What Hath God Wrought

The Official Publication of the Morse Telegraph Club, Inc.

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THE FIRST WIRELESS DISTRESS MESSAGE SENT FROM A SHIP

By MTC Member, Pat Kelly

For the first wireless distress message ever transmitted from a vessel we must review some of the events leading up to this epic occurrence.

During the late 1800s, Guglielmo Marconi had been conducting many experiments in radio transmission in the U.K. and abroad with varying success. In 1898 he opened a factory in Chelmsford, Essex, employing about fifty workers manufacturing radio equipment required for his electronic work.

It so happened that in May of that year, Lloyd's Insurance of London, offered Marconi a contract to set up a wireless connection from Ballycastle, County Mayo, Ireland, to Rathlin Island, a small piece of land nine miles off the coast from Ballycastle. Ships inward bound from North America, en route to Liverpool or other British ports, passed by the island where the light keepers kept a record of vessels sighted. How to relay this information to London, where it was required, had long posed a problem. Previously, semaphore flag signalling had been employed but this was of no use in fog or stormy weather conditions. Carrier pigeons were also tried, but these proved unreliable due to predators and the small amount of information a bird could carry. Underwater cables were laid, but owing to frequent breakdowns due to water pressure causing short circuits etc., this method too, was abandoned. Lloyd's contract would prove to be very valuable to Marconi, both for the financing it would provide and the wide recognition he would receive.. Unable to come to Ballycastle himself, he sent his chief assistant, George Kemp to set up the necessary apparatus.

During the month of June, 1898, Kemp worked tirelessly travelling back and forth to and from the island, devising ways to complete his task. With the help of a few island men, several types of antennas and other equipment were tried and various experiments were carried out. On July 6th a further transmitting test was made and Kemp in the Ballycastle coast guard house received a short signal from Rathlin. This date is usually accepted as the first commercial use of wireless telegraphy. During July and August more trials were scheduled and by late August signals between the two stations were considered satisfactory. On the 27th of that month, in spite of thick fog, twelve ships were reported to Ballycastle from Rathlin and the information duly passed to London. This was certainly a triumph for Marconi and his wireless work. About this time, Marconi, busy man, was commissioned by the Dublin Daily Express newspaper, to provide radio coverage and reports on the progress and results of the prestigious Irish yacht races to be held at Kingsdown, (now Dun Laoghaire), The editor, a Mr. T.P. Gill, charted a steam tug, the Flying Huntress, on which Marconi installed his equipment. The race was held on July 28th. Everything went well and Marconi was able to follow the race and quickly report the results to the Harbour Master's office in Kingsdown, who then forwarded it to Dublin. Not long afterward, the Prince of Wales, later King Edward VII, suffered a severe knee injury and was confined aboard the Royal Yacht, Osborne. This vessel was based in Cowes Bay, Isle of Wight. The imposing mansion of Osborne House,



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Position open to anyone interested

Local Chapter Members: Members of local chapters should send all correspondence regarding address changes, membership renewals and similar information to their local Chapter Secretary/Treasurer. If you do not know your Chapter Secretary/Treasurer, please inquire with the International Secretary/Treasurer to obtain the necessary contact information.

Your Articles and Stories: MTC is always looking for original photographs, stories and articles about your experiences in telegraphy or radiotelegraphy. Please send articles and news stories to the Editor of *Dots & Dashes*.

Telegraph Talks and Demonstrations: If you or your local chapter should schedule any demonstrations, talks or other special events, please notify the International President so he can publish your event in our on-line calendar.

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► This ad runs routinely in the *World Radio News:*

deadline three weeks prior to that date.

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Sidewire

Comments from the Editor of *Dots & Dashes*

By Jim Wilson



A new year, 2017, and a new U.S. President are about to lead us forward. I'm not well informed on Canadian affairs, but I know that the U.S. population currently is very polarized. Let's all hope for the best, for a more peaceful and prosperous world.

One of our members, Robert Schroll, left the Morse Telegraph Club an inheritance in his Will. This was a generous gesture by Robert. I might consider doing that too.

If you read the list of Silent Keys in this issue, you will find that some of the information very sketchy. I ask you a favor. This idea has been used in some writing classes. Please write your own obituary, which might be used in a distant issue of *Dots & Dashes*. Really, you know more of the facts about yourself than anyone else. Go ahead and put modesty aside. Please share your interesting telegraph and railroad backgrounds, your life stories, with our MTC brotherhood. If you write your stories and submit them to your chapter secretaries, when your time comes, we your friends, will be able to better appreciate the sacrifices, your struggles and accomplishments that you made during your lifetime. Do this today.

We begin 2017 with a new volunteer International Secretary-Treasurer, Richard Williams. This former President of the Washington-Baltimore Chapter now lives in sunny California. Read more about Richard on page **.

The cataloguing and distribution of Roger Reinke's massive collection of historic telegraph instruments is in progress. Brian Reinke, Roger's son, telephoned me last week with a progress report. Recall that Roger's obituary was detailed in the previous issue of *Dots & Dashes*. Roger was a good friend and a valued member of the Morse Telegraph Club.

With a New Year come new opportunities. I challenge you to participate in your chapter activities, even if that is only attending an annual Morse Day celebration. We are disciples of the electric telegraph. We must tell the world about the invention that started the electronics revolution!

If you have a story for *Dots & Dashes*, please send that to me, via electronic mail or postal service. Our readers want to hear your telegraph activities. I especially want to hear what your chapters are doing, exciting information for Chapter News.

Jim Wilson

President's Line

Jim Wades, President Morse Telegraph Club, Inc.



The vast majority of our new members now come from the ranks of Amateur Radio, with a sprinkling of individuals who were CW operators in the military. The continued support of these individuals will be essential to the continued survival of the Morse Telegraph Club.

One of the challenges we will face is that of retaining the balance between our historical mission of documenting and promoting the history of commercial telegraphy and the tendency to drift toward a more "radiocentric" perspective. There are already many fine organizations dedicated to promoting radio history and radiotelegraphy, including the Antique Wireless Association and on-air organizations such as "FISTS" and "SKCC." These are fine groups and it makes little sense to duplicate their efforts.

Telling the history of the telegraph industry in an era in which radio amateurs are the dominant users of code is sometimes a daunting task. Recently, a Toronto newspaper ran a nice on-line article about the first telegraph message in Canada. The article was well written with one big exception; both the written and audio examples used International Morse and "CW" tone. Sometimes, it seems that no matter how hard one tries to educate the public, the message that there are two different codes and much different technologies at play doesn't get through. Perhaps this is the nature of a Wikipedia and Google generation, which has never developed the skills needed to conduct real research using information that is vertically integrated with depth and nuance. A quick search of "Google" reveals a "Morse Code" example and, as a result, tens of thousands of readers in a major city are misled.

Many of the poor examples of telegraphy one sees on-line in videos and the like are the creation of ham radio operators. Like members of the public, they often assume the code they use is the original code. Perhaps it is natural for most to give its origins little thought. This is not a criticism of ham radio operators, but rather a

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nearby, was the site of one of Queen Victoria's residences.. Marconi was invited to set up his wireless gear on board the yacht and also in Osborne House itself. For the next three weeks he maintained communication between these two points, sending frequent reports of the progress of the Prince's recovery, which were reported to the Queen. The distance between the two stations was never very far, but as the yacht moved about the area a good deal, high hills intervened at times between the two stations. This was no obstacle to the wireless signals which continued uninterrupted throughout.

At this point mention must be made of the Corporation of Trinity House. Briefly, it is an establishment based in London, England, founded in 1514 by a charter from Henry VIII as a charity dedicated to the safety of shipping and providing navigational information, education and welfare facilities to mariners. It is also responsible for all lighthouse and lightship maintenance in the British Isles.

The Corporation had long sought a means of reliable communication between their shore base and offshore vessels. Several methods had been tried over the years, and to say the least, had proved unsatisfactory. Marconi saw an opportunity to try and solve this problem using his wireless telegraphy system, and in 1898 offered to give a ship-to-shore wireless demonstration to the Corporation. This was accepted by the Trinity House Elders on a trial bases, and in December work was commenced installing radio telegraph equipment on the East Goodwin Sands light vessel, anchored on the treacherous Goodwin sands, near the town of Deal, in Kent.

He also installed a wireless set on the South Foreland lighthouse, twelve miles distant on the mainland. Again the valiant George Kemp was in charge of operations, and on Christmas Eve of that year, Kemp, on the light vessel, communicated successfully with the operators on South Foreland. Season's Greetings were sent to the editors of all leading newspapers, and to friends and relations of the lightship's crew and the wireless staff. It appeared that all was proceeding very well indeed. From now on, regardless of weather conditions, communication would be maintained between the two establishments by the miracle of

wireless. Not much time was to pass before the true value of the new service was shown in a very practical way. At 2 A.M. On March 11th, 1899, the German three-masted sailing ship. Elbe, en route from Nantes to Hamburg, lost its way in thick fog and grounded on the Goodwin Sands. The wireless operator on the East Goodwin lightship, quickly made contact with South Foreland lighthouse who promptly telegraphed news of the accident to the appropriate authorities. Soon after, the lifeboats at Deal and Ramsgate were alerted and put on standby in case of need. As it happened, the Elbe was able to be re-floated with the assistance of a tug, the Shamrock, aided by a rising tide, and proceeded on its way undamaged. This incident marked the first time that lifeboats had been informed by wireless of a possible call-out. Shortly after, on April 28th of that year, the East Goodwin lightship itself was involved in an accident. Again, a dense blanket of fog covered the area. The steamship R.F. Matthews, on its way from Newcastle to Genoa with a cargo of coal, rammed the lightship at her moorings. The damage was very severe as the bow of the lightship was badly smashed, planks split and much of her upper works carried away. Fortunately, none of the seven-man crew were injured. Apparently the steamer had not made allowance for a strong tidal current running at that time and had been carried into the lightship. The Matthews, herself suffering damage, stood by until assured that the injured vessel would stay afloat. The lightship immediately sent out the following message to the South Foreland lighthouse:-"We have just been rammed into by the steamer R.F. Matthews of London . Steamship is standing by. Our bows are very badly damaged." This message was received by a Mr. Bullocke, Marconi's assistant at South Foreland, who then contacted Trinity House personnel. They soon made arrangements for their vessel, the Warden, to bring out a replacement lightship and then tow the damaged vessel into base for the extensive repairs required. Thus it was that on this historic date, April 28th, 1899, the first true distress call was sent from a ship at sea, by wireless telegraphy.

President's Line continued

call to educate them. Many of our Amateur Radio brethren are members of radio clubs. Many attend ham radio conventions and swap meets. These latter events provide an excellent opportunity to educate others. A simple six-foot table with a neat display of several common telegraph instruments is all that is needed to attract attention and open the door to a pleasant conversation about telegraphy and telegraph history. Wouldn't it be nice if a few more people knew that telegraphy didn't disappear in the 1870s?

Wouldn't it be nice to know if more people knew that Morse was used for more than just railroad operations? Wouldn't it be nice if more people knew the telegraph was still widely used into the post-war era? Let's get the word out! Educating the public can start with educating our ham radio brethren.

Silent Keys - "30"

"Like as the waves make towards the pebbled shore, so do our minutes hasten to their end." - Shakespeare

I first read that line from Shakespeare's Sonnet 60 as a boy in school. It comes to mind frequently now, as friends age and pass on. This year has been a bit rough. MTC has lost numerous members, including some individuals whom I knew quite well. As your International President, I would like to be able to mention each of these individuals in my column. However, this is best left to the Silent Keys section of our Journal. Nonetheless, I strongly recommend that each of you take a moment to look at the Silent Keys column. Many of these men and women led interesting lives and

they all contributed to their nation in valuable and meaningful ways. I hope their contributions and memory will live on through the perpetuation of the history of telegraphy and the telegraph industry.

...and yet to times in hope, my verse shall stand, praising thy worth, despite his cruel hand.

2017 Dues

The dues structure for 2017 remains unchanged. Please note that local chapter members should renew via their chapter secretary/treasurer. Grand Chapter members (members at large) should renew directly to the International Secretary Treasurer. The latter may use the renewal form available on the MTC Web Page.

This January, we will also be sending out renewal letters as well. In addition, we have set up an on-line payment arrangement at www. morsetelegraphclub.org, which can be used by Grand Chapter members to pay their dues using PayPal or a credit card. This should greatly simplify the renewal process for 2017. Please look for this feature to be activated shortly on our web page under "Membership Information."

Finally, the next issue will introduce a new International Secretary/Treasurer, who will take office shortly pending official Board of Directors approval, which will take place at our next meeting later this winter.

Best wishes to all for a happy, healthy and prosperous 2017.

73, JW

THE DIGITAL CLOUD

ere is a brief sample of an article published in the October 17, 2016 issue of *TIME Magazine*. This lengthy article is written by Karl Vick and Emily Barone. The title of the article is "The Digital cloud is underwater – and vulnerable."

"It was a symbol of progress, the first transatlantic telegraph cable, laid out from the deck of a ship between Telegraph Field in Ireland and Heart's Content, Newfoundland. It took four years to lay, and it functioned for three weeks in 1858 before breaking. Today there are 312 undersea cables, all wrapped around glass fiber as thin as a human hair. They carry 99% of the world's intercontinental data, including business transactions worth \$10 trillion a day. And one is being repaired about every third day."

You may want to continue reading this article which is several pages in length and includes valuable diagrams.



Letters to the Editor

September 30th

When Prince William and Kate, the Duchess of Cambridge, recently visited Canada, they sent a telegraph-to-tweet, sent by Doug Bell, a 90 year old telegrapher. They Royals sent a royal welcome that was tweeted to the world. The legendary Yukon telegraph operator, Doug, demonstrated his skills during a tour by the Royal couple of the MacBride Museum in Whitehorse, Yukon. Doug said, "It is still me," but admitted to being much slower than he was during the days he worked as a telegraph operator. The museum has a communication exhibit, highlighting the time when the city stayed in touch with the outside world by telegraph. The Duke and Duchess were the first to use the telegraph-to-tweet technology from the museum. It was developed by a Canadian company called "Make IT Solutions."

Lavina Shaw

October 23rd

On October 20th, I was invited to speak at a "Making a Difference Award Ceremony" for our Brother Keith Austin of Huntsville Ontario, on the subject the "Telegraph and Morse Code." Keith has some serious medical problems. So he resides full time in the Muskoka Landing Seniors Residence here in Huntsville.

I took my portable KOB set and several small slips of paper. The administrator had the guests print their first name and last letter of their name thereon, which she then gave to Keith.

Keith and I were sitting about 15 feet apart. He would telegraph me the names on the papers and I would respond to the audience the name I heard. Keith's voice was so low, but what he lacked in voice output, he more than made up with his telegraphic skills. He did a great job and I was so proud of him.

There were about fifty fellow residents, family and friends present for this award presentation and they were totally awed by Keith's performance.

Russ Nicholls

December 25th

With regard to my work, I've kept pretty busy with Genesee and Wyoming's three railroads in Washington State. The majority of my work has been on the Puget Sound and Pacific Railroad (PSAP), primarily between Elma and Hoquiam. At times I've also worked the other two main branches that extend from Elma north to Bremerton and Bangor, and from Elma south to Centralia where it interchanges with the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP). There are 60 crossings with automatic warning devices on the PSAP, plus signals on the longest siding near Rochester and at the two swing bridges that I maintain out in Aberdeen and Hoquiam. A couple of dragging equipment detectors round out the devices that the other signal maintainer and I are responsible for.

In March, a new company operation started in the Olympia area: the "Olympia and Belmore Railroad", for which track is leased by Genesee and Wyoming from BNSF and runs from downtown Olympia, past the foot of capitol hill, and up the west Olympia hill to customers in Tumwater. Company trains also service the Port of Olympia on UP track in downtown Olympia...when they can get there. For a week in November, protesters had tents and who knows what else over the tracks, blocking the transport of inbound ceramic fracking sand destined for South Dakota. National issues have definitely come to roost in our corner of the U.S. The Olympia line has three crossings with automatic warning devices that I maintain, along with 17 that I typically maintain on the PSAP. Throughout this year, I have also consistently spent every fourth week on the Cascade and Columbia River Railroad (CSCD), headquartered in Omak, that runs between Wenatchee and Oroville and interchanges with the BNSF in Wenatchee. There are 18 crossings with automatic warning devices on the CSCD that I've maintained. There's been a lot of talk about getting a regular CSCD employee to do their crossing inspections and maintenance, but it looks like that will not happen before perhaps sometime in 2017.

Railroad work is a rather enjoyable mixture of much repetition with considerable day-to-day uncertainty.

As for my social activities, I've kept pretty busy as usual with Civil War living history/ reenacting events. I've remained the secretary of the Washington Civil War Association that has slightly over 700 members in Pacific Northwest states and B.C. This year I was more successful in planning out my vacation time and thus got to participate in four major reenactments with my telegraph operation: Deep Creek, near Spokane; Union Gap; Brooks, Oregon; and Snoqualmie. I also had the U.S. Military Telegraph Battery Wagon at Armed Forces Day at Joint Base Lewis McChord (JBLM). Besides Civil War activities, I've remained president of the Evergreen Chapter, Morse Telegraph Club, and led two meetings of our small chapter in the spring and the fall. In November, I enjoyed having a telegraph exhibit at the Puyallup train festival, in conjunction with the Tacoma Chapter of the National Railway Historical Society (NRHS). A late December telegraph exhibit is planned at the Washington State History Museum in Tacoma. This summer I also managed to have an early electric exhibit both weekends of the "Great Oregon Steamup" at Antique Powerland near Brooks, Oregon, and participated as usual in the Kittitas Valley Early Iron Club's "Threshing Bee and Antique Equipment Show" with my steam-electric exhibit.

Early this year, it was great to meet Amir Bezhekenov, an economist from Astana, Kazakhstan, studying English in a private program at The Evergreen State College. Amir and I have become good friends and he has joined me to participate in many activities. Sometimes when I've been gone, Amir has taken care of my miniature schnauzer dog, Cindy, who is now ten years old. Amir loves animals and Cindy loves for him to spoil her. It's been fun and a little challenging to recall details of my English education, in an effort to teach Amir more English. I've also enjoyed learning some Russian from Amir, since he grew up in the Soviet system and Russian is his native language.

To everyone that has sent cards and letters in the past--thanks very much, I've certainly enjoyed them! To those that have emailed me holiday greetings, I want to express my thanks and regret for probably not replying in kind. It seems I don't have enough time on a computer these days to do the emailing I would like to.

In closing, I want to wish you a Merry Christmas and Best Wishes for a healthy and prosperous 2017!

Kevin Saville

January 1st, 2017

Although the Railway Mail Service Library (RMSL) focuses primarily upon en route distribution of mail, there are also interpretive history events for Boyce depot's railroad heritage. The station was "DK" office during the telegraph communications era, both for Norfolk and Western railway operations as well as a Western Union Office. The Saturday in April that is closest to Samuel F. B. Morse's birthday has been designated as "Morse Day." Telegraph operators were essentially a national professional fraternity, often moving around the country between railway jobs and thereby creating a network of acquaintances. Morse Day is when they can say hello on the wire to past friends, and make new friends. On Morse Day 2016, four telegraphers and about thirty visitors enjoyed the hospitality cook-out and toured the agent-operator's office to view key-and-sounder transmissions by Abram Burnett, Jim Fouchard, Curtis Anderson and Hubert Jewell.

During Brunswick Railroad Days on October 5 & 6th, the RMSL greeted visitors at Brunswick, Maryland depot with Railway Post office historical information handouts and videos. Some of these folks were aware that mail was sorted aboard passenger trains, while for other people this was a new revelation.

Soon, the RMSL collection will be relocated from Boyce depot into a modern climate controlled records room and curator's office. After the collection is moved into the Paul Nagle Center, the Boyce depot will be leased to a "Friends of Boyce Depot" non-profit organization that will maintain the structure through income generated by art shows, catered weddings or birthday receptions, another creative events. Visitors will enjoy an interior railroad station that reflects its original 1913 appearance.

Best Wishes for 2017, Dr. Frank R. Scheer, Curator of the RMS

MEET OUR NEW INTERNATIONAL SECRETARY-TREASURER, RICHARD WILLIAMS

Thave been an MTC member since 1966 as a member of the Washington/Baltimore Chapter. I served as Chapter President for 12 years until moving to California in 2007. Jim Wilson was Chapter secretary/treasurer and Roger Reinike was my neighbor and good friend.

I was first introduced to telegraphy while working on the B&O RR as a Telegrapher/Operator from 1953 to 1969. It was a requirement to learn Morse in order to qualify as a Train Dispatcher. I rented an Instructograph and practiced Morse Code until I was able to send train reports to the dispatcher in Baltimore and the next block station.

I had been drafted into the US Army in 1958. After basic training, because of five years of railroad experience, I was sent to Fort Eustis, VA as a Train Movement Specialist. During my two years active duty, I trained incoming soldiers and Army Reservists.

In 1960, after my tour with the Army, I returned to the B&O RR where I worked as a Telegrapher and Night Terminal Trainmaster. I resigned from the RR in 1968 to attend college and accepted a civilian position with the US Army Railroad Reserve Unit at 30th Street Station, Philadelphia. I couldn't attend college while working shift work on the railroad.

After four years of night school, I graduated from St. Joseph's University, Philadelphia, in 1972. I transferred from the Army job to IRS, then to the Department of Labor and finally, I spent my

last 22 years working for the US Naval Facilities Engineering Command as Deputy Inspector General. The job required travel to nearly every Naval Base in the world which I thoroughly enjoyed. I retired in 2007.

I retired from the US Army Reserve as a Chief Warrant Officer with 22 years military service. My military service provided for college under the GI Bill, and for VA home loans.

I currently reside in Coronado, CA with Kitt, my wife of nine years. I am a volunteer docent for the Coronado Historical Association, providing tours of the historic 128 year-old Hotel Del Coronado. The Del was equipped with telegraph when it opened in 1888. I volunteered with the AARP to do income tax returns for Seniors for ten years.

Recently, I have been filmed by the local Public Broadcasting station (KPBS) for the Reflect Project, a series on successfully aging seniors. The film will be shown on KPBS, Sand Diego Public Television Station in San Diego on January 12, 2017.

I have been a runner for 40 years. My wife and I run a half marathon a month. I travel to Canada, Mexico and all over the US running races. In 2012, I won the National Championship for my age group in the Dexter-Ann Arbor USATF Masters 10K.

I volunteered for the MTC secretary/treasurer position because I strongly believe the organization has relevance in keeping telegraphy alive.

GOD'S HEAVEN

By David Hodgson, heavenwonder.blogspot.ca

On the morning of September 1, 1859, amateur astronomer Richard Carrington ascended into the private observatory attached to his country estate outside of London. After cranking open the dome's shutter to reveal the clear blue sky, he pointed his brass telescope toward the sun and began to sketch a cluster of

enormous dark spots that freckled its surface. Carrington spotted what he described as "two patches of intensely bright and white light" erupting from the sunspots. The fireballs vanished, but within hours their impact would be felt across the globe.

That night, telegraph communications around

the world began to fail; there were reports of sparks showering from telegraph machines, shocking operators and setting papers ablaze. All over the planet, colorful auroras illuminated the nighttime skies, glowing so brightly that birds began to chirp and laborers started their daily chores, believing the sun had begun rising. Some thought the end of the world was at hand, but Carrington's naked eyes had spotted the true cause for the bizarre happenings: a massive solar flare with the energy of 10 billion atomic bombs. The flare spewed electrified gas and subatomic particles toward Earth, and the resulting geomagnetic storm—dubbed the "Carrington Event"—was the largest on record to have struck the planet.

The telegraph system in 1859 may have been a mere dirt road, but the "Victorian Internet" was also a critical means of transmitting news, sending private messages and engaging in commerce. Telegraph operators in the United States had observed local interruptions due to thunderstorms and northern lights before, but they never experienced a global disturbance like the two they received in the waning days of summer in 1859.

Many telegraph lines across North America were rendered inoperable on the night of August 28 as the first of two successive solar storms struck. E.W. Culgan, a telegraph manager in Pittsburgh, reported that the resulting currents flowing through the wires were so powerful that platinum contacts were in danger of melting and "streams of fire" were pouring forth from the circuits. In Washington, D.C., telegraph operator Frederick W. Royce was severely shocked as his forehead grazed a ground wire. According to a witness, an arc of fire jumped from Royce's head to the telegraphic equipment. Some telegraph stations that used chemicals to mark sheets reported that powerful surges caused telegraph paper to combust.

On the morning of September 2, the magnetic mayhem resulting from the second storm created even more chaos for telegraph operators. When American Telegraph Company employees arrived at their Boston office at 8 a.m., they discovered it was impossible to transmit or receive dispatches. The atmosphere was so charged, however, that operators made an incredible discovery: They could unplug their batteries and still transmit messages to Portland, Maine, at 30- to 90-second intervals using only the auroral current. Messages still couldn't be sent as seamlessly

as under normal conditions, but it was a useful workaround. By 10 a.m. the magnetic disturbance abated enough that stations reconnected their batteries, but transmissions were still affected for the rest of the morning.

When telegraphs did come back on line, many were filled with vivid accounts of the celestial light show that had been witnessed the night before. Newspapers from France to Australia featured glowing descriptions of brilliant auroras that had turned night into day. One eyewitness account from a woman on Sullivan's Island in South Carolina ran in the Charleston Mercury: "The eastern sky appeared of a blood red color. It seemed brightest exactly in the east, as though the full moon, or rather the sun, were about to rise. It extended almost to the zenith. The whole island was illuminated. The sea reflected the phenomenon, and no one could look at it without thinking of the passage in the Bible which says, 'the sea was turned to blood.' The shells on the beach, reflecting light, resembled coals of fire."

The sky was so crimson that many who saw it believed that neighboring locales were on fire. Americans in the South were particularly startled by the northern lights, which migrated so close to the equator that they were seen in Cuba and Jamaica. In cities across America, people stood in the streets and gazed up at the heavenly pyrotechnics. In Boston, some even caught up on their reading, taking advantage of the celestial fire to peruse the local newspapers.

Ice core samples determined that the Carrington Event was twice as big as any other solar storm in the last 500 years. What would be the impact of a similar storm today? In a 2008 report from the National Academy of Sciences, it could cause "extensive social and economic disruptions" due to its impact on power grids, satellite communications and GPS systems. The potential price tag would be between \$1 trillion and \$2 trillion.

Though not mentioned in the mainstream news, on July 23, 2012 an unusually large and strong coronal mass ejection missed the Earth with a margin of approximately nine days, as the Sun rotated around its own axis with a period of about 25 days. The region that produced the outburst was thus not pointed directly towards the Earth at that time. The eruption was comparable to, if not larger than, the 1859 Carrington event

CHAPTER NEWS

Evergreen SX Chapter

he Morse Telegraph Club's Evergreen chapter was founded at the start of World War II by A. B. Emmons and other Washington State telegraphers. The chapter has consistently held two meetings every year—on Morse Day in April, and in late October...traditionally at the Poodle Dog Restaurant in Fife, WA. A long membership roster has faded substantially, but is still healthy with just over 20 members. New memberships are always welcome. The chapter lost two prominent members recently: Allan G. "Bud" Emmons in 2015, who loved to demonstrate telegraphy and build exhibits, and James M. "Jim" Fredrickson in 2016, who loved to photograph and document Pacific Northwest railroads.

The Evergreen Chapter's April 2016 meeting was perhaps the last to be held at the Poodle Dog restaurant and was attended by five chapter members and one guest. A tribute to Jim Fredrickson was shown by chapter president Kevin Saville. The chapter's October 2016 meeting was held at a new location: the Foss Waterway Seaport Museum in Tacoma. This museum is primarily marine-oriented, but it has a splendid railroad heritage section built and operated by the Tacoma Chapter, National Railway Historical Society (TCNRHS). The TCNRHS invited the Evergreen Chapter to meet at the museum and it worked very well for this initial meeting. The museum was originally a mile-long, rail seaport



MTC Evergreen Chapter members at October 22, 2016 meeting at Foss Waterway Seaport Museum: Gary Emmons, Ed Eckes, Ed Berntsen, Kevin Saville, Ruth Eckes, and Betty Watterson. Emmons was a telegrapher and train dispatcher for Northern Pacific Railway (NP). Ed Eckes was a machinist for the NP and Burlington Northern (BN) in Auburn. Berntsen was a telegrapher and train dispatcher for NP and BN, and is Vice President of Railmove Northwest, Inc. Saville is a signal maintainer and bridge tender for three Genesee and Wyoming railroads in Washington. Mrs. Eckes and Mrs. Watterson were NP telegraphers.



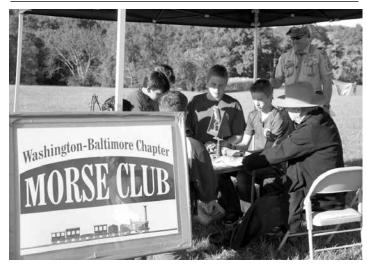
MorseKOB operating desk in the railroad heritage exhibit at the Foss Waterway Seaport museum. The MorseKOB news wire typically runs on the computer and sounder 24 hours a day, seven days a week ("Moon Yard, Tacoma"). A plexiglas cover discourages visitor hands on the keyboard of the notebook computer.

warehouse built in 1900 by the Northern Pacific Railway. After many years of neglect, a section was renovated into a magnificent museum. The October meeting was attended by six Evergreen Chapter members and two guests. Attendees included all chapter officers: President Kevin Saville, Vice President Gary Emmons, Secretary-Treasurer Betty Watterson, and Historian Ruth Eckes, as well as former President Ed Berntsen and longtime member Ed Eckes. Railroad museum curator and TCNRHS member Bud Thompson gave a presentation on the history of the building and the creation of the railroad museum.

Evergreen Chapter members Ed Berntsen, Gary Emmons, and Kevin Saville worked together to build a very successful MorseKOB telegraph demonstration in the Foss Seaport Waterway museum that remains running typically 24 hours a day, seven days a week. Also in 2016, chapter members had working telegraph demonstrations at a number of Civil War reenactments in Washington and Oregon as well as a JBLM military event and the "Great Oregon Steamup". Chapter members also enjoyed having an excellent telegraph exhibit at Puyallup's Great Train Show in November, and at the Washington State History Museum's Train Festival in December.

CHAPTER NEWS continued

Washington-Baltimore WA Chapter



n Saturday October 15th, two members of the WA chapter introduced about 400 Boy Scouts to Morse code and to the electric telegraph. WA Club President Hubert Jewell and WA Club Secretary-Treasurer Jim Wilson made the 277 mile round trip journey to the Manidokan Retreat Center near historic Harper's Ferry, West Virginia for this event. This was the National Boy Scouts "Jamboree on the Air" three day weekend. For WA Chapter members, this was a first time event, so "Hubie" and Jim did not know exactly what they were getting themselves into. Was it worth the drive and the effort?

Ideal weather made this event extra enjoyable. Hubert and Jim were attired in authentic Civil War clothing, which added to the valuable history lesson of this telegraph demonstration. At first, Hubert sent messages for each scout from his telegraph station,



which was connected by a long wire to Jim's station about 100 feet away. But as things evolved, Hubie and Jim encouraged each scout to send his own individual message, using a code sheet, from one station to the other station and back. A few of the scouts seemed bored, but the majority seemed fascinated. One of the 12 year old scouts practically had to be dragged away from the telegraph key by his friends. His friends had to beg him to leave the telegraph key. In seriousness, another younger wide eyed kid asked Jim, "Were you in the Civil War?"

Hubert enjoyed telling the young scouts about his career as a telegraph operator for the RF&P Railroad. He also proudly announced his age as "going on 93 years old." The Scout leaders treated Hubert and Jim with more than respect, almost with movie star reverence!

The home make meatball sub lunch provided by the scout cook team was satisfying. Hubert and Jim concluded, YES, this gig was well worth the effort, worth the long drive. Maybe they will invite us back next October. Sometimes, taking a chance on the unknown pays off.

Florida FX Chapter

Labor Day signals the beginning of busier times for Florida Chapter members as communities, museums and other organization schedule their various fund-raising activities to take advantage of the influx of tourists to the State. Florida Chapter welcomes these opportunities to tell more people about the role of the telegraph in American history.

Chapter members were set up in the replica cityowned railroad depot for the annual Rifles, Rails and History event held on Sept 24, 2016, in Tavares, FL. The event features Civil War reenactors skirmishing in a city park and the only wood-burning steam locomotive in the U.S.A. moving fresh troops into the battle and removing the "wounded" from the scene. Chapter members told the many visitors about the role of the telegraph in the conduct of the Civil War as well as its role in the development of the railroad system in the United States and Canada.

Florida Chapter members had the SAL Railway's Sulphur Springs, FL depot open as they acted as both telegraphers and station agents during the annual Pinellas County Heritage Village Jubilee in Largo, FL on October 22, 2016. The restored depot came alive with the sounds of American Morse, with continuous demonstrations all day, entertaining and educating

CHAPTER NEWS continued

visitors of all ages who learned of the significance of the telegraph system in the USA and Canada.

The sound of music was heard all over the Arts Settlement as performances took place at various locations in the Pioneer Settlement, Barberville, FL on November 5, 2016. But they did not drown out the sound of American Morse Code emanating from the old Atlantic Coast Line Railroad's Pierson, FL depot, now located on the grounds of the Pioneer Arts Settlement. Visitors had the opportunity to use antique telegraph instruments to try to send Morse Code while they were learning about the importance of the telegraph to the development of the railroads in the United States and Canada and the subsequent development of both countries.

Florida Chapter members had the Southern Telegraph Company field office set up to during the annual Old Florida Days event in Naples, FL, November 5th and 6th to demonstrate how telegraphy as it was employed in the Civil War era, with replica vintage telegraph instruments of the time, a wire tapping demonstration, and message encryption and decryption using the Vegenere Code employed by the Confederacy. As always, this was a well attended event and our telegraph set-up drew considerable interest from all ages.

Florida Chapter members participated in World War II Days November 19-20, 2016 on the Florida Railroad which operates between Parrish and Willow, FL, two stations on a former Seaboard AirLine Railway branch line This event was a departure from the usual telegraph demonstrations For this event, members portraved individuals at a German Army field radio communication station, utilizing the Continental Code and a replica Enigma encryption machine. Fleeing the Allied advance aboard the train, the German communications station went into portable operation while Chapter members play various roles; one as the German General's personal radio man, another as a suspicious Gestapo officer who discovers a third Chapter member who plays the part of a spy carrying a clandestine wireless set. Events such as this create a pleasant diversion from the usual telegraph demonstrations that members of the Florida Chapter normally participate in

Florida Chapter members had a direct wire to the North Pole from the old Pierson depot, now located on the grounds of the Pioneer Settlement in Barberville, FL. during the annual Florida Christmas Remebered event on December 10, 2016. Chapter members used that wire to send Santagrams for the many young (and some not so young) visitors who wished to make certain that Santa was aware of their Christmas wishes. In addition to the Santagrams, visitors were given the opportunity to learn how to send their names in American Morse Code, all the while learning about the role of the telegraph in the history of the United States and Canada. A steady flow of visitors kept Chapter members busy. It appeared that a great time was had by all.

Florida Chapter members had the telegraph instruments in full operation in the preserved ACL RR Trilby depot, now located on the grounds of the Pioneer Village Dade City, FL during the annual Country Christmas event on December 10, 2016. Visitors could see how a depot functioned 75 years ago, including copying and hooping up of train orders while learning of the role of the telegraph in railroad operations and American history. They also had the opportunity to try to send American Morse code on the original antique telegraph instruments in the depot.

Thile on a cross-country road trip to deliver a mated pair of giant tortoises from a zoo in Southern Florida to a zoo near Chicago, IL, Morse Telegraph Club member/Florida Chapter President, Robert Feeney and non-member Rudy Pascucci visited the home and telegraph office of Florida Chapter member Abram Burnett in Harrisburg, PA. "SW" office maintains a presencem on the MorseKOB (wire #11) and often communications are exchanged with "FX" office in Southern Florida. Mr. Burnett has assembled a considerable collection of rare early railroad and telegraph items, all of which are operational; including railroad signals, attenuators, and early telephone signaling equipment (such as the 60AP Ringing Apparatus). In addition to visiting Abe's "museum," a special tour was arranged for the visitors to view the restorations being undertaken to "HG" Tower, a nearby interlocking tower on the Pennsylvania RR. With Abe's assistance, the tower will have working telegraph instruments and be wired up to include a MorseKOB convertor to "cut-in" on a live telegraph circuit. There are plans to do "wire meets" from the Tower on the KOB circuits on the weekends. All in all, it was a very enjoyable trip and there were a lot of photos taken!

73, Robert Feeney

HOW MARCONI & CANADA NETWORKED THE WORLD!

Submitted by Doug Rowlands, member of the GO Chapter in Ottawa, Canada

A key event in the origin of today's wireless, networked world took place on a windswept hill in St. John's, Newfoundland (then a British colony) 115 years ago. In December 1901, 27 year old Irish-Italian inventor-entrepreneur Guglielmo Marconi had astounded the world with accomplishments that academic science claimed to be impossible. He had developed a practical method for using what we now know as the radio spectrum to communicate – and he was determined to send a wireless signal across the Atlantic.

Earlier that year he had built a receiving station at Cape Cod USA, but in September a gale destroyed his transmitter in Cornwall, England - and knowing that his already nervous financial backers believed that ship-to-ship and ship-toshore communication was where the real future lay, he decided on an audacious plan. Aware of his competitor Nicholas Tesla's intentions to accomplish the same feat - and that there was not enough time to erect a new station – and desiring secrecy - he decided he would relocate to Newfoundland, some 1450 kilometres closer to England. He and two assistants arrived in St. John's on Friday December 6th - met with government officials the next morning and moved his equipment into an abandoned diphtheria hospital on Signal Hill, which overlooked the city. They spent Monday and Tuesday installing and testing their instruments and gear, including an aerial arrangement of kites and balloons.

On Thursday December 12th, at 12:30 p.m., contact was made with England!

He was using an adapted version of Alexander Graham Bell's telephone receiver. "Suddenly, about halfpast twelve," he later wrote, "there sounded the sharp click of the 'tapper' as it struck the coherer, showing me that something was coming and I listened intently. Unmistakably, the three sharp little clicks corresponding to three dots, sounded several times in my ear". He had this corroborated by his assistant George Kemp, "and I knew I had been absolutely right in my calculations". The distance was nearly 10 times

further than he had previously accomplished and confirmed his conviction that there was no limit to how far wireless communication could travel.

Amid great excitement in St. John's an international media frenzy ensued. Thomas Edison first expressed skepticism but then declared "if Marconi says he did it, it must be so". Marconi then had his permanent station relocation plans thwarted when the Anglo-American Telegraph Company, having an exclusive agreement with Newfoundland, threatened legal action. However, at the same time Marconi had fortuitously established contact with William Smith, a senior Canadian Post Office official who suggested he come to Canada instead. With Marconi interested, Smith immediately left for Ottawa, wiring ahead to Postmaster General William Mullock (in code, to prevent any chance of Anglo-American becoming aware), who took the news to Prime Minister Wilfrid Laurier. Laurier recognized what this could mean for placing Canada at the forefront of global communication technology and in building a domestic communications network. Laurier's Minister of Finance Stevens Fielding, a former Premier of Nova Scotia, invited Marconi to visit Cape Breton (northern Nova Scotia) - Marconi accepted!

On Christmas Eve he Left Newfoundland, crossed the Cabot Strait by ferry in a driving blizzard, and was driven to North Sydney where he was welcomed as royalty. He and his party then went by train to the mining town of Glace Bay and spent two days looking at possible station sites. He then set out for Ottawa where, after days of being publically serenaded and rounds of government meetings, he and his advisers drafted a sixpage letter spelling out his desire of having the Government of Canada as a partner – along with other expectations, including an \$80,000 subsidy (about \$2 million US today). A contract was drafted - Canada became the first country to fully welcome Marconi and granted him a subsidized monopoly on wireless communication. The Glace Bay station opened a few months later and in December 1902 Marconi sent the first full transatlantic message – a greeting from the Governor General to King

Edward VII. In 1907 a commercial service started offering transatlantic 'marconigrams' at up to one-tenth the cost of a cable telegram.

Marconi visited Cape Breton several times over the next 20 years, sometimes spending months in a comfortable house the Company built outside Glace Bay – still standing today – the only existing original Marconi structure anywhere in the world. (He was awarded the Nobel Prize for Physics in 1909 and passed away in 1937). In 1919 the Canadian Marconi Company became Canada's first radio broadcaster with an experimental station in Montreal, and continued commercial radio (and later TV) outlets until 1969 when foreign ownership restrictions came into force.

(NOTE: the above has been excerpted, with minor edits, from a December 2016 full-page newspaper article authored by Prof. Marc Raboy of McGill University, Montreal).

ELEMENTS OF TELEGRAPHY

By Jim Wilson

With some space to fill in this winter issue, I am resorting to looking through a book that I inherited from my Dad, Lynn Wilson. My Dad was a long time member of the Morse Telegraph Club, serving for several years as the Secretary-Treasurer of the Washington-Baltimore WA

Chapter. Upon Dad's demise in 1993, I volunteered to carry on that job. Guess what; now twenty three years later I still have that job!

The book is titled *Elements* of *Telegraphy*. It was prepared by the engineers of the Western Union Telegraph Company for their American School of Correspondence in Chicago, Illinois. This fragile old book is copyright 1917. We are about to enter the year 2017. Hey, 100 years have passed! Maybe I ought to be handling this book with white gloved hands.

Wow, within the pages of this old dusty book, I found a letter typed by my Mother dated May 24, 1967. At that time, I was in

the Army Signal Corps, assigned to a U.S. Army base in Vietnam. But what a coincidence, May 24, 1844 was the date that Samuel F. B. Morse telegraphed this famous message, "What Hath God Wrought," as a demonstration for the U.S.

Congress. Alfred Vail copied the message at a small railroad station in Baltimore. But I digress; back to the book.

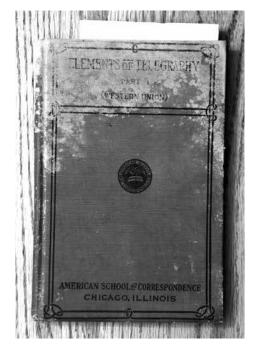
This well written book covers an introduction, sources of current, the primary battery, detailed diagrams, simple Morse telegraph systems, single-

> current Morse closed-circuit system with sounders, keys, sounders, the register, the mainline sounder, Morse relays, station equipment, battery arrangements, plus relevant mathematics and graphs.

Lots of charts and mathematical formulas are making my eye lids heavy. Ah, here is a section on the "effect of inductance and capacity on telegraphic transmission." Now you're talking. At the end of this 94 page book is a written exam. Upon completing the 23 written questions, the following statement had to be signed: "I hereby certify that the above work is entirely my own." Personal honesty, intelligence,

and integrity were required to become a telegraph operator.

So, to you who diligently studied, practiced your Morse code and train procedures, finally becoming a valuable telegraph operator, I salute you.



TELEGRAPH MEN

By Stephanie Hagiwara This article was originally published in the November 2016 issue of Civil War News.

The article includes a large photograph showing the U.S. Military Telegraph Construction Corps during the American Civil War.

"Let the telegraphers through; They'll get us into a fight, And out of it, too." Soldiers rhyme.

Both Abraham Lincoln and Jefferson Davis shared the problem of how to influence battle strategy. Before the Civil War, due to slow communication over distance, generals had a free hand to fight battles as they saw fit. Real-time communication via the telegraph was a game changer.

Secretary of War Edwin Stanton referred to the military telegraph as his "right arm." General Ulysses Grant recalled that he "held frequent conversations over the wires" sometimes lasting two hours with Staunton. Lincoln would spend days in the War department reading all the messages, keeping on top of what was happening around the country, both on and off the battlefield. In the last half of 1861, Lincoln sent 13 telegrams. By May of 1862, he would be sending to various general "from one to a dozen on nearly every succeeding day for months."

Early in the War, the joint military/civilian hybrid, U.S. Military Telegraph Corps (USMT) was created to supply telegraph operators and to build lines into the battle zone. "From May 1, 1861, to June 30, 1865, the USMT handled some 6.5 million messages at a total cost (for construction, repair, and operation of the network) of \$2,655,000." Along with using civilian lines, the USMT built 15,000 miles of line, sometimes under enemy fire.

The telegraph construction corps was composed of about one hundred and fifty men, with an outfit of wagons, tents, pack-mules, and paraphernalia. "The large wire was wound on reels and placed in wagons, which drove along the route where the wire was to be erected. The men followed, putting up the wire as rapidly as it was unreeled. So expert were the linemen that the work seldom became disarranged. As it was intended only for temporary use, the poles were not required to be very substantial, and could usually be found in the wooded Virginia country near the proposed route. The immense labor required in such construction led to the adoption of insulated wire, which could be strung very quickly. A coil of the latter was placed on a mule's back and the animal

led straight forward without halting. While the wire unreeled, two men followed and hung up the line on the fences and bushes, where it would not be run over."

In the fields, "no orders had to be given to establish the telegraph," wrote Grant. "The moment troops were in position to go into camp, the men would put up their wires." In the midst of battle, telegrams were not only sent to Washington. The generals would be giving real-time updates to each other via telegraph. General George McClellan sent telegrams during the Battle of Antietam, Maryland, to resupply his troops with bullets and shells. USMT operator Luther Rose, sent word to General George Meade that General Winfield Hancock's 2nd Corps were under a heavy Confederate counterattack during the Battle of Spotsylvania, Virginia. Ten minutes later, "the 6th Corps was thundering away and Hancock held his own." The heavy shelling frequently broke the telegraph wire. Before venturing out to splice the breaks, Rose and his companion telegraph operator would remark, "If I stop a shell, send my things home."

Both sides would wiretap the enemy's lines. The Union had three levels of messages – straight text, messages sent backwards, and a "Routine System Code" that required a key for the cipher. As part of their failed effort to crack the Code, ciphered messages were published in Southern newspapers with the request that the readers try their hand at decryption.

Confederate C.A. Gaston was the most successful at wiretapping. In 1864 he spent six weeks near City Point, Virginia reading all of the messages on Grant's wire. He caught a plain text message that reported cattle were being transferred. Using his information, General Wade Hampton's troops captured 2,468 cattle during the Beefsteak Raid.

Between repairing lines, wire-tapping and the battles themselves, it was dangerous being a telegraph operator. "About one in twelve of the operators engaged in the service were killed, wounded, captured, or died in the service from exposure." Assistant Secretary of War Charles Dana relates that as the Union lines were collapsing during the Battle of Missionary Ridge, Tennessee, the USMT operators "kept at their post until the

confederates swept them out of the house. When they had to run, they went instruments and tools in hand, and as soon as out of reach of the enemy set up shop on a stump."

According to USMT operator David Bates, "Dana's reports by telegraph were generally full, and the cipher-operators during that period had occasion to consult the dictionary many time for the meaning of words new and strange to our ears. It was an education for us, particularly when errors occurred in transmission and the words like 'truculent' and 'hibernating' had to be dug out of telegraphic chaos."

"In our cipher-codes, there were arbitrary words representing proper names; for instance, for Jefferson Davis, Hosanna and Husband; for Robert E. Lee, Hunter and Happy. Whenever Lincoln would reach these names in a dispatch he was reading, he would invariably say 'Jeff D' or Bobby Lee.' He would seldom or never pronounce their full names."

Many of the stories we have about Lincoln's leadership style come from his telegrams. For example, on June 5, 1863, General Joseph Hooker, commander of the Army of the Potomac, sent a telegram to Lincoln suggesting that he attach General Robert E. Lee from the rear. Lincoln responded, "Yours of today received an hour ago... I have but one idea which I think worth suggesting to you, and that is in case you find Lee coming to the north of the Rappahannock, I would by no means

cross to the south of it. In one word, I would not take any risk of being entangled upon the river, like an ox jumped half over a fence, and liable to be torn by dogs, front and rear, without a fair chance to gore one way and kick the other."

On June 10th, Hooker came up with another proposal, this time, to attack the Confederate capital. Lincoln again pointed out the Army's target. "If left to me, I would not go south of the Rappahannock, upon Lee's moving north of it...I think Lee's Army, and not Richmond, is your true objective point."

The telegraph had a huge impact on the War. For example, both sides used it for rapid troop movement by rail. However, Lincoln's expertise in the use of the telegraph is still felt today. At the time, the President generally did not make speeches. Consequently, Lincoln seized the opportunity to speak at the dedication of the Soldiers' National Cemetery at Gettysburg, Pennsylvania. He wanted to articulate why we needed to continue to fight a War that did not have an end in sight by alluding to our country's core values. To avoid the newspapers misconstruing anything he said, Lincoln wanted his speech to be clear and precise. Lincoln turned to his mastery at writing telegrams. Although delivered as a speech, the Gettysburg Address was written as if it were a telegram that was sent to the nation and heard around the world.

THE TELEGRAPH & MTC MEMBERS STAR IN THIS DOCUMENTARY FILM

The Great American Railroad Journeys, episode #11 was aired on the British Broadcasting Corporation (BBC) on February 16, 2016. This documentary film not only stars the electric telegraph, but includes interviews with International President James Wades and Washington-Baltimore President Hubert Jewell. Nearly a year ago, the Morse Telegraph Club met with the producers of this film in Baltimore to plan this episode, then MTC members later returned to the Baltimore & Ohio Railroad Museum to film this fascinating documentary.

This episode, titled "Baltimore to Fort McHenry" was the fourth leg of host Michael Portillo's southern min-Atlantic journey. This trip takes Michael around the birth place of America's railroads and the industrial city of Baltimore.

Destinations in this episode include the

Baltimore & Ohio Railroad museum, Johns Hopkins Hospital, the Lexington Market, east Baltimore and Fort McHenry. Host Michael explains to us more about the origins of America's first railroad, views Peter Cooper's little railroad engine "Tom Thumb," cooks famous Maryland crab cakes, looks for a connection between Baltimore's black community and slavery in the city's Civil War era, sees how philanthropy developed a hospital that became a global leader in healthcare, and finds out how heroism against the British was the origin of the nation's national anthem.

Three cheers to the Morse Telegraph Club for participating in this television documentary. I was there to help organize this event. I recommend that you watch it. This was aired on PBS but can still be seen on the web.

Jim Wilson

OFF TO A BAD START

By MTC Member Russ Nicholls of Huntsville, Ontario CA

Aving just finished my training on Morse code at WX Tower in Welland, the New York Central Chief Operator in St. Thomas Ontario called and told me to report for duty to relieve the "midnight to eight operator" in Tilbury. My transportation to Tilbury would be the caboose of a Pere Marquette westbound freight. That in itself was a memorable experience.

On arrival, the crew slowed the train to allow me to get off. I walked into the station and was greeted by the day operator and the "four to twelve man" enjoying a few beers around the old pot bellied stove. I can vividly recall, even though it was sixty seven years ago, the day man saying: Russ, there's one thing you must always remember when you work on the railway: "You see a lot and say a little." One didn't have to be a genius to see through this statement. This same gentleman was called into the head office a short time later and was assigned to the lofty position of trainmaster. I believe there is a saying that, "it's not what you know but who you know."

Being with the two lads for the balance of their shifts gave me a clear understanding of what I was expected to know and do on the midnight shift. "Just keep the trains moving." No problem, I thought. Finally the old Seth Thomas clock on the wall indicated midnight, so I was on my own. Yes, I was nervous. That old station with its oiled floors creaked and cracked; otherwise it was so quiet you could hear a mouse sneeze.

About 2:00 a.m. the dispatcher's phone rang. I nearly jumped out of my skin. He said, "I have an eastbound freight out of Windsor ahead of #364. I'd like you to run him in there at Tilbury." I knew

what to do. I reached up and pushed the calling on button (Distance Signal), which would display yellow to the approaching train. Ah, I thought this was really railroading. I kept going outside to look up the track to see if I could see its headlights.

Finally she came into view, initially just a spark, and then as it came closer it got brighter and brighter. Then, as I expected it to slow down to take the siding; she roared past me full tilt with absolutely no intention of stopping. I did everything that I was told, but . . . what should I do now?

High on my list of priorities was to grab my lunch bucket and head for the door. I was supposed to report to the dispatcher when he was in the clear at Tilbury, but that sucker got away on me. Finally, I got enough nerve to report him.

The dispatcher took my report and began to laugh. What he is laughing about, I wondered. After his laughter subsided, he said, "Don't worry, he got your signal OK." It sounded to him like the lads you relieved didn't tell you that there are five water track pans on the Canada Division and Tilbury is one of them. Steam locomotives have to have water and the railway has installed track pans every so many miles apart. So the engineer when running on the mail line simply drops his scoop and in about fi five minutes or less has filled his tender with sufficient water to take him on to the next set of pans. After his tender is filled, he will stop at the other end of the passing tack and back into the siding. You make no mistake, he assured me. I thought, "Wow, what a relief!"

So much for my first day on the job.

MORSE CODE FLASHLIGHT

To my surprise and amusement, I recently discovered and purchased a small flashlight which automatically sends SOS in Morse code. The cost was about ten bucks. This is a small "Life

Gear" LED flashlight. By pushing the on button once, twice, three or four times, you can select a solid white beam, a solid red light, a red flasher, or the red SOS mode. Cool!



J. Chris Hausler's BOOK & MOVIE REVIEWS



Por this issue I'm going to look at a couple of "sort of" biographies. I say "sort of" because neither completely fits my understanding of what makes a good biography. The first, a book, was published in 1884 and is titled *True and Firm* and stated to be the "Biography of Ezra



"True and Firm.": Biography of Ezra Cornell, Founder of the Cornell University

ALONZO B. CORNELL

Cornell, founder of the Cornell University". At the bottom of the title page, however, it says, "A Filial Tribute" which is true because it was written by Ezra's son Alonzo B. Cornell, celebrating his father's many accomplishments. To some extent it thus contains much "sweetness and light". The last several chapters in the book are somewhat tiring to read as they are the printed transcripts of many tributes and resolutions made by various individuals and organizations to Ezra Cornell upon his passing. Although I have not extensively studied Ezra Cornell, and yes the man deserves great praise for his accomplishments, there are some things I have come across in the past of a darker nature which I would think would be appropriate for a true biography that are missing from this one. The book is more or less written in chronological order and much of the book deals with Cornell's founding of a library and then, of course, of Cornell University, both in Ithaca, NY where Cornell spent much of his life. Overall it is an excellent read and I can highly recommend it.

Of course, we're interested in Cornell's involvement with the telegraph. If you've studied the history of the telegraph at all you must know that Ezra was involved with the original construction of the Washington-Baltimore "demonstration" telegraph line. He had developed a plow to simultaneously trench, bury and cover up the originally planned underground cable and

then when that cable proved unworkable managed to break his plow thus delaying the work without alarming anyone giving the Morse partners time to come up with another approach. This we all know involved aerial wires, what today we call "pole line". You must also know that Ezra then became quite involved with the expansion of the telegraph network, his companies eventually merging with the Hiram Sibley efforts based in Rochester, NY to form the Western Union Telegraph company. It is said that Ezra was the one to suggest the name "Western Union" for the combined operation.

The section of the book which most deals with Ezra's telegraphic efforts are chapters six through nine. In chapter six we learn of his first meeting with congressman F. O. J. Smith who was the editor of a magazine titled, "Maine Farmer" when trying to sell a design for an improved plow. When he arrived for a return visit he found Smith, who had become one of the Morse partners, had accepted a contract to bury the original telegraph cable had was having problems with the design of the equipment to do this. Ezra proposed the design of a plow which would both trench and bury the cable in one operation. Thus Mr. Cornell first became involved with the Morse's electromagnetic telegraph. The chapter ends with Cornell warning Morse about the poor quality of the cable to be buried, but to no avail.

Chapter seven addresses the actual laying of the Washington-Baltimore line with Mr. Cornell getting ever more involved. Also the first rift appeared between congressman F. O. J. Smith and the rest of the Morse partners when Smith demanded to be paid for his work for the unsuccessful underground cable. Of course if you have studied the history of the telegraph you know that Smith eventually became the major nemesis to both Morse himself and to the other Morse partners. One interesting item in this chapter of which I had not previously read is that according to Cornell, Alfred Vail was very secretive and proprietary about his part of this project

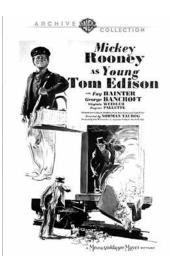
and attempted to obstruct Ezra's efforts to better understand electrical science and thus rectify some of problems he correctly foresaw with the undertaking.

Chapter eight discusses the early expansion of the telegraph enterprises and Ezra's extensive efforts in these areas as well as the many problems which were encountered.

Chapter nine addresses the formation of the Western Union Company including the the telegraph industry problems which led this to occur, the cooperative agreements with the railroads in the expansion of the telegraph network and the eventual success of the endeavor. It states that Ezra Cornell was at one time the largest individual stockholder in the company. The chapter even briefly addresses the failed attempt to connect a telegraph line to Europe via Alaska and the eventual success of the Atlantic Cable.

The rest of the book addresses what Mr. Cornell did with the wealth he had accumulated due to his telegraphic efforts, said by the book the be greater than any of the other original Morse telegraph partners. Again, the book is an excellent read. A free .pdf copy can be downloaded from Cornell University at this link: http://hdl.handle.net/1813/5412 . Copies in other formats can be freely downloaded from the Internet Archive at: https://archive.org/details/truefirmbiograph00cornuoft . If a hard copy book is your desire, there are a couple editions available for purchase from Amazon.

The second "sort of" biography
I'm reviewing for this column is a film, released in 1940 during a period when Hollywood was releasing a number of "biopics". The film, Young Tom Edison staring Mickey Rooney in the title roll, is an entertaining look at Mr. Edison's young life. The film tells the story of a young boy



viewed by many, including his father, in the of town of Port Huron, MI as a misfit, one who is always getting into trouble with his "experiments" and other activities. However, through repeated efforts which themselves frequently cause the boy trouble, he proves his value and at the end of the story, thanks to an heroic effort which saves a train from plunging into a river due to a washed out bridge, the whole town sends him off to begin a job as a telegraph operator for the railroad. Horatio Alger would be proud. The telegraph plays a roll in several of these events.

Although some of the events portrayed in this film certainly did occur, others are of questionable veracity and, of course, all are dramatized, so even if true they are likely more fiction based on fact than fact itself. This film does acknowledge that Edison received a great deal of support from his mother, at least one true part of the tale. Edison's real story is even more interesting than this fictionalized version of it but would probably not be as entertaining when packaged as as commercial film. This all said, I found it to be an enjoyable film to watch.

The film was produced by John W. Considine, Jr. who simultaneously had a second film in the works, released a couple of months after this one and titled, *Edison*, *The Man*, starring Spencer Tracy as the adult Edison. Although I have no idea as to any telegraphic content in this next film I do intend to acquire a DVD of it and review it in an future issue of *Dots & Dashes* as certainly, Edison, the man, did have an important impact on the field of telegraphy.

DVD copies of *Young Tom Edison* can be obtained from several sources for well less than \$20. I got mine from Amazon for \$12.75. Although I have not researched it, the film can apparently be purchased for on-line viewing for even less. However, you view it, I think you will enjoy it.

Our former
International
Secretary-Treasurer,
Cindy Galyen, says
HELLO and HAPPY
NEW YEAR to each
of you.

"30" SILENT KEYS

News of our brothers and sisters who have closed the key



Montana Chapter

Harley Joseph Weer, age 83, of Stevensville, Montana passed away of cancer on September 23, 2016. Born on April 26, 1933, he was raised in Grenora, North Dakota then moved to Hamilton during his senior year at Hamilton High School. In 1951 Harley attended telegraph school in Spokane, Washington. In 1952 he began working for the Northern Pacific Railroad. In 1953 he was drafted into the U.S. Army, where he served as a telecommunications specialist in Korea for two years.

After his Army experience, Harley returned to the Northern Pacific Railroad which later became the Burlington Northern Railroad. For the next 43 years, he worked for the BNR in Butte, Montana. In 1957 Harley married Georgie Coffing. This past September, Harley and Georgie celebrated 59 years of marriage.

Harley enjoyed his family and his fellow railroaders, whom he met every Friday morning for breakfast. In addition to his membership in the Morse Telegraph Club, Harley was a member of the Northern Pacific Historical Association, the VFW, and the Retired Railroaders Club.

Thanks to Burt Stenslie, Secretary-Treasurer of the Montana Chapter, for this interesting information.

Maple Leaf Chapter

James Harris, age 97, of London, Ontario Canada passed away on May 31, 2016. He enjoyed ham radio and activities with the Morse Telegraph Club.

Thanks to Dorothy Harris, and Diane Reid for this brief notice and for the attached photograph.

Spokane SK Chapter

DELANO G. KALAKKEN of Spokane, Washington passed away on October 6, 2016.

Thanks to L. R. Keith for this brief information. L.R. notes that because the Spokane Chapter recently dissolved, he and Del then transferred their memberships to the Vancouver DI Chapter.

RICHARD THOMAS, age 88, of Wisconsin Rapids, died on March 26, 2016. Richard was born on June 4, 1927 in Green Bay, Wisconsin. On April 24, 1952 he married Doris Baeten. Dick attended the Gale Institute in Minneapolis, MN. He then worked as an agent for the Chicago & Drthwestern Railroad Company at Wisconsin Rapids, retiring after 37 years, on June 2, 1987. Dick also owned and operated the RA Thomas Nursery 1960-1995. During WWII, March 1, 1945 – May 20, 1946, Dick served in the U.S. Coast Guard. In addition to his hobbies of hunting, gardening, traveling, and Morse telegraph Club activities, Dick was a member of the VFW, the Knights of Columbus, Council #1558 Boy Scouts, and was active at Saint Lawrence Church. Dick leaves behind his wife, Doris, two sons, Daniel, John, and three daughters Teresa, Janet, and Barbara, plus thirteen grandchildren.

Thanks to Robert Pluntz for this information

Edmonton MO Chapter

ROBERT JOSEPH RICHARD, age 91, passed away on October 2, 2016. He was born in 1925. Bob's children included Neil, Camille, Brice, Denis, and Warren. He was predeceased by his wife Helen and by six of his siblings.

Thanks to Bill Telus of the Edmonton Chapter for this information.

CHARLES SMITH of Penticton, British Columbia passed away on October 17, 2016.

Thanks to Jim Harte and Bill Tchir for this brief information

Evergreen SX Chapter

James M. Fredrickson of Tacoma, Washington passed away, but little information is available at this time.

Thanks to Kevin Saville, President of the Evergreen Chapter, for this brief notice.

Winnipeg WG Chapter

Reg R. Gerrish of Wynward, Saskatchewan passed away on August 15, 2016. Reg was born

in Fort William, Thunder Bay, Ontario on June 15, 1940. At the young age of 12, Reg began his career as a telegrapher, copying train orders for the Canadian Pacific Railroad. He continued his loyal service with the CPR, serving as a mobile supervisor until his retirement in 1995 at the age of 55.

In 1963, Reg married Audrey Boyd. He and Audrey were blessed with two children, Rob and Jo-Ann. Audrey and Reg were married for 52 years. Reg was proud of and enjoyed his family. He also enjoyed in their backyard, watching the wild birds. He is described as having had great wisdom, humor, stubbornness, and unconditional love for his family and friends.

Thanks to Bert Johnson of the Winnipeg Chapter for this information about Reg.

Walter Prokop, age 88, passed away on November 26, 2016. Walter was a longtime member of the Morse Telegraph Club. He served the Canadian National Railroad for 43 years. His first job in 1945 at age 17 was as a freight handler in Hudson Bay, SK. During his railroad career, Walter covered a number of positions in three provinces. He retired as a Train Dispatcher in Winnipeg, MB in 1988.

In 1951, Walter met Ruby Nuttall while working at Grand Beach at the Canadian National Station. He and Ruby were married in 1953. Walt and Ruby especially enjoyed vacations with their children, Grant and Cheryl. He also was meticulous in keeping his yard as a showpiece. Ruby and Walter were members of the Bartholomew Anglican Church.

Thanks again to Bert Johnson for this information about Walter.

Vancouver DI Chapter



ROY GELDART, of West Vancouver BC passed away December 16, 2016, a couple months after his 100th birthday.

Roy and his brother Gordon learned telegraphy at home instructed by their father Claude, who was Traffic Chief for the CP Telegraphs in Vancouver. In 1938 he started

work at Grand Forks, BC as a repeater attendant after CP received a government contract to provide telecomm service to the Dept. of Transport Radio Range Stations situated across Canada. He worked at several places in BC. In 1943 he transferred to Nelson BC where he worked at the installation and maintenance of teleprinter equipment. He then was transferred to Victoria (BC's capital) where he supervised installation of teleprinters for Vancouver Island stations for 12 years. In 1964 he was appointed as inspector for all telecommunications for the province of BC. In 1975, the Canadian Government asked CP Telecommunications if they could provide personnel for the training of employees in the East African Telecommunications Corp. situated in Nairobi, Kenya. He wrote training manuals and did class work for three years. On return to Vancouver in 1978, he returned to Vancouver, BC and retired after 42 years service.

Submitted by Lavina Shaw

Note from Lavina: In the early 1950's, Roy's father Claude was my boss at CP Telegraphs, and I found out that we were related distantly through marriage. On October 22nd I attended a large celebration for Roy's 100th birthday.

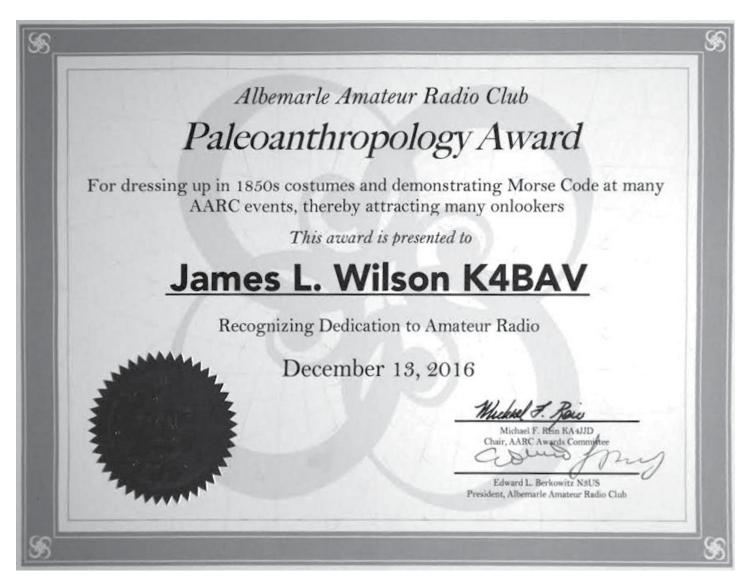
Members-at-Large GC Chapter

ROBERT C. SHROLL of New Berlin, Illinois passes away, date unknown. Generously, Robert left in his Will a sum of one hundred dollars to the Morse Telegraph Club.

Thanks to Robert's attorney for this brief notice.



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Your Editor, Jim Wilson, just received an unusual 2016 award "for dressing up in 1850's costumes and demonstrating Morse Code at many Albemarle Amateur Radio Club events."

This radio club is located in central Virginia and boasts that it was selected as the national "2011 Club of the Year" by the American Radio Relay League (ARRL). The AARC currently has about 120 unique members. Google www.albemarleradio.org for details.

Um, has anyone else ever heard of a Paleoanthropology Award?

DO YOU KNOW?

Do you know what the most likely threat to life on earth is?

You may have answered: nuclear war or over population by humans, or a rogue asteroid, or a gamma ray burst from a nearby black hole, or global warming. The answer by Cosmologist, Dr. Steven Hawking, is "artificial intelligence." Hawking explains that humans have already created computers that are becoming smarter than we are and that these thinking machines may eventually destroy us.

Sound like science fiction? Recall the 1968 movie, 2001: A Space Odyssey, written by Arthur C. Clark and directed by Stanley Kubrick. In this sci-fi thriller, the on-board computer HAL took over the mission and killed the astronauts because HAL reasoned that the mission was too important for mere humans to control. Our highways will soon be full of cars that think for themselves and drive us wherever we want to go. But, watch out, we may become subservient to our new masters, ARTIFICIAL INTELLIGENCE!

HOUSE TRACK Want Ad Section For Morse Telegraph Club Members

AVAILABLE: Book Tales of the American Telegraph. Issue #3 includes a photo layout. John B. Ryan, 11017 E. Sprague Avenue, Spokane, WA 99206.

WANTED: Re-enactors for Locust Grove, the Samuel Morse Historic Site in Poughkeepsie, NY. Please contact Andrew Stock, Curator of Education and Public Programs at a.stock@ morsehistoricsite.org or (845) 454-4500 x13 if you are a Signal Corps re-enactor who may be interested in participation in history of telegraphy, including the annual Civil War weekend.

AVAILABLE: I can duplicate small wooden resonator boxes for both 4 ohm and 30 ohm main line sounders. You will varnish or paint these to suit your desires. The cost is \$25 each. Milton Hegwood, 206 Kleven Avenue, Culbertson, NE 69024, telephone (308) 278-2152

AVAILABLE: Period attire for telegraph operators of any era. Authentic reproduction hand crafted clothing will be made to your exact fit by a certified seamstress at reasonable prices. Several MTC members already have attire provided by this talented and well educated lady. Contact Valerie Mathers at (410) 768-3162.

AVAILABLE: Pen & ink railroad drawings on stretched canvas, frame print, art print and greeting cards. See these on the website of *Dots & Dashes* member Peter Hamel at Peter Hamel Fine Art American.com. Telephone (705) 472-8860.

AVAILABLE: Book. Hubert Jewell, President of the Washington-Baltimore Chapter, offers us his biography titled, Working on the Richmond, Fredericksburg & Potomac Railroad. This book is chalked full of facts and descriptions of railroading and of Morse code communications. Hubert's book is available from the RF&P Historical Society, Inc. PO Box 9097, Fredericksburg, VA 22403-9097 or from the web site www.frandp.org. The price is only \$25.15 postage paid.

AVAILABLE: Crests, "Order of Railroad Telegraphers" with emblem in the center, \$12 each. Email Mary Roy at terttu@shaw.ca or mail Mary at 3874 Winlake Crescent, Burnaby, BC V5A 2G5, telephone (604) 420-1292.

AVAILABLE: Vintage Rule Books of North American Railroads, at least 30 volumes, as far back in time as 1890. To purchase this valuable set of historic documents, call, e-mail, or write to James Gaw at 54 Colonial Drive in Kemptville, Ontario, Canada K0G 1J0, j.gaw@bell.net, or (613) 258-

AVAILABLE: Old telegraph and railroad books. For a list of these items, send a SASE to Eugene Wood, 104 Sunset, Madill, OK 73446. (Eugene does not have an email address).

AVAILABLE: "Morse code machine" and old billing forms from the estate of Jack Griffin. Phone Kay Griffin at (321) 231-0447 or write to Kay at 12239 Montevista Road, Clermont, Florida 34711.

AVAILABLE: RR car passes & trip passes, also old Union (ORT) cards, (some over 100 years old), Postal & Western Union paper items and some WU copied on RR telegram blanks. Send a SASE for a list to Gene Wood, 104 Sunset, Madill, Oklahoma 7346-2051

AVAILABLE: Six "bugs" including 2 Dow and 3 Vibroplex, (one old with no markings), all working well, two sounders - relay, resonator box - many blank, train order forms, defunct Northern Alberta Railways schedules and many other Railroad items. These will make an excellent start or an addition to any museum or personal collection. Price \$500 Canadian. Contact Al Renflesh in White Rock. British Columbia at (604) 531-1082.

AVAILABLE: Book titled *Principles* of Telegraphy by the Department of the Navy. Teletype – Printing Telegraph Systems. Description and Adjustments, Signal Distribution Test Set Teletype – general description and theory or operation for Model 28 printers. Teletype Adjustments (2) Type Bar Printer Page Printer Models 15 & 20. Maintenance Track Bulletin #248. Parts Transmitter Distributor Bulletin 1041. Tele printer Circuits and Equipment by the U.S. Army. Call Hubert Jewell at (540) 423-1014 and make him an offer on these rare items

WANTED: Old telegraph keys to be restored. I restore vintage telegraph keys from the 1800's to the turn of the century, no cheap or contemporary keys and you must have all of the major parts. No steel lever Triumph keys please. Send me a photograph of your key and I will get you an estimate of the cost to restore it. Edward D. Biter, Jr., 320 Walker Road in Dover, Delaware 19904.

WANTED: A Vaughn automatic telegraph instrument which runs off a reel to reel tape recorder. This gadget causes the sounder to click away with no operator present. Years ago, Sid Vaughn, a professor from Iowa, made a batch of these. If you have one available, I would like to purchase it from you. Donald Mahoney Telephone (608) 444-0898, 1237 North Westfield Road in Madison, WI 53717.

Reproductions & Other Items for Telegraph Demonstrations and Displays LAUGHLIN FOUNTAIN PEN Turnkey MorseKOB Interface

- · Fully assembled and tested
- Integrated USB adapter no external cable adapter required
- Also available in RS-232 version

See https://sites.google.com/site/morsekob/interface for more information.





Reproduction Fountain Pens and Stylus from early 1900s advertisements

> Always willing to discuss and address unique requirements

Contact Chip Morgan at MorgansElkCreekEnterprizes@verizon.net

KEEP IN TOUCH...

Your participation in *Dots & Dashes* is important. We need your stories, club news, announcements and reminisces to keep it lively and interesting for everyone.

Jim Wilson Editor Dots & Dashes

2742 Southern Hills Court North Garden, Virginia 22959 Tel: 434-245-7041 E-mail: telegraphiim@gmail.com

For membership changes, address updates, dues and other information dealing with membership or with chapter operation, contact your local Chapter Secretary or:

International Secretary-Treasurer
Position currently open to anyone interested

Please do not send address changes for Dots & Dashes, dues renewals, etc., to the Editor. All mailing lists and membership rosters are prepared through the office of the International Secretary.

Ham Radio Web Sites

For those of you who are amateur radio operators, here are four current web sites that I find useful:

www.arnewsline.org www.usrepeaters.com www.qth.com www.qrz.com

Notices & Invitations

Morse Telegraph Club, Inc. Dial-Up Information

U.S. (KB) HUB

1-269-697-4506/4508/4513 (Michigan-Ace Holman)

CANADIAN (HN) HUB

1-888-822-3728 (toll free)

MORSE KOB PROGRAM

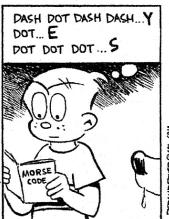
on the web at www.morsekob.org **DUES**

U.S. First Class postage \$20.00 E-mail delivery \$12.00 Canadian is now by chapter Foreign Air Mail postage \$26.00

RED AND ROVER







BRIAN BASSET

