of interest to the meeting to show and share your story.  
Something old, new, or just of interest to hams.

**Web site: [www.FullertonRadioClub.org](http://www.FullertonRadioClub.org)**

***October Board Meeting Minutes***

The October Board meeting was called to order on October 11 by Zoom at 5:27 PM by President Bob Houghton AD6QF. Additional members present were; Vice President Robert Gimbel KG6WTQ, Secretary Paul Broden K6MHD, Treasurer Gene Thorpe KB6CMO, Board Members Larry McDavid W6FUB, and Walter Clark. Absent was Board Member Richard Belansky KG6UDD.

Minutes from the September Board Meetings were reviewed and approved.

Treasurer's report: US Bank checking account balance: \$6,562.11. New member dues of \$25 are yet to be deposited.

Membership status: The roster now shows 34 paid members and 1 Life Member. Two new members were added this month: Matthew Stoops KM6HET and Victoria Hernandez KN6WBN

Old Business: Important club documents still need to be transferred to the club secretary for storage in a personal safe. On-line banking access will be set up for the club treasurer. Read-only access will be established for the club president.

New Business:

- A discussion was conducted related to the future of Smoke Signals. A committee may be formed to determine ideas submissions.
- Format options for the weekly Zoom meetings were discussed.
- TAG meetings are trying a "Hybrid – In-person and Zoom" format
- Club election nominations will be presented at the October regular club meeting. Voting will be by email in November.
- The annual officer installations and dinner will occur at Sizzler restaurant on December 14. Details of time will be presented in the November Smoke Signals.
- Club website renewal will occur on November 1. Cost is \$96

The meeting was closed at 6:12 PM

Submitted by Secretary Paul Broden

## Special Event - HAMS Needed

Let the games begin - but not without amateur radio operators! If you're within easy traveling distance from Fountain Valley, California, the organizers and athletes in the Special Olympics could use a little of your time.

The Special Olympics Fall Games are set to kick off in Fountain Valley, California on **November 10th and 11th**. Hams are needed to assist with 2-meter communications on both days between 8 am and 4 pm. Even if you can only cover for half a day, you are welcome to volunteer. The organizers are looking to provide communications coverage for events such as Softball, Soccer, Volleyball and Tennis along with Games headquarters as well as medical and supply sites. If you're a first-timer at passing messages at these kinds of events, same-day training will be provided. It's a good chance to learn emergency and event communications and experience what it's like working in a high traffic-controlled net. Hams will be covering routine communications as well as any more urgent needs. For details contact ke6tnm at [scan dot org](mailto:ke6tnm@scan.org) ([ke6tnm@scan.org](mailto:ke6tnm@scan.org))

## Team USA Wins Gold at 2022 World ARDF Championships

ARDF Team USA has brought home gold again, this time at the 20th World ARDF Championships in Borovets, Bulgaria. In the classic competition on September 1, Vadim Afonkin KB1RLI triumphed over two dozen other competitors in the M50 category, finding five 80-meter fox transmitters on a five-kilometer course in just 53 minutes. He was 24 seconds ahead of Zbynek Zacek from the Czech Republic, who took second place.

Vadim has medaled at every World Championships since 2012 and won gold at the last World Championships in 2018. In addition to Vadim's individual medal, Vadim and Alexander Myachin captured bronze in the team aggregate score standings.

The Amateur Radio Union of Serbia (SRS) was originally scheduled to host the 20th World Championships in 2020 but had to cancel due to the pandemic. The rescheduled championships could also not take place in 2021 due to COVID. It was thought that case counts would be significantly lower and travel restrictions would be lifted in time for the championships in 2022, but many Asian countries were still under severe limitations.

The war in Ukraine created another problem. Russia submitted a Letter of Intent to field 47 competitors to Serbia. Numerous other national teams and individuals let it be known that they would not compete if the Russians were allowed to attend, but IARU leaders have taken the position that there will be no restrictions on the participation of any IARU member societies.

For those reasons, SRS announced on May 9 that it was cancelling plans to host the World Championships because it was not economically viable. IARU leaders sought another national society to host on short notice and on June 8, Viktor Tsenko LZ3NN announced that the Bulgarian Federation of Radio Amateurs would host in the resort town of Borovets on the same planned dates.

On July 2, the Russian Ministry of Sports announced that because Bulgaria is an EU country, it is considered unfriendly to Russia and so the Russian ARDF team would not attend. This opened the way for Ukraine and other countries to participate. Nevertheless, attendance was down considerably. There are usually over 300 competitors at the World Championships, but this time there were only about 200, with just one from Asia.

Back in the spring, the ARRL ARDF Team Selection Subcommittee announced that 24 persons had been offered the opportunity to represent USA at the 2022 World Championships. If all had accepted, this would have been the largest number of ARDF Team USA members ever to participate in the World Championships and would have included 17 men, 6 women and one youth. But the late announcements and continuing concerns about COVID took their toll and only four persons competed for USA in Bulgaria. One was Elizabeth Afonkin, the teenage daughter of KB1RLI, shown in the photo.

Each participating nation may send up to three persons per age/gender category to the World Championships. Team members are responsible for their own registration/room/board fees and for international transportation expenses.

The next World Championships will be a "make up" event in summer 2023 at Liberec, Czech Republic. Team selection will be from the best competitors at the 2022 and 2023 USA ARDF Championships in Triangle, Virginia and Sulfur Springs, Texas, respectively. More information about these events is at [www.homingin.com](http://www.homingin.com).

73,  
Joe Moell K0OV



Elizabeth Afomkin at ARDF Bulgaria

## TAG Activity Report for October 2022

There were eight of us for a pleasant weather (finally) meeting in Walter's backyard. Note the video screen. There were three on Zoom; Joe Moell, Don Lawver, and Bart Pulverman). Bob's camera was just behind and above the laptop. From what I understand the video was OK, unlike the image here using my five-year-old cellphone.



We are going to have to work on better sound if we do this hybrid Zoom again. As usual the host, Walter, (that's your reporter here to), asked each in turn what they've been up to starting with Bill Webb...

**Bill Webb** brought a project built on his second generation (for him) 3D printer. It was a dodecahedron modeled after ones found in Roman Ruins. Bill says they are somewhat of a mystery. No mention of dodecahedrons has been found in contemporary accounts or pictures of the time. Speculative uses include as survey instruments for estimating distances to (or sizes of) distant objects. That is hinted at by the fact that opposite sides have different diameter holes. Several dodecahedrons were found where there were piles of buried coins, providing evidence that their owners either considered them valuable objects, or they were used somehow with





coins. Most likely they are mere decoration.

Bill had nothing to show for it, but led a fascinating discussion about Google A-I. This seems to be in Beta in that Bill had to fake some sort of credential to be included. Bill described two modes. One is where you have a conversation (text back and forth) with a pretend human. The other mode is where you ask it to create a short story or perform some other tasks. (See elsewhere in this newsletter.) If you are interested, you can apply for a personal account at <https://beta.openai.com/playground>. There is no longer a waiting list.

**Dave Palmquist** is new to our ranks and we are so glad to have him. That's because of his knowledge of radio, the language Python and computers, is from the perspective of a person with an advanced degree in Comparative Linguistics. He works in the background of the library at Cal State Fullerton. He's their technical guru for the computers and other facilities used at the library. He teaches Python 3 to any of the staff and occasionally on his own for free. When asked about why the computer science department didn't step forward to do that his answer was very philosophical. And we learned a new phrase; expert blindness. An instructor from the computer science department is accustomed to a background which folks from the humanities wouldn't have. His classes are very well received because he (for his students) doesn't have "expert blindness."

**John Mock** started his turn at bat with the perfect example of expert blindness. He started talking about Winlink and its whitelists as if we knew all about it. Walter had to stop him because we needed to be reminded what "winlink" was. He (and others at the meeting) said that it was in keeping with the "emergency communications" tradition of ham radio, it is text based emergency communications that can use ham radio or the internet. It's like bullet proof email. Here's more on the subject from Wikipedia: <https://en.wikipedia.org/wiki/Winlink>

John was asked about progress being made on the repair of his airplane at Perris Airport. He crashed it on landing and found himself upside down. When one of us pointed out "any landing you can walk away from is good" he added that an even better landing is one where you can fly the plane again. The repair consisted of a new axle on the gear and repair of one wing tip.



He described how Dacron fabric was stretched around the ribs and then ironed in place to remove wrinkles.

Later in the evening John said that he heard the FCC was taking away an ultra-low frequency band from the ham bands to give it to what Larry McDavid thinks might be a carrier on the power lines for communicating billing information. Bob said it is hard to believe that the FCC is going to take away a band they just gave to us in 2017. This discussion did not have a conclusion. The discussion was

much more certain when talking about John's own ULF work with an antenna that is 77 feet long. That's for his work on 80 and 160 meters.

**Larry McDavid** brought an Epson R260 color printer, an Epson flatbed scanner, a Linksys SE1500 5-port Ethernet switch and WiFi extender to give away. Bill Webb wanted the extender but no one took the other items. Larry said drivers for new operating systems are often available for older hardware so the printer and scanner are still usable and the Ethernet switch is a current device. But alas, nobody took them.

Larry is a member of the Microscopical Society of Southern California, and he reported on a recent presentation there about paleobiology of Devonian Period (400 million years ago) fish teeth. Coal samples from this Period are often used for paleobotany study of plant pollen but no one had looked using higher magnification for biological remains. The presentation showed many photomicrographs of remaining, un-fossilized blood cells in the normal pathways in teeth. This is believed to be the first report ever of such Devonian Period biological residual material. This is an extraordinary finding but note that there is extensive confirmation of finding un-fossilized soft tissue from dinosaurs living 65 million years ago.

Larry also showed a copy of an article from an early issue of Popular Electronics magazine describing an "Intrusion Alarm" electric eye he built when he was about 10 years old. This gadget used a glass tube photo detector and a 2050 thyratron vacuum tube. Larry described how he made it work after correctly "phasing" the filament transformer.

**Dick Bremer** has increased his pace or perhaps made it more steady with a pacemaker attached to his heart. That was his important announcement. We asked to see the workings, but he declined. He dug out of his past a story about confusing a 10-ohm resistor with a 10-meg ohm resistor on his first radio project. That prompted others to report on their huge mistakes such as a 10 millihenry choke with a 10 microhenry choke. Dick is a member of the San Bernardino Microwave Society, and they were passing out waveguide index cards which he gave to us. Don't tell Dick but I don't think waveguides work well on 2 meters and four-ty. Then there's John and his 80 meter set up. Dick brought a camera he needed advice for connecting to his PC. That led to even more discussion on the out-living product support in the way of software up-grades.

**Your reporter (Walter Clark)** worked all day getting ready to demonstrate telemetry using X-Bee on a drone. The current to voltage transducer (it's not just a resistor where  $E=I \cdot R$ ) is a Hall Effect Device that senses current to the four motors without turning a sample of the current to heat. Alas that transducer puts out only .2 of a volt for the kind of motor current I experience. The X-Bee needs zero to 3 volts. What makes matters worse is the transducer output is riding on a DC bias of 1.6 V. So the opamp circuit I made took care of the bias as well as providing some gain. That turned the signal into something the receiving station could reveal on a meter. (From left to right: transducer, my amplifier then X-Bee.)





Shown below is the X-Bee receiver and a voltage-to-sound (tone) device so you can hear the change. Audio voltmeters are very handy especially when your eyes have to be looking somewhere else. In an earlier project I interfaced a pitot tube to the X-Bee. It had the same problem of a signal on a bias that was about 50 times the expected change in signal level. (Large offsets seem to be a common thing with analog sensors.)

Notice there's two analog inputs to the X-Bee. So yes, I could monitor both current and airspeed.



**Dick Palmer** picked up on the theme of childhood first projects. For Dick it was an article in a 1957 issue of Poptronics about building a broadcast band transmitter. (Broadcasting on the AM band is approved by the FCC even today as long as the range is your house and maybe the backyard. The transistor he used was the first one available to the amateur world through Radio Shack. It was the



CK722. <https://en.wikipedia.org/wiki/CK722> To make the story interesting and certainly apocryphal he said he figured more voltage is louder. He got it up to 18 V before it burned out. (He was a kid; he didn't know about AGC in the receivers.) It wasn't much louder but the range increased which the teacher became aware of from down the street.

Dick then told us about the Heathkit AR-3 receiver he pulled out of somebody's trash. He got it working and built other Heathkits. This prompted several of us to brag about our Heathkit experience. His O-scope restoration hobby is doing well. In the last two swaps he did about \$800 in sales.

**Bob Houghton** brought his do-everything-camera and set it up to look down at the whole group. This of course was for the Zoom audience. Yes, the display on the camera was a Zoom connection. He spent some time worrying and thinking about the Hybrid-Zoom for the club meetings in the future. He thinks it worked out OK. His contribution to the TAG discussion was a tour of KPH. The call sign is for the Palace Hotel in San Francisco. It has quite a long history starting as a spark gap transmitter with its receiver located some 20 miles away. It's purpose then was ship-to-shore communications for ocean liners and of course emergency communications with any ship with a transmitter. It changed ownership and of course upgraded radio technology through the years. The improvements expanded



AD6QF at radio station KPH

its reach to islands and continents on the other side of the Pacific. It is now the home of the Maritime Radio Historical Society which has preserved the steps in advancing of radio technology. Bob talked about the recent effort to get the National Park Service to fund the maintenance of the museum which is manned by hams and others in that society. Bob promised to share this experience in the form of a presentation to the club.



## Bill Webb Short Stories

Write a work of fiction. The topic is ham radio.

When the power went out, Henry knew what to do. He hurried to his ham radio and began to broadcast a message. "Mayday, mayday! This is Henry K9DDD. Does anyone copy?" Henry waited, but there was no response. He broadcast again, this time giving his location. "I'm in the east wing of the building. I can't reach the exit. Is anyone there?" Again, there was no response. Henry's heart sank. He knew that the chances of anyone hearing his message were slim, but he had to try. Suddenly, the radio crackled to life. "Henry, this is Peggy KA9PEG. I'm in the west wing. I can't get out either. The stairwell is blocked." Henry felt a wave of relief. He wasn't alone. "Peggy, do you have a flashlight? I can't see anything." "Yes, I have a flashlight. I'll turn it on." A moment later, a beam of light appeared in the darkness. Henry followed the light to where Peggy was standing. "Thank goodness you're here," she said.

Write a work of fiction. The topic is the evils of ham radio.

Henry K9DDD was a skilled ham radio operator. He had been broadcasting for years, and he knew the ins and outs of the airwaves. But what Henry didn't know was that his broadcasts were being monitored by the government. Every time Henry went on the air, the government was listening. They were tracking his every move, and they knew exactly what he was saying. Henry was completely unaware of the surveillance, and he continued to broadcast without a care in the world. But one day, Henry made a fatal mistake. He said something that the government didn't like, and they decided to take action. Henry was arrested and thrown in jail, where he remains to this day. Ham radio can be a dangerous thing. It can be used to spread information that the government doesn't want people to know. It can be used to stir up trouble. And it can be used to track people's movements. Be careful what you say on the airwaves because you never know who is listening.

### MEMBERSHIP RENEWAL / APPLICATION

Fullerton Radio Club  
PO Box 545, Fullerton, CA 92836

(Please Print)

Name #1 \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_

Name #2 \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State/Zip: \_\_\_\_\_

Phone #1: \_\_\_\_\_ Email #1: \_\_\_\_\_

ARRL Member ☐ Yes ☐ No

Dues are \$20 per member, or \$25 per family. Students (full time) \$10

**Bring your application and dues payment to the next meeting or mail to the above address.**