

Gilson V. "Rex" Willets, Wireless Author  
Engineer, Historian

**T**hey were standing in the Times Square subway station in New York, talking secretly to each other, or so they believed, by whistling the characters of the Morse Code as wireless operators often do. This was a common means of communication between wireless men when they wanted to engage in confidential conversation. Some would hum the characters, others would "hiss" them by tongue and lip. But in this instance the conversation was conducted by whistles.

The two wireless operators who engaged in this act were Gilson (Rex) Willets and his old crony, Charles Stellmach. They served together on shipboard and they got together whenever their ships met in port.

On this occasion the whistles of the Morse Code went like this: "Who is the funny looking geezer standing beside us?" asked Rex. Replied his buddy: "Beats me. He sure looks like a nut." Said Rex: "Yeah, there must be something wrong with him, but perhaps we'd better keep quiet because he may be able to read the code."

Nothing more was whistled. All three boarded the subway.

The funny looking geezer looked dourly at Rex and Charley, reached into his pocket and withdrew his card which he handed to Rex. It said merely: "Guglielmo Marconi."

This, said Rex, was life's most embarrassing moment for me. Both he and his friend were too frustrated to speak to the great man.

I called on Rex in search of stories for the book you are reading. He was ready for me when I arrived at his beautiful and cozy home at Villa Grande, in the shadows of the famed Bohemian Grove. The day prior to my arrival he made a tape. A four-hour rendition of the strange wireless life he had once led. His stories can fill an entire volume. I can use only a few choice morsels here.

Rex has been in wireless for all of his boyhood and adult life. He has at times worked as a janitor in a radio store in San Francisco, the proprietor not knowing that he was a renowned radio engineer. When he learned the facts, he immediately promoted Rex to sales manager, telling him that the present executive would be peremptorily fired. Whereupon Rex walked out of the store and never went back. He needed work, he was temporarily on the shorts, but he would not be party to the firing of another man he did not even know.

His "handle" of Rex was conferred upon him by a lordly Britisher who once was his neighbor. Rex had often repaired his wireless outfit, so he pronounced Willets "King of the Wireless" and named him Rex.

The name stayed with him through all the years, and even into the code rooms of the Black Chamber where he once taught cryptography.

Perhaps the most amusing incident in his life occurred when he entered a contest sponsored by a radio station for the Canadian G & W Whiskey distillers. Contestants were asked to write essays on the subject "What Constitutes Good Whiskey." Rex had never taken a drop of alcoholic spirits in his entire life, yet he nevertheless decided to enter the contest, if only for laughs. He won.

At a banquet in his honor, where he was presented a beautiful gold watch by the Distiller's Management, he was asked to relate how he made his own comparisons as to what really constitutes a good whiskey. Surely, he was a connoisseur of the end product of rye and corn and oats and malt, a two-fisted drinker he, they opined.

Then Rex began to speak. He had never tasted liquor. The audience chuckled. He had never so much as put a drop of it to his lips. The audience laughed. He did not know one whiskey from another. The audience roared. He did not know whether G & W was good whiskey or bad. The house came down.

The more he spoke, the more they laughed, until the host at last brought the meeting to a close, telling Rex that he was a great humorist--that he had never heard a funnier story in his life.

Today the G & W people remain convinced that what Rex had said was only in jest. "The Canadians, like the English, must be slow in catching on," said Rex. "You tell them a good story in January and they laugh in July; but in this instance they still don't believe my story."

From whiskey we went back to wireless. "Let me tell how I once had died. I was station manager of WCI in 1920. My tour of duty ran from 12 to 14 hours without a break, seven days a week. One night I developed pneumonia and was rushed to a local hospital. It happened in Newport, Rhode Island.

"I was the only wireless operator, and when I went to the hospital the station became silent. Ships continued calling with no response. One operator reported to the home office: 'WCI dead.' That did it. Rex Willets was reported dead in the morning press, and a replacement was sent to the station.

"With him came Chet Underwood from the Boston office of the company. I learned they were on the way but I did not know why.

"I went to the docks to meet their incoming river boat. Down the gangplank came Underwood. And from the hatches came a coffin. For me.

"I walked up to Underwood, extended my hand, and he all but dropped dead. A walking corpse, no doubt, he surmised.

"Say Willets," he said, "you are supposed to be dead. We came here to bury you." The expression on his face was one of stark horror.

Then we put our heads together to get to the bottom of the mess. One of the wireless men on shipboard had tried and tried to raise WCI without success. He had never experienced such trouble, was always able to raise the station sometime during the night, no matter the hour. And on this occasion, after trying all night, he reported merely: WCI dead. And the home office thought it was me."

At WCI we had both Western Union and Postal Telegraph lines in our wire room, and I was instructed to divide my traffic equally between the two. Western Union was the more aggressive, wanting me to divert the major share of the business to them. Postal Telegraph, on the other hand, asked merely that they be given their share. I am not criticizing Western Union because everything is fair in business and war and love, but it is interesting to note that Western Union is still in business today while Postal Telegraph, as such, is not.

Because of my fairness in giving both an equal volume of messages, I was requested to appear at the offices of Mr. Clarence Mackay at Postal in New York. He had learned of me through

his branch offices. Hoping that I could persuade others to divide their traffic equally between the two competing wire lines, Mr. Mackay appointed me to the position of Special Representative for Postal. I was ordered to report directly to him. He sent me into the field to contact business houses large and small to determine why Postal always seemed to hold the short end of the stick. I soon learned that many of the larger houses gave their business exclusively to Western Union simply because they believed the service better. I was not able to switch any of the major accounts to Postal.

Then I went to St. Louis and was made buyer for the May Co. department store. My Postal contact got me this fine position. Soon I was made Radio Purchasing Agent for May. This was in the days (1922) when it was all but impossible for any large merchandiser to procure a sufficient number of new radio sets to make his department pay. The shortage was like nothing ever before known in industry. Atwater-Kent sets were on six months' back order, while it took eight long months before a single Grebe Neutrodyne would arrive.

To combat this scarcity, and to establish America's first all-our radio department in a general merchandising store, the May Co. handed me a check for a cool one-million dollars. With these funds I was ordered to call on every major radio factory in search of merchandise.

I soon found factories short of funds and an order for, say, a thousand radio sets at one-hundred dollars each, wholesale, was attractive. I succeeded in getting a veritable "corner" on part of the market. Heretofore, factories making radio sets had been accustomed to shipping first to distributors, or wholesalers, who in turn sold to dealers, and finally the public bought. A large department store could circumvent several merchandising channels and thereby be given a better wholesale price than a small store could obtain. Thus I put the May Co. into the radio business on a big scale, the first department store chain to go all out on a new line of goods.

Then I was offered an appointment as Radio Engineer for the State of Missouri. I accepted the proposition and became the first person to organize a State Marketing Bureau for farmers. It was an instant success.

Funds were allotted for a larger radio station, the transmitter to be in the State House, and the antenna atop the capitol dome. Everything went fine, until one day the dome took fire. Sparks flew between the iron support beams and set the structure ablaze.

In Jefferson City, Missouri, I had another first - I put the first prisoners' band on the air from the state penitentiary.

Later I wrote a cook book - yes, a cook book. "Helpful Hints for Happy Homes" was the illustrious title. It sold more than 100,000 copies for which I was paid a royalty of five cents each. It was the easiest money I ever made.

Returning now to the sea, where I was wireless operator on a long list of coastal and deep-water steamers, I find from my notes that one of my most amusing experiences occurred on the Clyde Liner Lenape. I served in her for only three months and left in disgrace.

If you have made a sea voyage, you will know what a Taffrail Log is and what it does. It is a long line or cord the end of which is attached to a spinner that trails behind the vessel to denote distances covered and speed. An indicator on the ship's bridge is used to register the results. Passengers often wondered why a long "clothes-line" was trailed behind the ship. And, as was customary, the wireless operator would be the one first approached for the answer.

A woman passenger came to me and asked me to tell her what we were 'dragging'. "Madam," I said, "that is a direct telegraph line to the shore. We trail this line no matter where we go. There is no such thing as wireless because wireless just doesn't work." She believed my story.

The following day the Lenape ran into the teeth of a roaring gale off Cape Hatteras and the raging sea swept over the forward part of the ship with mountainous fury. Some passengers feared we were lost. One was the woman to whom I had related the story about the Taffrail Log. She rushed to the bridge and saw that the long-line had disappeared. The storm had washed it away. Now we were without communication with the shore, she screamed to the Captain, for our telegraph line was lost.

It took the Captain some time to get to the bottom of her complaint for she was in hysterics. Learning the true facts, the 'Old Man' approached me and asked if I had given the passenger this sort of information. Yes, I did, I replied shamefacedly. Right then and there he fired me. I am sure he would have ordered me off the ship into a lifeboat to row myself ashore, had the weather permitted. And of all the ships on which I had served for so many years, this was the only time I had been peremptorily sacked.

In 1917 I relinquished my connections with Marconi-RCA and

sought employment with the United Fruit Company's Tropical Radio subsidiary. This was indeed a choice assignment for the fortunate few who might qualify. The pay was five times that of Marconi, and the thought of earning \$200 per month and found persuaded me to apply.

I have never been subjected to such severe examination during my lifetime. I soon learned why Tropical Radio paid such high wages. The examination consumed three entire days, written and oral. It included physicals, mental tests, public speaking, grammar, I.Q., table manners, stature, and grooming. All operators had to be, first of all, better-than-average telegraphers. There were no second-raters.

In 1917, a salary of \$200 monthly, including board and lodging, was as good as a bank president's pay.

Luck was with me again. I qualified for the job. I worked on the Metapan, KLF, and as a relief operator at UCJ, a shore station at Santa Marta, Colombia. This was an exciting era in my wireless career.

The following year I transferred to the Ward Line, where I served with Harvey Pierre Boucheron on SS Mexico. Pierre, as he is widely known, is one of the world's earliest and foremost wireless pioneers. His monthly radio instruction articles in "The Wireless Age" taught us many of the principles of radio as we know them today.

During this same year I served in the Mallory Liner Concho, KEC, and here I gained near-fame. The infant daughter of a wealthy Cuban cigarmaker, Upham by name, had fallen overboard. I dove in after her and rescued her in the nick of time.

Mr. Upham invited me to his estate where I was to be his guest. His cigars were world-fames, made expressly and exclusively for the crowned heads of Europe. Each emperor, king, kaiser, czar, or head of state had his own particular brand of cigars hand made by the Upham people, each with its own colorful cigar-band wrapped around the aromatic leaves.

Mr. Upham presented me with a gigantic box of these famed stogies, the only ones he had ever given to anyone other than the person intended. I considered this a singular honor, and I really enjoyed those cigars. Now I knew what Kipling meant when he said, ". . . but a good cigar is a smoke."

Then I was transferred to the strangest ship on which I ever served, the Mexico Segundo, XBB. Owned by Mexican

interests in Vera Cruz, she was chartered to the Ward S.S. Line. I was the only English-speaking person aboard, for I was loaned to the ship by the American Marconi Co., acting in behalf of the British parent company, Marconi International Marine, Ltd., of London.

Fortunately, I could speak French and a bit of Spanish, too. The Captain had an almost unpronounceable name; it was Giraldo Czaradolissitturi and when signing a wireless message he insisted on using his full name.

It was on the Mexico Segundo that I made some easy money in extra-curricular activity. I became a writer, an author, no less. Little did I dream that I was to meet the great Peter B. Kyne. I wrote a fiction story with the title "Blacklisted." No publisher would buy it. Then I went to Peter B. Kyne. He took the story, made a few minor changes, yet not disturbing the whole. He sold my story to Cosmopolitan magazine for \$8,000. And he rewarded me with a check for \$1,000. He knew his percentages. And it proved the old expression, "It's not what you know, but whom you know."

I went into radio broadcasting later. I was made station manager for WOC, Davenport, Iowa. It was my job to make the station pay, somehow. Commercials were forbidden in those good, old days. I hit upon an idea, as a result of my earlier meeting with Mr. Upham, the cigarmaker. I too would manufacture cigars. "WOC Cigars" and good cigars they were. Everywhere we urged people to buy our brand if only to help finance more and better programs for the Davenport station. It worked! It kept the station on the air for a long time. Today it would require just too many cigars to pay for the cost of even a single half-hour program.

In 1921, I went to the Cincinnati Wireless Telegraph School as instructor in code and theory. Here the old Morse telegraphers and the railroad station agents came for their wireless training. The course was for six months. And to this day, I am still contacted by a few of those whom I helped into a newer and more rewarding career.

In 1925, I went to New York City as manager of radio station WRNY in the Hotel Roosevelt. Putting up a large antenna, and holding tightly to the heavy lead-in cable, one of the masts began to sway and I started sliding down the roof, headed for the street many floors below. Two of my assistants formed a human chain and grasped my hand just as I was ready to go over the side. I lost consciousness then, the first and only time ever.

WRNY had many firsts. The most noteworthy was our first trans-Atlantic link between a British station in London, 2LO, and our own in New York, WRNY. The noted dramatic actor Wheeler Dryden, then playing New York in "White Cargo," was first to use the wireless circuit linking both English-speaking continents. He conversed with his father in London, the test having proved eminently successful. Permission to conduct it was first required from then Secretary of Commerce, Herbert Hoover, who later became President of the United States.

#### From the Percolator Comes an Idea

The lead-in wire from the aerial to the radio transmitter is carried through the walls of a building, sometimes through a window pane or ledge, or any other place at all, by passing it through a glass insulator bowl. The high-frequency current from the transmitter presents a constant hazard, and especial care must be exercised to keep the lead-in away from flammable objects.

At WRNY in New York, we first tried the standard form of Electro-se Lead-In Insulator, made of a browning substance of not-too-good material. The wireless men knew them only as the "cow-dung" lead-ins. Something better had to be found. Glass is best. Often a hole is bored through a glass window pane, the entire pane used as an insulator.

In quest of a substitute for the Electro-se "mud" insulator, the idea flashed across my mind that I could use the glass top of a coffee percolator, the things that look like transparent falsies with a glass nipple on top. But in order to pass the lead-in wire through such a percolator top, it was first necessary to drill out the nipple. The glass is Pyrex, and Pyrex is Corning. So I sent two glass tops to Corning Glass Co. in Corning, New York, and asked if they could drill through their own product. Yes, they could. They came back quickly, and then Corning asked me the reason for the hole. I explained my problem to them. Why not make larger and better Pyrex bowls for this specific purpose and call them Pyrex Lead-In Bowls? And so they were put into production.

You see them today in wireless and radio stations the world over; the higher the transmitter power, the larger the glass bowl. I did not patent the idea. "A fool there was - and he made a prayer."

In 1926, while stranded in San Francisco temporarily only, I sought employment with station KFWI of Radio Entertainments,

Inc. Somehow the transmitter was constantly developing trouble; it was a throwback to the early Western Electric jobs, and it came from WGN in Chicago where the management was happy to rid itself of the nuisance. It needed constant adjustment, and so the station call-letters were soon interpreted as indicating Keep Fooling With It. KFWI was a real headache.

And in more ways than one. It was \$65,000 in the hole. My old friends, Henry Dickow and Arthur Halloran of the magazine RADIO which they published for many years, and in whose pages my first literary efforts saw the color of printer's ink, put up a lot of money for the original construction of the station by its promoter, Tom Catton.

They helped finance this venture primarily because it gave them a newspaperman's "beat" - to the extent that they alone would enjoy the right to publish the program material from this station in one of their other magazines, a weekly station program thing, counterpart of today's TV Guide. The newspapers were denied the programs; a year or two earlier they had refused to publish any program material from any station, in fear of ruinous competition from radio.

When it was found that KFWI was not going to be a paying proposition, and when the newspapers at long last capitulated and began running the radio station programs, Dickow and Halloran got out of the radio broadcasting business.

The station was sold by Catton to the local Christian Science Church, the radio division of which was entrusted to Rev. C. Gale.

It was at first believed that the members of the congregation would help finance the project but the costs were too high. This is when I came into the picture, asked to take over and, somehow, attempt to recoup a deficit of \$65,000.

Before I arrived on the scene, and before the church came into possession of the station, an effort to finance it on a grand scale almost succeeded. A fortune-teller, a turban, a crystal ball, and a good line of malarkey appeared on the air one night with a promise to answer any and all questions asked - fair or otherwise. The Mystic was an instant success. Some of the questions asked were uproarious, some pathetic, some commonplace - yet they would be answered only upon payment of a fee of one dollar per question.

The dollar bills rolled in by the thousands. There was insufficient air-time to permit of answering them by the station, and it became necessary to do so through the mails. To this the postal authorities demurred.

Then came more bad news. The City and County of San Francisco ruled through its attorneys that it was unlawful to conduct such programs within the city limits. The Crystal-Gazer must go.

And go he did - just a few blocks away to a place alongside the Southern Pacific Railroad yards, on property owned neither by the railroad nor the city. And by a strange legal quirk, he could not be dispossessed. He built a little shack on this "sacred" ground, and continued his nightly broadcasts by remote control. He enjoyed diplomatic immunity, so to speak.

It was said that he accumulated \$10,000, and then he was gone. With him went the crystal ball, the turban, and, of course, the money.

Four months after I was hired to pull the station out of the red, my mission was accomplished. I was able to secure some good advertising contracts from prominent San Francisco establishments, and I persuaded the Reverend Gale to grant equal time to churches of all denominations, rather than to his Christian Science Church alone. Soon KFWI began broadcasting services from churches of other faiths in the "City By The Bay."

I left the station clean and clear of debt and I resigned on the day the audit of the books showed the establishment to be solvent.

No sooner had I left when the old arrangement of exclusive Christian Science programs would once more be the order of the day, and no sooner did I leave than the station again found itself in financial hot water. I was unavailable to once more come to the rescue for I had left the city for employment elsewhere.

Much later, at the outbreak of World War II, I was asked by the Signal Corps of the U.S. Army to put into operation a training school for cryptographers. A year earlier we had broken the Japanese Cipher, called Purple, and now there was need for a great army of cryptologists, cryptanalysts, and ordinary cryptographers. I was able to persuade some two dozen of my former friends in a Cryptogram Society to attend my school and study the newest methods of reading the secrets of other nations.

One of these students went on to fame and glory and was secretly credited with providing a key answer to a key question revolving around the key of the code. In deference to a good friend, I accede to his modesty and to his demand that his name remain inviolate. He remains one of the unsung heroes of the cryptographic war.

Reverting to the beginning, I became a wireless amateur in New York during 1912. My first station call was 2WQ. The law permitted an amateur a power input of one-kilowatt but I used five. Quickly the federal Radio Inspector appeared at my home and adjusted the input to my 5-kw Thordarson power transformer so that its maximum power output would be a single kilowatt.

As a young lad I went to Highbridge, New York, where I worked for Dr. Lee deForest, as a roustabout. I knew nothing much about wireless but I soon learned from him. He had been my greatest friend, my bosom companion, for almost 53 years thereafter. And, with his wife Marie, he spent some of the last days of his life with my wife and myself.

Among the numerous amateur wireless calls assigned to me were 9XG, 4NFK, and 2XAL.

From a janitor in a wireless store in San Francisco, a salesman for a cyclopedia put out by Sears Roebuck, from a wire telegrapher to marine operator to station engineer, I have run the gamut of the wireless art.

I have never had a fortune, and had never made one. Now in my 70's, I reside on the Russian River, about 60 miles north of San Francisco, where I fish for trout and catch them as I need them, and where I listen to my hi-fi with a total of 16 separate loudspeakers while I play with my stamp collection of over one-million issues, still buying a few and selling a few to old wireless friends and others all around the world.

#### PIC CAPTIONS

1927 -  
"Rex" Willets in the uniform of wireless operator aboard the S.S. Yale.

#### PIC CAPTION

The prediction was made by Hugo Gernsback of New York that trans-oceanic wireless communication would eventually be conducted on the short wavelengths and with tubes of great power output, or even with the smallest tubes available, depending upon the nature of the services to be rendered. Here we see a tube that was once the behemoth of radio, a 250-watt, with the tiny 5-watt Western Electric tube at its side. In 1920 it required thousands of watts to send the human voice a distance of a few hundred miles on the standard broadcast frequencies. Today it is the same. But on the short wavelengths, the world can be spanned with a few watts, properly used. Gilson (Rex) Willets is here shown with his notebook, its pages now filled with history.

1943 -  
The Rt. Rev. Msgr. Flanagan of Boys Town, Nebraska, (right) and his biographer Gilson "Rex" Willets, who worked with the famed humanitarian for an entire year. "He was the greatest man I have ever known," said Rex, a Mason, of his Catholic friend.

1926 -  
"Rex" Willets at the receiver of WRNY, New York City.

Wheeler Dryden with headphones. Gilson "Rex" Willets with ear to speaker.

"Rex" Willets at his Mill.

## PIC CAPTIONS

August 10, 1925 -

Another of history's great moments, when wireless communication was first established between broadcasting stations in America and England, WRNY and 2LO. This dramatic photograph shows Wheeler Dryden, then starring in "White Cargo" at a New York playhouse, as he was summoned from the stage between the acts of his play to hear the voice of his father speaking to him in England in one of the first trans-Atlantic broadcasts. Mr. Dryden had time to answer his father from WRNY's microphone before rushing back to the theater. The feat was engineered by Willets. Herbert Hoover, then Secretary of Commerce in Washington, and major-domo of the broadcasting industry, gave special permission to conduct this test.

Gilson "Rex" Willets (left) is here presented with a gold watch by the makers of G & W Whisky for the best essay submitted in a nation-wide contest. The joker: Willets had never touched a drop of alcoholic spirits at any time during his life, yet he won the whisky-essay. Upon relating these facts to the sponsors, they guffawed hilariously in the belief that Willets was merely compounding his jest. To this day they cling to the belief that he was an imbibor.