"They tried to kill me..."

The Adventures of the California Wireless
Pioneers, including Arthur A. Isbell –
Wireless Comes of Age on the West Coast,
1899 through 1920.

A Presentation to Pacificon 2011 by Bart Lee, K6VK, Fellow of the California Historical Radio Society Copyright Bart Lee, 2011, Correspondence Invited: KV6LEE@gmail.com

"They Tried to Kill Me ..."

The Adventures of Arthur A. Isbell and other Pioneers:

Wireless Comes of Age on the West Coast, 1899-1920.

A presentation by Bart Lee, K6VK, AWA,

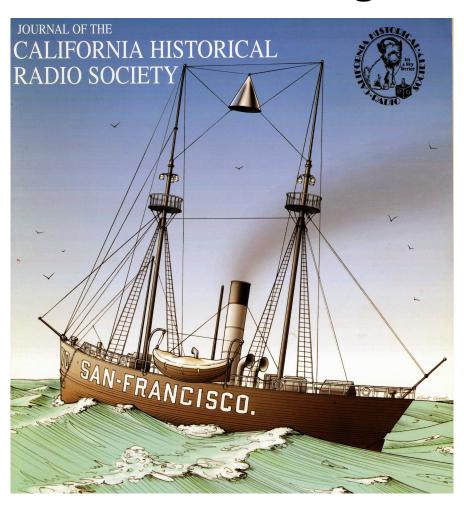
Fellow of the California Historical Radio Society in History

Wireless Comes of Age on the West Coast, 1899 – 1920 +

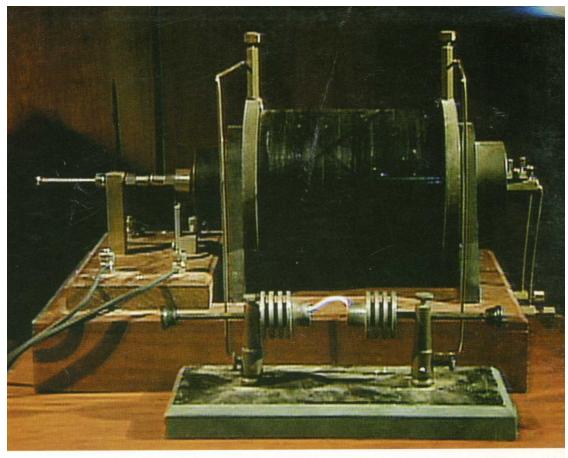
In Memoriam: Jim Maxwell, W6CF, CHRS, ARRL.

Special Thanks to Paul Bourbin, Mike Adams, the Society of Wireless Pioneers and Rachel Isbell Branch.

Genesis – 1899 San Francisco --Transmitter aboard Lightship 70



Rhumkorf Coil to Make Sparks



Rhumkorff Coil built from scratch by Woody Wilson powering a spark gap

The coil aboard Lightship 70 was about 5 feet long, powered by the ship's dynamo.

Nine Miles through the Fog:



The San Francisco Call newspaper sponsored the enterprise.

Scoop by Wireless Telegraphy

RELESS TELEGRAPH EXCITES MUCH INTEREST Information Solicited Regarding Method of Procedure. Associated Press Asks for Full Details of the Recent Successful Experiment by The Call---Description of Apparatus.

First Experiments, *Call* Building April, 1899 to Telegraph Hill



The Receiving Station, August, 1899



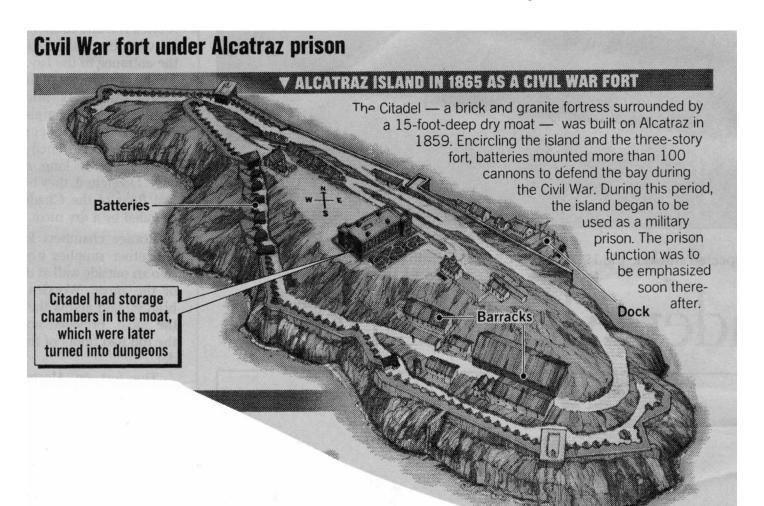
The men who did it: H.J. Wolters



Lewis McKisick



The Army put in a Wireless Circuit in 1901 from Ft. Mason in San Francisco to Alcatraz Island to Control the Coast Artillery Batteries



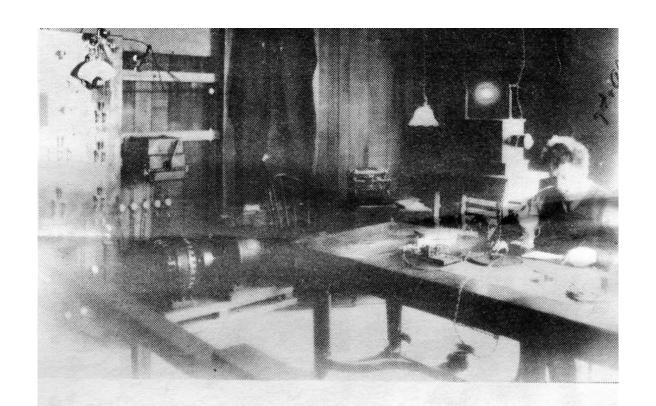
The First Commercial Circuit, 1902 Long Beach CA to Avalon, Santa Catalina Island, 26 miles



Station "A"—

the Callsign for Long Beach was "G"

A. J. Krenke at "G" in 1903



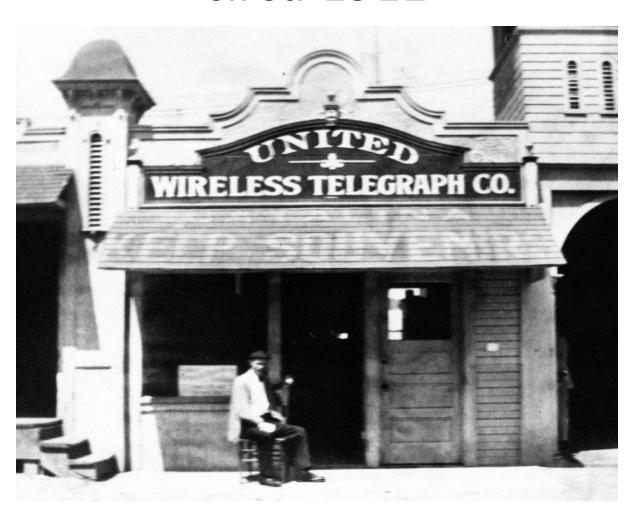
Operator A.F. Krenke operating Station "G" of the Pacific Wireless Company located at Seventh and Alameda Streets, Los Angeles, California in 1903.

Robert H. Marriott, who put the Long Beach – Avalon Circuit into Operation

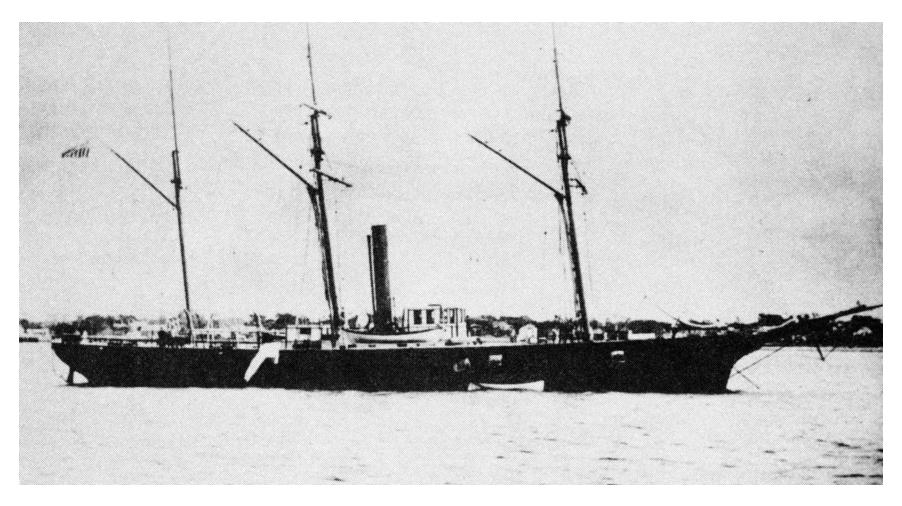


ROBERT H. MARRIOTT
First President, I.R.E., and Founder of
Wireless Institute

A successor Wireless Office on Avalon, circa 1912



Revenue Marine; Wireless 1903



Revenue Cutter USS Grant, suppressing drugs and immigrants...

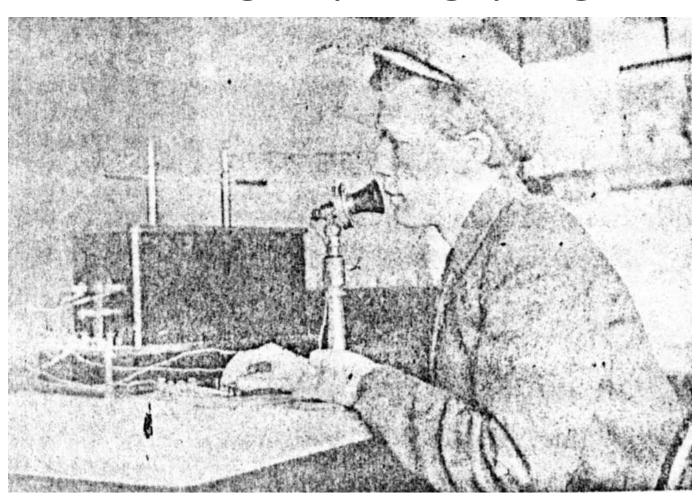
Alaskan Signal Corps Station FK in a Network Established in 1905



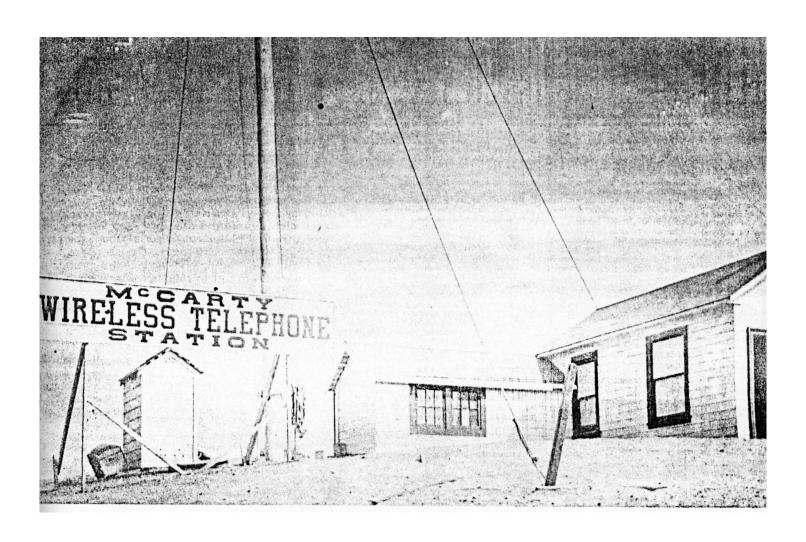
Signal Corps station FK at Circle City, Alaska, 1909. (Photo courtesy U.S. Signal Corps)

FK in 1909

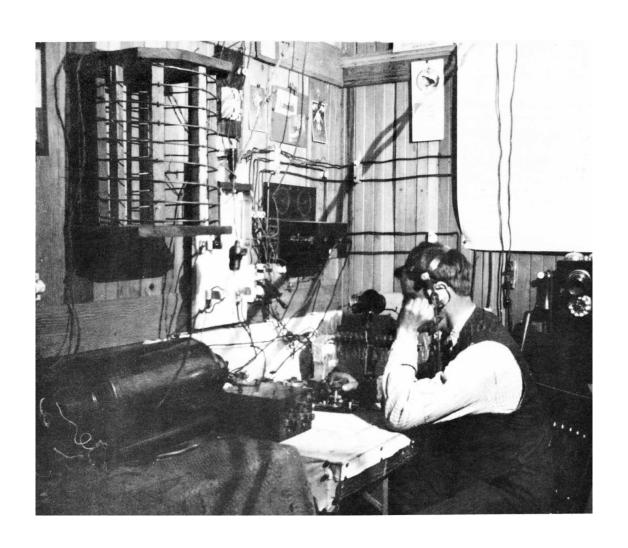
Francis McCarty, 1902 San Francisco modulating a spark gap, age 14



McCarty's Station, circa 1905



McCarty's Station



McCarty demonstrating the Wireless Telephone, 1905

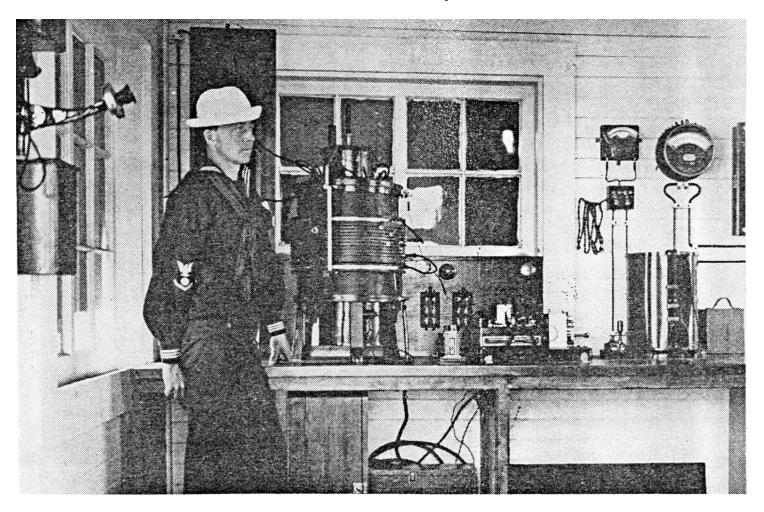


McCarty – San Francisco's Boy Inventor, 1905



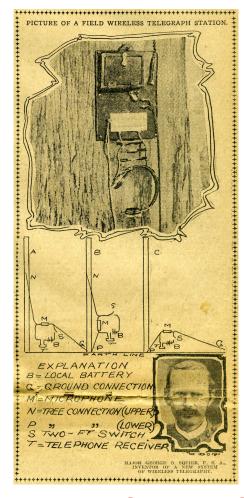
Francis McCarty died in a road accident in late 1906; his brothers continued his work as the National Radio Company, for which "Doc' Herrold worked in 1908, perfecting arcs.

Navy Stations since 1903 – Mare Island, 1904



The Navy Carried most of the West Coast Wireless Traffic in the Early 20th Century.

1905 Major Squire uses Trees as Antennas for Wireless, Fort Mason



Squire reported good results but San Francisco Wireless Expert Haraden Pratt Doubted that the System Worked.

Squire went on to lead the US Army Signal Corps in WW I

Bert Osborne, 1908, later W6US



Amateurs in San Francisco took to the air about 1902.

Lee de Forest Worked all over the Country to Create Networks of Wireless Stations, e.g., St. Louis, Boulder and San Francisco.

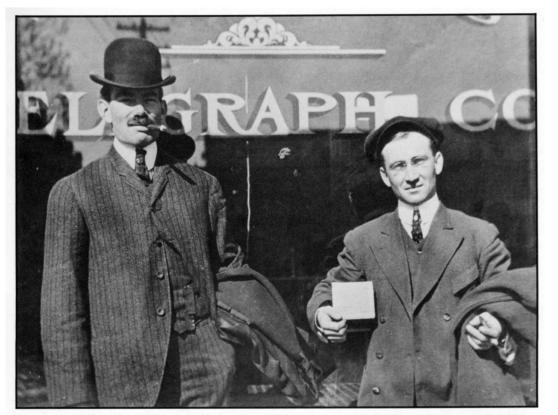
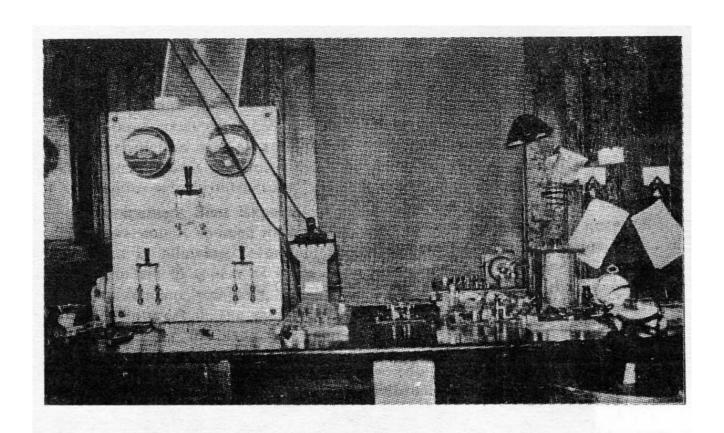


Photo: Elmo Pickerill
Dr. Lee de Forest & Charles B. Cooper, Boulder, Col., May 1905.
Station was 2KW, straight gap, 133 cycles.

C.B. Cooper worked all over the West, became a Principal at Killborn and Clark in Seattle, and an early radio broadcast promoter.

Station PH, 1906 + Established by the De Forest Company



An interior view of the old United Wireless Station in San Francisco - (PH).

Mt. Tamalpais Station 1906 "Honolulu or Bust"



PW technicians winding a helix coil for the Mt. Tamalpais station; Mr. Krenke at far left. Cloth stacked in corner was applied over each layer of wire and coated with shellac. Process was not unlike that used for making today's surfboards with fiberglas.

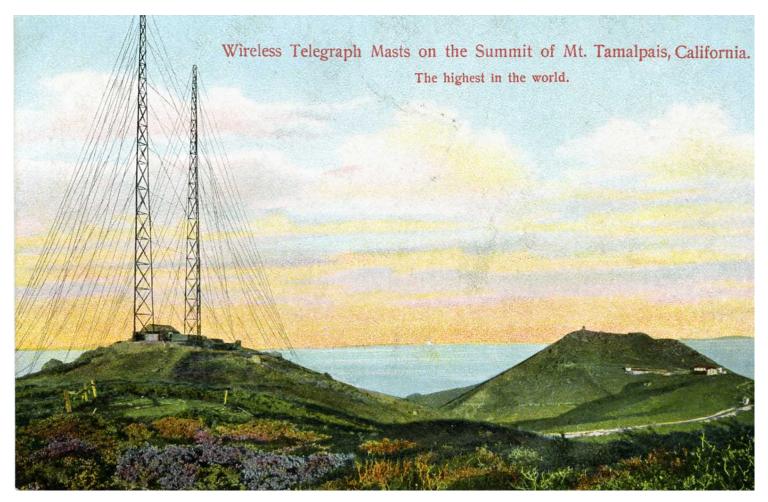
A. J. Krenke, (left) Supervisor

The Pacific Wireless Crew, 1906



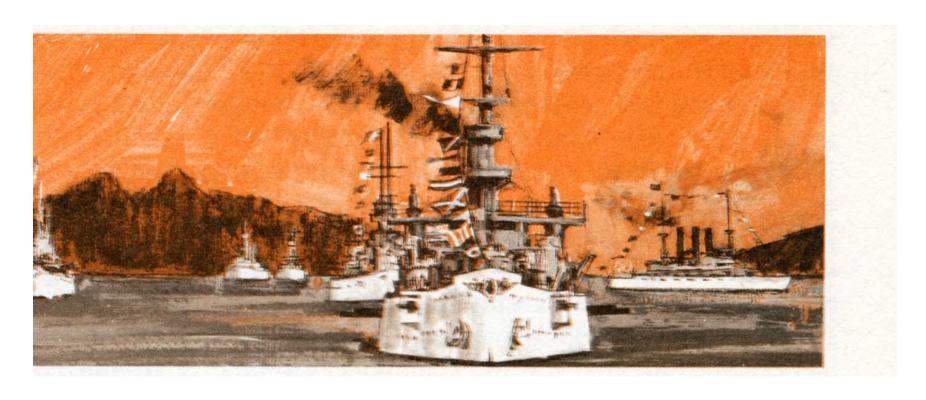
CREW AT PACIFIC WIRELESS COMPANY station on Mt. Tamalpias taken Feb. 22 1906 A.F. Krenke who was in charge is pictured third from left '

Mt. Tamalpais Station Sabotaged, December, 1906



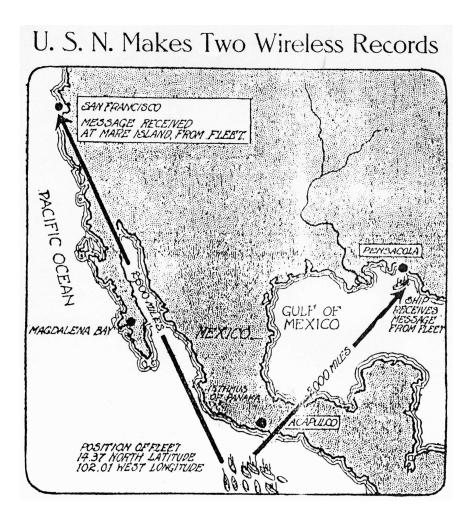
Haraden Pratt Investigated and Found the Guy Anchor Bolts Cut.

The Great White Fleet, 1907

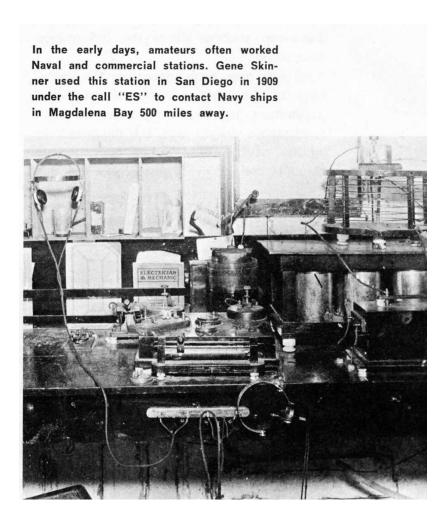


"One Hundred Ten Inch Guns"

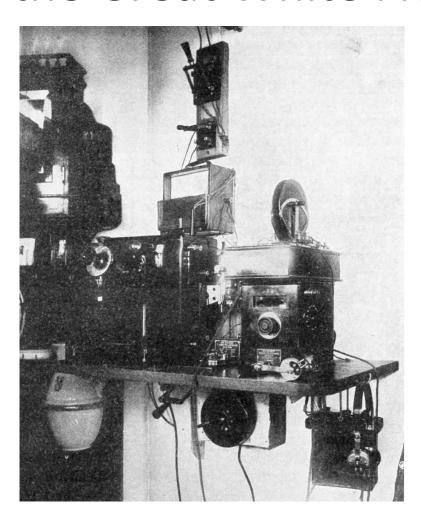
Fleet Long Distance Wireless 1908 – off Mexico to San Francisco



San Diego Amateur Station ES, which worked the Fleet off Mexico



DeForest's Arc Radio-Telephone on the Great White Fleet



A Navy Officer, at Mic and Key circa 1908, DeForest Gear



Like everything else in the Navy, it was the "Chiefs" who actually made it work.

Chief Petty Officer H.J. Meneratti, the World's First Radio Broadcaster, 1908

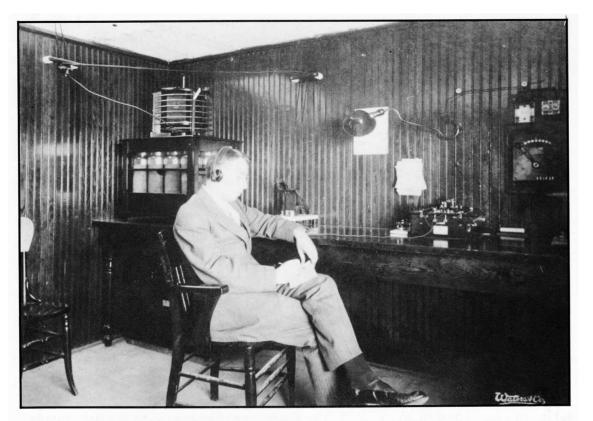


Around the World with the Great White Fleet, Playing Gramophone Records over Lee de Forest's Arc Radio-Telephone for Wireless Operators in every Port, visiting San Francisco in 1908, heard by Navy, Merchant Marine, Commercial and Amateur Radiomen.

More Sabotage, 1908

- In San Francisco in 1908, Lee de Forest's Engineer for the Fleet, Roscoe Kent, sought to test the De Forest Radio-Telephone System with a circuit from Meneratti's Ship, the *USS Ohio*, to a De Forest Land Station.
- Persons Unknown Cut Down the De Forest Station's Antenna Pole before the Test could be Performed. Meneratti noted the sabotage.

The San Francisco *Chronicle* Newspaper used Wireless as early as 1908 to get News from approaching Ships.



United Wireless Telegraphy Company Station "CH" in Chronicle Building, San Francisco, 1909 Operator Lewis Loisen, later lost at sea when his ship was torpedoed in WW I.

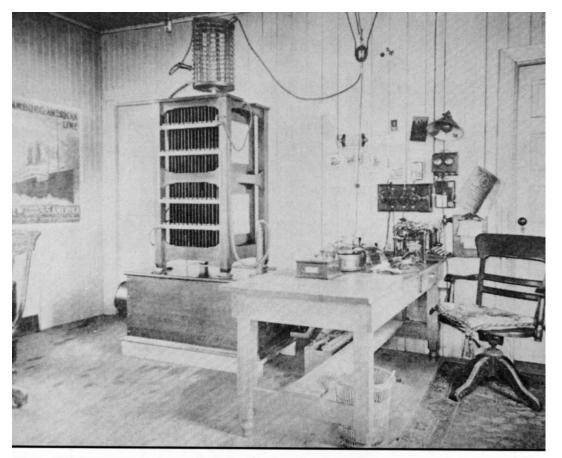
CH took over for PH after the Earthquake of 1906 Destroyed PH; then PH re-established on Russian Hill in 1908.

Arthur A. Isbell, 1909



Isbell worked as a Wireless Operator for Lee de Forest in 1902, and had gone to High School with him in 1892. He counted himself the Fourth Wireless Operator in America. He put together Fessenden's station in Scotland in 1906.

In 1907, Arthur A. Isbell arrived in San Francisco as the Wireless Operator on the *SS President*, for the Massie Company



Interior Massie Station, "IAA", San Francisco

Isbell Established the Massie Wireless Station at Land's End, San Francisco, and blessed it with call letters of his Initials, Reversed:

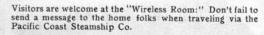
IAA.

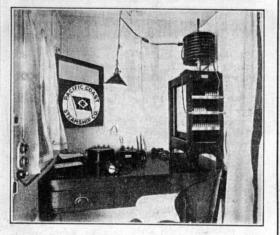
Isbell's Wireless Cabin on the SS President, 1907



Isbell set many
Long Distance
Wireless records
on his Voyage to
San Francisco
around the Horn.

The Massie Company Competes





MASSIE WIRELESS TELEGRAPH

S. S. "President," "Governor," "City of Puebla" and "Queen" are equipped with wireless apparatus. Messages may be sent to all points reached by telegraphic lines and also will be received at any telegraph office for transmission to passengers on board steamers. Message blanks can be procured from wireless operator on board.

RATES

NOME ROUTE—\$1.50 for 10 words; 15c each additional word.

OTHER ROUTES—\$1.00 for 10 words; 7c each additional word.

To which add regular commercial land wire rates.

WIRELESS TELEGRAPH STATIONS		
STATION	REACHED VIA	CONNECTING LINE
Point Loma, Calif. Point Arguello	San Diego	Western Union
Farallones " Yerba Buena "	Mare Island Yerba Buena Yerba Buena	Postal Telegraph
Mare Island "Table Bluff"	Mare Island Eureka	Western Union
Cape Blanco, Ore. North Head "	Relay Station	Western Union
Tatoosh Island, Wash.	Port Crescent	Western Union Postal Telegraph
Bremerton "	Bremerton	Western Union

The Massie Company had
Great Ambitions for
West Coast Wireless
Traffic with Ships at Sea.

A Bullet Flies ...



"They shot at me" wrote Isbell about United Wireless, on this 1907 clipping.

"Bullet Shattered Mirror"



December 22, 1907 San Francisco; photo by Arthur A. Isbell

A Lawsuit between United and Isbell, the Massie Manager, preceded the Shot at Isbell

Sues Massie Wireless Company. W. W. Tompkins, member of the board of control of the United Wireless Company, has sued the Massie Wireless Telegraph Company and Arthur A. Isbell, its Pacific Coast manager, for \$50,000 damages. Tompkins claims that the defendants were responsible for sending out a communication attacking his character and his company.

"...they tried to kill me...." In 1907 Isbell had taken on United Wireless.

WIRELESS COMPANIES AT OUTS

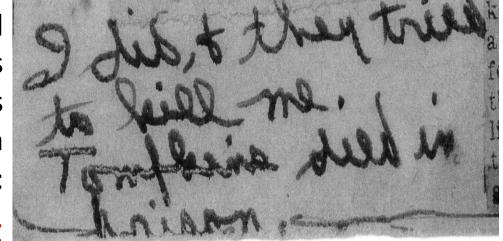
There is trouble between the Massie and the United Wireless Telegraph companies. Yesterday W. W. Tompkins of the United company obtained a warrant from Police Judge Cabaniss for the arrest of Arthur A. Isbell of the Massie company on a charge of libel alleged to be contained in a letter sent by Isbell to the Matson navigation company on October 14.

Libel or Truth ...

- Isbell called the United Wireless management: "Liars, Cutthroats and Thieves."
- They sued him for Libel and had him Arrested in San Francisco in January, 1908.

W.W. Tompkins of United claimed that Isbell attacked his character and that of his company. Isbell noted on a clipping:

"I did, & they tried to kill me. Tompkins died in prison."



Isbell Vindicated, 1911: United Wireless Principals Convicted of Fraud, and the Company in Bankruptcy.



A Happy Ending, 1912



Arthur A. Isbell went on to a distinguished Career in Radio, as a Senior Executive at RCA, after having made the First Wireless Contacts between Hawaii and California, and California and Japan, and having established Wireless Stations as far away as New Zealand. He managed KET in Bolinas, California when it installed the 300 KW "Rock Crusher" spark system in 1913 and then the Alexanderson Alternator System in 1920.

AUGUST 3, 1912. S.F. Colla Belle Elopes With Marconi Magnate

Mrs. Arthur A. Isbell, formerly Miss Grace D. Hilliher.

Miss Grace D. Hilliker and Arthur A. Isbell Secretly Married in San Rafael

A Special Thank You

- Thank you Rachel Isbell Branch for preserving the Arthur A. Isbell archives as the Rachel Isbell Branch Collection.
- Thank you for so generously making these materials available to AWA, CHRS and to me.
- Your great uncle Arthur would be proud of you!

The Next Generation, 1909 +

- The Business of Wireless split in two:
- The Coastal Stations thrived on Maritime Traffic, mostly using spark.
- Only Land Stations using Arc Systems could compete with Landline Telegraph Systems.

Federal's Arc System

- Cyril Elwell and later Lon Fuller used Poulson's Arc to create Federal Telephone and Telegraph Company in Palo Alto, near San Francisco, with its famous Beach Station.
- The then-advanced technology of the continuous wave arc surpassed Marconi's spark systems.

FEDERAL STARTED IN DOUG PERHAM'S GRAGAGE, PALO ALTO

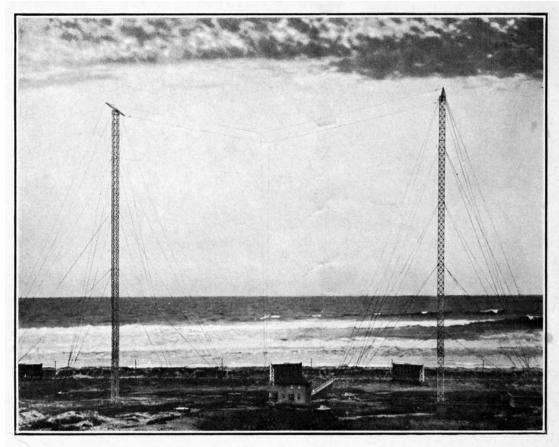


First Federal Telegraph Company Plant, Palo Alto, California

Lee de Forest came in 1911and Perfected the Vacuum Tube, as well as making many Improvements in Federal's Systems.

The Earliest Ancestor of the "Silicon Valley Garage" circa 1908.

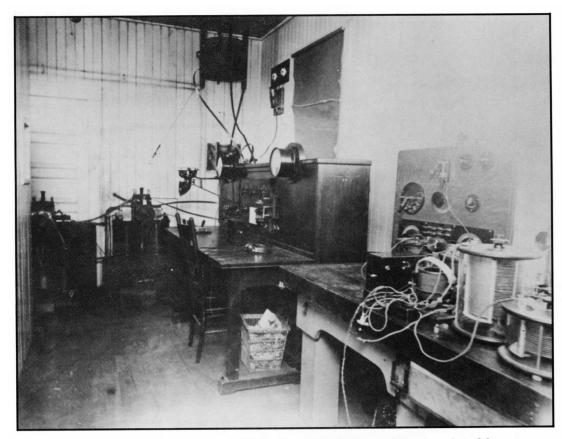
The FEDERAL ARC BEACH STATION



FEDERAL "BEACH" STATION K. F. S. Just South of the Cliff House on the Great Highway

For its QRM and QRN, the PH Operators said of it: "Old Poulson he sticks like a leach."

BEACH STATION, 1910



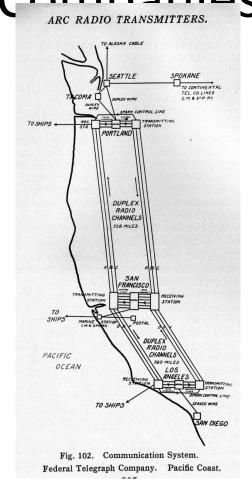
Foothill College Electronics Museum 12 KW San Francisco Beach Station of 1910.

A more powerful CW arc transmitter went in in 1911.

FEDERAL LOGO



Federal Made Money Competing with Landline Telegraph Companies



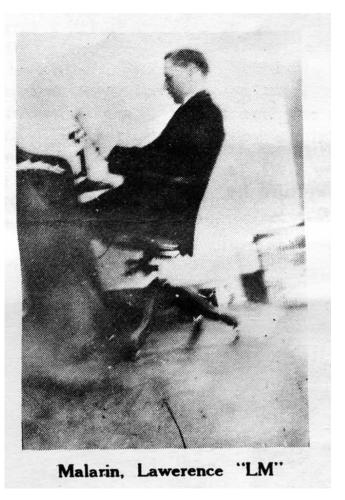
By 1918, the Army used a MILLION WATT ARC To communicate with France.

KPH

- Almost all early transpacific shipping came into San Francisco and vessels left San Francisco for the World.
- After the SS Titanic disaster or 1912, all ships had to carry two radio operators for a continuous 24 hour watch.
- KPH for Marconi then RCA enjoyed a monopoly of this maritime radio traffic.

Laurence (Larry) Malarin (LM) worked for Isbell at United and Marconi

Malarin and Isbell made the first Hawaii (HU) & Mainland (PH) Wireless Contact in 1910; Malarin worked for RCA until the end of WWII.



"The Great LM"

Malarin hired Richard Johnstone; who also worked for RCA until the end of WWII.

PH to KPH

San Francisco to Bolinas

- PH started at the **Palace Hotel** in San Francisco as a DeForest Station.
- It migrated to **Russian Hill** in 1908 after the earthquake, but the neighbors didn't like the noise of the spark system.
- It moved to Hillcrest, now Daly City in 1912, and got its U.S. callsign, KPH, as American Marconi absorbed United Wireless
- It moved to **Bolinas** in the early 20s, and always handled all of RCA's marine traffic.

Richard Johnstone,



DICK JOHNSTONE

Standing in front of the masts at KPH, Apr.1917 when the U.S. Navy took over coastal stations. Masts are 250' tall and 500' apart. Dick was on duty KPH in 1916 when lightning his this very mast and knocked off 25 feet and burned all receiving equipment. Marconi Wireless Co. owned station at this time. During the war KPH changed to NWO and went back to KPH in 1919.

Struck by Lightning at KPH in 1918

Johnstone's KPH, 1919 with Vacuum Tube Receiver



KPH's earlier transpacific contacts and marine work used crystal detectors.

KPH Hillcrest 1912 +

Looking West to the Pacific. KPH (on longwave) used a long wire antenna between two poles, and a large groundscreen. Federal's Beach Station Arc QRM'd KPH's receivers until Johnstone invented a balancing antenna to null it.



Many of the West
Coast's most
distinguished
Radiomen worked
at KPH, handling
Marconi's and then
RCA's Pacific
Maritime Traffic.

"The Great KPH"

The Amateurs

- Many of the Earliest Wireless Men Came from the Landline Telegraphy Companies, as did Isbell and some of the PH/KPH Operators.
- In the first Decade of the 20th Century, Amateurs took too the Ether.
- The Swelling Ranks of the Amateurs provided Operators, Technicians and Engineers to the Burgeoning Wireless Industry.
- Amateurs also laid the foundations of broadcasting with radio-telephone experiments.

San Francisco, 1909, Amateurs



Amateurs in Los Angeles Scandalize the City, 1911

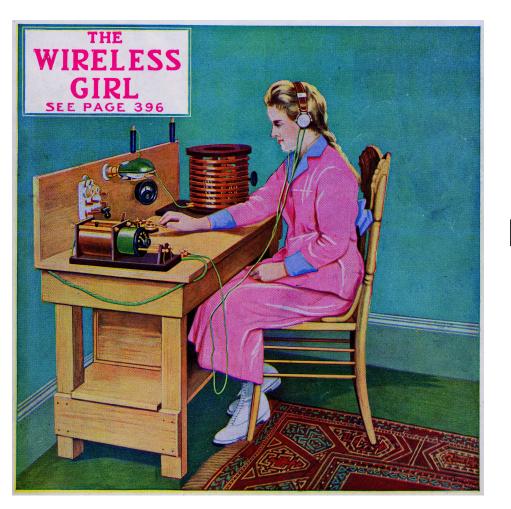
THE EXPOSURE FOR WHICH The (Reproduced From The Palaune of July 31, 1911)

WIRELESS TELEGRAM EXPO SES HEARST-OTIS PLOTTING
Boys Pick Up TIMES Orders to HERALD, Transmitted Through EXAMINER to Catalina
The Wireless Message (D. 1977, 1987, 1987)

"Boys Pick Up TIMES Orders to HERALD, Transmitted Through EXAMINER to Catalina"

The Los Angeles Boys Wireless Club enjoyed a Membership of 200 + in 1912.

Girls too! At 16, she held both Amateur and Commercial Licenses



Kathleen
Parkin, 6SO,
of San
Rafael,
California, in
1915.

To Be Continued

- See Wireless Comes of Age on the West Coast,
 [1899 1920] in 24 Antique Wireless
 Association Review 241 (2011).
- Thank you AWA editor Robert Murray, for making the 2011 article possible!
- Watch for more at www.CaliforniaHistoricalRadio.Com.
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- Correspondence invited: <u>KV6LEE@gmail.com</u>