An Unusual Artifact from the Tidewater Wireless Telegraph Company

by Neal McEwan, K5RW
nmcewen@sbcglobal.net
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Although the item featured in Figure 1 isn’t a piece of wireless hardware, it is nonetheless part of the legacy of wireless telegraphy and a different kind of wireless collectable. Without seeing and feeling this item, you would never know that it is an ink blotter. Before the age of ball point pens, there were fountain pens. After writing on paper, it took time for the ink to dry. If you needed the ink to dry quickly or you wanted to prevent an ink run, you carefully laid an ink blotter over the text or signature.

Blotters were made of thin absorbent cardboard and were a convenient and inexpensive advertising medium. Advertising blotters were commonly given to customers by banks, department stores, and other businesses such as The Tidewater Wireless Telegraph Co. Very little has been written about Tidewater Wireless. But, by examining this blotter, we can gain some insights into how this company, and other wireless service organizations conducted their business.

What is the vintage of this blotter? The 1914 “Amateur Wireless Handbook” list of ship and shore call signs shows "WNW" assigned to the S.S. San Ramon. Marconi's 1918 Yearbook also shows the call attached to that ship, and adds that it is operated by the San Ramon Steam Ship Company. Only two coastal stations in Philadelphia are shown in the Marconi Yearbook, the Navy’s "NAI" and Marconi’s "WHE." WNW was still assigned to the San Ramon in 1922, according to a Bureau of Navigation call sign list of that year.

The 1943 ITU call sign listing shows "WNW" as Philadelphia Radio, which was likely a later name for Tidewater. Therefore, the date of this blotter can reasonably be established to be after the call sign was reassigned and before Tidewater changed its name from Tidewater Wireless Telegraph to Philadelphia Radio -- anywhere from 1923 to the early 1940s.

The Tidewater Wireless Telegraph Co. seems to have operated only the one station in Philadelphia. A 1944 map of coastal radio stations open to public
messages in the 600 meter to 750 meter band shows 28 stations, but "WNW" is the only Tidewater station listed, making it a loner among stations operated by giants such as RCA, MacKay Radio and Tropical Radio.

Not much else is known about the Tidewater Wireless Telegraph Co. However A. L. Frankenfield, ex 3AK, mentions the station in a 1933 letter to the Franklin Institute's Communications Section. He describes building a high-power synchronous rotary spark gap transmitter for his amateur station. Frankenfield states that it was one of the best transmitters in the area and was known by others as the "The Stone Crusher."

When spark transmission was banned for amateur use, he sold the transmitter to Tidewater Wireless Telegraph Co., which was located at Delaware and Oregon Avenues in Philadelphia. The rig was used at "WNW" 24 hours a day for over a year. After the station obtained a tube transmitter, Tidewater's owner, Donald Haig, gave the spark set back to Frankenfield with high praises for its service.

Notice the use of French in the advertisement ("Communiqué Rapide"). French was an international language of wireless operators as it was for diplomats and academics of the same time period. For example, voice distress signals "MAYDAY," "PAN," and "SECURITY" are derived from the French words "m'aider," "panne," and "sécurité," meaning "help me," "accident," and "safety," respectively. Also note the use of French currency. A "Centime" is 1/100th of a Franc, analogous to our "cent."

The international monetary exchange unit for ships and wireless stations was "Gold Francs." There were never any "Gold Francs" coined; it was a kind of theoretical currency used for quoting or billing message rates. For many years the conversion was approximately three "GFs" per U.S. dollar.

The Marconi Yearbook of 1918 shows the per-word rate for all land and shore stations in Francs. The charge for a radiotelegram was either a minimum charge or calculated by the number of words in the message. The total charge was summed from several parts: 1.) the "coast charge," which accrued to the coast station, 2.) the "ship charge," which accrued to the ship's station, 3.) the charge for transmission over telegraph land lines or submarine cables to the final destination, and 4.) the charge, if any, for relay by a ship or coastal station.

Ships were required to carry information regarding coastal station rates, but could ask a coastal station for rates if needed. If a ship was approaching a foreign port, the wireless operator could inquire what the coast charge or "CC" and landline or "LL" charges would be. The local coastal station would give the operator the rates...
in "Gold Francs," which he could convert to the ship's currency. The Q-signal "QSJ" was used to obtain or give rates. "QSJ NYC" would mean "The charge to be collected per word to New York City is .... Francs, including my internal telegraph charge."

All ships operators were required to keep an "abstract." This was an accounting sheet for each message sent and received. It recorded money collected and money due the originating ship, shore station, other radio service companies (for relayed messages) and any other agencies involved in the message delivery.

Money generated by messages concerning official ship's business was not collected by the radio officer, but billed to the steam ship company. Only money from personal messages from passengers and crew was collected. At the end of a voyage, the wireless operator was required to mail the "abstract," with a money order or check for the money collected, to the company controlling the radio service of the ship (such as RCA or MacKay). The accounting department of the radio service company would then pay all entities any money due.

An operator was graded, in part, on the quality of his abstracts. Tidewater was charging 52 Centimes per word for the listed destinations served by their arrangements with a local telegraph company, probably Western Union or Postal Telegraph. There was a surcharge of 15 Centimes for New Jersey and Delaware destinations. Ships needing to deliver messages to other locations would contact a shore station serving those areas if in radio range.

The "CDE" on the blotter is an abbreviation for a class of message: coded radiotelegram. This type of radiotelegram is normally used for business communications between the ship's Master and the shipping company. Both the sender and receiver used code books. A group of letters, that appear to be random, actually represent a sentence or phrase. "CDE"-prefixed radiotelegrams were delivered at a reduced rate.

There were many other types of message classes including "P," an ordinary radiotelegram, "MSG," a radiotelegram relating to the ship's business, and "OBS," a meteorological radiotelegram originating with the Weather Bureau. "GOVT" was a official government radiotelegram and had priority over any other types of traffic except "SOS" and other distress messages.

The type of message was part of the message prefix. Thus "P" would appear in
the "prefix" field for an ordinary radiotelegram. These message types were universal for all wireless service companies.

Notice the "1944" after "Keystone, Main." This is not a date, but part of a telephone number. "Keystone" and "Bell" were no doubt competing phone companies; "Main" and "Fulton" were the telephone exchanges. These telephone numbers were called to originate a message from Tidewater.

The "Normal Calling and Listening Wave 600 Meters" is a wavelength which translates to a frequency of 500 kilohertz. It was reserved for message traffic calling and for distress signals until just a few years ago. Tidewater, as did other wireless companies, listened for calls on 600 meters, then moved off frequency to pass the traffic. Ships would likewise listen for the coastal stations to see if there was any traffic for them. Coastal stations routinely broadcast a list of ship's call signs for which they had traffic.

This blotter was used as a bookmark in a book given to me by Harry R. Lord, ex 8WY. A former sparks, he was on Navy and merchant ships from 1917 to 1941. Harry made seventeen trips to Europe during World War I as the radio operator of a troop ship. His wireless stories were spell binding. He and his brother Bruce had a state-of-the-art amateur wireless station in Cambridge Springs, PA before and after World War I. I am grateful that He chose to give me this unique wireless collectible, and with it the opportunity to find out more about wireless service companies.

Thanks to John Alcorn, Donna Halper and Mark Dittmar for supplying call sign references for "WNW." And a special thanks to Jack Lally, former radio officer and operator at coastal station "WSL" and to David Ring, former radio officer, for reviewing this article and making suggestions.

References


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Reese, Warren, in an Email to Neal McEwen, 26 May 2001. Discussion of international monetary exchange standard for ship and shore stations and discussion of arrangement of shore stations with landline companies. (Warren Reese was an operator at the now silent coastal station "KPH")

For more information, visit the [Telegraph Office](http://www.telegraph-office.com) home page at [http://www.telegraph-office.com](http://www.telegraph-office.com)
The United Wireless Telegraph Company was the largest radio communications firm in the United States, from its late-1906 formation until its bankruptcy and takeover by Marconi interests in mid-1912. At the time of its demise, the company was operating around 70 land and 400 shipboard radiotelegraph installations by far the most in the U.S. However, the firm's management had been substantially more interested in fraudulent stock promotion schemes than in ongoing operations or technical development. But it won't copy them with the war exploded artifact. It copies many other files like png, js and some htmls but not the generated html files. How do I make them to be copied, otherwise my app won't work. Thanks. gwt intellij-idea artifact.

The brief transmissions sent among those ships' wireless operators, staccato bursts of information and emotion, tell the story of Titanic's desperate fate that night: the confusion, chaos, panic, futility and fear, the company wrote in court filings. RMS Titanic submitted a 60-page plan to retrieve the telegraph, which is believed to still sit in a deck house near the doomed ocean liner's grand staircase. The company said an unmanned submersible would descend nearly 2.5 miles to the bottom of the North Atlantic, then slip through a skylight or cut the heavily corroded roof in order to retrieve... The docking bridge telegraph recovered from the wreckage of the Titanic is displayed at the Nauticus National Maritime Center in Norfolk, Virginia. Photograph: Steve Helber/AP.