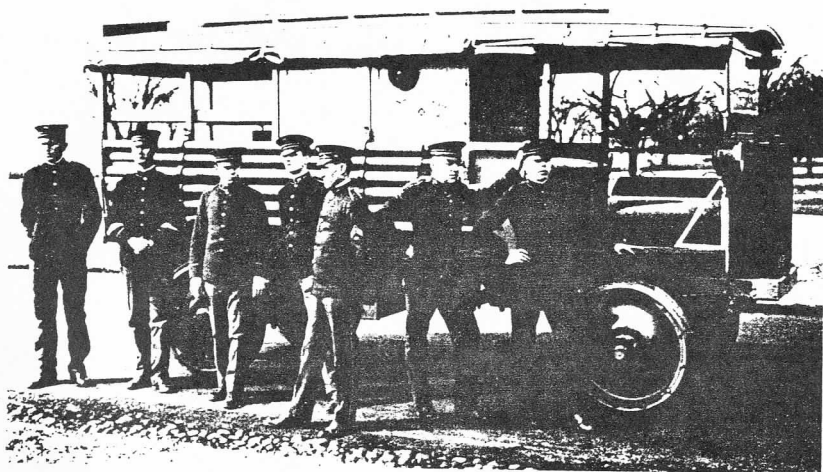


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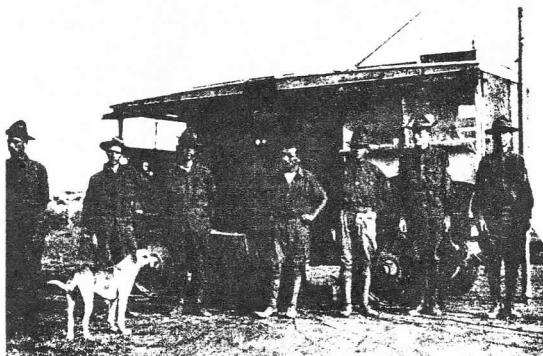
# CHRS JOURNAL

CALIFORNIA HISTORICAL RADIO SOCIETY



## IN THIS ISSUE:

- WIRELESS INTRIGUE
- MEMORIAL
- CONTEST
- CLASSIFIEDS



# CHRS JOURNAL

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<b>Member at Large:</b>	<b>George Durfey</b>
<b>Society Mailings:</b>	<b>Dale Sanford</b>

\*\*\*\*\*

The California Historical Radio Society is a non-profit corporation chartered in the State of California, and was formed to promote the restoration and preservation of early radio and broadcasting. Our goal is to provide the opportunity to exchange ideas and information on the history of radio, particularly in the West, with emphasis in the areas such as: collecting, literature, programs, and restoration of early equipment. The *Journal* of the CHRS is published quarterly, alternately in printed and audio tape format, and is furnished free of charge to members. Yearly membership dues are \$12.50.

**Production notes:** This issue of the *Journal* was composed on a Macintosh SE computer using Microsoft Word, version 3.02. Camera-ready copy was produced on an Apple LaserWriter II NT printer. The Times font was used. Comments and suggestions, articles, stories, classified ads, and other material for the *Journal* are welcomed and must be submitted to the Editor at least 60 days prior to the cover date.

**Fine Print:** The enclosed membership directory addendum covers members who have joined or renewed since the directory was printed in late January 1988. **NOTICE:** The Directory is published with the intent for personal use only, enabling members to contact others with similar interests. Commercial use of any kind, whatsoever is strictly prohibited.

**Front Cover:** The Army acquired its first three "radio tractors" in 1914. They accompanied the Pershing expedition to Mexico and were used to collect signals intelligence as well as for communications. Dress uniformed Signal Corps troops and their shiny new equipment at Fort Meyer, VA. Also, a less formal group in Mexico. Reprinted courtesy of Cloak and Dagger Publications from its reprint of Military Intelligence, A Picture History (1984) by John Patrick Finnegan.

## PRESIDENT'S MESSAGE by Paul J. Bourbin

By now you have noticed that there is something a bit unusual about this mailing. Member Bart Lee has been doing some very fine first generation research. The first part of it is published in this issue of the *Journal*. The enclosed tape is in conjunction with his article. I am sure that you will find it most interesting.

The election is over and all the nominees were elected. I shall serve for another year as President because of the fine support promised by some of our members. Bart Lee is our new Vice-president, Will Jensby and Russ Turner will remain as Treasurer and Secretary respectively. Adam Schoolsky will continue as Membership Secretary and will handle all facets of maintaining the membership records. Please send all renewals, changes of address, and other inquiries to him at: 38007 Stenhammer Drive, Fremont, CA 94536 (415) 791-0330. George Murdock and Bart Lee will handle the publicity and public relations. Norm Berge has been re-elected as Chairman of the Board. George Durfey, Robert Johnson and Bart Lee will serve on the Board. D. H. Moore has been approved to

receive the Herrold Award for his contribution to the Radio Hobby through his Sketchbooks and Monographs. In addition, Robert Johnson will serve as our first Technical Advisor. Please send any inquiries concerning radios, schematic requests, and repair and restoration information requests to him at: 1895 Curtner Apt. 2, San Jose, CA 95129 (408) 879-0174. Will Jensby has offered to give equipment appraisals so please send inquiries to: 645 Giannini Dr., Santa Clara, CA 95051-5829 (408) 296-6071. Bart Lee and Adam Schoolsky will edit the *Journal*. Chris Buttery and Bill Helander will edit the tapes. D. H. Moore will answer inquiries about broadcast receivers of the twenties. Dale Sanford has offered to take care of the mailings of the *Journal*, tapes and special notices, a job which has little glamour, but is very important. Now we have a team instead of a committee of one and the Society will be much better for it. Incidentally, when making a request for technical information or appraisals, please include a small donation to CHRS to cover the expense of these services. Thanks to all of the above for their pledge to keep the Society going for another year.

The Swap-meet at Foothill College in August was well attended. Much interest was given

to the Old Test Equipment Contest. The system of letting everyone vote on their favorite pieces seemed to be quite successful and will be used in the future. Any good ideas for a contest? Please let me know. Your President was quite ill during the Sacramento meet and so is unable to report on it. However, I have been told that the attendance was sparse. Our first Sunday meet at Mission College, Santa Clara was about 2/3 the size of a Foothill meet. Many new faces were seen we acquired some new members. The next (and last, thank God!) Swap-meet for the year will be at Foothill College on Saturday, 12 November. In addition to the usual Swap-meet activities, there will be a membership meeting starting about 10:00. Amongst items to be discussed will be the dates for next year's swap-meets. The dates will be decided by a vote of the membership. As this was quite a controversial topic, please attend and make your views known.

People are still needed to help set-up swap meets and to host regional meets. Please help. After the business part of the meeting, a show and tell session will be held, so bring a piece of equipment of interest.

Now for the unpleasant news; dues. They are due again. Enclosed with this mailing is a renewal form. Please fill it out and send it in as

soon as possible. The dues are the same as last year (\$12.50) in spite of the postal increase. Last year, we promised you more Swap-meets and we gave you nine! Last year, a non-member seller's fee at Swap-meets was instituted. Last year we started a membership directory. This year, for the same dues, we are including a technical advice and appraisal service for members. Sounds like a good deal to me. Others must think so too; our membership has almost doubled since the first of the year. At any rate, please pay your dues soon so that you will be included in the next membership directory, instead of one of the supplements. The due date is 1 Jan. 1988. Any additional contributions are greatly appreciated in this inflationary society. The more funds we have the more that we can do for you. The Electronic Museum at Foothill College is now soliciting members. Memberships start as low as \$10.00 per year. They need money and volunteers to keep the doors open so please contribute. The museum is a significant repository of radio and electronic history, especially as it pertains to the Greater San Francisco Bay Area and is worthy of maintaining. To see a little kid's face light up the first time he see and hears an old radio play or sees Chunky Cheese perform for him, is the reason that



the museum must continue to grow and prosper. For further information contact member George Durfey, 912 La Mesa Drive, Portola Valley, Ca 94025 (415) 854-4041. **FREE FOOD!** *Now that I have your attention, all CHRS members and their families are invited to my house for the annual pre-holiday get-together. This will take place on Saturday evening 10, December 1988 at 7:00 PM. Please RSVP.* I will provide directions, as my house is very difficult to find without them. That's all for now. Thanks to all who have helped me run the Society this year. Enjoy the holidays (yes, its that time of year again), and I hope to see you at the Foothill meet and meeting. As always, feel free to contact me at: 25 Greenview Ct., San Francisco, CA 94131 (415) 648-8489. Thanks.



## \*\* CONTEST \*\*

If you are able to decode the morse coded message on the first part of the companion tape included with this *Journal*, and submit your copy to Bart Lee, you may win a prize!! Note: the message may be encoded, so no need to get out your your Captain Midnite decoder ring.

Submit your copy in writing no later than 01, January 1989. di-di-dit, dah-di-dah.

## UPCOMING EVENTS

### SWAP MEET

Sat. 12, Nov 1988 7:00 AM  
Foothill College Museum Parking Lot.

### MEMBERSHIP MEETING

Sat. 12, Nov 1988 10:00 AM  
Foothill College Museum:  
Introduce new Officers & Select next year's swap meet dates and locations. Refreshments served.

### HOLIDAY GET TOGETHER

Fri. 10 Dec. 1988 7:00 PM  
Paul Bourbin's House  
Families and friends invited.  
415-648-8489 to RSVP (a must)



**IN MEMORIAM  
BILL WAKEFIELD  
WB4DSX**

6 November 1942--1 October 1988



It is with sadness that I must report that, on Saturday, 1 October 1988, Bill Wakefield became a Silent Key after a brief illness. He was a Past President of CHRS and the Northern California Representative for SCARS. He was also a ham radio operator with call sign WB4DSX. A well-known figure at all of the California and many of the major national meets, he was known for his wit, especially his love for the pun. His interests were in the areas of wireless and early battery sets, all forms of radio related literature (non-fiction) and ham equipment. He particularly disliked those sets, as he would

say, "Had a cord sticking out the back of them that you stuck into a wall". For him radio reached its Zenith (pardon my pun, Bill) in the early twenties when all the circuits had been developed and broadcasting was on its way and it still took a bit of skill to get the set to work right. He thought of himself as an historian rather than a collector or dealer. He liked to find out as much as he could about a piece of equipment, how it worked, who designed it and why. He was selling history rather than artifacts which may have explained why he was known for his conservative prices. He felt that people did not really own things but just rented them for use during their lifetime. He is survived by his wife, Diane; his mother, Madeline; and his son, Jeff. Many of us will miss Bill. I am sure, right now he is talking radio with the likes of Fessenden, deForest and Lecault. (PJB)



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## **AMERICA'S FIRST RADIO SPIES -- AND COUNTERSPY**

By BART LEE (xWPE2DLT)  
327 Filbert Steps  
San Francisco, CA 94133  
(415) 788 - 4072

for the

**JOURNAL OF THE CALIFORNIA HISTORICAL RADIO SOCIETY**

a companion article to

CHRS RADIO NEWS Audio Journal Special Edition, Nov. 1988:  
"The 1915 WSL Sayville Spark Transmissions and George Grammer  
W1DF Spark Demonstration."

### **INTRODUCTION:**

Since the earliest days of radio, it has had military and diplomatic significance, ranging from the tactical to the highest levels of national security. "Wireless," as it was then called, short for wireless telegraphy, was employed for military as well as commercial purposes, within a decade of its development by G. Marconi and his 1901 transatlantic tests.

As soon as wireless carried traffic of military and related significance, its interception, and decoding, became worthwhile. To this day, the U.S. National Security Agency (NSA) practices this black art, with a continuous lineage back to the U.S. Army Signal Corps and the U.S. Treasury Department Secret Service in 1915 and 1916. This Note is about

those beginnings of American radio spying and counterspying, the first U.S. SIGINT -- signals intelligence.

At the start of the First World War in 1914, there was little precedent for the military use of wireless, or its interception. In 1908 the Austrians intercepted Italian military wireless transmissions both on land and at sea with regard to a diplomatic crisis of the day, Austria's annexation of Bosnia. So reports Wilhelm F. Flicke in a NSA published history titled "WAR SECRETS IN THE ETHER" (1954) at p. 1. The U.S. Navy itself had done its first testing of wireless communication at sea as early as 1903 and the Japanese and Russians had used wireless in their 1905 war (see THE HISTORY OF U.S. ELECTRONIC WARFARE, Society of Old Crows, 1987, at pps. 4-5). In 1911 the Austrians again intercepted military communications of the Italians, and the Turks as well, regarding their brushfire war in Libya. (ETHER, *ibid.*)

Two days before the 1914 commencement of hostilities in the First World War, staff of the English Marconi Company, using the then very new vacuum tube in a receiver, intercepted German naval traffic and provided it to the Admiralty, the beginnings of British SIGINT activity. (See P. Wright, SPYCATCHER, Dell, 1988, at p. 10). The French as well as the Austrians already had SIGINT agencies operating before the war; the Germans did not. (ETHER, at p. 3; see also D. Kahn, *Codebreaking in World Wars I and II...*, THE HISTORICAL JOURNAL 23, 3, 1980 at p. 617ff)

The infamous Zimmerman telegram of 1917, deciphered by the British Admiralty "Room 40" codebreakers, precipitated America's entry into the war against the Central Powers. Arthur Zimmerman, the German Foreign Minister, offered Mexico return of the American Southwest if it would join the Central Powers and declare war on the United States. American outrage led to our own declaration of war in April, 1917. (See generally Barbara Tuckman, THE ZIMMERMAN TELEGRAM, N.Y., 1958, and Kahn, above, at p. 620). In 1916, the United States had sent a "punitive expedition" into Mexico, under the command of General John J. "Black Jack" Pershing, to deal with Francisco "Pancho" Villa and his border raids. What is not now generally realized is the extent to which Mexico

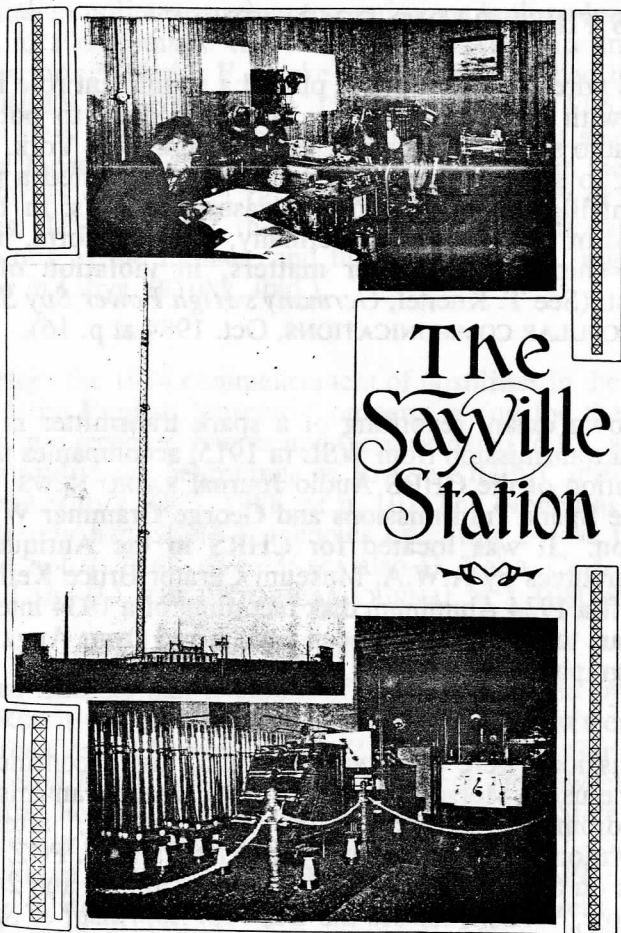
was a potential German ally against the United States, and German involvement in the Mexican problems on the border.

### AMERICA'S FIRST RADIO COUNTERSPY:

Wireless, and wireless interception, played a significant role in both our relationship with Germany and the Mexicans. Key to both was the Telefunken radio station in Sayville, Long Island, New York, call letters WSL. It was, to some extent, what would now be called a proprietary asset of an intelligence service, in this case Germany's. In 1915, WSL was suspected of transmitting to Germany, in coded form, information about allied shipping and other matters, in violation of the U.S. Neutrality Act. (See T. Kneitel, *Germany's High Power Spy Station -- in the USA!* in POPULAR COMMUNICATIONS, Oct. 1984 at p. 16).

The only known extant recording of a spark transmitter in service, a recording of a transmission from WSL in 1915, accompanies this Note as a Special Edition of the CHRS Audio Journal RADIO NEWS: "The 1915 WSL Sayville Spark Transmissions and George Grammer W1DF Spark Demonstration." It was located for CHRS in the Antique Wireless Association archives by A.W.A. Museum Curator Bruce Kelly, W2ICE, who took it off a 1934 Aluminum disk recording of a 1934 interview with Charles Apgar, to which it had been transferred from Apgar's original Edison Dictagraph wax cylinder.

WSL transmissions were often very unusual, just a continuous sound rather than the usual Morse code dit dah dits. These transmissions were known to radiomen of the day as the "Nauen Buzz," after the main Telefunken station in Nauen, Germany, call letters POZ. POZ operated at 100 kilowatts on 6,000 and then 12,000 meters, 50 kHz and 24 kHz; (see A. C. Goodnow, W1DM, *Across the Gap: An Appraisal of Spark Radio Telegraph Engineering*, 2 A.W.A. REVIEW 21, at pps. 60-66, Antique Wireless Assn. 1987).



At top, the operating room; in center, an exterior view of the station and mast used with former equipment; below, the transmitter



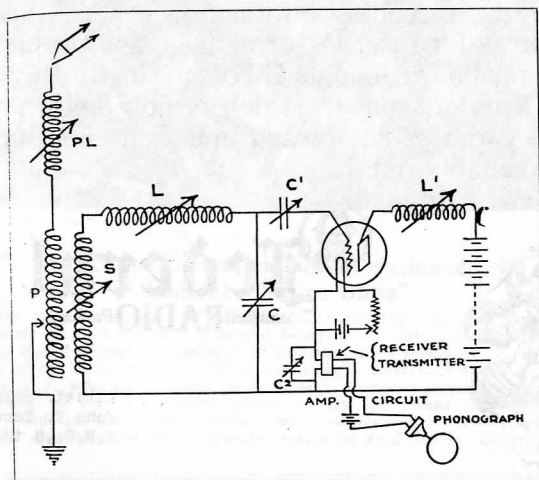
In its normal service, WSL used a 1000 cycle quenched gap spark transmitter operating at 35 kilowatts power which could radiate at wavelengths of 2,000, 2,500, 3,000 or 4,000 meters, or approximate frequencies of 150, 120, 100 or 75 kHz. (Goodnow, above). In 1915, WSL management claimed that it operated between 8,000 and 10,000 meters, or 37 kHz to 30 kHz (see *A Wireless Detective in Real Life*, 2(NS) WIRELESS AGE 872, Sept. 1915 at p. 873). This WSL transmitter had earlier, in 1909, been installed at POZ, in Nauen, and Goodnow has a photograph of it at POZ at 2 A.W.A REVIEW at p. 64; a photograph of it as installed at Sayville, along with its operating room, accompanies this Note (from 2(NS) WIRELESS AGE, above, at p. 875).

Charles Apgar, who recorded WSL for the Secret Service, was a leading radio amateur operator of the day, call letters 2MN, with an interest in audio recording. He had recorded WSL as early as 1913, on an Edison disk recorder, and presented the disks to the station. (See *A Wireless Detective in Real Life*, 2(NS) WIRELESS AGE 872, Sept. 1915 at p. 877). Accompanying this Note is a photograph of Apgar at his radio receiving and cylinder recording apparatus, from POPULAR RADIO, Nov. 1923 at p. 349. Apgar described his apparatus and procedures in C. Apgar, *Making the Records from Sayville*, 2(NS) WIRELESS AGE 877, Sept. 1915; his schematic diagram of his receiver, which he describes as an "Armstrong circuit" [regenerative] "valve detector" accompanies this Note (from *ibid.* at p. 879)

SEPTEMBER, 1915

THE WIRELESS AGE

879



Circuit diagram of amateur station of Chas. E. Apgar

The Government became interested in WSL's transmissions and the Nauen Buzz, partly as a result of some investigative yellow journalism of the day, in early 1915 (see *Kneitel*, above, for a summary). The Navy put observers into the station to determine if any activity violated the Neutrality Act; accompanying this Note is copy of a Navy report on the station's operation in April, 1915 (from the National Archives, New York Branch).

Using what was the first data burst technology, the Telefunken stations used an early wire recorder- like device, called the Telegraphone, to transmit their traffic at too fast a rate to be copied by ear, by speeding up the rate of the transmitting Telegraphone. The receiving Telegraphone recorded at the fast rate, but was played back at a normal rate. (See *Kneitel*, above). Apgar slowed his Dictagraph down to replay the transmissions, and realized they could be copied in this fashion as readable Morse code. He provided some 175 six and four inch wax cylinder recordings of the WSL to POZ transmissions to the Secret Service. (See C. Apgar in WIRELESS AGE, above).

The Government then seized the station on July 6, 1915, for violation of the Neutrality Act, but surprisingly enough, Telefunken had advance notice and removed equipment, probably the Telegraphone, and presumably evidence, the night before (see *Kneitel*, above). WSL is presumed to have been sending information about Allied shipping to German naval forces for relay to submarines, and presumably was the source of the information enabling a U-boat to sink the RMS Lusitania in May 1915 (see *Kneitel*, above), which is now known to have been carrying a secret cargo of contraband munitions for England, also in violation of the Neutrality Act.



**Federal**  
Standard RADIO Products

Illust. courtesy  
John V. Terrey,  
A.R.C., 1933



From a photograph made for POPULAR RADIO

### The Radio Detective Who Unfathomed the Famous "Nauen Buzz"

*During the early days of the World War the incredibly rapid and undecipherable radio signals between the most powerful broadcasting station in Germany and the station of the "Telefunken Company" at Sayville, Long Island, N. Y., aroused the attention of the U. S. officials. But it was a radio amateur, Charles E. Appgar of Westfield, N. J., who finally found the solution by means of amplifiers that recorded these signals on wax phonograph cylinders. By this means the messages were de-coded—and the Long Island station was promptly seized. This picture shows Mr. Appgar operating the same apparatus which he used on that historic occasion.*

No.

United States Navy Yard,

NEW YORK, N.Y.

Telefunken Radio Station.

April 4, 1915

Sayville N.Y.

From; Lieut. (JG) F. Cogswell.

To; Commandant Navy Yard New York N.Y.

Subject; Operations at the Sayville N.Y. Radio Station.

I respectfully state that during the preceeding twenty four hours, nothing has occurred of an unneutral nature as per Presidential proclamation, dated August 5, 1914.

*A. M. H.* *F. Cogswell*

N. S. E. S.

ADDRESS BUREAU OF STEAM ENGINEERING, NAVY DEPARTMENT,

AND REFER TO NO.

18178-857

NAVY DEPARTMENT,

BUREAU OF STEAM ENGINEERING,

WASHINGTON, D. C.

ENCLOSURES.

July 28, 1915.

From: Bureau of Steam Engineering,  
To: Commandant, Navy Yard, New York.

SUBJECT: Radio Station Sayville placed under Navy Yard,  
New York, for maintenance.

1. In accordance with paragraph 4103 U.S. Naval Instructions the Radio Station, Sayville, is placed under the cognizance of the Commandant, Navy Yard, New York, for supply, while the Sayville station is under the control of the U.S. Government.
2. This includes only extra supply of material necessary, due to the addition of Navy personnel at Sayville.
3. The Officer-in-Charge will, when the station is eventually turned over to its owners, return all Navy material to New York.
4. The owners are maintaining the station in operating condition.

*Griffin*

Apgar got a lot of good press for his work as America's first Radio Counterspy, within days of the seizure of the station (see *Kneitel*, above, and as an example, *WIRELESS AGE*, above). Apgar's work was hailed as "the most valuable service ever rendered by a radio operator to this country" (as reported in *200 Meters and Down -- the Story of Amateur Radio*, A.R.R.L. 1936 & 1981, at p. 44-45).

WSL continued in operation under the aegis of the Navy, soon with the call letters NDD at 24 kHz and 31 kHz (T. Kneitel, *RADIO STATION TREASURY*, CRB Research, Commack, N.Y., 1986, at p. 17). Accompanying this Note is a copy of a July 28, 1915, Navy memorandum outlining the procedures (from the National Archives, New York Branch). The station, as operated by the U.S. Navy, continued to carry supposedly commercial traffic to Germany, at least until the declaration of war intervened in April, 1917. (See R.C.A. historian George H. Clark's abstract, Smithsonian access number CWC 6-1851A at p. 5, of: *The Seizure of the Sayville Station*, 2(NS) *WIRELESS AGE*, Aug. 1915, at p. 807ff).

It is one of the ironies of history that the U.S. Navy thus oversaw the transmission of the hostile Zimmerman telegram from Germany to the German Ambassador in Mexico City via the Sayville station on January 16, 1917. "This telegram was so important that ... several routes were chosen ... [t]he first led via radiotelegraphy from Nauen to Sayville on Long Island for forwarding to the German Ambassador ... in Mexico" according to Flicke, *ETHER*, above at p. 48ff. The German Foreign Office also snookered the American Ambassador in Berlin into conveying an enciphered copy of the telegram to the German Ambassador in Washington. (*Ibid.*). The British Wireless Intercept Service in MI6 and Admiralty Room 40 partially decoded the Nauen to Sayville radiotelegram, and fully decoded the text sent via the American Ambassador, and the British were delighted to hand it over to the Americans, claiming they stole it from the telegraph office in Mexico City. (*Id.*)

## AMERICA'S FIRST RADIO SPIES:

At the same time in early 1917, Germany supported and encouraged Pancho Villa, and another Chicano revolutionary operating in Southern California by the name of Cantu. British MI6 and Room 40 intercepted and decoded German diplomatic radio traffic arranging shipments of munitions for the revolutionaries, who also continued to threaten the U.S. border. (ETHER, above, at p. 56).

In the American military operations into Mexico of the prior year, wireless also played a crucial role, as did wireless spying. The Signal Corps and the Military Intelligence Division became America's first Radio Spies. They operated out of horse drawn wagons and motor trucks, pictures of which accompany this Note (from the cover of 3(NS) WIRELESS AGE, Aug. 1916 and p. 756). The spark transmitters were either one or two kilowatts in power for ranges up to 300 miles. Wireless was used extensively to supplement telegraph communications for the Army, and to report back to the United States (see *The Epic of the Mexican Border*, 3(NS) WIRELESS AGE, Aug. 1916 at p. 750ff).

Villa raided Columbus, New Mexico, killing 17 Americans, on March 16, 1916, two days after General Pershing invaded Mexico, and thereafter "Villa was located by radio" according to WIRELESS AGE (ibid). The Military Intelligence Division and the Signal Corps by the fall of 1916 were routinely doing radio intercepts in Mexico, and had established about a dozen intercept stations by early 1918; radio intercept stations were located at Fort Bliss and went along with Pershing's Punitive Expedition (according to Prof. Ray Sadler, New Mexico State University, co-author with C. Harris of *THE BORDER AND THE REVOLUTION*, NMSU, 1987). Another article in WIRELESS AGE also notes, with regard to the 1916 period: "The Signal Corps at Marfa [Texas] had a small unofficial radio receiving station which was capable of receiving from Juarez, in Mexico ..." (from Sgt. F. Rose, *Before We Go Overseas*, 5(NS) WIRELESS AGE, July, 1918 at p. 811).



15 Cents

3 (NS)

August [1911]

# THE WIRELESS AGE



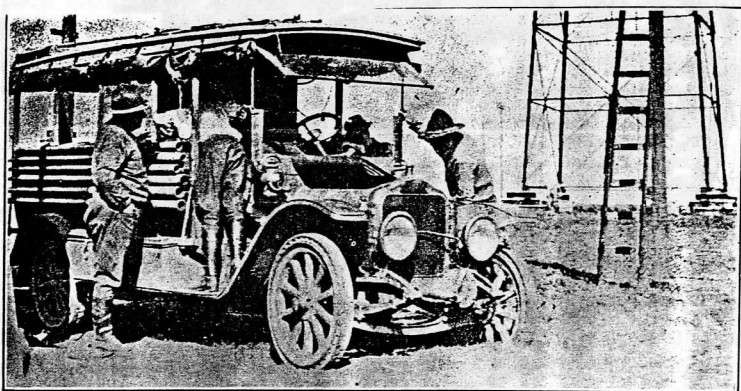
"THE EPIC OF THE MEXICAN BORDER"

HOW WIRELESS REPORTED THE ARMY MOVEMENTS TO THE AMERICAN PUBLIC  
(IN THIS ISSUE)

As a result of a Freedom of Information Act request by Professor Sadler, the National Security Agency only last year declassified the 1916 through 1918 cache of wireless, telegraph and mail intercepts from American military operations in Mexico, and they are now in the hands of the National Archives in Washington, according to Archivist John Taylor. Photographs of some of the equipment used appear in: J. Finnigan, *MILITARY INTELLIGENCE: A PICTURE HISTORY*, published by U.S. Army Intelligence and Security Command, (reprinted by Cloak and Dagger Publications, Hooper, Utah)

## CONCLUSION:

Every art advances other arts, and every weapon leads to a defence to it. Wireless was no different in its early days. As soon as wireless was put to military use against American interests as a tool of espionage in 1915, Charles Apgar, 2MN, exposed it: America's first Radio Counterspy. As soon as wireless appeared useful for American forces in gathering military intelligence, the Signal Corps with General Pershing employed it, in 1916: America's first Radio Spies. The resources, assets and procedures of the National Security Agency, and the intercept services of the Central Intelligence Agency and the Armed Services, all derive from these first early, and effective, American efforts.



*One of the United States Army field wireless motor trucks taking on a full field equipment, preparatory to joining the American expeditionary forces in the pursuit of Villa and his bandits*

**ACKNOWLEDGMENTS:** Grateful (and alphabetical) thanks to:

PAUL BOURBIN, President, CHRS, for his encouragement and for authorizing publication by CHRS of this Note and issuance of the Special Edition of *CHRS Radio News* with the 1915 WSL recording;

WILL JENSBY, (W0EOM/6), CHRS, for Flicke, War Secrets in the Ether, and the Old Crows' History, and Kahn's Codebreaker article;

BRUCE KELLY, (W2ICE), AWA, curator of the Antique Wireless Association Museum in Holcomb, New York for the 1915 off-the-air recording of WSL, Sayville, Long Island, in service;

RAY SADLER, Professor of History, New Mexico State University, for so much detail on intercept operations in connection with Pershing's Punitive Expedition;

ANTHONY SANTOSSO, National Archives, New York Branch, for the Navy documents regarding WSL at Sayville;

ELLIOT SIVOWITCH, Smithsonian Institution, for the George Clark materials and the lead to the Apgar recording;

JOHN TAYLOR, National Archives, Washington, D.C., for first information on the 1916 wireless intercepts in connection with Pershing's Punitive Expedition;

A.G. WENTZEL, JR., (W2HX), AWA, SOWP, OOTC, for the WIRELESS AGE's Apgar stories;

DALE WINN, Cloak & Dagger Publications (P.O. Box 53, Hooper, Utah 84315 (801-399-1202)) for permission to reproduce the photos from J. Finnigan, Military Intelligence, A Pictorial History (as reprinted and copyrighted by Cloak & Dagger).

MY ERRORS ARE MY OWN, BUT ONLY WITH THE HELP OF THESE PEOPLE HAS THIS NOTE COME TOGETHER IN ITS PRESENT FORM. TNX. -- 73

*Classified ads are offered free of charge to CHRS members. Ads should be for Radio or related items only. Send all ads to Adam Schoolsky, Journal Editor, 38007 Stenhammer Dr, Fremont, CA 94536 or call (415) 791-0330. Ad deadlines are Jan. 1, Apr. 1, July 1, and Oct 1.*

♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦  
WANTED: 216-B Rectifier tube w/  
good filament. Paul Bourbin, 25  
Greenview Ct., San Francisco, CA  
94131 (415) 648-8489

FOR SALE: D.H. Moore's Sketchbooks and Monographs are still available thru CHRS, including the newest, 200 page monograph entitled "Superheterodynes of the Twenties." It contains information on all non-RCA superhet's made in the twenties. Most of the info. is not found in other sources. Price: \$25.00 Inquiries to: The Editorial Group, PO Box 521, Palo Alto, CA 94302. Mention CHRS!!!

**SERVICE:** For superb wooden cabinet repair, restoration and refinishing contact: Larry Boysen Jr., 1469 16th Ave. San Francisco, CA (415) 681-8352. Veneer matching and replacement a specialty.

**WANTED: SCOTT or  
McMURDO-SILVER console in  
correct cabinet. Also Rider vols.  
21-23. Adam Schoolsky (415) 791-  
0330.**

FOR SALE: Rider's manuals vol 1-22 plus index vols 1-17. \$500/offer. Bill Allison (415) 487-4708

**WANTED: RCA 813K chassis or just auto. tuning motor reversing switch. Jim Coleman. PO Box 2348, Pasadena, CA 91102 (818) 449-4000 Ext. 173**

**WANTED:** Atwater Kent type L  
horn speaker in good condition.  
Bill Sheppard 1255 Polk St, #32  
San Francisco, CA 94109 (415)  
441-4532.

FOR SALE: Ecophone and Philco  
cathedrals. Philco has 1 small  
scratch on top. could be retouched.  
Both working. William Mhoon  
2303 Shamrock St. San Diego, CA  
92105 (619) 281-4457

**WANTED:** Early televisions, working or not and related literature. Mike Brooks, 7335 Skyline, Oakland, CA 94611 (415) 339-1751

**WANTED:** Filament Rheostats (2) for Grebe Synchrophase. Bud Larson, 1325 Ridge Way, Medford, OR 97504 (503) 776-5192

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**WANTED:** Information or artifacts relating to McCarty Wireless Telephone Co., Francis McCarty, Ignatius McCarty. Also National Wireless, Aerial Wireless Tel. & Power Co., Universal Wireless Tel. Co. Also want books on wireless & wireless equip., mikes, anything!. Ed Sharp, c/o Computer Exchange, 2224 W. Desert Cove Rd. #205, Phoenix, AZ 85029 (602) 861-1388-days or (602) 247-9420-evenings

**WANTED:** Supreme Analyzer in good condition. Perry Fink (312) 432-2998, Chicago.

**WANTED:** HALLICRAFTERS SX62A working and near mint with speaker & documentation. Bart Lee, 327 Filbert Steps, San Francisco, CA 94133 (415) 788-4072

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55 Carter Street, Chelsea, Mass.  
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## Featured Set: MAJESTIC Model 71 ca. 1928

*Text and drawing by George Murdock*

Sold by the White House Department Store in San Francisco. This radio came with the White House Logo on the control panel. The Neutrodyne Chassis uses three 226 R.F. amplifiers and a 227 detector. The audio is amplified by a 226 triode then was transformer coupled to two 71A's in push pull.

The power supply is A/C operated and mounted in the speaker compartment on the right hand side. The power supply used a 280 full wave rectifier and is connected to the radio by a large cable. The on/off switch is a toggle type mounted on the lower left side of the cabinet. The three front panel controls were: selectivity, tuning and volume.

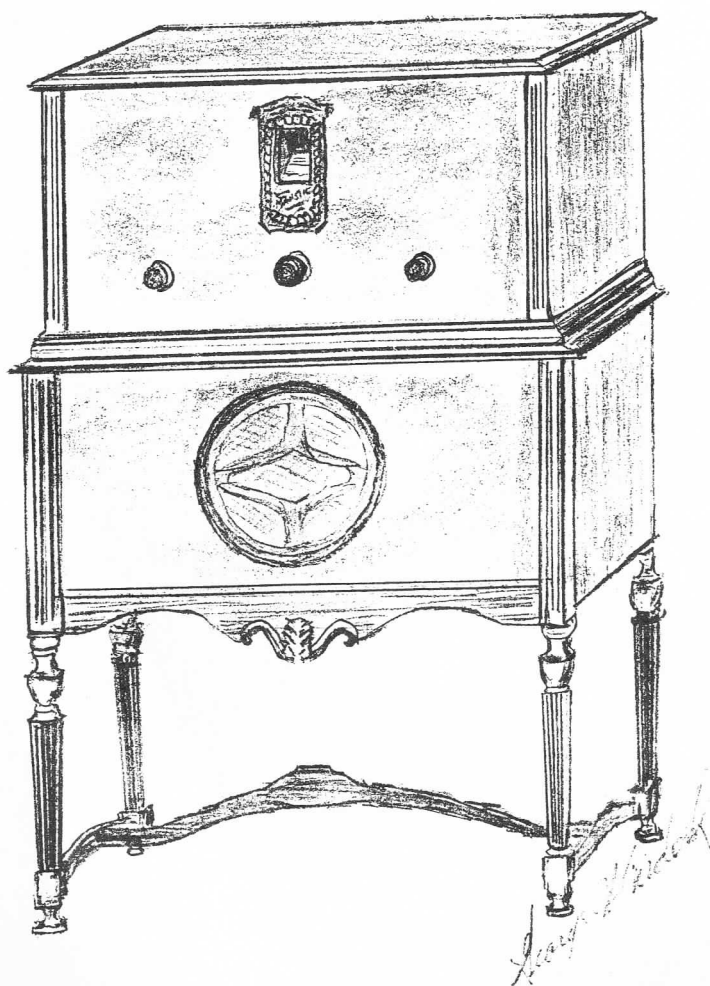
Majestic was manufactured by the Grigsby-Grunow Company until 1934 when the great depression forced the company out of business. Later, the Majestic Radio and Television Corporation was formed and made Majestic "Mighty Monarch of the Air" radios as well as some of the early television sets until the mid-1950's.

General Household Utilities Co. made radios under the Grunow name in the thirties and Majestic re-appeared as Grundig Majestic in the late fifties, with a line of West German made high fidelity radios and stereos.

This style of upright console was typical in the late-twenties in the more affluent homes and the cathedral and dog coffin type table radios we for the less fortunate people.

###





**MAJESTIC MODEL 71  
CIRCA 1928**

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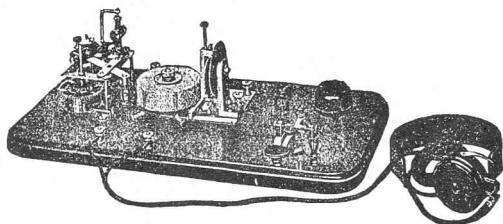
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