
**The Central Texas Amateur Radio Club
meets the first Tuesday of each month at 7:00 PM at the
Bell County Communications Center, 798 West Avenue O, in Belton**

The Prez Says...

Priscilla Beauregard, KE5UES

September 2nd is Labor Day, which is a National Holiday, so you might want to be careful if you are out and about. Also remember that some offices will be closed. On the same note, the Texas Forest Service is urging residents to celebrate the holiday carefully as the summer wildfire activity is typically at its highest over this holiday weekend. The primary areas of concern include the Hill Country, as well as Central and East Texas, where timber and brush are rapidly drying out.

The peak of the hurricane season is almost upon us and it's important to remain prepared for hurricanes through November. NOAA issued its updated Atlantic hurricane season outlook saying the season is shaping up to be above normal with the possibility that it could be very active. Confidence for an above-normal season is still high because the predicted atmospheric and oceanic conditions that are favorable of storm development have materialized, according to NOAA's Climate Prediction Center. The conditions in place now are similar to those that have produced many active Atlantic hurricane seasons since 1995, and include above-average Atlantic sea surface temperatures and a stronger rainy season in West Africa, which produces wind patterns that help turn storm systems there into tropical storms and hurricanes. The season has already produced six named storms, with the peak of the season – now through October – yet to come. The updated outlook calls for a 70 percent chance of an above-normal season across the Atlantic Basin for the entire season.

A big congratulations to CTARC's own Gerald Richmond - N5ZXJ, who was elected President of the Texas VHF-FM Society at their last meeting during the Austin Summerfest. Congratulations Gerald!

I hope to see all of you at our next club meeting September 3rd at 7:00 PM, at the Bell County Communications Center.

- 73 de KE5UES



Strays

“The National Broadcasting Company presents Radio City Playhouse. Radio City Playhouse is a theatre-of-the-air that has been built to an extraordinarily simple design. In radio drama there is no substitute for a fine story expertly told.”



Radio City Playhouse is dramatic radio at its best. First airing on **September 25, 1948**, this series was conceived as a showcase for what NBC termed “good drama” regardless of the renown of the playwright or of the play. The cast of Radio City Playhouse varied from week to week and major New York talent was used to full advantage.

The program last aired on New Year’s Day, 1950, with a play appropriately entitled “*Reflections*”. During it’s year and a half run, the Radio City Playhouse marriage of superb writing, inspired acting and expert direction clearly achieved it’s goal of presenting “good drama” in the theater of the mind. We are fortunate to have the few recordings which remain of this series to bear witness to just how good radio can be.

You can tune-in again to 28 episodes in the series, by visiting:
<http://archive.org/details/NbcsRadioCityPlayhouse>



The Central Texas Amateur Radio Net meets every Thursday at 8:00 PM on the W5BEC repeater, on 147.140(+) PL 123.0
Join Us!

September NCS & Back-Up NCS Schedule:

September 5 th :	September 12 th :
Net Control: W5VEX	K6WXA
Back-Up: KE5ISN	AD5SK

September 19 th :	September 26 th :
Net Control: AD5SK	KE5ISN
Back-Up: K6WXA	W5VEX



ARRL September VHF QSO Party

Contest period is from 1800Z, Sept. 14th to 0300Z, Sept. 16th on all authorized amateur frequencies of 50 MHz and up. For complete information on this event visit: <http://www.arrl.org/september-vhf>



Texas QSO Party

The Texas QSO party is sponsored each year by the Northwest Amateur Radio Society - W5NC - to encourage contacts between Texas amateur radio operators and amateur radio operators throughout the world. This event is also an excellent opportunity for county hunters to add to their list of Texas counties worked.

Operating times are from 1400Z, September 28th to 0200Z, September 29th with then a break and again from 1400Z to 2000Z on the 29th.

For more information, please visit:
<http://www.txqp.net>



CTARC congratulates our own **Gerald Richmond-N5ZXJ**, who was elected President of the Texas VHF-FM Society last August during their annual meeting.

DANGER
BEWARE OF DINGBATS
MAN ELECTROCUTED WHILE PUTTING UP ANTENNA FOR UNLICENSED RADIO STATION

An Oakland Park, Florida man was electrocuted on July 29th while trying to install an antenna for an unlicensed radio station antenna on the roof of a strip mall. According to the Broward Sheriff's Office forty-two year old Jean Roselet Adelpnose was reportedly climbing a tree at about 10:40 p.m. when the 30-foot antenna that he was supporting came into contact with a high voltage power line.

Adelpnose was trying to start a Creole-language pirate station and officials say they found more broadcasting equipment in his vehicle.



The amateur fraternity received a new characterization in a letter received at Hq., presumably typed by a stenog who had never heard of us (or maybe she had!) She wrote it this way: "...you can perhaps give me some assistance with consequent benefit to the immature fraternity in general."

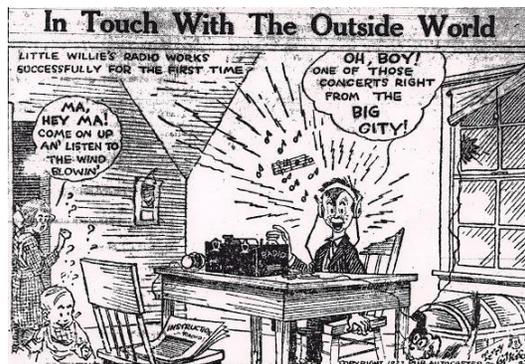
- QST, September 1943

WØRXX tells of smiling when he saw a truck with Missouri license plates: RST-599. Better yet, he says, the truck belonged to a brick and stone company. Obviously a case of "coming in like a ton of bricks."

- QST, September 1963



Techie Geek Kid of 1922



- Daily Ypsilantian Press, September 1922

Beams Cook Hot Dogs

"Enough heat to cook a hot dog can be created in a field of radio beams, radio engineers of the *Westinghouse Electric and Manufacturing Company* claim. Despite the heat caused by the beams, the two discs between which they pass remain cool to the touch, it is said."

- United Press, September 27, 1932

{Hmmm... could this have been the precursor to the microwave oven, even though that didn't come along until WWII?}



75th Anniversary of W1AW

The world's most famous radio station – **W1AW**, turns 75 on September 2nd. It was sometime in 1924, that the boys in Connecticut put the first station for the *American Radio Relay League* on the air under the call of 1MK. The call was later changed to W1MK in 1929.

On February 17th, 1936 after over twenty years as the League's president, Hiram Percy Maxim - W1AW, passed away after a sudden illness. A month later came the great flood of 1936 which destroyed the W1MK station.

The ARRL Board of Directors met in May of that year and voted to establish a new HQs station in Maxim's memory and appropriated monies for the project. At the same time, overtures were made to the FCC and Maxim heirs to assign his callsign

of W1AW to the ARRL Headquarters memorial station. This was accomplished months later in February of 1937.

Seven acres were purchased in Newington and construction began on the new Headquarters station along with the installation of new antennas and the building of new radio equipment. Finally on **September 2, 1938**, the dedication of the new facility took place. The highlight of the ceremony was the unveiling of the memorial plaque in the front lobby: "Dedicated to the Memory of Hiram Percy Maxim, 1869-1936. Father of Organized Amateur Radio, Beloved First President of the American Radio Relay League, Inc."



Hiram Percy Maxim, W1AW

Since then Amateur Radio has expanded over new horizons and the HQ's station reflects that expansion. Many changes have been made to the station's equipment, operating schedules and programs along with prospects and possibilities for further renovations in the changing times. W1AW will flow with it and reflect it and continue to be the living representative of the League and all that is progressive in Amateur Radio.

To celebrate this 75th Anniversary of the W1AW flagship station, the ARRL is featuring W1AW commemorative gear such as T-shirts, challenge coins and die-cast pins to mark this milestone. More information on these items is available on the League's website at: <http://www.arrl.org/news/celebrate-75-years-of-w1aw-with-commemorative-gear>



W1MK sometime prior to 1936



W1AW
The Hiram Percy Maxim
Memorial Station at ARRL



VK2CCC will be active from Lord Howe Island 22-29 September as **VK9LL** with operations on 160 and 80 meters. QSL via his home call.

The U.S.S. Wisconsin (BB-64) will be on the air as **N4WIS** Sept 28th and 29th on or near 7.264 MHz and on or near 14.264 MHz. QSL direct.

PA3A, PD1AEG, PA8AD and PA8AN will be active from Congo September 28th to October 11th as **TN5MS**. QSL via PA3AWW.

LA8DW will be on the air as **JW8DW** from Spitsbergen Island, between September 25th and October 3rd. Activity will be on 80 through 10 meters CW and SSB. QSL via his home call.

LZ1GC and 3D2DD will be active from Rotuma Island 27 September - 11 October as **3D2GC/P** and **3D2DD/P**. QSL 3D2GC/P via LZ1GC and 3D2DD/P via his home call.

PG5M will be active from the Palau Islands 6-7 and 15-19 September as **T8GM**. QSL via his home call.

Special event station **K5C**, will be on the air to commemorate the Comanche Code Talkers. The station will operate from September 26th to the 28th, from 13:00 to 22:00 UTC daily on 7.295, 14.295, 21.295 and 50.125. QSL via W5KS.

9M6DXX and 9V1YC will be active from Laos 5-10 September as **XW8XZ** and **XW1YC**. QSL XW8XZ via MØURX and XW1YC via W5UE.

PH2M will be active as **PJ4M** from the island of Bonaire between September 13th to the 26th. QSL via his home call.

OZ5BD, and OZ5MD, have moved from Denmark to Greenland for at least 2 years and plan to be active as **OX5M**, and **OX5T** with operations on 40 meters through 6 meters. QSL via OZØJ.

Members of the Verona DX Team will be active from Rodrigues Island 1 - 9 September as **3B9EME**. QSL via I3LDP.

Netherlands special event station **PA6SAIL** will be active through September 10th to support the maritime event "*Sail De Ruyter*" at Vlissingen. QSL via PA3GEO.

TU5DF will be on the air from the Ivory Coast until sometime in October. His operation is 40 through 6 meters. QSL via F5SWB.

Special event station **R863LC** is on the air until October to celebrate the 1,150th anniversary of the Russian city of Smolensk. QSL via R3LC.

JL1FUQ will be active from the Palau Islands 20-24 September as **T88GJ**. QSL via his home call.

IK2OHG will be active as **HC2IOH** from Ecuador through September 12th. QSL via his home callsign.

A new six meter beacon is on the air on 50.012.5 MHz operating from Gibraltar signing the call **ZB2SIX/B**. QSN reports go via ZB2B.

E21EIC will be active as **XWØYJY** from Laos until September 14th. QSL via his home call.

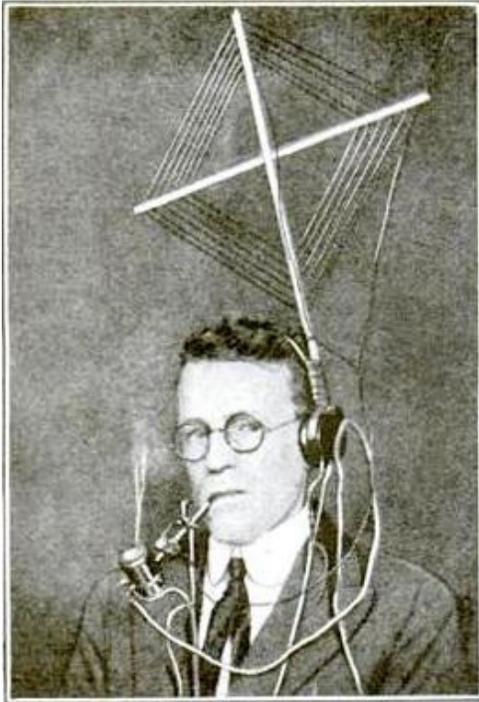
AI5P will be active from Panama 31 August - 6 September as **HP1/AI5P** on the HF Bands. QSL via his home call.

SQ9KWW will be active **portable HL3** from South Korea through September 2nd. QSL via his home call.

DL2JRM and **DO6XX** will be operational **stroke JW** from Svalbard Islands from September 20th to the 23rd. QSL each via their home callsigns.

On August 31st and September 1st, the Radio club of Binche will activate special event station **ON4WAR** to commemorate the sacrifice of the Belgian Resistance during WW II. QSL via ON7RY.

Bowl of Corn-Cob Pipe Holds Radio Set



The most compact radio receiving set that has made its appearance is built on the bowl of a corn-cob pipe. It is the work of F.E. Wilson of Detroit, who can fill his pipe at the close of a day and settle back for a smoke while he tunes in the radio stations that are “in the air”.

For an aerial, Mr. Wilson uses a small loop attached to the headband of his 2000-ohm phone. The tuning coil is made from 100 turns of enameled wire – No. 26 – wound around the bowl of the pipe. A piece of galena is balanced on the pipe stem, while the catwhisker is arranged to pivot on the stem. This small set has been remarkably successful in picking up concerts within ten miles of the broadcast stations.

- ‘Popular Science’ September, 1922

Waco Wild West 100 Bicycle Tour

The Heart of Texas Amateur Radio Club is seeking volunteers to provide support communications for the *Waco Wild West 100 Bicycle Tour*, which is on Saturday, September 28th. The bicycle tour starts at 8:00 a.m. at the Indian Spring Park on University Parks Drive in front of the Waco Convention Center. Riders will be staged in groups according to the distance they plan to ride – 10 / 25 / 50 / 67 or 100 miles.

Primary communications will be through the W5BEC repeater on 147.140 (+) PL 123 with secondary communications through the N5ZZJ repeater on 145.310(-) PL 123, with K5YKC as the net control.



If you’d like to assist in this event, please contact Wayne Branscum - KD5SMC at: wbscum@grandecom.net or Leon Cheney - K5ZZM at k5zzm@earthlink.net. For further info on the event itself, please visit: <http://wacowildwest100.com>



Vanity Call Sign Fee Increase

A new FCC regulatory fee of \$16.10 to apply for or renew an Amateur Radio vanity call sign became effective August 23rd. The Commission offered no explanation for the increase of the fee.



53rd Weather Reconnaissance Squadron

Hurricane Hunters

Into the Eye of the Storm

The **53d Weather Reconnaissance Squadron**, also known as the *Hurricane Hunters*, is a one-of-a-kind organization. It is the only operational military unit in the world flying weather reconnaissance on a routine basis. Based at Keesler Air Force Base, Mississippi, it flies aircraft into tropical cyclones in the Atlantic Ocean, the Caribbean Sea, the Gulf of Mexico and the Central Pacific Ocean for the specific purpose of directly measuring weather data in and around those storms. The unit also flies winter storm missions off both coasts of the United States.

Although satellite data has revolutionized weather forecasters' abilities, satellites cannot determine the interior barometric pressure of a hurricane, nor provide accurate wind speed information. These data are needed to accurately predict hurricane development and movement. Because satellites cannot collect the data and ships are too slow and vulnerable, the only viable way to collect this information is with aircraft.



"Find something to hold on to, this is going to be fun."

To perform their mission, the Hurricane Hunters have ten Lockheed WC-130J aircraft. These *Super Hercules* aircraft are equipped with palletized meteorological data-gathering instruments. There are only 12 planes in the world allowed to fly into hurricanes and the 53rd WRS has 10 of them. The other two are flown by the National Oceanic and Atmospheric Administration. In accordance with its memorandum of agreement with NOAA, the 53rd WRS maintains a capability for five sorties per day from its home station and two deployed locations in support of requirements for the National Hurricane Center, or two sorties a day during winter storm seasons.



Inside the eye of Hurricane Katrina - August, 2005

The aircraft is capable of staying aloft almost 18 hours at an optimum cruise speed of more than 300 mph. An average weather reconnaissance mission lasts 11 hours and covers almost 3,500 miles and can use as much as 60,000 lbs. of fuel.

The crew consisting of the pilot, co-pilot, navigator, weather officer and the loadmaster operator collects and reports weather data as often as every minute.

During hurricane reconnaissance flights, the aircraft will usually penetrate hurricanes at an altitude of approximately 10,000 feet to collect meteorological data in the eye of the storm. Then the aircraft will normally fly a radius of about 105 miles from the vortex to collect detailed data about the structure of the tropical cyclone.

Data and observations gathered by the Hurricane Hunters helps make the forecasts by the National Hurricane Center 30 percent more accurate, allowing local officials to make critical decisions about safety and property.

Since 1969, the 53d WRS has also performed winter storm weather reconnaissance off both coasts of the United States between 1 November and 15 April in support of the National Centers for Environmental Prediction. These missions are flown at the WC-130's service ceiling of 30,000 feet which subjects them to turbulence, lightning and icing. The crews collect data ahead of weather systems, dropping weather buoys



Inside Tropical Storm Lee – September, 2011

along their routes, before they move off the eastern seaboard to help determine if the conditions are right to intensify into Nor'easter blizzards. In 1997 and 1998, the Hurricane Hunters also flew winter storms in the Gulf of Alaska. The predetermined tracks are six to eleven hours in duration, with one to three missions flown per major winter storm event. Coverage of winter storms in the eastern Pacific has become standard during the month of February, operating from either Elmendorf Air Force Base, Alaska, or Hickam Air Force Base, Hawaii.



Into the storm: a Boeing WB-29 Super Fortress

Since its' activation on August 31st, 1944 as the 3rd Weather Reconnaissance Squadron, the squadron has suffered only one mission related loss of an aircraft. On 18 September 1953, while based at Kindley AFB, Bermuda, a WB-29 was returning to base with a runaway propeller on the inboard engine of the right wing. The propeller separated from its shaft and struck the engine beside it, causing both the wing and outboard engine to catch fire. The pilot ordered an immediate bailout, but the aircraft went out of control and only three of the 10-man crew survived.

Autumnal Equinox

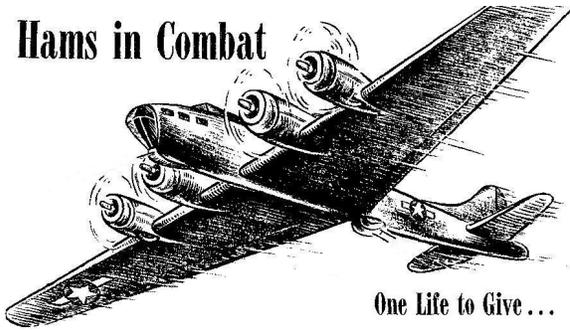
The sun is rising later now, and nightfall comes sooner; you can easily notice the later dawns and earlier sunsets. Day and night are about equal in length. All around us, trees and plants are ending this year's cycle of growth.

Perhaps they are responding with glorious autumn leaves, or a last burst of autumn bloom before winter arrives.

For those of us here in Central Texas the Autumnal Equinox, bringing the first day of fall, will be on Sunday, September 22nd, at 3:44 PM CDT.



Hams in Combat



This **September 2nd** will mark the 68th anniversary of the official end of World War II. World War II was a turning point for amateur radio in the U.S. Before the war, amateur radio activity had progressed pretty much at a steady rate – both in terms of licensed amateurs and the development of the technology.

The events of December 7, 1941, changed not just amateur radio but the entire world forever. Amateur radio operators made a significant contribution to the U.S. war effort, both overseas and at home. Because of their efforts and accomplishments during the war, amateurs strengthened the hobby and shaped the course it would take over the following years.

In 1939 there were about 52,000 licensed amateurs in the United States. It was estimated that by August 1943, some 25,000 hams were in uniform; many would never return. There were quite a few ham radio operators of great renown as well as lesser known hams who contributed to the war effort. Some of those included:

General Curtis E. Lemay-W6EZY, is credited with designing and implementing an effective and systematic strategic bombing campaign in the Pacific theater. He was also known for planning and executing a massive bombing campaign against cities in Japan and a crippling mine laying campaign of Japan's internal waterways.



Curtis E. Lemay, W6EZY



Paul W. Tibbets, K4ZVZ

Colonel Paul W. Tibbets-K4ZVZ, was the pilot of the B-29 bomber "Enola Gay" which dropped the atomic bomb on Hiroshima, Japan on August 6, 1945 resulting in the end of World War II. Another ham, **Jacob Beser-W3NOD**, was aboard the aircraft as the radar counter-measures officer on the mission.

Kenley M. Lanter-W4MWW, was one of only 317 survivors of the torpedoing on July 30, 1945, of the cruiser *USS Indianapolis* (CA-35), which went down in the Philippine Sea with 1,196 sailors and Marines, the worst naval disaster at sea in U.S. history.



Kenley M. Lanter, W4MWW



*Lawson P. Ramage,
KB3DE*

Lawson P. Ramage-KB3DE, earned the Medal of Honor after a submarine that he commanded, the *USS Parche* (SS-384), attacked a heavily- escorted Japanese convoy in the South China Sea off Taiwan on July 31, 1944, sinking two enemy vessels and damaging several others. President Franklin D. Roosevelt personally presented Ramage with the Medal of Honor on January 10, 1945.

Jefferson J. DeBlanc-W5YDC, was a Marine Corps fighter pilot and ace — shooting down nine Japanese aircraft during two tours of duty in the Pacific at Guadalcanal and Okinawa. On December 6, 1946, DeBlanc was presented the Medal of Honor by President Harry S. Truman in the White House “for conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty...” for his actions in the Solomon Islands.



Jeff DeBlanc, W5YDC



Elliott Buckmaster, W6SNL

Captain Elliott Buckmaster-W6SNL, was the Captain of the *U.S.S. Yorktown* (CV-5) when it was attacked and sank at Midway, 7 June 1942. After the *Yorktown* was lost, Buckmaster was promoted to Rear Admiral and named the first Chief of Naval Air primary Training. Under Buckmaster’s direction, the Navy’s first formal Flight Training Manuals were printed.

Jack Rice-W6RTH, was a civilian Associated Press war photographer who photographed Jimmy Doolittle’s B-25 bombers as they took off from the *U.S.S. Hornet* on April 18, 1942 in retaliation to the bombing of Pearl Harbor. He also saw action at Midway, the Marshall Islands, and Guadalcanal.

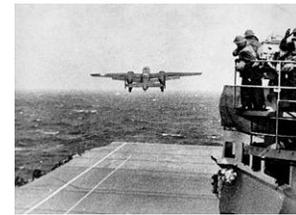


Photo by Jack Rice, W6RTH



Mickey Marglin, W9ZTU

Mickey Marglin-W9ZTU, was the first female radio operator in the U.S. Army Signal Corps. Her husband Jim was also a ham - W9THS and served as a radio instructor at Fort Knox, Kentucky. After the Japanese attacked Pearl Harbor on December 7, 1941, women were again mobilized in new women’s military components for the national defense. Massive publicity campaigns urged women to join the armed forces and “Free a Man to Fight,” and more than 400,000 women volunteered.

Veterans of the Tunisia and Sicilian campaigns, from left to right: Staff Sergeant Arthur Knapp-**W1AIJ**, Staff Sergeant Adwin Rusczek-**W1MPO** and Master Sergeant Stephen Schnell **W2HNC**.



Amateur radio survived the war, this occurred because thousands of brave men and women recognized and accepted their responsibility, turning their avocation into a vocation that made a direct contribution to the war effort and which improved the technology. Their contributions were made in a thousand different ways in a thousand different places around the world. They helped win the war and set the stage for the future.

Editorials

ABBN NWG

Bud Garretson, AD5SK

I keep reading about cellular phone users and their texting. Their abbreviations are now common usage among users and even are used in email that I receive. LOL, ROFLMAO, OMG, IMHO and so forth. They think they have discovered a new language. I guess they don't teach history in the schools anymore.

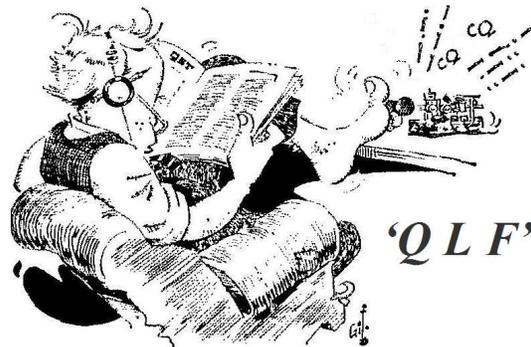


Landline telegraph operators were using a system of abbreviations almost since Stanley F. B. Morse perfected the telegraph! Not only did they use abbreviations in telegrams, where every word cost money, but when newspaper articles were sent across the length and breadth of this great expanse of land mass that we call the United States, there was in use a list of common abbreviations referred to as the 'Phillips Code'. This system was developed in 1879 so that all telegraphers, anywhere in the country, would use the same abbreviations.

I had a cousin who was a railroad telegrapher, and during the depression of the 1930s, when he was laid off from his job, got a job copying stock market reports for some firm. And speaking of the stock market, where do you suppose the ticker tape symbols came from? The teletype was invented after the telegraph, and stock market reports were sent over the wires by telegraph operators. So they started using abbreviations for the companies, and it carried over.

Then, after Tesla and Marconi perfected the sending of signals through the ether, amateur and commercial operators developed the system that we know as the "Q Code". Then the military picked it up and now CW operators can talk to any other operator in the world without knowing a word of their national language, just by using common "Q" codes.

30



"QLF" – Try Sending With Your Left Foot

Editor's notes: The 'Phillips Code' was created by Walter P. Phillips as a shorthand method for the rapid transmission of press reports sent by telegraph. A lengthy break-down and explanation of the Phillips Code can be found at: <http://www.radios.net/philcode.htm>.

This article first appeared in the September 2012 issue of "The Microphone" – the monthly newsletter of the Lake Whitney Amateur Radio Association and is reprinted here with permission of the author.

Last Commercial Electric Telegraph System – Silent Key

After linking the world for 167 years, the commercial electric telegraph is no more. The speed with which electromagnetic telegraph systems took over both short - and long-distance communication in the mid 19th century set the pattern which telephones and the internet would follow, spawning the connected world we now live in. The closing down of India's state-run Bharat Sanchar Nigam, Ltd. (BSNL) network on July 15th, sparked a last-minute rush of people looking to send a souvenir telegram to mark the historic event before the electric telegraph was relegated to the history books.



Bharat Sanchar Nigam, Ltd. Telegraph Office

In 1837, Samuel Morse, together with his assistant Alfred Vail and US physicist Joseph Henry, invented the single-wire telegraph. There were previous multi-wire telegraphs developed, but none proved commercially successful. Morse and Vail also developed the Morse Code during this period. In 1844, Morse and Vail demonstrated their improved telegraph system over a federally-funded line stretching from Washington to Baltimore.

The first commercial telegraph line became operational just two years later. The line connected Lancaster and Harrisberg, Pennsylvania, a distance of 39 miles. Where Morse's first message read "*What hath God wrought?*", the inaugural communication on the Pennsylvania telegraph was the somewhat less formal, "*Why don't you write, you rascals?*"

The subsequent pace of wiring the world via telegraph was quite remarkable. During the 1850s, most cities and towns in the eastern portion of the United States were connected by a web of telegraph wires. In 1861, the first transcontinental telegraph line spanned the US, providing instant communication between east and west coasts. Two days after the line went live, the Pony Express was dissolved as obsolete as it just couldn't compete with the much quicker delivery time of the transcontinental telegraph.



Last Ride of the Pony Express

As the 20th century progressed, increasing access to, and decreasing prices for, telephone communications began to reduce the importance of telegraphy. In 1960, the cost of a three-minute phone call and a 15-word telegram were approximately equal in the US. As the prices crossed, the number of telegrams sent in 1970 was about half of the number sent in 1960, and continued to slide as other forms of electronic communication multiplied.

At about the same time, the wired telegraph was beginning to be replaced in most First World countries by wireless microwave systems, and later by satellite systems. The telegraph system operated in India by BSNL was the last system known to use wired telegraphs.

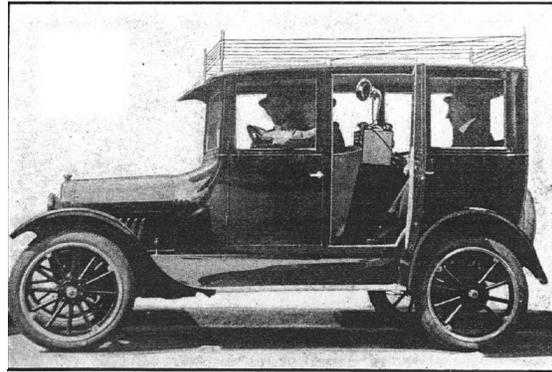
Thanks to N5ZXXJ for the contribution of this article.

The Radio Car

The Literary Digest
September 2, 1922

Many amateurs have adjusted the radio apparatus to their motor cars, and now it would appear that the manufacturers of cars are falling into line. *Radio News* (New York) tells of the successful experiment of the Chevrolet Motor Company, proving that radio equipment operates satisfactorily in an automobile without the use of a "ground." After stressing the opinion that portable radio of this type affords an almost limitless field of usefulness, the article continues:

With a car equipped in this fashion it is possible for a family to drive anywhere within 100 miles or so of a broadcasting station and picnic while the radio in their car amuses or instructs them with music, sermons, or wireless telegraphy. Education and entertainment can be transported to wherever people congregate. With a few cars equipped as this one, a minister could talk to a dozen congregations at once.



If the United States Department of Agricultural had similar radio equipment in the hands of its county agents, department experts could talk to thousands of farmers at once and thus bring the tremendous added benefits to our agriculture that would be made possible through a greater broadcasting of its work.

If the political candidate had a broadcasting station available he could send a radio-equipped car to every voting area in his State, and talk to all of his constituents at the same time, thus saving his vocal cords and making it possible for his hearers to stop listening when they became tired.

The installation of this equipment in the Chevrolet car is so simple that it is possible to adapt it to many uses, and therefore, we may expect to see many cars similarly equipped in the future. It is also only a matter of a few moments to remove the radio equipment from the car when it is not desired for use there. It can then be used in the home or office, or any other place desired.

Just as anywhere on the high seas ships can keep constantly in touch with ports and other ships through the use of radio, now the automobile – the land ship – can immensely facilitate distribution of information to the great benefit of mankind.

One ingenious amateur, by utilizing the power of the generator on his car, not only receives messages, but also transmits them.

Such equipment makes possible the use of motor cars as scouts or reporters of crop, weather or news messages from any part of the country.

The news reporter need no longer be obliged to beat his rivals to the wire. With a car equipped to talk instantly and directly with the radio office of his paper, he is free of all restrictions or competition.