

Subject: ^\_MRHS^\_ Bulletin - After Action Report 25 - 26 August 2018 GMT

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To: engineerCarl@yahoo.com

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After Action Report



**MARITIME RADIO HISTORICAL SOCIETY**

31 August 2018

**BULLETIN**

**After Action Report**

Volume I, No. 10

25 - 26 August 2018 GMT



KPH Operating Position One at the Receive Site

- On Watch: A Three Ship Day & New Guest Operator
- Antenna Repairs Progress
- A Generous Artifact Donation
- Video of the Week: Meet Amazing Mr. RTTY!
- Ask KPH: How Does All This Work, Part III

CODH NR 10 CK NC SAN FRANCISCO RADIO/KPH 2300 GMT AUG 31 --

TO ALL TRUE BELIEVERS AFLOAT AND ASHORE --

### **"On Watch"**

Readers of last week's report might recall that KPH and KFS were "skunked" -- with no ship stations worked -- a rare occurrence, of late. This week we were honored and pleased to work three ship stations, all with great signals, and clearing a fair amount of traffic. We were also happy to welcome a new guest operator at our amateur radio service station, K6KPH.

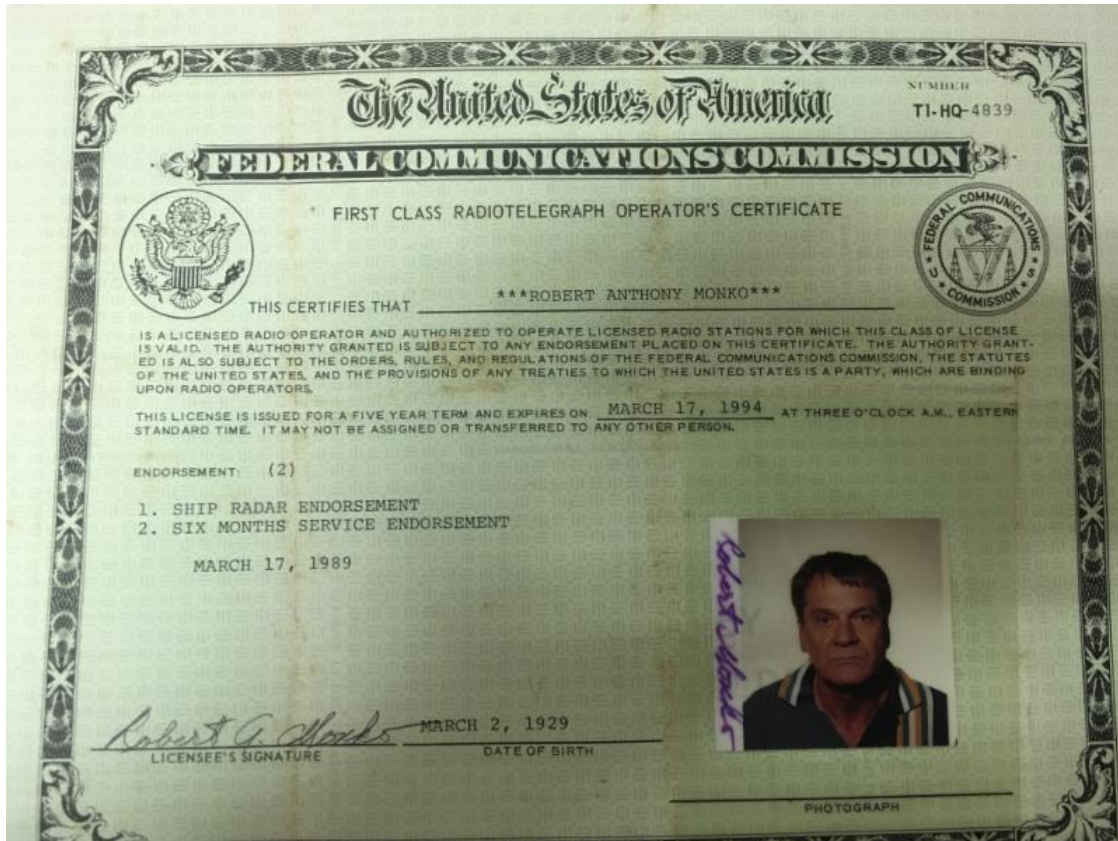
As usual, the day began at BOLINAS RADIO, for Services of the Church of the Continuous Wave. Along with great pastries, and greater fraternity, one of the highlights of these gatherings is the radio squirrel equivalent of "Show and Tell." This week, Chief Operator and President of the MRHS Richard Dillman/RD brought for our consideration and perusal a truly moving collection of artifacts.



Merchant Marine Radio Officer Robert Monko (SK)

A while back, the family of Merchant Marine Radio Officer Robert Monko (SK) discovered the Maritime Radio Historical Society and inquired whether we would be interested in accepting a donation of some significant artifacts from RO Monko's career at sea. Needless to say, we were more than honored for their consideration and trust. They sent along some biographical information, historic photographs, and his final license -- the coveted First Class Radiotelegraph Operator's Certificate. Readers of last week's report might recall that the First Class license required not only an additional exam in Morse

code -- the ability to copy plain text perfectly at 25 words-per-minute -- but also six months of satisfactory service at sea or at a coast station.



RO Robert Monko's final First Class License.

Note that in days past the license had to include a signed photograph of the licensee. Also note that this RO was licensed to operate and service shipboard radar equipment.

RO Monko began his career at sea at 17 years of age, on a liner where his own father was the Chief Operator. His career continued almost to the end of the Morse code era of maritime radio, in 1992. His exact dates of service are documented on a plaque affixed to a display case housing his main tool of the trade: a Vibroplex "Lightning Bug" semiautomatic key.



RO Robert Monko's Lightning Bug

The key is in need of some attention, so it will be put in the hands of a master key restorer, our very own Roy Henrichs/RH. Once restored it will be added to our impressive, and expanding, collection of telegraph keys that have served in the maritime radio service. The MRHS is grateful to Robert Monko's family for entrusting us with these precious artifacts, which contribute to the documentation of the rich history of a century of the Morse Code maritime radio service.

On this day, Transmitter Supervisor Hawes/SH was joined by Bob Venditti/VI, with Maintenance Supervisor Bill Ruck/RK and Roy Henrichs/RH also remaining at BOLINAS RADIO. The Operations Department members then excused themselves and proceeded north 20 miles, as the crow flies, to the Receive Site (RS) on Point Reyes.

Once at the Receive Site (RS) the Operations Department went to work preparing for the handoff of keying control of KPH and KFS, as well as sending the command to bring the sets (=transmitters) assigned to amateur radio station K6KPH online, as well. At 1848 GMT we observed the "tick," (time signals) from WWV, and wound and reset the clock.



Ship Radio Room clock at Position One at RS

At 1854 GMT the landline keying link was established to BOLINAS RADIO, and we were ready to assume control of the station...

The Free Press (PX) broadcast ended on the published (1900 GMT) and RS took control of the keying of "The Wireless Giant of the Pacific" once again. Unlike last week, the silence of the calling channels was disturbed by our good friends at [SS AMERICAN VICTORY/KKUI](#) in Tampa, FL -- QTC 3 ("I have 3 radiograms for you.")! Readers might recall that KKUI had been having some difficulty with their receiving equipment in recent weeks, but those troubles had clearly been resolved. The ship had a fantastic signal into MRHS SAN FRANCISCO RADIO/KFS, and they reported good signals from us -- so we went to work. All three radiograms from KKUI were received, and KFS (using World War Two vintage transmitter PW-15, running 5,000 watts) sent three radiograms to them, in return, including one SVC ("Service") message informing them that their previous radiogram traffic had been successfully delivered via email to their happy recipients.

You might remember that last week the video monitor for the computer at POSITION ONE came to a sad end. Chief Operator Dillman was able to score a "new" one on eBay, and it arrived in time to be installed this week. The historically accurate monitor was placed in service in time to prepare and broadcast the Pacific High Seas Weather (WX) forecast at 2130 GMT.

At 2137 GMT, shortly after the beginning of the WX broadcast, the Transmitter Department requested that the KPH 17 mc set be taken out of service so that the Maintenance Department could effect some repairs in the antenna field. After a brief announcement on that channel, notifying our customers that this service would be temporarily suspended on 17 mc, we released the set to the Maintenance Department. In short order, at 2157 GMT, repairs were complete and the 17 mc set was restored to service. More about the day's repair work to follow...

At 2316 GMT KFS was called by MV POMPLUN CIRCUMSTANCE/WDI4501, from her home port in Virginia. Again, conditions were good and one radiogram "on the hook" for WDI4501 was sent and received. Two ships!



At 2330 GMT the Special Message of the Day was sent on 426 kc and all KPH HF channels:

CQ CQ CQ DE KPH KPH KPH - SPECIAL MESSAGE -

TO ALL STATIONS AFLOAT AND ASHORE -

ON THIS DATE IN 1916 AMERICAS BEST IDEA THE NATIONAL PARK SERVICE WAS FOUNDED STOP THE MARITIME RADIO HISTORICAL SOCIETY SENDS BEST WISHES TO OUR COLLEAGUES OF THE NATIONAL PARK SERVICE WHO CONSERVE THE WIRELESS GIANT OF THE PACIFIC AT BOLINAS AND POINT REYES STOP IT IS AN HONOR FOR THE MRHS TO PARTNER WITH THE NPS IN THE RESTORATION MAINTENANCE AND INTERPRETATION OF KPH STOP ON THIS ANNIVERSARY WE WISH THE NPS FAIR WINDS AND FOLLOWING SEAS -

AR DE KPH SK EE

Happy Birthday, National Park Service! And a special greeting to our friends and colleagues at [Point Reyes National Seashore!!!](#)

Once again, the silence of the scanning calling channel receiver was broken by a very strong signal on 4 mc. This could be none other than our colleague, Master and RO Kevin McGrath of SV CRITERION/WDI9889, QTP ("Docked")

on San Francisco Bay. KPH was holding one radiogram for WDI9889, which was easily copied by KM. Three ships!!!!



SV CRITERION/WDI9889 underway on San Francisco Bay

In a later email report, Master Kevin McGrath reported that SV CRITERION/WDI9889 is out of service, and headed for the boatyard, for some restoration work. KM writes:

"Criterion is undergoing a major refit , a big mess and lots of work. Replacing major woodwork on the exterior. Stripping, sanding and painting the bowsprit. Replacing the running rigging. In the next couple of weeks she goes into the boatyard where I will install a new engine. She's now 35 years old. We took 6 years to build her, and launched in 1983!"

Best Wishes to the Officers and Crew of SV CRITERION/WDI9889 as they do their part to preserve maritime history! We look forward to some pictures for a later report documenting the restoration work!

With the departure of Mike Payne/MP to Hawaii, and dramatically increased visitor numbers at RS, K6KPH service has been a bit spotty lately. This week Wally Pugh/WP was able to devote most of his day, once again, to K6KPH operations, filling up a log sheet with contacts, including one with our good friend Wolf Ostwald/DF2PY in Ingelheim, Germany. Europe is a tough path for us, so it was great being able to make that contact with a Transatlantic True Believer!

The Operations Department was joined on this day by a new guest operator. Jeff Kabel/AA6XA signed ON WATCH at POSITION THREE at 2033 GMT and was able to keep the 7 mc circuit busy for over an hour.



Jeff Kabel/AA6XA at Position Three. Photo Courtesy of Jeff Kabel.

We were grateful for Jeff's visit, and his assisting with operations. Jeff must really be "one of us" -- after going off watch at K6KPH he headed to two remote hilltop locations in Point Reyes National Seashore to activate two "summits" as part of the amateur radio ["Summits on the Air"](#) program. In this activity, amateurs seek to work other amateurs who have set up portable operations on the summits of hills and mountains around the world. To read Jeff's blog about his day at Point Reyes, [click here](#). Please come back soon, Jeff! We need your help!

Would you like to be like Jeff and operate K6KPH?? Come on out on any Saturday! Bring your own key and headphones, or use ours! If you would like to visit the transmitter site at Bolinas please let us know in advance [via email](#). Anyone who can send and receive is welcome to be a part of history!

### "PX"

There are a number of news notes to pass along this week.

We enjoyed another great day of welcoming visitors from around the world, once again, at RS. The Visitor Log indicates new friends from all over the US, but also Mexico, Argentina, and a group of enthusiastic young ladies from The Netherlands!

The Transmitter Department reports that, thanks to the efforts of RK, RH, and VI, that the broken wire on the feed point of the K6KPH H-Over-2 antenna at Bolinas has been repaired.



The BOLINAS RADIO riggers from back in the day.  
They are standing at the base of one of the 300 foot Marconi steel towers.  
These hardy souls climbed these towers in every hour of the day, and in every kind of weather, to maintain and repair the antenna system at Bolinas.  
We sure could use their help today!

While out in the field these modern day "riggers" made some repairs to two antennas. RH sends along the following report, highlighting the complexities of the logistics of doing work in the Bolinas antenna field:

"Job involved repairing broken #9 hard drawn copper feedline jumpers, at the transition from horizontal #4 hard drawn copper (run to the station) to vertical #9 stranded hard drawn copper run from feed pole to antenna feedpoint. Transition occurs at the top of 20 ft. tall T-pole, and use of a ladder is required.

One of the antennas affected was the 22 Mc H over 2 used for 21 Mc. K6KPH. That was the repair planned for the day. Obviously, involves rounding up the necessary tools and equipment, including a rather heavy tall ladder, loading into truck, and driving into the field to do the job. Set up ladder, climb it, make repairs; reload ladder and gear onto truck; drive back to station; then, stow ladder and tooling.

On the way to that antenna, we noted a broken insulator attachment wire (also #9 stranded hard drawn copper) at the top of another feed pole in the vicinity of the 22 Mc H over 2. So - after completing the planned repair, we repeated that process at a second pole.

So - quite a bit of time spent loading, offloading, and moving equipment and materials between the station and the two poles. Drive out to middle of field using my truck (has lumber rack, can hold ladder), to do the job.

Test repaired antennas upon completion. Then, return to station from the field, and offload everything one final time."

So, another productive day keeping the immense KPH plant in service and on the air!

### **Video of the Week: Meet the Amazing Mr. RTTY!**

While the primary focus at KPH is the Morse Code maritime service, we also have provided service to our customers by broadcasting the WX ("Weather") and PX ("Press") in Teletype format, as well as in the SITOR format. Unlike Morse Code, which is a digital format that is copied by the human brain, Teletype is a digital format that is printed automatically on paper by machines. On a typical Saturday we have a Teletype machine monitoring our broadcast, as well as a landline Teletype circuit between RS and Bolinas as an "Order Wire" -- a circuit where operational information can be transmitted between the Receive and Transmitter Sites. This is perhaps the last remaining landline Teletype circuit in the United States.



Mike Payne/MP on the "Order Wire" Teletype at RS.

We also have a Western Union Model 2B that has been restored by the amazing "MR. RTTY" -- Paul Cembura, of El Sobrante, CA.



Western Union Teletype 2B at KPH in the 1950's.

Paul has been incredibly generous with his time, talent, and parts in restoring and maintaining the Teletype equipment at KPH. He has, without question, the largest collection of Teletype parts in the world, and the ability to repair these remarkable machines.

We always look forward to visits to Paul's shop -- it is amazing to see, and his kindness and willingness to share his vast knowledge about all things Teletype is just amazing. Recently, some folks looking to restore some Teletype equipment made a trip to see Paul, and documented their visit in a YouTube video. So, we present "Mr. RTTY" as this week's "Video of the Week"!



Teletype Model 19 Part 11: A Visit to Mr. RTTY

We hope you noted the nice plug for KPH near the end of the video, and Paul proudly wearing his MRHS hat!

For more info on Paul and his Teletype services, [click here](#).

And thanks, Paul, for everything you do to support KPH!!! You are a treasure!

A number of correspondents in recent weeks have inquired concerning the currently silent Teletype and SITOR broadcasts from KPH. In recent years the antennas that provide those services have, one-by-one, gone out of service because of fallen wires, or the loss of a support pole. Also, when we are down to one antenna to cover a particular maritime band, if there needs to be a choice between providing the Morse service, or continuing with the Teletype service, we have decided to maintain the Morse service and suspend the Teletype service. Unfortunately, because of those decisions, there is currently no Teletype service from KPH. Our colleagues at MOBILE RADIO/WLO ran a part-time Teletype broadcast service, but when WLO suspended operations a few months ago those services disappeared. Other than an ongoing service of marine weather forecast broadcasts from Germany, and amateur radio activity, there is virtually no Teletype service that can be copied by aficionados. We will restore those much-missed services from KPH once the necessary antennas have been restored to service. Would you like to hasten that happy day? Do you miss Teletype from KPH? If so, consider a gift to the MRHS by clicking the "MAKE A DONATION" button below. And thanks for helping us to restore that service!

**"Ask KPH" How does all this work??? Part III**

A few weeks ago we received a great question from a reader of this report. John Pate/W1XQ of Sugar Land, TX writes:

*"Ok, trying to figure this out for a while now. I understand the receiving and transmitting stations are separated. What is the procedure? Do you listen and how do the operators at the transmitting station know what is being received if they can't hear? I see things about telephone lines and telex machines, are these used to tell the transmitting station what is being received? Trying to understand how two way communication works."*

Two weeks ago we began to provide a comprehensive answer to this great question. In Part I, we described the design philosophy of KPH, and the other great maritime coast stations of the past. In that first chapter we noted the challenges of attempting to receive weak ship signals in the midst of continuously broadcasting high power transmitters. In Part II we provided the solution to that technological problem: the separation of the transmit and receive operations by great distances (often measured in the tens of miles, if not more) -- providing the necessary isolation so that communications with weak ship stations can be completed. This great technological response to a serious problem leads to an operational problem: how do you communicate with a ship station -- transmitting and receiving -- when these functions are separated by many miles? Are there operators sending, and operators receiving, in two different places? How can that work? Well, that would be really complicated! In fact, the work of the Operations Department is consolidated at the Receive Site (RS) on Point Reyes. The operators on watch are both receiving and keying from RS. Hence, there is one operator doing both functions, conducting a Morse code conversation, if you will (although there is no chatting!!! Time is money!), with the ship Radio Officer. For now, let us forget that the transmitters are twenty miles away, as we consider how operations at RS are conducted...



Here is Position One... The operator on watch has plugged in his/her own key and headphones and is ready to go to work. In the maritime service, operators used their own keys, adjusted for their sending preferences. Operators also used their own personal headphones, ones selected to their liking. On the left rack you can see two receivers, let us focus on the one at the lower left -- a Kenwood R-5000 receiver.



The key feature that this receiver possesses is that it can scan. The receiver is programmed with all of the KPH calling channels (to be specific, the ITU Channel 3 calling channels ... but let's not go too far down the rabbit hole...). There is a fixed channel in each maritime radio band: 4/6/8/12/16/22 mc. So, the operator is scanning all of these six High Frequency channels. This scanning is the key to understanding how the station functions. It is rare for KPH to call a ship in the blind ... Virtually all the contacts with ships are initiated by the ship itself. So, the operator is scanning these channels .... waiting to hear "KPH" being sent by the ship radio officer, attempting to hail KPH. When the KPH operator heard "KPH ... KPH .... KPH" they stop the scan, and then select the proper transmitter for keying ...



So, here we see that the scanning has been stopped on ITU Channel 1203 -- Channel Three in the 12 mc maritime band -- 12552 kc. A ship has called on that channel!

Now, you might remember from Part I that KPH sends a "marker" signal continuously on each maritime band. This is to aid the ship station RO. If he/she wants to call KPH, they can listen for each marker signal to choose which maritime band has the best signal at that time of day, and at that distance (again, remember what we learned in Part I). In this case, the ship RO has discovered that the KPH 12 mc channel is best, and they are now calling on Channel 1203 ... "KPH ... KPH ... KPH"

The KPH operator has heard that call ... and is now ready to respond. Having stopped the scanning, the KPH operator now selects the proper transmitter to respond to the ship.



Here, you can see the manual keying switches. Each one marked with a DYMO label indicating the channel. Note that historically, KPH had more than one transmitter in some maritime bands. But, you can see the current stable of transmitters ... KPH 4, KPH 6, KPH 8, KPH 12, KPH 16, KPH 22.



Here, in this detail picture, you can see that the operator has selected the KPH 12 transmitter (actually, 12808.5 kc). The green LED indicates that that transmitter has been selected, and that the "marker" signal has been overridden.

The KPH operator will now send, in Morse code, "DE" ... which means "Who are you?" When the ship RO hears the marker signal stop, and then the "DE" they know it is their turn to identify themselves ... "DE KKUI," which means "This is SS AMERICAN VICTORY/KKUI" ... The contact would then continue ... Perhaps SS AMERICAN VICTORY has a radiogram to send ... "QTC 1 QRV?" (= "I have one radiogram for you, are you ready to copy?"). And then the contact would proceed.

Once the contact is complete, the KPH operator would send "QRU 73 BV DE KPH SK EE," which means "I have nothing for you. Best regards. Bon Voyage. This is KPH. I am closing with you. DIT DIT." The KKUI operator might send a single DIT ... and that is it. Those brief greetings are the extent of the socializing ... Hence, commercial radio procedure is very different from amateur radio operations.

Once clear with the ship station, the KPH operator would drop the manual keying switch for KPH 12, which puts the marker signal back on that transmitter, and then starts the receiver scanning once again ... looking for the next call. Today, these operations are rather leisurely, compared to the halcyon years at KPH in the early 1970s, when an operator might "work" eighty ships in an eight hour shift ... each ship sending or receiving at least one radiogram.

So, as we have seen, the KPH operator performs all operations from the Receive Site. In a future report we will address how the keying connections are made between the operating console at RS and the actual transmitters at Bolinas (BL).

The more astute reader will wonder how radiograms destined FOR ships can be forwarded to the ship, if the ship is (almost always) seemingly initiating the contact with KPH. How does the ship know that there is a radiogram waiting for them, and that they should call KPH? Tune in next week for that answer!

### **Comments?**

Many thanks to those readers who responded to our request for comments about these weekly reports. Please keep those cards and letters coming in! Any suggestions would be welcomed with gratitude! To respond, simply reply to this email, and we will get your comments. Thanks in advance for taking the time to reply!

### **Subscription Information**

If this report was forwarded to you from a True Believer, and you yourself would also like to join the esteemed ranks of being a True Believer, then please subscribe to our newsletter emails by [clicking here](#). If you do, these reports, and all other email communications from the Maritime Radio Historical Society, will arrive in your email inbox.

### **"Closing Message"**

After a week of being "skunked," thanks to our faithful, dedicated ship customers, we were able, once again, to interpret Morse maritime radio as it

existed for over a century. As you can see from our ongoing consideration of how KPH "works" that there is an incredible amount of infrastructure behind these hallowed consoles ... all needing to be restored and maintained. All that to say, the Operations Department stands on the shoulders of giants who initially designed and built "The Wireless Giant of the Pacific," and dedicated MRHS volunteers -- here at KPH, and folks like "MR. RTTY," who donate so much time and talent in their own shops and basements -- who restore and maintain this unique historical site. KPH is virtually the only place in the world where this history can be experienced first-hand ... by a visit, or in the comfort of your own home as you listen to the "Music of Morse" from afar ...

Would you like to contribute to the ongoing history of maritime radio?  
Click the "Make a Donation" button below, or send your gift to:

MRHS  
PO BOX 392  
Point Reyes Station, CA 94956

And don't miss our fabulous MRHS Swag store. Your purchases also provide some much needed income to the MRHS. To access these treasures, click on the picture of our lovely MRHS model, below!



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The Closing Message was out at 0100 GMT, the Teletype Order Wire was secured at 0116 GMT, and all "sets" (=transmitters) were powered down at 0123 GMT. The watch was suspended at 0124 GMT, but it resumes this Saturday at 1700 GMT. Join us then for More Adventures of the New Golden Age of Wireless!

... AR QRU BV ES GL 73/88 ZUT DE KPH SK EE

Thanks, in advance, for your continued support!  
We are committed to using your gifts responsibly to help preserve our  
maritime and communications heritage!

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